4.2.D. 0602000206.

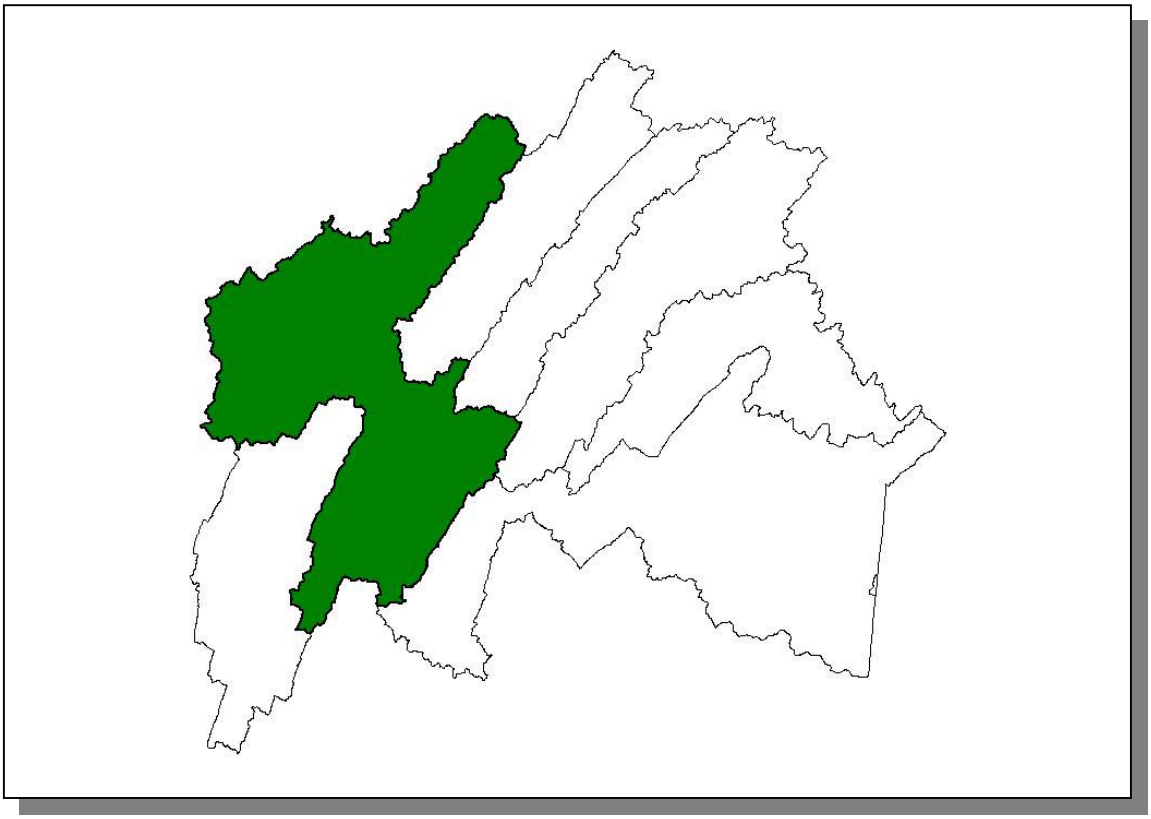

Figure 4-34. Location of Subwatershed 0602000206. *All Hiwassee HUC-10 subwatershed boundaries are shown for reference.*

4.2.D.i. General Description.

