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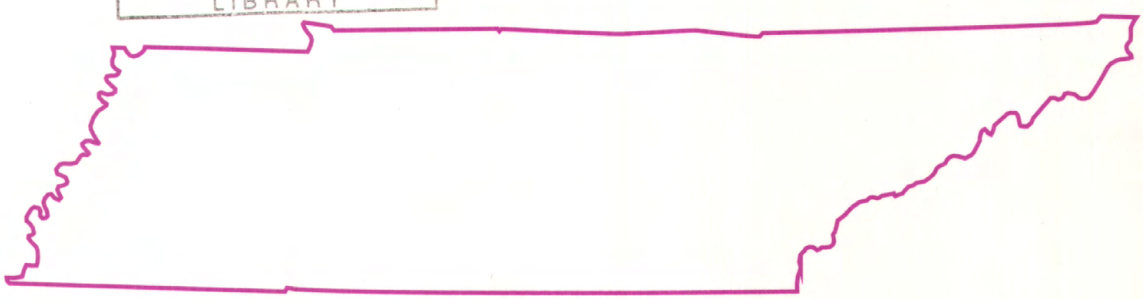
Water Resources Data Tennessee Water Year 1999

Water-Data Report TN-99-1



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
State of Tennessee
and with other agencies

CALENDAR FOR WATER YEAR 1999

1998

OCTOBER

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1999

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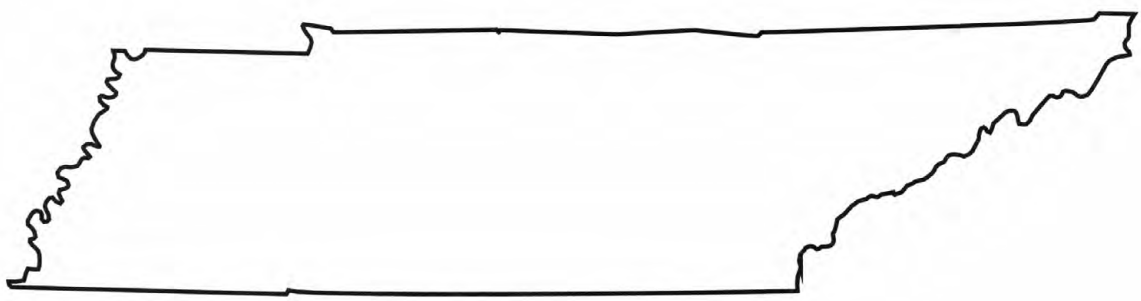
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Tennessee Water Year 1999

By D.F. Flohr, J.T. Hamilton, T.D. Phillips, and L.B. Thomas

Water-Data Report TN-99-1



Prepared in cooperation with the
State of Tennessee and with other agencies

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, SECRETARY
U.S. GEOLOGICAL SURVEY
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District Chief, Water Resources Division
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640 Grassmere Park, Suite 100
Nashville, Tennessee 37211
2000

PREFACE

This volume of the annual hydrologic data report of Tennessee is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, most of the data were collected, computed, and processed from the subdistrict offices. The following individuals supervised the collection, processing, and tabulation of the data:

Terry D. Phillips, Knoxville Larry B. Thomas, Memphis J. Tim Hamilton, Nashville

The following individuals contributed to the collection, processing, and preparation of the data:

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D.E. Butner	R.L. Mitchell	T.D. Turner
A.M. Fielder	P.Powers	K.C. Waltenbaugh
C.F. Glover	T.L. Scheff	

This report was prepared in cooperation with the State of Tennessee and with other agencies under the general supervision of Jerry F. Lowery, Data Management Section Chief, and W. Scott Gain, District Chief, Tennessee.

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13. ABSTRACT *(Maximum 200 words)*

Water resources data for the 1999 water year for Tennessee consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains records for water discharge at 66 gaging stations; stage only for 1 gaging station, elevation and contents for 32 lakes reservoirs; water quality at 16 gaging stations and 6 wells; and water levels for 8 observation wells; and 1 precipitation station. Also included are data for 99 crest stage partial-record stations. Additional water data were collected at various stream sites not involved in the systematic data-collection program, and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the US Geological Survey and cooperating State and Federal agencies in Tennessee.

14. SUBJECT TERMS
*Tennessee, *Hydrologic data, *Surface water, *Groundwater, *Water quality, Flow rate, Gaging stations, Lake, Reservoirs, Chemical analyses, Sediment analyses, Water temperature, Sampling sites, Water levels, Water analyses.

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORD ARE PUBLISHED IN THIS VOLUME

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER WELLS, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVELS

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

QUALITY OF GROUND WATER, 1999 WATER YEAR

QUALITY OF PRECIPITATION

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Tennessee have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations.

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only); Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Red Boiling Spring at Red Boiling Springs (d)	03312250	USGS		1986
Salt Lick Creek at Red Boiling Springs (d)	03312255	USGS	12.6	1991-97
Crabapple Branch near La Follette (d)	03403718	USGS	1.07	1981-84
Indian Fork above Braytown (d)	03407804	USGS	4.32	1975-78
Green Branch near Hembree (d)	03407874	USGS	1.38	1976-78
Smoky Creek above Hembree (361240084245800) (d)	034078745	USGS	8.07	1982-83
Bills Branch near Hembree (d)	03407875	USGS	.67	1975-83
Shack Creek at Hembree (361341084253900) (d)	034078755	USGS	5.08	1982-84
Smoky Creek near Hembree (d)	03407876	USGS	17.2	1977-84
Bowling Branch above Smoky Junction (d)	03407877	USGS	2.19	1976-81
Anderson Branch near Montgomery (d)	03407881	USGS	.69	1976-80
Lowe Branch near Montgomery (d)	03407882	USGS	.92	1975-80
New River at Cordell (d)	03407908	USGS	198	10/75-77, 5/77-12/87
New River near New River (d)	03408000	USGS	314	1923-35
Long Branch near Grimsley (d)	03408600	USGS	1.11	1976-81
Crooked Creek tributary near Allardt (d)	03408810	USGS	.25	1976-79
Crooked Creek near Allardt (d)	03408815	USGS	3.62	1976-81
White Oak Creek at Sunbright (d)	03409000*	USGS	13.5	1932-33
White Oak Creek at Rugby (d)	03409400	USGS	98.0	1980-82
East Branch Bear Creek near Oneida (d)	03409700	USGS		1994-95
East Branch Bear Creek Tributary near Oneida (d)	03409710	FUSGS		1994-95
Pine Creek tributary at Oneida (d)	03410000	USGS	1.21	1932-33
South Fork Cumberland River at Leatherwood Ford (d)	03410210	USGS	806	1983-87
West Fork Obey River near Alpine (d)	03415000	USGS	115	1943-71, 1980-81
Obey River near Byrdstown (d)	03415500	USGS	445	1919-43
Obey River below Dale Hollow Dam (d)	03417000	USGS	936	1939-42, 1945-58
Roaring River near Hilham (d)	03418000	USGS	78.7	1932-75
Roaring River near Gainesboro (d)	03418188	USGS	276	1975
Cumberland River below Cordell Hull (d)	03418420	USGS	8,095	1980-97
Caney Fork at Clifty (d)	03418500	USGS	111	1931-49
Bee Creek at Herbert (d)	03419000	USGS	101	1931-37
Calfkiller River at Sparta (d)	03419500	USGS	157	1932-41
Calfkiller River below Sparta (d)	03420000	USGS	175	1940-71
Collins River at Beersheba Springs (d)	03420185	USGS	157	1994-95
Collins River near Tarlton (d)	03420200	USGS	174	1994-95
Barren Fork near Trousdale (d)	03420500	USGS	126	1932-57
Collins River near Rowland (d)	03421500	USGS	755	1916-24
Falling Water River near Cookeville (d)	03423000	USGS	67.0	1932-56
Falling Water River below Burgess Falls Dam (d)	03423152	USGS	124	1990-93
Taylor Creek near Cassville (d)	03423400	USGS	34.2	1989-93
Caney Fork below Center Hill Dam, near Lancaster (d)	03424500	USGS	2,183	1923-58
Spring Creek near Lebanon (d)	03425500	USGS	35.3	1955-61
Town Creek at Maple Street at Gallatin (d)	03425646	USGS	4.74	1984
Drakes Creek above Hendersonville (d)	03426000	USGS	19.2	1955-61
Cumberland River at Dam 3, near Old Hickory (d)	03426210	USGS	11,688	1931-42, 1947-53

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
East Fork Stones River at Woodbury (d)	03426800*	USGS	39.1	1932-33, 1950, 1954, 1962-89
Bradley Creek at Lascassas (d)	03427000	USGS	37.0	1955-61
Bushman Creek at Pitts Lane Ford near Compton (d)	03427690	USGS	9.67	1989-92
West Fork Stones River near Murfreesboro (d)	03428000	USGS	128	1932-69
Lytle Creek at Sanbyrn Drive at Murfreesboro (d)	03428043	USGS	17.6	1990-92
Fox Camp Spring at Mankinville (d)	03428047	USGS		1978-80
West Fork Stones River at Manson Pike, at Murfreesboro (d)	03428070	USGS	165	1973-81
Stones River near Smyrna (d)	03429000	USGS	571	1925-67
Stewart Creek near Smyrna (Smyrna Airport) (d)	03429500	USGS	69.7	1953-58
Stones River below J. Percy Priest Dam (d)	03430100	USGS	892	1939-67
Collins Creek at Bell Road, near Antioch (d)	03430800	USGS	3.61	1976-77
Mill Creek near Antioch (d)	03431000	USGS	64.0	1954-61, 1964-75
Browns Creek at State Fairgrounds, at Nashville (d)	03431300	USGS	11.8	1964-75
Cumberland River at Nashville (d)	03431500	USGS	12,856	1893-54
Cummings Branch at Lickton (d)	03431517	USGS	2.40	1976-90
Whites Creek at Tucker Road, near Bordeaux (d)	03431600	USGS	51.6	1965-75
Richland Creek at Charlotte Ave, at Nashville (d)	03431700	USGS	24.3	1964-90
West Harpeth River near Leipers Fork (d)	03432500	USGS	66.9	1955-61
Red River near Portland (d)	03435030	USGS	15.1	1967-75
Red River near Adams (d)	03435500	USGS	706	1920-69
Sulphur Fork Red River near Adams (d)	03436000	USGS	186	1938-91
Piney River at Ft. Campbell, KY-TN (d)	03436420	USGS	50.2	1993-96
Little West Fork near Ft. Campbell, KY-TN (d)	03436426	USGS	128	1993-96
Cumberland River at Clarksville (lock C) (d)	03436500	USGS	15,897	1925-44
Yellow Creek near Shiloh (d)	03436700*	USGS	124	1958-80
Cumberland River at Dover (gaging station) (d)	03437000	USGS	16,437	1938-65
French Broad River near Newport (d)	03455000	TVA	1,858	1900 1901 1902-05, 1907 1920-94
Pigeon River at Hartford (d)	03461000	USGS	547	1925-48
Cosby Creek above Cosby (d)	03461200	USGS	10.1	1967-87
Pigeon River at Newport (d)	03461500	USGS	666	1900-29, 1945-46, 1948-82,
		TVA		1982-83
North Indian Creek near Unicoi (d)	03465000	USGS	15.9	1944-57
Muddy Fork near Leesburg (d)	03465830	USGS	13.5	1994-95
Jockey Creek near Mount Bethel Church near Limestone (d)	03466098	USGS	18.5	1994-95
Nolichucky River below Nolichucky Dam (d) (e)	03466500	USGS	1,184	1902-09, 1919-26, 1946-73
Lick Creek near Holland Mill (d)	03466825	USGS	53.0	1994-95
Lick Creek at Mohawk (d)	03467000	USGS	220	1946-71
Nolichucky River near Morristown (d)	03467500	USGS	1,679	1921-57
Long Creek near White Pine (d)	03468050	TVA	30.8	1964-81
French Broad River below Douglas Dam (d)	03469000	USGS	4,543	1919-74
Millican Creek near Douglas Dam (d)	03469010	TVA	4.22	1942-62
Roaring Fork Creek at Hwy 441, at Gatlinburg (d)	03469282	TVA	7.23	1977-82
Dudley Creek at Gatlinburg (d)	03469390	TVA	8.84	1977-82

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
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Station name	Station number	Agency	Drainage area (mi^2)	Period of record
West Prong Little Pigeon River near Pigeon Forge (d)	03469500	USGS	76.2	1946-49
		TVA		1967-69
Little Pigeon River at Sevierville (d)	03470000	USGS	353	1921-82
South Fork Holston River below South Holston Dam (d)	03476500	USGS	703	1951-74
South Fork Holston River at Bluff City (d)	03477000	USGS	813	1900-53
Beaver Creek at Bristol (d)	03478500	USGS	44.8	1932-34
Beaver Creek at Buffalo School, near Bluff City (d)	03478620	TVA	108	1934-38
Watauga River at North Carolina-Tennessee State Line (d)	03479500	USGS	152	1943-55
Watauga River at Stump Knob (d)	03480000	USGS	171	1928-31, 1934-45
Roan Creek near Neva (d)	03482000	USGS	102	1942-55
Roan Creek at Butler (d)	03482500	USGS	166	1901-02, 1934-48
Watauga River at Butler (d)	03483000	USGS	427	1900-02, 1921-48
Watauga River below Wilbur Dam (d)	03484000	USGS	471	1903-09, 1948-82
Watauga River at Siam (d)	03484110	TVA	480	1946
Doe River at Old Hopson School (d)	03484490	TVA	59.3	1967-69
Doe River at Blevins (d)	03484500	USGS	60.8	1912-15
Laurel Fork above Braemar (d)	03484900	TVA	23.0	1945-51
Laurel Fork above Hampton (d)	03484910	TVA	25.3	1948-52
Doe River at Elizabethton (d)	03485500	USGS	137	1912-16, 1921-82
Watauga River at Elizabethton (d)	03486000	USGS	692	1926-49, 1953-82
Buffalo Creek at Milligan College (d)	03486200	TVA	28.1	1965-81
Brush Creek at Johnson City (Tennessee Street) (d)	03486490	TVA	6.78	1969-73
Brush Creek at Johnson City (Elm Street) (d)	03486495	TVA	9.58	1969-72
Brush Creek at Johnson City (d)	03486500	USGS	10.3	1932-34
Fall Creek near Fort Patrick Henry Dam (d)	03486900	TVA	13.1	1953-56
South Fork Holston River at Kingsport (d)	03487500	USGS	1,935	1926-77
South Fork Holston River at Kingsport (auxiliary channel) (d)	03487501	USGS	1.0	1953-77
Reedy Creek at Orebank (d)	03487550*	USGS	36.3	1963-89
South Fork Holston River near Ridgefields Bridge, at Kingsport (d)	03487640	TVA	2,047	1968-69
Holston River at Surgoinsville (d)	03490500	USGS	2,874	1941-88
Beech Creek at Kepler (d)	03491300	USGS	47.0	1965-87
Holston River near Rogersville (d)	03491500	USGS	3,035	1901-42
Poor Valley Creek near Mooresburg (near Spruce Pine School) (d)	03491800	USGS	32.3	1958-61
Poor Valley Creek near Mooresburg (d)	03491820	TVA	43.3	1959-60
Holston River near Morristown (d)	03492000	USGS	3,244	1937-42
Mossy Spring near Jefferson City (d)	03492500	USGS		1950-59
Mossy Creek at Jefferson City (d)	03493000	USGS	30.8	1932-34
Holston River near Jefferson City (d)	03494000	USGS	3,429	1937-74
Mill Spring near Jefferson City (d)	03494500	TVA		1941-48
		USGS		1951-59
Holston River near Knoxville (d)	03495500	USGS	3,747	1930-76, 1978-93
First Creek at Mineral Springs Avenue, at Knoxville (d)	03496000	USGS	15.7	1945-63
First Creek above Powers Avenue, at Knoxville (d)	03496200	USGS	17.2	1964-70
First Creek at Fifth Avenue, at Knoxville (d)	03496500	USGS	21.1	1932-34, 1945-59
Tennessee River at Knoxville (Gay Street Bridge) (d)	03497000	USGS	8,934	1900-82
Fourth Creek at Knoxville (d)	03497110	TVA	9.65	1942-43

