

LA Regional Water Quality Control Board

1996



Water Quality Assessment & Documentation

**Regional Water Quality Control Board, Los Angeles Region
1996 California Water Quality Assessment - 305(b) Report
Supporting Documentation for Los Angeles Region**

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Introduction

The Clean Water Act (Federal Water Pollution Control Act of 1972 as amended) requires that states submit biennial 305(b) reports that describe the status of the nation's waters. Reports from each state are compiled into the "National Water Quality Inventory Report to Congress." The nine California Regional Water Quality Control Boards prepare individual Water Quality Assessment databases that the State Water Resources Control Board compiles into the 305(b) Report.

In the past year, the United States Environmental Protection Agency (USEPA) has reviewed the 305(b) reporting process and proposed that the reports be generated on 5 or 7 year cycles that correspond to the watershed approach periods. Therefore, the 1996 California 305(b) report including the contribution from this region is most likely the last of the biennial reports.

In 1994, the Los Angeles Regional Water Quality Control Board (hereafter referred to as the Regional Board) did not update the region's Water Quality Assessment Report due to staff constraints. This 1996 report, therefore, involves a more extensive review of data than that of other regions. This 1996 report, as in previous years, will be used to target areas for water quality control programs and special funding efforts. Waterbodies listed on the 303(d) list, a subset of the 305(b) waterbodies, composed of the region's impaired waterbodies (the 303(d) list is described below), qualify for certain USEPA funding programs. In addition, the Regional Board staff plans to use the assessment information as a starting point for work with watershed stakeholder groups developing watershed plans.

In most areas, additional data will be needed in order to link impaired waterbodies with sources of pollutants. It appears that most of the pollutants causing impairments are of a nonpoint source nature. The data for the assessment will be used for some Board tasks, as in developing appropriate limits in certain Waste Discharge Requirements. In general, however, Regional Board staff do not intend to use the assessment or the impairments noted on the 303(d) list as a basis for recommending new, advanced, and/or upgraded treatment

technologies for POTWs. Rather, these issues will be considered in greater depth by stakeholders within the context of individual watersheds.

In this report, six types of waterbodies are assessed: inland surface waterbodies (including lakes and wetlands), estuaries, nearshore zones, beaches, bays and harbors, and groundwater basins. In this 1996 assessment cycle, most of the major rivers and creeks in the Los Angeles Region are assessed but many small tributaries, small coastal streams, channel island streams are not assessed. Waterbodies that are not frequently sampled (but do have some data) are not assessed in detail at this time due to limited staff resources.

Data

For this report, Regional Board staff supplemented Regional Board ambient water quality data with data from a large number of agencies. These agencies include: United States Geological Survey, Ventura County Flood Control District, Los Angeles County Department of Public Works, City of Thousand Oaks, San Buena Ventura, City of Pasadena, City of Los Angeles, Metropolitan Water District of Southern California, Water Replenishment District of Southern California, Central and West Basin Municipal Water Districts, and local water purveyors. Self-monitoring data was used from major dischargers in the Ventura and Calleguas Creek watersheds (these two areas were Regional Board "target watersheds" in 1995-1996). In general, six years of water quality data (1988 to present) were used for this assessment; for bioaccumulation and sediment toxicity data, up to ten years of data were used. Most of the water column and sediment data were generated from grab samples. In addition to data, information from various articles and reports were used for the assessment. These reports are cited in the attached Data Summary Tables.

The data for the assessment were compiled and organized by watershed. Watersheds in this assessment include:

- Coastal Ventura County
- Ventura River
- Santa Clara River
- Calleguas Creek
- Santa Monica Bay
- Southern Los Angeles County (includes Dominguez and Los Cerritos Channels)
- Los Angeles River
- San Gabriel River
- Ventura County coastal features
- Los Angeles County coastal features
- Channel islands (Santa Catalina, Santa Cruz, San Nicholas, Santa Barbara, San Clemente)

Data used for this assessment were limited; a complete suite of water quality parameters were not available for measurement against appropriate water quality standards for each waterbody (e.g., all of the Safe Drinking Water Act constituents or USEPA priority pollutants). **Therefore, it is not correct to assume that constituents not cited in the assessment are not causing water quality problems.**

Assessment methodology

The Regional Board's water quality assessment follows USEPA (1995) guidance as outlined in the *Guidelines for Preparation of the 1996 State Water Quality Assessments (305(b) Reports)*. The guidance specifies that seven broad beneficial use categories be assessed under the federal guidance; the federal beneficial uses in this assessment report and the corresponding State beneficial uses are shown in Table 1.

Each of these federal beneficial uses is assessed according to the following designations: fully supporting, fully supporting but threatened, partially supporting, not supporting, and not assessed. The fully supporting but threatened category relates to waterbodies where a use is supported but may not be in the future (because of anticipated sources or adverse pollution trends) unless pollution prevention or control action is taken. Waterbodies that are assessed as partially supporting and not supporting are considered "impaired." In addition, the terms "partially supporting" and "not supporting" are federal terms and roughly equate to "intermediate" and "impaired" terms used by the state in preparing previous water quality assessments for the Los Angeles Region.

Table 1. Correlation between California Beneficial Uses and USEPA 305(b) Beneficial Uses.

State Beneficial Use as designated in 1994 Basin Plan	Federal Beneficial Use assessed in this report
Commercial and sport fishing	Fish consumption
Aquaculture	
Shellfish Harvesting	Shellfish harvesting
Warm freshwater habitat	Aquatic life use support
Cold freshwater habitat	
Inland saline water habitat	
Freshwater replenishment	
Estuarine habitat	
Wetland habitat	
Marine habitat	
Wildlife habitat	
Preservation of biological habitat	
Rare, threatened, or endangered species	
Migration of aquatic organisms	
Spawning, reproduction, and/or early development	
Water contact recreation	Swimming or primary contact recreation use
Non-contact recreation	Secondary contact recreation use
Municipal and domestic supply	Drinking water supply (raw data)
Ground water recharge (<i>where appropriate</i>)	
Agricultural supply	Agriculture
Ground water recharge (<i>where appropriate</i>)	
Hydropower Generation	Not assessed in this report
Navigation	
Industrial process supply	
Industrial service supply	

When comparing data against standards, the "worst case approach" is used. That is, if one parameter, such as temperature, ammonia, or an organic chemical, indicates impairment for a particular use, the waterbody is designated as impaired for the use affected by this parameter. For example, a waterbody that is not supporting the aquatic life use due to high ammonia concentrations and is partially supporting the use due to elevated metal concentrations would be given an overall classification of "not supporting." Exceptions to this are as follows:

1. For the drinking water use, if constituents (with the exception of volatile organic chemicals) exceed *secondary standards* (i.e., secondary MCLs), and thus are not supporting the use, the overall use is

classified as "fully supporting but threatened." If constituents less frequently exceed secondary standards and thus are partially supporting the use, the overall use is classified as "fully supporting."

2. For the contact recreation use, if constituents exceed *secondary drinking water or taste and odor standards* (i.e., pH, turbidity, color, ammonia) and thus are not supporting the use, the overall use is classified as "partially supporting." If these constituents less frequently exceed the secondary standards and thus are partially supporting the use, the overall use is classified as "fully supporting but threatened."

3. For the secondary contact recreation use, if *color or turbidity* are elevated and are not or are partially supporting the use, the overall use is classified as "fully supporting but threatened" because these parameters may be seasonally controlled and further observations are needed to determine the definitive impairment status.

Each watershed in the region is divided into waterbody reaches (a specified segment of river or creek) and lakes or reservoirs that match those designated in the 1994 Water Quality Control Plan (hereafter referred to as Basin Plan). For this report, some individual reaches are combined into longer reaches while other reaches are listed as "not assessed" due to lack of data. Beneficial uses in each reach are assessed and are given a number of miles (or square miles/acreage for lakes and groundwater basins) that are supporting that use (e.g., 3.5 miles of the xx reach fully supports the agriculture use but 2.5 miles only partially support the aquatic life use support). Data collection stations are located within each reach and cover areas no more than 25 miles but usually no more than a few miles. In this 1996 report, particular emphasis is placed on the Ventura River and Calleguas Creek watersheds because they are the 1995-1996 Regional Board targeted watersheds. The main stem of the Los Angeles River is also assessed in detail because it will be a targeted watershed in the 1996-1997 watershed cycle. Ocean water data are not assessed in this report other than from seafood consumption advisories and review of literature.

In the assessment, potential sources of contamination are identified to the level that is known at this time. For most waterbodies, data were not sufficient to link specific sources to specific pollutants so this is not done in the 1996 assessment. In future assessments for this region, linkage may be possible. Sources are listed for a waterbody that do not contribute necessarily to the listed "causes" of impairment. These potential sources are listed in order to assist staff performing future assessments; incomplete data for waterbodies precluded making a complete list of causes of impairments at this time (many waterbodies have not been analyzed for metals and/or priority pollutants).

Some beneficial uses, notably agriculture and in some cases aquatic life and contact recreation, are impaired due to constituents that have naturally high concentrations within a watershed or subwatershed. Examples of these constituents include total dissolved solids, chlorides, boron and sulfate that are leached from rock formations. In some lakes and estuaries, coliform counts may be high due to a large population of waterfowl. Not enough information is available at this point to classify any of the affected uses as "unattainable". Under the sources column (or in the sources filed in the database), "natural source" is listed for these waterbodies.

Ranking of relative contributions of each cause and source to the overall impairment of a waterbody is classified with slight (S), moderate (M) and high (H) magnitude. For example, contaminant sources for a waterbody that include natural sources, urban runoff and municipal effluent would all be classified as "moderate" because they all contribute to some degree. If there is only one source listed then it is considered to be a high magnitude source contributing to the impairment.

Assessments in this report are distinguished as either "evaluated" or "monitored". "Evaluated" assessments are based on information about land uses, location of sources, predictive modeling, best professional judgement, as well as the use of older data. "Monitored" assessments are based on recent ambient water quality, sediment quality, bioaccumulation and toxicity data that are collected relatively frequently. Most of the assessments in the 1996 cycle are considered "monitored".

Criteria used for assessing each Surface Water Beneficial Use

The USEPA *Guidelines for Preparation of the 1996 State Water Quality Assessments (305(b) Reports)* provides formulas for conducting assessment of the six 305(b) beneficial uses. These guidelines are described below along with the criteria or standards against which the data is compared. References for standards are included in each section.

Aquatic Life Use Support

Aquatic life use support can be assessed based on *biological and habitat factors* or on *physical and chemical data*.

Biological/habitat assessments

Biological/habitat assessments in this region are limited to reported or observed sediment and erosion impacts and personal communication with federal Fish and Wildlife, state Fish and Game biologists and other local experts. The Regional Board does not have resources at this time to perform detailed field biological/habitat assessments. USEPA's application of biological/habitat assessments are described in table 2. In addition, the Regional Board used best professional judgement to indicate a few localized habitat-related problems such as areas of high sedimentation, fish kills, barriers to fish migration, and impairment of benthic communities. Information from published documents such as the Santa Monica Bay State of the Watershed Report (1993) was also used.

Table 2. Water Quality Assessment guidelines

Assessment designation	Assessment Guideline
Aquatic life use support: biological and habitat factors	
Fully supporting	Reliable data indicates functioning, sustainable biological communities (e.g., macro-invertebrates, fish, or algae) none of which has been modified significantly beyond the natural range of the reference condition.
Partially supporting	At least one assemblage (e.g., macro-invertebrates, fish, or algae) indicates less than full support with slight to moderate modification of the biological community noted. Other assemblages indicate full support.
Not supporting	At least one assemblage indicates nonsupport. Data clearly indicate severe modification of the biological community.
Aquatic life use support: water column toxic substances- priority pollutants, chlorine, ammonia	
Fully supporting	For any one pollutant, no more than 2 violations of chronic criteria (acute if no chronic criteria available) within a 6 year period based on at least 20 grab or 1-day composite samples. If fewer than 20 samples are available, then best professional judgement is used considering the number of pollutants having violations and the magnitudes of the exceedence(s).
Partially supporting	For any one pollutant, criteria exceeded more than twice within a 6-year period, but in ≤ 10 percent of samples.
Not supporting	For any one pollutant, criteria exceeded in > 10 percent of samples.
Aquatic life use support: water column conventional constituents and stressors- dissolved oxygen, temperature, chloride, pH	
Fully supporting	For any one pollutant, criteria exceeded in ≤ 10 percent of measurements.
Partially supporting	For any one pollutant, criteria exceeded in 11 to 25 percent of measurements.
Not supporting	For any one pollutant, criteria exceeded in > 25 percent of measurements.
Primary contact and non-contact recreation use and Agriculture use: Taste and Odor (includes secondary drinking water MCLs) and aesthetic stressors	
Fully supporting	For any one pollutant or stressor, criteria exceeded in ≤ 10 percent of measurements or observations.
Partially supporting	For any one pollutant, criteria exceeded in 11 to 25 percent of measurements or observations.
Not supporting	For any one pollutant, criteria exceeded in > 25 percent of measurements or observations.
Coliform bacteria data for Primary and Secondary Contact (inland surface waterbodies) recreation use	
Fully supporting	Criterion 1 and/or Criterion 2 met. (see table 7)
Partially supporting	For contact recreation: Criterion 1 met but not more than 10 percent of samples exceed 2,000 per 100 ml. For non-contact recreation, not more than 10 percent of the samples exceed 10,000 per 100 ml.
Not supporting	Neither criterion met.

Assessment designation	Assessment Guideline
Contact Recreation: beach coliform data	
Fully supporting	For entire data set, wet and dry weather fecal coliform standards are exceeded 15% or less times on average and wet and dry weather total coliform data are exceeded 20% or less times on average.
Partially supporting	At least one of the following is exceeded: wet and dry weather fecal coliform greater than 15% and wet and dry weather total coliform greater than 20%.
Not supporting	For entire data set, wet and dry weather fecal coliform standards are exceeded more than 15% or wet and dry weather total coliform data are exceeded more than 20%.
Primary Recreation Contact Use: Beach and inland bathing area closure	
Fully supporting	No bathing area closures or restrictions in effect during past 6 years.
Partially supporting	On average, one bathing area closures per year of less than 1 week's duration.
Not supporting	On average, one bathing area closure per year of greater than 1 week's duration, or more than one bathing area closure per year.
Fish and shellfish consumption use: advisories	
Fully supporting	No fish or shellfish restrictions or bans are in effect.
Partially supporting	"Restricted consumption" of fish or shellfish in effect. Restricted consumption is defined as limits on the number of meals or size of meals consumed per unit time for one or more fish or shellfish species.
Not supporting	"No consumption" of fish or shellfish ban in effect for general population, or a subpopulation that could be at potentially greater risk, for one or more fish or shellfish species; or commercial fishing or shellfishing ban in effect.
Primary contact and non-contact recreation: aesthetics stressor-field observations	
Fully supporting	Criteria exceeded in less than or equal to 10 % of observations.
Partially supporting	Criteria exceeded in 11 to 25 % of observations
Not supporting	Criteria exceeded in greater than 25% of observations.
Drinking water use: water quality data	
Fully supporting	No contaminants where the median concentration exceeds the state water quality standard. No restrictions (i.e., no source water closures or advisories, no waters requiring more than conventional treatment to enable drinking water use)
Fully supporting but threatened	No contaminants where the median concentration exceeds the state water quality standards. Increased monitoring imposed on public water supplies supplied by the waterbody (due to previous detections of contaminants that triggered an increased monitoring frequency) or potential for water quality degradation by contaminants that are known to be used or present in the watershed or basin.
Partially supporting	No contaminants where the median concentration exceeds the state water quality standards. One or more drinking water source advisories lasting greater than 30 days per year or public water supplies supplied by the waterbody require more than conventional treatment due to contaminants concentrations in source water that may adversely affect treatment costs or the quality of finished water (e.g., due to taste, odor, turbidity, dissolved solids, etc.).
Not supporting	One or more contaminants where the median concentration exceeds the state water quality standards. One or more contamination-based closures of a drinking water source.
Assessment guideline for cases where there are fewer than 20 data points (all uses)	
Not supporting	For constituents where there are <20 and ≥ 3 samples, more than 40% of the values exceed the standard.

Physical and chemical water column data

Most of the aquatic life use support assessments in the Los Angeles Region are based on physical and chemical water, as well as sediment, toxicity and bioaccumulation data (described below). Physical and chemical data (water column) includes toxic substances (priority pollutants, chlorine and ammonia) and conventional constituents or stressors (dissolved oxygen, pH, and temperature). The assessment guidelines, based on USEPA's guidance document, are shown in table 2.

Criteria for aquatic life use support are drawn from the region's 1994 Basin Plan and the USEPA Water Quality Criteria for Water (1986 and updates). Relevant criteria are listed in tables 3 and 4. Note that the metals data are compared "total recoverable" standards.

Table 3. Freshwater Aquatic life use support standards (water column)

Note: The most stringent criteria are selected. Constituents are only listed if samples used for assessment had values above detection limits.

Reference: US Environmental Protection Agency National Ambient Water Quality Criteria 1986 with updates, except where noted.

Constituent or Stressor	Status	Criteria (ppb unless noted)
Inorganic Constituent or other stressor		
Aluminum (pH: 6.5 - 9.0)	4-day average	87
Ammonia	4-day average	see table d
Antimony (trivalent)	4-day average	30 (Proposed)
Arsenic	4-day average	190
Cadmium* (dissolved)	4-day average	$[e(0.7852[\ln(\text{hardness})]-3.490)] \times [1.101672-([\ln(\text{hardness})] \times [0.041838])]$
Cadmium* (total recov'ble)	4-day average	$[e(0.7852[\ln(\text{hardness})]-3.490)]$
Chloride (as NaCl)	4-day average	230
Residual chlorine, total	4-day average	11
Chromium VI	4-day average	10
Copper* (dissolved)	4-day average	$(e(0.8545[\ln(\text{hardness})]-1.465)) \times (0.960)$
Copper* (total recov'ble)	4-day average	$(e(0.8545[\ln(\text{hardness})]-1.465))$
Cyanide	4-day average	5.2
Lead* (dissolved)	4-day average	$(e(1.273[\ln(\text{hardness})]-4.705)) \times (1.46203-([\ln(\text{hardness})] \times [0.145712]))$
Lead* (total recoverable)	4-day average	$(e(1.273[\ln(\text{hardness})]-4.705))$
Mercury (total recoverable)	4-day average	0.012
Nickel* (dissolved)	4-day average	$(e(0.8460[\ln(\text{hardness})]+1.1645)) \times (0.997)$
Nickel* (total recoverable)	4-day average	$(e(0.8460[\ln(\text{hardness})]+1.1645))$
Oxygen, dissolved (1994 Basin Plan)		<p>At a minimum (see specifics below), the mean annual dissolved oxygen concentration of all waters shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.</p> <p>The dissolved oxygen content of all surface waters designated as WARM shall not be depressed below 5 mg/L as a result of waste discharges.</p> <p>The dissolved oxygen content of all surface waters designated as COLD shall not be depressed below 6 mg/L as a result of waste discharges.</p> <p>The dissolved oxygen content of all surface waters designated as both COLD and SPWN shall not be depressed below 7 mg/L as a result of waste discharges.</p> <p>For that area known as the Outer Harbor area of Los Angeles-Long Beach Harbors, the mean annual dissolved oxygen concentrations shall be 6.0 mg/L or greater, provided that no single determination shall be less than 5.0 mg/L.</p>
pH	Instantaneous maximum	6.5 - 9.0 units
Selenium (total recoverable)	4-day average	5.0
Silver* (dissolved)	1-hour average	$(e(1.72[\ln(\text{hardness})]-6.52)) \times (0.85)$
Silver* (total recoverable)	1-hour average	$(e(1.72[\ln(\text{hardness})]-6.52))$
Temperature (1994 Basin Plan)		<p>The natural receiving water temperature of all regional waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. Alterations that are allowed must meet the requirements below.</p> <p>For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges.</p>

Constituent or Stressor	Status	Criteria (ppb unless noted)
		For waters designated COLD, water temperature shall not be altered by more than 5 °F above the natural temperature.
Zinc (dissolved)	4-day average	$e^{0.8473[\ln(\text{hardness})]+0.7614} \times (0.986)$
Zinc (total recoverable)	4-day average	$e^{0.8473[\ln(\text{hardness})]+0.7614}$
Organic Constituents		
Aldrin	Instantaneous maximum	3
Benzene	Acute toxicity	5300
Benzene hexachloride (g-BHC; Lindane)	24-hour average	0.08
Bromodichloromethane **	Acute toxicity	11,000 (sum of halomethanes)
Bromoform**	Acute toxicity	11,000 (sum of halomethanes)
Carbon tetrachloride	Acute toxicity	35,200
Chlordane	24-hour average	0.0043
Chloroform	Chronic toxicity	1240
DDD	Acute toxicity	0.6
DDE	Acute toxicity	1050
DDT	24-hour average	0.001
Dibromochloromethane**	Chronic toxicity	11,000 (sum of halomethanes)
1,1-Dichloroethylene (1,1-DCE)†	Acute toxicity	11,600 (sum of dichloroethylenes)
cis-1,2-Dichloroethylene†	Acute toxicity	11,600 (sum of dichloroethylenes)
trans- 1,2-Dichloroethylene†	Acute toxicity	11,600 (sum of dichloroethylenes)
Di(2-ethylhexyl)phthalate	4-day average	360
Di(n-octyl) phthalate	Chronic toxicity	3
Endrin	24-hour average	0.0023
Ethylbenzene	Acute toxicity	32,000
Heptachlor	24-hour average	0.0038
Heptachlor epoxide	24-hour average	0.0038
Toluene	Acute toxicity	17,000
1,1,1-Trichloroethane (1,1,1-TCA)	Acute toxicity	18,000
Trichloroethylene (TCE)	Acute toxicity	45,000

*Criteria for metals based on hardness use actual hardness at time of sampling or if not available, use average hardness for reach.**

Halomethanes † Dichloroethylenes

Table 4. Four-day Average Concentration for Ammonia*

Reference: USEPA: Revised tables for determining average freshwater ammonia concentrations. Office of Water Memorandum, July 30, 1992.

pH	Temperature °C													
	0	5	10	15	20	25	30	0	5	10	15	20	25	30
Un-ionized ammonia (mg/liter NH ₃) for waters designated as COLD								Un-ionized ammonia (mg/liter NH ₃) for waters designated as WARM						
6.50	0.0008	0.0011	0.0016	0.0022	0.0022	0.0022	0.0022	0.0008	0.0011	0.0016	0.0022	0.0031	0.0031	0.0031
6.75	0.0014	0.0020	0.0028	0.0039	0.0039	0.0039	0.0039	0.0014	0.0020	0.0028	0.0039	0.0055	0.0055	0.0055
7.00	0.0025	0.0035	0.0049	0.0070	0.0070	0.0070	0.0070	0.0025	0.0035	0.0049	0.0070	0.0099	0.0099	0.0099
7.25	0.0044	0.0062	0.0088	0.0124	0.0124	0.0124	0.0124	0.0044	0.0062	0.0088	0.0124	0.0175	0.0175	0.0175
7.50	0.0078	0.0111	0.0156	0.022	0.022	0.022	0.022	0.0078	0.0111	0.0156	0.022	0.031	0.031	0.031
7.75	0.0129	0.0182	0.026	0.036	0.036	0.036	0.036	0.0129	0.0182	0.026	0.036	0.051	0.051	0.051
8.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.25	0.0149	0.021	0.030	0.042	0.042	0.042	0.042	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.50	0.0149	0.021	0.030	0.042	0.042	0.042	0.042	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
8.75	0.0149	0.021	0.030	0.042	0.042	0.042	0.042	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
9.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
Total ammonia (mg/liter NH ₃) for waters designated as COLD								Total ammonia (mg/liter NH ₃) for waters designated as WARM						
6.50	3.0	2.8	2.7	2.5	1.76	1.23	0.87	3.0	2.8	2.7	2.5	2.5	1.73	1.23
6.75	3.0	2.8	2.7	2.6	1.76	1.23	0.87	3.0	2.8	2.7	2.6	2.5	1.74	1.23
7.00	3.0	2.8	2.7	2.6	1.76	1.23	0.87	3.0	2.8	2.7	2.6	2.5	1.74	1.23
7.25	3.0	2.8	2.7	2.6	1.77	1.24	0.88	3.0	2.8	2.7	2.6	2.5	1.75	1.24
7.50	3.0	2.8	2.7	2.6	1.78	1.25	0.89	3.0	2.8	2.7	2.6	2.5	1.76	1.25
7.75	2.8	2.6	2.5	2.4	1.66	1.17	0.84	2.8	2.6	2.5	2.4	2.3	1.65	1.18
8.00	1.82	1.70	1.62	1.57	1.10	0.78	0.56	1.82	1.70	1.62	1.57	1.55	1.10	0.79
8.25	1.03	0.97	0.93	0.90	0.64	0.46	0.33	1.03	0.97	0.93	0.90	0.90	0.64	0.47
8.50	0.58	0.55	0.53	0.53	0.38	0.28	0.21	0.58	0.55	0.53	0.53	0.53	0.39	0.29
8.75	0.34	0.32	0.31	0.31	0.23	0.173	0.135	0.34	0.32	0.31	0.31	0.32	0.24	0.190
9.00	0.195	0.189	0.189	0.195	0.148	0.116	0.094	0.195	0.189	0.189	0.195	0.21	0.163	0.133

* To convert these values to mg/liter N, multiply by 0.822.

Sediment chemistry and toxicity, water column toxicity, benthic community and bioaccumulation data

Lacking USEPA guidelines, the Regional Board developed assessment guidelines for sediment chemistry and toxicity, benthic community and bioaccumulation data for purposes of this water quality assessment report. These general guidelines are described below.

Virtually all of this Region's *sediment toxicity* data has been generated through the Bay Protection & Toxic Cleanup Program (BPTCP). The most commonly used sediment toxicity test is the amphipod (a crustacean) survival test. A review of all the data for the region reveals the number of tests in which less than 60% of the amphipods survive is much less than the number of tests in which at least 60% or more amphipods survive. Consequently, the "significant toxicity" line is drawn at 60% survival. Below that number it's more likely that impairment is occurring (especially since existing benthic data at those sites support this). No statistical analyses or comparison to reference sites were done, however. This is a qualitative analysis utilizing Best Professional Judgement. Also, no conclusions are drawn based solely on one-time toxicity testing.

Table 5. Sediment and Bioaccumulation chemistry probable "background" levels

Constituent	Sediment Chemistry: Probable "background" levels in the Region	Bioaccumulation: Probable "background" levels in the Region
PAHs (polycyclic aromatic hydrocarbons)	1 ppm	ND

chlordanes	100 ppb	100 ppb
PCBs	200 ppb	300 ppb
DDT	200 ppb	300 ppb
zinc	200 ppm	250 ppm
lead	50 ppm	15 ppm
copper	100 ppm	50 ppm
chromium	75 ppm	5 ppm
TBT (tributyltin paint)	1 ppm	ND

Note: older TBT numbers in the database are almost certainly obsolete; levels have dropped dramatically since 1988 when TBT use prohibitions started, also, TBT degrades fairly quickly.

Listed in table 5 are the region's probable "background" numbers for the more common *sediment chemistry* pollutants. These numbers are approximate and based on pollutant levels found in areas removed from direct point sources where impacts do not appear to be occurring in the benthic community. Often background concentrations are due to natural sources or are due to persistent organic chemicals that have not yet biodegraded completely. The background levels were determined by evaluating data from areas that are remote from point sources and significant nonpoint sources.

For *bioaccumulation in sediment*, "background" numbers are also utilized (table 5). These may be adjusted up or down depending on the type of waterbody (commercial port vs. coastal lagoon).

For *bioaccumulation in aquatic organisms*, data from the State Mussel Watch and Toxic Substances Monitoring program were used. These two state programs provide information about the occurrence of toxic substances in fresh, estuarine, and marine waters through analysis of fish, mussels and other aquatic life (referred to as "tissue" in this report). Ten metals and approximately 45 pesticides and other organic chemicals are analyzed from the tissue of these organisms. Not every sample is analyzed for all metals or organic chemicals. For this 305(b) assessment, Mussel Watch data were used only to evaluate the aquatic life use. Toxic Substances Monitoring data were used to evaluate both the fish consumption and the aquatic life use.

Bioaccumulation data collected from tissue are compared to criteria such as Maximum Tissue Residue Levels (MTRLs), U. S. Food and Drug Administration (FDA) action levels, Median International Standards (MIS), and the National Academy of Sciences (NAS) recommended guidelines for predator protection (table 6).

Fish tissue Elevated Data Level (EDL) values are an internal state comparative measure that ranks a given concentration of a particular substance with previous data from the state programs. EDLs are calculated by ranking all of the results for a given chemical from the highest concentration measured down to and including those records where the chemical was not detected. The 85th percentile (EDL85) was chosen as an indication that a chemical is elevated from the median and the 95th percentile (EDL95) was chosen to indicate values that are highly elevated. EDLs were used in the assessment as follows: If no other constituents exceed standards, but if one or two constituents were above the EDL85 or EDL95, then those constituents are listed as "fully supporting but threatened." If three or more constituents are above the EDL then those constituents are listed as "partially supporting".

For *water column toxicity*, the Basin Plan (1994) objective of "no less than 70% in a single test and no less than a mean of 90% in any three consecutive tests" is used.

BPTCP *benthic community* data was collected in Los Angeles and Long Beach Harbor (LA/LB Harbor) and Alamitos Bay. Extrapolations were made from the data, mostly regarding the presence of pollutant-tolerant species. Areas

Table 6. Standards used for tissue data (State Mussel Watch Toxic Substances Monitoring Programs).

Constituent	Standards-ppb (see text for explanation of abbreviations)				
	NAS Recommended guideline for freshwater fish	FDA Action level for freshwater and marine fish	MTRs for inland surface waters	MTRs for ocean waters	MIS for freshwater fish and marine shellfish (range)
Mercury	500	1000	1000	-	100-1000
DDT (total)	1000	5000	32.0	9.1	-
PCBs	500	2000	2.2	-	-
Aldrin	100	300	0.05	0.1	-
Dieldrin	100	300	0.65	0.2	-
Endrin	100	300	3000	-	-
Heptachlor	100	300	1.8	8.1	-
Heptachlor epoxide	100	300	0.8	-	-
Chlordane	100	300	1.1	0.32	-
Lindane	100	-	2.5	-	-
Hexachlorocyclohexane	100	-	alpha: 0.5 beta: 1.8	-	-
Endosulfan	100	-	250	-	-
Toxaphene	100	5000	8.8	2.75	-
Arsenic	-	-	200	-	100-5000
Hexachlorobenzene (HCB)	-	-	6.0	0.6	-
PCBs	-	-	2.2	0.6	-
PAHs	-	-	0.08	-	-
Pentachlorophenol (PCP)	-	-	3.1	-	-
Cadmium	-	-	640	-	50-2000
Nickel	-	-	28000	-	-
Chromium	-	-	-	-	1000
Copper	-	-	-	-	10000-100000
Lead	-	-	-	-	500-10000
Zinc	-	-	-	-	40000-100000

distinctly different in benthic community composition from the "norm" for that kind of waterbody and containing large numbers of pollutant-tolerant species are designated as "not supporting".

BPTCP *benthic community* data was collected in Los Angeles and Long Beach Harbor (LA/LB Harbor) and Alamitos Bay. Extrapolations were made from the data, mostly regarding the presence of pollutant-tolerant species. Areas distinctly different in benthic community composition from the "norm" for that kind of waterbody and containing large numbers of pollutant-tolerant species are designated as "not supporting".

