

**Watershed Summary Information**

<b>Accounting Unit Name:</b>	Laguna-San Diego Coastal
<b>State(s):</b>	CA
<b>Political Boundaries:</b>	Orange, San Diego, Riverside
<b>Major Waterways:</b>	San Juan Cr San Mateo Canyon Arroyo Trabusco Aliso Cr San Onofre Canyon
<b>Number of Stations in Watershed:</b>	Tier1 - 10 Tier2 - 22 Tier3 - .



Figure 189. Watershed Location Map

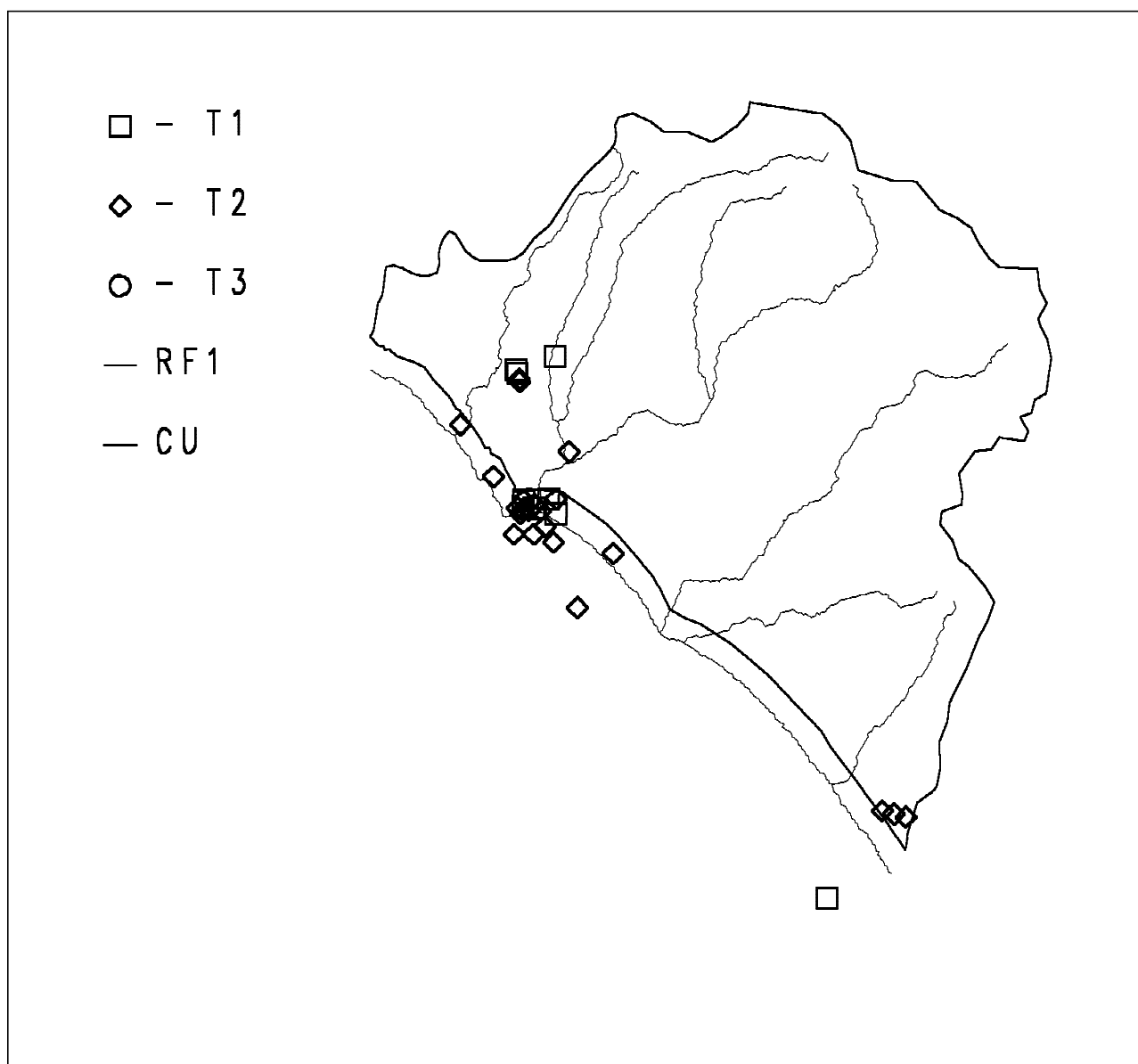


Figure 190. Major Waterways and Location of Sampling Stations

## Data Source(s) Used in Evaluation

Source: **COSED** Agency: **NS&T**  
 Monitoring Program: **NOAA/National Status and Trends**  
 Num. of Stations: 8 Date Range: 1984-88

Source: **DMATS** Agency: **R9**  
 Monitoring Program: **EPA Region 9 Dredged Material Program**  
 Num. of Stations: 4 Date Range: 1983-88

Source: **SEACOE** Agency: **NOAA84**  
 Monitoring Program: **Benthic Surveillance 1984**  
 Num. of Stations: 3 Date Range: 1984

Source: **SEACOE** Agency: **SCCWRP87**

Monitoring Program: **Toxicity of sediments from Southern CA**

Num. of Stations: 2 Date Range: 1987

Source: **STORET** Agency: **21CAOCFC**

Monitoring Program: **Orange County (Ca) Environ Mgmt Generl Water Quality & Sediment Data**