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Little River at Walland (d)	03497500	USGS	175	1925-31
Little River near Walland (d)	03498000	USGS	192	1931-52
Pistol Creek at Maryville (d)	03499000	USGS	13.5	1932-33
Little River below Rockford Dam, at Rockford (d)	03499100	TVA	346	1940-44
Little River near Rockford (d)	03499110	TVA	352	1936-37
Ten Mile Creek near Ebenezer (d)	03499200	TVA	13.2	1941-45
Muddy Creek near Fort Loudon Dam (d)	03499600	TVA	10.7	1941-59
Little Tennessee River at Calderwood (d)	03518000	USGS	1,862	1912-19, 1921-57
Little Tennessee River below Chilhowee Dam (d)	03518300	USGS	1,987	1958-79
North Fork Citico Creek near Tellico Plains (d)	03518400	TVA	7.04	1960-71
Tellico River at Tellico Plains (d)	03518500	USGS	118	1925-82
Little Tennessee River at McGhee (d)	03519500	USGS	2,443	1905-69
Baker Creek near Greenback (d)	03519640*	USGS	16.0	1966-75
Tennessee River at Loudon (d)	03520000	USGS	12,220	1923-55
Sweetwater Creek below Sweetwater (d)	03520045	TVA	26.4	1970-81
Sweetwater Creek near Sweetwater (d)	03520050	TVA	28.2	1964-70
Big Sycamore Creek near Sneedville (d)	03528100	TVA	5.49	1935-45
Big Barren Creek near New Tazewell (d)	03528300	TVA	22.5	1935-45
White Creek near Sharps Chapel (d)	03528400	TVA	2.68	1935-72
Powell River near Arthur (d)	03532000	USGS	685	1920-82
Davis Creek near Speedwell (d)	03532100	TVA	31.2	1936-37
Big Creek near La Follette (d)	03532220	TVA	26.2	1936-38
Clinch River below Norris Dam (d)	03533000	USGS	2,913	1904-74
Clear Creek near Norris (d)	03533100	TVA	2.83	1934-38
Coal Creek at Lake City (d)	03534000*	USGS	24.5	1932-34
Buffalo Creek at Norris (d)	03534500	USGS	9.92	1947-51
Bullrun Creek near Halls Crossroads (d)	03535000	USGS	68.5	1957-86
Scarboro Creek Tributary near Haw Ridge near Oak Ridge (d)	03535102	USGS	0.41	1989-91
Scarboro Creek Tributary near Oak Ridge (d)	03535103	USGS	0.41	1989-91
Whiteoak Creek near Melton Hill (d)	03536320	USGS	1.31	1987-95
Whiteoak Creek near Wheat (d)	03536380	USGS	2.10	1986-95
Northwest Tributary near Oak Ridge (d)	03536440	USGS	0.67	1987-95
First Creek near Oak Ridge (d)	03536450	USGS	0.33	1987-96
Whiteoak Creek at ORNL, near Oak Ridge (d)	03536500	USGS	2.08	1950-55
Whiteoak Creek below Melton Valley Drive near Oak Ridge (d)	03536550	USGS	3.28	1987-96
Whiteoak Creek below ORNL, near Oak Ridge (d)	03537000	USGS	3.62	1950-53, 1955-64
Melton Branch tributary (East Seven) near Oak Ridge (d)	03537050	USGS	.24	1987-91, 1992-93
Melton Branch near Melton Hill, near Oak Ridge (d)	03537100	USGS	0.52	1985-95
Melton Branch tributary (Center Seven) near Oak Ridge (d)	03537200	USGS	.07	1987-91, 1992-93
Melton Branch tributary (West Seven) near Oak Ridge (d)	03537300	USGS	.15	1987-89, 1992-93
Melton Branch near Oak Ridge (d)	03537500	USGS	1.48	1955-64
Whiteoak Creek at Whiteoak Dam, near Oak Ridge (d)	03538000	USGS	6.01	1953-55, 1960-64
Clinch River near Oak Ridge (d)	03538150	USGS	3,385	1937-64, 1968
Poplar Creek near Oak Ridge (d)	03538225	USGS	82.5	1960-89
East Fork Poplar Creek at Y-12 at Oak Ridge (d)	03538231	USGS	0.81	1992-96
East Fork Poplar Creek near Oak Ridge (d)	03538250	USGS	19.5	1960-88
Bear Creek at Bear Creek Road near Oak Ridge (d)	03538256	USGS	0.42	1993-96

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Bear Creek at County Line near Oak Roidge (d)	03538260	USGS	1.57	1993-96
Bear Creek tributary above Bear Creek Road near Wheat (d)	035382672	USGS	.30	1986-91
Bear Creek near Wheat (d)	035382673	USGS	3.20	1986-91
Bear Creek tributary near Wheat (d)	035382677	USGS	.14	1986-89, 1992-93
Bear Creek tributary at Hwy 95 near Wheat (d)	03538272	USGS	.14	1986-89
Bear Creek at Pine Ridge near Wheat (d)	03538273	USGS	5.0	1986-91
Bear Creek near Oak Ridge (d)	03538275	USGS	7.15	1960-64
Emory River near Wartburg (d)	03538500	USGS	83.2	1934-57, 1966-68
Obed River at Crossville (d)	03538600	USGS	12.0	1950-51, 1955-85, 1991-95
Daddys Creek near Grassy Cove (d)	03539000	USGS	51.2	1925-30
Daddys Creek near Crab Orchard (d)	03539500	USGS	93.5	1931-58
Daddys Creek near Hebbertsburg (d)	03539600	USGS	139	1957-68
Clear Creek near Lancing (d)	03539750	USGS	153	1966-68
Obed River near Lancing (d)	03539800	USGS	518	1956-68, 1973-88
Crooked Fork near Wartburg (d)	03539860	USGS	50.3	1966-68
Emory River at Deermont (d)	03540000	USGS	704	1920-28
Crab Orchard Creek near Deermont (d)	03540100	USGS	33.7	1966-68
Bitter Creek near Oakdale (d)	03541300	USGS	12.6	1967-75
Kingston Creek at Kingston (d)	03541400	TVA	.74	1940-41
Whites Creek near Glen Alice (d)	03541500	USGS	108	1934-55
Whites Creek at Glen Alice (d)	03542000	USGS	120	1931-34
Piney River at Spring City (d)	03542500	USGS	95.9	1927-31
Sewee Creek near Decatur (d)	03543500	USGS	117	1934-94
Tennessee River at Breedenton (d)	03544000	USGS	17,440	1934-40
Richland Creek near Dayton (d)	03544500	USGS	50.2	1927-31, 1934-55, 1979-82
Turtletown Creek at Turtletown (d)	03556000	USGS	26.9	1934-71
Hiwassee River near McFarland (d)	03556500	USGS	1,136	1943-81
Hiwassee River near Reliance (d)	03557000	USGS	1,233	1900-14, 1918-48
Ocoee River at Copperhill (d)	03559500	USGS	352	1903-14, 1943-70
North Potato Creek tributary, Copper Basin area 6, near Ducktown (d)	03560700	TVA	.01	1940-51
Burra-burra Creek tributary, Copper Basin area 5, near Ducktown (d)	03560800	TVA	.02	1940-51
North Potato Creek near Ducktown (d)	03561000	USGS	13.0	1934-70
North Potato Creek tributary No. 2, Copper Basin area 1-W, near Ducktown (d)	03561200	TVA	.01	1942-52
North Potato Creek tributary No. 3, Copper Basin area 1-E, near Ducktown (d)	03561300	TVA	.01	1942-52
Ocoee River at McHarg (d)	03561500	USGS	447	1917-43
Walkertown Branch tributary, Copper Basin area 4, near Ducktown (d)	03561700	TVA	.01	1940-45
Ocoee River tributary, Copper Basin area 3, near Ducktown (d)	03561800	TVA	.01	1940-51
Brush Creek near Ducktown (d)	03562000	USGS	14.4	1934-42
Hiwassee River above Charleston (d)	03565000	USGS	2,001	1954-76
Chestuee Creek above Englewood (d)	03565040	TVA	14.8	1944-57

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Little Chestuee Creek below Wilson Station (d)	03565080	TVA	8.54	1947-57
Chestuee Creek at Zion Hill (d)	03565120	TVA	37.8	1944-62
Middle Creek below Hwy 39 near Englewood (d)	03565160	TVA	32.7	1944-62
Chestuee Creek near Athens (d)	03565200	TVA	77.9	1944-54
Chestuee Creek at Dentville (d)	03565250	USGS	114	1944-62
South Chestuee Creek near Benton (d)	03565300	USGS	31.8	1957-86
Oostanaula Creek near Sanford (d)	03565500	USGS	57.0	1954-89
Oostanaula Creek near Calhoun (d)	03565700	TVA	67.0	1940-44
Wolftever Creek near Ooltewah (d)	03566420*	USGS	18.8	1964-89
Long Savannah Creek near Snow Hill (d)	03566450	TVA	28.3	1939-44
North Chickamauga Creek at Upper Mill, near Hixson (d)	03566600	TVA	99.5	1937-43
North Chickamauga Creek near Hixson (d)	03566630	TVA	114	1937-43
South Chickamauga Creek near Chickamauga (d)	03567500	TVA	428	1928-78, 1980-94
South Chickamauga Creek near McCarty (d)	03567600	TVA	458	1937-45
Sequatchie River near College Station (d)	03570650	USGS	154	1966-68
Sequatchie River near Whitwell (d)	03571000	TVA	402	1920-94
Little Sequatchie River at Sequatchie (d)	03571500*	USGS	116	1932-34
Tennessee River at South Pittsburg (d)	03571850	USGS	22,640	1930-87
Elk River near Pelham (d)	03578000	USGS	65.6	1952-88
Bradley Creek Tributary at AEDC near Manchedster	03578455	USGS		1993-96
Bradley Creek near Prairie Plains (d)	03578500	USGS	41.3	1952-60
Brumalow Creek at AEDC near Manchester (d)	03578600	USGS		1993-96
Rowland Creek at AEDC near Manchester (d)	03578970	USGS		1994-96
Elk River near Estill Springs (d)	03579100	USGS	275	1921-81
Rock Creek at Tullahoma (d)	03579620	USGS	12.3	1991-96
Boiling Fork Creek south of Cowan (d)	03580000	USGS	20.2	1932
Boiling Fork Creek above Winchester (d)	03580300	USGS	55.9	1962-70
Boiling Fork Creek at Winchester (d)	03580500	USGS	77.1	1932-34
Elk River below Tims Ford Dam (d)	03580750	USGS	534	1966-76
Jack Daniel Spring at Lynchburg (d)	03580990	USGS		1970-78
East Fork Mulberry Creek below Jack Daniel Distillery at Lynchburg (d)	03580995	USGS	23.4	1987-94
East Fork Mulberry Creek at Lynchburg (d)	03581000	USGS	23.1	1932
East Fork Mulberry Creek near Lynchburg (d)	03581100	TVA	29.5	1967-69
East Fork Mulberry Creek near Mulberry (d)	03581200	TVA	49.4	1967-69
West Fork Mulberry Creek near Booneville at Mt. Herman (d)	03581400	TVA	17.4	1967-69
West Fork Mulberry Creek at Mulberry (d)	03581500	USGS	41.2	1954-62, 1966-68
Elk River above Fayetteville (d)	03582000	USGS	827	1934-82
Union Branch below Belleville (d)	03582140	USGS	2.37	1977
Elk River near Fayetteville (d)	03582500	USGS	897	1926-34
Bradshaw Creek at Frankewing (d)	03583000	USGS	36.5	1955-61, 1966-68
Richland Creek near Cornersville (d)	03583300*	USGS	47.5	1961-68
Factory Creek (head of Big Creek) near Campbellsville (d)	03583330	USGS	38.2	1966-68
Yokley Creek near Campbellsville (d)	03583360	USGS	20.2	1966-68
Weakley Creek near Bodenham (d)	03583500	USGS	24.4	1955-61, 1966-68
Richland Creek near Pulaski (d)	03584000	USGS	366	1934-75
Elk River at Prospect (d)	03584600	USGS	1805	1904-08, 1919-94

