

APPENDIX IV

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)							
	140	150	160	170	180	190	200	210
Deciduous Forest	4,347	5,488	10,134	2,912	7,137	12,232	25,475	17,769
Evergreen Forest	4,990	4,282	5,251	2,646	3,604	5,363	6,669	2,738
High Intensity: Commercial/Industrial/Transportation	590	708	108	281	46	127	616	6
High Intensity: Residential	279	82	13	1		50	83	
Low Intensity: Residential	1,431	803	229	50	48	572	981	6
Mixed Forest	6,678	7,325	8,006	3,790	3,798	7,291	10,653	6,150
Open Water	1,653	75	2,150	40	127	3,011	10,855	18
Other Grasses: Urban/Recreational	827	623	191	68	35	276	612	20
Pasture/Hay	6,667	16,089	6,626	10,533	3,664	5,149	4,655	1,327
Row Crops	1,932	4,757	1,178	2,934	683	792	688	49
Transitional	81	137	218	187	166	6	207	3
Woody Wetlands	14		11			87		
Emergent Herbaceous Wetlands	1		8			121		
Quarries/Strip Mines							44	
Total	29,515	40,368	34,124	23,444	19,309	35,077	61,538	28,086

LAND USE/LAND COVER	AREAS IN HUC-11 SUBWATERSHEDS (ACRES)					
	220	230	240	250	260	270
Deciduous Forest	23,198	11,473	6,260	18,284	12,191	8,965
Evergreen Forest	6,213	2,288	2,862	11,828	2,050	3,178
High Intensity: Commercial/Industrial/Transportation	223	202	94	2	5	268
High Intensity: Residential	0	111	1			60
Low Intensity: Residential	115	685	133	10	32	415
Mixed Forest	7,657	4,367	3,510	4,733	3,728	4,914
Open Water	16	1,588	8,948	51	11	2,583
Other Grasses: Urban/Recreational	83	211	52	2	6	203
Pasture/Hay	1,714	1,902	796	2,083	1,244	5,188
Row Crops	133	423	195	65	90	1,113
Transitional	137	17	16	1,752	14	7
Woody Wetlands		240		561		118
Emergent Herbaceous Wetlands		38		17		67
Total	39,490	23,545	22,867	39,386	19,371	27,078

Table A4-1. Land Use Distribution in Watts Bar Watershed by HUC-11. Data is from 1992 Multi-Resolution Land Characterization (MRLC) derived by applying a generalized Anderson Level II system to mosaics of Landsat thematic mapper images collected every five years.

HYDROLOGIC SOIL GROUPS

GROUP A SOILS have low runoff potential and high infiltration rates even when wet. They consist chiefly of sand and gravel and are well to excessively drained.

GROUP B SOILS have moderate infiltration rates when wet and consist chiefly of soils that are moderately deep to deep, moderately to well drained, and moderately coarse to coarse textures.

GROUP C SOILS have low infiltration rates when wet and consist chiefly of soils having a layer that impedes downward movement of water with moderately fine to fine texture.

GROUP D SOILS have high runoff potential, very low infiltration rates, and consist chiefly of clay soils.

Table A4-2. Hydrologic Soil Groups in Tennessee as Described in WCS.

STATION	HUC-11	NAME	AREA (SQ MILES)	PERIOD OF OBSERVATIONS	FLOW (CFS)		
					Min	Max	Mean
03520000	06010201140	TN River	12,220.0	10/01/22-06/30/55	1,820.0	166,000.0	18,718.0
03520100	06010102150	Sweetwater Ck	62.2				
03520170	06010201170	Pond Creek	30.8				
03541500	06010201230	Whites Creek	108.0	06/01/34-09/30/55	0.0	10,400.0	213.0

Table A4-3. Historical USGS Streamflow Data Summary Based on Mean Daily Flows in Watts Barr Watershed. Min, absolute minimum flow for period of record.