Combining these different data types (sediment chemistry and toxicity, water column toxicity, benthic community and bioaccumulation) into an overall assessment for each waterbody requires balancing quantity of evidence and type of evidence. Using Los Angeles/Long Beach Harbor BPTCP data as an example, most areas of the harbor where background levels of contaminants occur exhibited moderate to low sediment toxicity and, at most, a marginally impacted benthic community. Many areas are contaminated with metals and, as BPTCP work has revealed (and expert advice from the program's Scientific Review & Planning Committee supports), generally metals are not bio-available (they tend to bind with the usually generous amounts of

sulfides in the sediments) and don't contribute to sediment toxicity. Sediments contaminated with even high levels of metals, but not with organic chemicals, will usually not result in adverse effects. The chief concern is organic chemicals but even here impacts appear minimal at background pollutant levels.

A weight-of-evidence approach, heavily influenced by best professional judgement, is used to judge aquatic life beneficial use support for coastal areas. Ideally, this approach would utilize field-replicated triad data (benthic, sediment toxicity, and sediment chemistry) collected at the same time at least twice over some fairly short time period and use a reference site for comparison purposes. Instead, what is mostly available are data collected under different programs, measuring different media, at different sites, over a number of years, without good reference sites for statistical purposes.

At least two data points are desired for any particular type of data. Thus, one toxicity test result (lab-replicated) is revealing but not necessarily useful without some other kind of information. For example, high sediment toxicity in one test conducted under the BPTCP combined with low sediment contamination and bioaccumulation found through the SMWP would not necessarily lead to assigning the waterbody a "not supporting" status. There are natural causes of toxicity that may be transient. If sampling occurred during rainy weather, other unknown (and often non-anthropogenic) factors may be involved. Test results (especially effects information) obtained during aberrant conditions really shouldn't be used to define the status of a waterbody.

As another example, past SMWP data may show low to moderate PCBs and PAHs in sediment and tissue and more recent sediment toxicity testing may result in less than 60% survival on two sampling dates. The SMWP data may not be obviously high but the toxicity data point out a problem. Benthic data would be helpful, but based on toxicity, bioaccumulation, and sediment chemistry, the waterbody would be designated not fully supporting aquatic life beneficial uses. "Good" effects data are weighed more heavily than simple measurements such as sediment pollutant levels or tissue bioaccumulation (within the limitations described earlier). The latter measurement isn't an effect, it's just an indicator of the presence of pollutants. Unless National Academy of Sciences tissue guidelines are exceeded, effects are not expected.

For SWMP data, "background level guidelines" apply only to transplanted California mussels. Other organisms used by the program include transplanted freshwater clams, resident California mussels, transplanted bay mussels, and resident bay mussels. These bioaccumulate at different rates (especially freshwater clams) and are hard to compare to each or to a guideline.

Primary Contact Recreation Use

One of the goals of the Clean Water Act is that all waterbodies of the nation be "swimmable." Many of the waterbodies of the Los Angeles region are designated as "swimmable" or usable for water-contact recreation. Some of these designated waterbodies, however, are inaccessible due to gates and fences installed for flood control or drinking water reservoir protection purposes. In spite of this, residents, homeless individuals and occasionally children often gain access and use these areas. Therefore, all waterbodies with a water-contact recreation use have been included in this report. On the 303(d) list table, access restrictions are indicated with a footnote.

Assessment of primary contact recreational uses is based on closure data for bathing areas, coliform bacteria data, hazardous substances and aesthetics. Bathing closure data was acquired from the Los Angeles and Ventura County Departments of Health Services. Guidelines for assessments and coliform bacteria standards and assessment guidelines are shown in Table 7. Inland surface waterbody coliform data is not collected on a frequent basis; only fecal coliform standards are used. Dry weather beach data are collected frequently, weekly or daily, in the surfzone by major ocean dischargers and by the Los Angeles County Department of Health Services. Wet weather coliform data is collected during storms. These data are compared to Ocean Plan standards and include both total and fecal coliform.

Hazardous substances in water and bottom sediment are evaluated on a case by case basis. Secondary Drinking water MCLs (table 8) related to contact recreation are also assessed. Additional factors such as persistent scum, oily films, excessive algae growth, significant trash, and persistent observations of non-natural foam and/or odor were also considered (tables 2 and 9).

Table 7. Indicator Bacteria Criteria for Primary and Secondary contact recreation use and Shellfish Consumption

Assessment designation	Assessment Guideline
Criterion	Primary Contact Recreation (inland)
Criterion 1	Fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period) <i>[Note for this Region, we do not have weekly data for most of the waterbodies so this criterion is not used]</i>
Criterion 2	No more than 10 percent of total samples during any 30-day period exceed 400/100 ml. <i>[Note: used entire data set for each reach rather than 30-day period]</i>
Criterion	Secondary Contact Recreation(Inland)
Criterion 1	Fecal coliform concentration shall not exceed a log mean of 2000/100 ml (based on a minimum of not less than four samples for any 30-day period) <i>[Note for this Region, we do not have weekly data for most of the waterbodies o this criterion is not used]</i>
Criterion 2	No more than 10 percent of total samples during any 30-day period exceed 4000/100 ml. <i>[Note: used entire data set for each reach rather than 30-day period]</i>
	Primary Contact Recreation (beaches)
Total coliform	Samples of water from each sampling station shall have a density of total coliform organisms less than 1000 per 100 ml; provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1000 per 100 ml, and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml.
Fecal coliform	The fecal coliform density based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.
Criterion	Shellfish consumption
Criterion 1	In all waters where shellfish can be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, <i>[Note for this Region, we do not have weekly data so this criterion is not used]</i>
Criterion 2	No more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.

Secondary Contact Recreation Use

Most of the waterbodies of the region are designated for non-contact recreational use. This use includes activities where water is not normally ingested. The assessment for this use includes many of the same factors as for primary contact recreation but to a somewhat less stringent standard for coliform bacteria. Chemical and physical data are assessed using guidelines in Table 2 and standards in Table 8. In addition, field observations at stations along many of the reaches were tabulated for aesthetic factors such as significant excessive algae growth, significant trash, persistent non-natural foam and odor (table 9). These observations were assessed using guidelines in Table 2.

Fish and Shellfish Consumption Use

Fish and shellfish consumption use is assessed based on status of fishing advisories and bioaccumulation data. Guidelines for use of advisory data are listed in Table 2. Bioaccumulation standards are described above under aquatic life use. Table 7 includes shellfish bacteria limits which were not used in this assessment due to lack of resources.

Table 8. Aesthetics/taste and odor standards

Note: most stringent criteria is selected. Constituents are only listed if samples used for assessment had values above detection limits.

Constituent	Reference	Status	Criteria (ppm unless noted)	Comments
Aluminum	CA Department of Health Services	Secondary MCL	0.02	
Ammonia	McKee and Wolf, 1978		0.037	
Chloride	CA Department of Health Services	Secondary MCL	250	
Color	CA Department of Health Services	Secondary MCL	15 units	
Copper	CA Department of Health Services	Secondary MCL	1000 ppb	
Fluoride	US Environmental Protection Agency	Secondary MCL	2	
Foaming agents (MBAS)	CA Department of Health Services	Secondary MCL	0.5	
Iron	CA Department of Health Services	Secondary MCL	0.3	
Manganese	CA Department of Health Services	Secondary MCL	0.05	
Odor	CA Department of Health Services	Secondary MCL	3 threshold units	
pH	US Environmental Protection Agency	Secondary MCL	6.5 to 8.5 units	
Silver	CA Department of Health Services	Secondary MCL	100 ppb	
Specific conductance	CA Department of Health Services	Secondary MCL	900 μ mhos/cm	
Sulfate	CA Department of Health Services	Secondary MCL	250	
Total dissolved solids	CA Department of Health Services	Secondary MCL	500	
Turbidity	CA Department of Health Services	Secondary MCL	5 units	
Organic Constituents				
Ethylbenzene	US Environmental Protection Agency	Secondary MCL	30	
Phenol	CA Department of Health Services	Taste and odor Action level	5.0	
Toluene	US Environmental Protection Agency	Secondary MCL	40	
Xylene(s)	US Environmental Protection Agency	Secondary MCL	20	

Table 9. Observation categories used for assessing field observations of aesthetic stressors

Stressor	Observation categories
Trash	None, trash observed, Significant amount of trash observed
Unnatural scum/flotsam/foam	None, observed
Algae	None, significant amount observed
Odors	None, presence
Color	Clear, light yellow to green, dark green to brown
Turbidity	None, slight to turbid, very turbid
Oil and grease	None, Oil sheen, heavy oil

Drinking water use

Assessment of the use of waterbodies in the region for drinking water is based on concentrations of constituents that are regulated for drinking water. In this 305(b) report, ambient or raw (untreated) surface and ground waters are assessed (Note that such water would be treated and disinfected, in accordance with requirements from the State Department of Health Services, prior to distribution for potable use). Contaminants that are generally not source-water related (e.g., corrosion byproducts, lead or copper from

distribution system, or TTHMs) are not considered. Assessment of waterbodies for drinking water use differs from other uses in that median rather than mean of data area considered. Table 2 lists the guidelines for assessment and Table 10 lists the standards and references.

Assessed under the "federal" drinking water use are two "state" beneficial uses, namely MUN (municipal supply) and GWR (ground water recharge). Currently, all waterbodies in the region are designated as MUN per the 1988 Sources of Drinking Water Policy. A large number of waterbodies, however, were footnoted in the 1994 Basin Plan as being eligible for review and possible exemption status during the Triennial Review (1994-1997). The Regional Board staff is currently reviewing these footnoted MUN waterbodies and later this year (1996), intend to bring forward a revised MUN policy more appropriate for this region as well as criteria specific to this region for possible exemptions from the MUN designation. Waterbodies that were designated MUN (Municipal Drinking Water Supply) with a footnote in the region's Basin Plan (1994) and did not have a groundwater recharge (GWR) use are not assessed in this 1996 305(b) assessment. As discussed above, these waterbodies will be considered for exception from MUN in a separate Board action later this year. After consultation with State Board and USEPA staff, Regional Board staff decided to not assess the drinking water use for those waterbodies that were footnoted MUN in the 1994 Basin Plan and do not have a GWR use. These waterbodies may be removed from our Basin Plan within this year and, if any of them are determined to have drinking water uses and are impaired, staff will revise the 303(d) accordingly.

Table 10. Drinking Water standards

Note: most stringent criteria is selected. Constituents are only listed if samples used for assessment had values above detection limits.

Constituent	Reference	Status	Criteria	Comments
Inorganic constituents (ppm unless noted)				
Aluminum	CA Department of Health Services	Primary MCL	1000 ppb	
Gross alpha particle activity	CA Department of Health Services	Primary MCL	15 pCi/L	
Antimony	CA Department of Health Services	Primary MCL	6 ppb	
Arsenic	CA Department of Health Services	Primary MCL	50 ppb	
Bacteria, coliform	1994 Basin Plan	groundwater	1.1/100 ml (any seven day period)	
Barium	CA Department of Health Services	Primary MCL	1000 ppb	
Gross beta particle activity	CA Department of Health Services	Primary MCL	50 pci/L	
Beryllium	CA Department of Health Services		4 ppb	
Boron	CA Department of Health Services	Toxicity Action Level	1	
Cadmium	CA Department of Health Services	Primary MCL	5 ppb	
Chlorine (Cl ₂)	US Environmental Protection Agency	Primary MCL	4	Proposed
Chromium total	CA Department of Health Services	Primary MCL	50 ppb	
Copper	US Environmental Protection Agency	Primary MCL	1300 ppb	
Cyanide	CA Department of Health Services	Primary MCL	0.200	
Fluoride	CA Department of Health Services	Primary MCL	*	
Lead	US Environmental Protection Agency	Primary MCL	15 ppb	
Mercury	CA Department of Health Services	Primary MCL	2 ppb	
Nickel	CA Department of Health Services	Primary MCL	100 ppb	
Nitrate	CA Department of Health Services	Primary MCL	45	
Nitrite-N	CA Department of Health Services	Primary MCL	1	
Nitrate-N + Nitrite-N	CA Department of Health Services	Primary MCL	10	
Selenium	CA Department of Health Services	Primary MCL	50 ppb	
Sulfate	US Environmental Protection Agency	Primary MCL	400	Proposed

Thallium	CA Department of Health Services	Primary MCL	2 ppb	
Organic Constituents (ppb unless noted)				
Aldrin	CA Department of Health Services	Toxicity Action Level	0.05	
Benzene	CA Department of Health Services	Primary MCL	1	
Benzene hexachloride (a-BHC)	CA Department of Health Services	Toxicity Action Level	0.7	
Benzene hexachloride (b-BHC)	CA Department of Health Services	Toxicity Action Level	0.3	
Benzene hexachloride (g-BHC; Lindane)	CA Department of Health Services	Primary MCL	0.2	
Bromodichloromethane†	CA Department of Health Services	Primary MCL	100	Sum of trihalomethanes
Bromoform†	CA Department of Health Services	Primary MCL	100	Sum of trihalomethanes
n-Butylbenzene	CA Department of Health Services	Toxicity Action Level	45	
n-Butyl benzyl phthalate	US Environmental Protection Agency	Primary MCL	100	Proposed
Carbon tetrachloride	CA Department of Health Services	Primary MCL	0.5	
Chlordane	CA Department of Health Services	Primary MCL	0.1	
Chloroform†	CA Department of Health Services	Primary MCL	100	Sum of trihalomethanes
2,4-D	CA Department of Health Services	Primary MCL	70	
Dibromochloromethane†	CA Department of Health Services	Primary MCL	100	Sum of trihalomethanes
3,3'-Dichlorobenzidine (DCB)	none			
1,1-Dichloroethylene (1,1-DCE)	CA Department of Health Services	Primary MCL	6	
cis-1,2-Dichloroethylene	CA Department of Health Services	Primary MCL	6	
trans- 1,2-Dichloroethylene	CA Department of Health Services	Primary MCL	10	
1,3-Dichloropropene (cis and trans)	CA Department of Health Services	Primary MCL	0.5	
Di(2-ethylhexyl)phthalate	CA Department of Health Services	Primary MCL	4	
Di(n-octyl) phthalate	none			
Endrin	CA Department of Health Services	Primary MCL	2	
Ethylbenzene	CA Department of Health Services	Primary MCL	700	
Heptachlor	CA Department of Health Services	Primary MCL	0.01	
Heptachlor epoxide	CA Department of Health Services	Primary MCL	0.01	
Methyl ethyl ketone (MEK)	none			
Methylene chloride (Dichloromethane)	CA Department of Health Services	Primary MCL	5	
Tetrachloroethylene (PCE)	CA Department of Health Services	Primary MCL	5	
Toluene	CA Department of Health Services	Primary MCL	150	
1,1,1-Trichloroethane (1,1,1-TCA)	CA Department of Health Services	Primary MCL	200	
Trichloroethylene (TCE)	CA Department of Health Services	Primary MCL	5	

Vinyl chloride	CA Department of Health Services	Primary MCL	0.5	
Xylene(s)	CA Department of Health Services	Primary MCL	1750	

* Fluoride criteria is based on annual average of maximum daily air temperature: MCL at 58.4 to 63.8 °F: 2.0 mg/L; 63.9 to 70.6 °F: 1.8 mg/L; and 70.7 to 79.2 °F: 1.6 mg/L.

† 100 ppb is total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane)

Agriculture use

Water quality standards can vary by area and by crop. Due to a lack of state or federal standards, assessment of water quality for agricultural use is based upon local guidelines (table 11).

Table 11. Agriculture standards

Note: most stringent criteria is selected. Constituents are only listed if samples used for assessment had values above detection limits.

Constituent	Reference	Criteria	Comments
Aluminum	Ayers and Westcot, 1985	5 ppm	
Arsenic	Ayers and Westcot, 1985	100 ppb	
Boron	USEPA Quality Criteria for Water, 1986	0.75 ppm	
Cadmium	Ayers and Westcot, 1985	10 ppb	
Chloride	Ayers and Westcot, 1985	106 ppm	
Chromium VI	Ayers and Westcot, 1985	100 ppb	
Cobalt	Ayers and Westcot, 1985	50 ppb	
Copper	Ayers and Westcot, 1985	200 ppb	
Total dissolved solids	Bucy, 1995	750 ppm	Ayers and Westcot recommend 450 but locally that is not used
Fluoride	Ayers and Westcot, 1985	1 ppm	
Iron	Ayers and Westcot, 1985	5 ppm	
Lead	Ayers and Westcot, 1985	5000 ppb	
Manganese	Ayers and Westcot, 1985	0.2 ppm	
Nickel	Ayers and Westcot, 1985	200 ppb	
Selenium	Ayers and Westcot, 1985	20 ppb	
Specific conductance	Bucy, S. 1995. Fruit Growers Laboratory, Santa Paula, CA. Personal communication, November 14, 1995.	750 umhos/cm	Ayers and Westcot recommend 700 but locally that is not used
Vanadium	Ayers and Westcot, 1985	100 ppb	
Zinc	Ayers and Westcot, 1985	2000 ppb	

Criteria used for assessing lakes

Although the general guidelines for surface waters apply to lakes of the region, special consideration is given to urban lakes. The Regional Board contracted with University of California, Riverside to assess urban lakes. Twenty three urban and non-urban lakes of the region were studied over a year period and this information and data are used in this Water Quality 305(b) Assessment.

For lakes, trophic status is assessed. Assessment is additionally based on, where available, the following factors: total phosphorus, chlorophyll a, secchi transparency, frequency of algal blooms, surface scum and mat, turbidity, reduction of water depth due to sediment, extent of nuisance macrophyte growth, and aesthetics.

Criteria used for assessing Nearshore, Open Bays, Estuaries, and Ocean

Due to lack of staff resources at this time, the assessment of nearshore areas, open bays, estuaries, and ocean areas is mostly limited to the review of published reports. Fish consumption advisories and some bioaccumulation data are also used.

Criteria used for assessing Ground Water

Neither the US EPA nor State Board has established a set methodology for assessing the quality of ground waters. Staff at the USEPA recognize that such assessments are monumental tasks. Accordingly, the USEPA Guidance document suggests that agencies do what is practicable during the 1996 reporting period, focussing on demand for and vulnerability of ground waters.

Regional Board staff did not compile a database on the quality of ground water, due to limited staff resources. Nor did Regional Board staff assess the quality of ground water based upon numbers of known contaminated sites. These data would not accurately reflect water quality, since the data (from monitoring wells) are inherently skewed toward water quality problems. Regional Board staff also rejected the idea of assessing the quality of ground water based upon data from production wells, as such data might inherently overstate water quality.

Assessments of the quality of ground waters in the Los Angeles Region, therefore, are based upon the extent to which beneficial uses have been, or are threatened to be, impaired. Beneficial use categories that were assessed include drinking water and industrial uses, which were lumped together (since industrial users in the Region typically require ground water that meets Title 22 standards (Table 10). The quality of ground waters to support agricultural uses was not assessed in most areas; exceptions were made in certain areas of Ventura County, where agriculture is an important industry.

Table 12. Assessment guidelines for groundwater basins

Assessment classification	Guideline
Fully supporting	No known contamination
Fully supporting but threatened	Evidence of contamination, but beneficial use has not been affected.
Partially supporting	Contamination has significantly affected production of ground water. For example, over 10% of production capacity in a basin has been shut down, or over 10% of production in a basin requires wellhead treatment/dilution prior to beneficial use. For those basins where production capacity is not easily available (perhaps due to widespread contamination), staff evaluated trends to determine the degree to which water quality had been degraded from background.
Not supporting	Contamination has impaired production of ground water. For example, over 25% of production capacity in a basin has been shut down, or over 25% of production in a basin requires wellhead treatment/dilution prior to beneficial use. Again, for those basins where production capacity is not readily available (perhaps due to widespread contamination), staff evaluated trends to determine the degree to which water quality had been degraded from background.

In order to determine impairments to ground waters, Regional Board staff gathered information on the extent to which production had been curtailed or cut back due to water quality problems. Ground waters that were pumped in spite of contamination, and then treated at wellhead or blended to meet water quality standards, also were considered impaired. Assessment classifications are summarized in Table 12. Production data for the assessments were obtained from many sources, including published reports and communications with water purveyors, wholesalers, and watermasters.

The attached Data Summary Tables present the results of the Regional Board's assessments. Ground waters in the "partially supporting" or "not supporting categories" are considered impaired with regard to respective beneficial uses; however, these ground waters are not entered on the 303(d) list, as the scope of the 303(d) list is limited to surface waters.

Ground waters in this assessment are generally considered to be single units with the exception of two basins, the Central Basin and the West Coast Basin that were divided into upper and lower, or production, aquifers. The total area given in square miles is the same for both the upper and lower aquifers, therefore, care needs to be taken to not double count these areas when looking at total square miles of impaired groundwater basins for the Los Angeles Region.

303(d) list

Impaired surface waterbodies included in the 305(b) assessment are also listed on the region's updated 303(d) list. Under Section 303 of the Clean Water Act, each state must submit a list of those waters that do not, or

are not expected to, attain water quality standards after application of required technology-based controls. This list, known as the 303(d) list, serves to focus water quality efforts and resources toward the most significant water quality problems.

Waterbodies are placed on the 303(d) list if any uses were either "not" supported or "partially" supported for any beneficial use with the following exceptions:

1. Waterbodies where the sources of elevated constituents are most likely natural (i.e., chlorides, sulfates, and boron in areas where natural levels of these constituents are high).
2. Waterbodies for which color and/or turbidity (aesthetic constituents) for contact and non-contact recreation uses are the only elevated constituents. We did not separate wet weather sampling from dry weather sampling and these two constituents should be sampled on a more frequent and consistent basis in order to be sure that they are problems. They are noted, however, in the general 305(b) assessment.
3. Waterbodies that had only trash and/or algae impairing contact or non-contact recreation. Staff felt that these problems alone, did not make a waterbody eligible for listing given the more serious nature of other water quality problems in the Los Angeles area. Only a few waterbodies were exempted from the 303(d) list for this reason. The East Fork San Gabriel River, however, was included on the 303(d) list because removing the trash (and graffiti) problem from this waterbody would significantly enhance this otherwise pristine area.

The Regional Board will use a variety of approaches to address water quality problems affecting waters on the 303(d) list. In addition to water quality controls in Waste Discharge Requirements, these approaches may include: new watershed-based management efforts, enhanced stormwater programs for releases from municipal, industrial, and construction sources, and estimates of total maximum daily loads (TMDLs) of pollutants. TMDLs are a way to quantify pollutants loads from point and nonpoint sources, and can be used to allocate allowable loads in order to meet water quality standards.

TMDL priorities (high, medium, or low) on the draft 303(d) list, sent to the public in December, 1995, were based on a combination of many factors, including the severity of the problems, the value of the resources, the watershed schedule, staff resources and practicality/availability of solutions. As a result of discussions with staff from dischargers and members of the public, all TMDL priorities were downgraded to low with the exception of the targeted high priority efforts (Los Angeles River-nitrate and Malibu Creek- nutrients) already underway on two watersheds. The priority of all future TMDLs will be discussed and evaluated by stakeholder groups under the Watershed Approach. Staff and stakeholder resources will be key factors in determining the number of TMDLs we can undertake in the future.

As mentioned above, TMDL efforts are already underway for the Los Angeles River and Malibu Creek watersheds. Other efforts to estimate and reduce pollutant loadings will be initiated as the Watershed Initiative in the Los Angeles Region proceeds and as Regional Board resources allow.

Additional lists in the assessment

The 305(b) report includes a number of state lists that are or have been mandated by the Clean Water Act. As part of the assessment for 1996, the 303(d) list is updated but previous lists were not updated. The lists in this assessment include:

§303(d) This list is updated in this assessment and is described above.

§314: This is a list from 1992 of publicly owned lakes that were nominated for restoration. This list is not updated in this report.

§319: This is a one time state-wide list that was compiled in the 1980's of nonpoint source pollution problems due to both toxic and nontoxic pollutants. This list is not updated in this report.

Ventura River Watershed

Reach/location (Ventura River Watershed)/Lists		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not supporting		Partially supporting		Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem
Ventura River Estuary 303(d)-low 319		402.10	0.35 mi	CA402.0 000E	10 acres impaired	N P P	Aquatic life Recreation: cont. Recreation: non-c Fish consumption		AMM*,TIS(DDT), EUT AMM*,COLOR, ALGAE COLOR, ALGAE TIS(DDT)			pH,TRASH TRASH		Urban runoff (m) Oil fields (s) Municipal Effluent (m) Transient encampments (s) Natural sources (m) Recreational use (s)	
56 10-23 16 ± 4	53 7.2-9.6 8.3 ± 0.4	52 5.4-22 8.9 ± 2.7	1 29900	no data	no data	no data	no data	no data	Tissue(93): DDT(MTRLs) ³ Sed chem: low pesticide levels ¹ Sed tox: good survival rates ² Water tox: 100% normal ²		4 ND-1.7 0.8 ± 0.7	5 0.5-2.5 1.6 ± 0.7	3 220-1600	1-2 Ba 90	H2O(1): All ND Sed(1): All ND
Ventura River R1 (Estuary to Main St) and R2 (Main St. to Weldon Cyn) 303(d)-low 319		402.10	0.18 and 4.64	CA402.0 010R and CA402.0 020R	6 impaired	N FT N N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL*,B* TDS*,SC*,CHL*,SO4*,AMM CHL*,AMM,DO AMM,ALGAE, COLOR ALGAE, COLOR			TIS(Cu,Se,Ag,Zn) Turb Turb		Urban runoff (m) Oil fields (s) Municipal Effluent (m) Transient encampments (s) Natural sources (m) Agriculture (s) Recreational use (s) Industrial sources (s) Spills (s)	
262 9-26 17 ± 4	268 7.1-8.8 7.9 ± 0.3	258 2.0-14.8 7.6 ± 2.6	13 660- 1480 1067 ± 338	7 927- 1800 1395 ± 325	9 377-624 523 ± 80	8 0.3- 1.3 0.8 ± 0.4	10 24-304 202 ± 104	10 248-430 358 ± 58	Tissue(90): no organic chemicals at elevated levels ³ Tissue(91): Zn(EDL85) ³ Tissue(93): Cu(EDL85), Se(EDL85), Ag(EDL85), Zn(EDL85) ³		489 ND-5.2 1.4 ± 0.8	13 1.6-27.0 9.1 ± 8.4	1 130	7 Ba 1700 Cd 16 Cr 96 Cu 191 Pb 140 Zn 893	H2O(9) i,p,q,r,u,v,z,be,bf Sed(1) ND
Canada del Diablo		402.10	9.5	CA402.0 030R					Unassessed					Spills Oil field operations	
Canada Larga		402.10	8.01	CA402.0 080R	5 unknown	N N F N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL*,B* SO4*,B* TDS*,SC*,SO4* ALGAE ALGAE TDS*,SO4*,B*			TRASH TRASH		Natural sources (m) Oil field operations (s) Agriculture (m) Grazing (m)	
5 10-29 20 ± 8	8 6.9-8.9 8.1 ± 0.5	no data	8 84-2920 2225 ± 861	7 147- 3500 2545 ± 1010	4 794- 1134 999 ± 136	7 0.1- 1.7 1.2 ± 0.5	8 8-216 138 ± 67	8 8-1560 1000 ± 593	no data		1 ND	7 0-2.6 0.8#	no data	1 Ba 40 Se 9	no data
Ventura River R3 (Weldon Cyn to conflu with Coyote Creek (Casitas Vista/Santa Ana Rd)) 303(d)-low 319		402.10	0.78	CA402.0 160R	6 impaired	N FT N P F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* TDS*,SC*,SO4*AMM Water diversion and pumping AMM			pH		Natural sources (m) Urban runoff (m) Diversion/flow alteration (m) Agriculture (s) Recreational use (s) Grazing (s)	
130 9-23 16 ± 4	109 7.2-8.9 8.2 ± 0.3	107-3.3- 14.4 10.4 ± 1.7	9 575-812 689 ± 72	9 844- 1098 963 ± 93	8 359-510 449 ± 52	2 0.2- 0.3 0.26 ± 0.06	8 15-62 44 ± 13	9 239-268 253 ± 9	no data		478 0.1-4.5 0.4 ± 0.3	2 1.2-1.4 1.3 ± 0.09	no data	no data	no data
Weldon Cyn		402.10	6.3	CA402.0 170R					Unassessed						

Reach/Location (Ventura River Watershed)/Lists		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not supporting		Partially supporting		Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem
Ventura River R4 (Coyote Creek to Camino Cielo Rd) 303(d)-low		402.20	14.94	CA402.0 180R	9 good	N FT N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC TDS,SC <u>Water diversion and pumping</u>					Natural sources (m) Urban runoff (m) Diversions/flow alteration (m) Agriculture (s) Recreational use (s) Groundwater withdrawal (m)	
85 13-28 21 ± 3	41 7.3-8.5 8.2 ± 0.2	no data	41 540-964 669 ± 87	41 720-1100 950 ± 81	1 338	41 0.2-0.6 0.4 ± 0.1	19 8-56 41 ± 13	19 215-291 247 ± 20	no data Robles Diversion by-pass flows ¹³		2 0.2-0.3	19 0.09-2.3 1.2 ± 0.6	no data	1 Ba 62	1 ND
Coyote Creek R1 (confl Ventura to Lake Casitas Dam)		402.20	2.93	CA402.0 190R	3 good	FT F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,SO4* TDS*,CHL*,SO4*					Natural sources (m) Recreational use (s) Urban runoff (s) Flow alterations (m) Agriculture (s) Animal operations (s)	
3 10-22 17 ± 5	5 7.4-8.5 7.7 ± 0.4	no data	5 410-1320 987 ± 307	4 595-1460 1193 ± 348	3 305-828 603 ± 220	4 ND-0.7 0.5 ± 0.3	5 17-126 76 ± 35	5 64-445 328 ± 139	no data		2 ND-0.4 0.2 ± 0.2	5 0.5-0.9 0.7 ± 0.2	no data	1 Ba 110 Hg 0.4	1 ND
Lake Casitas 303(d) low 314 319		402.20	2702 ac	CA402.0 220L	2720 interm	F F FT F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c				TIS(As): Fully but threatened		Natural sources (m) Urban runoff (m) Aerial deposition (s)		
113 10-26 18 ± 5	113 7.2-8.5 7.6 ± 0.4	113 0.2-10.9 5.9 ± 3.5	42 282-479 388 ± 35	42 557-608 591 ± 15	no data	no data	42 146-190 169 ± 11	47 165-261 219 ± 24	Tissue ('92): As(EDL85) ³		42 ND	42 ND-0.27 0.1#	no data	no data	24+ a,m,s,v,w,y,ae,aj,al,a o,ap,b,av,au,ay,ba,bo
Coyote Creek R2 (above lake)		402.20	7.68	CA402.0 290R					Unassessed					Grazing Groundwater pumping	
Santa Ana Creek †		402.20	3.68	CA402.0 340R	10 good	N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* TDS*					Natural sources (m) Agriculture (s) Grazing (s) Diversions/flow alteration (s)	
3 12-19 14 ± 4	4 7.9-8.5 8.2 ± 0.3	no data	4 420-1078 682 ± 242	4 630-1327 894 ± 260	1 430	4 ND-0.7 0.3 ± 0.3	4 9-124 41#	4 129-363 199 ± 95	no data		1 ND	1 0.2	no data	no data	no data
San Antonio Creek R1 (confl. Ventura to Ojai Valley Country Club) and San Antonio Creek R2 (abv Ojai Valley Country Club)		402.20 402.32	5.42 and 9.02	CA402.0 410R and CA402.0 510R	16 good	N FT F P P	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC TDS,SC,SO4 TDS,CHL,SO4			ALGAE, Turb ALGAE, Turb		Natural sources (m) Urban runoff (m) Agriculture (m) Grazing (s) Diversions/flow alteration (s)	
23 12-26 19 ± 4	27 7.7-8.4 8.1 ± 0.2	no data	27 652-1000	26 973-1560 1227 ±	3 455-529 485 ± 32	26 nd-0.5 0.3	8 36-120 67 ± 29	8 220-328 309 ± 17	no data		2 ND-0.3	8 1.2-5.9 3.2 ± 1.4	no data	1 Ba 70 Se 6	1 ND

