

Watershed Summary Information

Accounting Unit Name:	Lower Hudson
State(s):	NJ
Political Boundaries:	Somerset, Hunterdon, Middlesex, Morris, Mercer, Monmouth, Union
Major Waterways:	Millstone R Raritan R, S Br South R Stony Bk Manalapan Bk
Number of Stations in Watershed:	Tier1 - 13 Tier2 - 37 Tier3 - 15



Figure 11. Watershed Location Map

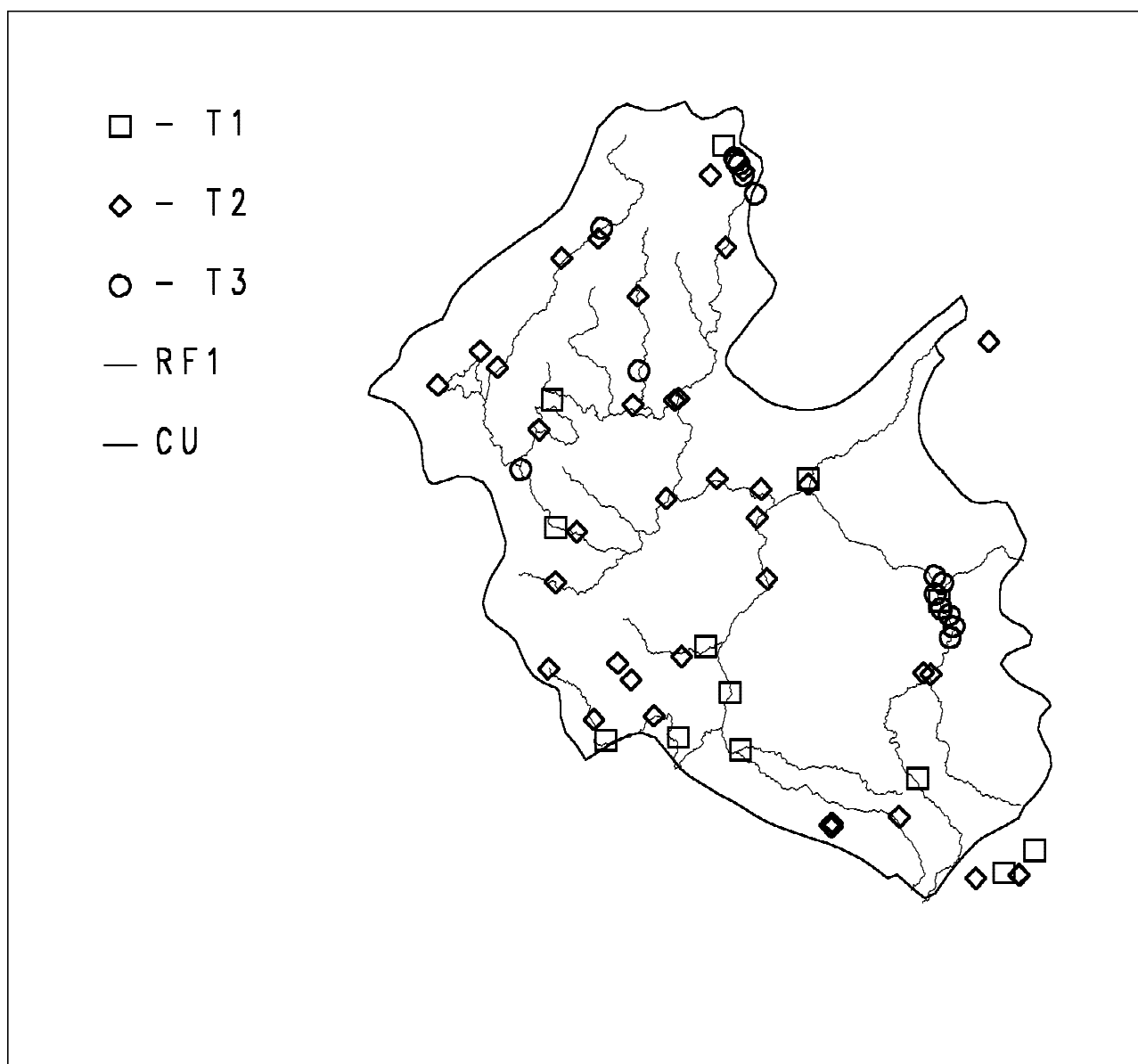


Figure 12. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **STORET** Agency: **11FWS**