PARAMETER ID	PARAMETER NAME
00010	Water Temperature (Degrees Celsius)
00011	Water Temperature (Degrees Fahrenheit)
00060	Flow, Stream, Mean Daily (cfs)
00061	Flow, Stream, Instantaneous (cfs)
00062	Elevation, Reservoir, Surface Water (Feet)
00065	Stream Stage (Feet)
00070	Turbidity (Jackson Candle Units)
00078	Transparency, Secchi Disc (Meters)
00080	Color (Platinum-Cobalt Units)
00081	Color, Apparent (Unfiltered Sample as Pt-Co Units)
00090	Oxidation-Reduction Potential (Millivolts)
00094	Specific Conductance, Field ($\mu\text{mhos/cm}$ @ 25° C)
00095	Specific Conductance, Field ($\mu\text{mhos/cm}$ @ 25° C)
00299	Oxygen, Dissolved, Analysis by Probe (mg/L)
00300	Oxygen, Dissolved (mg/L)
00301	Oxygen, Dissolved (% of Saturation)
00310	BOD 5 Day @ 20° C (mg/L)
00322	BOD 10 Day @ 20° C (mg/L)
00324	BOD 20 Day @ 20° C (mg/L)
00335	COD (Low Level) in .025 N $\text{K}_2\text{Cr}_2\text{O}_7$ (mg/L)
00339	COD, Bottom Deposits, Dry Weight (mg/kg)
00340	COD (High Level) in .025 N $\text{K}_2\text{Cr}_2\text{O}_7$ (mg/L)
00363	BOD 50 Day @ 20° C (mg/L)
00400	pH (Standard Units)
00403	pH (Lab, Standard Units)
00405	Carbon Dioxide (mg/L as CO_2)
00410	Alkalinity, Total (mg/L as CaCO_3)
00415	Alkalinity, Phenolphthalein (mg/L)
00431	Alkalinity, Total Field (mg/L as CaCO_3)
00452	Carbonate, Dissolved, Incremental Titration, Field (mg/L as CO_3)
00453	Bicarbonate, Dissolved, Incremental Titration, Field (mg/L as HCO_3)
00500	Residue, Total (mg/L)
00515	Residue, Total Filtrable (mg/L)
00530	Residue, Total Nonfiltrable (mg/L)
00535	Residue, Volatile, Nonfilterable (mg/L)
00605	Nitrogen, Organic, Total (mg/L as N)
00608	Nitrogen Ammonia , Dissolved (mg/L as N)
00610	Nitrogen Ammonia , Total (mg/L as N)
00612	Ammonia, Unionized (mg/L as N)
00613	Nitrite Nitrogen, Dissolved (mg/L as N)
00615	Nitrite Nitrogen, Total (mg/L as N)
00619	Ammonia, Unionized (Calculated From Temp-pH-NH ₄ ; mg/L)
00620	Nitrate Nitrogen, Total (mg/L as N)
00623	Nitrogen, Kjeldahl, Dissolved (mg/L as N)
00625	Nitrogen, Kjeldahl, Total (mg/L as N)
00630	Nitrite Plus Nitrate, Total (1 Determination mg/L as N)
00631	Nitrite Plus Nitrate, Dissolved (1 Determination mg/L as N)
00665	Phosphorus, Total (mg/L as P)
00664	Phosphorous, Total, 30 Day (mg/L as P)
00666	Phosphorus, Dissolved (mg/L as P)
00671	Phosphorus, Dissolved Orthophosphate (mg/L as P)
00680	Carbon, Total Organic (mg/L as C)
00681	Carbon, Dissolved Organic (mg/L as C)

00687	Carbon, Organic, in Bed Material (g/kg as C)
00689	Carbon, Suspended Organic, (mg/L as C)
00720	Cyanide, Total (mg/L as CN)
00722	Cyanide, Free (Amenable to Chlorination; mg/L)
00745	Sulfide, Total (mg/L)
00900	Hardness, Total (mg/L as CaCO ₃)
00902	Hardness, Non-Carbonate (mg/L as CaCO ₃)
00915	Calcium, Dissolved (mg/L as Ca)
00916	Calcium, Total (mg/L as Ca)
00917	Calcium, in Bottom Deposits (mg/kg as Ca Dry Weight)
00924	Magnesium, in Bottom Deposits (mg/kg as Mg Dry Weight)
00925	Magnesium, Dissolved (mg/L as Mg)
00927	Magnesium, Total (mg/L as Mg)
00929	Sodium, Total (mg/L as Na)
00930	Sodium, Dissolved (mg/L as Na)
00935	Potassium, Dissolved (mg/L as K)
00937	Potassium, Total (mg/L as K)
00940	Chloride, Total In Water (mg/L)
00941	Chloride, Dissolved in Water (mg/L)
00945	Sulfate, Total (mg/L as SO ₄)
00946	Sulfate, Dissolved (mg/L as SO ₄)
00950	Fluoride, Dissolved (mg/L as F)
00951	Fluoride, Total (mg/L as F)
00955	Silica, Dissolved (mg/L as SiO ₂)
00956	Silica, Total (mg/L as SiO ₂)
00997	Arsenic, Inorganic, Total (µg/L as As)
01002	Arsenic, Total (µg/L as As)
01003	Arsenic, in Bottom Deposits (mg/kg dry weight as As)
01004	Arsenic, Total in Fish or Animal (Wet Weight, mg/kg)
01007	Barium, Total (µg/L as Ba)
01008	Barium, in Bottom Deposits (mg/kg dry weight as Ba)
01012	Beryllium, Total (µg/L as Be)
01013	Beryllium in Bottom Deposits (mg/kg dry weight as Be)
01022	Boron, Total (µg/L as B)
01025	Cadmium, Dissolved (µg/L as Cd)
01027	Cadmium, Total (µg/L as Cd)
01028	Cadmium, Total, in Bottom Deposits (mg/kg Dry Weight)
01029	Chromium, Total, in Bottom Deposits (mg/kg Dry Weight)
01034	Chromium, Total (µg/L as Cr)
01037	Cobalt, Total (µg/L as Co)
01038	Cobalt, in Bottom Deposits (mg/kg dry weight as Co)
01040	Copper, Dissolved (µg/L as Cu)
01042	Copper, Total (µg/L as Cu)
01043	Copper, in Bottom Deposits (mg/kg Dry Weight as Cu)
01044	Iron, Suspended (µg/L as Fe)
01045	Iron, Total (µg/L as Fe)
01046	Iron, Dissolved (µg/L as Fe)
01047	Iron, Ferrous (µg/L as Fe)
01049	Lead, Dissolved (µg/L as Pb)
01051	Lead, Total (µg/L as Pb)
01052	Lead, in Bottom Deposits (mg/kg as Pb Dry Weight)
01053	Manganese, in Bottom Deposits (mg/kg as Mn Dry Weight)
01054	Manganese, Suspended (µg/L as Mn)
01055	Manganese, Total (µg/L as Mn)