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Shoal Creek at Lawrenceburg (d)	03588000	USGS	55.4	1932-34, 1967-91
Chisholm Creek at Westpoint (d)	03588400	USGS	43.0	1962-88
Shoal Creek at Iron City (d)	03588500	USGS	348	1925-94
Snake Creek near Adamsville (d)	03593300	TVA	49.4	1940-59
Holland Creek near Lowryville (d)	03593700	TVA	14.9	1965-78
Horse Creek near Savannah (d)	03594000	USGS	114	1929-34
Turkey Creek near Savannah (d)	03594040	TVA	53.7	1940-59
White Oak Creek near Milledgeville (d)	03594058	TVA	46.1	1940-59
White Oak Creek at Milledgeville (d)	03594110	TVA	49.2	1961-65
Middleton Creek near Milledgeville (d)	03594120	TVA	45.5	1940-59
Indian Creek near Cerro Gordo (d)	03594160	TVA	201	1940-59
Banjo Branch near Waynesboro (d)	03594164	USGS	2.14	1988-89
Beech River near Lexington (d)	03594415	TVA	15.9	1953-63
Wolf Creek at Graper Springs (d)	03594420	TVA	11.7	1953-55
Pine Tree Branch near Lexington (d)	03594425	TVA	.14	1941-78
Harmon Creek near Lexington (d)	03594430	TVA	6.87	1953-73
Piney Creek at Hwy 104 near Lexington (d)	03594435	TVA	19.2	1953-55, 1957-73
Cane Creek near Shady Hill (d)	03594437	TVA	20.7	1966-73
Haley Creek near Chesterfield (d)	03594441	TVA	8.30	1953-55
Beech River near Chesterfield (old channel before channelization) (d)	03594445	TVA	11.5	1940-54, 1960-65
Browns Creek near Chesterfield (d)	03594450	TVA	202	1953-63
Cane Creek near Shady Hill (d)	03594455	TVA	16.8	1953-64
Cane Creek near Chesterfield (old channel before channelization) (d)	03594460	TVA	222	1940-54
Beech River near Darden (old channel before channelization) (d)	03594465	TVA	165	1954-60
Flat Creek near Middleburg (d)	03594470	TVA	13.8	1953-55
Big Creek near Darden (d)	03594475	TVA	10.6	1953-55, 1966-73
Turkey Creek near Decaturville (d)	03594480	TVA	8.40	1953-63
Turkey Creek at Middleburg Road, near Decaturville (d)	03594482	TVA	11.5	1964-73
Rushing Creek near Decaturville (d)	03594485	TVA	17.0	1953-55
Tennessee River at Perryville (d)	03594500	USGS	34,550	1931-32
Duck River near Manchester (d)	03595000	USGS	55.2	1932-34
Little Duck River at Manchester (d)	03595500	USGS	40.4	1932-34
Duck River below Manchester (d)	03596000	USGS	107	1934-88
Duck River at Normandy (d)	03596500	USGS	208	1920-31, 1972-75
Garrison Fork at Fairfield (d)	03597000	USGS	66.3	1953-58, 1966-68
Wartrace Creek at Bell Buckle (d)	03597500	USGS	16.3	1953-61, 1966-75
Wartrace Creek at Wartrace (d)	03597600	USGS	36.4	1966-68
Fall Creek near Deason (d)	03598173	USGS	16.4	1994-95
Fall Creek near Halls Mill (d)	03598179	USGS	39.0	1994-95
North Fork Creek near Poplins Crossroad (d)	03598250	USGS	71.9	1994-95
Big Rock Creek at Lewisburg (d)	03599000	USGS	24.9	1953-61, 1966-68
Fountain Creek near Culleoka (d)	03599430	USGS	26.9	1966-68
Fountain Creek near Fountain Heights (d)	03599450	USGS	74.0	1966-68
Rutherford Creek near Carters Creek (d)	03600000	USGS	68.8	1953-58
Rutherford Creek (No. 4) near Columbia (d)	03600100	TVA	112	1948-53

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Rutherford Creek (No. 3) near Columbia (d)	03600200	TVA	116	1948-49
Little Bigby Creek at Experiment Lane at Columbia (d)	03600258	USGS	42.6	1990-92
Big Bigby Creek at Sandy Hook (d)	03600500	USGS	17.5	1953-87, 1988-89
Big Bigby Creek near Mount Pleasant (d)	03601000	USGS	25.8	1953-57
Big Bigby Creek at Cross Bridges (d)	03601500	USGS	112	1938-39
Duck River at Centerville (d)	03602000	USGS	2,048	1919-55
Piney River at Vernon (d)	03602500	USGS	193	1925-93
Duck River above Hurricane Mills (d)	03603000	USGS	2,557	1925-94
Hurricane Creek at Hurricane Mills (d)	03603500	USGS	75.1	1932-33
Coon Creek near Hohenwald (d)	03604100	USGS	10.0	1967-74
Buffalo River below Lobelville (d)	03604400	USGS	702	1927-89, 1989-94
Buffalo River near Lobelville (d)	03604500	USGS	707	1987-89
Blue Creek at State Hwy 13 near Waverly (d)	03604600	TVA	24.8	1964-71
Birdsong Creek near Holladay (d)	03604800	TVA	44.9	1940-68
Trace Creek at Waverly (d)	03605500	USGS	20.1	1932-33
Cotton Creek near Camden (d)	03606400	TVA	.43	1941-45
Big Sandy River at Big Sandy (d)	03607000	USGS	379	1935-44
Clifty Creek at Clifty Creek Road near Paris (d)	03607198	USGS	8.06	1994-95
Holly Fork Creek at Nobles (d)	03607225	USGS	26.8	1994-95
Beaverdam Creek at Sulphur Well Road near Nobles (d)	03607232	USGS	6.69	1994-95
Tennessee River near Buchanan (d)	03607500	USGS	39,730	1930-43
Crooked Creek at Highway 22 near Huntingdon (d)	07024200	USGS	89.8	1994-95
Beaver Creek at Huntingdon (d)	07024300*	USGS	55.5	1946, 1948, 1952-54, 1958-88
Beaver Creek at Hwy 22 Bypass near Huntingdon (d)	07024305	USGS	58.6	1994-96
South Fork Obion River near Greenfield (d)	07024500*	USGS	383	1929-89
Rutherford Fork Obion River near Bradford (d)	07025000	USGS	201	1929-57
North Fork Obion River near Union City (d)	07025500	USGS	480	1929-71, 1989-93
Obion River at U.S. Highway 51 near Obion (d)	07026040	USGS	1,875	1929-1958, 1966-1995
North Reelfoot Creek at State Hwy 22 near Clayton (d)	07026370	USGS	56.3	1980-83, 1984-89
South Reelfoot Creek near Clayton (d)	07026400	USGS	36.6	1984-89
Reelfoot Creek near Samburg (d)	07026500	USGS	110	1951-73
Reelfoot Lake near Phillippy (e)	07026690	USGS	240	1984-88
Indian Creek near Samburg (d)	07026795	USGS	8.01	1982-86
South Fork Forked Deer River at Jackson (d)	07027500	USGS	495	1929-73, 1988-91
South Fork Forked Deer River at Chestnut Bluff (d)	07028000	USGS	1,003	1929-57
North Fork Forked Deer River at Trenton (d)	07028500	USGS	73.5	1950-71
Middle Fork Forked Deer River near Alamo (d)	07029000	USGS	369	1929-73
Hatchie River near Stanton (d)	07030000	USGS	1,975	1929-58
Cane Creek at Three Point (d)	07030137	USGS	79.8	1985-87
Kelly Branch near Clopton (d)	07030245	USGS	7.79	1975-76
Beaver Creek near Arlington (d)	07030250	USGS	148	1994-95
Loosahatchie River tributary at New Allen Road at Memphis (d)	07030295	USGS	1.26	1977-83
Wolf River at Rossville (d)	07030500	USGS	503	1929-72
Marys Creek at Pisgah Road, near Fisherville (d)	07031500	USGS	13.6	1955-57
Fletcher Creek near Cordova (d)	07031680	USGS	1.45	1974-83
Fletcher Creek at Whitten Road at Memphis (d)	07031683	USGS	21.4	1978-82

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Unnamed tributary at Charles Bryan Road, near Cordova (d)	07031685	USGS	3.18	1975-77
Lick Creek at Dickinson Street, at Memphis (d)	07031777	USGS	2.96	1975-83
Nonconnah Creek near Germantown (d)	07032200	USGS	68.2	1969-1985 1985-1995
Johns Creek tributary at Holmes Road, near Memphis (d)	07032222	USGS	5.83	1975-85
Johns Creek at Raines Road, at Memphis (d)	07032224	USGS	19.4	1975-82, 1985
Black Bayou at Southern Avenue, at Memphis (d)	07032241	USGS	.59	1975-83
Cane Creek at East Person Avenue, at Memphis (d)	07032248	USGS	4.98	1975-85
Cypress Creek at Neely Road, at Memphis (d)	07032260	USGS	3.18	1975-85

DISCONTINUED SURFACE-WATER QUALITY STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations prior to the 1991 water year. Water-quality data (daily or periodic samples with collection frequency not less than quarterly) were collected and published for the period of record shown for each station. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Chief at the address given on the back of the title page of this report.

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Crabapple Branch near La Follette	03403718	USGS	1.07	C,T	1981-84
Indian Fork above Braytown	03407804	USGS	4.32	C	1975-81
New River at Stainville	03407850	USGS	66.0	C,S	1975-77, 1979-81
Green Branch near Hembree	03407874	USGS	1.38	C,S	1975-81
Smoky Creek above Hembree (361240084245800)	034078745	USGS	8.07	S	1982-83
Bills Branch near Hembree	03407875	USGS	.67	C,S	1975-83
		USGS		C,S,T	1980-83
Shack Creek at Hembree (361341084253900)	034078755	USGS	5.08	C,S,T	1982-84
Smoky Creek at Hembree	03407876	USGS	17.2	S	1978-84
		USGS		C,T	1980-84
Bowling Branch above Smoky Junction	03407877	USGS	2.19	C,S	1975-83
Smoky Creek at Smoky Junction	03407879	USGS	32.8	C,S	1975-77, 1979-81
Anderson Branch near Montgomery	03407881	USGS	.69	C	1975-81
Lowe Branch near Montgomery	03407882	USGS	.92	C	1975-81
New River at Cordell	03407908	USGS	198	C,S	1976-77, 1979-82
New River at New River	03408500	USGS	382	C,T	1977-86
		USGS		C,S	1965-67, 1975-77, 1979-81
Clear Fork near Robbins	03409500	USGS	272	T	1982-86
		USGS		C	1982, 1984-86
		USGS		C,S	1964-65, 1976-77, 1979-82, 1984
South Fork Cumberland River at Leatherwood Ford	03410210	USGS	806	C,S,T	1986
		USGS		C,S	1979-80, 1984-85
Cumberland River at Celina	03417500	USGS	7,307	C,T	1991-97
Roaring River near Hilham	03418000	USGS	78.7	T	1969-71
Roaring River above Gainesboro	03418070	USGS	210	C,S	1980-83
Cumberland River below Cordell Hull Dam	03418420	USGS	8,095	CT	1980-97
Collins River near McMinnville	03421000	USGS	640	C,S	1964-67,1979-82
Cumberland River at Carthage	03425000	USGS	10,690	C,T	1975-81
East Fork Stones River near Lascassas	03427500	USGS	262	C,T	1975-1990
West Fork Stones River near Murfreesboro	03428000	USGS	128	C	1964-68
West Fork Stones River at Manson Pike, at Murfreesboro	03428070	USGS	165	C,T	1973-82
West Fork Stones River near Smyrna	03428500	USGS	237	T	1974-1990
Richland Creek at Charlotte Avenue, at Nashville	03431700	USGS	24.3	C,S	1901, 1979-83
Harpeth River near Kingston Springs	03434500	USGS	681	C,S	1979-83
Cumberland River below Cheatham Dam	03435000	USGS	14,163	C,T	1993-97
Sulphur Fork Red River near Greenbrier	03435637	USGS	34.9	T	1976-78
Sulphur Fork Red River above Beaverdam Creek, near Springfield	03435700	USGS	49.1	T	1975-77
Sulphur Fork Red River above Springfield	03435770	USGS	65.6	C,S	1976-83
Sulphur Fork Red River near Adams	03436000	USGS	186	C,S	1964, 1979-83
Red River at Port Royal	03436100	USGS	935	C,S	1979-83
Boiling Springs at Ft. Campbell, KY-TN	03436421	USGS		C,T	1994-96
Yellow Creek near Shiloh	03436700	USGS	124	C,S	1964-65, 1979-81
French Broad River below Hot Springs, NC	03454757	USGS	1,712	C	1970-73

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record
French Broad River near Newport	03455000	TVA	1,858	C	1946-47, 1960-61, 1969-70, 1974-75, 1979-80
Muddy Fork near Leesburg	03465830	USGS	13.5	C,S,T	1993-95
Nolichucky River at Embreeville	03465500	USGS	805	C,S	1979-82
Jockey Creek near Mount Bethel Church near Limestone	03466098	USGS	18.5	C,S,T	1993-95
Nolichucky River below Nolichucky Dam	03466500	TVA	1,184	C	1974-79
		TVA		T	1962
Lick Creek near Holland Mill	03466825	USGS	53.0	C,S,T	1993-95
French Broad River at Douglas Dam (tailwater)	03468510	TVA	4,541	C	1975-80
Little Pigeon River at Sevierville	03470000	TVA	353	C	1967-68, 1970
		TVA		T	1969-74
		USGS		C,S	1979-82
French Broad River near Knoxville	03470500	USGS	5,101	C,T	1975-82
		USGS		B,C,S,T	1975-86
South Fork Holston River at South Holston Dam	03476010	TVA	703	C	1975-80
Watauga River at Stump Knob	03480000	TVA	171	T	1962
Elk River at Elk Mills	03481450	TVA	74.0	C	1975-76
Roan Creek near Doeville	03482100	TVA	110	T	1962, 1971-74
		TVA		C	1975-76
Watauga River below Watauga Dam	03483950	TVA	468	C	1973, 1975-80
Doe River at Hampton	03484800	TVA	100	T	1968-73
Doe River at Elizabethton	03485500	TVA	137	C	1967-68, 1971
		TVA		T	1954-63
		USGS		C,S	1979-82
South Fork Holston River at Boone Dam (tailwater)	03486810	TVA	1,840	C	1975-78
South Fork Holston River at Ft. Patrick Henry Dam	03487010	TVA	1,903	C	1975-80
Reedy Creek at Orebank	03487550	TVA	36.3	T	1964-66
		TVA		C	1964-67
		USGS		C,S	1979-82
Holston River near Church Hill	03490350	TVA	2,819	C	1974-78
Holston River at Surgoinsville	03490500	USGS	2,874	T	1975-82
		TVA		C	1974-80
Big Creek near Rogersville	03491000	USGS	47.3	T	1972-75, 1977-79
Beech Creek at Kepler	03491300	TVA	47.0	T	1966-68
Holston River near Rogersville	03491500	TVA	3,035	T	1966-75
Holston River at Cherokee Dam (tailwater)	03493510	TVA	3,428	C	1975-80
Holston River near Knoxville	03495500	USGS	3,747	C,B,S	1977-93
First Creek above Powers Avenue, at Knoxville	03496200	USGS	17.2	T	1969-71
Tennessee River below Knoxville	03497100	TVA	8,963	T	1970-80
Little River above Townsend	03497300	USGS	106	T	1964-82
		USGS		C	1982
Little River near Maryville	03498500	TVA	269	C	1967-68
		USGS		C,S	1979-82
Tennessee River at Fort Loudon Dam (tailwater)	03499510	TVA	9,550	C	1975-80
Little Tennessee River at Calderwood Dam	03518210	TVA	1,977	C	1977-80
Little Tennessee River below Chilhowee Dam	03518300	TVA	1,987	T	1964-78
Tellico River at Tellico Plains	03518500	TVA	118	T	1964-78
		TVA		C	1969-70, 1973-76
		USGS		C,S	1979-82
Little Tennessee River at McGhee	03519500	TVA	2,443	T	1963
Little Tennessee River near Centersville	03519740	TVA		T	1976-79
Clinch River above Tazewell	03528000	TVA	1,474	T	1962-66, 1971-75
		TVA		C	1971-80

