

## Watershed Summary Information

<b>Accounting Unit Name:</b>	Yakima
<b>State(s):</b>	WA
<b>Political Boundaries:</b>	Yakima, Benton, Klickitat
<b>Major Waterways:</b>	Yakima R Satus Cr Toppenish Cr Ahtanum Cr Simcoe Cr
<b>Number of Stations in Watershed:</b>	Tier1 - 23 Tier2 - 19 Tier3 - 5

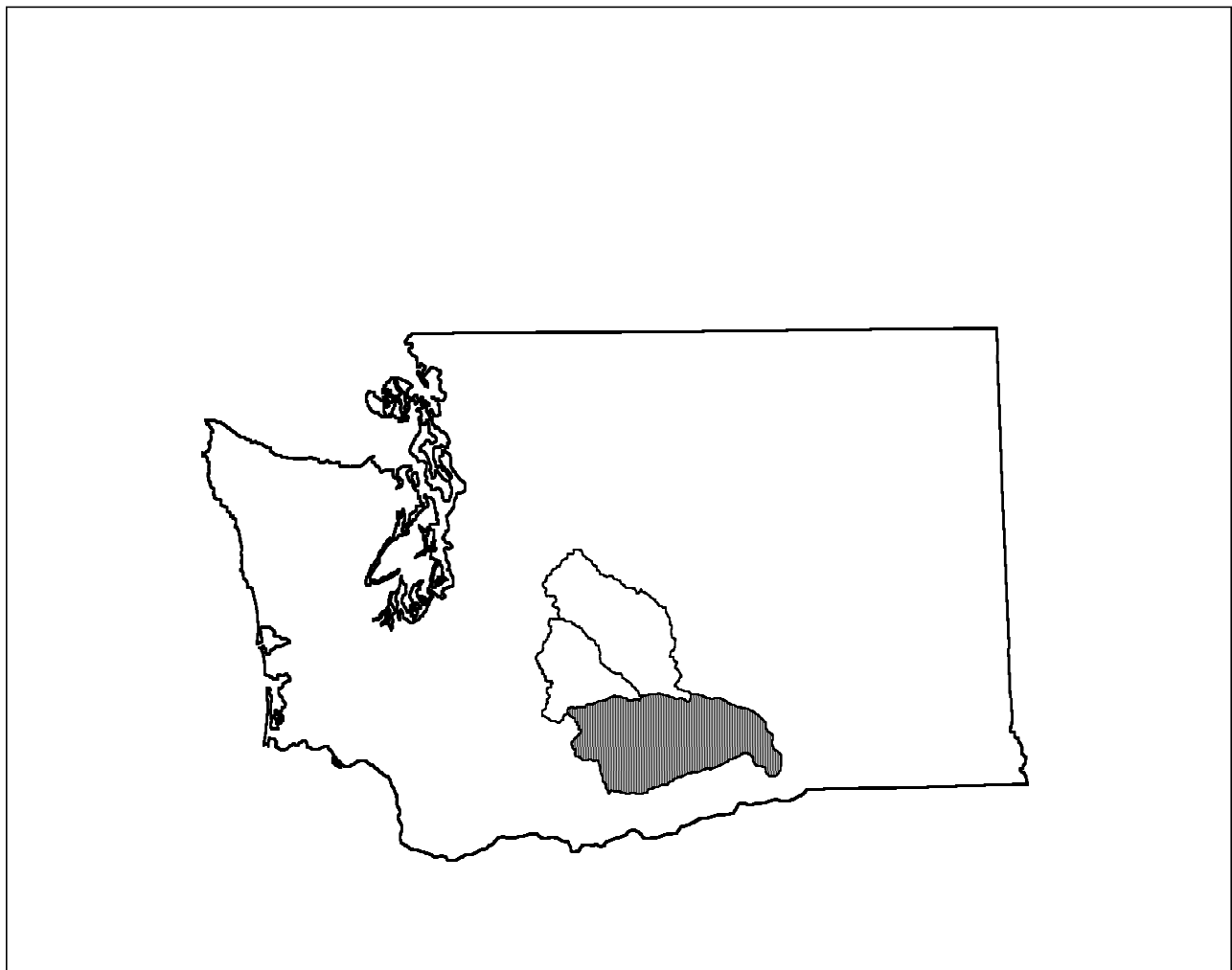


Figure 161. Watershed Location Map

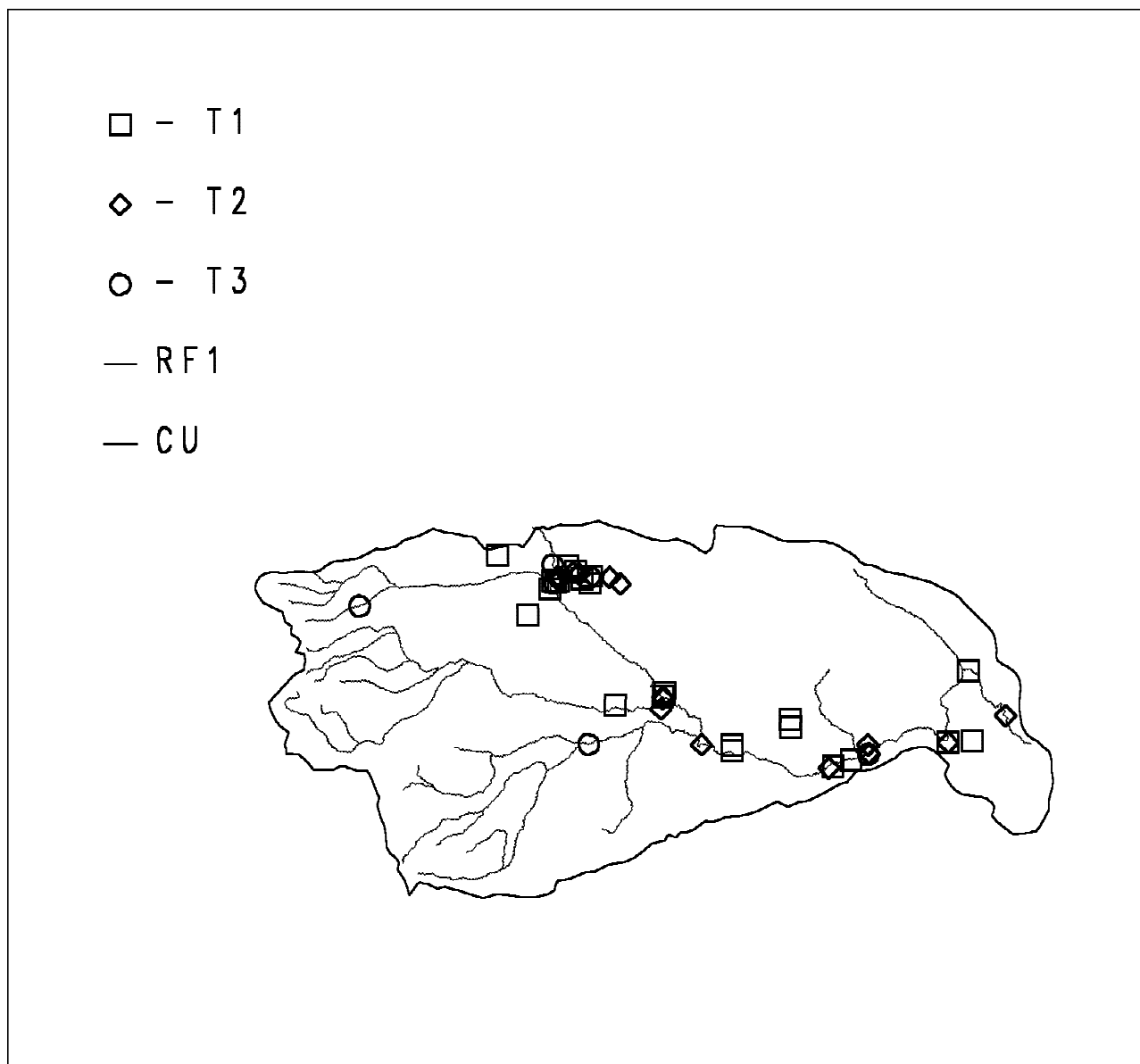


Figure 162. Major Waterways and Location of Sampling Stations

## Data Source(s) Used in Evaluation

Source: **STORET** Agency: **10EPACOP**

Monitoring Program: **USEPA Region 10 Cooperative Water Data**

Num. of Stations: 21 Date Range: 1985-87

Source: **STORET** Agency: **10EPATOX**

Monitoring Program: **USEPA Region 10 Water, Sediment & Tissue Data**

Num. of Stations: 1 Date Range: 1980

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

Monitoring Program: **USEPA National Bioaccumulation Study**

Num. of Stations: 1 Date Range: 1987

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: 19 Date Range: 1987-90

Source: **STORET** Agency: **21540000**

Monitoring Program: **Washington Dept Ecology Southwest Regional Office Estuary & Freshwatrs Data**