01056	Manganese, Dissolved ($\mu\text{g/L}$ as Mn)
01063	Molybdenum, in Bottom Deposits (mg/kg dry weight as Mo)
01065	Nickel, Dissolved ($\mu\text{g/L}$ as Ni)
01067	Nickel, Total ($\mu\text{g/L}$ as Ni)
01068	Nickel, Total in Bottom Deposits (mg/kg Dry Weight)
01069	Nickel, Total, in Fish or Animal (Wet Weight, mg/kg)
01073	Thallium, Tissue, Wet Weight (mg/kg)
01075	Silver Dissolved ($\mu\text{g/L}$ as Ag)
01077	Silver Total ($\mu\text{g/L}$ as Ag)
01078	Silver, in Bottom Deposits (mg/kg dry weight as Ag)
01082	Strontium, Total ($\mu\text{g/L}$ as Sn)
01083	Strontium, in Bottom Deposits (mg/kg dry weight as Sr)
01088	Vanadium, in Bottom Deposits (mg /kg dry weight as V)
01090	Zinc, Dissolved ($\mu\text{g/L}$ as Zn)
01092	Zinc, Total ($\mu\text{g/L}$ as Zn)
01093	Zinc in Bottom deposits (mg/kg as Zn Dry Weight)
01098	Antimony, in Bottom Deposits (mg/kg dry weight as Sb)
01099	Antimony, in Tissue (Wet Weight, mg/kg)
01105	Aluminum, Total ($\mu\text{g/L}$ as Al)
01106	Aluminum, Dissolved ($\mu\text{g/L}$ as Al)
01103	Tin, in Bottom Deposits (mg/kg dry weight as Sn)
01106	Aluminum, Dissolved ($\mu\text{g/L}$ as Al)
01108	Aluminum, in Bottom Deposits (mg/kg dry weight as Al)
01132	Lithium, Total ($\mu\text{g/L}$ as Li)
01133	Lithium, in Bottom Deposits (mg/kg dry weight as Li)
01142	Silicon, Total ($\mu\text{g/L}$ as Si)
01147	Selenium, Total ($\mu\text{g/L}$ as Se)
01148	Selenium, in Bottom Deposits (mg/kg dry weight as Se)
01149	Selenium, Total in Fish or Animals (mg/kg)
01152	Titanium, Total ($\mu\text{g/L}$ as Ti)
01170	Iron, in Bottom Deposits (mg/kg Dry Weight as Fe)
04024	Propachlor, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04028	Butylate, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04029	Bromacil, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04035	Simazine, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04037	Prometon, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04040	Deethyl Atrazine, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04041	Cyanazine, Dissolved, Total Recoverable ($\mu\text{g/L}$)
04095	Fonofos, Dissolved, Total Recoverable ($\mu\text{g/L}$)
31501	Coliform, Total (Membrane Filter, M-Eno Media at 35°C)
31505	Coliform, Total (MPN, Confirmed Test, 35°C)
31616	Fecal Coliform (Membrane Filter, M-FC Broth at 44.5°C)
31613	Fecal Coliform (Membrane Filter, M-FC Agar at 44.5°C , 24 h)
31625	Fecal Coliform (Membrane Filter, M-FC, 0.7 μM)
31673	Fecal Streptococci, (Membrane Filter, KF Agar, at 35°C , 48h)
32211	Chlorophyll a (Spectrophotometric Acid, Corrected, as $\mu\text{g/L}$)
32212	Chlorophyll b (Trichromatic, Uncorrected, as $\mu\text{g/L}$)
32214	Chlorophyll c (Trichromatic, Uncorrected, as $\mu\text{g/L}$)
32218	Pheophytin A (MG/M2, Spectrophotometric Acid Method)
32730	Phenolics, Total, Recoverable ($\mu\text{g/L}$)
34252	Beryllium, Wet Weight Tissue (mg/kg)
34253	A-BHC-Alpha, Dissolved ($\mu\text{g/L}$)
34257	B-BHC-Beta, Dry Weight ($\mu\text{g/kg}$)
34258	B-BHC-Beta, Wet Weight Tissue (mg/kg)

