

Watershed Summary Information

Accounting Unit Name: Laguna-San Diego Coastal

State(s): CA

Political Boundaries: San Diego

Major Waterways: San Dieguito R
Santa Ysabel Cr
Sweetwater R
Sweetwater Res
San Vicente Res

Number of Stations in Watershed: Tier1 - 53
Tier2 - 51
Tier3 - 3



Figure 191. Watershed Location Map

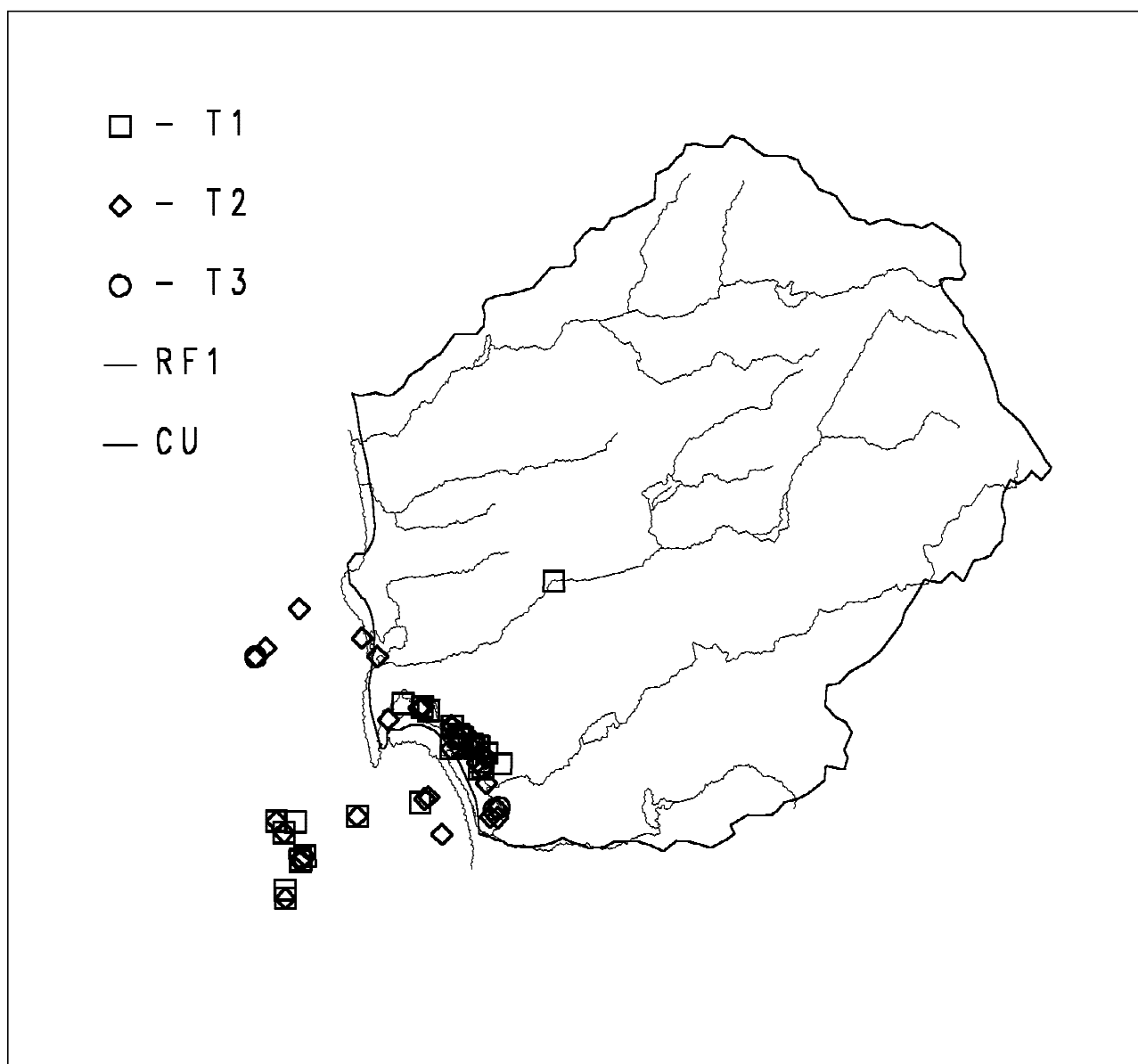


Figure 192. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **COSED** Agency: **NS&T**
 Monitoring Program: **NOAA/National Status and Trends**
 Num. of Stations: 34 Date Range: 1984-91

