

**Watershed Summary Information**

**Accounting Unit Name:** Mass.-Rhode Island Coastal

**State(s):** MA (RI)

**Political Boundaries:** Plymouth, Barnstable, Bristol, Dukes, Newport, Nantucket

**Major Waterways:** West Port R, E Branch  
Acushnet R  
Mattapoisett R  
Slocums R  
Weweantic R

**Number of Stations in Watershed:** Tier1 - 15  
Tier2 - 73  
Tier3 - 20

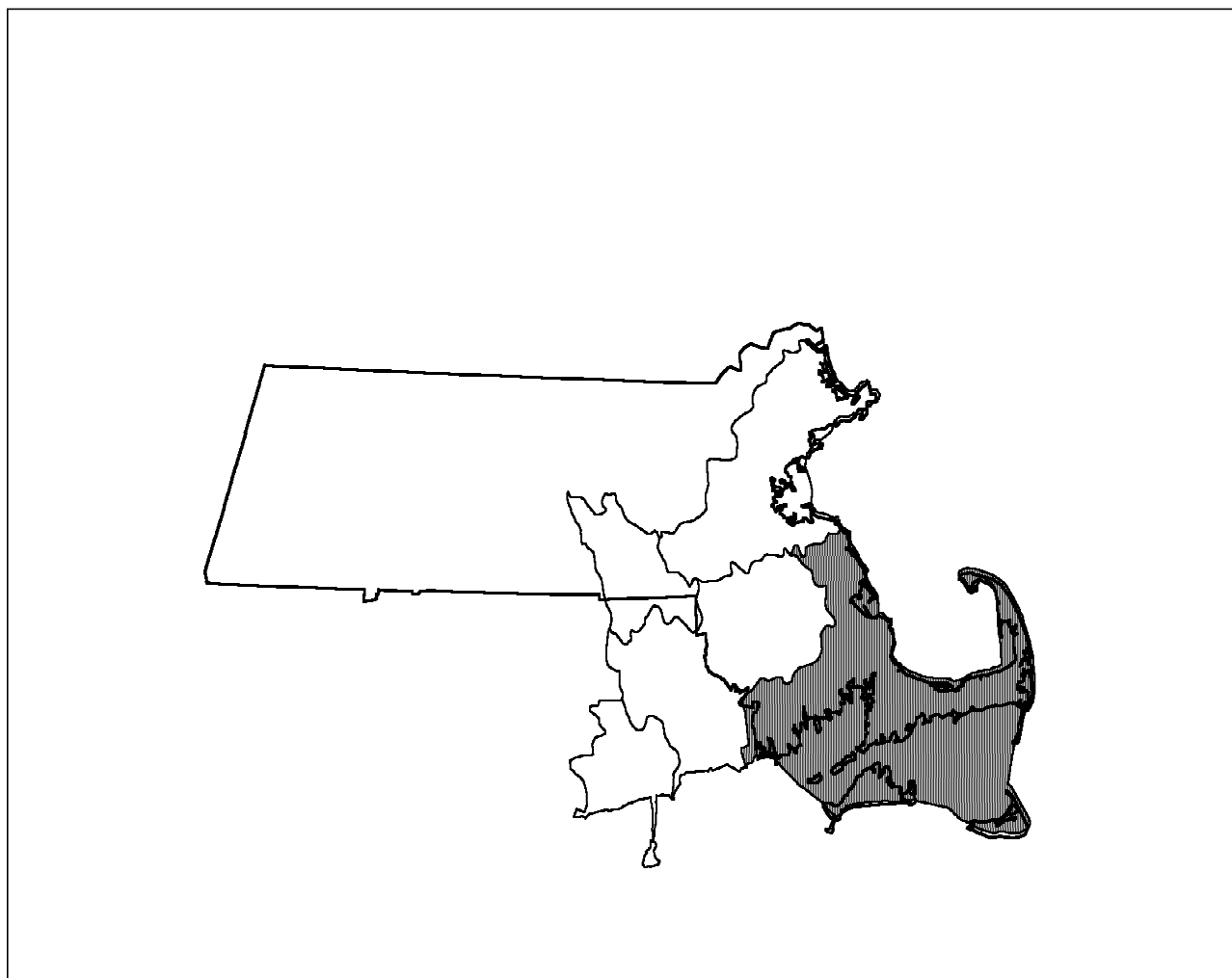


Figure 3. Watershed Location Map

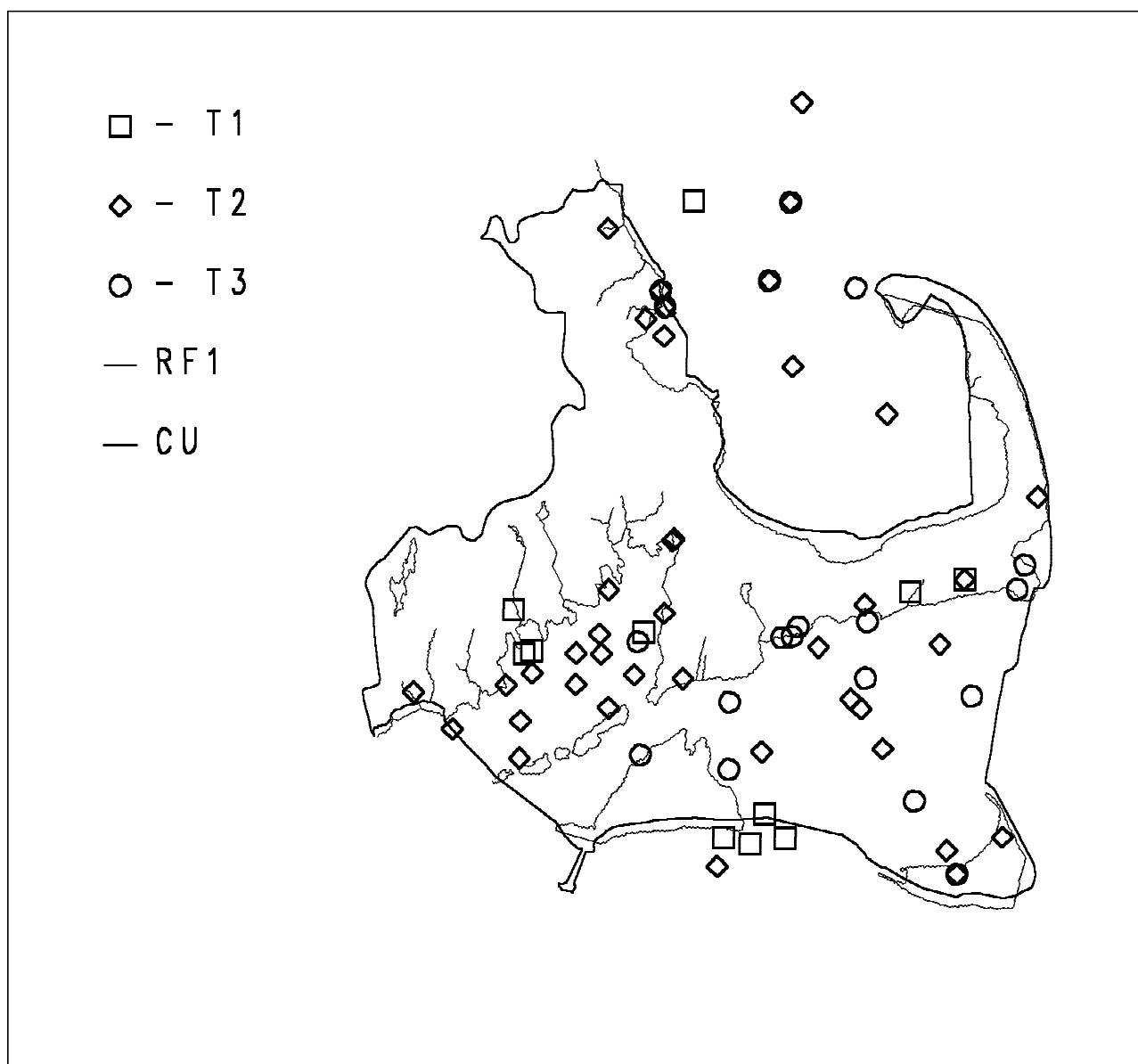


Figure 4. Major Waterways and Location of Sampling Stations

## Data Source(s) Used in Evaluation

Source: **COSED** Agency: **NS&T**  
 Monitoring Program: **NOAA/National Status and Trends**  
 Num. of Stations: 30 Date Range: 1984-91