Reach/location (Ventura River Watershed)/Lists		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not supporting		Partially supporting		Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem
			847 ± 67	147		± 0.1									
Lion Canyon R1 (conf SA to Reservoir) and Lion Canyon R2 (abv reservoir)		402.20 402.31	4.65 and 4.84	CA402.0 430R and CA402.0 470R	9 good	N F P P	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* TDS*,SC*,SO4* COLOR COLOR TDS*,SO4*			Turb Turb		Natural sources (m) Grazing (s) Agriculture (s) Urban runoff (s)	
2 12-22	4 7.4-8.2 7.9 ± 0.3	no data	4 706-974 866 ± 101	3 1060-1270 1180 ± 88	3 519-551 538 ± 14	3 0.2-0.5 0.4 ± 0.1	4 45-80 59 ± 13	4 200-338 276 ± 53	no data		1 0.8	5 ND-5.3 2.3 ± 2.1	no data	1 Ba 60 Se 16	1 ND
Stewart Cyn		402.32	2.85	CA402.0 530R					Unassessed						
Fox Cyn		402.32	9.3	CA402.0 540R		N FT F U U	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL* TDS*,SC*,SO4* TDS*,CHL*					Natural sources (m) Urban runoff (m)	
1 12	3 6.8-8.5 7.9 ± 0.8	no data	3 88-920 629 ± 383	3 134-1450 981 ± 600	2 623-633	3 ND-0.1 0.07 ± 0.04	3 7-116 79 ± 51	3 7-299 198 ± 135	no data		no data	3 0.2-5.9 3.6 ± 2.4	no data	1-2 ND	no data
Ventura River R5 (Camino Cielo Rd to Jct Matilija)		402.20	0.23	CA402.0 790R	9 good	N FT U P F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		B* TDS*,AMM* AMM* CHL*					Natural sources (m) Mine drainage (s) Recreational use (s) Agriculture (s) Grazing (s)	
3 11-19 16 ± 4	4 7.8-8.3 8.0 ± 0.2	no data	5 534-751 629 ± 81	4 780-849 819 ± 26	5 355-433 391 ± 34	5 ND-1.2 0.5#	5 9-150 56 ± 52	5 205-275 246 ± 24	no data		3 ND-0.7 0.3#	5 ND	no data	2-4 Ba 181 Cd 1	3 ND
Matilija Creek R1 (jct with north fork to reservoir) and R2 (abv reservoir) 303(d)-low		402.20 402.20	1.6 and 16.8	CA402.0 800R and CA402.0 820R	7 good	N FT N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC,B TDS <u>Fish barrier</u> B					Natural sources (m) Diversion/flow alteration (m) Agriculture (s) Grazing (s) Recreational use (s)	
25 9-25 16 ± 5	29 7.7-8.6 8.1 ± 0.2	21 5.6-13.2 9.5 ± 1.5	29 356-776 607 ± 76	28 545-2015 939 ± 317	19 184-488 366 ± 60	27 ND-1.8 0.7 ± 0.5	29 4-83 36 ± 24	29 83-294 240 ± 37	Matilija Dam removal issues ¹³		1 0.6	27 ND-0.7 0.1#	no data	1 Ba 90	1 ND
Matilija Reservoir 303(d)-low 319		402.20	198 acres	CA402.0 810L	124 intern	N FT N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SC,B TDS <u>Fish barrier</u>					Natural sources (m) Flow modification (m) Agriculture (s) Recreational use (s) Grazing (s)	

Reach/location (Ventura River Watershed)/Lists		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not supporting		Partially supporting		Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	NH3	N+N	Fec Col	metals	Org Chem
							Basin Plan		B		TDS, CHL			
Matilija Creek Upper North Fork		402.20	7.02	CA402.0 840R	9 unknown				Unassessed					
Matilija Creek North Fork and Bear Creek		402.20 402.20	7.71 and 7.75	CA402.0 860R and CA402.0 870R	5 good	N FT U F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* TDS*, SO4*				Natural sources (m) Recreational use (s) Grazing (s)	
3 12-20 16 ± 3	8 7.8-8.4 8.1 ± 0.2	no data	8 530-818 639 ± 100	7 750-1189 896 ± 135	4 400-457 415 ± 25	7 ND-1 0.4#	8 6-46 20 ± 15	8 215-319 260 ± 34	no data	no data	7 0-1.4 0.3#	no data	1 Ba 50	no data

Santa Clara River Watershed

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
Santa Clara River Estuary 303(d)-low		403.11	2.07	CA403.00 00E	60 ac unknown	F N U	Aquatic life Recreation: cont. Recreation: non-c		COLIFORM					Urban runoff (m) Agricultural (s) Oil spills (s) Municipal effluent (m) Transient encampments (m) Bird droppings (m)	
									Sed tox: good survival rates ² Sed chem: low pesticide levels ¹ Wat tox: 100% normal ²				78-93% exceeden ces		
Santa Clara River R1 (Estuary to Hwy 101 bridge) and R2 (Hwy 101 bridge to Freeman Diversion)		403.11 and 403.11	5.79 and 8.96	CA403.00 20R and CA403.00 30R	79 interm	N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* SO4* TDS*,SO4* (Exotic vegetation)					Natural sources (m) Diversion/flow alteration (m) Agriculture (m) Urban runoff (m) Resource extract'n (m) Municipal effluent (m)	
19 9-28 16 ± 6	6 7.7-8.3 8.0 ± 0.2	no data	5 710-1363 977 ± 226	5 790-1700 1344 ± 317	2 420-750 585 ± 165	5 0.1-0.7 0.5 ± 0.2	5 24-74 49 ± 17	5 290-620 434 ± 114	no data		no data	2 0.8-0.9 0.9 ± 0.1	no data	1-2 Ba 85 Cd 2 Se 6	H2O(4) ND Sed (1) ND
Brown Barranca/Long Canyon †		403.11	3.79	CA403.00 80R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL* SO4* TDS*,SC*,SO4* TDS,SO4*					Natural sources (m). Agriculture (m) Urban runoff (m)	
3 15-17 16 ± 1	6 7.4-8.4 7.8 ± 0.3	no data	6 572-5772 2387 ± 1657	5 826-3480 2164 ± 883	5 213-1910 833 ± 604	5 0.14-1.4 0.6 ± 0.5	6 32-255 118 ± 69	6 101-3300 1112 ± 1081	no data		no data	6 2.5-9.9 4.8 ± 2.7	no data	1 Se 5	H2O(1) af Sed(2) sb,sc,sd Sed
Ellsworth Barranca/Aliso Cyn †		403.21	7.1	CA403.01 10R	9 unknown	N N F U U	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL*,B* SO4* TDS*,SC*,SO4* TDS,SO4*,CHL*,B*					Natural sources (m) Urban runoff (m) Agriculture (s)	
6 2-26 13 ± 7	no data	no data	10 580-2571 1665 ± 749	9 755-3712 2198 ± 1051	9 243-1165 614 ± 304	9 0.3-2.2 1.0 ± 0.7	11 39-580 221 ± 188	10 231-1039 692 ± 311	no data		no data	no data	no data	no data	H2O (1) ND Sed(2) sb,sc,sd
Wheeler Cyn/Todd Barranca †		403.21	4.17	CA403.01 40R	6 interm	N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL*,B* SO4* TDS*,SO4* TDS,SO4*,CHL*					Natural source (m) Urban runoff (m) Petroleum operations (s) Agriculture (m)	
7 3-31 19 ± 9	12 7.3-8.1 7.7 ± 0.2	no data	13 599-2990 1991 ± 613	11 876-3382 2311 ± 671	11 237-1358 908 ± 297	12 0.08-1.7 0.8 ± 0.4	14 40-215 144 ± 51	12 238-1412 875 ± 309	no data		no data	12 0.8-25.8 5.6#	no data	0-1 Zn 70	H2O (1)) ae,af Sed (2) sc

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
Santa Clara River R3 (Diversion to abv SP Creek/blw Timber Cyn)		403.21	13.24	CA403.01 60R	79 interm	N N FT P F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,B* SO4* TDS*,SC*,SO4*,AMM* (Exotic vegetation) AMM* SO4*,CHL*			CHL*	TOX: Fully but threatened	Natural sources (m) Urban runoff (m) Resource extraction (m) Municipal effluent (s) Industrial point source (s)	
20 13-28 19 ± 3	3 8.2-8.3 8.2 ± 0.05	no data	5 832-1390 1048 ± 241	23 1120- 2150 1484 ± 304	5 410-790 586 ± 131	5 0.6-0.9 0.7 ± 0.2	27 34-110 79 ± 21	26 320-790 585 ± 162	Tissue('91): no organic chemicals at elevated levels ³ Tissue('92): no organic chemicals at elevated levels ³ Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵		5 0.02-0.45 0.25 ± 0.19	5 1.6-3.2 2.5 ± 0.7	no data	no data	no data
Fagan Cyn †		403.21	4.66	CA403.02 60R		N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* TDS*,Fe*,Mn*					Natural sources (m) Agricultural (s) Urban runoff (m)	
2 11	5 6.8-8.4 7.3 ± 0.6	no data	4 132-1070 625 ± 354	5 199-1390 731 ± 471	1 257	4 0.1-0.8 0.4 ± 0.3	5 9-79 38 ± 26	5 ND-518 208 ± 192	no data		no data	5 1.1-3.6 2.1 ± 0.9	no data	no data	no data
Santa Paula Creek R1 (confluence with SC to Diversion Dam)		403.21	2.0	CA403.02 80R	14 good	N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC TDS,SC				CHL	Natural sources (m) Resource extraction (m) Urban runoff (s) Agriculture (s)	
22 8-23 15 ± 4	21 7.8-8.6 8.1 ± 0.2	17 7.1-14.0 10.2 ± 1.7	21 410-912 675 ± 153	21 540-1414 977 ± 257	19 154-414 315 ± 61	4 0.1-0.6 0.3 ± 0.2	21 11-158 57 ± 40	21 86-354 226 ± 60	no data		2 0.03-0.05	5 0-0.5 0.2 ± 0.2	no data	no data	1 ND
Santa Paula Creek R2 (Abv Diversion Dam) †		403.21	12.41	CA403.03 10R	14 good	F FT FT N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		Turb* Turb*,oil			TOX: Fully but threatened COLOR	Natural sources (m) Urban runoff (s) Agriculture (s)		
10 10-22 15 ± 4	17 7.2-8.4 7.9 ± 0.4	1 10.6	15 188-791 417 ± 145	16 214-1000 576 ± 145	13 110-550 267 ± 113	16 ND-0.2 0.05#	16 4-34 9 ± 7	16 36-300 153 ± 65	no data		no data	9 0-1.1 0.4 ± 0.3	no data	1 Ba 59	2 be
Sisar Creek R1 and R2†		403.21 403.22	1.22 and 6.65	CA403.03 40R and CA403.03 50R	2 impaired and 5 good	N FT F N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* Turb*, TDS* Turb* SO4*					Natural sources (m) Urban runoff (s) Agriculture (s)	
8 9-16 12 ± 2	12 6.9-8.2 7.9 ± 0.4	1 8.2	12 326-936 550 ± 198	11 464-1275 845 ± 285	11 196-527 379 ± 122	12 ND-0.5 0.1#	12 3-110 32 ± 29	12 115-307 205 ± 68	no data		no data	9 0-1.5 0.6 ± 0.5	no data	1 Ba 60 Cd 2	1 ND
Santa Clara River R4 (below Timber Cyn to abv Grimes Cyn)		403.31	9.83	CA403.04 30R	79 interm	N N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS*,SC*,B* SO4 TDS*,SC (Exotic vegetation)					Natural sources (m) Oil spills (s) Industrial point sources (s) POTW effluent (m) Agriculture (m)	

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
						F	Basin Plan		TDS*,SO4			CHL		Urban runoff (m)	
21 7-29 17 ± 6	17 7.8-8.4 8.0 ± 0.2	16 7.0-10.7 9.1 ± 1.1	17 558-1615 1179 ± 309	22 737-1950 1461 ± 351	11 316-776 684 ± 126	16 0.1-1.1 0.7 ± 0.3	21 25-110 65 ± 22	21 232-741 530 ± 176	no data		no data	17 0.6-3.5 2.2 ± 1.0	no data	no data	3 ND
Timber Cyn		403.31	5.12	CA403.04 40R					Unassessed						
Balcom Cyn		403.31	2.88	CA403.04 80R					Unassessed						
Sespe Creek R1 (confl. w/SC to 500' d/s Little Sespe)		403.31	7.6	CA403.05 40R	45 good	N N FT P P	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC*,F*,B* B* TDS*,SO4* COLOR B*		TOX: Fully but threatened ALGAE ALGAE		Natural sources (m) Agriculture (m) Urban runoff (m)		
4 19-25 23 ± 3	6 8.0-8.6 8.2 ± 0.2	1 10.8	5 518-759 648 ± 101	5 720-1000 801 ± 105	3 345-390 365 ± 19	4 ND-2.1 1.4 ± 0.8	5 10-88 51 ± 33	5 220-325 253 ± 40	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵		no data	4 ND-1.3 0.4#	no data	1 Ba 78 Cd 2	1 ND
Sespe Creek R2 (abv 500' d/s Little Sespe)		403.32	33.80	CA403.05 20R	45 good	N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,B TDS,SC,SO4 TDS,CHL,SO4,B				Natural sources (h)		
22 8-27 17 ± 6	26 7.8-8.8 8.2 ± 0.2	19 8.8-13.1 10.5 ± 1.2	26 494-1021 761 ± 136	26 674-1468 1078 ± 218	14 320-463 389 ± 47	22 0.1-4.2 1.4 ± 1.3	26 12-198 83 ± 64	26 190-432 304 ± 52	no data		2 0.01-0.05 0.03 ± 0.02	18 ND-0.4 0.1#	no data	Ba(2) Ba 51	1 ND
Pole Cyn †		403.31	5.5	CA403.09 40R	7 interm	N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* SO4* TDS*,SC*,SO4* TDS*,SO4*				Natural sources (m) Industrial point source (s) Agriculture (m)		
4 10-13 11 ± 1	8 7.5-8.3 7.9 ± 0.2	no data	8 860-1794 1372 ± 277	8 1027-2035 1643 ± 292	5 559-1018 815 ± 162	8 0.1-0.4 0.3 ± 0.1	9 9-32 19 ± 6	8 452-951 717 ± 149	no data		no data	5 0.3-1.3 0.7 ± 0.4	no data	1 Ba 40 Se 16	2 ND
Santa Clara River R5 (abv Grimes Cyn to Propane Rd) and R6 (Propane Rd to Blue Cut)		403.31 403.41	2.10 and 11.18	CA403.09 30R and CA403.09 90R	79 interm	N FT FT N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* TDS*,SC*,SO4*,AMM* (Exotic vegetation) AMM*, Turb,COLOR		TOX and Sed Chem(DDT): Both fully but threatened		Natural sources (m) Agriculture (m) Urban runoff (s)		
15 17-29 22 ± 3	11 7.5-8.6 8.1 ± 0.3	no data	8 653-1560 974 ± 267	19 966-1690 1162 ± 202	6 310-540 436 ± 73	7 0.5-0.8 0.6 ± 0.1	14 15-120 91 ± 27	14 64-690 312 ± 131	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵ Sed chem: DDE(300ppb), DDT(150 ppb) [RWQCB data]		3 0.11-0.8 0.5 ± 0.3	9 0.6-22.6 5.5#	no data	2-4 Ba 133 Cu 10	H2O(S) ND Sed(2) sc,sd,sf
Hopper Cyn †		403.41	13.65	CA403.10 10R	10 interm	N N	Agriculture Drinking: Primary Drinking: Second.		TDS,SC SO4 Turb*,TDS,SC,SO4		CHL,B		Natural sources (m) Agriculture (m) Urban runoff (s)		

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
						F F F	Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4 TDS,SO4			CHL	Municipal effluent (m)		
33 9-31 18 ± 7	65 6.9-9.5 7.9 ± 0.4	1 9.5	64 274-8740 1590 ± 1407	66 370-8600 1918 ± 1418	54 153-1370 563 ± 282	64 ND-8.3 0.5#	68 2-543 58#	66 6-1440 576 ± 327	no data		no data	43 ND-2.9 0.6#	no data	1 Ba 40 Se 10	1 ND
Torrey Cyn †		403.41	1.7	CA403.10 60R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,B* SO4* TDS*,SC*,SO4* TDS*,SO4*				Natural sources (m) Agriculture (m)		
2 12-14	4 7.1-8.2 7.6 ± 0.5	no data	4 2056- 5160 3460 ± 1151	4 2203- 5260 3421 ± 1185	3 1194- 2810 1993 ± 660	4 0.4-1.8 1.0 ± 0.6	4 1-103 42 ± 40	4 1222- 3020 2020 ± 645	no data		no data	3 1.2-17.7 7.0#	no data	0-1 ND	no data
Real Wash/Canyon/Drain		403.41	2.42	CA403.10 70R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* SO4* TDS*,SC*,SO4* TDS*,SO4*				Natural sources (m) Urban runoff (s)		
2 10-11	3 7.1-8.5 7.6 ± 0.6	no data	3 165-4680 2259 ± 1858	3 233-4910 2500 ± 1912	2 111-2336	3 0.2-1.6 0.7 ± 0.6	3 3-44 27 ± 17	3 55-2970 1450 ± 1193	no data		no data	3 ND-7.2 3.0#	no data	1 Se 12	no data
Smith Cyn		403.41	2.27	CA403.10 90R					Unassessed						
1 12	2 8.0-8.1	no data	2 3510- 4973	2 3800- 6120	1 2108	2 1.4-13.3	2 119-490	2 1210- 2110	no data		no data	1 0.36	no data	1 ND (Cu and Zn only metals scanned)	1 ND
Piru Creek R1 (confl. Santa Clara to abv gaging station below Santa Felica Dam)		403.41	6.08	CA403.11 20R	55 good	N FT FT N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC* TDS*,SC*,SO4* ODOR ODOR			TOX: Fully but threatened Turb	Imported water (m) Natural sources (m) Agriculture (m) Urban runoff (s)		
6 16-23 19 ± 2	7 7.7-8.6 8.1 ± 0.3	1 11.7	6 590-1057 794 ± 151	8 600-1400 999 ± 208	4 305-558 417 ± 91	6 0.3-0.8 0.5 ± 0.1	7 47-114 76 ± 23	7 210-442 316 ± 68	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵		no data	5 ND-0.5 0.2 ± 0.1	no data	0-3 Ba 54 Cd 22	1 ND
Piru Creek R2 (gage to Santa Fe. Dam)		403.41	STILL NEED	CA403.11 80R	55 good	N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* TDS*,SC*,SO4* CHL*				Natural sources (m) Imported water (m)		
19 7-27	16 7.9-8.9	16 7.8-14.7	18 530-965	19 822-2205	13 273-434	17 0.14-2.4	18 61-113	18 200-370	no data		2 0.02-0.04	17 ND-0.7	no data	2 Ba 34	no data

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
15 ± 4	8.3 ± 0.3	11.0 ± 2.0	720 ± 116	1098 ± 294	371 ± 51	0.7 ± 0.5	89 ± 16	273 ± 42			0.03 ± 0.01	0.3 ± 0.2		Ba only metal scanned.	
Lake Piru (lower and upper areas)		403.41 403.42	1439 ac	CA403.11 90L and CA403.12 60L	1240 good	N FT N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SC TDS DO				Natural sources (m) Aerial deposition (s) Imported water (m)		
105 10-26 18 ± 5	105 7.1-8.2 7.8 ± 0.3	105 0.3-10.1 6.0 ± 3.3	47 785-940 878 ± 43	47 785-940 878 ± 43	no data	no data	47 40-74 58 ± 9	42 80-159 112 ± 29	no data		47 ND-0.1 0.007#	105 0.3-10.1 6.0 ±3.3	no data	no data	no data
Piru Creek R3 (Lake Piru to Pyramid Lake)		403.42	8.70	CA403.12 90R	55 good	F F F P F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		CHL*		ALGAE		Imported water (m) Natural sources (m) Recreational uses (s)		
2 11-21 16 ± 5	6 6.7-8.7 7.5 ± 0.8	6 10.3-13.0 11.3 ± 0.9	6 346-537 407 ± 66	6 622-800 668 ± 65	6 136-248 165 ± 39	6 0.2-0.6 0.3 ± 0.1	6 100-130 114 ± 10	6 59-134 79 ± 26	no data		no data	6 ND-0.9 0.6 ± 0.3	6 100-130	no data	no data
Pyramid Lake		403.42	1928 ac	CA403.14 30L	1360 good	F F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c						Natural sources (m) Aerial deposition (s) Imported water (m)		
90 6-24 17 ± 6	90 7.2-8.8 8.0 ± 0.5	90 4.0-13.1 8.6 ± 2.6	42 662-718 681 ± 18	42 662-718 681 ± 18	no data	no data	42 56-111 90 ± 18	43 89-156 122 ± 17	no data		42 ND-0.2 0.01#	90 4.0-13.1 8.6 ± 2.6	no data	no data	no data
Canada de los Alamos †		403.43	7.84	CA403.14 80R	6 unknown	F FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		Turb* CHL*				Natural sources (m) Grazing (s)		
12 6-27 16 ± 7	10 7.4-9.2 8.3 ± 0.3	11 7.8-11.8 9.3 ± 1.2	13 162-1262 567 ± 392	13 305-1761 872 ± 533	13 83-480 217 ± 122	13 0.13-2.5 0.8 ± 0.7	13 16-184 78 ± 40	13 22-529 183 ± 180	no data		no data	12 0.07-0.9 0.3 ± 0.2	no data	no data	no data
Gorman Creek		403.43	12.21	CA403.15 10R	12 interm				Unassessed						
Piru Creek Reach 4 (abv Pyramid Lake) †		403.42	34.23	CA403.15 80R		N N F N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC*,B* B* Turb*,TDS*,SC*,SO4* Turb*,SO4* B*				Natural sources (m) Grazing (s) Agriculture (s) Recreation (s)		
13 6-28 17 ± 7	8 8.2-9.2 8.6 ± 0.3	10 7.9-11.8 9.6 ± 1.1	15 404-1195 754 ± 249	15 619-1381 960 ± 236	13 267-800 405 ± 143	15 0.2-3.7 1.5 ± 0.96	15 5-26 11 ± 6	15 182-672 386 ± 156	no data		no data	9 ND-1.3 0.2#	no data	no data	1 ND
Lockwood Creek R1 and R2 †		403.42 403.44	4.16 and 7.68	CA403.17 10R and CA403.17 20R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont.		SC*,B* B* TDS*,SO4*				Natural sources (m) Grazing (s) Agriculture (s) Recreation (s)		

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
						F	Recreation: non-c Basin Plan		B*						
4 15-18 16 ± 1	7 7.2-8.4 8.0 ± 0.4	1 10.6	7 420-7135 1526#	7 594-901 769 ± 103	3 311-390 358 ± 34	7 1.6-9.1 5.3 ± 2.9	7 6-11 9 ± 2	7 175-273 240 ± 38	no data		no data	4 0.4-2.7 1.3 ± 0.9	no data	1 As 7 Ba 50	no data
Seymour Creek †		403.44	7.2	CA403.17 30R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		B* B* B*					Natural sources (m) Grazing (s) Agriculture (s) Recreation (s)	
1 16	3 7.8-8.4 8.2 ± 0.3	no data	3 320-545 435 ± 92	3 430-780 623 ± 145	no data	3 0.5-3.7 1.8 ± 1.4	3 5-10 7 ± 2	3 59-192 123 ± 54	no data		no data	1 ND	no data	no data	no data
Armogosa Creek †		403.44	4.92	CA403.17 40R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		B* B* B*					Natural sources (m) Grazing (s) Agriculture (s) Recreation (s)	
1 11	4 7.5-8.4 8.0 ± 0.4	no data	4 373-612 454 ± 93	4 530-817 628 ± 111	no data	4 5.1-13.4 8.5 ± 3.0	4 4-6 5.5 ± 1	4 156-258 186 ± 42	no data		no data	3 ND-0.4 0.2#	no data	no data	no data
Lockwood Creek Middle Fork †		403.44	1.2	CA403.17 60R		N N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		B* B* Fe*,Mn* B*					Natural sources (m) Grazing (s) Agriculture (s) Recreation (s)	
5 10-19 15 ± 4	7 8.0-8.4 8.3 ± 0.2	no data	7 195-820 437 ± 186	7 438-1010 603 ± 207	1 300	7 0.1-2.4 1.4 ± 0.9	7 4-9 7 ± 2	7 ND-463 171 ± 138	no data		no data	2 ND	no data	no data	no data
Tapo Cyn		403.41	1.02	CA403.18 30R	10 interm				Unassessed						
Santa Clara River R7 (Blue cut [west of Salt] to West Pier Hwy 99)		403.51	9.21	CA403.18 40R	79 interm	N FT FT N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,CHL* TDS*,SC*,SO4*,AMM* (Exotic vegetation) Turb* CHL*			TIS(Ag,Zn)-Fully supporting but threatened		Grazing - riparian (m) Agriculture (m) Natural sources (m) Urban runoff (m) Industrial point source (s)	
14 21-27 23 ± 2	13 7.3-8.5 8.2 ± 0.4	8 8.1-8.9 8.2 ± 0.4	8 680-936 876 ± 80	15 984-1492 1335 ± 107	5 390-470 425 ± 27	5 0.4-0.7 0.6 ± 0.1	9 54-138 105 ± 22	9 198-370 306 ± 50	Tissue('91): no organic chemicals at elevated levels ³ Tissue('92): Ag(EDL85), Zn(EDL85) ³		4 0.07-0.44 0.26 ± 0.13	8 1.3-7.5 4.5 ± 1.9	3 28-880	no data	3 ND
Castaic Creek R1 (confl SC to Castaic Lagoon)		403.51	4.3	CA403.19 90R	8 good				Unassessed						
Castaic Lagoon 314 319		403.51	190 ac	CA403.22 40L	197 interm	N F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SC, CHL					Natural sources (m) Urban runoff (m) Aerial deposition (s) Recreational use (m) Bird droppings (m)	

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
116 9-28 19 ± 6	106 7.1-8.7 8.2 ± 0.4	116 0.2-13.7 8.1 ± 3.2	43 744-798 759 ± 13	43 744-798 759 ± 13	no data	no data	43 88-114 103 ± 10	62 80-124 113 ± 7	no data		43 ND-0.13 0.02#	116 0.2-13.7 8.1 ± 3.2	no data (closures reported due to coliform)	no data	no data
Castaic Creek R2 (lagoon to lake)		403.51	0.71	CA403.22 70R					Unassessed						
Castaic Lake		403.51	4109 ac	CA403.22 80L	2630 good	F F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c							Imported water (m) Natural sources (m) Oil spills (s) Aerial deposition (s)	
141 7.2-8.7 7.9 ± 0.4	141 0.5-14.6 8.8 ± 3.3	62 689-728 703 ± 7	62 689-728 703 ± 7	no data	no data	62 79-105 93 ± 7	15 24-82 50 ± 20	no data	62 ND-0.1 0.003#		141 0.15-14.6 8.8 ± 3.3	no data	no data	no data	
Elderberry Forebay		403.51	380 ac	CA403.23 00L					Unassessed						
Castaic Creek R3 (abv Castaic Lake) †		403.51	11.2	CA403.23 20R		N FT N F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC* TDS*					Natural sources (m)	
1 27	4 8.0-8.4 8.2 ± 0.1	1 8.8	7 460-716 619 ± 94	4 550-1100 815 ± 200	4 260-380 348 ± 51	no data	4 13-43 30 ± 11	4 140-320 233 ± 66	no data		no data	4 0.03-0.8 0.4 ± 0.3	2 2-5	0-4 Ba 37	no data
Elizabeth Lake Cyn †		403.51	19.09	CA403.24 70R		N FT F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SC*,F* TDS*					Natural sources (m) Urban runoff (m)	
2 26	9 8.0-8.5 8.3 ± 0.2	2 8.2-8.8	12 380-950 557 ± 158	9 450-1500 893 ± 300	9 210-440 320 ± 75	no data	9 18-190 73 ± 48	9 62-250 152 ± 55	no data		no data	9 ND-0.8 0.2#	2 ND-3	1 Ba 65 Cu 50 Zn 250	1 ND
Lake Hughes 303(d) - low 314 319		403.51	34 ac	CA403.26 10L	40 impaired	N FT N N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS*,SC* TDS*,SC*,SO4* <u>EUT, Fish kills</u> <u>TRASH,ODORS, ALGAE</u> <u>TRASH,ODORS, ALGAE</u>					Natural sources (m) Urban runoff (m) Aerial deposition (s) Septic systems (m) Recreational use (m)	
15 10-21 16 ± 5	15 7.7-8.1 8.0 ± 0.1	15 4.5-11.0 8.8 ± 2.1	10 231-1100 768 ± 222	10 1105-6230 1732 ± 1506	no data	no data	9 78-262 103 ± 57	10 217-2914 544#			9 ND	9 ND	no data	no data	no data
Munz Lake 303(d)-low		403.51	15 ac	CA403.26 20L		N F N N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SC* <u>EUT</u> <u>TRASH</u> <u>TRASH</u>					Natural sources (m) Urban runoff (m) Aerial deposition (s) Nutrient-rich sediments (m) Septic systems (m) Recreational use (m)	

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	VOCs
22 6-24 15 ± 7	22 6.5-8.1 7.5 ± 0.4	22 6.5-10.4 8.3 ± 1.3	15 392-822 638 ± 174	15 392-822 638 ± 174	no data	no data	15 32-73 55 ± 17	15 24-82 50 ± 20	no data		15 ND-0.23 0.04#	22 6.5-10.4 8.3 ± 1.3	no data	no data	no data
Elizabeth Lake 303(d)-low 314 319		403.51	194 ac	CA403.26 40L	90 impaired	N N N N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS,SC,CHL SO4* pH,TDS,SC,CHL,SO4,AMM CHL,pH,EUT AMM,pH,TRASH TRASH		DO		Natural sources (m) Urban runoff (m) Aerial deposition (s) Nutrient-rich sediments (m) Septic systems (m) Recreational use (m)		
38 6-22 14 ± 6	38 7.3-9.6 8.5 ± 0.7	38 0.8-11.0 7.7 ± 2.5	20 722-4689 2985 ± 1774	20 1152- 6330 4141 ± 2323	no data	no data	20 128-1056 653 ± 412	20 153-1789 956 ± 636			20 ND-0.45 0.13#	26 ND-0.58 0.2#	no data	no data	no data
Santa Clara River R8 (W Pier Hwy 99 to Bouquet Cyn Rd Bridge) 303(d)-low		403.51	3.42	CA403.26 90R	79 interm	N FT N N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,CHL,B TDS,SC,AMM AMM AMM,COLIFORM CHL		TOX-Fully but threatened COLOR		Natural sources (m) Oil spills (s) POTW effluent (m) Urban runoff (m) Industrial point source s(s)		
88 10-27 18 ± 4	91 6.8-8.4 7.8 ± 0.3	20 4.2-10.8 7.4 ± 2.0	90 78-1136 754 ± 109	91 120-1412 1131 ± 146	82 32-605 355 ± 67	89 ND-1.4 0.7 ± 0.2	89 10-138 105 ± 21	90 20-513 201 ± 60	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵		69 ND-4.9 1.4 ± 1.3	89 0.3-15.4 5.7 ± 2.4	66 20-24000	69 As 12 Ba 280 Cd 11 Cr 10 CrVI 29 Cu 60 Pb 100 Se 19 Zn 180 Ni 60	3-4 ND be scanned 67 times and detected above detection limit
San Fransisquito Cyn		403.51	25.42	CA403.27 10R		F F FT F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan				TOX: Fully but threatened COLOR		Natural sources (m) Urban runoff (m) Agriculture (s)		
2 18-21	9 7.8-8.3 8.2 ± 0.2	1 8.2	9 217-787 446 ± 192	8 350-916 585 ± 230	7 92-440 249 ± 144	3 0.1-0.7 0.3 ± 0.26	9 14-44 28 ± 8	9 19-290 122 ± 95	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵		no data	9 ND-1.1 0.3#	3 ND	0-4 Ag 160 As 35 Ba 52 Cu 30 Pb 4	1 ND
Santa Clara River South Fork		403.51	6.08	CA403.27 90R					Unassessed						
Newhall Creek		403.51	4.2	CA403.28 00R					Unassessed						
Santa Clara River R9 (Bouquet Cyn Rd to abv Lang gaging station) and R10 (abv Lang gaging station) †		403.51 and 403.55	12.69 and 3.0	CA403.29 60R and CA403.33 80R	79 interm	F F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan						Resource extraction		