Source: **DMATS** Agency: **09**
 Monitoring Program: **EPA Region 9 Dredged Material Program**
 Num. of Stations: 41 Date Range: 1983-92

Source: **ODES** Agency: **L5**
 Monitoring Program: **LA5 Ocean Dumping**
 Num. of Stations: 27 Date Range: 1983-84

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

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

Num. of Stations: 3 Date Range: 1987

Source: **STORET** Agency: **11TOX09**

Monitoring Program: **USEPA Region 9 Priority Pollutant Data**

Num. of Stations: 1 Date Range: 1981

Source: **STORET** Agency: **112WRD**

Monitoring Program: **US Geological Survey Data**

Num. of Stations: 1 Date Range: 1988

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
Polychlorinated biphenyls	93	78	33	45	30	30	4	74
Copper	106	70	.	70	.	70	.	.
DDT	84	56	11	45	11	44	.	18
Lead	106	48	.	48	.	46	.	3
Mercury	101	44	18	26	18	26	.	.
Cadmium	102	42	.	42	.	42	.	.
Arsenic	99	40	.	40	.	36	.	4
Zinc	106	39	.	39	.	39	.	.
Benzo(a)pyrene	53	37	1	36	1	28	.	37
Pyrene	55	34	1	33	1	33	.	.
Benzo(a)anthracene	51	28	1	27	1	26	.	23
Chrysene	50	28	.	28	.	28	.	.
Silver	71	27	4	23	4	23	.	.
Anthracene	45	23	1	22	1	22	.	.
Chromium	102	23	.	23	.	23	.	.
Dibenzo(a,h)anthracene	37	18	4	14	4	14	.	17
Fluoranthene	50	17	.	17	.	17	.	.
Acenaphthylene	29	16	.	16	.	16	.	.
Indeno(1,2,3-cd)pyrene	38	14	.	14	.	1	.	14
Fluorene	39	12	2	10	2	10	.	.
Nickel	61	12	.	12	.	12	.	.
Phenanthrene	48	11	.	11	.	11	.	.
Acenaphthene	32	8	.	8	.	8	.	.
Dieldrin	40	8	.	8	.	2	.	7
Naphthalene	45	8	.	8	.	8	.	.
Aldrin	56	6	.	6	.	.	.	6
Benzo(b)fluoranthene	12	6	.	6	.	.	.	6
Chlordane	34	6	.	6	.	6	.	2
BHC	67	5	2	3	2	3	.	2
Bis(2-ethylhexyl)phthalate	17	4	1	3	1	3	.	1

