

Watershed Summary Information

Accounting Unit Name: Western Lake Erie

State(s): OH MI

Political Boundaries: Wood, Ottawa, Sandusky, Hancock, Putnam, Lucas

Major Waterways: Portage R
Portage R, N Br
Toussaint Cr
Portage R, S Br
Portage R, E Br

Number of Stations in Watershed: Tier1 - 13
Tier2 - 39
Tier3 - 4

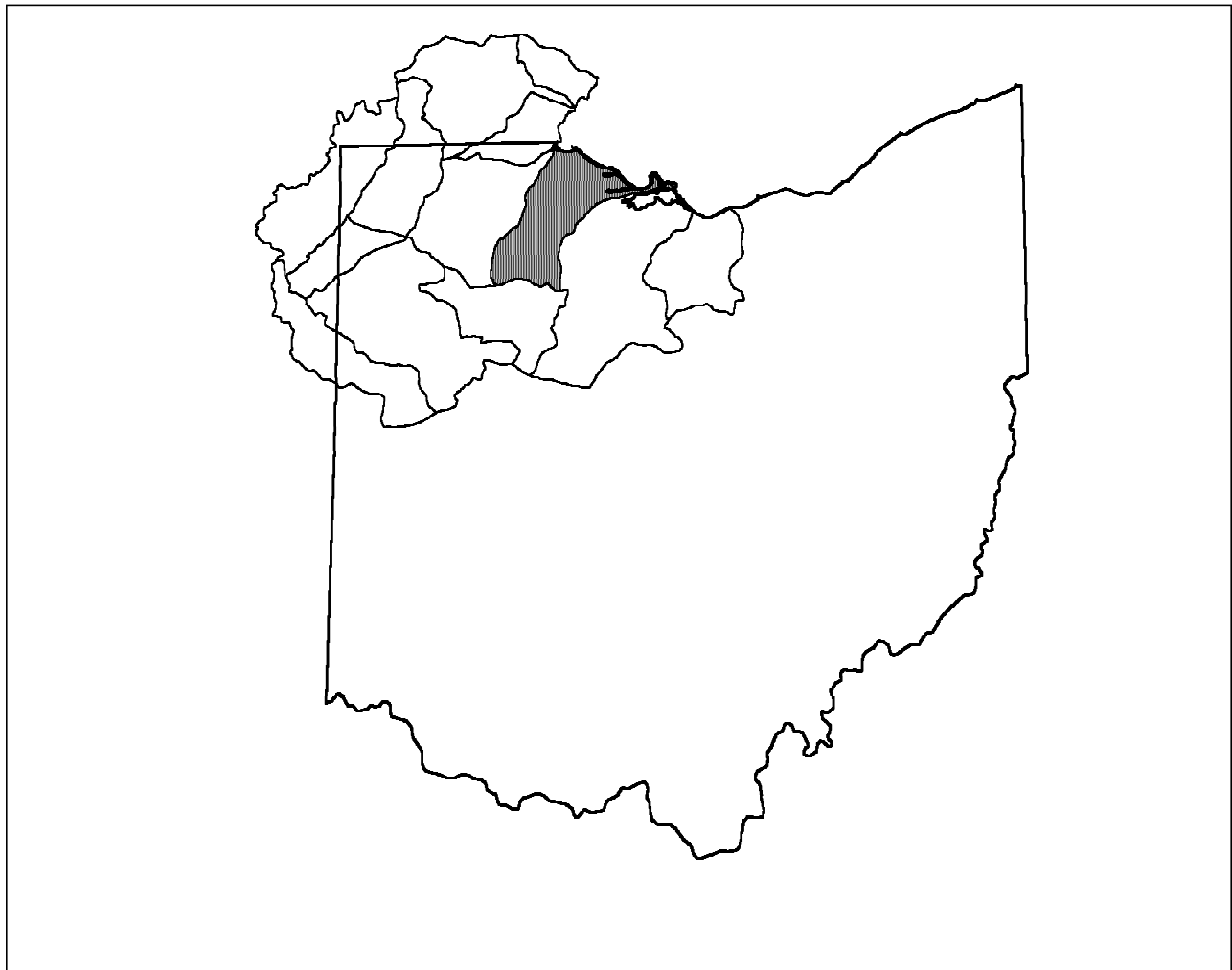


Figure 67. Watershed Location Map

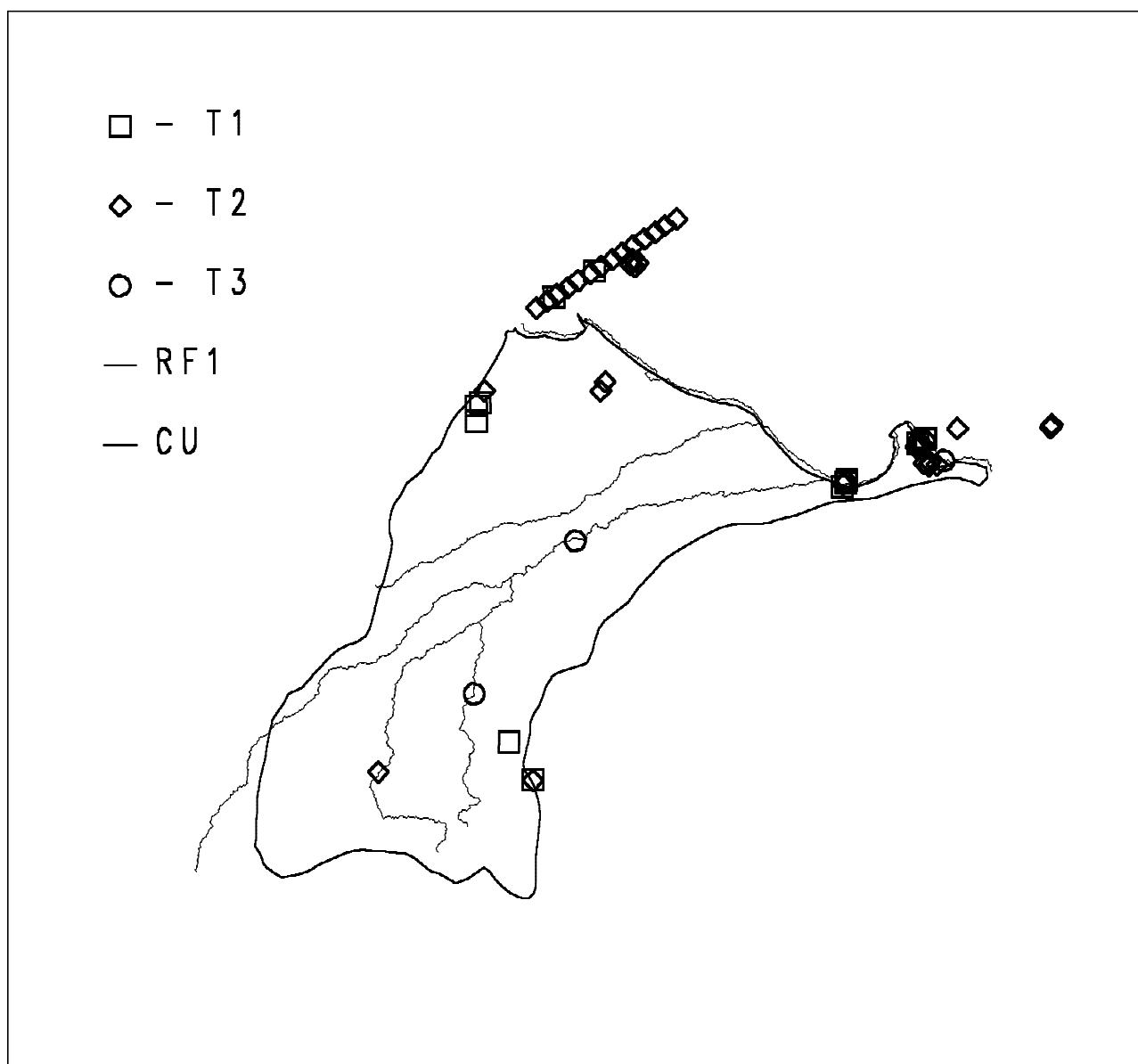


Figure 68. Major Waterways and Location of Sampling Stations

Data Source(s) Used in Evaluation

Source: **STORET** Agency: **11COEBUF**
 Monitoring Program: **Corps of Engineers Data Buffalo District**
 Num. of Stations: 41 Date Range: 1981-89

Source: **STORET** Agency: **11FWS**
 Monitoring Program: **US Fish & Wildlife Service Data - USEPA Hq Backdata Study**
 Num. of Stations: 1 Date Range: 1981-86

Source: **STORET** Agency: **1115GLSB**
 Monitoring Program: **USEPA Region 5 Great Lakes Surveillance Branch Data**
 Num. of Stations: 2 Date Range: 1982

Source: **STORET** Agency: **112WRD**
Monitoring Program: **US Geological Survey Data**
Num. of Stations: 3 Date Range: 1984