Reach/location (Santa Clara River Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	NH3	N+N	Fec Col	metals	VOCs
3 18-30 25 ± 5	15 7.9-8.6 8.1 ± 0.2	6 5.7-9.8 7.6 ± 1.2	18 310-877 440 ± 117	18 390-1500 701 ± 216	14 190-296 251 ± 29	1 ND	15 8-47 32 ± 10	15 20-100 69 ± 20	no data	no data	15 ND-4.5 0.5#	10 2-62	0-2 Ba 82 Pb 63 Cu & Zn(14) Zn 20	4 ND
Bouquet Cyn R1		403.51	11.16	CA403.29 70R	17 good	F F FT F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan				TOX: Fully but threatened		Toxicity may be from copper sulfate treatments in reservoir (m) Natural sources (m) Imported water (m) Recreational use (m)	
4 11-13 12 ± 1	12 7.6-8.6 8.2 ± 0.3	1 12	11 229-414 286 ± 45	11 341-654 440 ± 84	9 86-275 147 ± 51	5 0.5-0.6 0.56 ± 0.05	11 19-33 24 ± 4	11 28-77 38 ± 13	Wat Bio Toxicity: reproduction affected, low level chronic toxicity found ⁵	no data	10 ND-1.2 0.4#	3 2-13	0-4 As 10 Ba 40 Cr 15 Zn 50	1 ND
Bouquet Reservoir		403.52	1206 ac	CA403.30 90L	628 good	F F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c							
Mint Cyn R1 (confl to Rowler Cyn)		403.51	8.16	CA403.31 80R					Unassessed					
Mint Cyn Creek R2 (abv Rowler Cyn)		403.53	7.35	CA403.32 30R					Unassessed					
Agua Dulce Cyn R1 (confl SC to Hwy 14)		403.55	2.88	CA403.34 10R					Unassessed					
Agua Dulce Cyn R2 (abv Hwy 14)		403.54	6.61	CA403.34 30R					Unassessed					
Solidad Cyn		403.55	2.89	CA403.37 60R					Unassessed					
Aliso Cyn		403.55	7.05	CA403.37 80R					Unassessed					

Calleguas Creek Watershed

Reach/location (Calleguas Creek Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem
Mugu Lagoon 303(d)-low 319		403.11	505 ac	CA404.0000E	1500 impaired	N U U N			Aquatic life Recreation: cont. Recreation: non-c Fish consumption	<u>Cu, Hg, Ni, Zn, Bird reproductivity(DDT), TIS(Chlordane, DDT, endosulfan, dacthal, toxaphene, PCBs); Sed(DDT, toxaphene), SED TOX, Nitrogen, Excessive sediment</u> <u>TIS(DDT, PCBs, toxaphene)</u>		<u>TIS(As, Cd, Ag)</u>		Natural sources (m) Agriculture runoff (m) Naval base activities (m) Construction (s) Landfill runoff (s) Industrial sites (m) Urban runoff (m)	
									Wat Chem: Cu, Hg, Ni, Zn exceedences [US Navy data] Bird reproductivity : DDT ¹⁴ Tissue('90): no organic chemicals at elevated levels ³ Tissue('91): As(EDL95), Cd(EDL95), Ag(EDL85) ³ Tissue('92): DDT(MTRLs), PCBs(MTRLs), As(EDL85), Cd(EDL85), Ag(EDL95) ³ Tissue('93): DDT(MTRLs), Ag(EDL95) ³ Sed Chem('88, '89, '91, '92): DDE(200 ppb), DDD, toxaphene(1900ppb), DDT(30ppb) ¹ Sed Toxicity('93): poor survival rates ² Tissue('88, '93): toxaphene (NAS), DDT(NAS), chlordane, endosulfan, dacthal ²						
Rio de Santa Clara/Oxnard Drain #3 303(d)-low		403.11	2.48	CA404.0005R		N U U N			Aquatic life Recreation: cont. Recreation: non-c Fish consumption	<u>TIS(chlordane, DDT, toxaphene, ChemA, PCBs), SED TOX, Nitrogen</u> <u>TIS(chlordane, DDT, toxaphene, ChemA, PCBs)</u>				Natural sources (m) Agriculture runoff (m) Urban runoff (m)	
									Tissue('90): chlordane(NAS), DDT(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue('91): chlordane(NAS), DDT(NAS), PCBs(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue('93): no organic chemicals at elevated levels ³ Sed toxicity ('93, '94): poor survival rates ² Tissue('90-'91): toxaphene (NAS), PCBs(NAS), chlordane(NAS) ¹						
Duck Pond Ag Drain /Mugu Drain/Oxnard Dr #2 303(d)-low		403.11	13.5	CA404.0010R		N F F N			Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption	<u>TDS*, CHL*, SO4*, N+N*, TDS*, TOX, SED TOX, Sed(DDT), TIS(Chlordane, toxaphene, DDT, ChemA), Nitrogen</u> <u>TIS(Chlordane, toxaphene, DDT, ChemA)</u>		TIS(Dacthal): Fully supporting but threatened COLOR		Natural sources (m) Agriculture runoff (m) Urban runoff (m) Municipal effluent (m)	
2 10-22 21 ± 1	4 7.2-7.6 7.4 ± 0.1	no data	3 3386-5360 4065 ± 916	2 3120-3700 3410 ± 290	2 1515-1850 1683 ± 168	2 1.9-2.2 2.1 ± 0.1	3 176-580 324 ± 182	3 1538-2300 1818 ± 393	Tissue('93): chlordane(MTRLs, FDA), DDT(MTRLs, FDA), toxaphene(MTRLs, NAS), dacthal(EDL85), ChemA(NAS) ³ Sed Chem('88, '89, '95): DDT (500ppb) ¹ Wat toxicity: poor survival rates ⁵ Sed toxicity: poor survival rates ¹		no data	3 54-118 80 ± 28	no data	1 ND	H2O (2): a,s,y,ae,af Sed (5): sb,sc,sd
Calleguas Creek Estuary 303(d)-low		403.11	0.8	CA404.0060E		N F F N			Aquatic life Recreation: cont. Recreation: non-c Fish consumption	<u>AMM, TOX, SED TOX, Sed(DDT), TIS(chlordane, endosulfan, DDT, toxaphene), Nitrogen</u> <u>TIS(chlordane, DDT, toxaphene)</u>		COLOR		Natural sources (m) Agriculture runoff (m) Urban runoff (m)	
9 10-29 19 ± 5	26 6.8-8.6 7.7 ± 0.5	3 5.7-8.3 7.3 ± 1.1	26 636-7072 1719 ± 1391	21 1085-9000 2704 ± 1736	20 305-1360 705 ± 235	1 0.8	19 105-2820 551#	20 142-857 439 ± 183	Wat toxicity: poor survival rates ⁵ Sed toxicity ('93): poor survival rates ² Sed chem: DDT ¹ Tissue: chlordane (263 ppb), DDT (4284 ppb), endosulfan (880 ppb), toxaphene(3600 ppb) ¹		28 0.1-20.2 2.7 ± 3.6	9 1.12-26.9 14.8 ± 6.0	no data	Cu and Zn (19) Cu ND Zn 40 no other metals scanned	H2O no data Sed(1) ND
Revolon Slough main branch: Mugu Lagoon to Central Avenue 303(d)-low		403.11	8.90	CA404.0080R	9 impaired	N N N			Agriculture Drinking: Primary Drinking: Second. Aquatic life	TDS, SC, CHL, B SO4, B, N+N TDS, SC, SO4, AMM Se*, TOX, Sed(toxaphene, chlordane, DDT, endosulfan,		[GROSS ALPHA (N=3) ABOVE STND] TIS(Chlorpyrifos,		Natural sources (m) Agriculture runoff (m) Urban runoff (m)	

Reach/location (Calleguas Creek Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources			
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem	
319						N N N	Recreation: cont. Recreation: non-c Fish consumption		dacthal), TIS(endosulfan, chlordane, toxaphene, DDT, ChemA, dieldrin, PCBs), Nitrogen AMM*, ALGAE, COLOR, TRASH, Turb ALGAE, TRASH TIS(endosulfan, chlordane, toxaphene, DDT, ChemA, dieldrin, PCBs)		hexachlorobenzene, dacthal)					
15 14-24 19 ± 3	23 5.2-8.6 7.9 ± 0.6	1 7	22 2160-4900 3663 ± 694	20 2600-6160 4353 ± 989	15 1012-2140 1682 ± 305	20 0.6-2.6 1.8 ± 0.5	22 131-276 185 ± 35	22 1083-2450 1840 ± 354	Tissue(90): dacthal(EDL95), DDT(NAS), endosulfan(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue(91): chlordane(MTRLs), DDT(MTRLs), dieldrin(MTRLs), toxaphene(MTRLs, NAS), dacthal(EDL85), ChemA(NAS) ³ Tissue(93): chlordane(NAS), chloropyrifto(EDL95), dacthal(EDL95), DDT(NAS)< hexochlorobenzene(EDL85), toxaphene(NAS), ChemA(NAS) ³ Wat toxicity: poor survival rates ⁵ Sed chem(88-90): DDT(1648 ppb), toxaphene, chlordane, endosulfan, dacthal ¹ Tissue(86-88): DDT(NAS), PCBs(NAS) ¹		12 ND-1.2 0.5 ± 0.4	22 11.9-70.0 48.5 ± 13	no data		2-4 Ba 82 Cu 11 Pb 9 Se 11	H2O (8): b,c,d,e, ad,be Sed (13): sb,sc,sd, sg
Beardsley Channel (abv Central Ave) 303(d)-low 319		403.61	6.16	CA404. 0160R	5 impaired	N P P	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4*, N+N*, TDS*, SC*, SO4*, TOX, Sed(DDT)		Sed pest. are very high ALGAE, COLOR ALGAE		Natural sources (m) Agriculture runoff (m) Urban runoff (m) Illegal dumping (s) Excessive sediment (m)			
5 17-24 21 ± 2	6 7.3-8.8 7.9 ± 0.5	no data	5 1170-3300 1988 ± 741	5 1320-4990 2315 ± 1370	2 660-940 800 ± 140	5 0.5-2 1.0 ± 0.6	5 75-177 124 ± 32	5 470-1790 965 ± 467	Wat toxicity: poor survival rates ⁵ Sed chem: DDD(1466ppb), DDE(173ppb), DDT(18ppb) [RWQCB]		no data	5 3.8-38.8 16.1 ± 13.0	no data		no data H2O(1) ND Sed(4) sb,sc,sd, sh	
Calleguas Creek R1 (estuary to 0.5 mi s of Broome Rd) and R2 (0.5 mi s of Broome Rd to Potrero Rd) 303(d)-low 319		403.11 403.12	2.2 and 2.3	CA404. 0200R and CA404. 0220R	11 impaired	N N N FT F N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		TDS, SC, CHL N+N TURB*, TDS, SC, SO4, AMM AMM, TIS(DDT, toxaphene, ChemA, chlordane) Nitrogen TURB*, AMM TIS(DDT, toxaphene, ChemA, chlordane)		TIS(dacthal): Fully but threatened		Natural sources (m) Agriculture runoff (m) Urban runoff (m) Excessive sediment (m) POTW effluent (m)			
3 10-31 20 ± 8.6	22 7-8.6 7.7 ± 0.5	no data	26 464-2772 918 ± 411	21 909-4995 1650 ± 795	19 230-1972 568 ± 353	1 0.5	19 92-400 204 ± 65	20 114-1286 347 ± 231	Tissue(90): dacthal(EDL85), DDT(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue(91): chlordane(MTRLs), DDT(MTRLs, NAS), toxaphene(NAS), ChemA(NAS), dacthal(EDL85), ChemA(NAS) ³ Tissue(92): DDT(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue(93): chlordane(NAS), DDT(NAS), toxaphene(NAS), ChemA(NAS) ³		25 0.25-21.4 3.54 ± 4.2	26 4.5-30.1 14.1 ± 6.5	no data		Cu and Zn(19) Cu 30 Zn 50 no other metals scanned	no data
Calleguas Creek R3 (Potrero to Somis Rd) 303(d)-low		NEED	7.7	CA404. 0260R		N FT N FT F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, SC, CHL TURB*, TDS, SC, SO4, AMM AMM, TOX, Sed(toxaphene, DDT) TURB, AMM TDS, CHL, SO4, N+N				Natural sources (m) Agriculture runoff (m) Urban runoff (m) Excessive sediment (m) POTW effluent (m)			
18 11-30 21 ± 5	60 6.7-8.5 7.6 ± 0.4	no data	63 544-1340 860 ± 159	53 943-1950 1451 ± 226	44 240-652 464 ± 112	12 0.3-0.6 0.4 ± 0.1	49 101-264 185 ± 29	51 100-550 272 ± 85	Sed chem: toxaphene, DDT ¹ Wat toxicity: poor survival rates ⁵		59 ND-20 4.6 ± 4.0	67 1.9-36 12.1 ± 6.8	no data		2-41 Ba 86 Cu 70 Zn 30 Al 80	H2O(4): d.l. Sed(5): sc, sd, sg
Conejo Creek R1 (cont'l Call to Santa Rosa Rd) and R2 (Santa Rosa Rd to ~Thousand Oaks city limit) and R3 (~Thousand Oaks city limit to Lynn Rd.) and R4 (abv Lynn Rd)		403.12 403.63 403.68	5.8 and 2.67 and 5.6	CA404. 0270R and CA404. 0340R	10 interim	N FT N	Agriculture Drinking: Primary Drinking: Second. Aquatic life		TDS, SC, CHL TURB*, TDS, SC, SO4, AMM DO, AMM, TOX, TIS(endosulfan, toxaphene, DDT, ChemA), Sed(toxaphene)		TIS(Dacthal, Aq, Cd, Cr, Ni)		Natural sources (m) Agriculture runoff (m) Urban runoff (m) Sediment (m) POTW effluent (m)			

Reach/location (Calleguas Creek Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		NH3	N+N	Fec Col	metals	Org Chem
303(d)-low			and 4.98	and CA404.0400R and CA404.0500R		N N N	Recreation: cont. Recreation: non-c Fish consumption Basin Plan		TURB,AMM, <u>ALGAE</u> , COLOR <u>ALGAE</u> <u>TIS(endosulfan, toxaphene, DDT, ChemA)</u> TDS,CHL,SO4,N+N					Grazing (s)	
R1: 13 13-29 21 ± 5	53 6.8-8.7 7.5 ± 0.4	no data	60 560- 1210 825 ± 129	49 980- 1825 1400 ± 195	44 260-608 456 ± 102	9 0.2-0.5 0.4 ± 10.1	47 109-236 181 ± 125	48 86-414 261 ± 176	Wat toxicity: poor survival rates ⁵ Sed chem: toxaphene ¹ Tissue('91): Ag(EDL95), dacthal(EDL85), DDT(NAS), endosulfan(NAS), toxaphene(NAS), ChemA(NAS) ³ Tissue('92): Cd(EDL95), Cr(EDL95), Ni(EDL85), Ag(EDL85), DDT(NAS), toxaphene(NAS), ChemA(NAS) ³		60 0.75-28.0 6.89 ± 5.01	60 2.6-33.6 11.0 ± 16.8	no data	2-77 Ba 166 Cd 1 Zn 100	H2O (8): b,d Sed(2): sb,sc,scd
R2: 5 13-25 19 ± 5	27 7.0-8.1 7.5 ± 0.3	173 2.6-10.9 7.0 ± 1.8	31 408- 1210 819 ± 154	20 250-608 482 ± 93	20 250-608 482 ± 93	6 0.2-0.5 0.4 ± 0.1	25 78-230 173 ± 31	25 99-386 264 ± 78			26 0.5-28.1 9.2 ± 7.0	31 1.6-25.0 9.4 ± 6.1	no data		
R3: 187 12-26 19 ± 3	223 6.8-8.6 7.6 ± 0.3		60 536- 1240 888 ± 69	43 960- 2080 1527 ± 273	39 240-792 545 ± 143	3 0.4-0.5 0.5 ± 0.04	41 70-242 172 ± 36	41 143-571 286 ± 95			58 ND-34.4 6.49#	60 0.2-22.1 3.7#	no data		
Arroyo Santa Rosa R1 (confl Conejo to Knob Lane) and R2 (abv Knob Lane)		403.63 403.65	4.09 and 4.55	CA404.0370R and CA404.0380R	8 impaired				Unassessed						
Trib from Olsen Rd POTW		403.65	2.74	CA404.0390R		U F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan								
350 7-24 18 ± 3	350 7.0-8.4 7.9 ± 0.3	348 3.2-11.5 7.5 ± 1.2	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data
Conejo Creek/Arroyo Conejo North Fork 303(d)-low		403.64	6.51	CA404.0420R		N FT N F F N	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption Basin Plan		TDS,SC,CHL TDS,SC,SO4,AMM CHL, AMM,TIS(chlordane,DDT) <u>TIS(chlordane,DDT)</u> TDS,CHL,SO4			TIS(Cd, Ag): Fully but threatened		Natural sources (m) Agriculture runoff (m) Urban runoff (m) Sediment (m) POTW effluent (m) Grazing (s) Sewage spills (s)	
282 6-26 17 ± 5	301 6.6-8.8 7.9 ± 0.6	267 4.5-12.9 8.9 ± 1.7	42 460- 1470 1023 ± 246	23 789- 2240 1766 ± 316	19 235-884 649 ± 152	3 0.2-0.5 0.4 ± 0.1	22 75-324 231 ± 14	22 43-455 299 ± 105	Tissue('90) no organic chemicals at elevated levels ³ Tissue('91): Cd(EDL85) ³ Tissue('93): chlordane(MTRLs), DDT(MTRLs), Ag(EDL85) ³		40 ND-24.8 4.2 ± 7.5	35 0.2-4.5 2.1 ± 1.2	no data	Cu and Zn (19) Zn 20 no other metals scanned	1 ND
Arroyo Conejo South Branch		403.64	6.25	CA404.0450R					Unassessed						
2 19-19	no data	no data	2 1720- 2200	2 2820- 3310	no data	2 0.2	2 187-208	2 669-982	no data	no data	2 1.5-2.5	no data	no data	no data	no data
Arroyo Las Posas R1 (Lewis-Somis Rd to Fox Barranca) and R2 (Fox Barranca to Moorpark Frwy (23))		403.12 403.62	1.99 and 9.62	CA404.0590R and CA404.	8 interm	N N N	Agriculture Drinking: Primary Drinking: Second. Aquatic life		TDS*,SC*,CHL*,B* SO4* TDS*,SC*,SO4*,AMM* AMM*, Sed(DDT)					Natural sources (m) Agriculture runoff (m) Urban runoff (m) Sediment (m)	

Reach/location (Calleguas Creek Watershed)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	NH3	N+N	Fec Col	metals	Org Chem
303(d)-low 319				0600R		FT F	Recreation: cont. Recreation: non-c Basin Plan		AMM* TDS*,CHL*,SO4*,N+N				POTW effluent (m) Grazing (s) Fuel spills (s)	
4 18.9-28 22 ± 3	4 7.5-8.0 7.9 ± 0.2	no data	5 1120-1280 1194 ± 52	4 1630-1800 1728 ± 62	3 460-580 513 ± 50	4 0.7-0.9 0.8 ± 0.1	4 142-190 171 ± 18	4 401-500 438 ± 39	Sed Chem('88): DDD(204ppb), DDE(1084ppb), DDT(2339ppb)[RWQCB data]	4 2.3-4.6 3.95 ± 0.96	5 9.0-12.3 11.3 ± 1.2	no data	Al 30 no other metals scanned	H2O (1): ND Sed(1): sb,sc,sd
Fox Barranca		403.62	3.03	CA404.0610R					Unassessed					
Mahan Barranca		403.62	4.4	CA404.0660R					Unassessed					
Arroyo Simi R1 (~Moorpark Frwy (23) to Brea cyn) 303(d)-low		403.62	7.58	CA404.0710R	15 interm	N P N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4*,B* TDS*,SO4*,AMM* SO4*,AMM*,ALGAE ALGAE TDS*,CHL*,SO4*,B*		TIS(Cr, Ni, Ag, Se,Zn); AMM*, Temp, TOX (3 are FT) COLOR		Natural sources (m) Agriculture runoff (m) Urban runoff (m) POTW effluent (m) Grazing (s) Spills (s)	
218 9-32 19 ± 4	213 6.9-8.9 8.0 ± 0.3	208 5.2-12.4 8.5 ± 1.2	7 1120-2600 1751 ± 470	10 1620-4550 2402 ± 827	3 535-1000 838 ± 215	10 0.4-1.4 1.1 ± 0.3	10 133-1190 277#	7 185-1000 642 ± 278	Tissue('91) Cr(EDL95), Ni(EDL85), Se(EDL95), Ag(EDL85), Zn(EDL85) ³ Wat toxicity: poor survival rates ⁷ Temperature ⁷	7 0.03-16.1 6.11#	10 1.4-14.8 4.7 ± 3.8	no data	no data	no data
Arroyo Simi R2 (abv Brea Cyn)		403.67	11.12	CA404.0770R	15 interm	N F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4*,B* TDS*,SC*,SO4*, TDS*,CHL*,SO4*,B*				Ground water de-watering (m) Natural sources (m) Agriculture runoff (m) Urban runoff (m) Grazing (s)	
4 12-29 22 ± 7	7 7.7-9.0 8.3 ± 0.4	no data See Simi Report	7 492-2380 1654 ± 619	7 825-2700 2121 ± 670	2 1000-1030 1015#	7 0.2-1.5 0.9 ± 0.5	7 53-180 130 ± 50	7 222-1040 800 ± 307	no data	2 0.08-0.1 0.09 ± 1.5	7 0.85-5.2 3.3 ± 1.5	no data	0-1 As 2 Ba 100	1 ND
Tapo Cyn R1		403.67	5.23	CA404.0880R					Unassessed					

Los Angeles River watershed

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
Los Angeles River Estuary (Queensway Bay)		405.12	3.71	CA409.00 00E		FT U U	Aquatic life Recreation: cont. Recreation: non-c Basin Plan					TIS(Chlordane,DDT),Sed(PAHs,Chlor dane): Fully but threatened		Urban runoff (m) Dredging activities (m) POTW effluent (m) Spills (s) Industrial point sources (m) Illegal dumping (m)	
									Sed tox: good survival rates ² Sed Chem: PAH (2ppm), chlordane (15 ppb) ² Benthic community: slightly impaired ² Tissue ('86): chlordane (150ppb), DDT(250ppb) ¹						
Los Angeles River R1 (Estuary to upstream Carson St) 303(d) low		405.12	2.01	CA409.00 10R		FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		(NO2) pH,TDS,SC,AMM pH,AMM,Pb pH,TURB*,AMM,COLIFORM,TRASH,SCUM,ALGAE,COLOR <u>COLIFORM, TRASH, SCUM, ALGAE</u>			CHL		Natural sources (m) POTW effluent (m) Illegal dumping (s) Transient encampments (s) Oil/waste spills (m) Urban runoff (m) Horse corrals (s)	
145 7-34 22±6	148 7-10.6 9.2±0.9	80 9.1-24 19.2±2.4	95 399-926 683±85	141 624-1310 1061±99	87 153-464 275±55	68 ND-0.93 0.5±0.2	94 44-205 131±28	93 115-307 188±42	no data		94 ND-8.2 2.7±2.4	94 0.01-13.16 4.6±2.4	91 ND-93000	68-87 As 37 Ba 630 Cd 42 Cr 20 CrVI 16 Cu 40 Pb 120 Se 3 Zn 340 Be 0.5 Ni 86	H2O(11): s,af (68)be
Los Angeles River R2 (Upstream Carson St. to Figueroa St.) 303(d) low		405.15	19.37	CA409.00 20R	28 interm	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,AMM AMM,Pb AMM,COLIFORM,TRASH, SCUM,ALGAE,COLOR <u>COLIFORM,TRASH, SCUM,ALGAE</u>			pH,ODOR,OIL,Turb <u>ODOR, OIL</u> CHL,N+N		Natural sources (m) POTW effluent (m) Illegal dumping (s) Transient encampments (s) Spills (s) Urban runoff (m) Horse corrals (s)	
156 7-32 19±5	163 6.7-9.7 8.1±0.6	21 9-18 13.2±2.5	152 300-972 672±92	142 427-1318 1056±127	142 150-466 271±52	142 ND-1.8 0.5±0.2	163 37-226 125±30	160 88-370 190±49	no data		162 ND-29.8 6±4.5	160 0-19.2 6.2±3.8	156 ND-230000	54-142 As 190 Ba 290 Cd 2 Cr 70 CrVI 17 Cu 210 Pb 140 Se 15 Zn 2300 Hg 1 Ni 70	H2O(11): d,n,p,s,u, y,av, be(138)
Compton Creek 303(d) low		405.15	8.52	CA409.00 40R	8 interm	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, AMM Cu,Pb AMM,COLIFORM <u>COLIFORM</u>			pH pH		Natural sources (m) POTW effluent (m) Illegal dumping (s) Fuel spills (s) Urban runoff (m) Horse stables (s)	
58 8-28 20±5	59 6.9-9.9 8.1±0.6	8 1.8-7 5.5±1.7	58 180-1386 531±152	52 270-2230 851±234	52 85-348 229±50	52 ND-1.1 0.3±0.2	59 19-520 99±62	58 28-283 120±44	no data		58 ND-12.1 0.7±1.7	57 ND-7.6 0.4±1.1	57 ND-130000	51 As 28 Ba 312	H2O (1) ND (51)be

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
														Cd 10 Cr 40 CrVI 15 Cu 230 Pb 200 Se 7 Zn 1000 Ni 50	
Rio Hondo R1 (Confluence LA River to Santa Ana Frwy) 303(d) -low		405.15	4.19	CA409.00 80R		FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,AMM AMM,Cu,Pb,Zn AMM,COLIFORM,TRASH TRASH CHL			CHL,pH COLIFORM SO4		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m)	
56 8-38 21±6	57 7.3-9.9 8.3±0.6	1 12	57 138-2020 786±331	56 200-2850 1194±464	56 60-653 282±102	56 ND-0.8 0.3±0.2	57 12-559 164±107	57 22-561 209±106	no data		57 ND-2.6 0.34±0.47	57 ND-5 0.7±1.1	60 ND-28000	56 As 67 Ba 333 Cd 10 Cr 30 CrVI 42 Cu 63 Pb 110 Se 14 Zn 1340 Hg 1 Ni 30	H2O(2): c,e be scanned 55 times and detected above detection limit
Rio Hondo R2 (at Spreading Grounds) and R3 (Spreading Grounds to Whittier Narrows Dam) and R4: at Whittier Narrows Flood Control Basin 303(d) -low		405.15 405.15 405.41	2.71 and 1.36 and 3.10	CA409.00 90R and CA409.01 00R and CA409.01 10R	20 interm	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,AMM AMM COLIFORM, AMM			DO: fully but threatened Turb COLIFORM N+N		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m)	
R2: 60 8-26 18±4	65 6.7-10.7 7.8±0.6	no data	65 104-669 506±134	64 129-1084 804±215	65 48-324 220±51	64 ND-0.5 0.2±0.1	65 11-178 85±33	65 17-297 142±63	no data		65 ND-18.2 4.4±4.6	64 0.2-14.5 2.7±3.2	61 ND-90000	61-130 Ag 30 As 44 Ba 430 Cd 20 Cr 20 CrVI 49 Cu 57 Pb 80 Se 13 Zn 240 Ni 45	H2O(7): b,d,e,f,g, n,t,ad (65)be
R3: 28 10-27 18±4	29 7-8.9 8±0.3	28 4.9-19.5 10.7±3.1	28 283-730 538±117	28 394-1080 842±160	27 152-348 227±41	no data	28 5-128 79±35	28 50-229 142±43	no data		no data	1 5.73	no data		
R4: 116 8-29 19±4	124 6.6-8.6 7.8±0.4	59 1.8-19 7.9±3.3	124 ND-653 486±128	124 273-1085 789±189	124 12-369 221±56	65 ND-0.5 0.2±0.1	124 1-52 71±28	124 3-281 137±61	no data		65 ND-22.3 6.7±5.9	65 0.2-21 3.4±4.2	65 ND->160000		
Garvey Reservoir		405.41	33 ac	CA409.01 50L	1610 unkn				Unassessed						
Rio Hondo R5 (Whittier Narrows Flood Control Basin to Peck Road Park Lake) and R6 (Peck Road Park Lake to Santa Fe Flood Control Basin)		405.41 405.33	5.16 and 2.82	CA409.01 90R and CA409.06 70R	20 interm				Unassessed					Urban runoff (m)	
no data	no data	no data	2 241-518 380±139	no data	1 204	1 ND	2 32-136 84±53	2 26-39 33±7	no data		no data	1 3.5	no data	3 Ba 48 Cd 2 Cr 47 Cu 27 Pb 12 Zn 92	H2O(4): y
Eaton Wash R1		405.41	4.98	CA409.02					Unassessed					Urban runoff (m)	

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs *
(confluence Rio Hondo to Huntington Drive) and R2 (Huntington Drive to Eaton Canyon Reservoir Dam)		405.31	and 2.84	20R and CA409.02 40R											
no data	1 9.1	no data	2 213-271	no data	1 104	1 ND	2 26-38	2 38-55	no data		no data	1 0.6	no data	no data	H2O(1)N D
Eaton Canyon Reservoir		405.31	0.066	CA409.03 20L											
Eaton Canyon Creek R3 (upstream of Reservoir)		405.31	6.95	CA409.03 30R					Unassessed					Urban runoff (m)	
no data	1 7.8	no data	2 212-213 212±1	no data	1 166	1 0.2	2 7-9 8±1	2 18-20 19±1	no data		no data	no data	no data	no data	no data
Peck Road Park Lake 303(d)-low		405.41	166 ac	CA409.04 90L	80 interm	F N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		<u>DO,Pb,TIS(DDT,chlordane)</u> <u>AMM,ODORS,TRASH</u> <u>ODORS,TRASH</u> <u>TIS(DDT,chlordane)</u>					Natural sources (m) Urban runoff (m) Aerial deposition (s) Recreational use (m)	
195 10-26 17 ± 5	181 6.9-8.8 7.7 ± 0.5	195 0.2-15.2 6.0 ± 4.0	90 116-271 175 ± 32	90 169-427 276 ± 52	no data (220)	no data	90 5-36 9.2 ± 8	90 8-44 20 ± 8	Tissue ('91): chlordane(MTRLs), DDT(MTRLs) ³ Tissue ('92): No organic chemicals at elevated levels ³		90 ND-1.2 0.14#	90 ND-1.1 0.5 ± 0.4	no data	90 Ag 1.1 As 6 Cu 69 Pb 73 Se 2 Zn 47 Ni 23	41+ a,m,s,t,v, w,y,z,ag, aj,al,aa,a d,au,av,a w,ax,az,b o,bp
Santa Anita Wash R1 (Peck Road Park Lake to Foothill Blvd) and R2 (Foothill Blvd to Dam at Carolwood Dr) and R3 (Debris Basin at Carolwood Dr. to Santa Anita Reservoir)		405.41 405.33 405.33	1.33 and 3.5 and 1.06	CA409.05 00R and CA409.05 10R and CA409.05 50R		F F FT F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		COLOR					Natural sources (m) Urban runoff (m)	
no data	2 8.4 8.4±0	no data	3 230-381 283±70	no data	1 220	2 ND-0.1 0.05±0.05	3 12-32 19±9	3 16-41 25±11	no data		no data	1 4.4	no data	no data	no data
Santa Anita Reservoir		405.33	0.021 ac	CA409.05 80L	17 unknown				Unassessed						
Santa Anita Canyon Creek R4 (upstream of Reservoir)		405.33	4.84	CA409.05 90R					Unassessed						
3 15-25 18±4	15 7.8-8.5 8.1±0.2	3 8.1-8.3 8.2±0.1	18 130-320 205±46	15 170-530 348±79	14 100-206 158±27	no data	15 4-10 7±1	15 7-150 23±34	no data		no data	15 0.16-1.37 0.7±0.4	5 ND-300	1-15 Ba 32 Cu and Zn (15) Cu 40 Zn 11	no data
Sawpit Wash R1 (Confluence Rio Hondo to Dam at Spanish Canyon) and R2 (Debris Basin at Spanish Canyon to Sawpit Dam)		405.41 405.33	5.45 and 0.36	CA409.06 90R and CA409.07 30R		F F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan							Urban runoff (m)	