Num. of Stations: 15 Date Range: 1980-91

## Chemicals Responsible for Sampling Station Classification as Tier 1 or Tier 2

Classifying Parameter	Number of Stations							
	All Parameters				Aquatic Life		Human Health	
	Total	T.1&2	Tier1	Tier2	Tier1	Tier2	Tier1	Tier2
Copper	31	22	.	22	.	22	.	.
Arsenic	30	16	.	16	.	16	.	.
Cadmium	31	16	.	16	.	16	.	.
Mercury	30	12	5	7	5	7	.	.
DDT	29	10	4	6	4	6	.	5
Polychlorinated biphenyls	27	9	.	9	.	.	.	9
Chromium	31	8	2	6	2	6	.	.
Lead	30	8	.	8	.	8	.	.
Nickel	24	8	.	8	.	8	.	.
Zinc	31	7	.	7	.	7	.	.
BHC	26	4	1	3	1	3	.	.
Chlordane	24	3	.	3	.	2	.	3
Benzo(a)anthracene	18	2	.	2	.	2	.	2
Chrysene	19	2	.	2	.	2	.	.
Endosulfan, alpha-	17	1	.	1	.	1	.	.
Silver	24	1	.	1	.	1	.	.

## Sediment Chemistry Data: Chemical Summary

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Acenaphthene	22	0.00	0.00	0	.	.
Acenaphthylene	19	0.00	0.00	0	.	.
Aldrin	91	0.01	0.00	2	1.10	0.20
Anthracene	18	0.50	0.00	1	9.00	9.00
Antimony	19	723.16	800.00	19	1300.00	290.00
Arsenic	126	5154.21	3900.00	123	24000.00	80.00
Benzo(a)anthracene	25	11.72	0.00	7	140.00	0.50
Benzo(a)pyrene	23	0.19	0.00	2	3.30	1.00
Benzo(b)fluoranthene	10	1.66	0.00	2	10.00	6.60
Benzo(ghi)perylene	20	0.21	0.00	2	3.30	0.90
Benzo(k)fluoranthene	19	14.47	0.00	2	140.00	135.00
Biphenyl	1	16.00	16.00	1	16.00	16.00

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
BHC	336	0.03	0.00	5	9.00	0.30
Cadmium	130	3033.21	461.50	106	54000.00	25.00
Chlordane	95	0.90	0.00	8	59.00	0.26
Chromium	135	30547.41	18000.00	134	303000.0	700.00
Chrysene	26	11.47	0.00	8	140.00	0.60
Copper	138	43160.87	20000.00	132	817000.0	700.00
Cresol, m-	2	0.17	0.17	2	0.17	0.17
Cresol, o	2	0.17	0.17	2	0.17	0.17
Dibenzo(a,h)anthracene	27	0.00	0.00	0	.	.
Dieldrin	93	0.03	0.00	4	1.10	0.27
DDT	331	1.30	0.00	67	54.00	0.10
Endosulfan, alpha-	60	0.42	0.00	1	25.00	25.00
Endosulfan, beta-	59	0.00	0.00	0	.	.
Endrin	86	0.00	0.00	0	.	.
Fluoranthene	28	2.86	0.00	9	23.00	0.70
Fluorene	22	0.00	0.00	0	.	.
Heptachlor	89	0.00	0.00	0	.	.
Heptachlor epoxide	90	0.00	0.00	1	0.11	0.11
Hexachlorobenzene	7	0.32	0.06	4	1.00	0.06
Hexachlorobutadiene	2	0.00	0.00	0	.	.
HMW_PAHs	5	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	17	0.00	0.00	0	.	.
Lead	128	17983.44	12300.00	108	221000.0	1500.00
LMW_PAHs	5	1.04	0.00	2	3.50	1.70
Malathion	67	0.00	0.00	0	.	.
Mercury	122	220.04	0.00	51	6500.00	6.00
Methoxychlor	70	0.00	0.00	0	.	.
Methylnaphthalene, 2-	5	0.00	0.00	0	.	.
Mirex/Dechlorane	2	0.55	0.55	2	0.90	0.20
Naphthalene	27	0.30	0.00	5	3.00	1.00
Nickel	44	12007.95	11000.00	44	29500.00	900.00
Pentachlorophenol	2	0.00	0.00	0	.	.
Phenanthrene	26	2.06	0.00	7	21.00	0.90
Polychlorinated biphenyls	485	0.24	0.00	21	14.10	0.10
Pyrene	29	2.19	0.00	9	14.00	0.90
Silver	43	238.77	230.00	35	1320.00	10.00
Toxaphene	82	0.00	0.00	0	.	.
Trichlorofluoromethane	1	0.00	0.00	0	.	.
Zinc	137	148789.1	59000.00	137	2220000	3200.00

## Biotoxicity Data

Lat.	Long.	Date	Species Name	Phase	% Mortality		Sign.
					Test	Control	
Monitoring Program: EPA Region 9 Dredged Material Program							
33.4578	117.6750	88-02-02	Macoma Nasuta	S	0.00	0.00	no
			Nephtys Caecoides	S	7.00	8.00	no
33.4667	117.7000	88-02-02	Macoma Nasuta	S	3.00	0.00	no
			Nephtys Caecoides	S	13.00	8.00	no
33.4675	117.6747	88-02-02	Macoma Nasuta	S	1.00	0.00	no
			Nephtys Caecoides	S	6.00	8.00	no