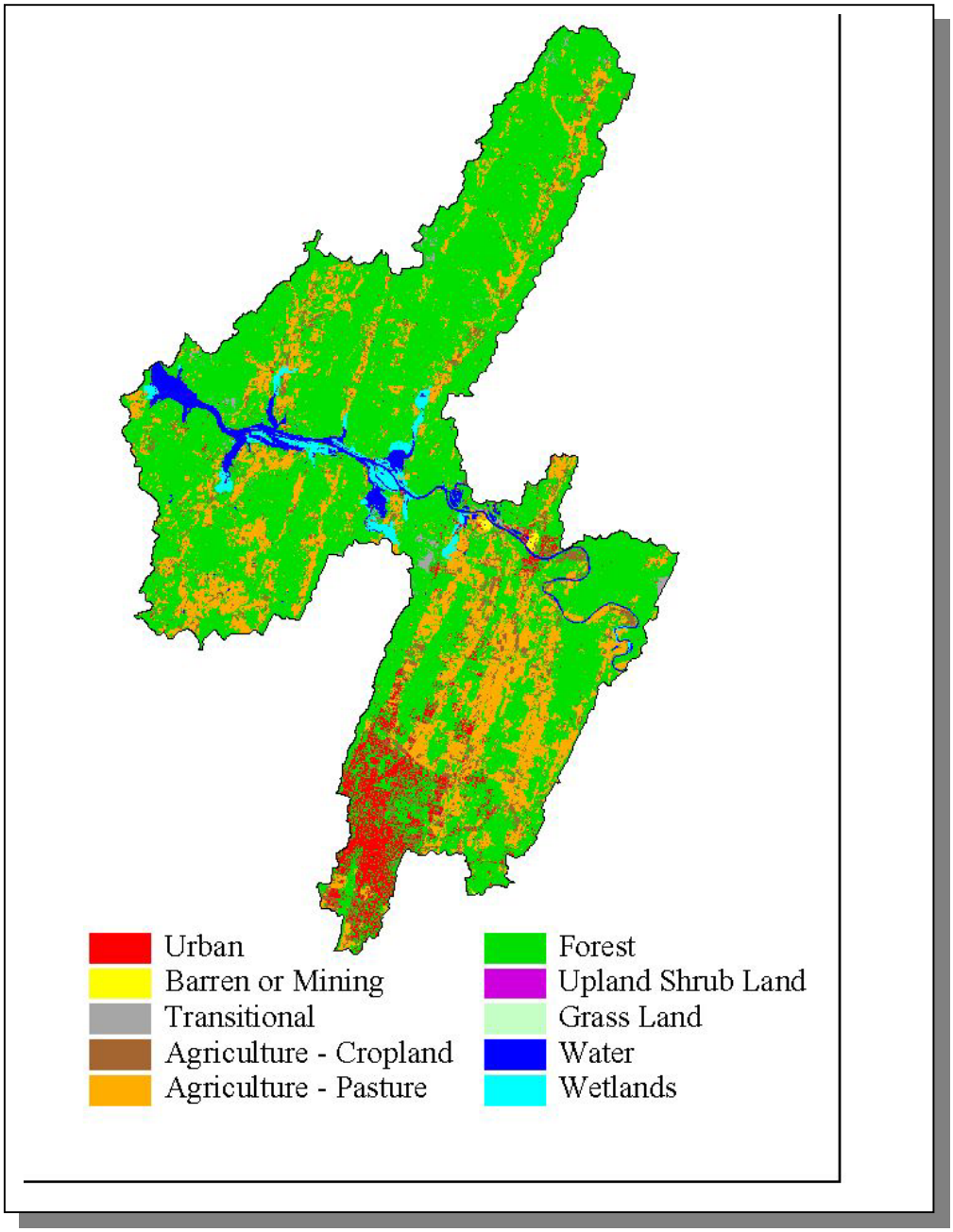

Figure 4-35. Illustration of Land Use Distribution in Subwatershed 0602000206.

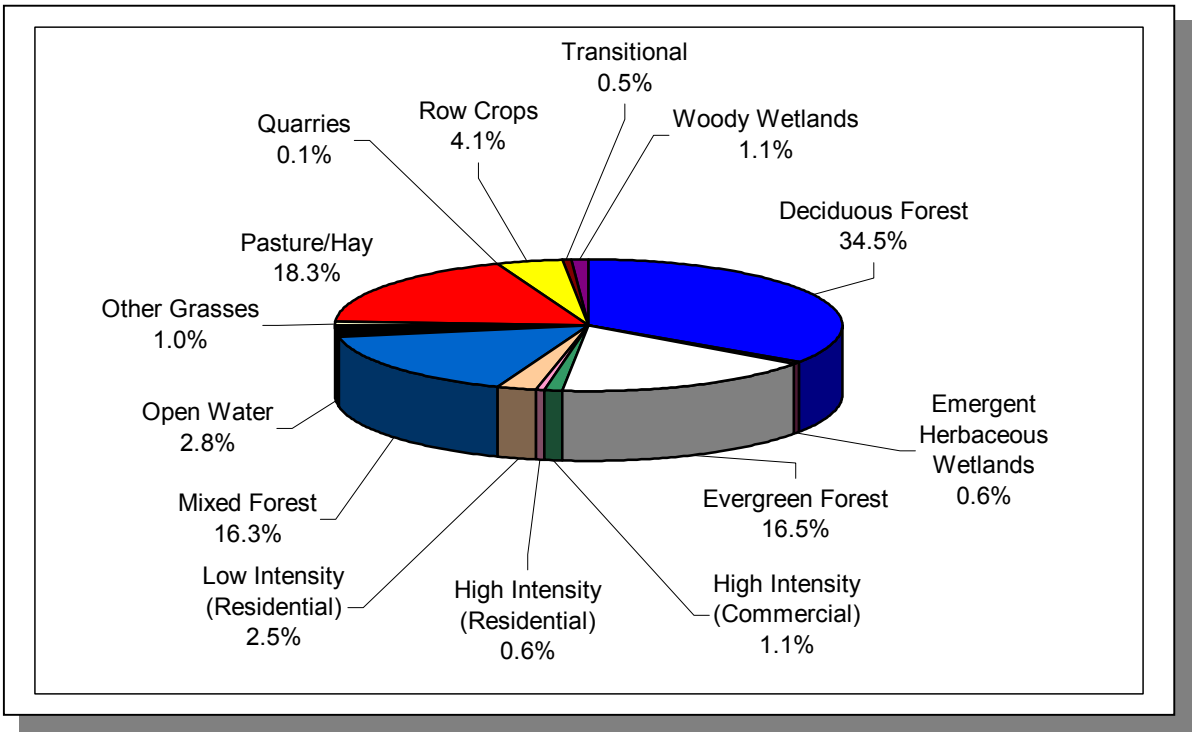

Figure 4-36. Land Use Distribution in Subwatershed 0602000206. *More information is provided in Hiwassee-Appendix IV.*