Monitoring Program: **US Fish & Wildlife Service Data - USEPA Hq Backdata Study**

Num. of Stations: 1 Date Range: 1980-86

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

Monitoring Program: **US Geological Survey Data**

Num. of Stations: 40 Date Range: 1980-92

Source: **STORET** Agency: **21NJDEP1**

Monitoring Program: **New Jersey Dept Environ Protection Data - Div of Water Resources**

Num. of Stations: 24 Date Range: 1980-84

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	48	29	4	25	3	7	1	28
DDT	49	25	5	20	5	20	.	6
Chlordane	47	25	.	25	.	24	.	21
Copper	46	24	.	24	.	24	.	.
Lead	56	23	.	23	.	23	.	.
Arsenic	53	22	.	22	.	21	.	1
Nickel	55	19	.	19	.	19	.	.
Zinc	56	18	.	18	.	18	.	.
Cadmium	56	13	.	13	.	13	.	.
Mercury	53	12	1	11	1	11	.	.
Chromium	55	10	1	9	1	9	.	.
Dieldrin	45	7	.	7	.	3	.	6
Diazinon/Spectracide	34	6	.	6	.	6	.	.
Bis(2-ethylhexyl)phthalate	13	4	1	3	1	3	.	1
Benzo(a)pyrene	12	3	.	3	.	.	.	3
Aldrin	45	2	.	2	.	.	.	2
Butyl benzyl phthalate	11	2	.	2	.	2	.	.
Fluoranthene	13	2	.	2	.	2	.	.
Phenanthrene	13	2	.	2	.	2	.	.
Naphthalene	9	1	1	.	1	.	.	.
Anthracene	9	1	.	1	.	1	.	.
BHC	46	1	.	1	.	1	.	.
Dibenzo(a,h)anthracene	10	1	.	1	.	1	.	1
Heptachlor epoxide	46	1	.	1	.	.	.	1
Pyrene	13	1	.	1	.	1	.	.
Toxaphene	46	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	9	0.00	0.00	0	.	.
Acenaphthylene	9	0.00	0.00	0	.	.
Aldrin	130	0.02	0.00	4	1.90	0.10
Anthracene	9	23.33	0.00	1	210.00	210.00
Arsenic	126	5003.54	2000.00	90	31000.00	42.00
Benzene	1	6.00	6.00	1	6.00	6.00
Benzo(a)anthracene	10	5.50	0.00	1	55.00	55.00
Benzo(a)pyrene	12	8.92	0.00	3	40.00	27.00
Benzo(b)fluoranthene	9	0.00	0.00	0	.	.
Benzo(ghi)perylene	9	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Benzo(k)fluoranthene	9	0.00	0.00	0	.	.
Bis(2-ethylhexyl)phthalate	13	765.38	0.00	4	7000.00	480.00
Bromophenyl phenyl ether, 4-	9	0.00	0.00	0	.	.
Butyl benzyl phthalate	11	1051.82	0.00	2	6870.00	4700.00
BHC	147	0.01	0.00	1	1.60	1.60
Cadmium	158	136.49	0.00	23	3000.00	34.00
Chlordane	142	8.46	2.00	94	180.00	1.00
Chromium	158	18399.11	6000.00	128	340000.0	270.00
Chrysene	10	6.50	0.00	1	65.00	65.00
Copper	148	18885.14	10000.00	134	280000.0	1000.00
Di-n-butyl phthalate	13	94.85	0.00	4	490.00	33.00
Di-n-octyl phthalate	9	0.00	0.00	0	.	.
Diazinon/Spectracide	106	0.06	0.00	17	2.20	0.10
Dibenzo(a,h)anthracene	10	3.00	0.00	1	30.00	30.00
Dichlorobenzene, 1,2-	9	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	9	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	9	0.00	0.00	0	.	.
Dichloromethane	1	79.00	79.00	1	79.00	79.00
Dieldrin	139	0.27	0.00	66	6.30	0.10
Diethyl phthalate	13	22.77	0.00	4	110.00	33.00
Dimethyl phthalate	9	0.00	0.00	0	.	.
Dimethylphenol, 2,4-	9	0.00	0.00	0	.	.
DDT	420	3.56	0.30	276	206.00	0.10
Endosulfan mixed isomers	123	0.03	0.00	7	1.60	0.10
Endosulfan, alpha-	8	0.00	0.00	0	.	.
Endosulfan, beta-	8	0.00	0.00	0	.	.
Endrin	130	0.02	0.00	3	1.00	0.80
Ethion/Bladen	106	0.00	0.00	0	.	.
Ethylbenzene	1	3.00	3.00	1	3.00	3.00
Fluoranthene	13	52.38	0.00	5	400.00	20.00
Fluorene	10	0.67	0.00	1	6.70	6.70
Heptachlor	131	0.01	0.00	4	0.40	0.20
Heptachlor epoxide	130	0.03	0.00	15	0.80	0.10
Hexachlorobenzene	9	0.00	0.00	0	.	.
Hexachlorobutadiene	9	0.00	0.00	0	.	.
Hexachloroethane	9	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	10	4.70	0.00	1	47.00	47.00
Isophorone	9	0.00	0.00	0	.	.
Lead	158	38666.23	12540.00	109	1700000	1510.00
Malathion	106	0.00	0.00	0	.	.
Mercury	138	60.67	5.00	69	4000.00	10.00
Methoxychlor	130	0.00	0.00	0	.	.
Mirex/Dechlorane	131	0.02	0.00	5	1.30	0.10
Naphthalene	9	54.44	0.00	1	490.00	490.00