Classifying Parameter	Number of Stations							
	All Parameters				Aquatic Life		Human Health	
	Total	T.1&2	Tier1	Tier2	Tier1	Tier2	Tier1	Tier2
HMW_PAHs	3	3	.	3	.	3	.	.
LMW_PAHs	3	3	.	3	.	3	.	.
Benzo(ghi)perylene	37	2	.	2	.	2	.	.
Dimethyl phthalate	17	2	.	2	.	2	.	.
Di-n-butyl phthalate	17	1	1	.	1	.	.	.
Dichlorobenzene, 1,4-	7	1	1	.	1	.	.	.
Dimethylphenol, 2,4-	17	1	.	1	.	1	.	.
Phenol	17	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	72	21.65	0.00	20	413.00	1.00
Acenaphthylene	82	24.93	0.00	35	250.00	1.00
Acrylonitrile	1	0.00	0.00	0	.	.
Aldrin	193	0.04	0.00	11	1.60	0.08
Anthracene	112	117.04	25.50	76	4200.00	0.04
Antimony	53	1058.30	630.00	53	21100.00	180.00
Arsenic	223	4327.97	1917.00	218	30700.00	12.00
Benzene	1	0.00	0.00	0	.	.
Benzo(a)anthracene	120	153.76	76.50	88	1700.00	0.06
Benzo(a)pyrene	121	220.26	52.80	81	3300.00	0.13
Benzo(b)fluoranthene	16	413.30	37.50	15	1900.00	0.14
Benzo(ghi)perylene	99	129.63	0.00	49	2000.00	0.17
Benzo(k)fluoranthene	18	305.54	35.50	16	1200.00	0.09
Benzoic acid	5	0.00	0.00	0	.	.
Benzyl alcohol	5	0.00	0.00	0	.	.
Biphenyl	11	6.73	2.00	11	36.00	0.08
Bis(2-ethylhexyl)phthalate	23	1322.46	0.00	8	18000.00	58.82
Bromophenyl phenyl ether, 4-	9	0.00	0.00	0	.	.
Butyl benzyl phthalate	23	17.67	0.00	2	354.00	52.30
BHC	626	0.02	0.00	10	5.40	0.10
Cadmium	246	778.89	626.50	235	5090.00	7.00
Chlordane	90	4.23	0.00	39	200.00	0.03
Chlorobenzene	1	0.00	0.00	0	.	.
Chromium	246	33740.41	25050.00	246	192000.0	1000.00
Chrysene	120	251.90	103.50	89	2700.00	0.12
Copper	280	72503.85	25450.00	280	1900000	1800.00
Cresol, m-	3	0.23	0.21	3	0.26	0.21
Cresol, o	42	0.02	0.00	3	0.26	0.21
Cresol, p-	39	0.00	0.00	0	.	.
Di-n-butyl phthalate	23	1542.98	0.00	6	34690.00	16.00

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Di-n-octyl phthalate	23	6.14	0.00	2	123.00	18.30
Dibenzo(a,h)anthracene	97	36.30	0.00	42	490.00	2.00
Dibenzofuran	5	0.00	0.00	0	.	.
Dibromochloromethane	1	0.00	0.00	0	.	.
Dichlorobenzene, 1,2-	9	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	9	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	9	46.67	0.00	1	420.00	420.00
Dichloroethane 1,1-	1	0.00	0.00	0	.	.
Dichloroethane 1,2-	1	0.00	0.00	0	.	.
Dichloroethene, trans-1,2-	1	0.00	0.00	0	.	.
Dichloromethane	1	30.60	30.60	1	30.60	30.60
Dichloropropane, 1,2-	1	0.00	0.00	0	.	.
Dieldrin	78	0.26	0.00	17	5.60	0.07
Diethyl phthalate	23	2.00	0.00	1	46.03	46.03
Dimethyl phthalate	23	23.48	0.00	3	240.00	101.00
Dimethylphenol, 2,4-	53	26.98	0.00	2	1100.00	330.00
DDT	754	4.57	1.00	444	150.00	0.04
Endosulfan mixed isomers	1	0.00	0.00	0	.	.
Endosulfan, alpha-	61	0.00	0.00	0	.	.
Endosulfan, beta-	61	0.00	0.00	0	.	.
Endrin	61	0.00	0.00	0	.	.
Ethylbenzene	1	0.00	0.00	0	.	.
Fluoranthene	118	225.75	100.50	89	2411.00	0.17
Fluorene	91	36.40	0.00	37	910.00	2.00
Heptachlor	67	0.04	0.00	6	1.00	0.03
Heptachlor epoxide	193	0.01	0.00	4	0.80	0.10
Hexachlorobenzene	26	0.17	0.06	17	1.00	0.01
Hexachlorobutadiene	12	0.00	0.00	0	.	.
Hexachloroethane	9	0.00	0.00	0	.	.
HMW_PAHs	3	5343.33	5150.00	3	7500.00	3380.00
Indeno(1,2,3-cd)pyrene	101	123.87	0.18	52	2000.00	0.16
Isophorone	9	0.00	0.00	0	.	.
Lead	280	34998.82	18740.00	264	353000.0	1380.00
LMW_PAHs	3	593.33	560.00	3	760.00	460.00
Mercury	254	1254.91	68.05	221	130000.0	0.20
Methoxychlor	6	0.00	0.00	0	.	.
Methylnaphthalene, 2-	3	0.00	0.00	0	.	.
Mirex/Dechlorane	5	0.92	0.70	5	2.00	0.40
Naphthalene	110	14.37	0.00	52	258.00	0.34
Nickel	100	12794.50	10750.00	100	35600.00	2000.00
Nitrosodiphenylamine, N-	9	0.00	0.00	0	.	.
Pentachlorobenzene	5	0.00	0.00	0	.	.
Pentachlorophenol	56	0.00	0.00	0	.	.
Phenanthrene	119	107.72	40.10	81	1384.00	0.07

