

Watershed Summary Information

Accounting Unit Name:	Upper Tennessee
State(s):	TN
Political Boundaries:	Rhea, Roane, Loudon, Blount, Knox, Cumberland, Meigs, Bledsoe, Sevier, McMinn, Monroe, Morgan, Swain
Major Waterways:	Tennessee R Little R Whites Cr Watts Bar L Fort Loudoun L
Number of Stations in Watershed:	Tier1 - 63 Tier2 - 7 Tier3 - 19

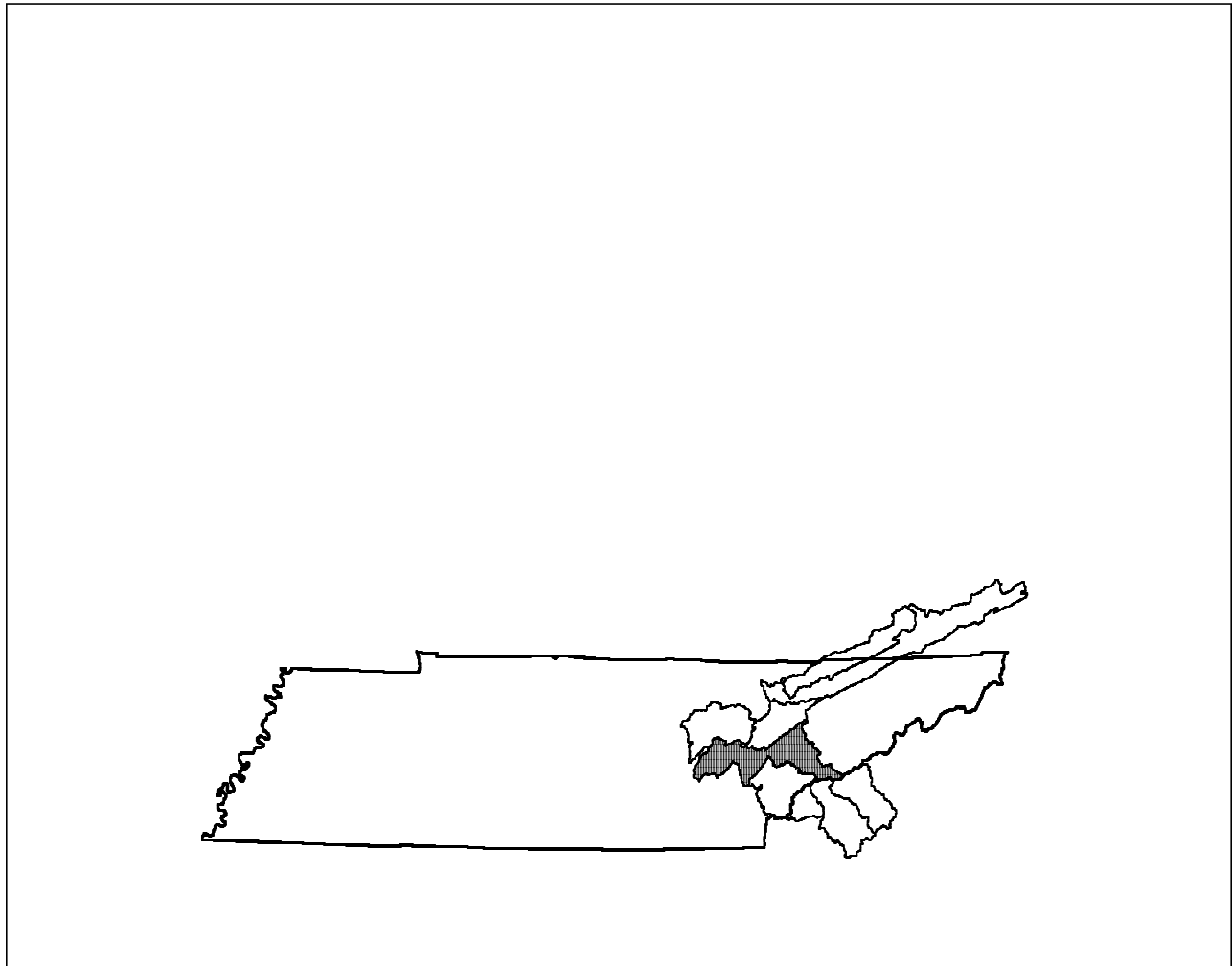


Figure 97. Watershed Location Map

□ - T1

◇ - T2

○ - T3

— RF1

— CU

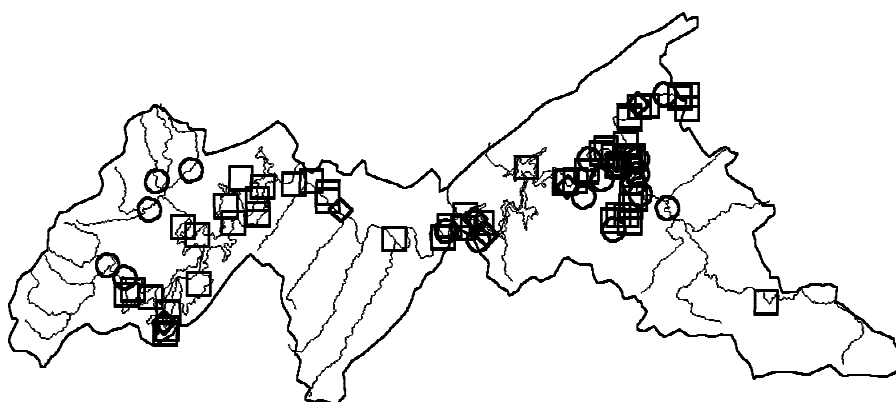


Figure 98. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **ODES** Agency: **TN**

Monitoring Program: **Tennessee**

Num. of Stations: 1 Date Range: 1987

Source: **STORET** Agency: **11BIOACC**

Monitoring Program: **USEPA National Bioaccumulation Study**

Num. of Stations: 1 Date Range: 1987

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

Monitoring Program: **US Geological Survey Data**

Num. of Stations: 6 Date Range: 1980-85

Source: **STORET** Agency: **131TVAC**
Monitoring Program: **Tennessee Valley Authority Water, Sediment And Tissue Data**
Num. of Stations: 66 Date Range: 1982-93

Source: **STORET** Agency: **132TVAC**
Monitoring Program: **WQ Monitoring Tenn Valley Authority**
Num. of Stations: 6 Date Range: 1983-84

Source: **STORET** Agency: **21TNWQ**
Monitoring Program: **Tennessee Dept of Public Health Water, Sediment & Tissue Data**
Num. of Stations: 9 Date Range: 1980-91

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	83	60	58	2	14	2	44	16
Chlordane	32	11	.	11	.	4	.	11
Mercury	30	10	5	5	5	5	.	.
Lead	28	9	.	9	.	7	.	2
Copper	28	7	.	7	.	7	.	.
Zinc	26	7	.	7	.	7	.	.
Chromium	31	6	.	6	.	6	.	.
Nickel	21	6	.	6	.	6	.	.
Dieldrin	24	5	.	5	.	.	.	5
Arsenic	21	4	.	4	.	3	.	1
Dioxins	2	1	1	.	.	.	1	.
Bis(2-ethylhexyl)phthalate	1	1	.	1	.	1	.	.
BHC	24	1	.	1	.	.	.	1
Cadmium	28	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	1	0.00	0.00	0	.	.
Acenaphthylene	1	0.00	0.00	0	.	.