Source: **STORET** Agency: **21OHIO**
Monitoring Program: **Ohio EPA Water, Sediment, Tissue And Drinking Water Data**
Num. of Stations: 9 Date Range: 1985-92

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
Nickel	54	44	.	44	.	44	.	.
Copper	55	42	.	42	.	42	.	.
Arsenic	52	31	.	31	.	30	.	1
Cadmium	55	29	.	29	.	29	.	.
Mercury	49	27	3	24	3	24	.	.
Lead	55	25	.	25	.	25	.	.
Zinc	55	23	.	23	.	23	.	.
Phenanthrene	33	14	2	12	2	12	.	.
Pyrene	32	12	2	10	2	10	.	.
Bis(2-ethylhexyl)phthalate	33	12	1	11	1	11	.	1
Fluoranthene	32	12	1	11	1	11	.	.
DDT	44	6	3	3	3	2	.	4
Benzo(a)anthracene	31	5	1	4	1	4	.	4
Polychlorinated biphenyls	44	3	3	.	2	.	1	2
Anthracene	31	3	1	2	1	2	.	.
Benzo(a)pyrene	31	3	1	2	1	2	.	3
Chrysene	31	3	1	2	1	2	.	.
Fluorene	24	3	1	2	1	2	.	.
Benzo(b)fluoranthene	18	3	.	3	.	1	.	3
Diethyl phthalate	31	2	2	.	2	.	.	.
BHC	42	2	1	1	1	1	.	2
Naphthalene	24	2	1	1	1	1	.	.
Acenaphthene	24	2	.	2	.	2	.	.
Benzo(ghi)perylene	31	2	.	2	.	2	.	.
Chromium	54	2	.	2	.	2	.	.
Endosulfan, beta-	41	2	.	2	.	2	.	.
Indeno(1,2,3-cd)pyrene	31	2	.	2	.	2	.	2
Methylnaphthalene, 2-	2	2	.	2	.	2	.	.
Aldrin	42	1	.	1	.	.	.	1
Benzo(k)fluoranthene	31	1	.	1	.	.	.	1
Dieldrin	42	1	.	1	.	.	.	1
Hexachlorobutadiene	18	1	.	1	.	1	.	.
Selenium	1	1	.	1	.	.	.	1
Silver	8	1	.	1	.	1	.	.