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Powell River near Arthur	03532000	TVA	685	C,S	1965, 1969-72, 1974-82
		TVA		T	1963-66, 1971-75
Ollis Creek at Ivydell	03532190	TVA	13.3	C	1974-78
Clinch River below Norris Dam	03533000	TVA	2,913	C	1968-70, 1972-80
Clinch River at Coal Creek	03533500	TVA	2,921	T	1976-79
Clinch River near Clinton	03534100	TVA	2,980	C	1971-74, 1977
Clinch River at Edgemoor	03534900	TVA	3,089	C	1969-78
Bullrun Creek near Halls Crossroads	03535000	USGS	68.5	T	1967-74
Clinch River near Eaton Crossroads	03535915	TVA	3,346	T	1963-79
Poplar Creek near Oak Ridge	03538225	USGS	82.5	C,S	1961-65, 1979-81
		USGS		T	1962-65
East Fork Poplar Creek near Oak Ridge	03538250	USGS	19.5	T	1962-68
Bear Creek near Oak Ridge	03538275	USGS	7.15	T	1962-63
Emory River near Wartburg	03538500	TVA	83.2	C	1965-68, 1975-76
Obed River near Lancing	03539800	TVA	518	T	1965-66
		TVA		C	1965-68
Crooked Fork near Wartburg	03539860	TVA	50.3	C	1965-68
		USGS		C,S	1979-81
Crab Orchard Creek near Deermont	03540100	TVA	33.7	C	1966-68
		TVA		T	1967-68
		USGS		C,S	1979-81
Emory River at Oakdale	03540500	TVA	764	C,S	1965-67, 1974-81
Tennessee River at Watts Bar Dam (tailwater)	03543005	USGS	17,310	B,C,S,T	1975-86
		USGS		T,C	1976-81
Richland Creek near Dayton	03544500	TVA	50.2	C	1966-67
		USGS		C,S	1979-82
Hiwassee River near Wetmore	03557050	TVA	1,233	C	1973-74, 1976
Hiwassee River at Patty	03557400	TVA	1,358	T	1976-78
Hiwassee River near Benton	03557405	TVA	1,362	C	1978-80
Ocoee River at Parksville	03564500	TVA	595	C	1971-72, 1976-80
Oostanaula Creek near Sweetwater	03565428	USGS		C,S,T	1993-95
Oostanaula Creek below Johnson Branch near Athens	03565430	USGS		C,S,T	1993-95
Oostanaula Creek near Sanford	03565500	USGS	57.0	C,S	1979-82
Tennessee River at Sequoyah Nuclear Plant	03566404	TVA	20,630	C	1975-78
Tennessee River near Harrison Bay State Park	03566405	TVA	20,650	C	1969-73
Tennessee River at Chickamauga Dam (tailwater)	03566510	TVA	20,790	C	1975-80
Tennessee River at Nickajack Dam (tailwater gage)	03570525	TVA	21,849	C	1975-78
Sequatchie River near Dunlap	03570835	TVA	292	C	1975-78
Sequatchie River near Whitwell	03571000	TVA	402	T	1962-71
		TVA		C	1965, 1970, 1974-75
		USGS		C,S	1979-82
Sequatchie River at Whitwell Waterworks near Whitwell	03571200	TVA	410	C	1975-79
Tennessee River at South Pittsburg	03571850	USGS	22,640	T	1975-82
		USGS		C	1975-79, 1981
		USGS		B,C,S,T	1974-86
Bradley Creek Tributary at AEDC near Manchester	03578455	USGS		T	1993-95
Brumalow Creek at AEDC near Manchester	03578600	USGS		T	1993-95
Rowland Creek at AEDC near Manchester	03578970	USGS		T	1993-95
Elk River near Estill Springs	03579100	TVA	275	C	1974-78
		TVA		T	1971-77

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Boiling Fork Creek near Decherd	03580110	TVA	37.7	T	1975-77
Elk River below Tims Ford Dam	03580750	TVA	534	T	1971-79
		TVA		C	1966-67, 1973 1975-80
Elk River above Fayetteville	03582000	TVA	827	C	1974, 1977-80
		USGS		T	1961-64
Elk River at Fayetteville	03582400	TVA	895	T	1976-78
Cane Creek near Fayetteville	03582600	TVA	106	T	1969-73
Richland Creek near Pulaski	03584000	TVA	366	T	1965-73
Elk River near Prospect	03584500	TVA	1,784	T	1961-64
Shoal Creek at Iron City	03588500	TVA	348	C,S	1974-80
		USGS		C,S	1980-83
Tennessee River at Pickwick Landing Dam	03593005	USGS	32,820	C,T	1976-82
Beech River near Chesterfield	03594439	TVA	121	C	1969-71, 1976
Duck River below Manchester	03596000	TVA	107	C	1967-68, 1970-71
		TVA		T	1976-80
		USGS		C,S	1975, 1979-83
Duck River at Normandy	03596500	TVA	208	T	1969-75
Duck River at Shelbyville Waterworks	03597850	TVA	425	C	1975-80
Duck River near Shelbyville	03598000	TVA	481	T	1961-64, 1976-78
Duck River near Columbia	03599460	TVA	1,176	T	1974-82
Duck River at Columbia Waterworks	03599482	TVA	1,195	C	1975-80
Piney River at Vernon	03602500	TVA	193	T	1964-67
Duck River above Hurricane Mills	03603000	TVA	2,557	C	1966-67, 1974-80
		TVA		T	1961-64
Buffalo River near Flat Woods	03604000	TVA	447	T	1964-68
Buffalo River near Lobelville	03604500	TVA	707	T	1961-64
		TVA		C	1967-68, 1973-76
Trace Creek above Denver	03605555	USGS	31.9	C	1979-83
Big Sandy River at Bruceton	03606500	TVA	205	T	1971-78
		TVA		C	1968, 1970-72
		USGS		C,S	1976, 1979-83
North Reelfoot Creek at Clayton	07026360	USGS	54.7	C,S	1982-84
North Reelfoot Creek at State Hwy 22 near Clayton	07026370	USGS	56.3	C,S	1983-89
Obion River at Hwy 51 near Obion	07026040	USGS	1,875	C,S,T	1975-95
South Reelfoot Creek near Clayton	07026400	USGS	38.6	C,S	1984-89
Bayou Du Chien near Walnut Log	07026695	USGS	27.8	C,T	1986-88
Indian Creek near Samburg	07026795	USGS	8.01	C,S	1982-84
Reelfoot Lake Spillway near Tiptonville	07027002	USGS	240	C,T	1975-76, 1986-88
Mosses Creek near Pocahontas	07029410	USGS	47.6	C,S	1961, 1963, 1977-78
Hatchie River near Lacy	07029425	USGS	1,033	C,S	1977-78
Big Muddy Creek at Stanton	07030010	USGS	84.4	C,S	1977-78
Cane Creek at Ripley	07030100	USGS	33.9	S	1985-87
Cane Creek at Three Point	07030137	USGS	79.8	S	1985-87
Loosahatchie River near Arlington	07030240	USGS	262	C,S	1979-82
Wolf River at Rossville	07030500	USGS	503	C	1961, 1963-68
Nonconnah Creek near Germantown	07032200	USGS	68.2	C,S	1979-82

WATER RESOURCES DATA - TENNESSEE, 1999

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with State, local, and Federal agencies, obtains a large amount of data pertaining to the water resources of Tennessee each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data - Tennessee."

This report consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains discharge records for 66 gaging stations; stage only at 1 gaging station; stage and contents at 32 lakes and reservoirs; water quality for 16 stations, and 6 wells; and water levels at 8 observation wells. Also included are data for 99 crest-stage partial-record stations. Locations of these sites are shown on figures 4 through 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and miscellaneous analyses or as seepage investigations.

This series of annual reports for Tennessee began with the 1961 water year with a report that contained only data relating to the quantities of surface water. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several years concurrent with it, water-resources data for Tennessee were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." For the 1961 through 1970 years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Water of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225.

Publications similar to this report are published annually by the USGS for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report TN-99-1." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (615) 837-4700.

COOPERATION

The USGS and agencies of the State of Tennessee have had cooperative agreements for the systematic collection of streamflow records since 1918, for ground-water levels since 1946, and for water-quality records since 1960. Organizations that assisted in collecting data contained in this report through cooperative agreement with the Survey are:

Athens Utility District
Tennessee Department of Environment and Conservation
Tennessee Department of Transportation
Tennessee Wildlife Resources Agency
Duck River Development Agency
Harpeth Valley Utility District
Hixson Utility District
Savannah Valley Utility District
Cities, Towns, or Counties;
- Alcoa
- Blount
- Camden
- Dickson
- Franklin
- Germantown
- Harriman
- Jackson
- Knox
- Lewisburg
- Lincoln
- Maryville
- Medina
- Memphis
- Metropolitan Government of Nashville and Davidson County
- Murfreesboro
- Rogersville
- Sevierville
- Shelby
- Springfield
- Wartrace

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, in collecting records for 8 gaging stations and 4 water-quality stations, by the Tennessee Valley Authority for 10 gaging stations, and by the U.S. Department of Energy for 2 gaging stations on Oak Ridge Reservation. All data are published in this report.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The State of Tennessee benefits from an abundance of streams, rivers, and lakes. The Tennessee and Cumberland are the largest rivers in the State, excluding the Mississippi River which flows along Tennessee's western boundary. The main stems of the Tennessee and Cumberland Rivers are highly regulated with a complex system of dams and reservoirs used for navigation, flood control, recreation, water supply, and hydroelectric power generation. Natural flow conditions occur only in tributaries to these rivers, or in other streams draining smaller basins throughout the State. Runoff data from these natural-flow streams can be used to describe the hydrologic conditions of the State for the 1999 water year.

A comparison of the mean discharges for the 1999 water year with the period-of-record mean at unregulated streams can be used to measure hydrologic conditions. The data for 1999 show that mean discharges at most unregulated streams were below normal. Although mean discharges were below normal for the year, record low water was not recorded over most of the state.

Ground Water

Ground-water levels are recorded continuously at a series of observation wells across the State (fig. 1). Water levels at well Ld:F-4 (Lauderdale County) are representative of conditions in West Tennessee and were below normal during most of the year and at record lows during the last quarter of the water year. Well Hm:O-15 (Hamilton County) is representative of conditions in East Tennessee. Well Hm:O-15 (Hamilton County) was slightly above normal to near normal during much of the year. Ground-water levels in this area were recharged by some significant summer rainfalls.

Water levels recorded from wells throughout Middle and East Tennessee generally respond faster and exhibit larger fluctuations than wells drilled into the sand and gravel aquifers of West Tennessee. Observation wells in Shelby County show that ground water levels are strongly affected by ground water withdrawals by the City of Memphis and surrounding communities. At well Sh:Q-1 (fig. 2), near downtown Memphis, water levels declined steadily since 1972, although a slower rate of decline began in 1988. Ground-water levels in Sh:Q-1 were at record low levels by the end of the water year. The decline in ground water levels in the Memphis area are not indicative of a reduction in the available ground-water supplies, but the response of the aquifer to additional withdrawals. Hydrographs showing lowest monthly water levels for each of the continuous recording observation wells are included in the body of this report.

Water Quality

Water-quality data were collected at both surface- and ground-water sites during the 1998 water year. The majority of these sites were sampled as part of the U.S. Geological Survey's National Water-Quality Assessment project of the Upper Tennessee River Basin. Other water-quality activities in Tennessee included:

- o Operation of two continuous monitors to measure temperature, dissolved oxygen, pH, and specific conductance in the Cumberland River Basin in support of the U.S. Army Corps of Engineers, Nashville District operations.

- o Operation of a continuous monitor to measure temperature, dissolved oxygen, pH, and specific conductance in the West Fork Stones River in support of a water resources program for the City of Murfreesboro, Tennessee.

- o Operation of a continuous monitor to measure temperature and dissolved oxygen of the Duck River in support of a water resources program with the Duck River Development Agency.

- o Operation of a two continuous monitors to measure temperature, dissolved oxygen, pH, and specific conductance in the Cumberland River in support of a water resources program for the Davidson County Metropolitan area, Tennessee.

- o Determination of water quality of Carter's Creek in Maury County in support of a water resources study in that area.

The data from these sites did not identify any significant water-quality problems. However, low concentrations of a few pesticides and volatile organic compounds were detected in samples collected for the National Water-Quality Assessment project in the Upper Tennessee River Basin.

