

Watershed Summary Information

Accounting Unit Name:	New Jersey Coastal
State(s):	NJ
Political Boundaries:	Ocean, Burlington, Atlantic, Monmouth, Camden, New Castle
Major Waterways:	Mullica R Wading R Metedconk R Wading R, W Br Manasquan R
Number of Stations in Watershed:	Tier1 - 10 Tier2 - 22 Tier3 - 10

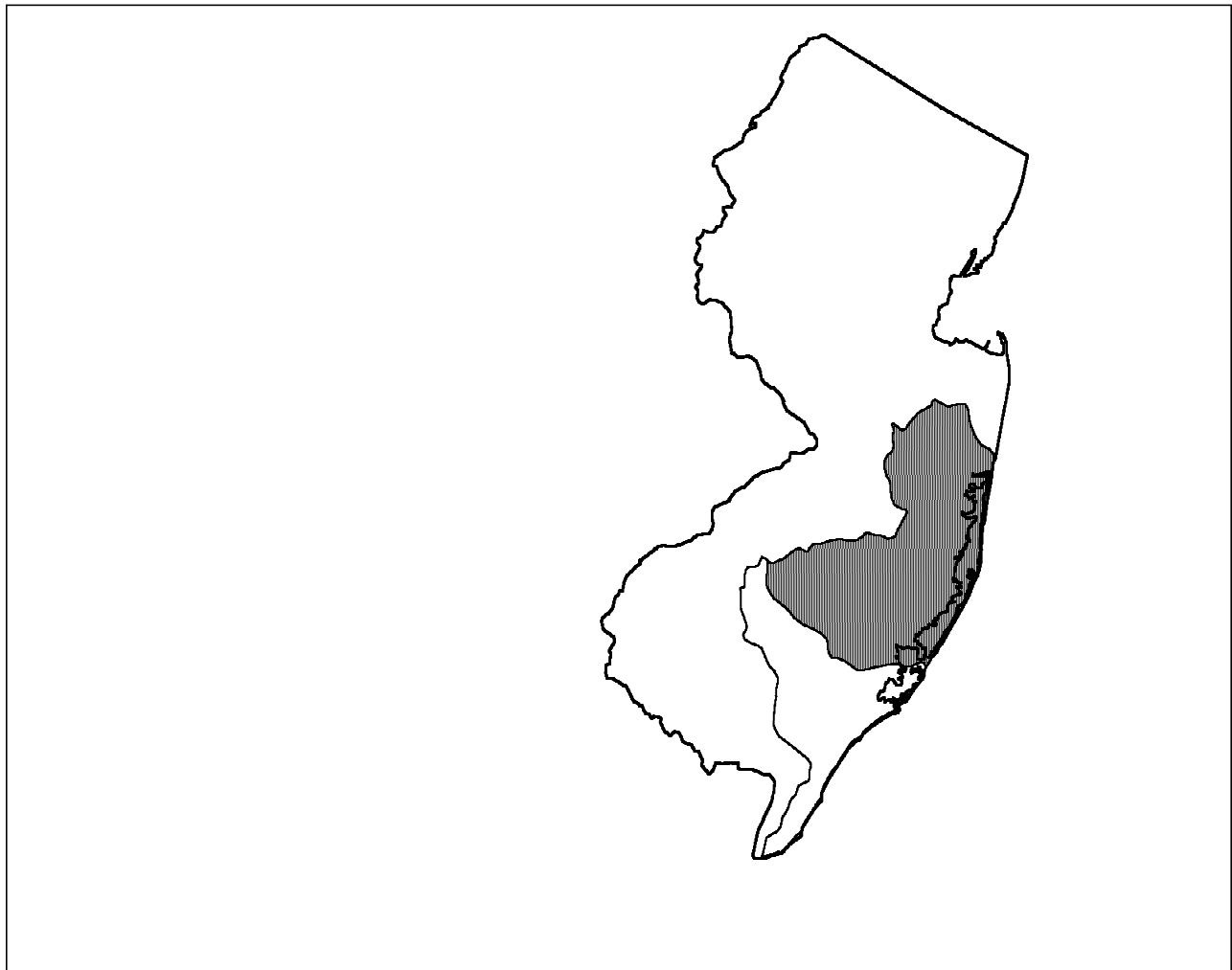


Figure 21. Watershed Location Map

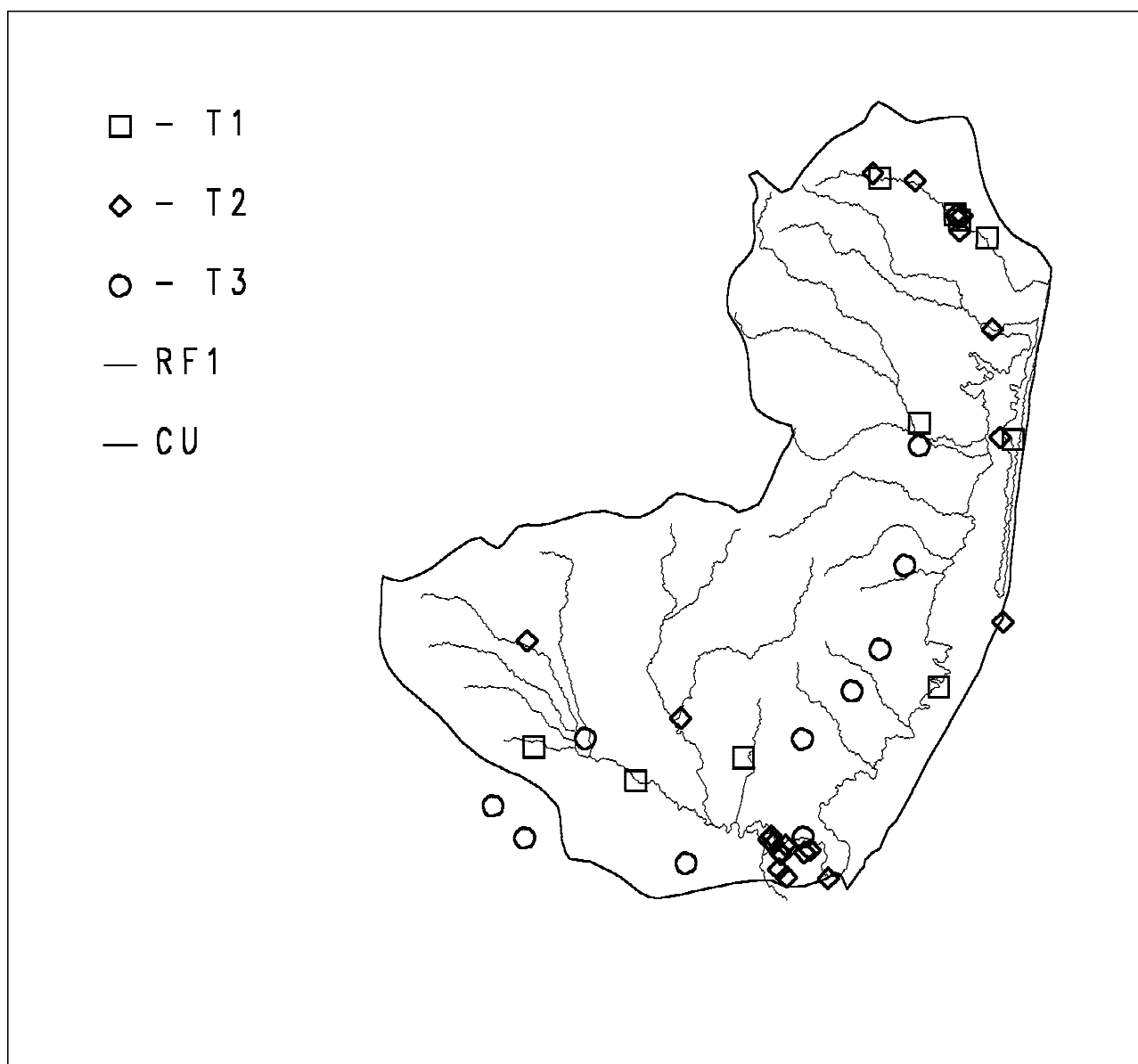


Figure 22. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **COSED** Agency: **NS&T**
 Monitoring Program: **NOAA/National Status and Trends**
 Num. of Stations: 6 Date Range: 1985-91

Source: **EMAP-VA** Agency: **EMAPVA**
 Monitoring Program: **EMAP-VA Province**
 Num. of Stations: 4 Date Range: 1990-91

Source: **STORET** Agency: **11BIOACC**
 Monitoring Program: **USEPA National Bioaccumulation Study**
 Num. of Stations: 2 Date Range: 1984

Source: **STORET** Agency: **111H030**
Monitoring Program: **USEPA Region 2 Data**
Num. of Stations: 2 Date Range: 1987-88

Source: **STORET** Agency: **112WRD**
Monitoring Program: **US Geological Survey Data**
Num. of Stations: 15 Date Range: 1981-92