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
no data	1 9	no data	3 83-231 170±63	1 256	2 107-150 129±22	2 ND	3 10-136 54±58	3 11-44 29±14	0		1 0.8	2 ND-0.8 0.4±0.4	no data	2 Ba 58	H2O(1)N D
Monrovia Canyon Creek 303(d) - low		405.33	2.90	CA409.07 40R		F N FT F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		Pb		AMM			Natural sources (m) Urban runoff (m) Unknown sources (s)	
65 6-24 16±4	68 7.4-8.9 8.2±0.3	no data	68 200-638 278±57	68 331-882 450±74	68 160-260 213±23	68 ND-0.5 0.1±0.1	68 4-8720 138±1049	68 14-209 30±23	no data		68 ND-4.3 0.1±0.5	68 0.18-9.54 1.5±1.6	67 ND-300	68 As 11 Ba 182 Cd 18 Cr 10 Cu 40 Pb 40 Se 6 Zn 230 Hg 2 Ni 85	H2O no data (68)be
Sawpit Reservoir		405.33	10 ac	CA409.07 60L					Unassessed						
Sawpit Canyon Creek R3 (upstream of Reservoir)		405.33	3.51	CA409.07 70R					Unassessed						
Hollenbeck Park Lake		405.15	4.75 ac	CA409.08 70L	5 unknown				Unassessed						
Belvedere Park Lake 314		405.15	4 ac	CA409.08 80L	2 intermedi ate	F F F	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		Lake was restored to Fish and Game specifications in 1995. pH pH,AMM,DO,Cu,Pb,EUT, TIS(chlordane, ChemA) AMM,pH,ODORS,TRASH,ALGAE ODORS,TRASH,ALGAE		TIS(Cr,Cu,Pb,Zn)			Natural sources (m) Urban runoff (m) Aerial deposition (s) Nutrient-rich sediments (m) Septic systems (m) Recreational use (m)	
34 12-28 21 ± 5	34 7.0-10.1 8.8 ± 0.6	34 0.5-18.5 8.2 ± 5.0	34 19-722 417 ± 216	34 100-1115 662 ± 327	no data (300)	no data	34 8-163 83 ± 53	34 10-155 102 ± 53	Tissue ('91): Cr(EDL85), Cu(EDL95), Pb(EDL95), Zn(EDL95), chlordane(NAS), ChemA(NAS) ³ Tissue ('92): Pb(EDL85), Zn(EDL95), chlordane(NAS), ChemA(NAS) ³		34 ND-1.5 0.20#	34 ND-0.18 0.04#	no data	34 Cd 1 Cu 81 Pb 51 Se 3 Zn 31 Ni 16	no data
Lincoln Park Lake 303(d)-low 314		405.15	7 ac	CA409.08 90L	5 intermedi ate	N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		TDS,SC,AMM AMM,Pb,EUT AMM,ODORS,TRASH ODORS,TRASH		DO:TIS(Cd)Fully but threatened pH			Natural sources (m) Urban runoff (m) Aerial deposition (s) Park runoff (m) Ducks (m) Recreational use (m)	
78 11-30 20 ± 5	68 7.2-9.1 8.1 ± 0.4	78 0.1-13.7 6.9 ± 3.3	28 419-701 619 ± 65	28 771-1045 962 ± 74	no data (300)	no data	28 57-93 79 ± 12	28 183-280 220 ± 29	Tissue ('91): No organic chemicals at elevated levels ³ Tissue ('92): Cd(EDL85) ³		28 ND-1.14 0.34 ± 0.32	28 ND-0.33 0.09#	no data	28 As 5.5 Cd 1.6 Cu 61 Pb 94 Zn 13	no data
Macarthur Park Lake		405.15	23 ac	CA409.09 00L					Unassessed						
Echo Park Lake 303(d)-low 314		405.15	2 ac	CA409.09 10L	15 intermedi ate	N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		AMM,Cu,Pb,EUT,TIS(PCBs) AMM,pH,ODORS,TRASH,ALGAE ODORS,TRASH,ALGAE		pH			Natural sources (m) Urban runoff (m) Aerial deposition (s) Algae treatment (m) Recreational use (m)	

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
						N	Fish consumption		TIS(PCBs)						
80 10-29 21 ± 6	69 7.0-9.4 8.5 ± 0.5	80 1.9-15.6 9.1 ± 2.6	31 249-453 345 ± 58	31 417-795 580 ± 105	no data (300)	no data	31 36-94 62 ± 16	31 51-144 89 ± 25	Tissue ('91): No organic chemicals at elevated levels ³ Tissue ('92): PCBs(MTRLs) ³		31 ND-0.71 0.11#	31 ND-0.2 0.04#	no data	31 Cu 105 Pb 105 Se 3 Zn 14	16+ a,p,s,m,v .w,y,z,ag, ay,ba,aj, al,aa,ab, au,av,ax, bo,bp
Elysian Park Lake		405.15	0.002	CA409.09 20L					Unassessed						
Arroyo Seco R1 (LA River to West Holly Ave) and R2 (West Holly Ave. to Devils Gate Dam) 303(d) -low 319		405.15 405.31	7.02 and 2.53	CA409.09 30R and CA409.09 70R	1 impaired 7 intermedi ale 10 unknown	F N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,AMM* AMM*,COLIFORM*, TRASH,ALGAE,COLOR TRASH,ALGAE					Natural sources (m) Urban runoff (m) Transient encampments (m) Illegal dumping (s)	
9 11-29 19±6	11 6.8-8.8 8.1±0.5	7 7.9-13 9.7±1.6	11 301-788 562±151	4 552-1200 899±241	4 184-453 317±95	4 ND-0.1 0.03±0.04	11 32-114 80±28	10 55-270 175±69	no data		10 ND-3 .5±0.9	10 1.8-6.5 3.7±1.5	7 ND-30000	4 Ba 176 Cd 3 Cu 20 Pb 43 Zn 133	H2O(4)N D (2)be
Eagle Rock Reservoir		405.25	0.012	CA409.09 60L					Unassessed						
Devils Gate Reservoir (empty)		405.32	0.183	CA409.09 90L					Unassessed						
Arroyo Seco R3 (upstream of Devils Gate Reservoir)		405.32	13.67	CA409.10 80R					Unassessed						
3 16-24 18±3	16 7.9-8.8 8.2±0.2	3 8.6-9.3 8.9±0.3	17 170-490 277±65	19 260-625 454±89	13 130-234 194±27	no data	14 5-18 13±4	14 1-160 35±36	no data		no data	15 0.1-2 0.8±0.6	6 ND-500	0-2 Ba 47 Cu and Zn (14- 15) Cu 30 Zn 30	no data
Silverlake Reservoir		405.15	0.115	CA409.13 40L	78 good				Unassessed						
Ivanhoe Reservoir		405.15	0.011	CA409.13 50L					Unassessed						
Los Angeles River R3 (Figueroa St. to Riverside Dr.) 303(d) -low 319		405.21	7.24	CA409.13 60R	18 interm 7 impaired	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC*,AMM AMM AMM,TRASH,ALGAE,ODOR, COLOR, TRASH,ALGAE,ODOR			TIS(Ag) Fully but threatened SCUM SCUM		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m)	
20 12-28 19±4	22 7.1-8.1 7.5±0.2	14 7.8-11 8.9±1	30 83-844 631±185	7 700-1238 1017±202	7 216-295 257±26	8 0.4-0.7 0.5±0.1	27 5-172 114±33	25 27-280 189±52	Tissue('95): Ag(EDL95) ³		20 2.2-14.9 9.1±2.7	20 3.1-7.6 4.5±1.1	12 110-800	7-17 As 7 Ba 65 Cd 3 Cr 28 CrVI 20 Cu 10 Pb 22 Zn 74 Hg 0.7	H2O(24- 28): b,c,d,e,g, h,i,j,l,n,p, r,s,t,u,v,x .be,bg,bh .bi,bj,bk

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
Sycamore Canyon (South Branch)		405.21	7.75	CA409.13 70R		FT F N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,AMM* AMM*,COLIFORM* COLIFORM*					Natural sources (m) Illegal dumping (s) Urban runoff (m)	
8 7-23 14±5	8 7.3-8.8 7.8±0.4	no data	8 548-730 605±52	8 867-1023 938±46	8 237-358 297±33	8 0.04-0.13 0.1±0.04	8 72-99 84±8	8 145-220 184±22	no data		8 ND-0.3 0.12±0.09	8 1.2-4.5 2.4±1.1	8 280-9E5	8 As 3 Ba 80 Cu 20 Pb 40 Zn 250	H2O(8):a .be
Verdugo Wash R1 (LA River to Verdugo Rd) and R2 (upstream of Verdugo Rd) 303(d) -low		405.21 405.24	3.41 and 5.55	CA409.13 90R and CA409.14 20R		FT F N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,AMM* AMM*,COLIFORM*,TRASH,ALGAE,COLOR COLIFORM*,TRASH,ALGAE					Natural sources (m) Illegal dumping (s) Urban runoff (m)	
6 10-24 18±5	9 7.3-9.2 8.2±0.6	7 8.6-11 9.4±0.8	7 468-726 600±85	2 900-1003 952±52	2 310-356 333±23	2 ND	9 60-133 91±22	8 101-191 149±31	no data		8 ND-1.3 0.3±0.4	8 1.1-3.8 2.6±0.8	6 ND-30000	2 Ba 224	H2O(2- ND)
Los Angeles River R4 (Riverside Dr. to Sepulveda Dam) 303(d) -low 319		405.21	11.84	CA409.16 20R		FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,AMM AMM,Pb AMM,COLIFORM,TRASH,SCUM,ALGAE,ODOR,COLOR COLIFORM,TRASH,SCUM,ALGAE,ODOR			CHL,SO4,N+N		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m) Spills (s)	
89 4-28 18±5	97 6.7-8.6 7.7±0.4	20 8-40 12.2±6.7	117 56-1146 632±195	74 604-1580 1078±163	74 116-550 260±90	77 ND-1 0.6±0.2	112 6-221 124±38	109 12-484 207±90	no data		95 ND-34.9 10.7±4.8	92 0.03-20.42 4.7±3.9	86 ND-90000	69-103 As 71 Ba 225 Cd 10 Cr 30 CrVI 14 Cu 70 Pb 120 Se 10 Zn 250 Hg 1 Ni 60	H2O(42): a,b,c,d,e, g,k,m,n,p .q,r,s,t,u, v,w,y,z,bi .av,bl,bm (71) be
Burbank Western Channel 303(d) -low		405.21	6.35	CA409.16 30R	6 interm	N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,SC*,AMM* AMM*,Cd* AMM*,TRASH,SCUM,ALGAE TRASH,SCUM,ALGAE			ODOR,COLOR ODOR		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m) Spills (s)	
10 10-26 19±4	11 7.2-7.8 7.5±0.2	7 9-13 10.2±1.3	10 515-987 692±126	4 900-1191 1033±134	4 184-340 272±56	4 0.3-0.6 0.5±0.1	12 101-182 133±24	11 82-270 188±	no data		11 8.3-16.3 12±2.7	11 0.4-11.7 3.9±3.0	6 ND-10	3 Ag 3 Ba 125 Cd 3 Cr 15 Cu 28 Pb 31 Zn 80	H2O(5): b,c,d,e,f, n,s,be
Tujunga Wash (LA River to Hansen Dam) 303(d) -low		405.21	9.68	CA409.19 20R	10 interm	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		pH*,TDS*,AMM* AMM*,Cu* AMM*,COLIFORM*,TRASH,COLOR TRASH			SCUM,ODOR SCUM,ODOR		Natural sources (m) Illegal dumping (s) Urban runoff (m)	
6 11-30	8 7.3-8.9	6 7-11	7 224-1358	2 1000- 1766	2 206-275	2 0.3-1.9	9 11-339	8 31-280	no data		7 ND-2.4	7 ND-0.22	5 ND-2300	3 As 21 Ba 136	H2O(3) be

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
18±6	8.3±0.5	9.2±1.4	663±322	1383±383	241±35	1.1±0.8	135±110	112±74			0.6±0.8	0.09±0.1		Cd 6 Cu 101 Zn 97	
Pacoima Wash South Branch (downstream of Pacoima Spreading Grounds)		405.21	4.02	CA409.19 30R					Unassessed						
1 17	no data	no data	no data	no data	no data	no data	no data	no data	no data		no data	no data	no data	2 As 19 Ba 65 Cu 22 Zn 88	H2O(3) d
Pacoima Wash R1 (Pacoima Spreading Grounds to Lopez Flood Control Basin) and R2 (Lopez Flood Control Basin to Pacoima Dam)		405.21 405.21	3.41 and 2.85	CA409.20 70R and CA409.21 10R	14 interm	F F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan								
2 27 27	4 8.1-8.2 8.1±0.1	1 8.1	13 220-590 345±96	10 300-690 512±103	10 160-320 236±45	no data	11 4-18 10±4	11 29-110 75±24	no data		no data	11 ND-0.5 0.18±0.19	5 ND-9	2 Ba 98 Se 8 Cu and Zn(11) ND	no data
Pacoima Reservoir		405.22	0.092	CA409.21 80L	68 unknown				Unassessed					Urban runoff (m)	
Pacoima Canyon Creek R3 (upstream of Pacoima Reservoir)		405.22	19.02	CA409.22 10R					Unassessed					Urban runoff (m)	
Hansen Lake		405.21	0.184	CA409.24 40L					Unassessed						
Middle Lake		405.21	0.005	CA409.24 50L					Unassessed						
Little Tujunga Canyon Creek		405.23	7.16	CA409.24 90R		F F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*,CHL*,SO4*						
2 27-29 28±1	no data	no data	10 410-623 497±76	7 500-943 763±147	7 253-408 328±59	no data	7 19-56 37±13	7 109-207 155±33	no data		no data	7 ND-1.13 0.39±0.37	2 11-105	Cu and Zn(7) Zn 11	no data
Big Tujunga Canyon Creek R1 (Hansen Flood Control Basin to Big Tujunga Reservoir)		405.23	15.13	CA409.26 80R		F F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan							Resource extraction (s)	
3 16-29 23±5	9 8-9.1 8.4±0.3	3 7.6-9.8 8.7±0.9	15 208-590 315±96	11 270-650 467±105	10 130-254 194±38	1 ND	12 6-14 10±2	12 19-67 38±14	no data		no data	11 ND-1.28 0.39±0.37	5 ND-52	2-3 Ba 82 Pb 9 Cu and Zn(11) ND	no data
Big Tujunga Reservoir		405.23	0.141	CA409.30 60L	84 unknown				Unassessed						

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
Big Tujunga Canyon Creek R2 (upstream of Big Tujunga Reservoir)		405.23	7.58	CA409.31 40R					Unassessed						
Lucas Creek		405.23	2.12	CA409.31 80R		F F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan								
2 19-20 20±1	12 7.4-8.7 8.3±0.3	2 8.3-9.1 8.7±0.4	15 200-420 262±51	12 270-470 397±50	12 125-219 171±22	no data	12 7-18 11±3	12 15-33 23±5	no data		no data	12 ND-2 0.27±0.54	3 2-8	1 Ba 82 Pb 4 Cu and Zn (12) Zn 10	no data
Upper Big Tujunga Canyon Creek		405.23	6.35	CA409.36 00R					Unassessed						
Los Angeles River R5 (within Sepulveda Basin) 303(d) - low 319		405.21	1.93	CA409.36 50R	18 interm 7 impaired	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*, SC*, AMM*, SO4* AMM, TIS(ChemA) TRASH, SCUM, ALGAE, ODOR, COLOR TRASH, SCUM, ALGAE, ODOR SO4*			TIS(Aq, Chloropyritos) OIL OIL		Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m) Recreational use (s)	
8 7-24 18±5	11 6.5-7.8 7.4±0.5	7 7-9.4 8±1	8 611-1260 822±224	4 890-1169 1011±101	4 172-301 224±48	4 0.5-1.2 0.8±0.3	11 93-176 132±23	11 142-632 336±177	Tissue(91): no elevated levels of organic chemicals Tissue(92): Ag(EDL95), chloropyritos(EDL85), ChemA(NAS)		10 2.2-20.1 8.8±6	10 0.5-15.7 3.8±4.1	6 300-1700	4-5 As 16 Ba 72 Cd 2 Cu 10 Se 7 Zn 61	H2O(8): b,c,d,e,f, g,n,r,t,u Sed(1)N D
Encino Reservoir		405.21	0.209	CA409.37 00L					Unassessed						
Bull Creek		405.21	8.78	CA409.37 30R	10 interm	FT F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*					Natural sources (m) Urban runoff (m)	
1 14	3 7.6-8.5 8.1±0.4	no data	4 500-953 660±181	3 796-1047 881±117	3 253-484 342±101	3 0.2-0.9 0.5±0.3	4 76-116 97±18	4 134-370 209±95	no data		1 1.1	3 ND-2 1±0.8	no data	4 As 14 Ba 117 Cd 2 Cu 15	H2O(1-5) n,y,z,be Sed(1) ba
Los Angeles Reservoir		405.21	0.257	CA409.37 90L	448 good				Unassessed						
Los Angeles River R6 (upstream of Sepulveda Flood Control Basin) 303(d) - low 319		405.21	6.17	CA409.38 90R	18 interm 7 impaired	N F N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4 TDS, SC*, SO4, AMM*, 1,1-DCE, PCE, TCE AMM*, COLIFORM* COLIFORM* TDS, CHL, SO4					Rising contaminated groundwater (m) Natural sources (m) POTW effluent (m) Illegal dumping (s) Urban runoff (m) Transient encampments (m)	
17 10-33 21±6	21 7-8.7 8.1±0.4	14 9-18 13±3	28 123-1960 1213±458	4 1268- 1700 1407±172	6 355-775 607±132	5 0.63-0.8 0.5±0.2	28 12-208 145±44	28 67-1030 596±226	no data		17 ND-2 0.3±0.5	19 0.8-8.6 3.4±2	13 170-9000	6-16 As 6 Ba 115 Cd 16 Cu 22 Pb 13	H2O(2- 32): a,b,c,d,e, f,g,h,i,j,k,l m,n,p,r,t, u,v,w,be,

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
														Se 14 Zn 11 Hg 0.65	bf, bn
Aliso Canyon Wash 303(d) -low		405.21	10.13	CA409.39 30R	15 interm	FT N N N	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS* Se* SO4*			COLOR		Natural sources (m) Unknown sources (m) Urban runoff (m)	
2 13-25 19±6	4 7.9-8.6 8.3±0.2	no data	5 592-978 768±155	3 878-1114 964±106	4 308-465 378±61	3 0.3-0.8 0.5±0.2	5 76-196 128±42	5 183-324 245±61	no data		2 0.2-1.2 0.7±0.5	4 2.1-4.2 3.1±0.8	1 1600	4 As 10 Ba 113 Cd 2 Cu 12 Se 9.3 Zn 65	H2O(2-3) be
Browns Canyon Wash R1 (Confluence LA River to Reservoir) and R2 (upstream of Reservoir)		405.21 405.21	7.56 and 2.44	CA409.40 60R and CA409.41 90R	2 interm	FT F F F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*					Natural sources (m) Urban runoff (m)	
2 14-24 19±5	3 7.5-8.8 8.2±0.5	0	4 305-1339 769±370	2 1100- 1350 1225±125	3 135-830 421±294	2 0.3-0.4 0.4±0.1	4 52-200 114±55	4 72-500 248±166	no data		no data	3 ND-1.8 0.7±0.8	1 ND	3 Ba 96 Cd 2 Cu 16 Se 6	H2O(4) r,s
Arroyo Calabasas		405.21	3.30	CA409.42 30R					Unassessed						
2 16-25 20±5	2 8.2-8.3 8.3±0.1	1 17	2 1960- 2490 2225±265	no data	1 1010	no data	2 217-240 229±12	2 947-1270 1109±162	no data		2 0.1-0.3 0.2±0.1	2 0.2-1 0.6±0.4	2 500-1700	no data	H2O(1- ND)
Lake Calabasas 303(d)-low		405.21	28 ac	CA409.42 40L	21 interm	FT N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		pH AMM, TIS(DDT), EUT AMM, ODORS ODORS TIS(DDT),			DO, pH, TIS(Cd, Cu, Zn)		Natural sources (m) Urban runoff (m) Aerial deposition (s) Algae treatment (m) Ducks (m)	
92 9-32 21 ± 6	85 7.4-9.3 8.6 ± 0.4	92 0.2-15.7 8.7 ± 3.3	28 322-561 433 ± 79	28 565-956 759 ± 139	no data (1010)	no data	28 78-167 126 ± 32	28 51-116 83 ± 20	Tissue ('91): Cu(EDL85) ³ Tissue ('92): DDT(MTRLs), Cd(EDL85), Cu(EDL95), Zn(EDL95) ³		28 ND-0.45 0.06#	28 ND-0.1 0#	no data	28 Cu 92 Pb 67 Se 2 Zn 11	no data
Bell Creek 303(d) -low		405.21	9.81	CA409.43 00R		N F N F	Drinking: Primary Drinking: Secondary Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4* TDS*, SO4* COLIFORM* TDS*, CHL*, SO4*			COLIFORM*		Industrial point source (m) Natural sources (m) Urban runoff (m)	
3 16-25 21±4	3 8.1-8.3 8.2±0.1	1 21	3 1320- 1470 1410±65	no data	2 665-780 723±58	no data	3 141-238 193±40	3 326-640 526±142	no data		2 0.1-0.2 0.2±0.1	3 0-3.5 2.1±1.5	3 ND-8000	no data	H2O(1- ND)
Chatsworth Creek R1 (downstream of Hidden Lake)		405.21	1.76	CA409.43 10R					Unassessed						

Reach/location (Los Angeles River)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
Chatsworth Reservoir		405.21	849 ac	CA409.43 60L					Unassessed						

San Gabriel River Watershed

Reach/location (San Gabriel)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
San Gabriel River Estuary 303(d) low 319		405.15	2.95	CA410.00 00E		N N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		<u>TIS(As)</u> COLOR <u>TIS(As)</u>			<u>TOX, TIS(Cu, Ag, Cr), HIST</u> Turb		POTW effluent (m) Urban runoff (m) Spills (s) Illegal dumping (s)	
									Tissue (90): Cu(EDL95), Ag(EDL95) ³ Tissue (91): Cr(EDL85), Ag(EDL85) ³ Tissue (92): As(MTRLs), Cu (EDL85), Ag(EDL95) ³ Tissue (93): Cu(EDL85), As(MTRLs) ³ Wat Bio Toxicity: poor survival rates ⁵						
Coyote Creek 303(d)		405.15	13.45	CA410.00 10R	17 inter	N N N	Drinking: Primary Drinking: Second . Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, SC, AMM AMM, Pb, TOX, HIST AMM, COLIFORM, ALGAE, COLOR COLIFORM, ALGAE NA			<u>CHL, TIS(Cr, Cu, Ag)</u> Turb		Natural sources (m) POTW effluent (m) Urban runoff (m) Spills (s) Illegal dumping (s)	
134 7-31 19 ± 6	144 7.1-9.9 8.0 ± 0.4	1 13.8	139 320-1922 925 ± 240	138 482-2600 1428 ± 298	139 134-632 331 ± 110	139 ND-3.7 0.4#	139 53-405 182 ± 58	138 91-583 262 ± 100	Tissue (92): Cr(EDL85), Cu (EDL85), Ag(EDL95) ³ Wat Bio Toxicity: poor survival rates ⁵		143 ND-32 5.1+6	140 ND-17.8 3.5 ± 3.0	71 ND-240000	139-143 Ag 30 As 74 Ba 800 Cd 10 Cr 90 CrVI 20 Cu 90 Pb 310 Se 14 Zn 770 Ni 30	16 d,g,ad, be scanned 138 times and detected above detection limit
Fullerton Drain/Creek			12.88	CA410.00 50R					Unassessed						
Coyote Creek North Fork			3.75	CA410.00 80R					Unassessed						
San Gabriel River R1 (Estuary to Firestone) 303(D) low		405.15	8.73	CA410.02 30R	9 impaired	N N P	Drinking: Primary Drinking: Second . Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, SC, AMM AMM, Pb, TOX, HIST AMM, COLIFORM, COLOR			<u>ALGAE, Turb</u> <u>COLIFORM, ALGAE, Turb</u>		Natural sources (m) POTW effluent (m) Urban runoff (m) Spills (s) Illegal dumping (s)	
72 13-30 22 ± 4	76 6.6-8.9 7.9 ± 0.5	no data	70 204-1456 763 ± 134	70 351-2290 1238 ± 217	70 132-410 243 ± 36	70 ND-1.2 0.5 ± 0.2	70 22-291 167 ± 37	70 39-450 171 ± 47	Wat Bio Toxicity: poor survival rates ⁵		77 ND-21.1 10.1 ± 4.1	69 0.79-26.5 6.9 ± 5.8	68 ND-50000	70-75 Ag 130 As 22 BA 219 Cd 20 Cr 20 CrVI 24 Cu 100 Pb 100 Se 17 Zn 340 Ni 30	17 b,d,f,g,k,n .r,t,v,y,z be scanned 69 times and detected above detection limit
El Dorado Lakes 303(d)-low 314		405.15	220 ac	CA410.02 30L	220 intern	N N N	Drinking: Primary Drinking: Second . Aquatic life Recreation: cont. Recreation: non-c		pH, AMM AMM, Cu, Pb, EUT, TIS(Hg) AMM, pH, ALGAE ALGAE			pH, TIS(Cr)		Natural sources (m) Urban runoff (m) Aerial deposition (s) Nutrient-rich sediments (m) Algae treatment (m)	
126 12-30	116 6.9-9.4	126 0.2-25.6	45 380-496	45 673-832	no data (240)	no data	45 65-83	45 ND-70			45 ND-1.92	45 ND-0.3	no data	45 As 28 Cu 99	29+ a,m,p,s,t,v .w,y,z,ag,

Reach/location (San Gabriel)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
22 ± 6	8.5 ± 0.6	7.0 ± 4.6	449 ± 26	753 ± 44			75 ± 6	40 ± 17			0.30#	0.03#		Pb 108 Zn 21 Ni 11	aj,al,an,a o,aa,ac,a d,au,av,a w,ax,ay,a z,ba,bb,b o,bp
San Gabriel River R2 (Firestone to Whittier Narrows Dam) 303(d) low		405.15	9.99	CA410.02 50R	9 interm	FT N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, SC,AMM AMM,Pb AMM,COLIFORM COLIFORM			N+N		Natural sources (m) POTW effluent (m) Urban runoff (m) Spills (s) Illegal dumping (s)	
46 9-27 19 ± 5	50 6.2-8.8 7.8 ± 0.5	no data	50 164-760 584 ± 120	49 269-1196 918 ± 191	50 116-330 240 ± 50	49 ND-17 5 ± 4.8	50 7-150 102 ± 29	50 20-335 150 ± 52			49 ND-16.5 5.2 ± 4.8	50 0.38-12.6 4.2 ± 3.6	48 ND-13000	49-50 As 22 Ba 198 Cd 10 Cr 10 CrVI 24 Cu 140 Pb 110 Se 20 Zn 120 Ni 103	2-9 f,g,n,r,af be scanned 47 times and detected above detection limit
Legg Lake 303(d)-low		405.41	40 ac	CA410.03 10L	70 good	FT N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		pH Cu,Pb ODORS,TRASH ODORS,TRASH			AMM,pH		Natural sources (m) Urban runoff (m) Aerial deposition (s) Algae treatment (m) Ducks (m) Recreational use (m)	
91 11-29 21 ± 6	84 7.6-8.9 8.3 ± 0.3	91 5.8-14.6 11.1 ± 1.7	43 179-248 207 ± 15	43 295-386 327 ± 29	no data (240)	no data	43 18-26 22 ± 2	43 39-55 46 ± 4	Tissue ('91): No organic chemicals at elevated levels ³ Tissue ('92): No organic chemicals at elevated levels ³		43 ND-0.35 0.05#	43 ND-0.2 0.02#	no data	43 Cu 97 Pb 70 Zn 134	13+ a,m,s,v,w, y,z,ac,av, ax,ay,az,b a,bb,bp
San Gabriel River R3 (Whittier Narrows to Ramona) 303(d) low		405.41	3.52	CA410.03 20R	(42)interm	FT N P F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS, SC TOX			TURB		Natural sources (m) Urban runoff (m) Spills (s) Illegal dumping (s) Municipal effluent (m) Poultry farm (s)	
27 9-26 16 ± 4	28 7.3-8.8 8.0 ± 0.4	26 3.8-12.9 9.0 ± 2.1	27 201-888 572 ± 156	27 300-1240 875 ± 235	27 120-470 247 ± 74	1 0.2	27 4-224 95 ± 45	27 24-265 157 ± 66	Wat Bio Toxicity: reduced survival rates ⁵		2 1.8-3.2 2.5#	1 0.9	no data	2 Ba 128 Cd 2	2 ND
San Jose Creek R1 (SG confl. to ~Temple Street) and R2 (~Temple to ~I- 10 at White Ave) 303(d) low		405.41 and 405.51	13.12 and 4.93	CA410.03 30R and CA410.04 60R	(16) interm	FT N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS,SC,SO4,AMM AMM,Pb AMM,COLIFORM,COLOR COLIFORM TDS,SO4			TOX pH, ALGAE ALGAE CHL		Natural sources (m) POTW effluent (m) Urban runoff (m) Fuel/oil Spills (s) Illegal dumping (s)	
68 9-27 17 ± 4	73 6.9-9.1 8.1 ± 0.4	1 8.4	73 591-1120 840 ± 129	71 780-1810 1235 ± 182	72 286-610 436 ± 91	73 ND-1.2 0.25 ± 0.19	73 65-292 130 ± 38	73 180-435 282 ± 52	Wat Bio Toxicity: reduced survival rates ⁵		74 ND-10.3 2.0 ± 3	72 ND-12.1 2.97#	68 ND-16000	70-72 As 11 Ba 282 Cd 30 Cr 150 CrVI 28 Cu 90 Pb 170 Se 13 Zn 190 Hg 2 Ni 120	4 s be scanned 69 times and detected above detection limit