34262	δ-Benzene Hexachloride, Dry Weight (µg/kg)
34263	Delta Benzene Hexachloride (Wet Weight Tissue, mg/kg)
34354	Endosulfan Sulfate, Dry Weight (µg/kg)
34355	Endosulfan Sulfate (Wet Weight Tissue, mg/kg)
34356	β-Endosulfan, Total Weight (µg/L)
34359	β-Endosulfan, Dry Weight (µg/kg)
34360	β-Endosulfan (Wet Weight Tissue, mg/kg)
34361	α-Endosulfan (Total Weight, (µg/L)
34365	α-Endosulfan (Wet Weight Tissue, mg/kg)
34366	Endrin Aldehyde (Total Weight, µg/L)
34369	Endrin Aldehyde (µg/kg dry weight)
34653	P,P'-DDE, Dissolved ((µg/L)
34664	PCB-1221 (Wet Weight, Tissue, mg/kg)
34667	PCB-1232 (Wet Weight, Tissue, mg/kg)
34669	PCB-1248 (Wet Weight, Tissue, mg/kg)
34670	PCB-1260 (Wet Weight, Tissue, mg/kg)
34674	PCB-1016 (Wet Weight, Tissue, mg/kg)
34680	Aldrin (in Fish Tissue, Wet Weight, mg/kg)
34685	Endrin (Wet Weight Tissue, mg/kg)
34686	Heptachlor Epoxide (Wet Weight Tissue, mg/kg)
34687	Heptachlor (Wet Weight Tissue, mg/kg)
34689	PCB-1242 (Wet Weight, Tissue, mg/kg)
34690	PCB-1254 (Wet Weight, Tissue, mg/kg)
38442	Dicamba (Banvel), Dissolved (µg/L)
38475	Fenuron-TCA, Sediment, Dry Weight (µg/kg)
38482	MCPA, Dissolved (µg/L)
38487	MCPB, Dissolved (µg/L)
38501	Methiocarb, Dissolved (µg/L)
38538	Propoxur, Dissolved (µg/L)
38711	Bentazon, Dissolved (µg/L)
38811	Fluometuron, Dissolved (µg/L)
38746	2,4-DB, Dissolved (µg/L)
38866	Oxamyl, Dissolved (µg/L)
38933	Chlorpyrifos, Dissolved (µg/L)
39063	Chlordane, cis-Isomer (Tissue Wet Weight, µg/kg)
39066	Chlordane, trans-Isomer (Tissue Wet Weight, µg/kg)
39069	Chlordane-Nonachlor, cis-Isomer (µg/g Tissue Wet Weight)
39072	Chlordane-Nonachlor, trans-Isomer (µg/g Tissue Wet Weight)
39074	α-BHC (Tissue, µg/g)
39076	α-BHC in Bottom Deposits (µg/kg Dry Solid)
39086	Alkalinity, Water, Dissolved, Field Titration (mg/l as CaCO ₃)
39301	P,P'-DDT in Bottom Deposits (µg/kg Dry Solids)
39302	P,P'-DDT (Tissue, Wet Weight, µg/g)
39307	O,P-DDT (Tissue, Wet Weight, µg/g)
39311	P,P'-DDD in Bottom Deposits (µg/kg Dry Solids)
39312	P,P'-DDD (Tissue, Wet Weight, µg/g)
39321	P,P'-DDE in Bottom Deposits (µg/kg Dry Solids)
39322	P,P'-DDE (Tissue, Wet Weight, µg/g)
39325	O,P-DDD (Tissue, Wet Weight, µg/g)
39329	O,P-DDE (Tissue, Wet Weight, µg/g)
39333	Aldrin, in Bottom Deposits (µg/kg Dry Solids)
39341	γ-BHC (Lindane), Dissolved, (µg/L)
39343	γ-BHC (Lindane), Sediments, Dry Weight (µg/kg)

39351	Chlordane (Tech Mix and Metabs), Sediments, Dry Weight (µg/kg)
39383	Dieldrin, in Bottom Deposits (µg/kg Dry Solids)
39393	Endrin, in Bottom Deposits (µg/kg Dry Solids)
39403	Toxaphene, in Bottom Deposits (µg/kg Dry Solids)
39404	Dieldrin (in Tissue, Wet Weight, µg/g)
39413	Heptachlor, in Bottom Deposits (µg/kg Dry Solids)
39415	Metolachlor, Dissolved (µg/L)
39423	Heptachlor Epoxide in Bottom Deposits (µg/kg Dry Solids)
39481	Methoxychlor in Bottom Deposits (µg/kg Dry Solids)
39491	PCB-1221 in Bottom Deposits (µg/kg Dry Solids)
39495	PCB-1232 in Bottom Deposits (µg/kg Dry Solids)
39499	PCB-1242 in Bottom Deposits (µg/kg Dry Solids)
39503	PCB-1248 in Bottom Deposits (µg/kg Dry Solids)
39507	PCB-1254 in Bottom Deposits (µg/kg Dry Solids)
39511	PCB-1260 in Bottom Deposits (µg/kg Dry Solids)
39514	PCB-1016 in Bottom Deposits (µg/kg Dry Weight)
39515	PCB (Fish Tissue, mg/kg)
39519	PCB in Bottom Deposits (µg/kg Dry Solids)
39532	Malathion in Filtered Fraction of Water Sample (µg/L)
39542	Parathion in Filtered Fraction of Water Sample (µg/L)
39572	Diazanone in Filtered Fraction of Water Sample (µg/L)
39632	Atrazine, Dissolved (ppb)
39732	2,4-D in Filtered Fraction of Water Sample (µg/L)
39742	2,4,5-T in Filtered Fraction of Water Sample (µg/L)
39762	Silvex in Filtered Fraction of Water Sample (µg/L)
39785	γ-BHC (Lindane), Tissue Wet Weight (mg/kg)
46342	Alachlor (Lasso), Dissolved (µg/L)
46570	Hardness (Ca-Mg Calculated, mg/l as CaCO ₃)
49235	Trichlopyr, Recoverable, Filtrate (µg/L)
49236	Propham, Recoverable, Filtrate (µg/L)
49260	Acetochlor, Recoverable (µg/L)
49291	Picloram, Filtered, Recoverable (µg/L)
49292	Orayzalin, Filtered, Recoverable (µg/L)
49293	Norflurazon, Filtered, Recoverable (µg/L)
49294	Neburon, Filtered, Recoverable (µg/L)
49295	1-Naphthol, Filtered, Recoverable (µg/L)
49296	Methomyl, Filtered, Recoverable (µg/L)
49297	Fenuron, Filtered, Recoverable (µg/L)
49298	Esfenvalerate, Filtered, Recoverable (µg/L)
49299	o-Cresol, Filtered, Recoverable (µg/L)
49300	Diuron, Filtered, Recoverable (µg/L)
49301	Dinoseb, Filtered, Recoverable (µg/L)
49302	Dichlorprop, Filtered, Recoverable (µg/L)
49303	Dichlobenil, Filtered, Recoverable (µg/L)
49304	Dacthal, Filtered, Recoverable (µg/L)
49305	Clopyralid, Filtered, Recoverable (µg/L)
49306	Chlorothalonil, Filtered, Recoverable (µg/L)
49307	Amiben, Filtered, Recoverable (µg/L)
49308	3-Hydroxycarbofuran, Filtered, Recoverable (µg/L)
49309	Carbofuran, Filtered, Recoverable (µg/L)
49310	Carbaryl, Filtered, Recoverable (µg/L)
49311	Bromoxnyl, Filtered, Recoverable (µg/L)