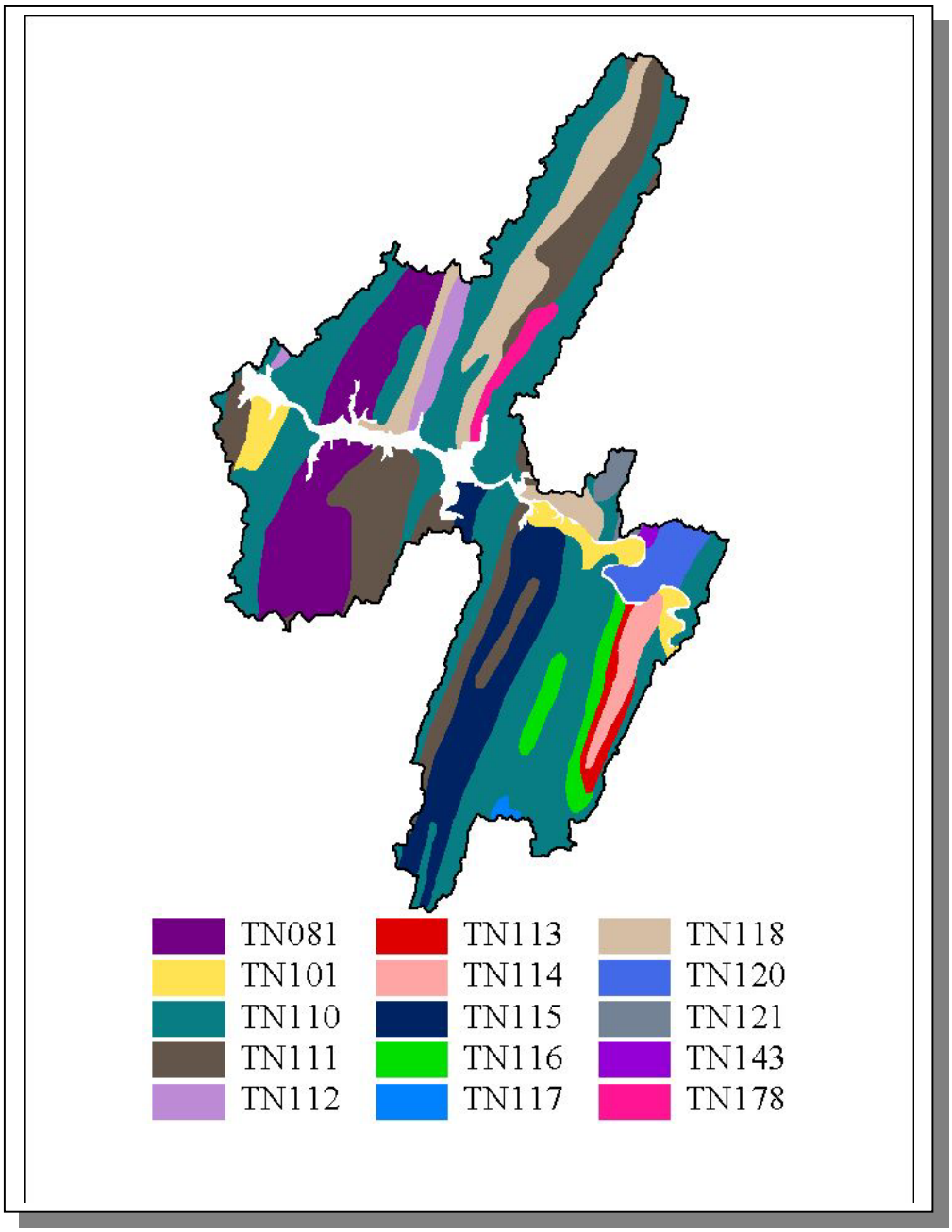

Figure 4-37. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0602000206.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN081	2.00	C	1.41	5.48	Silty Loam	0.35
TN101	0.00	B	1.71	5.39	Loam	0.35
TN110	0.00	B	2.22	4.96	Loam	0.31
TN111	0.00	C	1.41	5.10	Loam	0.34
TN112	2.00	C	2.36	5.09	Loam	0.35
TN113	0.00	C	1.29	6.52	Sandy Clay	0.22
TN114	1.00	B	1.31	5.11	Loam	0.27
TN115	0.00	C	1.41	5.15	Silty Loam	0.36
TN116	2.00	B	1.57	5.59	Loam	0.33
TN117	1.00	C	2.06	5.16	Loam	0.37
TN118	0.00	C	6.52	5.12	Loam	0.29
TN120	0.00	B	1.68	5.11	Loam	0.27
TN121	0.00	B	1.30	5.21	Loam	0.33
TN143	0.00	C	1.22	6.44	Loam	0.32
TN178	8.00	C	1.46	5.45	Loam	0.28

Table 4-22. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0602000206. *More information is provided in Hiwassee-Appendix IV.*

	COUNTY POPULATION			ESTIMATED POPULATION IN WATERSHED		% CHANGE
County	1990	1997 Est.	Portion of Watershed (%)	1990	1997	
Bradley	73,712	80,800	32.65	24,064	26,378	9.6
Hamilton	285,536	294,865	2.31	6,585	6,800	3.3
McMinn	42,383	46,000	16.13	6,836	7,420	8.5
Meigs	8,033	9,690	26.31	2,113	2,549	20.6
Polk	13,643	14,666	0.11	15	16	6.7
Total	**423,307**	**446,021**		**39,613**	**43,163**	**9.0**

Table 4-23. Population Estimates in Subwatershed 0602000206.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Calhoun	McMinn	570	222	3	217	2
Charleston	Bradley	661	276	15	259	2
Cleveland	Bradley	30,333	13,045	12,033	1,007	5
Total		**31,564**	**13,543**	**12,051**	**1,483**	**9**

Table 4-24. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 0602000206.

