

Watershed Summary Information

Accounting Unit Name:	French Broad-Holston
State(s):	TN
Political Boundaries:	Hawkins, Jefferson, Grainger, Hamblen, Knox, Sullivan
Major Waterways:	Holston R Richland Cr Poor Valley Cr Beech Cr Cherokee L
Number of Stations in Watershed:	Tier1 - 12 Tier2 - 2 Tier3 - 1

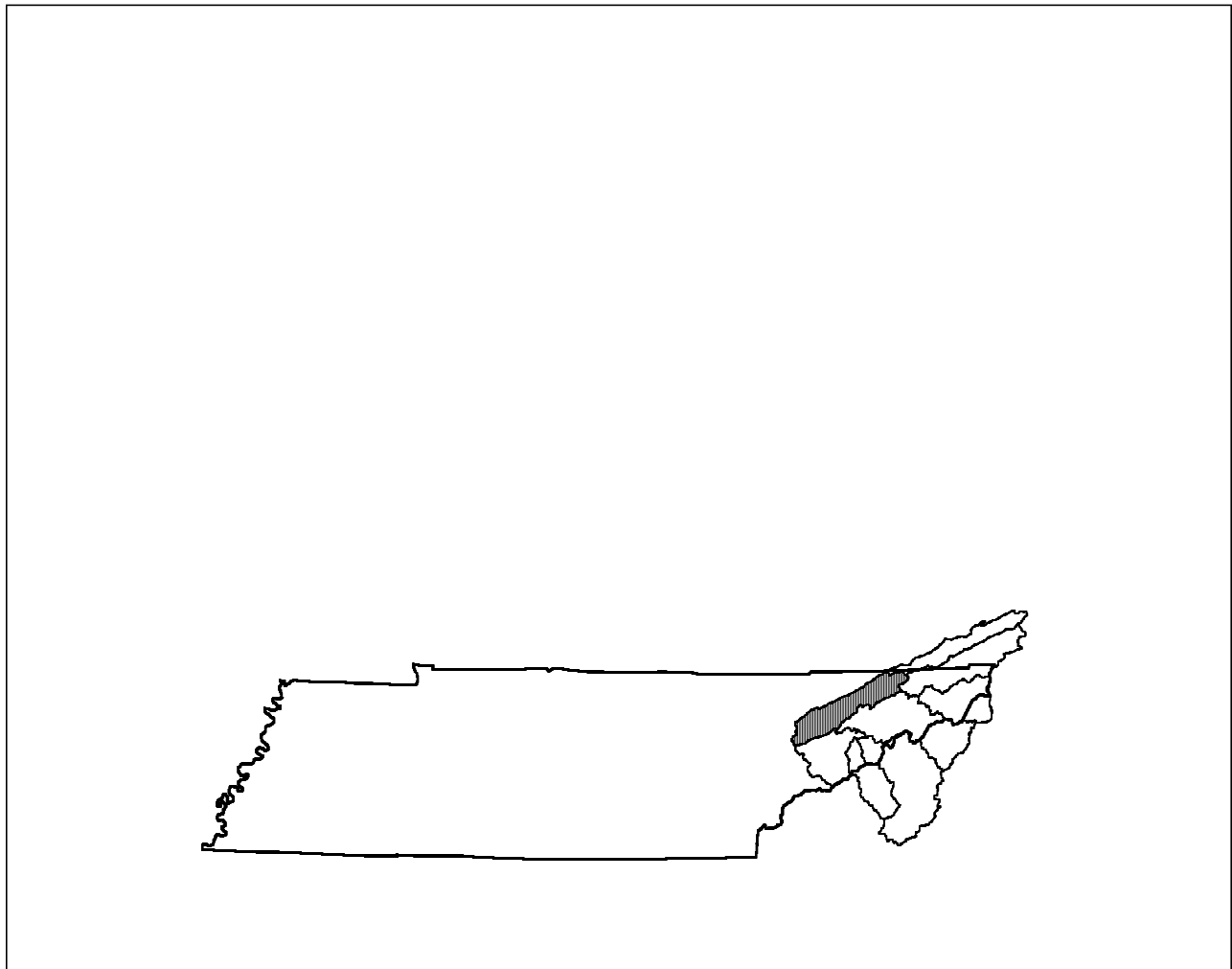


Figure 95. Watershed Location Map

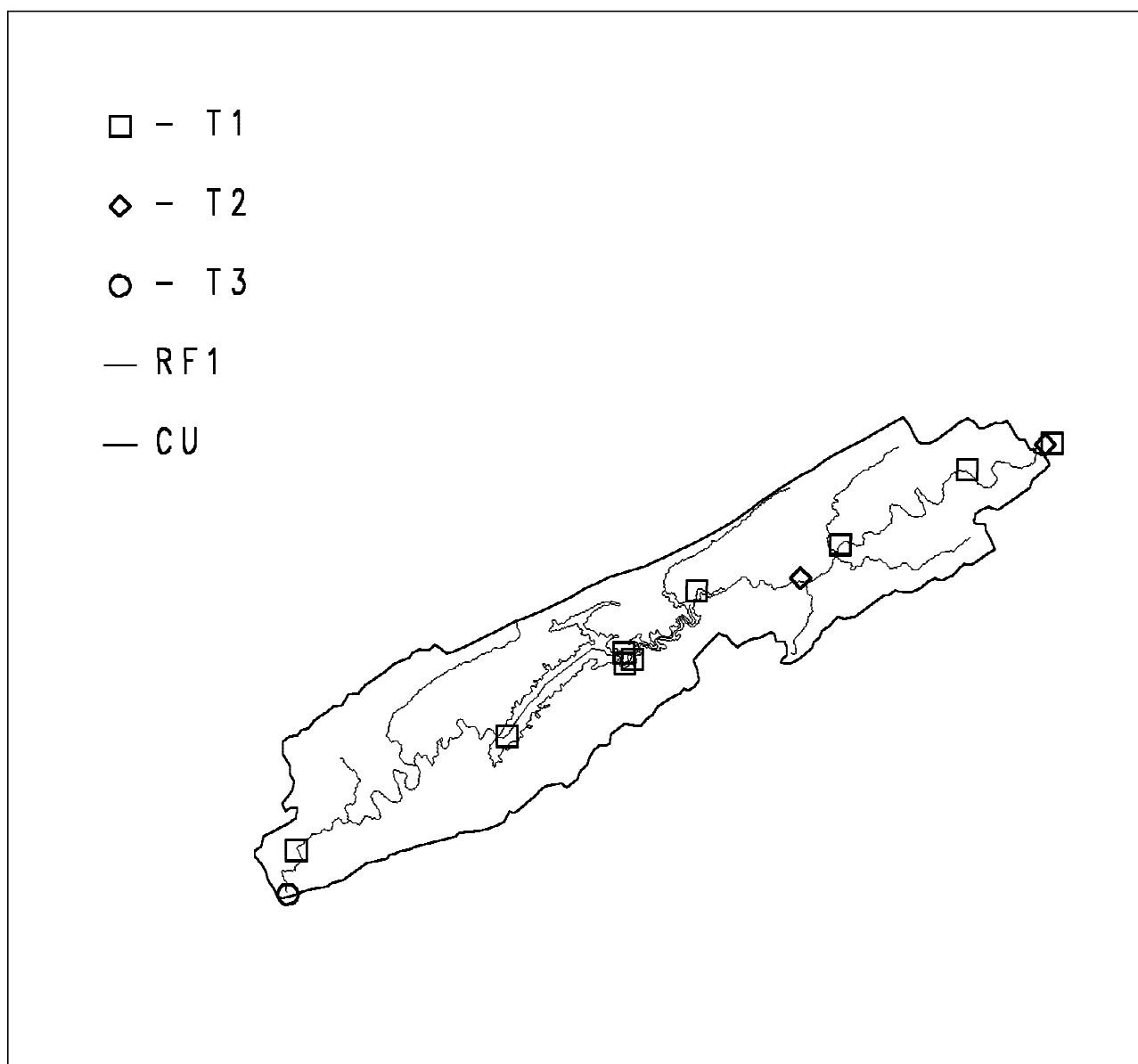


Figure 96. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **ODES** Agency: **TN**
 Monitoring Program: **Tennessee**
 Num. of Stations: 2 Date Range: 1984-88

Source: **STORET** Agency: **11BIOACC**
 Monitoring Program: **USEPA National Bioaccumulation Study**
 Num. of Stations: 2 Date Range: 1984-88

Source: **STORET** Agency: **1114PEST**
 Monitoring Program: **USEPA SE Environ Water Lab Data**
 Num. of Stations: 1 Date Range: 1980

Source: **STORET** Agency: **131TVAC**
Monitoring Program: **Tennessee Valley Authority Water, Sediment And Tissue Data**
Num. of Stations: 8 Date Range: 1986-93

Source: **STORET** Agency: **21TNWQ**
Monitoring Program: **Tennessee Dept of Public Health Water, Sediment & Tissue Data**
Num. of Stations: 2 Date Range: 1981-87