Source: **EMAP-VA** Agency: **EMAPVA**  
 Monitoring Program: **EMAP-VA Province**  
 Num. of Stations: 16 Date Range: 1990-91

Source: **MASSBAY** Agency: **Appx in Battelle, Shea et**  
 Monitoring Program: **Battelle, 1984**  
 Num. of Stations: 5 Date Range: 1983

Source: **MASSBAY** Agency: **USACOE-dredge**  
 Monitoring Program: **MacDonald, 1991**  
 Num. of Stations: 45 Date Range: 1982-87

Source: **ODES** Agency: **BH**  
 Monitoring Program: **Boston Harbor**  
 Num. of Stations: 6 Date Range: 1983

Source: **SEACOE** Agency: **NOAA84**  
 Monitoring Program: **Benthic Surveillance 1984**  
 Num. of Stations: 6 Date Range: 1984

## 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	106	46	.	46	.	46	.	.
Lead	108	42	.	42	.	42	.	.
Polychlorinated biphenyls	42	41	8	33	8	17	.	41
Benzo(a)pyrene	47	38	.	38	.	12	.	38
Chromium	105	34	2	32	2	32	.	.
Mercury	94	33	6	27	6	27	.	.
Nickel	87	33	.	33	.	33	.	.
Dibenzo(a,h)anthracene	38	29	3	26	3	25	.	19
DDT	52	27	1	26	1	26	.	3
Arsenic	73	21	.	21	.	21	.	.
Benzo(a)anthracene	48	20	1	19	1	19	.	8
Pyrene	44	17	1	16	1	16	.	.
Cadmium	105	17	.	17	.	17	.	.
Chrysene	47	17	.	17	.	17	.	.
Zinc	83	13	.	13	.	13	.	.
Fluorene	42	12	1	11	1	11	.	.
Anthracene	37	12	.	12	.	12	.	.
Acenaphthylene	25	11	.	11	.	11	.	.
Dieldrin	38	11	.	11	.	.	.	11
Naphthalene	36	10	3	7	3	7	.	.
Silver	54	8	1	7	1	7	.	.
BHC	32	8	.	8	.	8	.	.
Aldrin	33	5	.	5	.	.	.	5
Methylnaphthalene, 2-	19	5	.	5	.	5	.	.
Heptachlor epoxide	38	2	.	2	.	.	.	2
HMW_PAHs	6	1	1	.	1	.	.	.
LMW_PAHs	6	1	1	.	1	.	.	.
Benzo(b)fluoranthene	15	1	.	1	.	.	.	1
Chlordane	34	1	.	1	.	1	.	1
Fluoranthene	47	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	30	1	.	1	.	.	.	1
Indeno(1,2,3-cd)pyrene	30	1	.	1	.	.	.	1
Phenanthrene	42	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	39	15.84	1.72	25	390.00	0.33
Acenaphthylene	33	6.00	2.19	25	20.79	1.00
Aldrin	35	0.54	0.00	13	6.85	0.30
Anthracene	63	42.41	14.73	55	522.71	0.70
Antimony	56	800.32	493.00	46	14100.00	68.00
Arsenic	97	6913.47	4400.00	97	51250.00	440.00
Benzo(a)anthracene	69	137.86	54.00	61	2700.00	3.07
Benzo(a)pyrene	69	97.36	47.12	62	1300.00	2.14
Benzo(b)fluoranthene	23	49.51	46.48	23	120.00	5.65
Benzo(ghi)perylene	39	42.42	17.06	31	671.00	0.90
Benzo(k)fluoranthene	22	35.82	34.08	22	77.50	3.66
Biphenyl	44	5.45	1.90	32	54.00	0.53
BHC	32	0.51	0.00	11	5.00	0.09
Cadmium	130	469.40	195.00	94	7000.00	9.00
Chlordane	40	0.66	0.00	19	8.00	0.34
Chromium	127	48030.94	28700.00	125	856000.0	990.00
Chrysene	68	141.94	66.00	61	2200.00	4.58
Copper	132	38680.76	15000.00	125	1500000	492.00
Dibenzo(a,h)anthracene	58	65.53	18.00	45	860.00	1.38
Dieldrin	46	1.27	0.23	25	16.00	0.20
DDT	232	3.45	0.50	140	240.00	0.02
Fluoranthene	69	237.12	110.00	63	5000.00	8.22
Fluorene	56	30.00	6.15	39	1000.00	0.52
Heptachlor	31	2.78	0.00	11	72.10	0.16
Heptachlor epoxide	43	0.41	0.00	21	4.86	0.07
Hexachlorobenzene	56	1.06	0.28	37	20.00	0.02
HMW_PAHs	6	2666.67	0.00	1	16000.00	16000.00
Indeno(1,2,3-cd)pyrene	40	44.67	18.88	32	675.00	2.00
Lead	134	31615.09	23050.00	115	282000.0	2750.00
LMW_PAHs	6	2000.00	0.00	1	12000.00	12000.00
Mercury	120	452.80	80.00	108	18900.00	4.49
Methylnaphthalene, 2-	19	44.55	0.00	7	420.00	14.00
Mirex/Dechlorane	36	0.28	0.24	20	0.86	0.11
Naphthalene	55	164.82	13.02	50	6700.00	1.20
Nickel	113	12600.06	11000.00	92	62700.00	2100.00