49312	Aldicarb, Filtered, Recoverable (µg/L)
49313	Aldicarb Sulfone, Filtered, Recoverable (µg/L)
49314	Aldicarb Sulfoxide, Filtered, Recoverable (µg/L)
49315	Acifluorfen, Filtered, Recoverable (µg/L)
70300	Residue, Total Filtable (Dried at 180°C, as mg/L)
70301	Solids, Dissolved, Sum of Constituents (mg/L)
70302	Solids, Dissolved, (Tons/Day)
70303	Solids, Dissolved (Tons/Acre-Foot)
70331	Suspended Sediment. Sieve (% Finer than 0.62mm)
70507	Phosphorus, in Total Orthophosphate (mg/L as P)
71845	Nitrogen, Ammonia, Total (mg/L as NH ₄)
71886	Phosphorus, Total (mg/L as PO ₄)
71900	Mercury, Total (µg/L as Hg)
71921	Mercury, Total in Bottom Deposits (mg/kg as Hg Dry Weight)
71936	Lead (Total, in Fish or Animals, Wet Weight Basis, mg/kg)
71937	Copper (Total, in Fish or Animals, Wet Weight Basis, mg/kg)
71940	Cadmium (Total, in Fish or Animals, Wet Weight Basis, mg/kg)
78457	α-Chlordane (Fish Tissue, Wet Weight, mg/kg)
78458	β-Chlordane (Fish Tissue, Wet Weight, mg/kg)
78459	γ-Chlordane (Fish Tissue, Wet Weight, mg/kg)
78922	Nonachlor, trans-Isomer (Tissue, Wet Weight, mg/kg)
78923	Nonachlor, cis-Isomer (Tissue, Wet Weight, mg/kg)
79006	Chlordene in Fish (µg/kg)
80154	Suspended Sediment (Evaporation at 110°C, as mg/L)
80155	Suspended Sediment Discharge (Tons/Day)
80203	Total Sediment, Sieve (% Finer than 0.62mm)
80204	Total Sediment, Sieve (% Finer than 0.125mm)
80206	Total Sediment, Sieve (% Finer than 0.500mm)
81645	Mirex (in Fish Tissue, Wet Weight, µg/g)
81664	Titanium in Fish Tissue, Wet Weight (mg/kg)
82028	Ratio of Fecal Coliform to Fecal Streptococci
82029	Oxychlordane in Tissue Sample (Wet Weight, mg/kg)
82068	Potassium-40 Dissolved (pCi/L)
82078	Turbidity, Field (as Nephelometric Turbidity Units, NTU)
82079	Turbidity, Lab (as Nephelometric Turbidity Units, NTU)
82630	Metribuzin (Sencor), Dissolved (µg/L)
82660	2,6-Diethyl-Aniline, 0.7µm Filter (µg/L)
82661	Trifluraline, Total Recoverable, 0.7µm Filter (µg/L)
82663	Ethafluraline, Total Recoverable, 0.7µm Filter (µg/L)
82664	Phorate, Total, Recoverable, 0.7µm Filter (µg/L)
82665	Terbacil, Total, Recoverable, 0.7µm Filter (µg/L)
82666	Linuron, Total, Recoverable, 0.7µm Filter (µg/L)
82667	Methyl Parathion, 0.7µm Filter (µg/L)
82668	EPTC, 0.7 µm Filter, Total Recoverable (µg/L)
82669	Pebulate, 0.7 µm Filter, Total Recoverable (µg/L)
82670	Tebuthiuron, 0.7 µm Filter, Total Recoverable (µg/L)
82671	Molinatate, 0.7 µm Filter, Total Recoverable (µg/L)
82672	Ethoprop, 0.7 µm Filter, Total Recoverable (µg/L)
82673	Benfluralin, 0.7 µm Filter, Total Recoverable (µg/L)
82674	Carbofuran, 0.7 µm Filter, Total Recoverable (µg/L)
82675	Terbufos, 0.7 µm Filter, Total Recoverable (µg/L)
82676	Pronamide, 0.7 µm Filter, Total Recoverable (µg/L)
82677	Disulfoton, 0.7 µm Filter, Total Recoverable (µg/L)
82678	Triallate, 0.7 µm Filter, Total Recoverable (µg/L)

