

**Watershed Summary Information**

<b>Accounting Unit Name:</b>	Lower Delaware
<b>State(s):</b>	PA
<b>Political Boundaries:</b>	Montgomery, Berks, Chester, Philadelphia, Lehigh, Schuylkill, Bucks, Carbon, Lebanon
<b>Major Waterways:</b>	Schuylkill R Perkiomen Cr Tulpehocken Cr Little Schuylkill R Maiden Cr
<b>Number of Stations in Watershed:</b>	Tier1 - 12 Tier2 - 23 Tier3 - 9

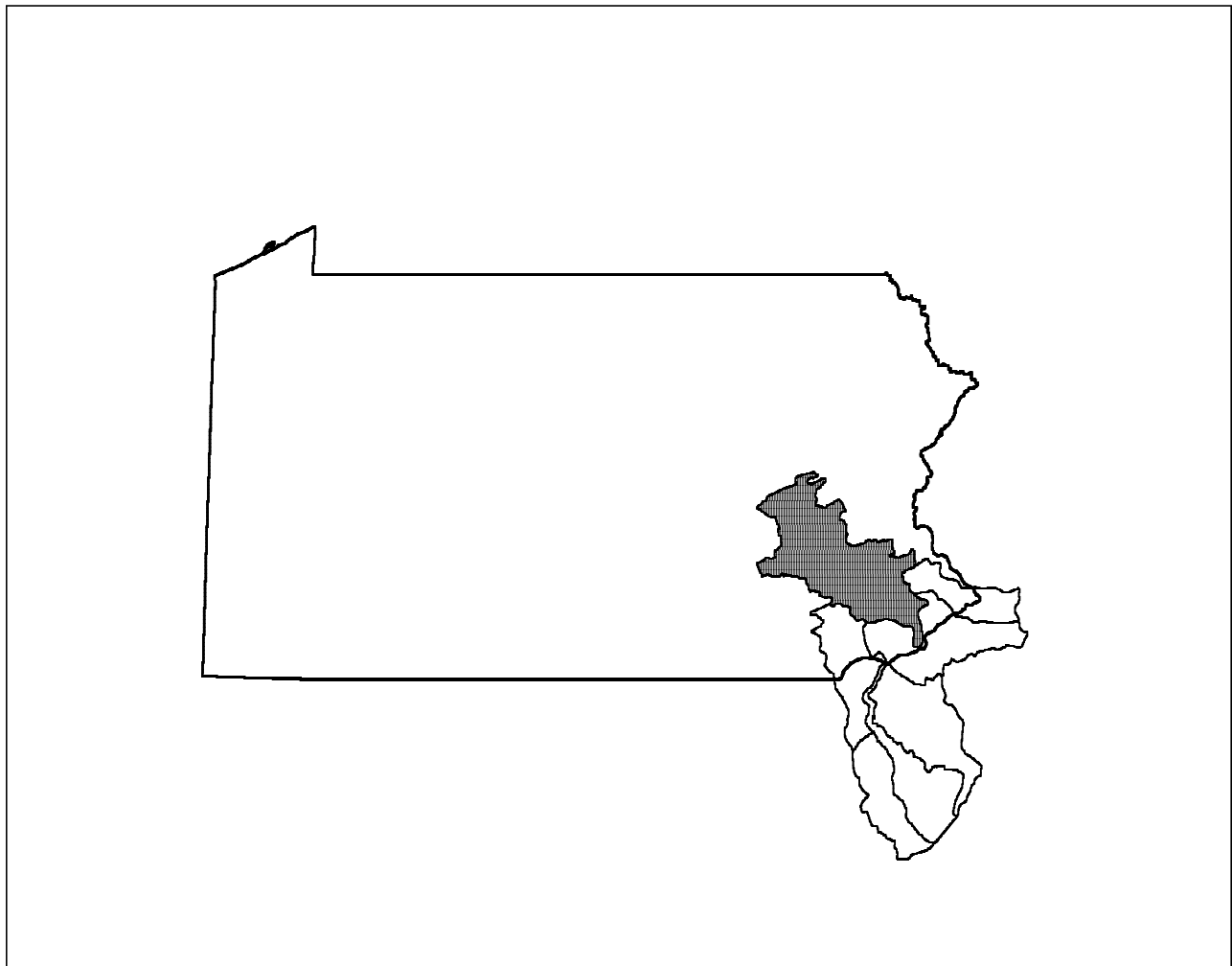


Figure 19. Watershed Location Map

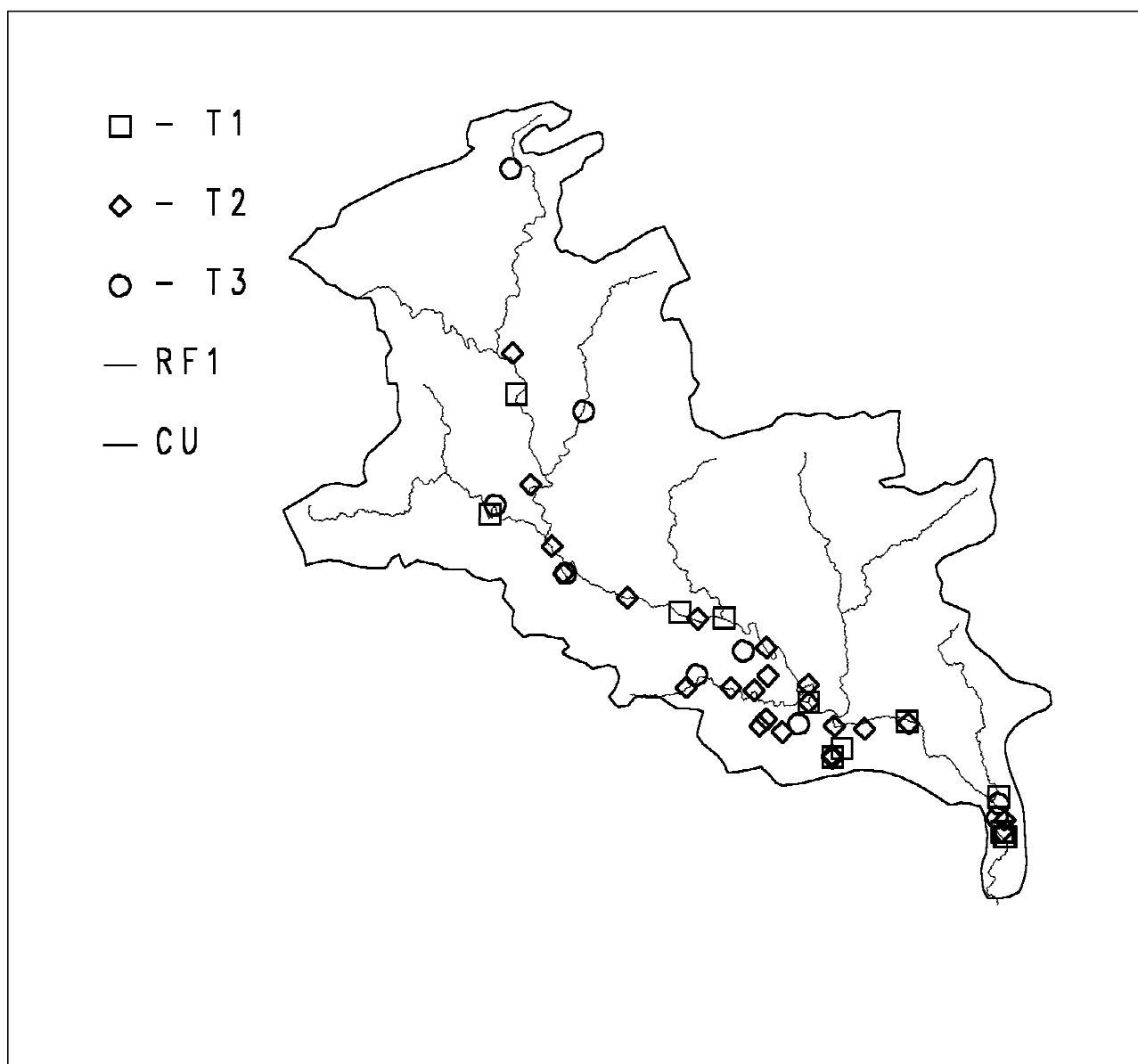


Figure 20. Major Waterways and Location of Sampling Stations

## Data Source(s) Used in Evaluation

Source: **STORET** Agency: **11BIOACC**  
 Monitoring Program: **USEPA National Bioaccumulation Study**  
 Num. of Stations: 2 Date Range: 1984-86

Source: **STORET** Agency: **11121XWQ**  
 Monitoring Program: **USEPA Region 3 Environ Services Div.**  
 Num. of Stations: 8 Date Range: 1986

Source: **STORET** Agency: **11131DWQ**  
 Monitoring Program: **USEPA Region 3 Environ Services Div.**  
 Num. of Stations: 7 Date Range: 1981-86