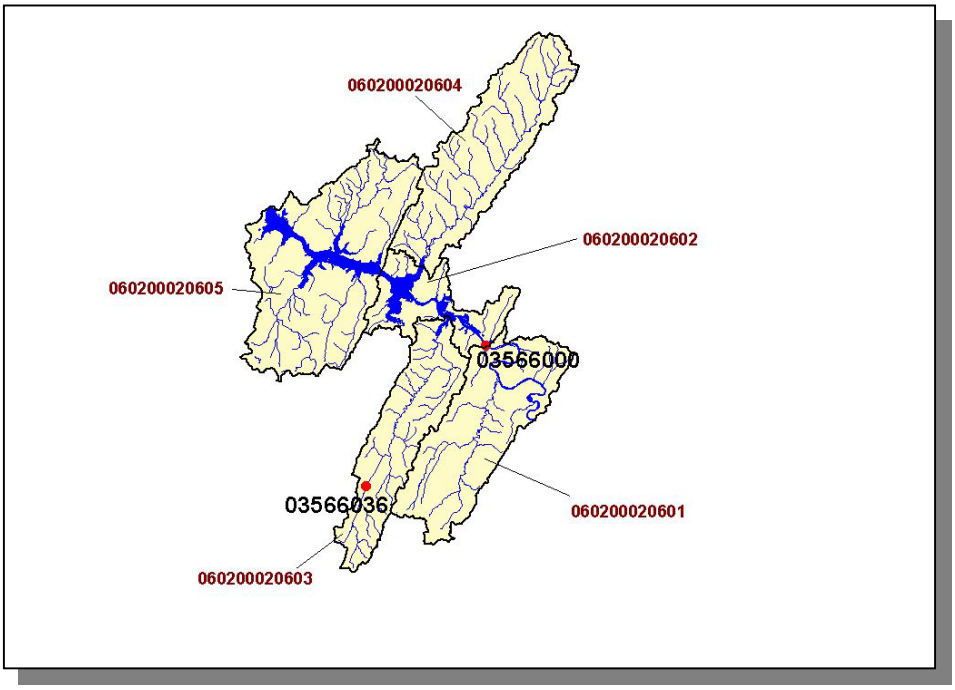

Figure 4-38. Location of Historical Streamflow Data Collection Sites in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

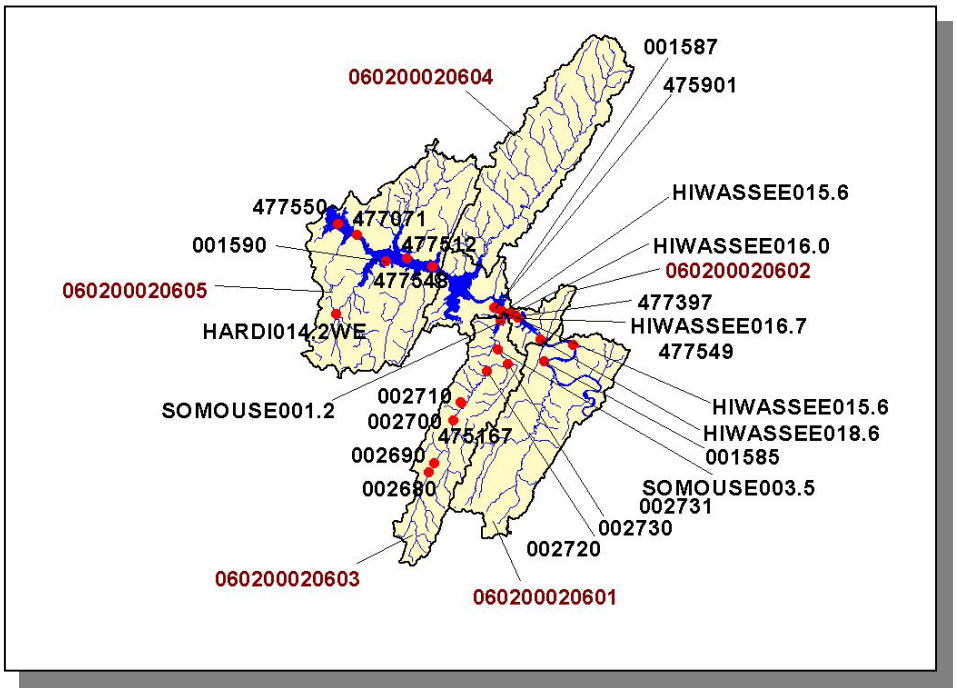

Figure 4-39. Location of STORET Monitoring Sites in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

4.2.D.ii. Point Source Contributions.