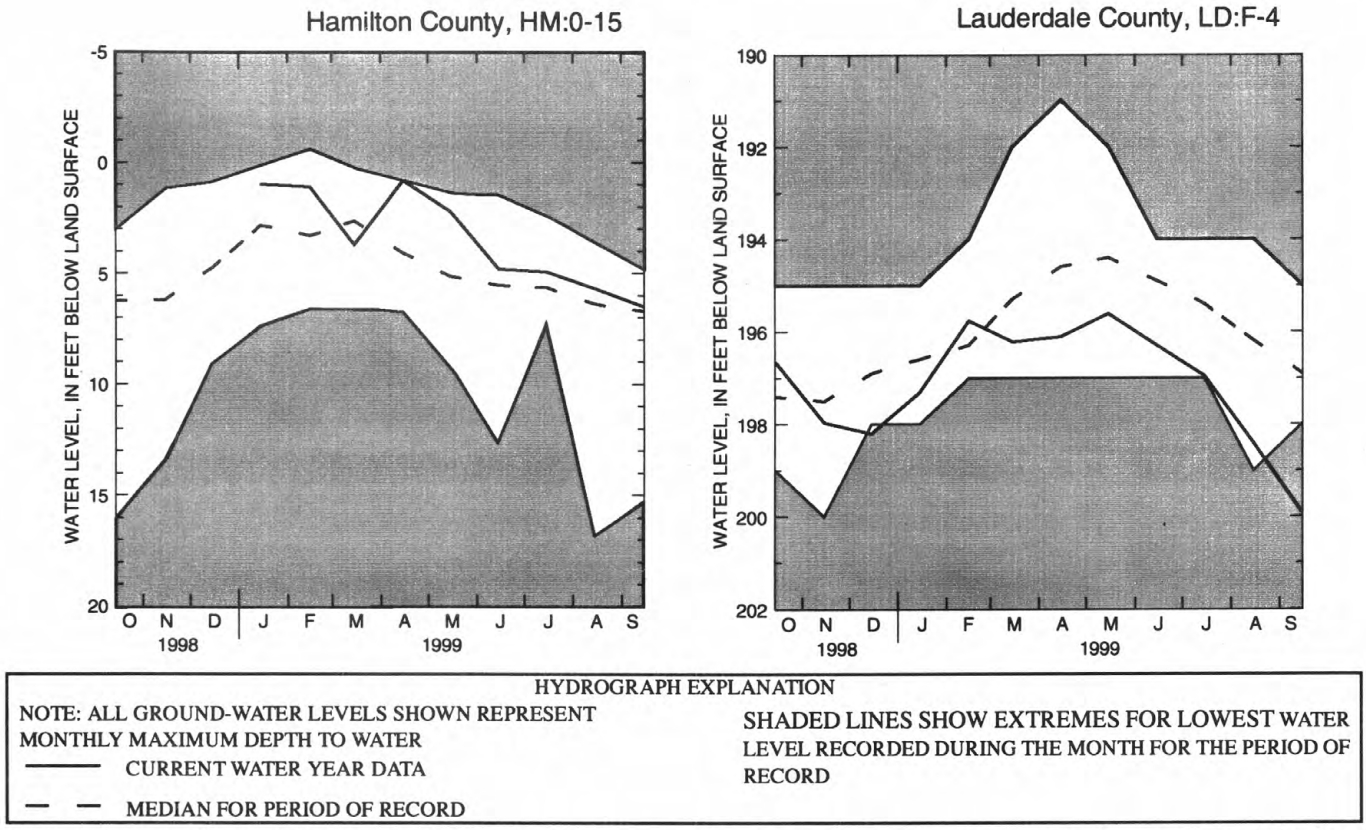

Figure 1. Ground-water levels for the 1999 water year compared to the maximum, minimum, and median water levels for the period of record.

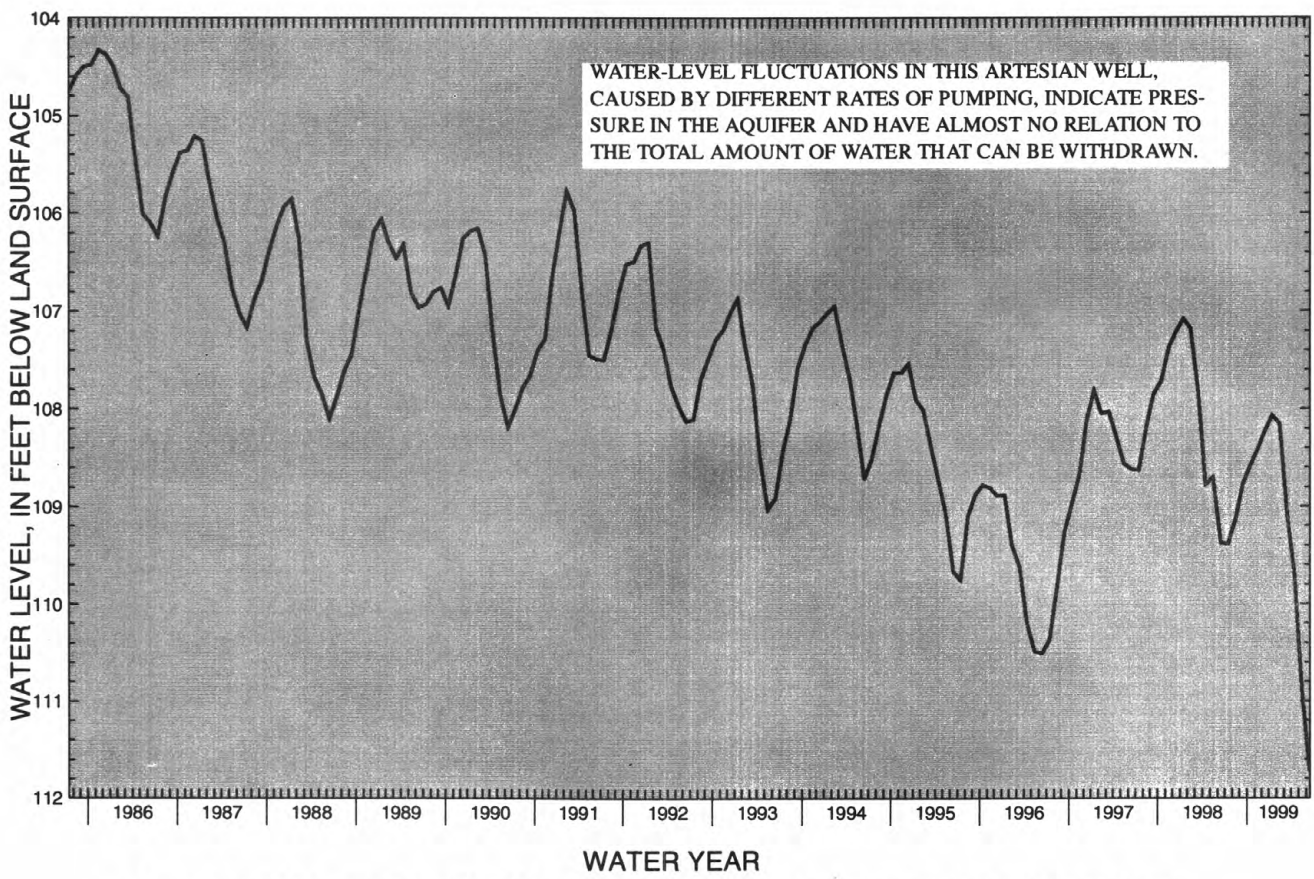

Figure 2. Hydrograph of well Sh:Q-1 in Shelby County showing long-term decline in water level.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO2 and NOx schedules to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/NADP

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface water. In addition to the surface water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF RECORDS

The surface-water and ground-water records published in this report are for the 1998 water year that began October 1, 1997, and ended September 30, 1998. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 4 through 7. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for surface-water stations and the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

Each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete number for each station such as 03540500...., which appears just to the left of the station name, includes the 2-digit part number "03" plus the multi-digit downstream order number "540500...." This downstream numbering system is used in most cases; however, in some cases latitude and longitude numbers are assigned to hydrologic stations and partial-record stations as a means of identification (See Numbering System for Wells).

Numbering system for wells

Downstream order station numbers are not assigned to wells. The well numbering system of the USGS is based on the grid system of latitude and longitude. The system provides the geographic location of the well and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells within a 1-second grid.

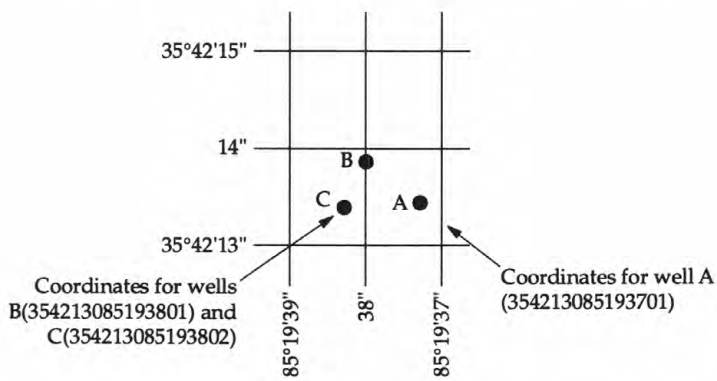

Figure 3.--System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the USGS. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations (TWRI's), Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed from gage heights and rating tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are used in applying the gage heights to the rating tables. The shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and comparable records of discharge for other stations in the same or nearby basins.

At some stream-gaging stations, the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileage is that determined and used by the USGS, Tennessee Valley Authority, U.S. Army Corps of Engineers, or other agencies using methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see "Definition of terms"), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent times. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum line (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS ____-____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar water year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. When the designated period is not the same as the station period of record published in the manuscript, values and dates of occurrence for daily and instantaneous extremes outside the designated period will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnote.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be available before this statistic is published for the designated period.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

ANNUAL RUNOFF (CFSM).--Indicates the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the year.

ANNUAL RUNOFF (INCHES).--Indicates the depth to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures to more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Records of discharge, not published by the USGS, are collected in Tennessee at several sites by the U.S. Army Corps of Engineers and Tennessee Valley Authority. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the USGS. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurements notes, gage-height records, temperature measurements, and rating tables are on file in the Tennessee District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are collected at or near stream-gaging stations. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (NASQAN) (see definitions) are obtained from at least several verticals.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the USGS will begin using new trace-element protocols in the near future.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the USGS District Office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, maximum, minimum, and mean temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office and are also published in this report.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar water discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the USGS's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Users of USGS water-quality data should be aware of this update procedure because corrections are not documented in the State data-report series.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colon count)
L	Biological organisms count less than 0.5 percent (organisms may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant
V	Analyte was detected in both the environmental sample and the associated blanks.

Dissolved Trace-Element Concentrations

*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level, Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples that may be collected by this district are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analyses of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collect in this district are:

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental

sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for and environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well -established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Change in National Trends Network Procedures

*NOTE.--Samples handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/ NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

Records of Ground-Water Levels

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the current water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The altitude of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the USGS and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. A hydrograph for a selected period of record follows each water-level table.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

EXPLANATION OF PRECIPITATION-QUALITY RECORDS

Collection of the Data

The precipitation-quality records in this report are for one site operated by the USGS in the National Trends Network. Field measurements of pH and specific conductance of weekly composite precipitation samples and daily precipitation quantity are made. Other chemical analyses for all National Trends Network sites are performed by the Central Analytical Laboratory of the Illinois Water Survey. A numerical agency code (17003) has been assigned to the Illinois Water-Survey for data storage purposes.

ACCESS TO WATSTORE DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page)

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Algae are mostly aquatic single-celled, colonial, or multicelled plants containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

> **Acre-foot** (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters
>
> **Cubic foot per second per square mile** [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.
>
> **Inch** (IN., in.) as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it.

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

> **Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.
>
> **Fecal coliform bacteria** are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.
>
> **Fecal streptococcal bacteria** are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.
>
> **Enterococcus bacteria** are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of

enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants.

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warm-blooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow is flow in a channel sustained by ground-water discharge in the absence of direct runoff.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic organisms (invertebrates) are the group of animals inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass is expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Biomass pigment ratio is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

Bottom material: See "Bed material."

Cells/volume refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^3 h$ cylinder $\pi r^3 h$.

From cell volume, total algal biomass expressed as biovolume ($\mu m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium (for example, water) that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the

material above it. In some cases the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site that meets either of the following conditions:

1. Stage or streamflow are recorded at some interval on a continuous basis. The recording interval is usually 15 minutes, but may be less or more frequent.
2. Water-quality, sediment, or other hydrologic measurements are recorded at least daily.

Control designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the station. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(ft^3/s)/d]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, 646,317 gallons, or 2,447 cubic meters.

Daily record is a summary of streamflow, sediment, or water-quality values computed from data collected with sufficient frequency to obtain reliable estimates of daily mean values.

Daily record station is a site for which daily records of streamflow, sediment, or water-quality values are computed.

Datum, as used in this report, is an elevation above mean sea level to which all gage height readings are referenced.

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the volume of water (or more broadly, volume of fluid including solid- and dissolved-phase material), that passes a given point in a given period of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days in a year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a site on a stream is that area, measured in a horizontal plane, that has a common outlet at the site for its surface runoff. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that is occupied by a drainage system with a common outlet for its surface runoff (see "Drainage area").

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue.

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to sea level (see "Datum"). This elevation is established by a system of levels from known benchmarks, by approximation from topographic maps, or by geographical positioning system.

Gage height (G.H.) is the water-surface elevation referenced to the gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hydrologic benchmark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a benchmark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e \frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the

immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Microsiemens per centimeter (US/CM, µS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Miscellaneous site, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88*

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), or total organic carbon (TOC).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, Sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation/sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periodic station is a site where stage, discharge, sediment, chemical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL of sample).

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark.

Fire algae (*Pyrrhophyta*) are a group of algae that are free-swimming unicells characterized by a red pigment spot.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within

the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCN's) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCB's) and have been identified in commercial PCB preparations.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. Carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. Oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or non-exceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

River mile is the distance of a point on a river measured in miles from the river's mouth along the low-water channel.

River mileage is the linear distance along the meandering path of a stream channel determined in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council.

Runoff in inches (IN., in.) is the depth, in inches, to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929. *See: http://www.co-ops.nos.noaa.gov/glossary/gloss_n.html#NGVD*

Sediment is solid material that is transported by, suspended in, or deposited from water. It originates mostly from disintegrated rocks; it also includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along or very close to the bed. In this report, bed load is considered to consist of particles in transit from the bed to an elevation equal to the top of the bed-load sampler nozzle (usually within 0.25 ft of the streambed).

Bed-load discharge (tons per day) is the quantity of sediment moving as bed load, reported as dry weight, that passes a cross section in a given time.

Suspended sediment is the sediment that is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The entire sample is used for the analysis.

Mean concentration of suspended sediment is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the quantity of sediment moving in suspension, reported as dry weight, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a term that refers to material in suspension. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, reported as dry weight, that passes a cross section in a given time.

Total sediment load or total load is a term that refers to the total sediment (bed load plus suspended-sediment load) that is in transport. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with total sediment discharge.