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	14	11	10	1	.	.	10	1
Mercury	14	6	3	3	3	3	.	.
Copper	10	6	.	6	.	6	.	.
Lead	10	5	.	5	.	5	.	.
Nickel	10	5	.	5	.	5	.	.
Zinc	10	5	.	5	.	5	.	.
Dieldrin	11	4	.	4	.	.	.	4
Cadmium	10	3	.	3	.	3	.	.
Chromium	10	3	.	3	.	3	.	.
Dioxins	4	2	2	.	.	.	2	.
Silver	7	2	1	1	1	1	.	.
Arsenic	9	2	.	2	.	.	.	2
Aldrin	8	1	.	1	.	.	.	1
Beryllium	6	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	11	0.00	0.00	0	.	.
Antimony	19	469.00	56.00	10	7000.00	56.00
Arsenic	19	428.95	120.00	12	2790.00	100.00
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	.	.
Benzo(ghi)perylene	1	0.00	0.00	0	.	.
Benzo(k)fluoranthene	1	0.00	0.00	0	.	.
Bis(2-ethylhexyl)phthalate	1	0.00	0.00	0	.	.
Bromophenyl phenyl ether, 4-	1	0.00	0.00	0	.	.
Butyl benzyl phthalate	1	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
BHC	44	0.00	0.00	0	.	.
Cadmium	27	458.15	300.00	16	3000.00	200.00
Chlordane	12	0.00	0.00	0	.	.
Chlorobenzene	1	0.00	0.00	0	.	.
Chromium	27	32818.52	31000.00	27	93000.00	9700.00
Copper	27	75788.89	64000.00	27	272000.0	23000.00
Di-n-butyl phthalate	1	0.00	0.00	0	.	.
Di-n-octyl phthalate	1	0.00	0.00	0	.	.
Diazinon/Spectracide	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	0.00	0.00	0	.	.
Dichloropropane, 1,2-	1	0.00	0.00	0	.	.
Dieldrin	11	0.00	0.00	0	.	.
Diethyl phthalate	1	0.00	0.00	0	.	.
Dimethyl phthalate	1	0.00	0.00	0	.	.
DDT	33	0.00	0.00	0	.	.
Endosulfan, alpha-	11	0.00	0.00	0	.	.
Endosulfan, beta-	11	0.00	0.00	0	.	.
Endrin	11	0.00	0.00	0	.	.
Ethion/Bladen	1	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	11	0.11	0.00	1	1.20	1.20
Heptachlor epoxide	11	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	27	39844.44	37000.00	25	162000.0	10000.00
Malathion	1	0.00	0.00	0	.	.
Mercury	25	905.72	450.00	25	5100.00	100.00
Methoxychlor	8	0.00	0.00	0	.	.
Naphthalene	1	0.00	0.00	0	.	.
Nickel	27	19811.11	18100.00	26	48000.00	8000.00
Nitrosodiphenylamine, N-	1	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Phenanthrene	1	0.00	0.00	0	.	.
Polychlorinated biphenyls	104	0.05	0.00	1	5.30	5.30
Pyrene	1	0.00	0.00	0	.	.
Silver	19	902.11	0.00	5	14000.00	300.00
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	11	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	0.00	0.00	0	.	.
Trichloromethane/Chloroform	1	0.00	0.00	0	.	.
Zinc	27	248074.1	172000.0	27	1500000	64000.00

Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	21	0.48	0.00	1	10.00	10.00
Antimony	18	0.00	0.00	0	.	.
Arsenic	22	25.00	0.00	8	140.00	20.00
Beryllium	18	16.67	0.00	2	180.00	120.00
Biphenyl	2	0.00	0.00	0	.	.
BHC	86	0.08	0.00	2	3.24	3.24
Cadmium	22	82.36	0.00	9	480.00	2.00
Chlordane	51	13.09	0.00	22	64.40	4.35
Chlorpyrifos/Dursban	2	0.00	0.00	0	.	.
Chromium	18	64.44	30.00	10	330.00	20.00
Copper	18	466.67	0.00	7	1800.00	400.00
Dicofol/Kelthane	2	0.00	0.00	0	.	.
Dieldrin	24	7.23	0.00	6	66.70	10.00
Dioxins	6	0.00	0.00	5	0.01	0.00
DDT	67	6.90	0.00	14	100.00	10.00
Endosulfan, alpha-	21	0.00	0.00	0	.	.
Endosulfan, beta-	21	3.33	0.00	1	70.00	70.00
Endrin	24	1.91	0.00	5	20.00	2.88
Heptachlor	23	0.00	0.00	0	.	.
Heptachlor epoxide	23	0.00	0.00	0	.	.
Hexachlorobenzene	3	0.00	0.00	0	.	.

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Hexachlorobutadiene	5	0.00	0.00	0	.	.
Isopropalin	2	0.00	0.00	0	.	.
Lead	22	80.91	65.00	13	520.00	60.00
Mercury	26	231.62	245.00	26	410.00	76.00
Methoxychlor	2	0.00	0.00	0	.	.
Mirex/Dechlorane	13	0.00	0.00	0	.	.
Nickel	18	55.56	0.00	1	1000.00	1000.00
Pentachlorobenzene	2	0.00	0.00	0	.	.
Pentachloronitrobenzene/Quin	2	0.00	0.00	0	.	.
Polychlorinated biphenyls	164	157.69	0.00	52	2528.30	100.00
Selenium	22	181.36	195.00	13	880.00	150.00
Silver	11	90.91	0.00	2	600.00	400.00
Tetrachlorobenzene, 1,2,4,5-	2	0.00	0.00	0	.	.
Toxaphene	21	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	4	0.00	0.00	0	.	.
Trifluralin/Treflan	2	0.00	0.00	0	.	.
Zinc	18	13088.89	8600.00	18	32000.00	5400.00