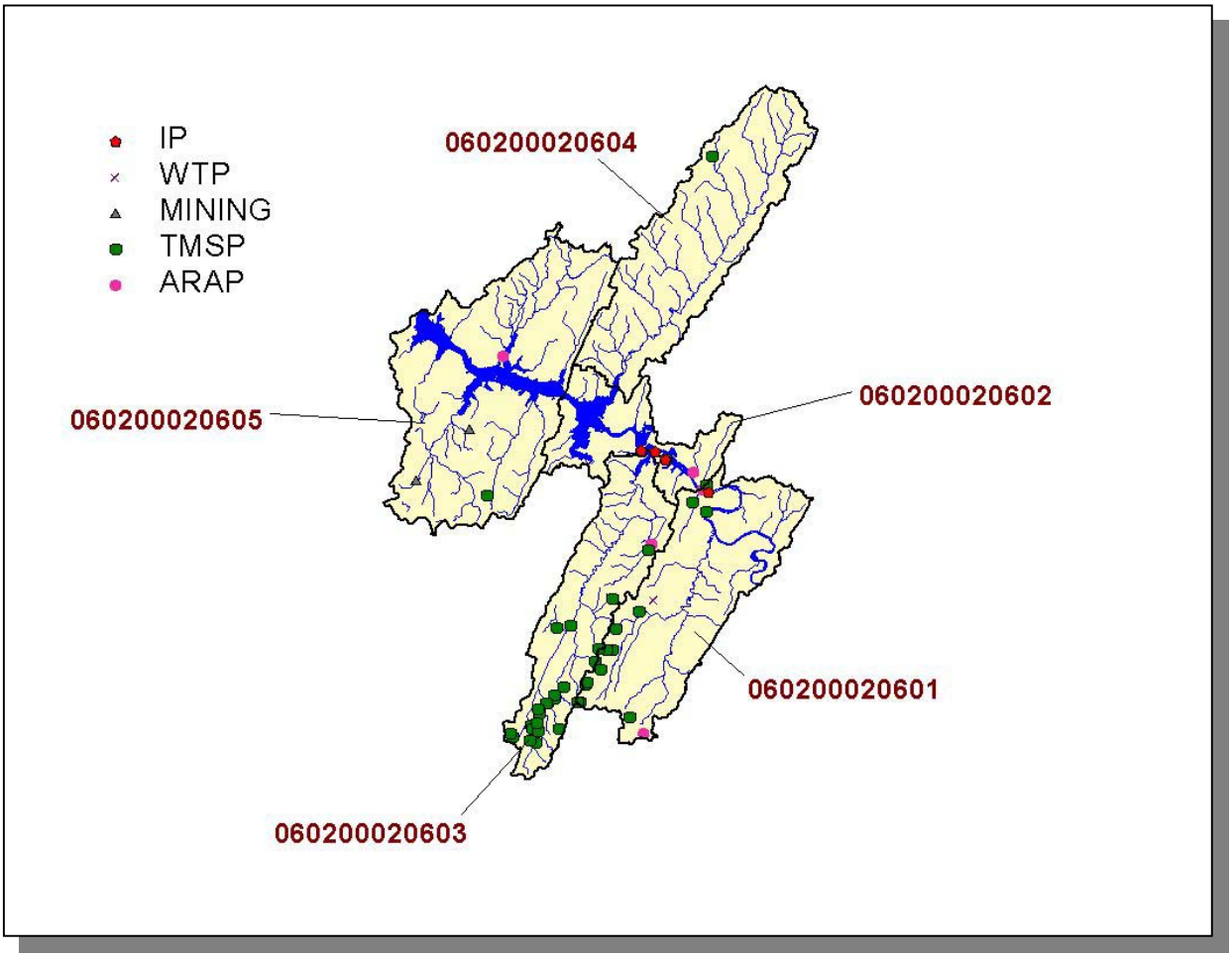

Figure 4-40. Location of Active Point Source Facilities in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. Purple crosses. More information is provided in the following figures.*

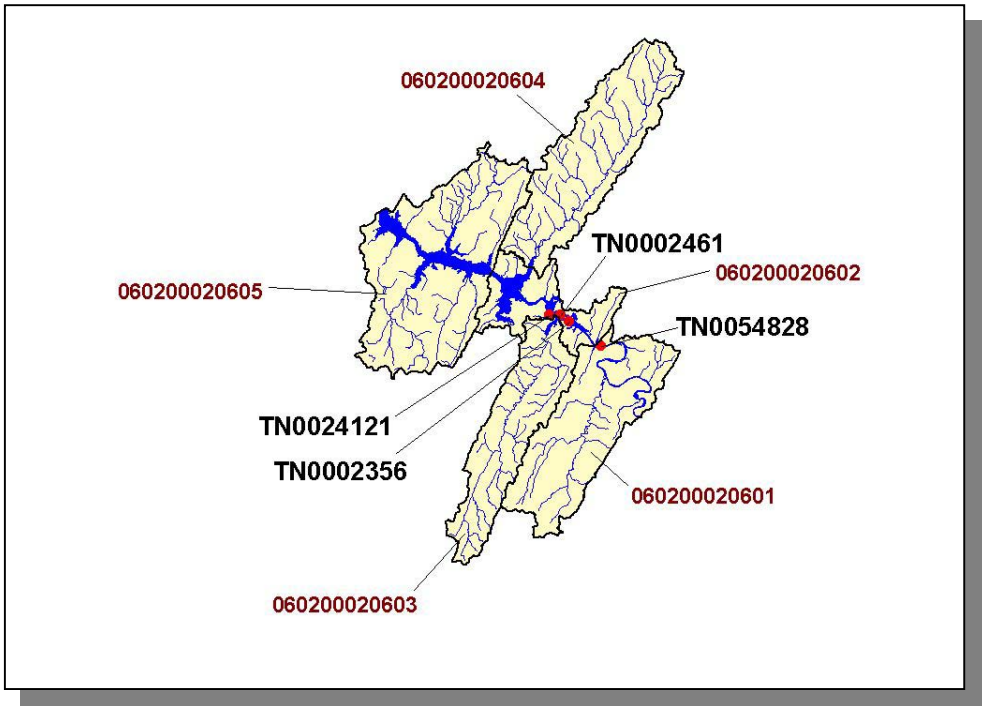

Table 4-25. Location of Active Point Source Facilities (Individual Permits) in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