Classifying Parameter	Number of Stations							
	All Parameters				Aquatic Life		Human Health	
	Total	T.1&2	Tier1	Tier2	Tier1	Tier2	Tier1	Tier2
Toxaphene	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	24	7.08	0.00	2	90.00	80.00
Acenaphthylene	22	0.00	0.00	0	.	.
Acrylonitrile	5	0.00	0.00	0	.	.
Aldrin	45	0.00	0.00	0	.	.
Anthracene	35	60.57	0.00	3	1450.00	100.00
Arsenic	55	10377.62	10000.00	55	26100.00	1000.00
Benzene	13	0.00	0.00	0	.	.
Benzo(a)anthracene	35	221.14	0.00	5	4220.00	170.00
Benzo(a)pyrene	35	267.43	0.00	3	7400.00	620.00
Benzo(b)fluoranthene	18	628.33	0.00	3	10100.00	180.00
Benzo(ghi)perylene	35	325.43	0.00	2	10000.00	1390.00
Benzo(k)fluoranthene	37	93.51	0.00	3	1920.00	770.00
Bis(2-ethylhexyl)phthalate	37	488.27	0.49	20	5990.00	0.19
Bromophenyl phenyl ether, 4-	5	0.00	0.00	0	.	.
Butyl benzyl phthalate	35	0.00	0.00	0	.	.
BHC	180	0.44	0.00	2	50.00	30.00
Cadmium	59	3372.90	1000.00	49	110000.0	160.00
Chlordane	45	0.00	0.00	0	.	.
Chlorobenzene	30	0.00	0.00	0	.	.
Chromium	59	21180.85	19000.00	57	86800.00	1000.00
Chrysene	36	185.26	0.00	4	3660.00	0.38
Copper	59	49008.31	31000.00	59	899000.0	1000.00
Di-n-butyl phthalate	30	0.00	0.00	0	.	.
Di-n-octyl phthalate	35	0.00	0.00	0	.	.
Dibenzo(a,h)anthracene	35	0.01	0.00	1	0.38	0.38
Dibenzofuran	1	60.00	60.00	1	60.00	60.00
Dibromochloromethane	17	0.00	0.00	0	.	.
Dichlorobenzene, 1,2-	35	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	27	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	18	0.00	0.00	0	.	.
Dichloroethane 1,2-	17	0.00	0.00	0	.	.
Dichloroethene, trans-1,2-	17	0.00	0.00	0	.	.
Dichloropropane, 1,2-	17	0.00	0.00	0	.	.
Dieldrin	45	0.00	0.00	0	.	.
Diethyl phthalate	35	100.29	0.00	2	1790.00	1720.00
Dimethyl phthalate	35	0.00	0.00	0	.	.
Dimethylphenol, 2,4-	10	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Dioxins	8	0.00	0.00	0	.	.
DDT	151	5.29	0.00	8	400.00	0.04
Endosulfan, alpha-	45	0.00	0.00	0	.	.
Endosulfan, beta-	45	3.56	0.00	3	100.00	0.04
Endrin	45	0.00	0.00	0	.	.
Ethylbenzene	13	0.00	0.00	0	.	.
Fluoranthene	36	688.26	0.00	15	9970.00	0.40
Fluorene	24	69.58	0.00	3	1320.00	160.00
Heptachlor	45	0.00	0.00	0	.	.
Heptachlor epoxide	45	0.00	0.00	0	.	.
Hexachlorobenzene	20	0.70	0.00	2	7.00	7.00
Hexachlorobutadiene	18	1.67	0.00	1	30.00	30.00
Hexachloroethane	18	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	35	320.29	0.00	2	9750.00	1460.00
Isophorone	11	7.27	0.00	1	80.00	80.00
Lead	59	52313.56	25000.00	55	1260000	5000.00
Mercury	52	263.27	200.00	40	2400.00	0.01
Methoxychlor	22	0.00	0.00	0	.	.
Methylnaphthalene, 2-	2	220.00	220.00	2	250.00	190.00
Mirex/Dechlorane	22	0.00	0.00	0	.	.
Naphthalene	24	57.50	0.00	2	930.00	450.00
Nickel	59	31326.95	30000.00	56	109000.0	2000.00
Nitrosodiphenylamine, N-	10	0.00	0.00	0	.	.
Pentachlorophenol	10	0.00	0.00	0	.	.
Phenanthrene	37	419.49	0.19	25	5730.00	0.12
Phenol	10	0.00	0.00	0	.	.
Polychlorinated biphenyls	215	5.42	0.00	7	265.00	99.00
Pyrene	36	583.19	0.47	27	7410.00	0.24
Silver	8	187.50	0.00	2	1000.00	500.00
Tetrachloroethane, 1,1,2,2-	19	1.53	0.00	2	20.00	9.00
Tetrachloroethene	17	0.00	0.00	0	.	.
Tetrachloromethane	17	0.00	0.00	0	.	.
Toluene	13	0.00	0.00	0	.	.
Toxaphene	45	0.00	0.00	0	.	.
Tribromomethane/Bromoform	19	0.26	0.00	2	3.00	2.00
Trichlorobenzene, 1,2,4-	18	0.00	0.00	0	.	.
Trichloroethane, 1,1,1-	17	0.00	0.00	0	.	.
Trichloroethane, 1,1,2-	17	0.00	0.00	0	.	.
Trichloroethene	19	2.47	0.00	2	25.00	22.00
Trichlorofluoromethane	17	0.00	0.00	0	.	.
Trichloromethane/Chloroform	17	0.00	0.00	0	.	.
Zinc	59	164286.4	100000.0	56	2620000	9000.00

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	4	147.45	155.00	4	177.50	102.30
BHC	8	10.00	10.00	8	10.00	10.00
Cadmium	4	34.79	31.76	4	60.00	15.62
Chlordane	16	26.87	20.00	16	50.00	10.00
Copper	4	720.10	723.95	4	900.00	532.50
Dieldrin	4	37.50	40.00	4	50.00	20.00
DCPA/Dacthal	4	10.00	10.00	4	10.00	10.00
DDT	10	123.00	80.00	10	390.00	10.00
Endrin	4	10.00	10.00	4	10.00	10.00
Heptachlor	4	12.50	10.00	4	20.00	10.00
Heptachlor epoxide	2	10.00	10.00	2	10.00	10.00
Hexachlorobenzene	4	15.00	10.00	4	30.00	10.00
Lead	4	100.04	104.10	4	160.00	31.95
Mercury	4	51.86	52.39	4	70.00	32.66
Mirex/Dechlorane	4	10.00	10.00	4	10.00	10.00
Polychlorinated biphenyls	14	1264.29	1100.00	14	3700.00	100.00
Selenium	4	15573.55	507.30	4	61000.00	279.60
Toxaphene	4	125.00	100.00	4	200.00	100.00
Zinc	4	51005.00	49750.00	4	86410.00	18110.00