Num. of Stations: 4 Date Range: 1980-85

## 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
DDT	45	41	19	22	19	20	1	33
Dieldrin	36	17	.	17	.	9	.	15
Bis(2-ethylhexyl)phthalate	17	8	.	8	.	8	.	.
Chlordane	46	6	.	6	.	5	.	2
Endosulfan mixed isomers	25	6	.	6	.	6	.	.
Polychlorinated biphenyls	46	5	5	.	.	.	5	.
BHC	46	5	.	5	.	3	.	3
Arsenic	4	4	.	4	.	1	.	3
Diazinon/Spectracide	3	3	.	3	.	3	.	.
Aldrin	36	2	.	2	.	.	.	2
Dioxins	2	1	1	.	.	.	1	.
Acenaphthylene	17	1	.	1	.	1	.	.
Cadmium	4	1	.	1	.	1	.	.
Copper	4	1	.	1	.	1	.	.
Cresol, o	2	1	.	1	.	1	.	.
Diethyl phthalate	17	1	.	1	.	1	.	.
Heptachlor epoxide	45	1	.	1	.	.	.	1
Lead	4	1	.	1	.	.	.	1
Nickel	1	1	.	1	.	1	.	.
Nitrosodiphenylamine, N-	17	1	.	1	.	1	.	.
Toxaphene	44	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	29	0.00	0.00	0	.	.
Acenaphthylene	29	2.79	0.00	1	80.90	80.90
Acrylonitrile	1	0.00	0.00	0	.	.

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	51	20.90	0.00	4	1065.00	0.20
Anthracene	29	0.00	0.00	0	.	.
Antimony	1	0.00	0.00	0	.	.
Arsenic	3	4200.00	2800.00	3	8800.00	1000.00
Benzene	1	0.00	0.00	0	.	.
Benzo(a)anthracene	29	0.00	0.00	0	.	.
Benzo(a)pyrene	29	0.00	0.00	0	.	.
Benzo(b)fluoranthene	27	0.00	0.00	0	.	.
Benzo(ghi)perylene	29	0.00	0.00	0	.	.
Benzo(k)fluoranthene	29	0.00	0.00	0	.	.
Benzoic acid	2	0.00	0.00	0	.	.
Benzyl alcohol	2	0.00	0.00	0	.	.
Bis(2-ethylhexyl)phthalate	29	157.76	0.00	13	790.00	42.00
Bromophenyl phenyl ether, 4-	29	0.00	0.00	0	.	.
Butyl benzyl phthalate	29	0.00	0.00	0	.	.
BHC	155	0.16	0.00	6	15.00	0.10
Cadmium	3	690.00	600.00	3	1400.00	70.00
Chlordane	63	0.62	0.00	9	15.00	1.00
Chlorobenzene	1	0.00	0.00	0	.	.
Chromium	3	9200.00	600.00	2	27000.00	600.00
Chrysene	29	0.45	0.00	1	13.00	13.00
Copper	3	20566.67	16700.00	3	35800.00	9200.00
Cresol, o	2	405.00	405.00	1	810.00	810.00
Cresol, p-	2	0.00	0.00	0	.	.
Di-n-butyl phthalate	29	13.34	0.00	3	165.00	109.00
Di-n-octyl phthalate	29	6.90	0.00	1	200.00	200.00
Diazinon/Spectracide	5	107.20	1.50	5	530.00	0.20
Dibenzo(a,h)anthracene	29	0.00	0.00	0	.	.
Dibenzofuran	2	0.00	0.00	0	.	.
Dibromochloromethane	1	0.00	0.00	0	.	.
Dichlorobenzene, 1,2-	29	0.00	0.00	0	.	.
Dichlorobenzene, 1,3-	29	0.00	0.00	0	.	.
Dichlorobenzene, 1,4-	29	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	47	1.91	0.50	27	15.00	0.10
Diethyl phthalate	29	10.34	0.00	1	300.00	300.00
Dimethyl phthalate	29	0.00	0.00	0	.	.
Dimethylphenol, 2,4-	29	0.00	0.00	0	.	.
Dioxins	1	0.00	0.00	0	.	.
DDT	242	23.91	5.65	183	680.00	0.10