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Phenanthrene	66	142.23	61.18	66	2900.00	1.76
Polychlorinated biphenyls	54	215.08	23.57	54	4110.52	0.83
Pyrene	67	238.10	103.89	65	4600.00	0.95
Silver	80	494.01	280.00	70	6940.00	8.69
Zinc	109	76047.48	56000.00	109	613000.0	4000.00

## Biotoxicity Data

Lat.	Long.	Date	Species Name	Phase	% Mortality		Sign.
					Test	Control	
Monitoring Program: EMAP-VA Province							
41.3157	70.1182	91-09-12	Ampelisca Abdita	S	30.00	9.00	Yes
41.3333	70.0167	91-07-24	Ampelisca Abdita	S	9.00	5.00	no
41.3833	70.1767	90-08-05	Ampelisca Abdita	S	16.70	6.80	no
41.4417	70.9000	91-07-29	Ampelisca Abdita	S	25.00	16.00	no
41.4462	70.6785	91-07-29	Ampelisca Abdita	S	25.00	16.00	no
41.4503	70.4568	91-07-30	Ampelisca Abdita	S	28.30	16.00	no
41.4540	70.2352	91-07-26	Ampelisca Abdita	S	38.00	16.00	Yes
41.5217	70.2938	90-08-16	Ampelisca Abdita	S	14.00	11.00	no
41.5250	70.0718	90-08-05	Ampelisca Abdita	S	18.40	6.80	no
41.5303	71.0943	91-08-09	Ampelisca Abdita	S	20.00	11.00	no
41.5840	70.7967	91-09-13	Ampelisca Abdita	S	5.00	9.00	no
41.5922	70.3525	91-07-30	Ampelisca Abdita	S	32.00	7.70	Yes
41.5957	70.1303	91-07-26	Ampelisca Abdita	S	48.00	16.00	Yes
41.6425	70.9117	90-08-15	Ampelisca Abdita	S	57.00	11.00	Yes



## Watershed Summary Information

<b>Accounting Unit Name:</b>	Mass.-Rhode Island Coastal
<b>State(s):</b>	RI MA
<b>Political Boundaries:</b>	Bristol, Bristol, Providence, Kent, Washington, Plymouth, Newport
<b>Major Waterways:</b>	Seekonk R Taunton R Palmer R Pawtuxet R Nemasket R
<b>Number of Stations in Watershed:</b>	Tier1 - 28 Tier2 - 20 Tier3 - .



Figure 5. Watershed Location Map