Seven-day 10-year low flow (7Q10, $7Q_{10}$) is the minimum flow averaged over 7 consecutive days that is expected to occur on average, once in any 10-year period. The 7Q10 has a 10-percent chance of occurring in any given year.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MILL/MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage: See "Gage height."

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to

discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Surface area of a lake or impoundment is that area encompassed by the boundary of the lake or impoundment as shown on USGS topographic maps, or on other available maps or photographs. The computed surface areas reflect the water levels of the lakes or impoundments at the times when the information for the maps or photographs was obtained.

Surficial bed material is the top 0.1 to 0.2 ft of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Synoptic Studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata,* is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot is the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the total amount of a given constituent in a representative suspended-sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a suspended-sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total recoverable is the amount of a given constituent that is in solution after a representative suspended-sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

Volatile organic compounds (VOC's) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOC's are manmade chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

Water level is the water-surface elevation or stage of the free surface of a body of water above or below any datum (see "Gage height"), or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the surface of a ground-water body at which the water is at atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1999, is called the "1999 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

Wet weight refers to the weight of animal tissue or other substance including its contained water.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the "U.S. Geological Survey." Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

2-D1. *Application of surface geophysics to ground-water investigations,* by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations,* by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells,* by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 pages.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI book 3. chap. A5. 1967. 29 pages.

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3-A6. *General procedure for gaging streams,* by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 pages.

3-A13. *Computation of continuous records of streamflow,* by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 pages.

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3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 pages.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow,* by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 pages.

3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 pages.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts,* by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS–TWRI book 3, chap. C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 pages.

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Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology,* by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 pages.

Section B. Surface Water

4-B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 pages.

Section D. Interrelated Phases of the Hydrologic Cycle

4-D1. *Computation of rate and volume of stream depletion by wells,* by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 pages.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 pages.

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis,* by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 pages.

Book 6. Modeling Techniques

Section A. Ground Water

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 pages.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 pages.

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY--Continued

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 pages.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8-A1. *Methods of measuring water levels in deep wells,* by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 pages.

Section B. Instruments for Measurement of Discharge

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 pages.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling,* by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements,* edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators,*edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples,* by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 pages.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities,* by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 pages.

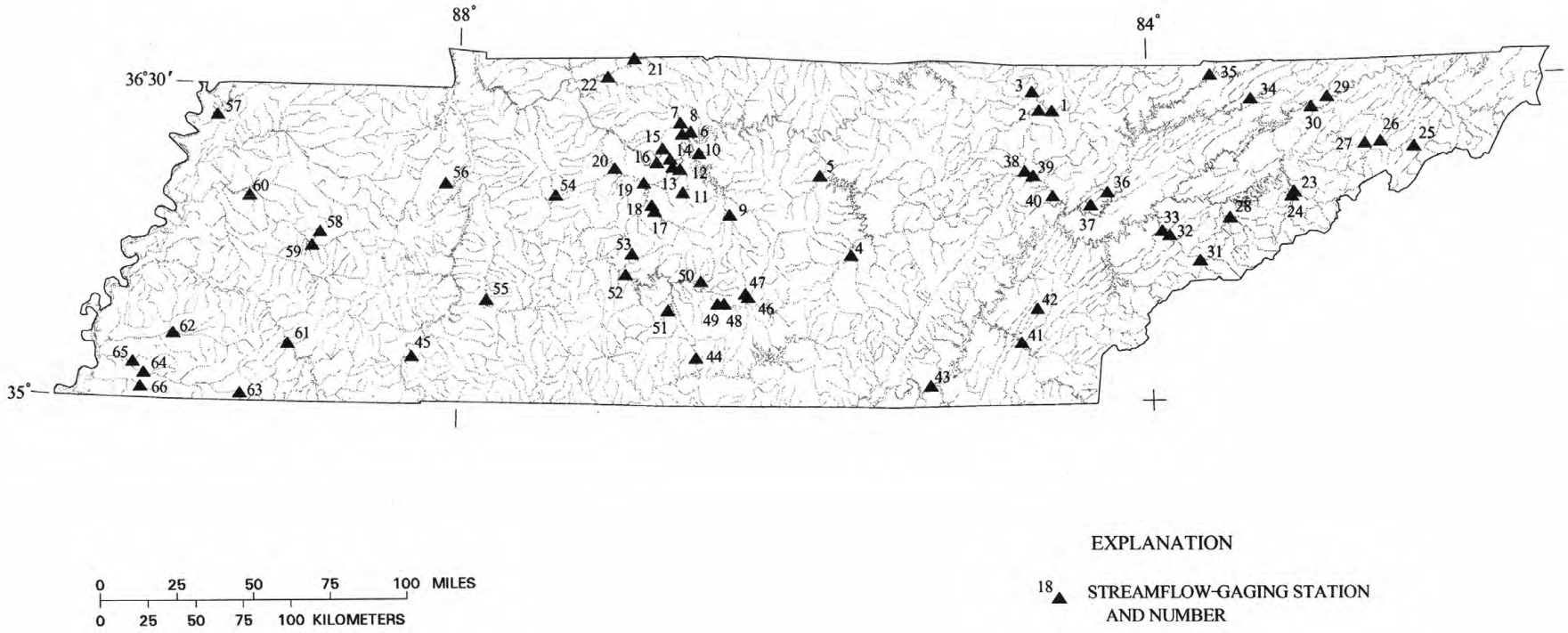


Figure 4.—Location of streamflow-gaging stations in Tennessee.

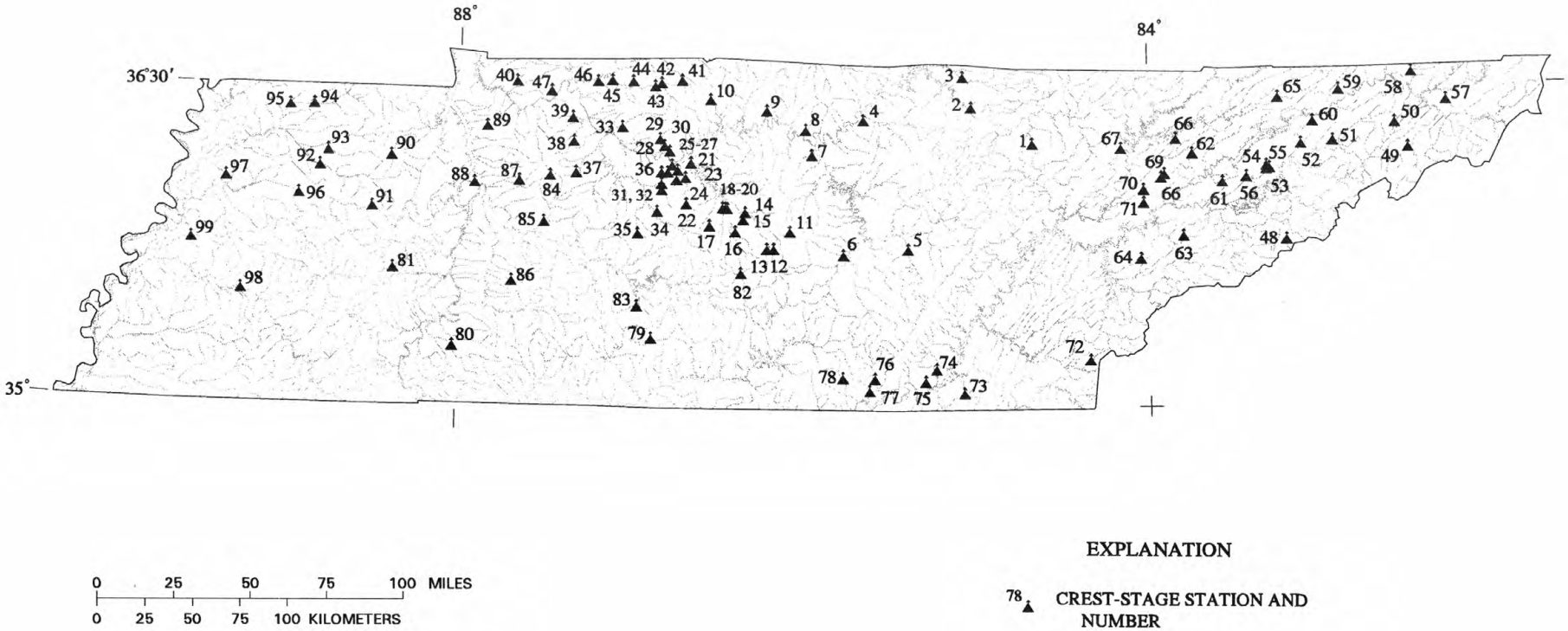


Figure 5.—Location of crest-stage gages in Tennessee.

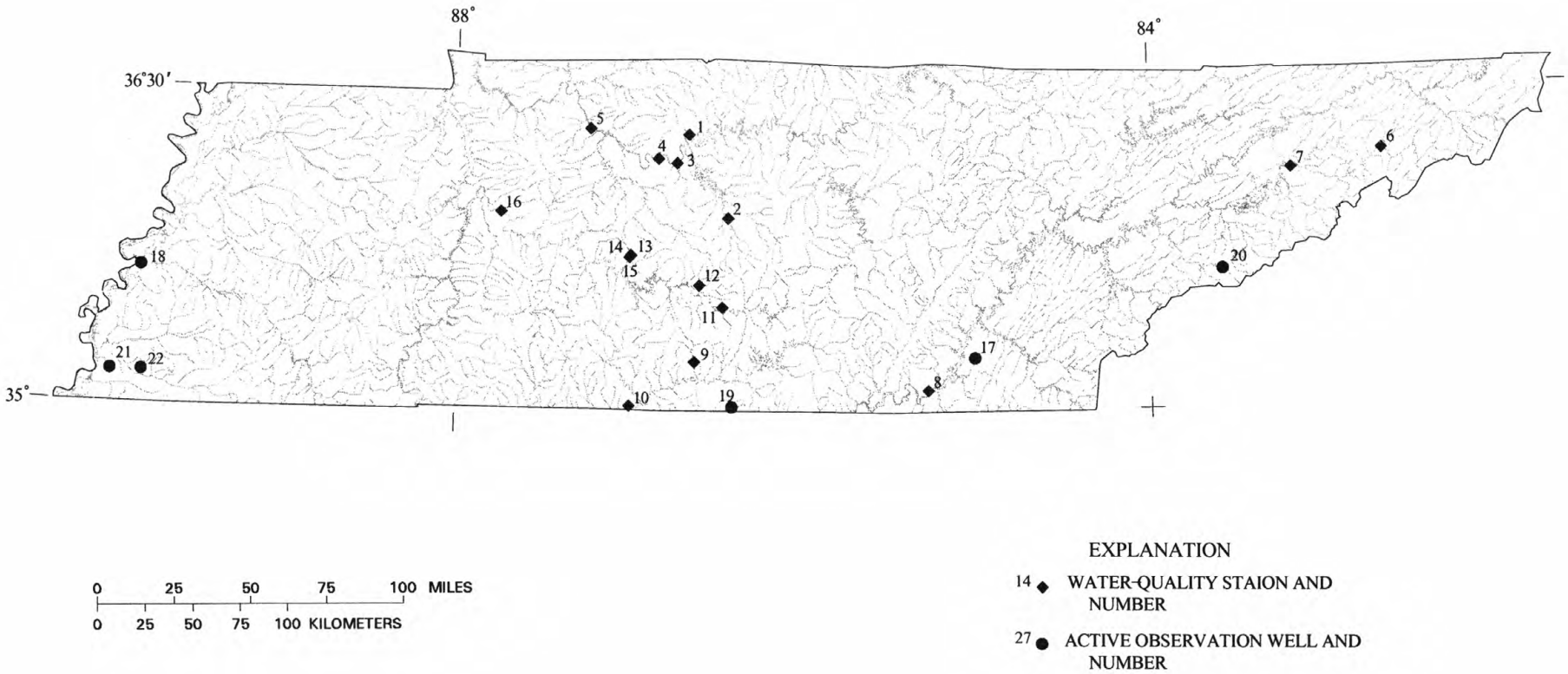


Figure 6.—Location of water-quality stations and active observation wells in Tennessee.

03408500 NEW RIVER AT NEW RIVER, TN

LOCATION.--Lat 36°23'08", long 84°33'17", Scott County, Hydrologic Unit 05130104, on left bank at town of New River, 700 ft downstream from Phillips Creek, 1,000 ft downstream from bridge on U.S. Highway 27, 1.7 mi downstream from Brimstone Creek, and at mile 8.6.

DRAINAGE AREA.--382 mi^2.

PERIOD OF RECORD.--August 1934 to September 1991, Occtober 1991 to Spetember 1998, as stage only. October 1998 to September 1999. Gage-height records collected in this vicinity 1908-52 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1436: Drainage area. WDR TN-73: 1939(M), 1951(M), 1970(M).

GAGE.--Data collection platform. Datum of gage is 1,092.67 ft above sea level.