Acrylonitrile	1	0.00	0.00	0	.	.
Aldrin	24	0.00	0.00	0	.	.
Anthracene	1	0.00	0.00	0	.	.
Antimony	1	300.00	300.00	1	300.00	300.00
Arsenic	4	11500.00	13000.00	4	16000.00	4000.00
Benzene	1	0.00	0.00	0	.	.
Benzo(a)anthracene	1	0.00	0.00	0	.	.
Benzo(a)pyrene	1	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Benzo(b)fluoranthene	1	0.00	0.00	0	.	.
Benzo(ghi)perylene	1	0.00	0.00	0	.	.
Benzo(k)fluoranthene	1	0.00	0.00	0	.	.
Bis(2-ethylhexyl)phthalate	1	1300.00	1300.00	1	1300.00	1300.00
Bromophenyl phenyl ether, 4-	1	0.00	0.00	0	.	.
Butyl benzyl phthalate	1	0.00	0.00	0	.	.
BHC	96	0.00	0.00	0	.	.
Cadmium	32	65.63	0.00	1	2100.00	2100.00
Chlordane	24	6.83	0.00	7	38.00	12.00
Chlorobenzene	1	0.00	0.00	0	.	.
Chromium	70	36285.71	38000.00	66	68000.00	10000.00
Chrysene	1	0.00	0.00	0	.	.
Copper	32	31031.25	34500.00	26	57000.00	22000.00
Di-n-butyl phthalate	1	0.00	0.00	0	.	.
Di-n-octyl phthalate	1	0.00	0.00	0	.	.
Dibenzo(a,h)anthracene	1	0.00	0.00	0	.	.
Dibromochloromethane	1	0.00	0.00	0	.	.
Dichlorobenzene, 1,2-	1	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	1	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	1	0.00	0.00	0	.	.
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	46.00	46.00	1	46.00	46.00
Dichloropropane, 1,2-	1	0.00	0.00	0	.	.
Dieldrin	24	0.00	0.00	0	.	.
Diethyl phthalate	1	0.00	0.00	0	.	.
Dimethyl phthalate	1	0.00	0.00	0	.	.
Dimethylphenol, 2,4-	1	0.00	0.00	0	.	.
DDT	72	0.00	0.00	0	.	.
Endosulfan, alpha-	24	0.00	0.00	0	.	.
Endosulfan, beta-	24	0.00	0.00	0	.	.
Endrin	24	0.00	0.00	0	.	.
Ethylbenzene	1	0.00	0.00	0	.	.
Fluoranthene	1	0.00	0.00	0	.	.
Fluorene	1	0.00	0.00	0	.	.
Heptachlor	24	0.00	0.00	0	.	.
Heptachlor epoxide	24	0.00	0.00	0	.	.
Hexachlorobenzene	1	0.00	0.00	0	.	.
Hexachlorobutadiene	1	0.00	0.00	0	.	.
Hexachloroethane	1	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	1	0.00	0.00	0	.	.
Isophorone	1	0.00	0.00	0	.	.
Lead	32	40812.50	40000.00	29	87000.00	10000.00