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Nickel	157	8271.02	0.00	63	80000.00	650.00
Nitrosodiphenylamine, N-	9	0.00	0.00	0	.	.
Pentachlorophenol	9	0.00	0.00	0	.	.
Phenanthrene	13	33.15	0.00	5	250.00	27.00
Phenol	9	0.00	0.00	0	.	.
Polychlorinated biphenyls	184	11.25	0.00	79	480.00	1.00
Pyrene	13	42.23	0.00	5	320.00	13.00
Silver	13	0.00	0.00	0	.	.
Toluene	1	76.00	76.00	1	76.00	76.00
Toxaphene	131	0.08	0.00	1	10.00	10.00
Trichlorobenzene, 1,2,4-	9	0.00	0.00	0	.	.
Zinc	158	72885.13	40000.00	157	1100000	1000.00

Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	2	10.00	10.00	2	10.00	10.00
Arsenic	6	51.77	45.00	6	84.60	26.00
BHC	12	10.00	10.00	12	10.00	10.00
Cadmium	6	31.30	30.00	6	42.30	20.00
Chlordane	24	58.75	50.00	24	140.00	10.00
Copper	6	957.13	1075.00	6	1420.00	394.80
Dieldrin	6	25.00	25.00	6	40.00	10.00
DCPA/Dacthal	6	16.67	15.00	6	30.00	10.00
DDT	14	115.71	120.00	14	260.00	20.00
Endrin	6	18.33	10.00	6	40.00	10.00
Heptachlor	6	10.00	10.00	6	10.00	10.00
Heptachlor epoxide	2	25.00	25.00	2	40.00	10.00
Hexachlorobenzene	6	10.00	10.00	6	10.00	10.00
Lead	6	331.73	325.20	6	470.00	210.00
Mercury	6	201.07	190.00	6	338.40	110.00
Mirex/Dechlorane	6	10.00	10.00	6	10.00	10.00
Polychlorinated biphenyls	20	630.00	425.00	20	2440.00	80.00
Selenium	6	10770.10	448.30	6	35000.00	360.00
Toxaphene	6	128.33	100.00	6	270.00	100.00
Zinc	6	19210.00	19760.00	6	20900.00	16430.00