82679	Propanil, 0.7 µm Filter, Total Recoverable (µg/L)
82680	Carbaryl, 0.7 µm Filter, Total Recoverable (µg/L)
82681	Thiobencarb, 0.7 µm Filter, Total Recoverable (µg/L)
82682	DCPA, 0.7 µm Filter, Total Recoverable (µg/L)
82683	Pendimethalin, 0.7 µm Filter, Total recoverable (µg/L)
82684	Napropamide, 0.7 µm Filter, Total Recoverable (µg/L)
82685	Propargite, 0.7 µm Filter, Total Recoverable (µg/L)
82686	Methyl Azinphos, 0.7 µm Filter, Total Recoverable (µg/L)
82687	Cis-Permethrin, 0.7 µm Filter, Total Recoverable (µg/L)

Table A4-4a. Water Quality Parameters and Codes.

PARAMETER ID	SUBWATERSHED					
	140	190	200	240	250	270
00001	g					
00010	A,c,d,e,f	j	l,m	q,z	@	&
00011					@	
00060	a			q		
00061	a,b,c,d,e,f		m		@	&
00062	a			q		
00070	a	j	l,m	q		
00078	a		m	q,z		
00080	a		l,m	q		#
00081	a		l,m	q		
00090	a,c,f		m	q		
00094	a,c,f	j	m	q,z		&
00095	a	j	l,m	q	@	&
00300	a,c,d,e,f	j	l,m	q,z	@	&
00301	a,c,d,e,f	j	l,m	q,z	@	&
00310	a	j	m			#, &
00322						#
00324						#
00335	a	j	m			&
00339				q		
00349						#
00363						#
00400	a,c,f	j	l,m	q,z	@	&
00403		j			@	
00405					@	
00410	a		l	q	@	&
00415	a		l,m	q		
00452					@	
00453					@	
00500				q		
00515	a	j		q		
00530	a	j	l,m	q		#, &
00535						#
00605	a		m	Q,z		#
00608					@	
00610	a	j	m	Q,z		#, &
00612	a	j	m	q	@	&
00613					@	
00615	a			q		
00619	a	j	m	q	@	&

00620	a			q		
00623					@	
00625	a				@	
00630	a	j	m	q,z	@	#&
00631					@	
00635		j				&
00664						#
00665	a	j	m	q,z	@	#,&
00666	a		m		@	#
00668				q		
00671	a		m	q	@	
00680	a		m	q		#
00681	a		m	q	@	
00687			m	q		
00689					@	
00720					@	
00722	a					
00745				q		
00900	a	j			@	&
00902					@	
00915					@	#
00916	a		m	q		#
00917			m	q		
00924			m	q		
00925					@	#
00927	a		m	q		#
00929	a			q		
00930					@	
00931					@	
00932					@	
00935					@	
00937				q		
00940	a			q	@	
00945	a			q	@	
00946		j				
00950					@	
00951	a				@	
00955	a		m			
00956	a			q		
00997	a					
01002	a	j	m		@	&
01003				q	@	
01004		h				&
01007	a		m		@	
01008				q		
01012	a		m			
01013				q		
01022	a					
01027	a	j			@	&
01028			m	q	@	
01029			m	q	@	
01034	a	j			@	&
01037	a					
01038				q	@	
01040						#
01042	a	j		q	@	#,&

01043			m	q	@	
01044					@	
01045	a	j	m	q	@	#
01046	a		m	q	@	#
01047	a		m			
01051	a	j			@	&
01052			m	q	@	
01053			m	q	@	
01054					@	
01055	a	j	m	q	@	#
01056	a		m	q	@	#
01063				q		
01067	a	j				&
01068			m	q		
01069		h				
01073		h				
01077	a		m		@	
01078				q		
01082	a					
01083				q		
01088				q		
01090						#
01092	a	j	m	q	@	#, &
01093			m	q	@	
01098				q		
01099		h				
01103				q		
01105	a	j	m	q		#
01106						#
01108			m	q		
01132	a					
01133				q		
01142						#
01147	a				@	&
01148				q	@	
01149		h				
01152	a					
01170			m	q	@	
04024					@	
04028					@	
04029					@	
04035					@	
04037					@	
04040					@	
04041					@	
04095					@	
31501	a					
31505	a			q		
31616	a	i,j	m,n,o,p	q,r,s,t,u,v,w,x,y		\$/,%,&
31625					@	
31673					@	
31679		j				&
32211			m	q,z		#
32212			m	q,z		#
32214			m	q,z		#
32218			m	q,z		#