Reach/location (San Gabriel)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	VOCs
Puente Creek		405.41	5.76	CA410.03 40R					Unassessed						
Walnut Creek Wash (goes to Puddingstone res) 303(d) low		405.41	13.9	CA410.05 90R	13 interm	FT N N F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TDS*, AMM* pH*, TOX AMM*, pH*					Natural sources (m) POTW effluent (m) Urban runoff (m) Fuel/oil Spills (s) Illegal dumping (s)	
3 14-29 22 ± 6	4 8.0-10.6 9.2 ± 1.0	1 10.7	4 471-629 581 ± 64	2 756-933 844#	3 136-270 224 ± 62	4 ND-0.2 0.13 ± 0.08	4 82-106 94 ± 9	4 112-230 189 ± 46	Wat Bio Toxicity: poor survival rates ⁵		3 0.2-1.6 1.03 ± 0.6	3 0.3-7 3.1 ± 2.9	no data	1-3 Ba 145 Cu 14	3 ND
Big Dalton Wash R1 (to lower reservoir)		405.41	10.42	CA410.06 00R					Unassessed					Urban runoff (m)	
Little Dalton Wash Creek R1 (below res)		405.41	6.96	CA410.06 30R					Unassessed					Urban runoff (m)	
Little Dalton Reservoir		405.41	8.6	CA410.06 70L					Unassessed					Urban runoff (m)	
Little Dalton Cyn Creek R2 (abv res)		405.41	3.96	CA410.06 80R					Unassessed					Urban runoff (m)	
San Dimas Wash R1 (Big Dalton to lower San Dimas Reservoir at ext of Oak Knoll)		405.41	7.93	CA410.06 90R					Unassessed					Urban runoff (m)	
San Dimas Creek R2 (Ham Cyn to San Dimas Reservoir)		405.44	3.30	CA410.07 20R					Unassessed					Urban runoff (m)	
San Dimas Reservoir		405.44	550 ac	CA410.07 60L	500 good				Unassessed					Urban runoff (m)	
San Dimas Wash R3 (abv res)		405.44	6.67	CA410.07 70R		F F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		FULLY SUPPORTING						
2 22-25 241	8 8.0-8.6	2 8.2-9.3	11 260-2710	8 390-610	8 200-265	no data	8 11-21	8 21-60	3 5-51	no data	8 0.3-1.0	no data		1 Ba 51 Cu and Zn (7) ND	no data
Big Dalton Wash R2 (between reservoirs)		405.41	1.85	CA410.09 80R					Unassessed					Urban runoff (m)	
Big Dalton Reservoir		405.41	21.9 ac	CA410.10 40L					Unassessed						
Big Dalton Wash R3 (abv reservoir)		405.41	2.99	CA410.10 50R					Unassessed						
Puddingstone Reservoir 303(d)-low 314 319		405.52	382 ac	CA410.11 80L	490 impaired	F F N N F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		DO, TIS(PCBs, chlordane, Hg, DDT) AMM		TIS(dacthal, oxadiazon, As) pH			Natural sources (m) Urban runoff (m) Aerial deposition (s) Recreational use (m)	

Reach/location (San Gabriel)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	AMM	N+N	Fec Col	metals	VOCs
						N	Fish consumption		TIS(PCBs,chlordan, Hg,DDT)					
187 10-28 18 ± 6	159 6.6-8.7 7.5 ± 0.5	187 0.1-14.9 4.3 ± 3.5	75 177-245 214 ± 18	75 266-451 375 ± 46	no data	no data	75 10-44 27 ± 13	75 15-49 34 ± 10	Tissue ('91): chlordan(MTRLs), PCBs(MTRLs), Dacthal(EDL85), oxadiazon(EDL95), As(EDL85), Hg(MIS) ³ Tissue ('92): Chlordan(MTRLs), DDT(MTRLs), PCBs(MTRLs), As(EDL85), oxadiazon(EDL95) ³	75 ND-5 0.29#	75 ND-2 0.6#	no data	75 Cu 130 (pb not scanned)	43+ a,m,p,r,s,t .v,w,y,z,a g,ai,al,am ,ap,as,aa, ad,ae,au, av,aw,ax, ay,az,ba, bb,bo,bp
Live Oak Channel/Wash R1 (Puddingstone to -Foothill)		405.52	4.45	CA410.11 90R					Unassessed					
Santa Fe Dam Park Lake 303(d)-low		405.41	70 ac	CA410.13 70L		FT N N F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		pH Pb, Cu AMM,pH		pH		Natural sources (m) Urban runoff (m) Aerial deposition (s) Recreational use (m)	
102 12-29 21 ± 6	95 7.5-9.6 8.7 ± 0.3	102 0.5-12.6 10.6 ± 2.0	37 181-346 259 ± 38	37 370-484 426 ± 35	no data (150)	no data	37 52-84 66 ± 10	37 30-54 45 ± 6	Tissue ('92): No organic chemicals at elevated levels ³	37 ND-0.4 0.7#	37 ND-0.2 0.02#	no data	37 Cu 56 Pb 51 Zn 65	no data
San Gabriel River R4 (Ramona to Santa Fe Spreading Basin Dam) and R5 (Santa Fe Spreading basin Dam to -ext Millbrae St) and R6 (-ext Millbrae St to Royal Oaks Drive Ext.) and R7 (Ext Royal Oaks Drive to Morris Dam)		405.41 405.41 405.42 405.43	3.67 and 2.0 and 1.29 and 5.57	CA410.13 30R and CA410.13 50R and CA410.14 10R and CA410.14 30R	42 interm	F F F FT F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		(Cd (n=1) IS ABV STND) Turb			COLOR		Natural runoff (m) Urban runoff(m) Resource extraction (m)
3 11-17 14 ± 3	5 7.7-9.1 8.3 ± 0.5	1 10.3	4 194-410 287 ± 86	2 335-600 468 ± 133	4 132-170 149 ± 15	2 ND	4 9-105 54 ± 43	4 19-78 42 ± 20		2 0.8-1.1 0.95 ± 0.15	3 0.6-1.6 1.0 ± 0.4	no data	2 Ba 67 Cd 2 Cu 13	2 ND
Morris Reservoir		405.43	442	CA410.15 00L	420 unknown	F F F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan					B		Former military testing
36 4-23 12 ± 4	46 7.0-19.0 8.4 ± 2.0	39 4.3-12.2 9.9 ± 1.7	41 140-438 215 ± 60	40 258-822 361 ± 96	31 140-246 176 ± 29	42 ND-1.6 0.2#	46 ND-95 7#	46 0.4-161 29 ± 25		1 0.7	need	no data	1 Ba 100	1 ND
San Gabriel River R8 (Morris reservoir to San Gabriel Reservoir)		405.43	0.95	CA410.15 60R					Unassessed					
San Gabriel Reservoir		405.43	820 ac	CA410.15 90L	500 good									
San Gabriel River West Fork R1 (to Cogswell res)		405.43	8.18	CA410.16 60R	18 good	F F FT FT	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		SO4*		TRASH: fully but threatened TRASH: fully but threatened		Recreational use (m) Illegal dumping (m)	

Reach/location (San Gabriel)		Hydro Unit	Size	Code	Prev WQA	WQA	Assessed Uses		Not supporting		Partially supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	AMM	N+N	Fec Col	metals	VOCs
4 7-18 12 ± 5	11 7.4-8.9 8.1 ± 0.4	1 9.0	9 45-300 182 ± 67	6 186-460 326 ± 95	7 90-183 148 ± 31	3 ND	9 3-8 5 ± 2	9 11-150 41 ± 42		no data	8 ND-0.45 0.16#	3 ND-4	2-4 Ba 69	no data
San Gabriel River North Fork		405.43	10.0	CA410.16 80R		F F FT FT	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan				COLOR: TRASH: fully but threatened TRASH: fully but threatened		Recreational use (h) Illegal dumping (m)	
4 7-15 11 ± 3	need	1 9.6	10 180-245 219 ± 19	7 273-390 358 ± 39	8 145-208 179 ± 16	3 ND-0.1 0.03#	10 3-8 5 ± 1	10 8-150 28#		1 0.7	9 ND-2.8 0.62#	3 ND-4	1-6 Ba 204 Zn 80	1 ND
Crystal Lake 303(d)-low 314 319		405.43	5.8	CA410.17 70L	5 impaired	N FT F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		DO AMM				Natural sources (m) Urban runoff (m) Aerial deposition (s) Recreational use (m)	
Cedar Creek		405.43	2.37	CA410.17 90R					Unassessed					
100 7-26 12 ± 6	100 6.3-8.5 7.1 ± 0.5	100 0.1-13.0 3.9#	40 83-179 125 ± 22	40 173-287 213 ± 27	no data	no data	40 1-5 3 ± 1	40 3-11 7 ± 1		40 ND-1.54 0.14#	40 ND	no data	no data	20+ a,s,v,w,y, z,ag,ak,a d,au,av,a w,ay,bc,b o
1 7	2 7.9-8.2	no data	2 178-208	1 299	2 178-180	1 0.2	2 3-4	2 ND-10		no data	1 0.68	no data	no data	no data
San Gabriel River West Fork R2 (Cogswell res to Red Box Gap)		405.43	8.14	CA410.19 20R					Unassessed					
San Gabriel East Fork 303(d)-low		405.43	12	CA410.19 80R	15 good	F F N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		TRASH TRASH SO4*				Recreational use (h) Illegal dumping (m) Septic systems (s)	
6 7-16 11 ± 4	14 7.8-8.9 8.2 ± 0.3	2 9.6-9.8 9.7#	12 166-252 211 ± 26	7 274-380 330 ± 36	9 140-216 176 ± 24	5 ND	12 2-8 4 ± 2	12 14-210 41#		1 0.6	11 ND-1.3 0.43#	2 <2	2-4 As 3 Ba 88 Pb 4 Zn 40	no data
Cattle Cyn Creek		405.43	8.98	CA410.20 60R	16 good	F F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Basin Plan		FULLY SUPPORTING					
1 8	3 7.9-8.3 8.0 ± 0.2	no data	3 220-263 242 ± 18	1 322	2 188-220 204#	2 ND	3 5-8 6 ± 1	3 14-30 21 ± 7		1 0.7	2 0.7-1.2 0.95 ± 0.25	no data	no data	no data

Islands

Reach/location (Islands)	Hydro Unit	Size (acres)	Code	Previous WQA acres status	WQA	Assessed Use	Not Supporting	Partially Supporting	Potential Sources
Fecal Coliform (Wet and Dry Weather)	Total Coliform (Wet and Dry weather)			Beach Closures		Fish Consumption	Tissue, Sediment, and Toxicity Data		
Anacapa Island: nearshore (Area of Special Biological Significance)	406.10	21280	CA414.01000	21280 good	F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
San Nicolas Island and Begg Rock nearshore (Area of Special Biological Significance)	406.20	102528	CA414.02000	102528 good	F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			Threat of military impacts
Santa Barbara Island: nearshore (Area of Special Biological Significance)	406.30	14000	CA414.04000	14000 good	F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
Santa Catalina Island: nearshore (Areas of Special Biological Significance 1-4)	406.40	17936	CA414.05000	17936 good	F F F F F	Drinking Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
							West side and at Ribbon Rock: Tissue-low to nondetectable levels of metals and pesticides ¹		
San Clemente Island: nearshore (Area of Special Biological Significance)	406.50	80512	CA414.06000	80512 good	F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			Threat of military impacts

Reach/location (Ventura County Coastal streams, lakes and estuaries)		Hydro Unit	Size (miles or acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	AMM	N+N	Fec Col	metals	Org Chem
Los Sauces Creek		401.00	4.7	CA401.0 030R					Unassessed					
no data	2 7.9-8.0	no data	2	2 1780- 1950	no data	no data	2 78-125	2 541-683		no data	no data	no data	no data	2 be
Javon Cyn		401.00	2.8	CA401.0 060R					Unassessed					
Padre Juan Cyn		401.00	3.6	CA401.0 070R					Unassessed					
A Lease Cyn (Dulah West)		401.00	1.9	CA401.0 080R					Unassessed					
Prince Barranca		402.10	1.4	CA401.0 120R					Unassessed					
Hall Canyon		402.10	7.1	CA401.0 130R					Unassessed					
Arrundell Barranca †		403.11	4.36	CA401.0 160R		N N U U	Agriculture Drinking: Primary Drinking: Second Aquatic life Recreation: cont. Recreation: non-c		TDS*, SC*, CHL*, B* SO4* TDS*, SC*, SO4* CHL*				Natural sources (m) Agricultural runoff (m) Urban runoff (m)	
7 15-26 19 ± 3	11 6.8-8.4 7.7 ± 0.5	no data	10 160- 5200 2736 ± 1710	11 253- 7870 3405 ± 2089	6 90-1605 747 ± 535	no data	11 13-1800 468 ± 520	11 42-2460 1092 ± 819		11 0.4-38.7 9.1#	11 0.2-1.2 0.8 ± 0.4	no data	1 ND	1 ND
McGrath Lake Ag Drain		403.11	0.5	CA401.0 200R					Unassessed					
McGrath Lake (Estuary) † 303(d)-low		403.11	18.7 ac	CA401.0 210E	40 ac intermed	N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish consumption		<u>Sed(DDT, chlordane, total pesticides), SED TOX</u>				Natural sources (m) Agricultural runoff (m) Oil spills(m) [Significant oil spill in December 1993]	
2 20-26	4 7.4-8.7 8.1 ± 0.5	no data	4 1810- 8340	4 2292- 12900 6197 ± 4198	2 845- 1220	4 0.6- 1.6 0.9 ± 0.4	4 236- 3830 1498 ± 1434	4 640- 1150 906 ± 181	Sed Chem: DDT (3ppm), chlordane (160ppb), other pesticides (3ppm) Sed tox: low survival rates ²	no data	3 1.8-11.8 7.8 ± 4.3	no data	no data	no data
West 5th Street Drain		403.11	2.14	CA401.0 250R					Unassessed					
Oxnard Drain #1		403.11	NEED	CA401.0 270R					Unassessed					
Oxnard West Drain †		403.11	3.3	CA401.0 280R					Unassessed					
1 18	3 7.0-7.9 7.5 ± 0.4	no data	3 584- 11200 4864 ± 4571	3 846- 15800 6545#	no data	3 0.4- 2.5 1.5 ± 0.9	3 60-4680 1640#	3 223- 1720 1128 ± 650	no data	no data	3 1.8-4.3 2.7 ± 1.1	no data	no data	no data

Reach/location (Ventura County Coastal streams, lakes and estuaries)		Hydro Unit	Size (miles or acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	AMM	N+N	Fec Col	metals	Org Chem
Hueneme Drain		403.11	1.17	CA401.0 300R					Unassessed					
J Street Drain		403.11	2.41	CA401.0 310R					Unassessed					
Oxnard Industrial Drain		403.11	4.31	CA401.0 320R					Unassessed					
Rice Pond Drain		403.11	3.56	CA401.0 330R					Unassessed					
La Jolla cyn		404.48	2.7	CA401.0 340R					Unassessed					
Big Sycamore Cyn †		404.47	10.3	CA401.0 350R		F F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c							
1 19	3 7.1-8.2 7.6 ± 0.4	no data	3 650-708 688 ± 27	2 980- 1020	no data	3 0.1- 0.3 0.2 ± 0.1	3 62-85 75 ± 10	3 138-223 180 ± 35	no data	1 0.2	3 0.4-1.1 0.8 ± 0.3	no data	no data	no data
Deer Cyn †		404.46	2.2	CA401.0 390R		N F F F	Agriculture Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS*,SC*,CHL* TDS*,SC*,SO4*				Natural sources (h)	
2 17	3 7.0-8.3 7.7 ± 0.5	no data	3 950- 1150 1038 ± 83	3 1301- 1450 1374 ± 61	no data	3 0.1- 0.2 0.17 ± 0.05	3 114-130 122 ± 7	3 256-284 272 ± 12	no data	no data	3 ND-0.4 0.22 ± 0.18	no data	no data	no data
Little Sycamore Cyn †		404.45	4.8	CA401.0 400R		F F F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS*,SC*,SO4*					
1 17	3 7.0-8.3 7.7 ± 0.5	no data	3 700- 1000 844 ± 123	3 1050- 1140 1090 ± 37	1 655	3 ND- 0.1 0.07 ± 0.05	3 47-80 63 ± 13	3 210-316 263 ± 43	no data	no data	2 0.5-2.1	1 170	no data	no data

Los Angeles County Coastal streams, estuaries and lakes

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
Lachusa Cyn		404.42	2.9	CA407.0 070R					Unassessed						
Zuma Cyn		404.36	6.9	CA407.0 140R					Unassessed						
Corral Cyn		404.31	4.1	CA407.0 220R		F FT F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4 TDS,SC,SO4		AMM			Natural sources (m) Unknown sources (m) Septic systems (s) Horse corals (m) Urban runoff (m)	
35 10-24 17 ± 4	34 7.7-8.5 8.1 ± 0.2	no data	36 120- 2518 1110 ± 446	34 189- 4385 1553 ± 696	36 75-1528 689 ± 243	36 ND- 0.5 0.2 ± 0.1	36 7-143 74 ± 25	34 46-1280 492 ± 210		35 ND-2.02 0.07#	36 ND-5.5 0.3#	35 ND-790	2 Ba 382 Cu 41	34 be [be only chemical scanned]	
Malibu Lagoon 303(d)-low 319		404.21	32.5 ac	CA405.0 000E	29 ac impaired	N N F N N	Aquatic life Recreation: cont. Recreation: non-c Fish consumption Shellfish Harvesting		Benthic community, TIS(As,Ni,Se,Pb) COLIFORM, Enteric viruses, swimming restriction TIS(As, Se, Pb) Advisory		TIS(Ag,Cr), EUT; Excessive freshwater -Fully but threatened		Natural sources (m) Unknown sources (m) Septic systems (s) Horse corals (m) Urban runoff (m) POTW effluent (m) Transient encampments (m) Artificial breaching of lagoon sandbar (m) Recreational use (m) Fires (m)		
									Tissue ('93): no elevated constituents ³ Tissue: no elevated constituents ¹ Sed tox: good survival ² Wat tox: possible impairment during storms ² Benthic community ¹² Tissue ('93): As(MFS,MIS), Ni(MFS), Se(MFS,MIS), Pb(MFS,MIS), Ag(EDL95), Cr(EDL95) ¹² Enteric viruses ⁶			Coliform ¹²			
Malibu Creek (lagoon to Malibu Lake) 303(d)-low except targeted for nutrients)		404.21	9.5	CA405.0 010R	6 interm 3 unknown	N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4 TDS,SC,SO4 Fish barrier, TIS(As,Se,Cr,Ni) AMM,TRASH,ALGAE TRASH,ALGAE		TIS(Cd,Cu,Pb,Ag) COLIFORM,SCUM,COLOR SCUM		Natural sources (m) Unknown sources (m) Septic systems (s) Horse corals (m) Urban runoff (m) POTW effluent (m) Transient encampments (m) Artificial breaching of lagoon sandbar (m) Recreational use (m) Fires (m) Fish barrier (m)		
101 8-28 18 ± 4	106 7.2-8.9 8.1 ± 0.3	19 6.2-12.8 8.5 ± 1.8	95 600- 2314 1358 ± 351	81 903- 3340 1839 ± 454	93 7-1300 751 ± 209	94 ND- 1 0.4 ± 0.2	95 47-225 143 ± 32	95 288-1245 623 ± 216	Tissue ('92): Cd(EDL95), Se(EDL85), Ag(EDL85) ³ Tissue('93): As(MFS,MIS), Se(MFS,MIS), Cr(MIS), Ni (MFS), Ag(EDL95), Cu(EDL95), Pb(EDL95) ¹²		108 ND-1.1 0.1#	113 ND-11.0 3.6 ± 3.0	83 ND-14000	66-78 As 32 Ba 55 Cd 20 Cr 50 CrVI 20 Cu 240 Pb 300 Se 65 Zn 270 Hg 1 Ni 90	H2O (6) d,be Sed (1): sc
Cold Creek		404.21	5.16	CA405.0 030R		F	Drinking: Primary Drinking: Second. Aquatic life		TDS*,SC*					Natural sources (m) Septic systems (s) Horse corals (m)	

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp.	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
						FT F	Recreation: cont. Recreation: non-c		AMM*,COLOR					Urban runoff (m) Grazing (s)	
18 11-20 17 ± 2	18 7.7-8.4 8.0 ± 0.2	8 8-10.2 8.9 ± 0.7	10 425-1060 759 ± 169	5 1070-1330 1139 ± 96	10 315-620 481 ± 89	10 0.3-3.6 1.1#	10 32-110 74 ± 22	10 62-734 257 ± 177	no data		19 ND-1 0.1#	22 ND-2.3 0.6#	7 ND-90000	0-2 As 3 Ba 770 Cd 10 Cr 380 Cu 180 Pb 100 Se 1 Zn 730 Hg 0.1 Ni 90	H2O no data Sed (1) sc
Las Virgenes Creek 303(d)-low except targeted for nutrients)		404.22	11.47	CA405.0 070R		N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4* TDS*,SC*,SO4* Se*, DO AMM,COLIFORM*,SCUM,ALGAE,TRASH,COLOR,Turb SCUM,ALGAE,TRASH					Natural sources (m) Septic systems (s) Horse corals (m) Urban runoff (m) Grazing (s) POTW effluent (m) Aerial deposition (m)	
22 10-25 18 ± 4	24 7.5-8.1 7.9 ± 0.2	12 3.1-15.6 7.9 ± 3.8	15 2560-3520 3042 ± 274	10 2680-4690 3776 ± 720	16 1200-1812 1570 ± 148	16 ND-0.8 0.5 ± 0.2	16 114-197 161 ± 27	16 1290-1919 1595 ± 191	no data		23 ND-1.4 0.1#	28 ND-4.7 2.0 ± 1.6	10 40-17000	4-5 Ag 3 As 3 Ba 60 Cd 10 Cr 2 Cu 10 Pb 100 Se 38 Zn 50 Hg 0.1	no data
Stokes Creek 303(d)-low except targeted for nutrients)		404.22	5.33	CA405.0 080R		F P F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4*					Natural sources (m) Septic systems (s) Horse corals (m) Urban runoff (m) Aerial deposition (s)	
8 12-23 17 ± 3	7 7.5-7.9 7.7 ± 0.1	5 7.8-16.8 11.1 ± 3.8	4 234-1150 891 ± 382	2 1860	4 103-690 478 ± 227	4 ND-0.5 0.3 ± 0.2	4 15-115 79 ± 40	4 148-321 269 ± 71	no data		12 ND-0.16 0.03#	12 0.7-8.8 3.7 ± 2.8	4 80-14000	1 Ag 3 Zn 140 Hg 0.5	no data
Malibu Lake 303(d)-low 314		404.24	69 ac	CA405.0 180L	55 intern	N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4 TDS,SC,SO4 DO,EUT,TIS(PCBs,chlordane) AMM,ALGAE ALGAE					Algae treatment (m) Natural sources (m) Urban runoff (m) Aerial deposition (s) Septic systems (m)	
112 10-30 19 ± 6	101 7.0-9.0 7.7 ± 0.3	112 0.1-20.4 6.9 ± 5.1	42 347-2287 1631 ± 451	42 534-3650 2105 ± 582	no data (1080)	no data	42 28-274 165 ± 64	42 115-1823 767 ± 364	Tissue (91): PCBs (MTRLs), Cd(EDL85), Cu(EDL95), Zn(EDL85) ³ Tissue (92): Chlordane(MTRLs), Cd(EDL85), Cu(EDL95), Zn(EDL85) ³		42 ND-0.66 0.1#	42 ND-2.2 0.44#	no data	42 Cu 62 Pb 89 Se 42 Zn 31 Ag 2.4 Ni 46	27+ a,m,p,s,t,u,w,y,z .ag,aj,al,aa,ab,a c,ad,au,av,ax,bp .ay,ba,bc
Medea Creek R1 (lake to conif with Lindero) and R2 (abv conif with Lindero) 303(d)-low (except targeted for nutrients). 319		404.24 404.23	3.01 and 5.44	CA405.0 190R and CA405.0 200R	7 intern	N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4* TDS*,SC*,SO4*,AMM* Se* AMM, COLIFORM,COLOR COLIFORM*					Natural sources (m) Horse corals (m) Urban runoff (m) Grazing (s) Aerial deposition (s)	

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources	
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data	AMM	N+N	Fec Col	metals	Org Chem
R1: 14 12-27 19 ± 4	15 7.4-8.2 7.9 ± 0.2	2 7.6-7.7	15 507- 2908 2236 ± 668	8 2390- 4200 3353 ± 670	14 298- 1600 1217 ± 392	15 0.04 - 0.71 0.37 ± 0.21	15 54-298 209 ± 61	15 235-1522 1130 ± 360	no data	11 ND-2.0 0.36#	16 0.3-3.8 1.3 ± 0.9	8 23-50000	0-8 As 4.2 Ba 68 Cd 10 Cr 3 Cu 20 Pb 100 Se 8 Zn 187 Hg 0.5	H2O: no data Sed(1): sc
R2: 4 11-21 17 ± 4	8 7.0-8.1 7.6 ± 0.4	no data	8 295- 2930 1979 ± 775	7 1900- 4350 3029 ± 871	8 172- 1820 1266 ± 484	8 ND- 265 33#	8 37-950 258 ± 271	8 134-1339 890 ± 376	no data	5 ND-0.50 0.22 ± 0.20	8 ND-1.1 0.6 ± 0.4	4 300-90000		
Lindero Creek R1 (Medea to Lake Lindero) and R2 (abv lake) 303(d)-low		404.23 404.23	2.2 and 4.8	CA405.0 210R and CA405.0 230R		N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4* TDS*, SC*, CHL*, SO4*, AMM* CHL*, Se* AMM*, COLIFORM, TRASH, ALGAE, COLOR COLIFORM, TRASH, ALGAE		SCUM SCUM		Natural sources (m) Horse corals (m) Urban runoff (m) Grazing (s) Aerial deposition (s)	
7 11-21 16 ± 4	12 7.5-8.2 7.8 ± 0.2	no data	12 326- 3460 2549 ± 1029	9 2830- 4730 3884 ± 682	12 158- 2140 1501 ± 653	12 ND- 0.5 0.17 ± 0.16	12 61-310 233 ± 81	12 79-1967 1295 ± 589	no data	7 ND-1.80 0.36#	12 0.3-4.2 1.0#	9 1700-90000	0-5 As 4 Ba 77 Cd 4 Cr 10 Cu 27 Se 10 Zn 131 Hg 0.6	no data
Lake Lindero 303(d)-low		404.23	13.56	CA405.0 220L	77 unknown	N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		SO4 TDS, SC, CHL, SO4 CHL, SC, Se, EUT, TIS(Se) AMM, ODORS, TRASH, ALGAE ODORS, TRASH, ALGAE TIS(Se)		TIS(oxadiazon)		Natural sources (m) Urban runoff (m) Aerial deposition (s) Algae treatment (m) Nutrient-rich sediments (m) Recreational use (m)	
81 10-31 21 ± 6	76 7.5-8.4 8.4 ± 0.2	81 1.1-18.2 11.0 ± 3.5	30 929- 3448 2477 ± 726	30 1325- 3530 2937 ± 747	no data (1490)	no data	30 89-330 244 ± 76	30 374-1610 1146 ± 368	Tissue('91): Se(MIS), Oxadiazon(EDL95) ³ Tissue('92): Se(MIS) ³	30 ND-0.49 0.10#	30 ND-1.3 0.4#	no data	30 Cu 86 Pb 69 Se 19 Ni 14	no data
Palo Comado 303(d)-low		404.23	7.78	CA405.0 240R		N N N P	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		SO4* TDS*, SC*, SO4*, AMM* CHL* AMM*, COLIFORM*		COLIFORM*		Natural sources (m) Horse corals (m) Urban runoff (m) Grazing (s) Aerial deposition (s)	
5 13-22 18 ± 3	5 7.2-8.0 7.8 ± 0.3	no data	5 486- 3502 2300 ± 1070	4 2390- 4900 3608 ± 1153	5 168- 1830 1270 ± 578	5 ND- 1.0 0.4#	5 26-283 164 ± 94	5 174-1932 1196 ± 634	no data	13 ND-1.8 0.7 ± 0.6	15 0.6-9.4 4.3 ± 3.0	4 220-30000	0-1 Ba 150 Cr 40 Pb 50 Zn 210 Hg 0.7	no data
Triunfo Cyn Creek R1 and R2 303(d)-low 319 (for 404.24 only)		404.24 404.25	4.06 and 1.98	CA405.0 260R and CA405.0 320R	7 interm	FT N FT F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS*, SC*, SO4* Hg*, Pb*		COLOR		Natural sources (m) Horse corals (m) Urban runoff (m) Grazing (s) Aerial deposition (s)	
6 13-24 19 ± 4	8 7.3-8.6 7.7 ± 0.4	1 4.5	8 430- 1014 778 ± 173	6 982- 1660 1269 ± 282	7 382-640 481 ± 81	8 ND- 0.2 0.04 #	8 40-130 94 ± 28	8 115-361 257 ± 72	no data	3 ND-0.17 0.06#	6 ND-1.4 0.4#	4 ND-2300	0-3 As 3.7 Ba 230 Cd 10 Cr 190 Cu 60 Pb 100 Zn 190	no data

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
														Hg 1	
Westlake Lake 303(d)-low 314 319		404.25	186 ac	CA405.0 330L	156 interm	N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		TDS,SC,SO4,AMM AMM,DO,Cu,Pb,EUT,TIS(chlordane) AMM,ALGAE ALGAE TIS(chlordane)			TIS(Cd,Cu,Zn)		Natural sources (m) Urban runoff (m) Aerial deposition (s) Algae treatment (m) Nutrient-rich sediments (m)	
135 10-30 20 ± 6	119 6.7-8.7 7.7 ± 0.4	135 0.1-19.3 4.9 ± 4.5	52 250- 1479 814 ± 275	52 378- 1490 1151 ± 344	no data (300)	no data	52 22-150 104 ± 41	52 66-381 251 ± 93	Tissue ('91): Chlordane(MTRLs), Cd(EDL85) ³ Tissue ('92): Cu(EDL85), Zn(EDL85) ³		52 ND-1.34 0.35 ± 0.33	52 ND-1.7 0.3#	no data	52 Cu 56 Pb 91 Se 15 Zn 12	31+ a,m,s,v,w,y,z,ag, aj,al,ap,aa,ab,ad ,au,av,aw,ae,bb, bc,ay,az
Potrero Cyn		404.25	2.59	CA405.0 380R					Unassessed						
Eleanor Trib R1 (blw Lake)		404.25	1.66	CA405.0 390R					Unassessed						
Lake Eleanor 314 319		404.25	8.17 ac	CA405.0 400L	8 interm	U U U U	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c							Natural sources (m) Aerial deposition (s)	
Lake Sherwood 314 319		404.26	213 ac	CA405.0 430L	184 interm	FT N N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c Fish consumption		AMM AMM,DO,EUT,TIS(Hg) AMM,ALGAE ALGAE TIS(Hg)					Natural sources (m) Urban runoff (m) Aerial deposition (s) Golf course runoff (m)	
170 9-32 17 ± 5	156 6.6-9.0 7.5 ± 0.6	170 0.1-16.3 4.0#	77 203-484 349 ± 58	77 290-685 541 ± 96	no data	no data	77 15-46 32 ± 9	77 6-140 93 ± 35	Tissue ('91): Hg(MIS) ³ Tissue ('92): Hg(MTRLs,FDA) ³		77 ND-5.97 0.81#	77 ND-1.4 0.4#	no data	77 As 6 Cu 179 Pb 88 Se 3 Zn 20 Ni 15	37+ a,m,s,v,w,y,z,ag, an,ap,al,aa,ab,a c,ad,au,av,aw,a x,bp,ay,ae,bb,ba ,bc
Hidden Valley Creek		404.26	4.75	CA405.0 480R					Unassessed						
Tuna Cyn		404.12	2.4	CA407.0 300R					Unassessed						
Topanga Cyn 303(d)-low		404.11	8.6	CA407.0 310R		N FT F	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS,SC,SO4 Pb			AMM		Natural sources (m) Horse corals (m) Urban runoff (m) Grazing (s) Aerial deposition (s)	
68 6-24 17 ± 4	68 7.4-8.7	1 7	69 680- 1800 1039 ± 169	68 967- 2005 1476 ± 193	68 456-792 600 ± 87	69 ND- 1 0.6 ± 0.2	68 12-175 108 ± 24	68 272-697 411 ± 104	no data		67 ND-0.49 0.03#	65 ND-4.3 0.5#	69 ND-1300	67-68 As 23 Ba 246 Cd 20 Cr 20 CrVI 13 Cu 40 Pb 230 Se 7 Zn 100 Hg 0.1 Ni 80	H2O(1) All ND be scanned 67 times and detected above detection limit Sed(1) sc
Santa Monica Cyn 303(d)-low		405.13	2.9	CA407.0 490R		N	Drinking: Primary Drinking: Second. Aquatic life		TDS,SC,SO4 Pb					Natural sources (m) Horse corals (m) Urban runoff (m)	

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue; Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
						N P	Recreation: cont. Recreation: non-c		AMM, COLIFORM			pH COLIFORM			
65 3-27 14 ± 5	68 7.7-8.9 8.2 ± 0.2	no data	68 562- 1254 911 ± 110	68 810- 1636 1324 ± 149	68 380-723 560 ± 58	68 ND- 0.8 0.2 ± 0.1	68 45-169 108 ± 25	68 10-512 304 ± 77	no data		68 ND-1.22 0.09#	67 0.7-9.1 3.2 ± 1.5	68 ND-16000	68 As 40 Ba 286 Cd 20 Cr 20 CrVI 12 Cu 40 Pb 240 Se 3 Zn 320 Hg 5 Ni 80	1 All ND TPH scanned 68 times and detected above detection limit
Pico Kenter Drain 303(d)-low		405.13	4.77	CA407.0 560R		N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS, SC, AMM CHL, AMM, Cu, Pb, TOX, PAHs AMM, COLIFORM, Enteric viruses COLIFORM			COLOR, TRASH TRASH		Natural sources (m) Urban runoff (m)	
60 9-34 16 ± 5	64 7.4-8.9 8.0 ± 0.3	no data	64 352- 20024 2541#	63 60- 38200 4019#	63 104- 3853 638 ± 789	64 ND- 3.2 0.4#	64 51-10403 1130#	64 67-1744 290#	Enteric viruses, PAHs, water toxicity ⁶		63 ND-4.57 0.65#	64 ND-13.3 2.0 ± 1.7	63 ND-160000	63-64 Ag 100 As 112 Ba 420 Cd 110 Cr 90 CrVI 20 Cu 293 Pb 460 Se 7 Zn 370 Ni 110	1-63 b,d,be
Ashland Avenue Drain 303(d)-low		405.13	0.57	CA407.0 570R		N N U	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS DO, TOX COLIFORM					Urban runoff (m) Natural sources (m)	
									TDS, DO, coliform, and toxicity data ⁵						
Ballona Creek Estuary 303(d)-low		405.13	2.5	CA406.0 000E		N N N N	Aquatic life Recreation: cont. Recreation: non-c Shellfish		SED TOX, Sed(Pb, Zn, DDT, aroclor, PCBs, PAHs, chlordanes), TIS(chlordanes, PCBs) COLIFORM Advisory					Urban runoff (m) Natural sources (m) Spills (m) POTW effluent (m) Industrial point sources (m) Combined sewer overflow (m)	
									Tissue ('88): chlordanes (~200 ppb), PCBs (550 ppb) ¹ Sed tox: low survival ² Sed chem: PCBs (200 ppb), PAHs (5 ppb), chlordanes (~100 ppb) ² Sed Chem ('91-92): Pb, Zn, chlordanes, DDT, DDE, DDT, aroclor ⁹ Sed chem('95): PAHs (6509ppb), PCBs, Pb(306ppb) ¹⁰						
Ballona Wetland 303(d)-low 319		405.13	86 degrade 151 total	CA406.0 040T		N(85) N N N	Aquatic life Recreation: cont. Recreation: non-c Fish consumption		TIS(As), habitat alteration, exotic vegetation, reduced tidal flushing, hydromodification TRASH TRASH TIS(As)			TIS(Pb, Cr)		Urban runoff (m) Natural sources (m) Flow modification (m) Habitat alteration (m) Construction runoff (m) Hydromodification (m) Periodic stagnation(m) Recreation (s)	
									Tissue ('93): As (MTRLs), Cr (EDL85), Pb (EDL95) ³ Habitat alteration, exotic vegetation, reduced tidal flushing.						