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Phenol	53	364.91	0.00	3	15000.00	840.00
Polychlorinated biphenyls	1156	598.11	0.00	409	190000.0	0.10
Pyrene	121	321.80	164.00	96	2700.00	0.16
Silver	137	2633.82	376.00	117	263000.0	10.00
Tetrachlorobenzene, 1,2,4,5-	5	0.00	0.00	0	.	.
Tetrachloroethane, 1,1,2,2-	1	0.00	0.00	0	.	.
Tetrachloroethene	1	0.00	0.00	0	.	.
Tetrachloromethane	1	0.00	0.00	0	.	.
Toluene	1	0.00	0.00	0	.	.
Toxaphene	61	0.00	0.00	0	.	.
Tribromomethane/Bromoform	1	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	9	0.00	0.00	0	.	.
Trichloroethane, 1,1,1-	1	0.00	0.00	0	.	.
Trichloroethane, 1,1,2-	1	0.00	0.00	0	.	.
Trichloroethene	1	0.00	0.00	0	.	.
Trichlorofluoromethane	1	0.00	0.00	0	.	.
Trichloromethane/Chloroform	1	0.00	0.00	0	.	.
Zinc	273	142655.4	66000.00	266	1322000	448.00

Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	4	0.00	0.00	0	.	.
Arsenic	4	281.42	209.42	4	581.33	125.50
BHC	12	0.00	0.00	0	.	.
Cadmium	4	449.37	468.75	4	710.00	150.00
Chromium	4	406.25	396.25	4	597.50	235.00
Copper	4	933.75	992.50	4	1065.00	685.00
DDT	12	44.37	31.38	11	122.25	3.00
Heptachlor	4	0.00	0.00	0	.	.
Heptachlor epoxide	4	0.00	0.00	0	.	.
Lead	4	2582.50	2412.50	4	4297.50	1207.50
Mercury	4	107.26	111.10	4	155.70	51.13
Polychlorinated biphenyls	16	74.45	20.67	11	356.75	5.38
Zinc	4	19133.75	17930.00	4	25400.00	15275.00

Biotoxicity Data

Lat.	Long.	Date	Species Name	Phase	% Mortality		Sign.
					Test	Control	
Monitoring Program: EPA Region 9 Dredged Material Program							
32.6811	117.1306	89-10-18	Acanthomysis Costata	E	30.00	6.67	Yes
			Macoma Nasuta	S	2.00	2.00	no
			Macoma Nasuta	S	5.00	3.00	no
			Nephtys Caecoides	S	8.00	6.00	no
			Nephtys Caecoides	S	9.50	5.00	no
			Rhepoxynius Abronius	S	69.00	11.00	Yes
			Sandab Speckled	E	23.33	3.33	no
32.6825	117.1306	89-10-18	Acanthomysis Costata	E	23.33	6.67	no
			Macoma Nasuta	S	0.00	3.00	no
			Macoma Nasuta	S	1.00	2.00	no
			Nephtys Caecoides	S	3.00	6.00	no
			Nephtys Caecoides	S	10.50	5.00	no
			Rhepoxynius Abronius	S	44.00	11.00	Yes
			Sandab Speckled	E	6.67	3.33	no
32.7022	117.1556	92-01-29	Acanthomysis Costata	S	17.00	7.00	no
			Nephtys Caecoides	S	7.00	7.00	no