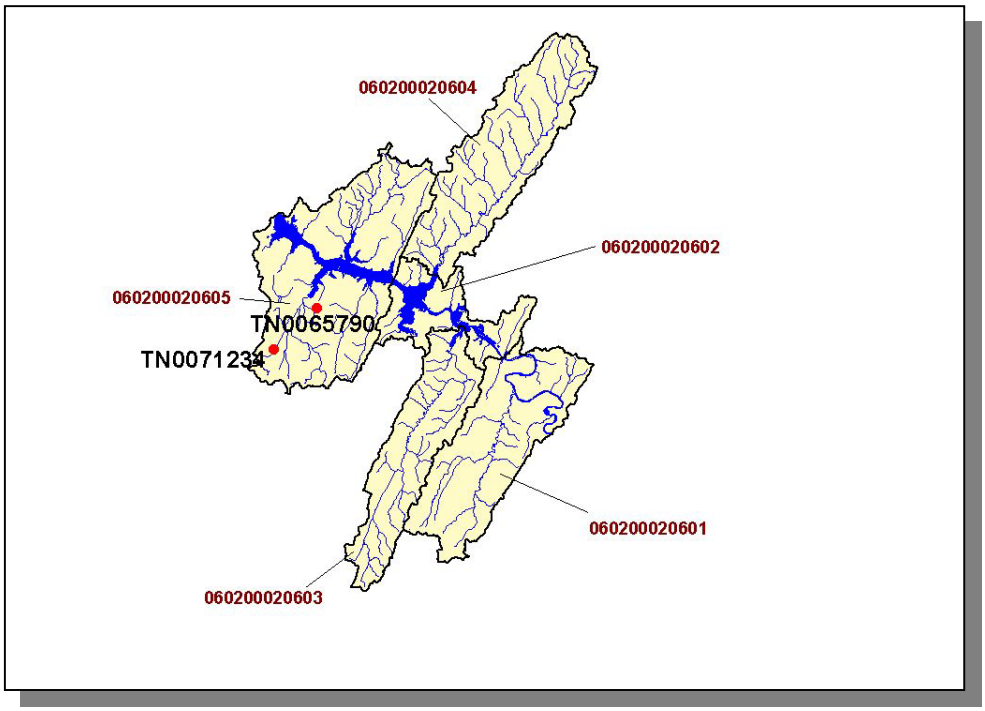

Figure 4-41. Location of Active Mining Sites in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

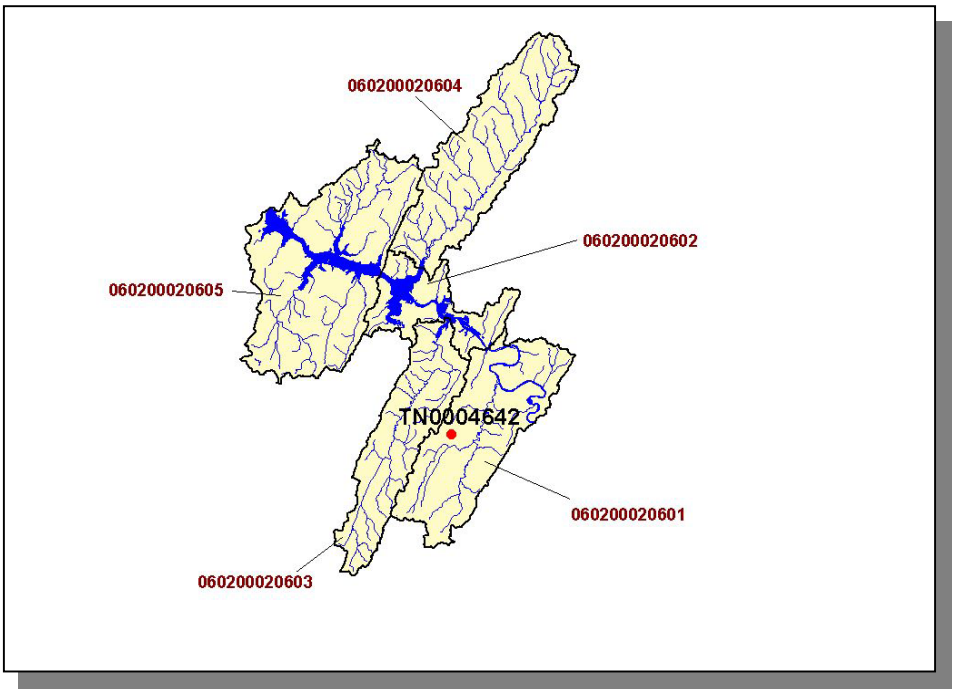

Figure 4-42. Location of Water Treatment Plant Sites in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