Source: **STORET** Agency: **21NJDEP1**
Monitoring Program: **New Jersey Dept Environ Protection Data - Div of Water Resources**
Num. of Stations: 13 Date Range: 1980-83

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
Arsenic	28	17	.	17	.	13	.	4
Lead	36	14	.	14	.	13	.	1
Benzo(a)pyrene	14	13	.	13	.	5	.	13
Mercury	32	12	2	10	2	10	.	.
Polychlorinated biphenyls	17	12	2	10	.	6	2	10
Chromium	30	12	.	12	.	12	.	.
Copper	36	11	.	11	.	11	.	.
DDT	18	10	2	8	2	8	.	2
Nickel	26	9	.	9	.	9	.	.
Zinc	39	9	.	9	.	9	.	.
Anthracene	11	8	.	8	.	8	.	.
Bis(2-ethylhexyl)phthalate	7	7	4	3	4	3	.	5
Benzo(a)anthracene	13	7	.	7	.	7	.	4
Chrysene	14	6	.	6	.	6	.	.
Cadmium	39	5	.	5	.	5	.	.
Naphthalene	9	5	.	5	.	5	.	.
Pyrene	16	5	.	5	.	5	.	.
Acenaphthylene	5	4	.	4	.	4	.	.
Chlordane	19	4	.	4	.	4	.	3
Dibenzo(a,h)anthracene	8	4	.	4	.	4	.	2
Dieldrin	15	4	.	4	.	2	.	4
Fluoranthene	17	4	.	4	.	4	.	.
Silver	18	4	.	4	.	4	.	.
BHC	19	3	1	2	1	2	.	.
Phenanthrene	16	3	1	2	1	2	.	.
Fluorene	12	3	.	3	.	3	.	.
Acenaphthene	5	2	.	2	.	2	.	.
Dioxins	2	1	1	.	.	.	1	.
Benzo(b)fluoranthene	4	1	.	1	.	.	.	1
Diethyl phthalate	8	1	.	1	.	1	.	.

Classifying Parameter	Number of Stations							
	All Parameters				Aquatic Life		Human Health	
	Total	T.1&2	Tier1	Tier2	Tier1	Tier2	Tier1	Tier2
Heptachlor	13	1	.	1	.	.	.	1
Methylnaphthalene, 2-	2	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	7	63.93	7.00	6	400.00	3.00
Acenaphthylene	7	15.21	12.78	6	35.42	6.00
Aldrin	31	0.19	0.00	4	2.00	1.00
Anthracene	18	68.70	44.94	17	280.00	8.00
Antimony	22	2458.82	392.00	15	47000.00	161.00
Arsenic	45	6187.56	4600.00	37	34900.00	370.00
Benzo(a)anthracene	19	119.00	74.20	19	490.00	17.00
Benzo(a)pyrene	21	90.56	69.60	20	300.00	27.00
Benzo(b)fluoranthene	6	88.08	61.21	6	185.26	52.41
Benzo(ghi)perylene	11	67.28	50.57	10	256.00	26.00
Benzo(k)fluoranthene	3	96.65	89.72	3	145.89	54.35
Biphenyl	7	7.68	6.29	6	19.86	5.00
Bis(2-ethylhexyl)phthalate	7	2958.57	3800.00	7	4230.00	930.00
BHC	34	0.23	0.00	9	4.20	0.01
Cadmium	57	259.12	0.00	19	2790.00	200.00
Chlordane	37	2.73	0.80	24	38.00	0.08
Chromium	48	45032.71	18000.00	44	240000.0	1000.00
Chrysene	21	125.59	85.83	21	630.00	36.60
Copper	55	14407.27	5000.00	46	151000.0	1000.00
Di-n-butyl phthalate	8	310.88	285.00	8	540.00	130.00
Di-n-octyl phthalate	1	40.00	40.00	1	40.00	40.00
Diazinon/Spectracide	17	0.01	0.00	1	0.10	0.10
Dibenzo(a,h)anthracene	11	13.20	7.69	9	53.00	1.20
Dichloroethane 1,2-	1	21.00	21.00	1	21.00	21.00
Dichloroethene, trans-1,2-	1	2.00	2.00	1	2.00	2.00
Dichloromethane	7	59.00	40.00	7	163.00	6.00
Dieldrin	29	0.78	0.00	11	12.00	0.10
Diethyl phthalate	8	101.75	87.00	8	200.00	27.00
DDT	144	4.36	0.56	110	140.00	0.05
Endosulfan mixed isomers	23	0.18	0.00	3	1.90	0.50
Endrin	23	0.00	0.00	0	.	.
Ethion/Bladen	17	0.00	0.00	0	.	.
Ethylbenzene	1	3.00	3.00	1	3.00	3.00
Fluoranthene	24	254.93	115.86	24	2250.00	15.00
Fluorene	15	46.04	10.63	13	520.00	3.30
Heptachlor	28	0.31	0.00	5	7.00	0.20