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
									trash ¹¹						
Ballona Creek 303(d)-low		405.13	4.3	CA406.0 050R	150 ac impaired	N N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c fish consumption		TDS,AMM Pb,SED,TOX,TOX,TIS(As,chlordane,DDT,dieldrin,PCBs,ChemA) Sed(Cd,TBT, Cu,Pb,Ag) AMM,COLIFORM COLIFORM TIS(chlordane, DDT, dieldrin, PCBs, ChemA)			CHL,TIS(Cr,Cu,Pb,Ag,Zn) pH,TRASH TRASH		Urban runoff (m) Natural sources (m) Fuel spills (m) POTW effluent (m) Industrial point sources (m) Sewage overflow(m) RCRA sites (m)	
210 4-29 16 ± 5	217 7.1-9.6 8.2 ± 0.4		216 176- 5810 824 ± 429	216 420- 9270 1236 ± 660	216 67-1280 382 ± 141	216 ND- 1.1 0.4 ± 0.2	217 13-3020 161#	217 1-467 210 ± 102	Tissue ('93): As(MTRLs), Cr(EDL85), Cu(EDL95), Pb(EDL95), Ag(EDL95), Zn(EDL95), chlordane(MTRLs, NAS), DDT(MTRLs), dieldrin(MTRLs), PCBs(MTRLs,NAS), ChemA(NAS) ³ Sed chem ('95): Cd,TBT, Cu,Pb,Ag ¹⁰		214 ND-4.48 0.20#	215 ND-10.9	214 20-160000	213-216 Ag 10 As 80 Ba 1200 Cd 30 Cr 60 CrVI 26 Cu 117 Pb 260 Se 27 Zn 1310 Hg 1 Ni 110	2-213 be,af
Sepulveda Canyon/Channel 303(d)-low		405.13	6.8	CA406.0 070R		N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		CHL,AMM,Pb AMM,COLIFORM COLIFORM			pH,COLOR		Urban runoff (m) Natural sources (m) Industrial point sources (m)	
66 8-26 17 ± 4	71 7.4-9.8 8.3 ± 0.4	no data	71 714- 7800 2966 ± 1844	70 1100- 10800 4740 ± 2939	70 360- 3400 1376 ± 815	71 0.1- 1.2 0.6 ± 0.3	71 1-4775 1311 ± 1040	71 114-754 357 ± 140	no data		69 ND-4.3 0.3#	70 ND-13.7 3.4 ± 2.1	69 20-50000	69-70 Ag 10 As 52 Ba 449 Cd 70 Cr 64 Cu 160 Pb 260 Se 2500 Zn 480 Hg 2 Ni 240	3-4 All ND TPH scanned 68 times and detected above detection limit
Polliwog Park Lake		405.12	3	CA407.0 650L	2 ac unknown				Unassessed						
Dominguez Channel estuary (to Vermont) and Dominguez Channel above Vermont 303(d)-low 319		405.12 405.12	8.4 and 9	CA408.0 120E and CA408.0 190R	7 interm.	N N N N	Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c Fish consumption		AMM, Sed(Cr,Zn,DDT,PAHs), Benthic community, CHL, Cu, Pb, TIS(aldrin,chlordane,DDT,dieldrin,PCBs) AMM,pH,COLIFORM,COLOR COLIFORM TIS(chlordane, DDT, dieldrin, PCBs)			pH,TIS(ChemA,Pb); Sed Chem(Pb, Zn)-Fully but threatened		Urban runoff (m) Natural sources (m) Oil/waste spills (m) POTW effluent (m) Industrial point sources (m) Historic DDT releases (m) Refinery discharges (m)	
73 6-27 19 ± 5	74 6.8-9.7 8.4 ± 0.6	no data	74 170- 20758 1579#	74 273- 28600 2394#	74 67-4050 431#	74 ND- 2.0 0.4 ± 0.3	74 50-13674 669#	74 27-1922 203#	NPDES monitoring-Sed chem: Cr(120ppm), Zn(290 ppm), DDT(1.5ppm), PAHs(2ppm) See also LA Harbor- Consolidated Slip below. Tissue ('92): aldrin(MTRLs), chlordane(MTRLs,EDL95), DDT(MTRLs,EDL95), dieldrin(MTRLs), PCBs(MTRLs,EDL95), ChemA(EDL95), Pb (EDL95) ³ Sed chem ('91): Pb(122 ppm), Cu(50 ppm), Zn(746 ppm) [RWQCB data]		71 ND-10.0 0.3#	73 ND-6.2 0.9#	70 2-49000	75 Ag 20 As 6 Ba 274 Cd 20 Cr 106 Cu 80 Pb 290 Se 29 Zn 2370 Ni 101 Hg 2	H2O (7) i,n,r,s be scanned 72 times and detected above detection limit Sed(1-2): sa,se,sc,si,sj,sk
Harbor Park Lake		405.12	45.2 ac	CA408.0 140L	50 impaired		Drinking: Primary Drinking: Second:		TDS					Urban runoff (m) Natural sources (m)	

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
303(d)-low 314 319						N N N N	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption		AMM,EUT,TIS(chlordane, ChemA,DDT,dieldrin, PCBs) AMM,ODORS,TRASH,ALGAE ODORS,TRASH,ALGAE ADVISORY(DDT,chlordane), TIS(chlordane, ChemA,DDT,dieldrin, PCBs)					Aerial deposition (s) Golf course runoff (m) Nutrient-rich sediments (m) Recreational use (m)	
49 11-29 22 ± 6	49 6.7-9.1 7.8 ± 0.5	49 4.9-15.0 8.2 ± 2.4	37 125- 1059 476 ± 268	37 204- 1393 752 ± 420	no data (440)	no data	37 15-173 82 ± 55	37 30-195 117 ± 58	Tissue('90): chlordane(NAS), ChemA(MAS) ³ Tissue ('910): chlordane(MTRLs, NAS), DDT(MTRLs), dieldrin(MTRLs), PCBs(MTRLs,NAS), oxadiazon(EDL95), ChemA(NAS) ³ Tissue ('92): chlordane(MTRLs), DDT(MTRLs) ³ Tissue ('93): chlordane (MTRLs, FDA), DDT(MTRLs), dieldrin(MTRLs), PCBs(MTRLs, NAS), oxadiazon (EDL95), ChemA(NAS) ³ Fish consumption advisory: DDT,chlordane-Goldfish or carp ⁴		37 ND-0.6 0.1#	37 ND-0.5 0.1#	no data	37 As 7 Cu 61 Pb 158 Zn 17	23+ a,m,s,r,v,w,y,z,a a,ab,ac,ad,ag,a u,av,aw,ax,bo
Wilmington Drain 303(d)-low		405.12	4.9	CA408.0 150R		N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		TDS,SC,SO4,AMM AMM,Cu,Pb AMM,COLIFORM COLIFORM			CHL		Urban runoff (m) Natural sources (m) Oil/fuel/waste spills (m) Industrial point sources (m)	
67 7-29 18 ± 5	66 6.7-8.8	no data	66 106- 1750 883 ± 409	66 158- 2850 1310 ± 598	66 48-900 438 ± 223	66 ND- 3.8 0.8 ± 0.7	66 16-398 169 ± 93	66 39-887 293 ± 197	no data		66 ND-18 1.0#	63 ND-7.6	67 33-160000	67 As 21 Ba 450 Cd 13 Cr 60 CrVI 12 Cu 140 Pb 290 Se 67 Zn 980 Hg 1.3 Ni 197	1 be
Torrance Carson Channel 303(d)-low		405.12	12.6	CA408.0 160R		N N N	Drinking: Primary Drinking: Second: Aquatic life Recreation: cont. Recreation: non-c		TDS,SC CHL,Cu,Pb AMM,COLIFORM COLIFORM			pH		Urban runoff (m) Natural sources (m) Fuel/oil spills (m) Industrial point sources (m)	
68 6-28 19 ± 5	69 6.7-9.3 8.2 ± 0.5	no data	69 326- 1174 799 ± 160	69 467- 1799 1260 ± 252	69 96-520 354 ± 89	69 ND- 1.3 0.4 ± 0.2	69 68-418 228 ± 79	69 33-321 101 ± 55	no data		69 ND-6.03 0.24#	68 ND-4.2 0.3#	69 130-930000	69 As 35 Ba 300 Cd 10 Cr 210 CrVI 74 Cu 60 Pb 90 Se 62 Zn 370 Hg 1.2 Ni 40	69 be [be only chem scanned]
Colorado Lagoon 303(d)-low 319		405.12	13.6 ac	CA408.0 260T	13 impaired	N U U N	Aquatic life Recreation: cont. Recreation: non-c Fish consumption		Sed(Pb,Zn,chlordane,PAHs),TIS(Cu, ChemA,chlordane,DDT,dieldrin,PCBs), SED TOX TIS(chlordane,DDT,dieldrin,PCBs)			TIS(dacthal,Chem A, Cu, Pb,Cd,Cr,Ni,Ag)		Urban runoff (m) Natural sources (m)	
									Tissue ('92): chlordane(MTRLs,EDL95), DDT(MTRLs), dieldrin(MTRLs, EDL95), PCBs(MTRLs,EDL85), ChemA(EDL95), Cu(EDL85), Pb(EDL85), Ag(EDL85) ³ Tissue('86): chlordane (320ppb) ¹ Sed chem: Pb(510 ppm), Zn(690 ppm), chlordane(140 ppb), PAHs(10ppm) ² Sed toxicity: poor survival rates ² Water toxicity: impairment unlikely ²						

Reach/location (LA Co. Coastal watersheds)		Hydro Unit	Size (miles / acres)	Code	Previous WQA	WQ A	Assessed Uses		Not Supporting		Partially Supporting		Potential Sources		
Temp	pH	DO	TDS	SC	Hard	B	Chl	SO4	Tissue, Sediment and Toxicity Data		AMM	N+N	Fec Col	metals	Org Chem
Sims Pond		405.15	3.2	CA408.0 265T		FT U U	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c					TIS(oxadiazon):Fully but threatened		Urban runoff (m) Natural sources (m) Spills (s)	
									Tissue: chlordane (320 ppb) ¹ Sed chem: Pb(510ppm), Zn(690ppm), chlordane(140 ppb), PAHs(10ppm) ² Sed tox: low survival ² Wat tox: slight toxicity ² Tissue(93): Oxadiazon(EDL95) ³						
Los Cerritos Estuary		405.15	54 ac	CA408.0 270E		F U U	Aquatic life Recreation: cont. Recreation: non-c							Urban runoff (m) Natural sources (m) Spills (s) Industrial point sources (m)	
Los Cerritos Channel 303(d)-low			16	CA408.0 290R		N N N	Drinking: Primary Drinking: Second. Aquatic life Recreation: cont. Recreation: non-c		TDS,SC,AMM AMM,Cu,Pb,Zn AMM,COLIFORM COLIFORM			pH		Urban runoff (m) Natural sources (m) Fuel spills (s) Industrial point sources (m)	
65 7-30 18 ± 5	69 3.3-9.1 8.2 ± 0.7	no data	69 300- 2458 684 ± 275	69 408- 3540 1040 ± 394	69 110-555 240 ± 66	69 ND- 0.9 0.3 ± 0.2	69 43-1278 154#	69 40-327 136 ± 61	no data		69 ND-2.19 0.34 ± 0.41	67 ND-16.0 0.6#	69 2-170000	70	2-3 all nd be scanned 69 times and detected above detection limit
Palos Verdes Channel		405.15	10.9	CA408.0 310R					Unassessed						

Ventura County Coastal Features and Bays

Reach/Location (Ventura County Coastal Features and Bays)	Hydro Unit	Size (miles or acres)	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal Coliform (Wet and Dry)	Total Coliform (Wet and Dry)			Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
Ventura County Nearshore zone: Pt Mugu to Latigo Point		11410	CA412.0000O	11410 ac good	F F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
Nearshore: other areas		ask Deb	CA412.0010O				Unassessed		
Ventura County offshore zone	401.00	ask Deb	CA412.0020O				Unassessed		
Rincon Beach (county line to Pitas Point)	401.00	7.73 mi	CA412.0030C				Unassessed		
Solimar Beach	401.00	3.86	CA412.0040C				Unassessed		
Emma Wood Beach	401.00	1.59	CA412.0050C				Unassessed		
Seaside Wilderness Park Beach	401.00	0.79	CA412.0060C				Unassessed		
Seaside Park Beach	402.10	0.57	CA412.0070C				Unassessed		
San Buena Ventura Beach	402.10	2.03	CA412.0080C				Unassessed		
Marina Park Beach	403.11	1.25	CA412.0090C				Unassessed		
Ventura Harbor: main harbor area (except Keyes area)	403.11	125 ac	CA412.0100B	223 good	F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption			Urban runoff (m) Recreational use (m)
no data	no data			none		no advisories	Tissue ('88): DDT(800ppb), TBT(8700 ppb), Cu(120 ppb), Zn(520ppb) ¹ Sed tox('93): good survival ²		
Ventura Harbor beaches	403.11	0.82	CA412.0110C				Unassessed		
Ventura Marina	403.11	33.3 ac	CA412.0120B				Unassessed		
Ventura Harbor: Ventura Keyes at Arrundell Barranca 303(d)-low 319	403.11	40 ac	CA412.0130B	195 interm	F N F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption	<u>COLIFORM</u>		Urban runoff (m) Agricultural runoff (m) Marina activities (s)
75%	96%			none		no advisories			
Marina Cove Beach	403.11	0.07	CA412.0140C	5 impaired			Unassessed		
Santa Clara River Estuary beach/Surfers Knoll 303(d)-low	403.11	0.56	CA412.0160C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>COLIFORM</u>		Urban runoff (m) Agricultural runoff (m)
	32%			none		no advisories			
McGrath Beach 303(d)-low	403.11	1.35	CA412.0170C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>COLIFORM</u>	<u>beach closures</u>	Oil spills (m) Urban runoff (m) Agricultural runoff (m)
	21-46%			1993(14 days) 1994(10 days) 1994(37 days)		no advisories	no data		
Edison Canal area beach	403.11	0.37	CA412.0180C				Unassessed		
Mandalay Beach	403.11	1.55	CA412.0190C		F	Aquatic life			Sewage spills (m)

Reach/location (Ventura County Coastal Features and Bays)	Hydro Unit	Size (miles or acres)	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
303(d)-low					P F F F	Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		<u>beach closures</u>	Urban runoff (m) Agricultural runoff (m)
				1995(3 days)		no advisories	no data		
Oxnard Beach	403.11	0.65	CA412.0120C				Unassessed		
Hollywood Beach	403.11	1.10	CA412.02100				Unassessed		
Hollywood by the Sea beach	403.11	0.30	CA412.0120C				Unassessed		
Channel Islands Harbor 303(d)-low	403.11	220 ac	CA412.0230B	220 ac interm	FT U U F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption		<u>Sed(Pb,Zn): FT</u>	Agricultural drains (m) Urban runoff (m) Harbor activities (m)
no data	no data			none		no advisories	Tissue ('86): DDT(2ppm), Zn(320 ppb) ¹ Sed tox('93): high toxicity during winter rainy season but low toxicity in re-samples later ² Sed Chem: Pb(180ppm), Zn(380ppm) ²		
Channel Islands Harbor beaches	403.11	0.64	CA412.0240C				Unassessed		
Mandalay Bay marina	403.11	75 ac	CA412.0250B						
Silver Strand Beach	403.11	1.00	CA412.0260C				Unassessed		
Port Hueneme Harbor (back basins) 303(d)-low 319	403.11	50	CA412.0270B	121 ac impaired	N U U F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption	<u>Sed(PAHs),TIS/DDT,PCBs,TBT,Zn</u> }		Naval activities (m) Spills (m) Urban runoff (m) Agricultural runoff (m)
no data	no data			none		no advisories	Tissue ('88): DDT(700ppb),PCBs(2000ppb), TBT(7000 ppb), Zn(400ppm) ¹ Sed tox: good survival ² US Navy-Sed Chem ('88): PAHs(10ppm)		
Port Hueneme Harbor (main harbor)	403.11	70	CA412.0275B	121 ac impaired	F U U F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption			Naval activities (m) Spills (m) Urban runoff (m) Agricultural runoff (m)
Port Hueneme Harbor Beaches	403.11	0.86	CA412.0280C				Unassessed		
Port Hueneme Beach Park Beach	403.11	0.68	CA412.0290C				Unassessed		
Ormand Beach	403.11	2.5	CA412.0300C				Unassessed		
Ormand Beach Wetland	403.11	9.8 ac	CA412.0310T				Unassessed		
Beach between Ormand Beach and Mugu Lagoon	403.11	4.37	CA412.0320C				Unassessed		
Mugu Lagoon Beach	403.11	8.22	CA412.0330C				Unassessed		
Leo Carrillo Beach (to county line)	404.45	0.47	CA412.0370C				Unassessed		

LA County Coastal Features and Bays

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
SANTA MONICA BAY NEARSHORE ZONE AND OFFSHORE ZONE: Hyperion 5 mile and 7 mile outfall area Joint Water Pollution Control Plant outfall area Palos Verdes shelf Marina del Rey area Santa Monica Pier area Manhattan Beach area Redondo Pier area Malibu Pier area Short Bank Point Dume area Malibu area Point Vicente area Palos Verdes-NW White's Point 310(d) - low 319		1995: 226 square miles total 30 square miles impaired		CA41 3.000 0B	1992: 239500 ac intermediate 16500 impaired	N (26) F F N (4) N (4)	Aquatic life Recreation: contact Recreation: non-c Fish Consumption Shellfish Harvesting	<u>SED TOX.TIS(Ag,DDT,Cr,Pb,PCBs), Sed(Cd,Cu,Pb,Hg,Ni,Zn,DDT,PCBs,chlordane, PAHs),debris</u> (see beach closures, COLIFORM below for impairment) <u>Advisories: (DDT,PCBs)</u>		Natural sources (m) POTWs (m) Dredge spoils dumping (s) Urban runoff (m) Spills (m) Refinery discharges (m) Historic DDT discharges (m) Generating stations (m) Marina activities (m) Aerial fallout (m) Natural oil seeps (s) Fires (s) Illegal dumping (s)
See beach information below	See beach information below	See beach information below	See beach information below				Due to DDT and PCBs ⁴ : Redondo Pier: Corbina Malibu Pier: Queenfish Short Bank: White Croaker Malibu: White Croaker Point Dume: White Croaker Point Vicente: White Croaker Palos Verdes NW: White Croaker White's Point: White Croaker, sculpin, rock fishes, kelp bass	Malibu, Santa Monica, Manhattan Beach, Redondo Piers-Tissue: Ag(5 ppm), DDT(400ppb), PCBs(1.5ppm) ¹ Tissue (85, and 86-88): DDT, PCBs in ridgeback rock shrimp ⁶ Tissue (90): DDT, PCBs in yellow rock crab ⁴		
Leo Carrillo Beach (south of County line) 303(d)-low		404.44	1.15 mi	CA41 3.002 0C		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		<u>COLIFORM, beach closures</u>	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	12	<10	29		1991(5 days) 1992(9 days)					
Nicholas Cyn Beach 303(d)-low		404.43	1.94	CA41 3.003 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>Advisory (DDT, PCBs)</u>	<u>beach closures</u>	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Robert H Meyer Memorial Beach 303(d)-low		404.42	1.23	CA41 3.004 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>Advisory (DDT, PCBs)</u>	<u>beach closures</u>	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Sea Level Beach		404.41	0.67	CA41		F	Aquatic life			Septic system washouts (m)

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
303(d)-low				3.005 OC		P F N F	Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Sewage spills (m) Urban runoff (m)
<10	<10	<10	<10		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Trancas Beach (Broad Beach) 303(d)-low		404.37	2.02	CA41 3.006 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	COLIFORM, beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	21	<10	21		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Zuma (Westward) Beach 303(d)-low		404.36	1.65	CA41 3.007 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	11	<10	<10		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Point Dume Beach 303(d)-low		404.36	0.95	CA41 3.008 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Paradise Cove Beach 303(d)-low		404.35	1.33	CA41 3.009 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	COLIFORM, beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	27	<10	27		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Escondido Beach 303(d)-low		404.34	2.05	CA41 3.010 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Dan Blocker Memorial (Corral) Beach 303(d)-low		404.31	1.04	CA41 3.011 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		COLIFORM	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	21	<10	14		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Puerco Beach 303(d)-low		404.31	1.68	CA41 3.012 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
<10	14	<10	<10		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Amarillo Beach 303(d)-low		404.21	0.30	CA41 3.013 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Malibu Beach 303(d)-low		404.21	0.53	CA41 3.014 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(5 days) 1992(9 days)		See Santa Monica Bay (above)			
Malibu Lagoon Beach (Surfrider) 303(d)-low		404.21	0.66	CA41 3.015 OC		F N F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	COLIFORM Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m) Fuel spills (m)
25	53	11	41		1991(13 days) 1991(1 days) 1992(9 days)		See Santa Monica Bay (above)			
Carbon Beach 303(d)-low		404.16	1.48	CA41 3.016 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(13 days) 1992(9 days)		See Santa Monica Bay (above)			
La Costa Beach 303(d)-low		404.16	0.74	CA41 3.017 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(13 days) 1992(9 days)		See Santa Monica Bay (above)			
Las Flores Beach 303(d)-low		404.15	0.76	CA41 3.018 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	COLIFORM, beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	19	<10	46		1991(13 days) 1992(9 days)		See Santa Monica Bay (above)			
Big Rock Beach 303(d)-low		404.16	1.09	CA41 3.019 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	COLIFORM, beach closures	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
14	20	<10	10		1991(13 days) 1992(9 days)		See Santa Monica Bay (above)			
Las Tunas Beach		404.12	1.25	CA41		F	Aquatic life			Septic system washouts (m)

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
303(d)-low				3.020 OC		P F N F	Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(13 days) 1992(9 days)		See Santa Monica Bay (above)			
Topanga Beach 303(d)-low		404.11	1.01	CA41 3.021 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures Advisory (DDT, PCBs)	COLIFORM	Septic system washouts (m) Sewage spills (m) Urban runoff (m)
<10	26	<10	25		1990(4 days) 1991(6 days) 1991(13 days) 1992(9 days) 1993(4 days) 1993(6 days) 1993(3 days) 1993(4 days)		See Santa Monica Bay (above)			
Castlerock Beach 303(d)-low		405.13	0.81	CA41 3.022 OC		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1991(6 days) 1992(9 days) 1993(4 days) 1993(3 days)		See Santa Monica Bay (above)			
Will Rogers Beach 303(d)-low		405.13	2.20	CA41 3.023 OC		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures	COLIFORM	Sewage spills (m) Urban runoff (m)
11	32	<10	35		1988(1 day) 1988(3 days) 1989(2 days) 1990(4 days) 1991(6 days) 1992(9 days) 1993(4 days) 1993(6 days) 1993(3 days) 1993(4 days) 1993(11 days) 1995(4 days)					
Santa Monica Beach 303(d)-low		405.13	2.95	CA41 3.024 OC		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures	COLIFORM	Sewage spills (m) Urban runoff (m) Construction debris (s)
10	36	11	39		1988(2 days) 1988(1 day) 1989(3 days) 1989(3 days) 1990(4 days) 1990(9 days) 1991(6 days) 1992(9 days) 1992(1 day) 1993(4 days)					

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
					1993(6 days) 1993(3 days) 1993(4 days) 1993(3 days) 1994(4 days)					
Venice Beach 303(d)-low		405.13	1.50	CA41 3.025 0C		F N F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>beach closures</u>	<u>COLIFORM</u>	Sewage spills (m) Urban runoff (m)
<10	13	<10	27		1988(3 days) 1990(4 days) 1991(6 days) 1992(9 days) 1992(3 days) 1993(4 days) 1993(6 days) 1993(4 days) 1993(4 days) 1995(1 day)					
Marina del Rey Harbor-back basins 303(d)-low		405.13	413 ac	CA41 3.026 0B	121 impaired	N N F N N	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>TIS(chlordane, dieldrin, DDT, PCBs, TBT, Zn, Cu), Sed(Zn, Cu, Pb, Cr, PCBs, chlordane, DDT), SED TOX, Benthic community COLIFORM</u> <u>TIS(chlordane, dieldrin, DDT, PCBs, TBT, Zn, Cu) Advisory (DDT, PCBs)</u>	<u>TIS(ChemA, Pb)</u>	Sewage spills (m) Marina activities (m) Anti-fouling paints (m) Urban runoff (m) Runoff from dumps (s) RCRA site (m)
								Tissue ('93): chlordane(MTRLs, EDL95), DDT(MTRLs, EDL85), dieldrin(MTRLs, EDL95), PCBs(MTRLs, EDL95), ChemA(EDL95), Cu(EDL95), Pb(EDL95) ³ Tissue: chlordane (300ppb), DDT(700ppb), PCBs(1000ppb), TBT(6000ppb), Zn(500ppm), Cu(100ppm) Sed Chem: Zn(500ppm), Cu(400ppm), Pb(100ppm) ² Sed tox: poor survival ² Benthic community effects ⁹ Sed chem('92): Cu, Pb, Zn, chlordane, DDT ⁹ Tissue: DDT, PCBs ⁹ Sed chem('95): Pb, Cr, PCBs ¹¹		
Marina del Rey Harbor-Public beach areas 303(d)-low		405.13	0.65	CA41 3.029 0C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>COLIFORM, beach closures</u>		Sewage spills (m) RCRA site(s) Urban runoff (m) Marina activities (m)
17	38	<10	45		1988(3 days) 1990(4 days) 1991(15 days) 1992(11 days) 1992(3 days) 1992(4 days) 1993(4 days) 1993(6 days) 1993(8 days) 1993(4 days) 1993(4 days) 1003(1 day) 1994(2 days) 1995 (4 days) 1995 (1 day)					
Dockweiler Beach 303(d)-low		405.12	5.40	CA41 3.031 0C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>beach closures</u>	<u>COLIFORM</u>	Sewage spills (m) Urban runoff (m)

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
<10	24	12	39		1988(1 day) 1988(3 days) 1989(2 days) 1990(4 days) 1991(15 days) 1991(4 days) 1992(11 days) 1992(3 days) 1992(3 days) 1992(1 day) 1993(4 days) 1993(6 days) 1993(3 days) 1993(4 days) 1993(1 day) 1994(2 days) 1995(4 days) 1995(1 day)					
Manhattan Beach 303(d)-low		405.12	2.08	CA41 3.032 0C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures		Sewage spills (m) Urban runoff (m) Fuel spills (m)
<10	<10	<10	<10		1990(4 days) 1991(6 days) 1991(2 days) 1992 (11 days) 1993(4 days) 1993(6 days) 1993(3 days) 1995 (4 days)					
Hermosa Beach 303(d)-low		405.12	1.88	CA41 3.033 0C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures		Sewage spills (m) Urban runoff (m)
<10	12	<10	18		1990(4 days) 1991(6 days) 1992 (11 days) 1993(4 days) 1993(6 days) 1993(3 days) 1995 (4 days)					
King Harbor 319		405.12	110 ac	CA41 3.034 0B	40 good 50 interm	F F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
							none	Tissue ('88): TBT(6 ppm), Cu(170ppm), Zn(680 ppm) ¹ Sed Chem ('88): Cu(100ppm) [Regional Board data]		
Redondo Beach 303(d)-low		405.12	1.37	CA41 3.038 0C		F N F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures Advisory (DDT, PCBs)	COLIFORM	Sewage spills (m) Urban runoff (m)
12	32	<10	18		1989(3 days) 1990(4 days) 1990(4 days) 1991(6 days) 1992 (11 days) 1992(1 day)		See Santa Monica Bay (above)			