REMARKS.--Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft^3/s, May 27, 1973, gage height, 37.91 ft, from high water mark in gage well, from rating curve extended above 27,000 ft^3/s on basis of slope-area and contracted-opening measurements of peak flow; no flow part of each day Aug. 12-14, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 23, 1929, reached a stage of 41.2 ft, discharge, 74,700 ft^3/s, estimated, based on field survey at old U.S. Weather Bureau gage, 1,200 ft upstream at datum 3.41 ft higher.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1300	15,000	16.70	May 6	1500	15,000	16.69
Jan 9	1530	15,800	17.10	Jun 29	1430	14,500	16.41
Jan 23	2000	*20,100	*19.63				

Minimum discharge, 0.72 ft^3/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.8	22	426	946	2430	367	811	104	1330	138	18
2	20	7.6	18	379	1450	1460	452	649	137	1420	115	15
3	14	9.8	16	1440	1210	2510	417	522	288	1630	100	14
4	11	11	16	1280	969	2640	401	423	256	977	86	12
5	9.0	11	16	816	771	1920	371	422	198	654	75	10
6	7.7	11	16	592	655	1970	346	8140	268	470	65	9.8
7	6.4	11	19	485	635	1850	323	3530	207	361	57	9.0
8	28	17	106	460	708	1380	304	2010	145	287	53	7.9
9	51	16	799	7940	603	1690	471	1250	116	235	57	6.6
10	33	16	313	3380	716	1920	546	864	98	247	54	5.6
11	30	23	165	1550	725	1530	560	638	87	607	48	e5.0
12	21	93	142	1040	750	1190	581	485	75	3860	41	e5.0
13	15	62	6830	782	816	1060	494	422	65	2810	36	e4.7
14	12	38	1870	846	726	2720	445	986	58	1400	33	e4.4
15	9.5	27	736	4510	691	3390	668	611	61	846	29	e4.6
16	7.6	20	437	2200	675	2260	1120	448	62	586	25	e4.0
17	6.6	17	322	1340	731	1640	945	354	58	424	23	e10
18	5.9	14	257	3930	949	1250	784	332	47	358	21	e5.0
19	5.5	12	200	3160	912	973	653	560	40	293	19	e2.0
20	4.6	12	177	1700	796	801	606	391	34	1320	20	e1.5
21	4.1	12	161	1180	664	755	523	297	30	1260	19	1.4
22	3.5	11	171	896	555	658	437	258	27	793	18	1.7
23	3.4	11	294	9200	481	567	374	370	25	629	16	1.7
24	3.3	12	663	7860	444	524	354	414	31	823	16	1.6
25	3.0	15	892	2550	409	480	313	360	3690	1520	217	1.3
26	2.8	16	624	1520	367	426	284	270	1650	744	183	1.1
27	2.8	17	542	1120	352	390	295	225	1790	469	88	1.1
28	2.6	21	579	879	3520	355	341	179	5770	337	51	1.1
29	3.0	32	729	708	---	338	575	147	9540	273	33	1.5
30	4.3	25	675	590	---	318	962	126	3290	210	26	3.7
31	5.6	---	530	562	---	297	---	114	---	169	20	---
TOTAL	342.7	607.2	18337	65321	23226	41692	15312	26608	28247	27342	1782	170.3
MEAN	11.1	20.2	592	2107	830	1345	510	858	942	882	57.5	5.68
MAX	51	93	6830	9200	3520	3390	1120	8140	9540	3860	217	18
MIN	2.6	6.8	16	379	352	297	284	114	25	169	16	1.1
CFSM	.03	.05	1.55	5.52	2.17	3.52	1.34	2.25	2.46	2.31	.15	.01
IN.	.03	.06	1.79	6.36	2.26	4.06	1.49	2.59	2.75	2.66	.17	.02

e Estimated

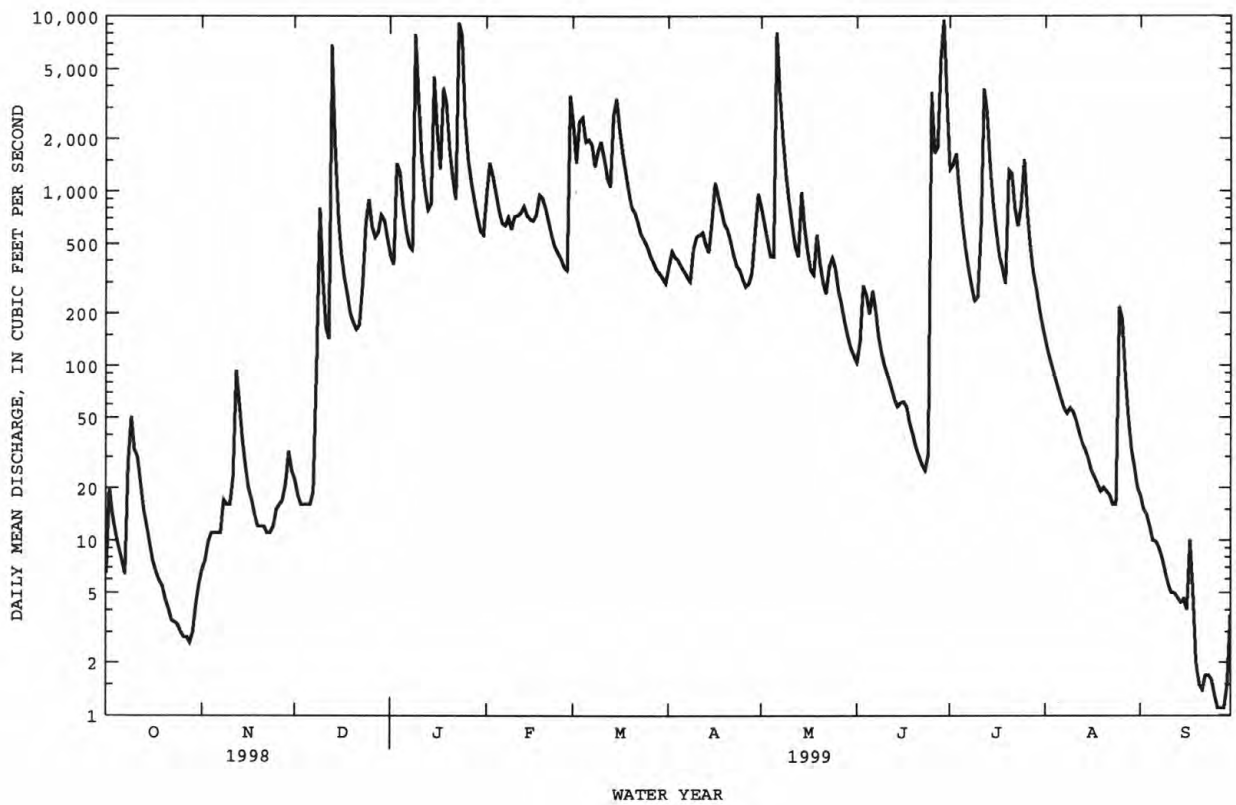
03408500 NEW RIVER AT NEW RIVER, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	144	513	1102	1412	1478	1556	1072	684	356	279	163	130
MAX	1035	2683	3359	4206	3891	4371	2564	3095	2850	1986	1159	1235
(WY)	1990	1958	1991	1937	1939	1975	1977	1973	1989	1967	1942	1989
MIN	.64	2.35	43.9	42.1	112	530	216	60.6	4.54	3.99	5.71	2.68
(WY)	1953	1940	1966	1981	1941	1985	1942	1936	1936	1944	1936	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1934 - 1999	
ANNUAL TOTAL			248987.2			
ANNUAL MEAN			682		740	
HIGHEST ANNUAL MEAN					1350	1973
LOWEST ANNUAL MEAN					341	1988
HIGHEST DAILY MEAN	6830	Dec 13	9540	Jun 29	a38000	Dec 23 1990
LOWEST DAILY MEAN	2.6	Sep 26	1.1	Sep 26	.10	Aug 9 1944
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 24	1.3	Sep 23	.10	Aug 9 1944
INSTANTANEOUS PEAK FLOW			20100	Jan 23	a63700	May 27 1973
INSTANTANEOUS PEAK STAGE			19.63	Jan 23	b37.91	May 27 1973
INSTANTANEOUS LOW FLOW			.72	Sep 29	c.00	Aug 12 1944
ANNUAL RUNOFF (CFSM)			1.79		1.94	
ANNUAL RUNOFF (INCHES)			24.25		26.31	
10 PERCENT EXCEEDS	394		1630		1660	
50 PERCENT EXCEEDS	26		313		265	
90 PERCENT EXCEEDS	3.2		6.6		18	

a Highest daily mean and instantaneous peak flows from rating curve extended above 27,000 ft^3/s on basis of slope-area and contracted opening measurements of peak flow.
b Maximum stage from high-water mark in gage well.
c Minimum discharge also occurred Aug. 13-15, 1944.



03409500 CLEAR FORK NEAR ROBBINS, TN

LOCATION.--Lat 36°23'18", long 84°37'49", Scott County, Hydrologic Unit 05130104, on right bank 300 ft downstream from Burnt Mill Bridge, 3.3 mi northwest of Robbins, and at mile 3.7.

DRAINAGE AREA.--272 mi^2.

PERIOD OF RECORD.--October 1930 to September 1971, July 1975 to September 1991, October 1991 to September 1998, stage only, October 1998 to September 1999. Published as Clear Fork River near Robbins, October 1951 to September 1954.

REVISED RECORDS.--WSP 1306: 1931(M), 1936-37(M), 1943-44(M). WSP 1436: Drainage area. WSP 1910: 1935(M).

GAGE.--Data collection platform. Datum of gage is 1,081.46 ft, Sandy Hook datum. Prior to Aug. 10, 1940, nonrecording gage at site 300 ft upstream at datum 1.00 ft higher.

REMARKS.--Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929 reached a stage of 22.1 ft, former site and datum, from information by local residents, and flood of May 27, 1973, reached a stage of 18.92 ft, present site and datum, from floodmark; discharge 35,700 ft^3/s, from rating curve extended above 14,000 ft^3/s, on basis of slope-area measurement at gage height 18.5 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1230	9,760	10.75	May 6	1530	8,000	9.79
Jan 9	1300	8,980	10.34	Jun 29	1800	8,710	10.19
Jan 23	1800	*15,900	*13.30				

Minimum discharge, 3.0 ft^3/s, Sept. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	6.7	18	395	1450	1780	266	663	36	1140	62	19
2	24	6.5	16	329	1650	1070	315	481	40	2040	52	16
3	14	7.2	15	1110	1170	973	281	365	55	2960	42	e12
4	9.4	9.6	14	1020	873	1180	256	286	79	1270	35	e10
5	7.1	8.3	15	615	652	981	241	303	77	716	30	e9.0
6	5.7	9.9	15	437	530	956	217	5140	73	522	26	e8.0
7	9.5	12	22	355	513	993	202	3530	69	376	22	e7.0
8	19	12	71	391	624	777	186	1450	58	261	20	e6.5
9	84	11	285	6400	526	1010	215	825	44	190	20	e6.0
10	52	12	198	3590	532	1540	222	552	36	217	19	e6.0
11	31	14	118	1470	545	1140	204	399	30	773	19	e5.5
12	22	16	110	904	535	841	206	297	27	1140	18	e5.0
13	18	30	6020	654	739	725	185	236	23	1780	16	e5.0
14	15	25	2610	677	651	2720	171	218	22	1560	14	e4.7
15	13	20	816	2580	563	3400	249	235	25	1060	13	e4.7
16	12	17	435	1730	506	2000	503	185	31	605	13	3.9
17	10	15	298	1020	507	1290	431	151	33	403	13	3.8
18	8.7	13	227	2530	585	922	349	134	27	302	12	3.6
19	7.8	13	183	2390	520	694	293	144	22	231	12	3.6
20	7.8	13	165	1290	453	554	273	162	20	184	12	3.4
21	7.8	13	153	877	383	522	260	125	17	160	12	3.8
22	7.7	13	144	656	327	475	222	103	15	151	12	3.8
23	7.1	13	146	8000	288	402	189	88	13	172	12	3.3
24	7.3	13	e200	6470	274	369	169	95	17	238	12	3.3
25	7.0	15	317	2310	265	330	153	105	2250	908	138	3.7
26	6.8	19	283	1260	248	298	141	98	1470	491	259	3.9
27	6.7	18	326	882	232	263	142	76	2510	265	110	4.0
28	6.9	18	494	673	1480	234	180	63	3220	167	63	3.8
29	6.9	19	961	532	---	216	454	51	4540	120	42	3.9
30	6.9	19	751	440	---	203	905	45	3250	94	30	3.8
31	6.9	---	536	451	---	198	---	40	---	75	23	---
TOTAL	487.0	431.2	15962	52438	17621	29056	8080	16645	18129	20571	1183	180.0
MEAN	15.7	14.4	515	1692	629	937	269	537	604	664	38.2	6.00
MAX	84	30	6020	8000	1650	3400	905	5140	4540	2960	259	19
MIN	5.7	6.5	14	329	232	198	141	40	13	75	12	3.3
CFSM	.06	.05	1.89	6.22	2.31	3.45	.99	1.97	2.22	2.44	.14	.02
IN.	.07	.06	2.18	7.17	2.41	3.97	1.11	2.28	2.48	2.81	.16	.02

e Estimated

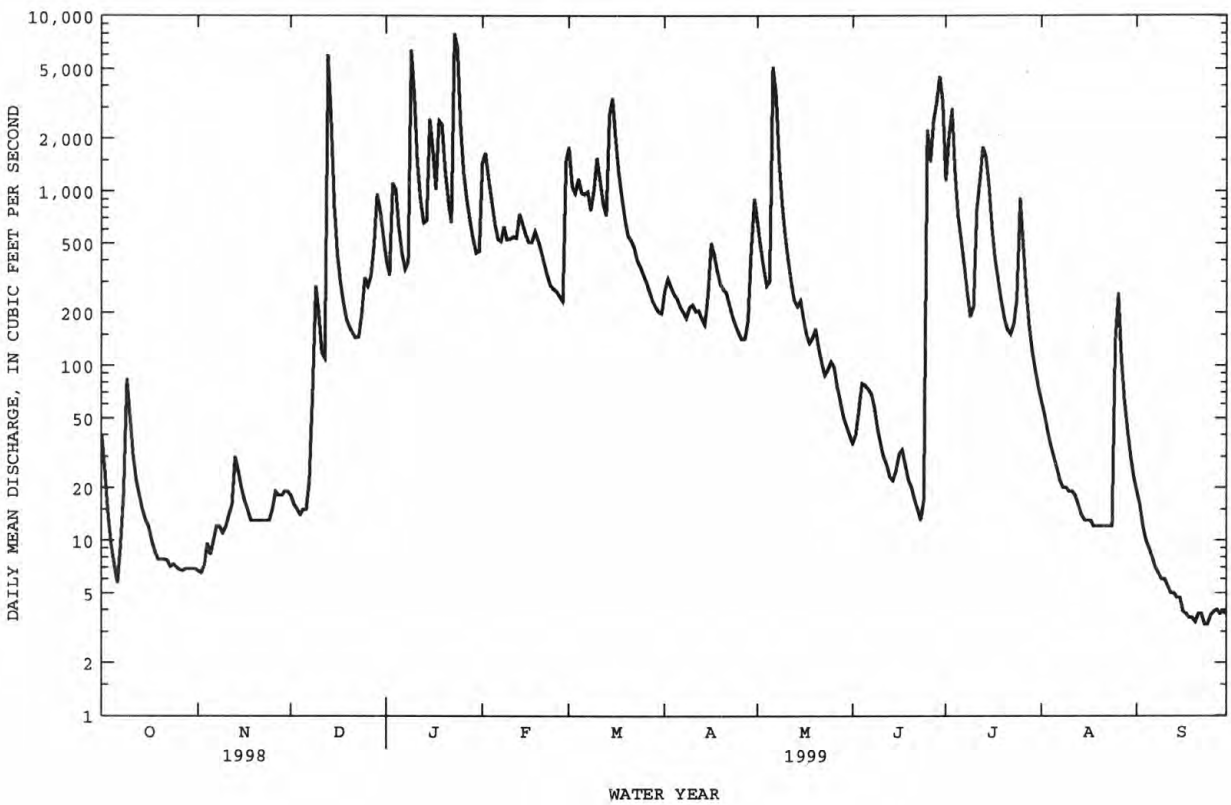
03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	95.3	301	659	922	1036	1006	718	462	216	165	103	96.6
MAX	747	1303	2470	3418	2794	2757	1968	2043	1742	1122	940	974
(WY)	1990	1958	1991	1937	1939	1963	1977	1984	1989	1967	1971	1982
MIN	1.84	4.97	28.6	32.4	141	333	152	64.1	8.29	6.40	8.07	2.92
(WY)	1954	1954	1964	1981	1941	1969	1942	1948	1988	1944	1987	1953