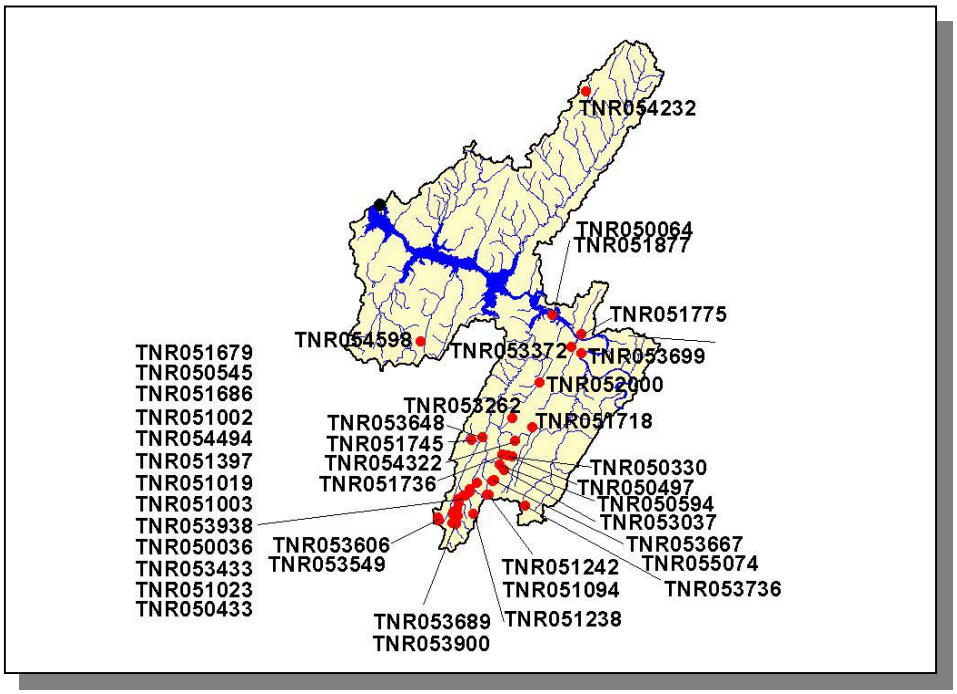

Figure 4-43. Location of TMSP Facilities in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

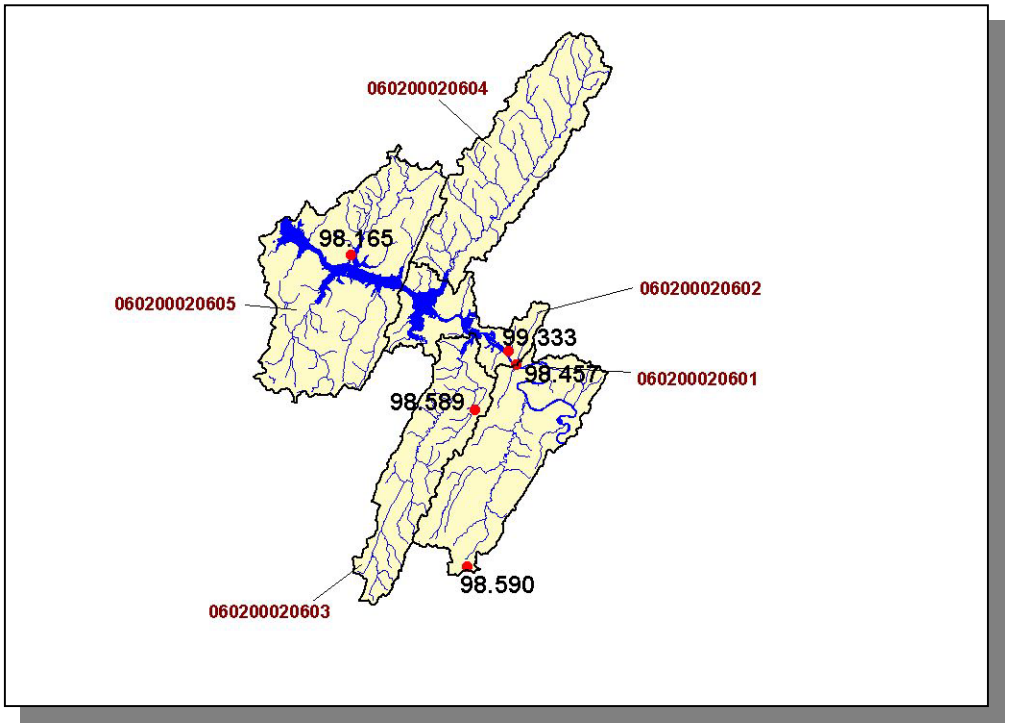

Figure 4-44. Location of ARAP Sites (Individual Permits) in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604 and 060200020605 boundaries are shown for reference. More information is provided in Hiwassee-Appendix IV.*

4.2.A.ii.a. Dischargers to Water Bodies Listed on the 1998 303(d) List

There are four NPDES facilities discharging to water bodies listed on the 1998 303(d) list in Subwatershed 0602000206:

- TN0002356 (Bowater Newsprint) discharges to the Hiwassee River @ RM22.7, RM 18.1, RM 16.5, and RM 15.0
- TN0002461 (Olin Corporation) discharges to the Hiwassee River @ RM 16.8, RM 16.6, and RM 15.8
- TN0024121 (Cleveland Utilities STP) discharges to the Hiwassee River @ RM 15.4
- TN0054828 (Calhoun School) discharges to the Hiwassee River @ RM 19.1