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Heptachlor epoxide	32	0.23	0.00	6	2.00	0.10
Hexachlorobenzene	16	0.50	0.31	13	2.00	0.15
Indeno(1,2,3-cd)pyrene	13	71.23	65.15	11	267.00	30.00
Lead	54	22200.00	10000.00	32	206000.0	7600.00
Malathion	17	0.00	0.00	0	.	.
Mercury	47	199.11	20.00	28	2700.00	10.00
Methoxychlor	23	0.00	0.00	0	.	.
Methylnaphthalene, 2-	2	30.35	30.35	2	41.00	19.70
Mirex/Dechlorane	28	0.06	0.00	1	1.76	1.76
Naphthalene	16	31.08	27.73	16	70.00	9.53
Nickel	45	9773.33	0.00	19	36100.00	12500.00
Phenanthrene	23	167.64	69.00	23	2050.00	20.00
Polychlorinated biphenyls	34	12.82	1.50	19	82.88	0.93
Pyrene	23	222.74	111.14	23	1470.00	27.00
Silver	26	339.50	215.00	15	1400.00	170.00
Tetrachloroethene	1	3.00	3.00	1	3.00	3.00
Toluene	2	34.00	34.00	2	55.00	13.00
Toxaphene	23	0.00	0.00	0	.	.
Trichloroethene	1	2.00	2.00	1	2.00	2.00
Zinc	57	68564.91	17000.00	48	423000.0	1000.00

Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Arsenic	6	1385.00	970.00	6	3110.00	520.00
Biphenyl	1	0.00	0.00	0	.	.
BHC	4	0.00	0.00	0	.	.
Cadmium	10	225.00	160.00	10	790.00	20.00
Chlordane	4	28.93	23.57	4	64.66	3.92
Chlorpyrifos/Dursban	2	1.45	1.45	1	2.91	2.91
Chromium	10	190.00	95.00	6	510.00	70.00
Copper	8	6542.50	2350.00	8	20520.00	1200.00
Dicofol/Kelthane	2	0.00	0.00	0	.	.
Dieldrin	2	13.08	13.08	2	19.25	6.90
Dioxins	4	0.00	0.00	3	0.00	0.00
DDT	1	59.92	59.92	1	59.92	59.92
Endrin	2	0.00	0.00	0	.	.
Heptachlor	2	0.00	0.00	0	.	.
Heptachlor epoxide	2	4.04	4.04	1	8.07	8.07
Hexachlorobenzene	2	0.00	0.00	0	.	.
Hexachlorobutadiene	2	0.00	0.00	0	.	.
Isopropalin	2	1.06	1.06	1	2.11	2.11

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Lead	10	668.00	0.00	4	6330.00	90.00
Manganese	8	2428.75	2185.00	8	4680.00	1510.00
Mercury	12	113.33	45.00	7	680.00	40.00
Methoxychlor	2	0.00	0.00	0	.	.
Mirex/Dechlorane	2	0.00	0.00	0	.	.
Nickel	8	1197.50	1205.00	8	2110.00	360.00
Pentachlorobenzene	2	0.00	0.00	0	.	.
Pentachloronitrobenzene/Quin	2	0.00	0.00	0	.	.
Polychlorinated biphenyls	2	250.25	250.25	2	480.00	20.50
Tetrachlorobenzene, 1,2,4,5-	2	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	1	0.00	0.00	0	.	.
Trifluralin/Treflan	2	0.00	0.00	0	.	.
Zinc	10	140161.0	17790.00	10	790000.0	10000.00

Biotoxicity Data

Lat.	Long.	Date	Species Name	Phase	% Mortality		Sign
					Test	Control	
Monitoring Program: EMAP-VA Province							
39.5037	74.3847	91-07-24	Ampelisca Abdita	S	15.00	5.00	no
39.5417	74.4083	90-08-11	Ampelisca Abdita	S	44.00	6.80	Yes
39.9433	74.1018	90-08-10	Ampelisca Abdita	S	13.40	6.80	no
40.0517	74.1108	91-08-05	Ampelisca Abdita	S	16.00	10.00	no