Sediment Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Endosulfan mixed isomers	38	7.57	0.00	15	68.00	1.90
Endosulfan, alpha-	11	0.00	0.00	0	.	.
Endosulfan, beta-	8	0.00	0.00	0	.	.
Endrin	61	0.40	0.00	9	17.00	0.10
Ethion/Bladen	5	0.02	0.00	1	0.10	0.10
Ethylbenzene	1	0.00	0.00	0	.	.
Fluoranthene	29	0.52	0.00	1	15.00	15.00
Fluorene	29	0.00	0.00	0	.	.
Heptachlor	61	0.00	0.00	0	.	.
Heptachlor epoxide	61	0.07	0.00	6	2.50	0.10
Hexachlorobenzene	30	0.00	0.00	0	.	.
Hexachlorobutadiene	29	0.00	0.00	0	.	.
Hexachloroethane	29	0.00	0.00	0	.	.
Indeno(1,2,3-cd)pyrene	29	0.00	0.00	0	.	.
Isophorone	29	0.52	0.00	1	15.00	15.00
Lead	3	2600.00	2900.00	3	4200.00	700.00
Malathion	5	0.00	0.00	0	.	.
Mercury	14	22.71	18.00	13	100.00	4.00
Methoxychlor	62	0.11	0.00	4	3.20	0.60
Methylnaphthalene, 2-	2	0.00	0.00	0	.	.
Mirex/Dechlorane	31	0.00	0.00	0	.	.
Naphthalene	29	0.52	0.00	1	15.00	15.00
Nickel	1	36000.00	36000.00	1	36000.00	36000.00
Nitrosodiphenylamine, N-	29	7.59	0.00	1	220.00	220.00
Pentachlorophenol	29	0.00	0.00	0	.	.
Phenanthrene	29	2.66	0.00	3	35.10	17.00
Phenol	29	3.45	0.00	1	100.00	100.00
Polychlorinated biphenyls	208	0.00	0.00	0	.	.
Pyrene	29	2.54	0.00	2	57.60	16.00
Silver	1	30.00	30.00	1	30.00	30.00
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	61	0.00	0.00	0	.	.
Tribromomethane/Bromoform	1	0.00	0.00	0	.	.
Trichlorobenzene, 1,2,4-	29	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	3	59600.00	54300.00	3	82500.00	42000.00

## Tissue Residue Data: Chemical Summary

Tissue Parameter	Total Observations			Detected Observations		
	Num.	Mean (ppb)	Median (ppb)	Num.	Max (ppb)	Min (ppb)
Aldrin	41	0.49	0.00	2	10.00	10.00
Arsenic	26	614.36	30.00	16	14000.00	20.00
Biphenyl	1	0.00	0.00	0	.	.
BHC	100	3.35	0.00	30	47.00	0.60
Cadmium	27	18.90	10.00	22	100.00	2.55
Chlordane	95	7.89	0.00	35	230.00	5.10
Chlorpyrifos/Dursban	1	3.44	3.44	1	3.44	3.44
Chromium	21	120.95	50.00	11	800.00	50.00
Copper	27	2364.07	1800.00	27	7400.00	430.00
Dicofol/Kelthane	1	3.44	3.44	1	3.44	3.44
Dieldrin	50	20.00	0.00	18	240.00	10.00
Dioxins	2	0.00	0.00	2	0.00	0.00
DCPA/Dacthal	6	10.00	10.00	6	10.00	10.00
DDT	252	887.95	104.50	159	26000.00	1.30
Endosulfan mixed isomers	14	5.00	0.00	2	50.00	20.00
Endrin	35	3.75	0.00	10	50.00	0.50
Heptachlor	21	2.86	0.00	6	10.00	10.00
Heptachlor epoxide	17	1.39	0.00	3	10.00	3.62
Hexachlorobenzene	14	4.61	2.27	7	10.00	4.55
Hexachlorobutadiene	1	0.00	0.00	0	.	.
Isopropalin	1	0.00	0.00	0	.	.
Lead	27	298.00	170.00	19	2000.00	27.10
Mercury	38	112.42	88.50	37	780.00	11.00
Methoxychlor	44	0.00	0.00	0	.	.
Mirex/Dechlorane	7	8.57	10.00	6	10.00	10.00
Pentachlorobenzene	1	0.00	0.00	0	.	.
Pentachloronitrobenzene/Quin	1	0.00	0.00	0	.	.
Pentachlorophenol	12	7.40	2.40	7	32.00	2.00
Polychlorinated biphenyls	111	148.00	0.00	51	2000.00	30.00
Selenium	6	436.93	420.80	6	550.00	350.00
Tetrachlorobenzene, 1,2,4,5-	1	0.00	0.00	0	.	.
Toxaphene	20	45.00	0.00	6	400.00	100.00
Trichlorobenzene, 1,2,4-	1	0.00	0.00	0	.	.
Trifluralin/Treflan	1	7.16	7.16	1	7.16	7.16
Zinc	27	21221.48	18600.00	27	35500.00	12600.00