32730			m			
34252		h				
34253					@	
34257			m	q		
34258		h				
34262			m	q		
34263		h				
34354		H	m	q		
34355						&
34356						
34359			m	q		
34360		h				
34361						&
34365		h				
34366						&
34369				q		
34653					@	
34664	g	h	l,m	q,r		&
34667		h	l	q,r		&
34669	g	h	l,m	q,r		&
34670	g	h	l	q,r		&
34674	g	h	l	q,r		&
34680		h				&
34685		h				&
34686		h				
34687		h				
34689	g	h	l	q,r		&
34690	g	h	l	q,r		&
38442					@	
38478					@	
38482					@	
38487					@	
38501					@	
38538					@	
38711					@	
38746					@	
38811					@	
38866					@	
38933					@	
39063	g	h		q,r		&
39066	g	h	l	q,r		&
39069						&
39072						&
39074		h				&
39076			m	q		
39086					@	
39301			m	q		
39302	g	h	l	r		&
39307	g		l	r		&
39311			m	q		
39312	g	h	l	r		&
39321			m	q		
39322	g	h	l	r		&
39325	g		l	r		&
39329	g		l	r		&
39333			m	q		

39341					@	
39343						
39351			m	q		
39383			m	q	@	
39393			m	q		
39403			m	q		
39404		h				&
39413			m	q		
39415					@	
39423			m	q		
39481			m	q		
39491			m	q		
39495			m	q		
39499			m	q		
39503			m	q		
39507			m	q		
39511			m	q		
39514			m	q		
39515	g	h				&
39519			m	q		
39532					@	
39542					@	
39572					@	
37632					@	
39732					@	
39742					@	
39762					@	
39785		h				&
46342					@	
46570	a		m	q	@	#
49235					@	
49236					@	
49260					@	
49291					@	
49292					@	
49293					@	
49294					@	
49295					@	
49296					@	
49297					@	
49298					@	
49299					@	
49300					@	
49301					@	
49302					@	
49303					@	
49304					@	
49305					@	
49306					@	
49307					@	
49308					@	
49309					@	
49310					@	
49311					@	
49312					@	
49313					@	

49314					@	
49315					@	
70152				q		
70300	a		l,m		@	
70301					@	
70302					@	
70303					@	
70331					@	
71886					@	
71900		j	k,m		@	&
71921			k,m	q	@	
71930		h				&
71936		h				&
71937		h				&
71938		h				
71939		h				
71940		h				&
71900					@	
71921					@	
72030				q		
78457	g	h	l	q		
78458	g	h				
78459	g	h	l	q,r		
78922	g	h	l	q,r		
78923	g	h		q,r		
79006	g	h	l	q,r		
80111			m	q		
80154					@	
80155					@	
80203			m	q		
80204			m	q		
80206			m	q		
80208			m	q	@	
82068					@	
81644						&
81645		h				
82028		j				&
82029	g	h		q,r		
82078			m	q		
82079			m	q,r		
82630					@	
82660					@	
82661					@	
82663					@	
82664					@	
82665					@	
82666					@	
82667					@	
82668					@	
82669					@	
82670					@	
82671					@	
82672					@	
82673					@	
82674					@	
82675					@	

82676					@	
82677					@	
82678					@	
82679					@	
82679					@	
82680					@	
82681					@	
82682					@	
82683					@	
82684					@	
82685					@	
82686					@	
82687					@	
85305				q		
91900	a					
82078	a					
84068	a,c,d,e,f					

Table A4-4b. Water Quality Parameters Monitored at STORET Sites in the South Fork Forked Deer River Watershed.

CODE	STATION	ALIAS	AGENCY	LOCATION
a	475502		TVA	Fort Loudon Dam Tailrace (RM 602.24)
b	475502C		TVA	Fort Loudon Dam Tailrace (RM 602.24)
c	475502CU1		TVA	Fort Loudon Dam Tailrace (RM 602.24)
d	475502CU2		TVA	Fort Loudon Dam Tailrace (RM 602.24)
e	475502CU3		TVA	Fort Loudon Dam Tailrace (RM 602.24)
f	475502CU4		TVA	Fort Loudon Dam Tailrace (RM 602.24)
g	477136		TVA	Fort Loudon Dam Tailrace (RM 600.0)
h	477137		TVA	Watts Bar Reservoir (RM 570.0)
i	477223		TVA	Riley Creek Recreation Area @ RM 0.85
j	TN569.4	TENNE569.4RO	TDEC	TN River @ RM 569.4
k	475827		TVA	Watts Bar Reservoir (RM 555.0)
l	476040		TVA	Watts Bar Reservoir (RM 559.6)
m	476041		TVA	Watts Bar Reservoir (RM 560.8)
n	477221		TVA	Roane County Park (Caney Creek @ RM 1.1)
o	477570		TVA	Watts Bar Reservoir: Bayside Marina
p	477573		TVA	Watts Bar Reservoir: Arrowhead Resort
q	475317		TVA	Watts Bar Reservoir: Opposite Lower Bridge
r	476635		TVA	Watts Bar Dam Recreation Area (RM 530.2)
s	477360		TVA	Hornsby Hollow Recreation Area (RM 539.9)
t	477566		TVA	Watts Bar Reservoir: Fooshee Park Swim Beach
u	477567		TVA	Watts Bar Reservoir: Hornsbee Hollow Beach
v	477568		TVA	Watts Bar Reservoir: Hornsbee Hollow Beach
w	477569		TVA	Watts Bar Reservoir Campground (Rowden Br)
x	477574		TVA	Watts Bar Reservoir Red Cloud Campground
y	477575		TVA	Watts Bar Reservoir: Eden Resort
z	477671		TVA	Watts Bar Reservoir (RM 532.5)
@	03542495		USGS	Piney River
#	477349		TVA	Spring City Water Intake (Piney River @ RM 5.8)
\$	477576		TVA	Watts Bar Reservoir: Rhea Springs Swim Beach
%	477577		TVA	Watts Bar Reservoir: Rhea Harbor Swim Beach
&	002102		TDEC	Piney River @ RM 5.0

Table A4-4c. Water Quality Monitoring STORET Stations in the Watts Bar Watershed.
TDEC, Tennessee Department of Environment and Conservation, TVA, Tennessee valley Authority, USGS, United States Geologic Survey..