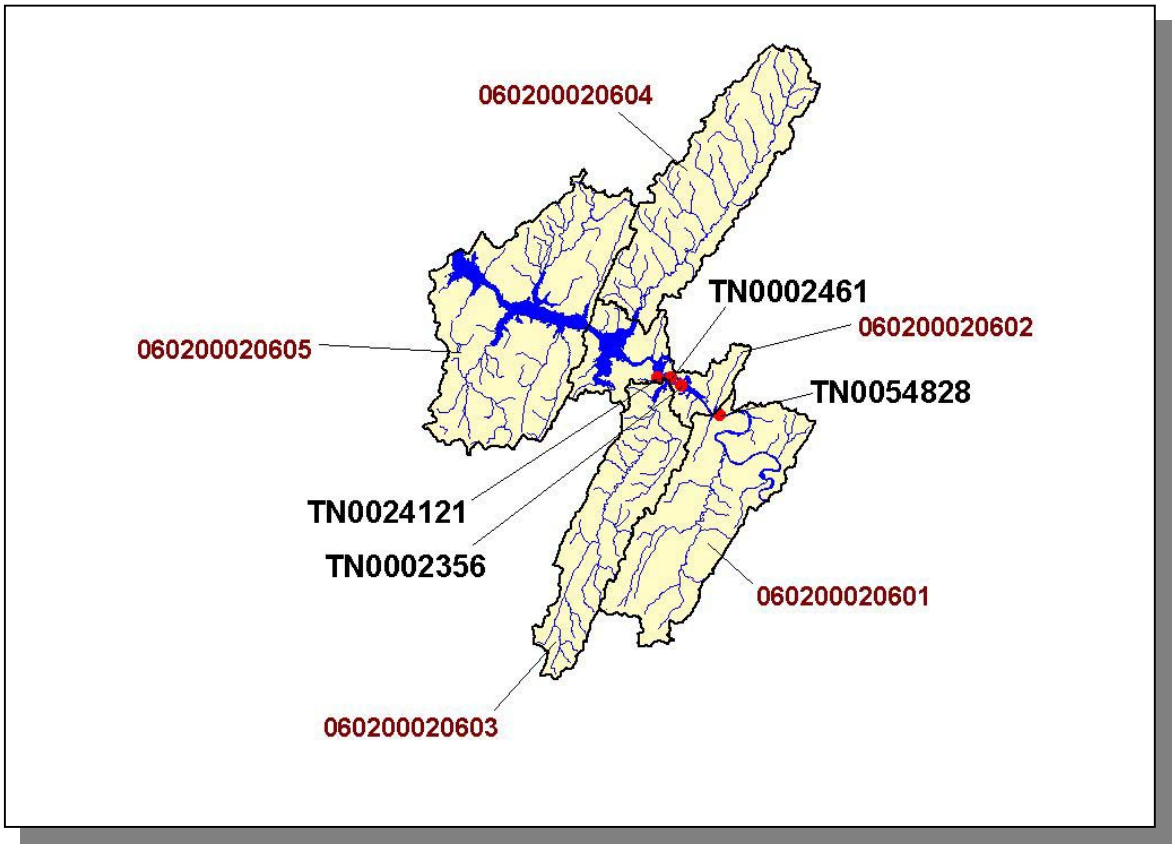

Figure 4-45. Location of NPDES Dischargers to Water Bodies Listed on the 1998 303(d) List in Subwatershed 0602000206. *Subwatershed 060200020601, 060200020602, 060200020603, 060200020604, and 060200020605 boundaries are shown for reference. The names of facilities are provided in Hiwassee-Appendix IV.*

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0002356	418.17	556.48	743.26	455.01	49.43400
TN002461	418.17	556.48	743.26	455.01	3.92700
TN0024121	418.17	556.48	743.26	455.01	21.6000
TN0054828	418.17	556.48	743.26	455.01	0.01200

Table 4-26. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 1998 303(d) List in Subwatershed 0602000206. *Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.*

PERMIT #	FECAL	Zn	PHENOL
TN0002356	X	X	X

Table 4-27. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 1998 303(d) List in Subwatershed 0602000206.

PERMIT #	WET	FECAL	Hg	NH_3	TRC	TDS	TSS	DO	$CBOD_5$	BOD	SETTLEABLE SOLIDS	pH	AOX
TN0002356	X			X		X	X			X		X	X
TN0002461		X	X		X	X	X					X	
TN0024121	X			X	X		X	X	X		X	X	
TN0054828		X		X	X		X	X	X		X	X	

Table 4-28. Inorganic Parameters Monitored for Daily Maximum (mg/L) Limits for NPDES Dischargers to Waterbodies Listed on the 1998 303(d) List in Subwatershed 0602000206. *WET, Whole Effluent Toxicity, TRC, Total Residual Chlorine; TDS, Total Dissolved Solids; TSS, Total Suspended Solids; CBOD5, Carbonaceous Biochemical Oxygen Demand (5-Day); AOX, Adsorbable Organic Halides.*

PERMIT #	OIL and GREASE	DIOXIN
TN0002356	X	X

Table 4-29. Organic Parameters Monitored for Daily Maximum (mg/L) Limits for NPDES Dischargers to Waterbodies Listed on the 1998 303(d) List in Subwatershed 0602000206.

4.2.D.iii. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Milk Cow	Cattle	Chickens	Chickens Sold	Hogs	Sheep
6,733	1,954	16,876	21	6,988,516	192	50

Table 4-30. Summary of Livestock Count Estimates in Subwatershed 0602000206. *According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.*

	INVENTORY		REMOVAL RATE	
County	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Bradley	92.5	92.5	8.2	18.1
Hamilton	210.7	210.7	2.2	6.0
Meigs	83.0	83.0	0.2	0.0
Polk	224.7	214.1	6.2	21.1
Total	**610.9**	**600.3**	**16.8**	**45.2**

Table 4-31. Forest Acreage and Average Annual Removal Rates (1987-1994) in Subwatershed 0602000206.

CROPS	TONS/ACRE/YEAR
Forest Land (Grazed)	0.00
Forest Land (Not Grazed)	0.00
Farmsteads and Ranch Headquarters	0.94
Non Agricultural Land Use	0.00
Corn (Row Crops)	4.93
Soybeans (Row Crops)	2.33
Tobacco (Row Crops)	5.65
Wheat (Close Grown Cropland)	3.14
Oats (Close Grown Cropland)	3.13
All Other Close Grown Cropland	1.99
Grass (Hayland)	0.49
Legume (Hayland)	0.13
Other Cropland not Planted	2.93
Grass (Pastureland)	0.35
Grass, Forbs, Legumes (Mixed Pasture)	0.65
Other Land in Farms	0.00
Conservation Reserve Program Land	0.27
Legume (Pastureland)	0.07
Fruit (Horticulture)	0.19

Table 4-32. Annual Soil Loss in Subwatershed 0602000206.