Source: **STORET** Agency: **112WRD**  
Monitoring Program: **US Geological Survey Data**  
Num. of Stations: 13 Date Range: 1981-87

Source: **STORET** Agency: **21PA**  
Monitoring Program: **Pennsylvania Dept of Environmental Resources Data**  
Num. of Stations: 13 Date Range: 1980-92

Source: **STORET** Agency: **31DELRBC**  
Monitoring Program: **Delaware River Basin Commission Data**  
Num. of Stations: 1 Date Range: 1985

## 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	32	17	11	6	.	.	11	6
Lead	22	16	.	16	.	10	.	6
Chlordane	39	11	.	11	.	5	.	9
Nickel	11	11	.	11	.	11	.	.
Arsenic	23	8	.	8	.	6	.	2
Cadmium	22	8	.	8	.	8	.	.
Dieldrin	38	8	.	8	.	2	.	7
Copper	14	6	.	6	.	6	.	.
Zinc	7	6	.	6	.	6	.	.
Chromium	20	5	1	4	1	4	.	.
Mercury	20	5	.	5	.	5	.	.
DDT	37	3	.	3	.	1	.	2
Silver	6	3	.	3	.	3	.	.
Dioxins	2	2	2	.	.	.	2	.
BHC	39	1	.	1	.	.	.	1
Heptachlor epoxide	37	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	6	0.00	0.00	0	.	.
Acenaphthylene	6	0.00	0.00	0	.	.
Acrylonitrile	6	0.00	0.00	0	.	.
Aldrin	18	0.00	0.00	0	.	.
Anthracene	6	0.00	0.00	0	.	.
Antimony	6	0.00	0.00	0	.	.
Arsenic	17	7993.53	470.00	16	40000.00	250.00
Benzene	6	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Benzo(a)anthracene	6	0.00	0.00	0	.	.
Benzo(a)pyrene	6	0.00	0.00	0	.	.
Benzo(b)fluoranthene	6	0.00	0.00	0	.	.
Benzo(ghi)perylene	6	0.00	0.00	0	.	.
Benzo(k)fluoranthene	6	0.00	0.00	0	.	.
Biphenyl	10	17.61	16.90	8	42.20	9.30
Bis(2-ethylhexyl)phthalate	6	0.00	0.00	0	.	.
Bromophenyl phenyl ether, 4-	6	0.00	0.00	0	.	.
Butyl benzyl phthalate	6	0.00	0.00	0	.	.
BHC	56	0.00	0.00	1	0.10	0.10
Cadmium	16	3502.50	2725.00	13	14500.00	480.00
Chlordane	38	0.95	0.00	6	13.00	1.00
Chlorobenzene	6	0.00	0.00	0	.	.
Chlorpyrifos/Dursban	10	4.47	0.00	2	25.70	19.00
Chromium	17	67252.94	31900.00	15	393000.0	9800.00
Chrysene	6	0.00	0.00	0	.	.
Copper	6	138700.0	116500.0	6	347000.0	30700.00
Di-n-butyl phthalate	6	0.00	0.00	0	.	.
Di-n-octyl phthalate	6	0.00	0.00	0	.	.
Dibenzo(a,h)anthracene	6	0.00	0.00	0	.	.
Dibenzofuran	2	0.00	0.00	0	.	.
Dibromochloromethane	6	0.00	0.00	0	.	.
Dichlorobenzene, 1,2-	6	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	6	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	6	0.00	0.00	0	.	.
Dichloroethane 1,1-	6	0.00	0.00	0	.	.
Dichloroethane 1,2-	6	0.00	0.00	0	.	.
Dichloroethene, trans-1,2-	6	0.00	0.00	0	.	.
Dichloromethane	6	0.00	0.00	0	.	.
Dichloropropane, 1,2-	6	0.00	0.00	0	.	.
Dieldrin	28	0.24	0.00	9	4.80	0.10
Diethyl phthalate	6	0.00	0.00	0	.	.
Dimethyl phthalate	6	0.00	0.00	0	.	.
Dimethylphenol, 2,4-	6	0.00	0.00	0	.	.
DDT	62	0.23	0.00	18	3.20	0.10
Endosulfan mixed isomers	12	0.03	0.00	2	0.30	0.10
Endosulfan, alpha-	6	0.00	0.00	0	.	.
Endosulfan, beta-	6	0.00	0.00	0	.	.
Endrin	28	0.00	0.00	1	0.10	0.10
Ethylbenzene	6	0.00	0.00	0	.	.
Fluoranthene	6	0.00	0.00	0	.	.
Fluorene	6	0.00	0.00	0	.	.
Heptachlor	28	0.00	0.00	1	0.10	0.10
Heptachlor epoxide	28	0.17	0.00	6	3.80	0.10