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Mercury	86	1299.30	680.00	75	7800.00	100.00
Methoxychlor	19	0.00	0.00	0	.	.
Naphthalene	1	0.00	0.00	0	.	.
Nickel	26	28615.38	31000.00	24	56000.00	10000.00
Nitrosodiphenylamine, N-	1	0.00	0.00	0	.	.
Pentachlorophenol	1	0.00	0.00	0	.	.
Phenanthrene	1	0.00	0.00	0	.	.
Phenol	1	0.00	0.00	0	.	.
Polychlorinated biphenyls	1224	97.18	0.00	117	6500.00	100.00
Pyrene	1	0.00	0.00	0	.	.
Silver	3	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	24	0.00	0.00	0	.	.
Tribromomethane/Bromoform	1	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	1	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	10.00	10.00	1	10.00	10.00
Trichloromethane/Chloroform	1	0.00	0.00	0	.	.
Zinc	32	226218.8	220000.0	32	500000.0	9000.00

Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	121	0.00	0.00	0	.	.
Antimony	20	0.00	0.00	0	.	.
Arsenic	26	5.77	0.00	4	70.00	20.00
Beryllium	20	0.00	0.00	0	.	.
Biphenyl	2	0.00	0.00	0	.	.
BHC	388	0.80	0.00	6	180.00	10.00
Cadmium	32	63.22	0.00	15	500.00	3.00
Chlordane	561	9.58	0.00	116	590.00	7.00
Chlorpyrifos/Dursban	1	0.00	0.00	0	.	.
Chromium	31	49.03	50.00	16	150.00	50.00
Copper	31	1391.29	600.00	26	8000.00	200.00
Dicofol/Kelthane	1	0.00	0.00	0	.	.
Dieldrin	123	1.84	0.00	9	60.00	8.39
Dioxins	3	0.00	0.00	3	0.00	0.00

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
DDT	513	7.35	0.00	58	300.00	10.00
Endosulfan, alpha-	72	5.97	0.00	20	50.00	10.00
Endosulfan, beta-	72	0.42	0.00	1	30.00	30.00
Endrin	122	1.97	0.00	7	90.00	10.00
Heptachlor	73	0.00	0.00	0	.	.
Heptachlor epoxide	74	0.05	0.00	2	1.83	1.83
Hexachlorobenzene	3	0.00	0.00	0	.	.
Hexachlorobutadiene	2	0.00	0.00	0	.	.
Isopropalin	1	0.00	0.00	0	.	.
Lead	32	257.81	35.00	19	3000.00	20.00
Mercury	34	193.82	170.00	30	650.00	50.00
Methoxychlor	50	0.00	0.00	0	.	.
Mirex/Dechlorane	70	0.00	0.00	0	.	.
Nickel	20	0.00	0.00	0	.	.
Pentachlorobenzene	1	0.00	0.00	0	.	.
Pentachloronitrobenzene/Quin	1	0.00	0.00	0	.	.
Polychlorinated biphenyls	5361	428.11	0.00	1704	22000.00	100.00
Selenium	21	98.57	80.00	11	680.00	80.00
Silver	12	0.00	0.00	0	.	.
Tetrachlorobenzene, 1,2,4,5-	1	0.00	0.00	0	.	.
Toxaphene	72	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	1	0.00	0.00	0	.	.
Trifluralin/Treflan	1	0.00	0.00	0	.	.
Zinc	20	15400.00	8550.00	20	29000.00	5400.00