FACILITY NUMBER	FACILITY NAME	SIC	SIC NAME	MADI	RECEIVING WATER	HUC-11
TN0001449	Yale Security, Inc.	3429	Hardware, NEC	Minor	Lenoir City STP Outfall (Tennessee River @ RM 600.1)	06010201140
TN0020494	Lenoir City STP	4952	Sewerage Systems	Major	TN River @ RM 600.1	06010201140
TN0001457	Viskase Corporation	3089	Plastic Products, NEC	Major	TN River @ RM 591.8 and WWC to TN River @ RM 591.8	06010201140
TN0064653	Kimberly-Clark Corp: Loudon Mill	2621	Paper Mills	Minor	Hubbard Branch and TN River @ RM 589.7 and Unnamed Trib and TN River @ RM 590.0	06010201140
TN0073806	Mr. Zip Retail: Location #515	5541	Gasoline Service Stations	Minor	Sweetwater Creek @ RM 12.0	06010201150
TN0060143	Gemtron Corporation	3231	Glass Product Manufacturing	Minor	Mile 1.2 of Unnamed Trib to Sweetwater Creek @ RM 22.0	06010201150
TN0025437	Harriman STP	4952	Sewerage Systems	Major	TN River @ RM 567.0	06010201190
TN0024856	Midway High School	4952	Sewerage Systems	Minor	Unnamed Trib @ mi 0.1 to Greenbriar Branch @ RM 1.0	06010201190
TN0074489	Chase Instruments Corp.	3231	Glass Product Manufacturing	Minor	Black Creek	06010201200
TN0074098	MAPCO #1059	5541	Gasoline Service Stations	Minor	Black Creek	06010201200
TN0026158	Rockwood STP	4952	Sewerage Systems	Major	Black Creek @ RM 5.3	06010201230
TN0061654	The Landing STP	4952	Sewerage Systems	Minor	TN River @ RM 541.5	06010201240
TN0021261	Spring City STP	4952	Sewerage Systems	Minor	Piney River Embayment of Watts Bar Reservoir	06010201270

Table A4-5. Active Permitted Point Source Facilities in the Watts Bar Watershed. SIC, Standard Industrial Classification; MADI, Major Discharge Indicator; WWC; Wet Weather Conveyance.

FACILITY NUMBER	FACILITY NAME	SIC	SIC NAME	RECEIVING WATER	HUC-11
TN0071552	Harriman Coal Yard	1221	Coal Mining: Bituminous, Surface	Caney Creek	06010201200
TN0050059	Cumberland Minerals, Corp: Area #3	1221	Prep Plants, Bituminous Coal or Lignite	Bearpen Branch	06010201250
TN0054411	Cumberland Minerals Corp: Area #5	1222	Coal Mining: Bituminous, Underground	Stinging Fork	06010201260

Table A4-6. Active Mining Sites in the Watts Bar Watershed. SIC, Standard Industrial Classification.

SITE NUMBER	SITE NAME	COUNTY	LIVESTOCK	WATERBODY	HUC-11
TNA000033	Sweetwater Valley Farms	Monroe	Poultry	Sweetwater Creek	06010201150
TNA000025	Springbrook Farm	Monroe	Poultry	Pond Creek	06010201170
TNA000023	Holt Dairy Farm	Monroe	Dairy Cows	Trib to Greasy Branch	06010201170

Table A4-7. CAFO Sites in Watts Bar Watershed.

LOG NUMBER	COUNTY	DESCRIPTION	WATERBODY	HUC-11
00.003	Roane	Project 73945-1471-04	Unnamed Trib to Caney Creek	06010201200
98.546	Roane	Box Culvert	Unnamed Trib to Mink Creek	06010201200
99.091	Rhea	Creation of 2 Ponds	Thompson Branch	06010201260
98.173	Rhea	Construction of Pit Pond	Wolf Creek	06010201270
99.300	Rhea	Pond Construction	Unnamed Trib to Town Creek	06010201270
99.430	Rhea	Construct 3 Bridges	Town Creek, Piney River	06010201270

Table A4-8. Individual ARAP Permits Issued January 1994 Through June 2000 in Watts Bar Watershed.

PERMIT #	COUNTY	DATE ISSUED	SITE	IMPACTED ACRES	IMPACTED WATER	MITIGATION	HUC-11
94.413	Roane	08/24/94	I-40 Slide Area Near Rockwood	0.1	Springs and Wetland	Off-Site	06010201200

Table A4-9a. Individual ARAP Permits Issued for Impacting Wetlands in Watts Bar Watershed.

PERMIT #	COUNTY	IMPACTED ACREAGE	MITIGATION ACREAGE	MITIGATION	HUC-11
99.413	Roane	0.1	0.1	Off-Site	06010201230

Table A4-9b. Individual ARAP Permits Issued for Mitigating Wetlands in Watts Bar Watershed.