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
					1992(1 day) 1992(3 days) 1992(3 days) 1993(4 days) 1993(6 days) 1993(3 days) 1995 (4 days)					
Torrance Beach 303(d)-low		405.12	0.58	CA41 3.039 0C		F N F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures	COLIFORM	Sewage spills (m) Urban runoff (m)
<10	15	<10	25		1990(4 days) 1991(6 days) 1992 (11 days) 1993(4 days) 1993(6 days) 1993(3 days) 1995 (4 days) 1995(3 days)					
Malaga Cove Beach 303(d)-low		405.11	1.13	CA41 3.041 0C		F N F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	beach closures <u>Advisory (DDT, PCBs)</u>		Sewage spills (m) Urban runoff (m)
<10	10	<10	<10		1990(4 days) 1991(6 days) 1992 (11 days) 1993(4 days) 1993(6 days) 1993(3 days) 1995 (4 days) 1995(3 days)		See Santa Monica Bay (above)			
Flat Rock Point beach area 303(d)-low		405.11	0.30	CA41 3.042 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>Advisory (DDT, PCBs)</u>	beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1990(4 days) 1991(6 days) 1992 (11 days) 1995(3 days)					
Bluff Cove beach 303(d)-low		405.11	0.61	CA41 3.044 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	<u>Advisory (DDT, PCBs)</u>	beach closures	Sewage spills (m) Urban runoff (m)
14	<10	<10	<10		1990(4 days) 1991(6 days) 1992 (11 days) 1995(3 days)		See Santa Monica Bay (above)			
Rocky Point beach 303(d)-low		405.11	0.52	CA41 3.045 0C		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days) 1995(3 days)					

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
Luneda Bay beach 303(d)-low		405.11	0.35	CA41 3.047 0C		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days) 1995(3 days)					
Resort Point beach 303(d)-low		405.11	0.49	CA41 3.048 0C		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days) 1995(3 days)					
Point Vicente beach 303(d)-low		405.11	2.13	CA41 3.049 0C		F P F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days) 1995(3 days)					
Long Point Beach 303(d)-low		405.11	0.45	CA41 3.050 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Sewage spills (m) Urban runoff (m)
<10	<10	<10	<10		1992 (11 days) 1995(3 days)		See Santa Monica Bay (above)			
San Pedro Bay nearshore and offshore zone (Cabrillo Pier area) 303(d)-low 319			500	CA41 3.051 0B	10700 ac 500 impaired	N F F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	TIS(DDT).SED TOX.Sed(PAHs,DDT,Zn,Cu,Cr) Advisory (DDT, PCBs)		Sewage spills (m) POTW effluent (m) Fuel spills (m) Urban runoff (m) Historic DDT discharges (m)
							See Santa Monica Bay (above)	Tissue: DDT(1200ppb) ¹ Sed tox: variable survival rates ² Sed Chem: PAHs(3.4ppm), DDT(250ppb), Zn(250ppm), Cu(270 ppm), Cr(95ppm) ²		
San Pedro Bay nearshore and offshore zone except Cabrillo Pier area			10200 ac	CA41 3.051 5 B	10200 ac intermed	F F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting			
								Sed tox: good survival rates ² Sed chem: Pb(50 ppm) ² Benthic community-no evidence of degradation ²		
Abalone Cove beach 303(d)-low		405.11	0.94	CA41 3.054 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)	beach closures	Sewage spills (m) Urban runoff (m)
<10	<10	<10	<10		1992(11 days)		See Santa Monica Bay (above)			
Portuguese Bend beach 303(d)-low		405.11	2.20	CA41 3.055 0C		F P F	Aquatic life Recreation: cont. Recreation: non-c		beach closures	Sewage spills (m) Urban runoff (m)

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting		Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data			
						N F	Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)			
<10	<10	<10	<10		1992(11 days)		See Santa Monica Bay (above)				
Inspiration Point beach 303(d)-low		405.11	0.30	CA41 3.056 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days)		See Santa Monica Bay (above)				
Palos Verdes Shoreline Park beach 303(d)-low		405.11	0.12	CA41 3.057 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days)		See Santa Monica Bay (above)				
Royal Palms Beach 303(d)-low		405.11	1.06	CA41 3.058 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days)		See Santa Monica Bay (above)				
White's Point Beach 303(d)-low		405.11	0.70	CA41 3.059 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
<10	<10	<10	<10		1992(11 days)		See Santa Monica Bay (above)				
Pt Fermon Park Beach 303(d)-low		405.11	1.5	CA41 3.060 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
no data	no data	no data	no data		1992 (11 days)		See Santa Monica Bay (above)				
Cabrillo Beach-outer 303(d)-low		405.12	0.51	CA41 3.061 0C		F P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	Advisory (DDT, PCBs)		beach closures	Sewage spills (m) Urban runoff (m)
<10	<10	<10	<10		1992(11 days)		See Santa Monica Bay (above)				
Cabrillo Beach (inner)-LA Harbor area 303(d)-low		405.12	0.79	CA41 3.062 0C		F N F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	COLIFORM, beach closures Advisory (DDT, PCBs)			Sewage spills (m) Urban runoff (m)
36	19	<10	35		1991(3 days) 1991(2 days) 1992(11 days)		See LA Harbor (below)				

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting		Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data			
					1992(7 days) 1994(2 days) 1995(4 days)						
Los Angeles Harbor, especially Main Channel, Fish Harbor, Cabrillo Pier, and breakwater 303(d)-low 319		405.12	3785 ac	CA41 3.064 0B	inner 1260 impaired	N P F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	TIS(DDT,PCB,Zn,Cu,PAHs),Sed(DDT,PCBs,Cu,Zn,PAHs,TBT),SED TOX Advisory (DDT, PCBs)		Beach closures	Oil/other spills (m) Refinery discharges (m) Anti-fouling paints (m) Boatyard practices (m) Urban runoff (m) Historic DDT loading (m) Industrial point sources (m)
					1992(11 days)		PCBs and DDT: LA Harbor, especially Cabrillo Pier-White croaker, Queenfish, Black croaker, Surfperches ⁴	Main Channel and Fish Harbor: Tissue: DDT(1ppm), PCBs(1 ppm), Zn(400ppm), Cu(100ppm), PAHs(5 ppm) ¹ Sed Chem: DDT(0.5ppm), PCBs(0.5 ppm), Cu(200ppm), Zn(550ppm), PAHs(15ppm), TBT(5 ppb) ²			
LA Harbor-Consolidated Slip 303(d)-low 319		405.12	37.13 ac	CA41 3.074 0B		N F F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	TIS(DDT,chlordane,PCBs,TBT,Zn),SED TOX, Benthic community effects, Sed(PAHs,Zn,Cr,Pb,DDT, chlordane, PCBs) Advisory (DDT, PCBs)			Oil/other spills (m) Refinery discharges (m) Anti-fouling paints (m) Boatyard practices (m) Urban runoff (m) Historic DDT loading (m) Industrial point sources (m)
							see LA Harbor	Sed Chem: PAHs(10ppm),Zn(500ppm), Cu(140ppm), Cr(100ppm), Pb(120ppm), DDT(600ppb),chlordane(100ppb),PCBs(1000ppb) ² Sed tox: poor survival rates ² Benthic community: degraded ² Tissue: DDT(1ppm), chlordane(110ppm), PCBs(600ppb), TBT(2000ppb),Zn(400ppm) ¹			
LA Harbor-Southwest Slip 303(d)-low 319		405.12	30 ac	CA41 3.074 5H		N F F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	SED TOX Advisory (DDT, PCBs)			Oil/other spills (m) Refinery discharges (m) Anti-fouling paints (m) Boatyard practices (m) Urban runoff (m) Historic DDT loading (m)
							see LA Harbor	Sed tox: poor survival rates ²			
Long Beach Harbor , especially Main Channel, Southeast Basin, West Basin, Pier J, and breakwater 303(d)-low 319		405.12	3594 ac	CA41 3.076 0B	LB inner 840 ac impaired	N F F N F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting	TIS(DDT, PCBs), Benthic community effects, Sed(PAHs), SED TOX Advisory (DDT, PCBs)			Oil/other spills (m) Refinery discharges (m) Anti-fouling paints (m) Boatyard practices (m) Urban runoff (m) Historic DDT loading (m) Naval activities (m)
							DDT and PCBs: Pier J: Surfperches LB Harbor and LB breakwater: White croaker, Queenfish, Black croaker, Surfperches	Main channel, SE basin, W Basin (Naval Base)-Tissue: DDT(500ppb),PCBs(800ppb) ¹ DOP-West Basin: Benthic community impacts SE and West Basins-Sed chem: PAHs (4000ppb) ² SE and West Basins-Sed tox: poor survival rates ²			
Long Beach shore aquatic park beach		405.12	0.80	CA41 3.088 0C				Unassessed			
Bluff Park beach		405.12	0.90	CA41 3.091 0C				Unassessed			
Belmont Shore beach		405.12	1.50	CA41 3.092 0C				Unassessed			

Reach/location (LA County Coastal Features and Bays)		Hydro Unit	Size	Code	Previous WQA	WQA	Assessed Uses	Not Supporting	Partially Supporting	Potential Sources
Fecal C. dry	Fecal C. wet	Total C. dry	Total C. wet		Beach Closures		Fish Consumption	Tissue, sediment and toxicity data		
Alamitos Bay beaches		405.12	1.50	CA41 3.093 0C				Unassessed		
Alamitos Bay 319		405.12	350 ac	CA41 3.094 0B	285 ac intern	FT F F F F	Aquatic life Recreation: cont. Recreation: non-c Fish Consumption Shellfish Harvesting		TIS(PCBs, ChemA) Fully supported but threatened	Urban runoff (m)
							none	Tissue('91): PCB(EDL95), ChemA(EDL85) ³ Sed chem: PAHs(900ppb) ² Sed tox: good survival rates ²		

Groundwater Basins

Basin	Hydro Unit	Area	Aquifers	Use	Status	Evidence	Possible Sources
Upper Ojai Valley (CA415.0001G)	402.31 403.22	6 sq mi	all	drinking and industrial	F	--	--
				agriculture	F	--	
Lower Ojai Valley (CA415.0002G)	402.32	23 sq mi	all	drinking and industrial	FT	Nitrate concentrations in municipal supply wells show increasing trend.	Domestic septic systems Infiltration of contaminated animal waste runoff
				agriculture	F	--	
Upper Ventura (CA415.0003aG)	402.2	11 sq mi	all	drinking and industrial	F	--	--
				agriculture	U	Unassessed	
San Antonio (CA415.0003bG)	402.2	4 sq mi	all	drinking and industrial	P	Elevated nitrate concentrations in sampled ground water wells.	Domestic septic systems Infiltration of contaminated animal waste runoff Infiltration of contaminated urban runoff
				agriculture	U	Unassessed	
Lower Ventura (CA415.0003cG)	402.1	8 sq. mi.	all	drinking and industrial	N	Elevated nitrate concentrations in sampled ground water wells as well as detectable hydrocarbons.	Domestic septic systems Infiltration of contaminated animal waste runoff Oil field activities.
				agriculture	U	Unassessed	
Santa Clara - Piru (CA415.0004aG)	403.41	14 sq mi	all	drinking and industrial	P	Elevated nitrate concentrations in sampled ground water wells.	Domestic septic systems Infiltration of contaminated agricultural runoff Infiltration of contaminated animal waste runoff Infiltration of contaminated urban runoff
				agriculture	F	--	
Santa Clara - Sespe (CA415.0004bG)	403.31	31 sq mi	all	drinking and industrial	P	Elevated nitrate concentrations in sampled ground water wells.	Domestic septic systems Infiltration of contaminated agricultural runoff
				agriculture	F	--	
Santa Clara - Santa Paula (CA415.0004cG)	403.12	42 sq mi	all	drinking and industrial	F	--	--
				agriculture	F	--	
Oxnard Plain (CA415.0004dG)	403.12	111 sq mi	all	drinking and industrial	P	Elevated nitrate concentrations in sampled ground water wells in some areas. Seawater intrusion within 2 miles of coast.	Domestic septic systems Infiltration of contaminated agricultural runoff Abandoned wells acting as conduits Seawater intrusion
				agriculture	U	Unassessed	
Pleasant Valley (CA415.0006G)	403.21	36 sq mi	all	drinking and industrial	FT	Localized areas of high TDS and chloride.	Infiltration of irrigation waters past the root zone Abandoned wells acting as conduits
				agriculture	F	--	
Arroyo Santa Rosa (CA415.0007G)	403.63	5 sq mi	all	drinking and industrial	N	Blending required for nitrate contamination (more than 50% of production). Elevated ethylene dibromide and dibromo-chloropropane concentrations in sampled ground water wells.	Domestic septic systems Infiltration of contaminated agricultural runoff
				agriculture	F	--	
Las Posas - South (CA415.0008aG)	403.62	22 sq mi	all	drinking and industrial	U	Unassessed	--

Basin	Hydro Unit	Area	Aquifers	Use	Status	Evidence	Possible Sources
				agriculture	F	--	
Las Posas -North (CA415.0008bG)	403.62	41 sq mi	all	drinking and industrial	F	--	--
				agriculture	F	--	
Acton Valley (CA415.0005aG)	403.55	26 sq mi	all	drinking and industrial	F	--	--
				agriculture	U	Unassessed	
Sierra Pelona Valley (CA415.0005bG)	403.55	11 sq mi	all	drinking and industrial	P	Elevated nitrate concentrations in sampled ground water wells (affects approximately 30% of production).	Domestic septic systems Infiltration of contaminated animal waste runoff
				agriculture	U	Unassessed	
Upper Mint Cyn (CA415.0005cG)	403.53	5.9 sq mi	all	--	U	Unassessed	--
Upper Bouquet Canyon (CA415.0005dG)	403.52	3.2 sq mi	all	--	U	Unassessed	--
Green Valley (CA415.0005gG)	403.51	1.8 sq mi	all	--	U	Unassessed	--
L. Elizabeth & L. Hughes (CA415.0005fG)	403.51	0.23 sq mi	all	--	U	Unassessed	--
Eastern Santa Clara Basin (CA415.000407G)	403.51	41 sq mi	all	drinking and industrial	F	--	--
				agriculture	U	Unassessed	
Simi Valley (CA415.0009aG)	403.67	19 sq mi	all	--	U	Unassessed	--
Gillibrand (CA415.0009bG)	403.66	7 sq mi	all	drinking and industrial	F	--	--
				agriculture	F	--	
Conejo Valley (CA415.0010G)	403.64	9 sq mi	all	drinking and industrial	F	--	--
				agriculture	F	--	
West Coast Basin-upper (CA415.0011aUG)	405.12	141 sq mi	shallow and semi- perched zones	drinking and industrial ∇	N	Over 800 cases of known leaking underground storage tanks that have contaminated soil and/or ground water with petroleum hydrocarbons (including BTEX) and other VOCs. Eleven cases of refineries/tank farms that have contaminated soil and/or ground water with petroleum hydrocarbons (including BTEX). Seawater intrusion (chloride) into the Gaspar aquifer through Dominguez Gap.	Leaks from refineries, pipelines, and underground storage tanks Infiltration of contaminated storm water and urban runoff Other illegal discharges Seawater intrusion through the Dominguez Gap
				agriculture	U	Unassessed	
West Coast Basin-lower (CA415.0011aLG)	405.12	141 sq. mi.	production (deeper) zones	drinking and industrial ∇	P	Approximately 250,000 AF of ground water contaminated by chloride, necessitating shutdown or wellhead treatment/blending for 17% of production capacity.	Plume of saline water trapped behind seawater intrusion barrier Seawater intrusion (underflow) beneath parts of the West Coast Basin Barrier Migration of contaminants from shallow and semi-perched aquifers

Basin	Hydro Unit	Area	Aquifers	Use	Status	Evidence	Possible Sources
				agriculture	U	Unassessed	
Central Basin-upper (CA415.0011bUG)	405.15	277 sq. mi.	shallow and semi-perched aquifers	drinking and industrial ¹	N	Over 1,100 cases of known leaking underground storage tanks that have contaminated soil and/or ground water with petroleum hydrocarbons (including BTEX) and other VOCs. Six cases of refineries/tank farms that have contaminated soil and/or ground water with petroleum products.	Leaks from refineries and underground storage tanks Infiltration of contaminated storm water and urban runoff Other illegal discharges
				agriculture	U	Unassessed	
Central Basin-lower (CA415.0011bLG)	405.15	277 sq. mi.	production zones	drinking and industrial	FT	Wellhead treatment/blending required for VOC contamination at several wells (4% of production).	Migration of contaminants from shallow and semi-perched aquifers Threat of contaminant (VOCs) migration from the San Gabriel Basin into the Central Basin Leaks from an old landfill
				agriculture	U	Unassessed	
Santa Monica (CA415.0011cG)	405.13	40 sq. mi.	all	drinking and industrial	P	Wellhead treatment required for VOC contamination in ground water from several production wells. MTBE contamination in Charnock wellfield.	Industrial discharge of solvents
				agriculture	U	Unassessed	
Hollywood (CA415.0011dG)	405.14	20 sq. mi.	all	—	U	Unassessed	—
Sylmar (CA415.0012aG)	405.22	10 sq. mi.	all	drinking and industrial	F	—	—
				agriculture	U	Unassessed	
Verdugo (CA415.0012bG)	405.24	11 sq. mi.	all	drinking and industrial	N	All production shut down due to nitrate contamination.	Domestic septic systems
				agriculture	U	Unassessed	
San Fernando (CA415.0012cG)	405.21	190 sq. mi.	all	drinking and industrial	P	Some production wells shut down due to nitrate, PCE, and/or TCE contamination.	Domestic septic systems Infiltration of contaminated urban runoff Industrial discharge of solvents Old landfills
				agriculture	U	Unassessed	
Eagle Rock (CA415.0012dG)	405.25	2 sq. mi.	all	—	U	Unassessed	—
Raymond Basin (CA415.0013aG)	405.31	37 sq. mi.	all	drinking and industrial	P	Wellhead treatment required for PCE contamination (approximately 30% of production).	Industrial discharge of solvents Leaking landfills
				agriculture	U	Unassessed	
Main San Gabriel Basin CA415.0013bG)	405.42 405.41	141 sq. mi.	all	drinking and industrial	P	Wellhead treatment, blending, and/or shut down for PCE and/or TCE contamination.	Industrial discharge of solvents Leaking landfills
				agriculture	U	Unassessed	
Puente Basin CA415.0013cG)	405.41	16 sq. mi.	all	drinking and industrial	N	All drinking water production shut down for PCE, TCE, and/or TDS contamination.	Industrial discharge of solvents Leaking landfills Historical agriculture and cattlefeed operations
				agriculture	P	Blending required for elevated TDS concentrations.	

Basin	Hydro Unit	Area	Aquifers	Use	Status	Evidence	Possible Sources
Chino Area (CA415.0014cG)	481.21	10 sq. mi.	all	drinking and industrial	N	Wellhead treatment required for nitrate contamination.	Domestic septic systems Agriculture and animal waste runoff
				agriculture	U	Unassessed	
Live Oak Area (CA415.0014 aG)	405.41 405.44	5.1 sq. mi.	all	--	U	Unassessed	--
Claremont Hts (CA415.0014b)	405.53	6.7 sq. mi.	all	--	U	Unassessed	--
Pomona Area (CA415.0014dG)	405.52	9.0 sq. mi.	all	--	U	Unassessed	--
Spadra Area (CA415.0014eG)	405.51	6.0 sq. mi.	all	--	U	Unassessed	--
Terra Rejada (CA415.0015G)	403.65	2 sq. mi.	all	--	U	Unassessed	--
Hidden Valley - Santa Monica Mountains (CA415.0016)	404.26	3.8 sq. mi.	all		U	Unassessed	--
Thousand Oaks - Santa Monica Mountains (CA415.0019)	403.64 403.68	11.5 sq. mi.	all		U	Unassessed	--
Russell Valley- Santa Monica Mountains (CA415.0020)	404.23 404.25	9.1 sq. mi.	all		U	Unassessed	--
Conejo - Santa Monica Mountains (CA415.0021)	403.64	2.4 sq. mi.	all		U	Unassessed	--
Southern Slopes - Santa Monica Mountains (CA415.0022)	--	1.3 sq. mi.	all	--	U	Unassessed	--
Lockwood Valley (CA415.0017)	403.44	13 sq. mi.	all	drinking and industrial	F	--	--
				agriculture	F	--	
Peace Valley & Hungry Valley (CA415.0018)	403.43	18 sq. mi.	all	--	U	Unassessed	--

Regional Water Quality Control Board - Los Angeles Region

1996 Water Quality Assessment Data Summaries

Explanatory notes for interpreting the tables

Units are in ppm unless noted below.

Most of the data in this table are water column data. To conserve space, the descriptive terms have been eliminated. For each constituent, the top row is number of samples, second row is range of values (minimum to maximum), and third row is mean plus or minus standard deviation. Means are not given for pH and fecal coliform. For some constituents a "#" next to the mean indicates that no standard deviation has been calculated because there is not a normal distribution or there are less than 3 samples. ★ Water Column data: top row is number of samples, second row is range of values (minimum to maximum) and third row is mean plus or minus standard deviation.

* Between 3 and 20 samples and greater than 40% of the values are higher than the standard

† Older data was combined with recent data for conventional constituents such as TDS, B, and SO₄. This older data was only used for tributaries in relatively undeveloped areas.

▽ Although ground water is semi-perched and shallow aquifers may not be directly used for drinking, industrial, or agriculture purposes, it can migrate to and partially recharge deeper aquifers

References:

1. Tissue data: California State Water Resources Board. State Mussel Watch Program. Elevated metals or organic chemicals are listed. Maximum concentrations are shown in parenthesis.
2. California State Water Resources Board. Bay Protection and Toxic Cleanup Program. For sediment chemistry, elevated metals or organic chemicals are listed. Maximum concentrations are shown in parenthesis. For sediment or water toxicity tests, survival rates of test organisms are described as "low", "poor", or "good".
3. California State Water Resources Board. Toxic Substance Monitoring Program. Elevated constituents are shown with standard exceeded in parenthesis.
4. California Department of Fish and Game, 1994-1996. California Sport Fishing Regulations.
5. Regional Water Quality Control Board. 1995. Draft Final Report: Toxicity Study of the Santa Clara River, San Gabriel River, and Calleguas Creek. For water toxicity tests, survival rates of test organisms are described as "poor", or "good".
6. Santa Monica Bay Restoration Project. 1994. State of the Bay, 1993: Characterization study of the Santa Monica Bay Restoration Plan. Includes Gold, et. al., 1990, 1991, 1992; Thompson et. al., 1987a; SCCWRP et. al., 1992; Greene, 1992.
7. Simi Valley County Sanitation District. 1995 (September). Report on Arroyo Simi Characterization.
8. Regional Water Quality Control Board. 1994 (December). Evaluation of Water Quality for Selected Lakes in the Los Angeles Hydrologic Basin. Final Report.
9. Los Angeles, County of. Department of Beaches and Harbors. 1992. Marine Studies of San Pedro Bay, California Part 20H. The Marine Environment of Marina Del Rey: October 1991-June 1992.
10. Los Angeles, County of. Department of Beaches and Harbors. 1995. Results of chemical and physical testing of sediments from Marina del Rey - October 1991-1992.
11. United States Army Corps of Engineers. 1995. Marina del Rey and Ballona Creek: Final reconnaissance report - Marina del Rey sediment chemistry.
12. Las Virgenes Municipal Water District. 1995. Enhanced Environmental Monitoring Program at Malibu Lagoon and Malibu Creek. Used STSM standards from reference 3 above as well as Mearns Fish Tissue Standards (MFS)
13. California Department of Fish and Game. 1995. Draft Steelhead restoration and management plan for California.
14. California Department of Fish and Game. 1990. Preliminary report on the ecology of the Light-Footed Clapper Rail at Mugu Lagoon, Ventura County, California.

ABBREVIATIONS and Units in Main Header (1st Row of header):

Reach/location	Segment of waterbody that is assessed. Some waterbodies are combined. Waterbodies that are on lists are noted.
Hydro. Unit	Hydrologic unit as designated by the state.
Size	Length or area of waterbody (miles or acreage respectively).
Code	Code that has been assigned to the reach by the Regional Board. CA (California) 4 (Region 4) xx (watersheds 01 to 14). xxx (segment number) waterbody type (O: oceans, nearshore, and offshore areas; C: beaches; H: bays and harbors; R: rivers and streams; L: lakes and reservoirs, E estuaries; and T tidal wetlands)
Previous WQA	Status of waterbody in 1992 and 1994 Water Quality Assessment Reports. Length or acreage is also shown.

WQA

1996 cycle status of each beneficial use for each assessed waterbody. Abbreviations for this column are: Fully supporting (F), Fully supporting but threatened (FT), Partially supporting (P), and Unassessed (U). Contact and non-contact recreational use was considered "Unassessed" if there was no water quality data (i.e., secondary MCL data) or no field observations (i.e., trash, odors, etc.); if there is an assessment noted then field observations were made but are not included in any columns on this table due to lack of space (see files).

Use	As appropriate, USEPA's beneficial uses are listed for each waterbody. These uses are assessed in this report. Some uses are struck-out ; these are uses that are listed in the Basin Plan but are not assessed in this phase (see responsiveness summary). For uses listed as "Basin Plan", minerals constituents were compared to Basin Plan objectives. These Basin Plan comparisons are not included in the Waterbody System database.
Not Supporting	For each beneficial use (read across for each use), constituents that are "not supporting" that particular use. Number of exceedences was determined for each use; for many uses, >25% exceedences was used as the trigger to place a constituent or stressor in this column.
Partially supporting	For each beneficial use (read across for each use), constituents that are "partially supporting" that particular use. Number of exceedences was determined for each use; for many uses, >10% exceedences was the trigger used to place a constituent or stressor in this column. In some cases, constituents or stressors that are "fully supporting but threatened" are listed in this column.
Potential Sources	Potential sources for constituents or stressors. These sources are not linked specifically to any constituent. In parentheses, magnitude of sources are indicated: H (high), M (moderate) and S (slight).

ABBREVIATIONS and units in *Water Column Header* row (2nd row of header):

Temp	Temperature values in table are in Centigrade.
pH	Hydrogen ion activity (std units)
DO	Dissolved oxygen (depleted levels) (parts per million: ppm).
TDS	Total dissolved solids (ppm).
SC	Specific conductance (ppm).
Hard	Hardness (ppm).
B	Boron (ppm).
CHL	Chloride (ppm).
SO4	Sulfate (ppm).
Tissue, sediment and toxicity	See references and descriptions #1, 2, 3, etc. above.
AMM	Ammonia-N (ppm).
N+N	Nitrate-N + Nitrite-N (ppm).
Fec Col.	Fecal coliform for inland surface waterbodies.
Fecal Col.	(Coastal Features) Fecal Coliform: dry weather and wet weather: the numbers in these columns are average number of exceedences for surfzone sampling events. Most of these areas are sampled weekly.
Total Col. (Coastal features)	see Fecal coliform above.
Metals	Ag (Silver), Ba (Barium), Cd (Cadmium), Cr (Chromium), CrVI (Chromium VI), Cu (Copper), Pb (Lead), Se (Selenium), TBT (Tributyl Tin), Zn (Zinc), and Hg (Mercury). Be (Beryllium) was scanned by only a few agencies. The number of sampling events or scans for metals is at the top of column. Individual metals are listed if they were detected at levels above the detection limit. Maximum concentration found for each metal is shown to the right of each metal. In some cases only one or two metals were scanned (usually a large number of times) and these are indicated in the column (e.g., all 11 metals were scanned 1 or 2 times but copper and zinc were scanned 67 times) (ppb).
Org Chem	See Organic chemicals on next page.
Beach Closures	Bathing areas closures issued by county departments of health.
Fish Consumption	Fish consumption advisories.

ADDITIONAL ABBREVIATIONS in *Not Supporting* and *Partially Supporting* columns:

ND	Non-detect. The constituent was not detected at or above the equipment's detection limitation.
Temp	Temperature of effluent is greater than 5°F above ambient temperature in waterbody.
COLIFORM	Coliform bacteria: fecal coliform for inland surface waterbodies; total and fecal coliform for beaches.
PAHs	Polycyclic aromatic hydrocarbons.
TRASH	Significant trash and debris observed.
ODORS	Significant odors noted.
COLOR	Green, yellow or brownish water color observed.
ALGAE	Significant algal growth observed.
OIL	Oily film observed on surface of water.
SCUM	Nonnatural foam, scum material or other flotsam observed.
Turb	Turbidity.
EUT	Eutrophic.
Sed(x)	Level of constituent in sediment is elevated.
HIST	Abnormal fish histology observed.
TIS(x)	Fish or mussel data from State Mussel Watch and State Toxic Substances Monitoring programs. The constituent in parenthesis exceeds the standard(s).
TOX	Tests or studies of chronic or acute toxicity of species (water column).
SED TOX	Tests or studies of chronic or acute toxicity of species (sediment).
ChemA	Toxic Substances Monitoring Program combination of pesticides: Aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene.

Org Chem Organic chemicals. These chemicals are usually analyzed in water samples (in general, the number of sampling events is shown at top of column). If sediment samples are analyzed, the terms H2O and Sed are used to distinguish the analyses (number of samples are shown in parenthesis). Organic chemicals that are detected above detection limits are indicated by the following abbreviations:

Water Column organic chemicals

a benzene
b bromodichloromethane
c bromoform
d chloroform
e dibromochloromethane
f o-DCB (1,2-Dichlorobenzene)
g p-DCB (1,4-Dichlorobenzene)
h 1,1-DCE (1,1-Dichloroethylene)
i cis-1,2-dichloroethylene
j trans-1,2-dichloroethylene
k Carbon tetrachloride
l cis and trans-1,3-dichloroprop
m ethyl benzene
n methylene chloride
o methyl ethyl ketone
p naphthalene
q n-propylbenzene
r PCE (Tetrachloroethylene)
s toluene

t 1,1,1-TCA (1,1,1-Trichloroethane)
u TCE (Trichloroethylene)
v 1,2,4-trimethylbenzene
w 1,3,5-trimethylbenzene
x vinyl chloride
y m,p-xylenes
z o-xylenes
aa alpha-BHC
ab beta-BHC
ac delta-BHC
ad gamma-BHC (Lindane)
ae phenol (ppm)
af cyanide (ppm)
ag p-IPT
ah 2,4-Dichlorophenol
ai 4-Nitrophenol
aj 2,6-Dichlorophenol
ak 2,3,4,6-Tetrachlorophenol
al DNBP
am 4-Chloro-3-methylphenol
an 2,4,6-Trichlorophenol
ao Pentachlorophenol
ap 2-Chlorophenol
aq 2-Nitrophenol
ar 2,4-Dinitrophenol
as 2,4-Dimethylphenol
at 4-Methylphenol
au Heptachlor
av Aldrin
aw Heptachlor epoxide
ax Dieldrin
ay Endrin Aldehyde
az Endosulfan I
ba Endosulfan II
bb 4,4'-DDD
bc 4,4'-DDE
bd 4,4'-DDT
be TPH
bf 1,1-DCA
bg 1,1-dichloroethylene
bh 1,2-DCA
bi 1,2,3-Trichlorobenzene
bj 1,2,3-Trichloropropane
bk 1,3,5-Trichlorobenzene
bl Dibromomethane
bm Methyl-t-butyl ether
bn Trichlorotrifluoroethane (F113)
bo 2,4,5-Trich
bp Endrin

sh Gamma-BHC (Lindane)
si Cadmium
sj Barium
sk Zinc

Sediment organic chemicals:

sa Lead
sb 4,4'-DDD
sc 4,4'-DDE
sd 4,4'-DDT
se Copper
sf Dieldrin
sg Mercury