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Hexachlorobenzene	16	0.00	0.00	0	.	.
Hexachlorobutadiene	16	0.00	0.00	0	.	.
Hexachloroethane	6	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	6	0.00	0.00	0	.	.
Isophorone	6	0.00	0.00	0	.	.
Lead	16	192831.2	134000.0	16	590000.0	20800.00
Mercury	16	191.88	100.00	9	680.00	100.00
Methoxychlor	22	0.59	0.00	1	13.00	13.00
Mirex/Dechlorane	22	0.01	0.00	1	0.20	0.20
Naphthalene	6	0.00	0.00	0	.	.
Nickel	16	75112.50	66800.00	16	159000.0	32100.00
Nitrosodiphenylamine, N-	6	0.00	0.00	0	.	.
Pentachlorobenzene	10	0.00	0.00	0	.	.
Pentachlorophenol	6	0.00	0.00	0	.	.
Phenanthrene	6	0.00	0.00	0	.	.
Phenol	6	0.00	0.00	0	.	.
Polychlorinated biphenyls	35	1.49	0.00	10	18.00	0.06
Pyrene	6	0.00	0.00	0	.	.
Silver	6	966.67	595.00	3	2570.00	1190.00
Tetrachlorobenzene, 1,2,4,5-	10	0.00	0.00	0	.	.
Tetrachloroethane, 1,1,2,2-	7	0.00	0.00	0	.	.
Tetrachloroethene	6	0.00	0.00	0	.	.
Tetrachloromethane	6	0.00	0.00	0	.	.
Toluene	6	0.00	0.00	0	.	.
Toxaphene	18	0.00	0.00	0	.	.
Tribromomethane/Bromoform	6	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	16	2.12	0.00	2	17.30	16.60
Trichloroethane, 1,1,1-	6	0.00	0.00	0	.	.
Trichloroethane, 1,1,2-	6	0.00	0.00	0	.	.
Trichloroethene	6	0.00	0.00	0	.	.
Trichlorofluoromethane	6	0.00	0.00	0	.	.
Trichloromethane/Chloroform	6	0.00	0.00	0	.	.
Zinc	6	532166.7	537000.0	6	843000.0	189000.0

## Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Alachlor/Lasso	6	0.00	0.00	0	.	.
Aldrin	37	0.00	0.00	0	.	.
Arsenic	35	210.86	0.00	2	6880.00	500.00
Beryllium	6	0.00	0.00	0	.	.
Biphenyl	8	27.83	2.54	4	101.00	5.07

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
BHC	90	2.36	0.00	3	200.00	5.04
Cadmium	40	189.80	97.00	36	1590.00	3.00
Chlordane	76	159.75	34.60	45	2500.00	13.00
Chlorobenzilate	5	0.00	0.00	0	.	.
Chlorpyrifos/Dursban	8	2.71	0.00	2	14.00	7.66
Chromium	34	609.91	329.50	29	3860.00	13.00
Copper	34	4434.82	3010.00	32	36200.00	403.00
Dicofol/Kelthane	8	0.58	0.00	1	4.66	4.66
Dieldrin	43	15.02	0.00	14	160.00	11.00
Dioxins	4	0.00	0.00	4	0.00	0.00
DDT	216	27.18	0.00	47	1000.00	9.70
Endrin	44	3.12	0.00	2	133.00	4.45
Heptachlor	22	0.00	0.00	0	.	.
Heptachlor epoxide	22	0.00	0.00	0	.	.
Hexachlorobenzene	8	2.63	0.00	2	18.30	2.72
Hexachlorobutadiene	8	0.00	0.00	0	.	.
Isopropalin	8	0.00	0.00	0	.	.
Lead	40	1540.90	637.00	33	8370.00	109.00
Mercury	16	108.56	35.50	9	540.00	22.00
Methoxychlor	44	0.00	0.00	0	.	.
Mirex/Dechlorane	11	0.00	0.00	0	.	.
Pentachlorobenzene	8	0.00	0.00	0	.	.
Pentachloronitrobenzene/Quin	8	0.00	0.00	0	.	.
Polychlorinated biphenyls	42	1059.76	935.00	36	3804.00	110.00
Tetrachlorobenzene, 1,2,4,5-	8	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	8	0.36	0.00	1	2.90	2.90
Trifluralin/Treflan	8	0.00	0.00	0	.	.
Zinc	1	30600.00	30600.00	1	30600.00	30600.00