SUMMARY STATISTICS	FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	180783.2			
ANNUAL MEAN	495		479	
HIGHEST ANNUAL MEAN			864	1989
LOWEST ANNUAL MEAN			215	1931
HIGHEST DAILY MEAN	8000	Jan 23	a24800	Dec 23 1990
LOWEST DAILY MEAN	3.3	Sep 23	.20	Sep 20 1932
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 18	.51	Sep 15 1932
INSTANTANEOUS PEAK FLOW	a15900	Jan 23	a34000	Feb 3 1939
INSTANTANEOUS PEAK STAGE	13.30	Jan 23	b18.50	Feb 3 1939
INSTANTANEOUS LOW FLOW	c3.0	Sep 23	d.20	Sep 19 1932
ANNUAL RUNOFF (CFSM)	1.82		1.76	
ANNUAL RUNOFF (INCHES)	24.72		23.93	
10 PERCENT EXCEEDS	1260		1110	
50 PERCENT EXCEEDS	167		160	
90 PERCENT EXCEEDS	7.2		11	

a Highest daily-mean and instantaneous peak flows from rating curve extended above 14,000 ft^3/s on basis of slope-area measurement of peak flow.
b Maximum stage from flood marks, site and datum then in use.
c Also occurred Sept. 24.
d Also occurred Sept. 20, 21, 1932.



03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN

LOCATION.--Lat 36°28'38", long 84°40'09", Scott County, Hydrologic Unit 05130104, on left bank at bridge on State Route 297, 1.0 mi above Anderson Branch, 1.3 miles below North White Oak Creek, 10.1 mi southwest of Oneida, and at mi 70.1.

DRAINAGE AREA.--806 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to September 1987. October 1998 to September 1999.Occasional discharge measurements, water years 1961-62, 1979-80, 1991-94.

GAGE.--Data collection platform. Datum of gage is 862.79 ft, Sandy Hook datum.

REMARKS.--Records poor. No gage height record Oct. 1 to Dec. 20.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56,100 ft^3/s at 0800 hours May 7, gage height, 31.22 ft; minimum, 19 ft^3/s Sept. 23-26, gage height, 3.46 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1445	25,100	21.01	Jan 23	2015	*37,000	*25.43
Jan 9	1700	26,200	21.46	Jun 29	1830	21,900	19.66

Minimum discharge, 17 ft^3/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	32	60	1150	2880	5130	681	1780	149	3060	216	49
2	36	32	56	972	3810	3320	836	1290	152	3860	179	44
3	33	35	54	2820	3170	3520	775	959	363	5380	151	42
4	35	37	54	3120	2450	4560	729	764	392	3000	132	44
5	35	38	57	1980	1890	3610	679	733	313	1750	121	37
6	32	36	68	1420	1550	3510	630	e14000	447	1150	111	33
7	33	33	84	1140	1490	3650	583	e8000	335	825	100	31
8	95	36	301	1170	1720	2930	565	e4000	248	631	96	28
9	88	38	1240	16600	1470	3100	739	e2400	186	519	99	27
10	102	39	757	9090	1530	3970	843	e1800	162	501	97	24
11	76	59	408	3890	1600	3400	799	e1500	143	1430	92	23
12	65	58	320	2710	1590	2670	838	884	130	4070	88	22
13	55	98	13800	1990	1940	2210	725	724	117	5690	81	21
14	48	82	6140	1900	1760	5490	657	1190	110	3480	75	21
15	43	67	2420	7440	1580	7800	855	951	134	2340	69	22
16	40	57	1380	4740	1480	5000	1930	684	127	1390	66	21
17	38	50	916	3170	1510	3680	1660	548	121	900	63	19
18	37	48	668	6930	1870	2910	1290	479	110	723	59	18
19	37	46	522	6890	1820	2200	1020	644	98	599	57	18
20	37	46	449	3820	1600	1760	923	595	90	1130	66	18
21	36	46	409	2840	1320	1560	850	445	84	2050	61	22
22	35	46	392	2120	1120	1390	709	357	79	1040	56	23
23	33	45	468	17100	972	1120	611	431	76	873	53	21
24	32	44	780	17700	905	1010	556	492	81	1120	58	20
25	31	45	1570	5860	829	914	509	531	5230	2940	413	19
26	32	53	1160	3590	689	810	458	407	3580	1550	485	20
27	32	61	1100	2690	642	733	474	317	4000	836	230	21
28	31	57	1330	2050	4950	667	574	257	9870	585	124	23
29	31	56	2160	1640	---	622	985	207	14200	460	81	26
30	32	62	1940	1330	---	e590	2210	184	7780	346	63	20
31	34	---	1490	1280	---	e580	---	166	---	271	57	---
TOTAL	1344	1482	42553	141142	50137	84416	25693	47719	48907	54499	3699	777
MEAN	43.4	49.4	1373	4553	1791	2723	856	1539	1630	1758	119	25.9
MAX	102	98	13800	17700	4950	7800	2210	14000	14200	5690	485	49
MIN	20	32	54	972	642	580	458	166	76	271	53	18
CFSM	.05	.06	1.70	5.65	2.22	3.38	1.06	1.91	2.02	2.18	.15	.03
IN.	.06	.07	1.96	6.51	2.31	3.90	1.19	2.20	2.26	2.52	.17	.04

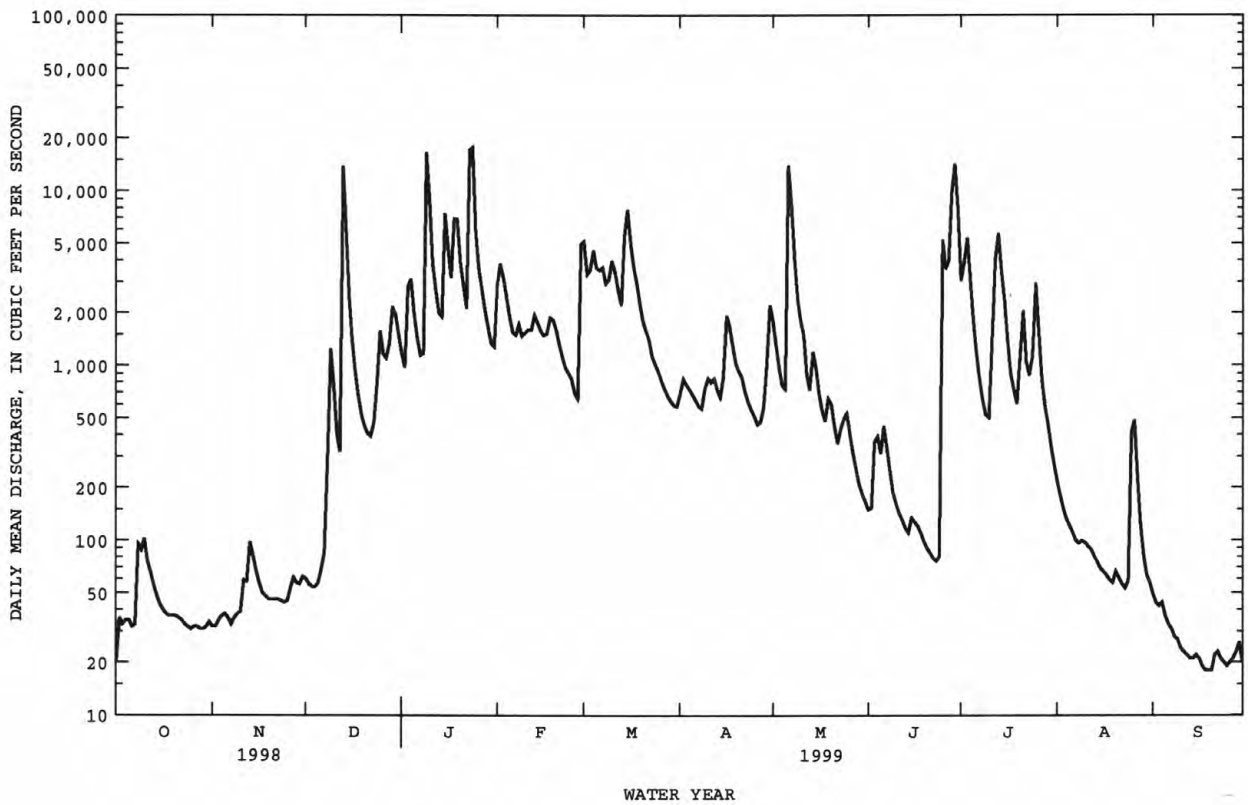
e Estimated

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	415	1573	1922	2148	2681	2060	1403	2119	717	636	443	150
MAX	870	3506	2921	4553	3114	3648	2370	5631	1630	1758	1302	454
(WY)	1986	1987	1984	1999	1985	1984	1987	1984	1999	1999	1985	1986
MIN	43.4	49.4	1108	602	1791	1104	539	613	230	148	61.4	25.9
(WY)	1999	1999	1986	1986	1999	1985	1986	1985	1984	1986	1987	1999

SUMMARY STATISTICS	FOR 1999 WATER YEAR		WATER YEARS 1984 - 1999	
ANNUAL TOTAL	502368			
ANNUAL MEAN	1376		1346	
HIGHEST ANNUAL MEAN			1744	1984
LOWEST ANNUAL MEAN			1030	1986
HIGHEST DAILY MEAN	17700	Jan 24	49300	May 7 1984
LOWEST DAILY MEAN	18	Sep 18	18	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	20	Sep 14	20	Sep 14 1999
INSTANTANEOUS PEAK FLOW	37000	Jan 23	56100	May 7 1984
INSTANTANEOUS PEAK STAGE	25.43	Jan 23	31.22	May 7 1984
INSTANTANEOUS LOW FLOW	17	Oct 1	17	Oct 1 1998
ANNUAL RUNOFF (CFSM)	1.71		1.67	
ANNUAL RUNOFF (INCHES)	23.19		22.70	
10 PERCENT EXCEEDS	3600		2930	
50 PERCENT EXCEEDS	556		593	
90 PERCENT EXCEEDS	33		56	



03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

LOCATION.--Lat 35°42'32", long 85°43'46", Warren County, Hydrologic Unit 05130107, on left bank at downstream side of bridge on U.S. Highway 70S, 1.8 mi downstream from Barren Fork River, 2.5 mi northeast of McMinnville, and at mile 19.5.

DRAINAGE AREA.--640 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Prior to April 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 873: 1929, 1932(M), 1934-35, 1936(M), 1937. WSP 1276: 1925-26, 1928(M), 1933, 1936, 1940. WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 825.78 ft, Sandy Hook datum. Prior to Oct. 16, 1926, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1854 is believed to have been about equal to that of Mar. 23, 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	2400	*25,500	*23.04	May 7	0130	18,200	18.79

Minimum discharge, 86 ft^3/s, Sept. 15, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	117	123	1170	5030	4240	794	1760	267	1140	223	107
2	133	118	121	984	3920	2810	816	1260	260	915	213	103
3	143	122	120	1470	2910	3010	779	926	253	747	201	102
4	145	120	118	1590	2270	3640	733	738	243	624	191	100
5	139	119	119	1250	1820	2830	688	733	246	530	185	99
6	133	119	120	1030	1480	2450	724	9910	235	486	177	98
7	196	117	132	892	1310	2350	1050	13600	227	480	170	97
8	273	119	170	882	1340	1950	1110	5180	220	490	164	95
9	230	122	241	5330	1230	2120	974	2580	215	480	159	96
10	175	133	245	6970	2370	2330	859	1820	210	462	151	95
11	154	148	226	3590	2100	1950	751	1320	214	3300	149	93
12	146	149	345	2220	1930	1650	663	1030	209	5850	162	92
13	139	137	6940	1640	2170	2410	600	880	200	7670	151	91
14	137	138	3700	1950	1820	8130	562	1030	269	3900	144	89
15	135	141	1660	5440	1510	8360	580	790	579	2220	141	88
16	132	137	1070	4170	1300	5040	672	663	348	1400	140	87
17	130	132	820	2670	1230	3350	710	578	269	969	135	87
18	126	128	666	5520	1560	2570	642	523	243	777	131	88
19	130	126	574	5410	1620	2080	598	484	227	715	130	89
20	129	132	515	3210	1380	1750	565	467	218	623	132	94
21	126	132	472	2280	1160	1900	534	441	211	543	131	100
22	122	131	470	1780	1010	2670	503	407	205	495	127	98
23	121	128	528	14300	900	2250	474	380	201	451	124	100
24	121	126	1010	17100	842	1890	464	370	225	414	122	98
25	122	126	1710	6490	789	1550	469	359	473	376	121	96
26	121	127	1480	3380	746	1260	473	356	461	342	119	94
27	120	125	1370	2510	815	1090	506	334	434	311	117	95
28	118	124	1700	2030	5150	965	771	312	897	287	113	96
29	118	123	3030	1710	---	882	934	296	8130	268	111	114
30	118	122	2160	1670	---	819	1570	283	2170	251	109	109
31	118	---	1520	3360	---	780	---	273	---	238	108	---
TOTAL	4391	3838	33475	113998	51712	81076	21568	50083	18559	37754	4551	2890
MEAN	142	128	1080	3677	1847	2615	719	1616	619	1218	147	96.3
MAX	273	149	6940	17100	5150	8360	1570	13600	8130	7670	223	114
MIN	118	117	118	882	746	780	464	273	200	238	108	87
CFSM	.22	.20	1.69	5.75	2.89	4.09	1.12	2.52	.97	1.90	.23	.15
IN.	.26	.22	1.95	6.63	3.01	4.71	1.25	2.91	1.08	2.19	.26	.17

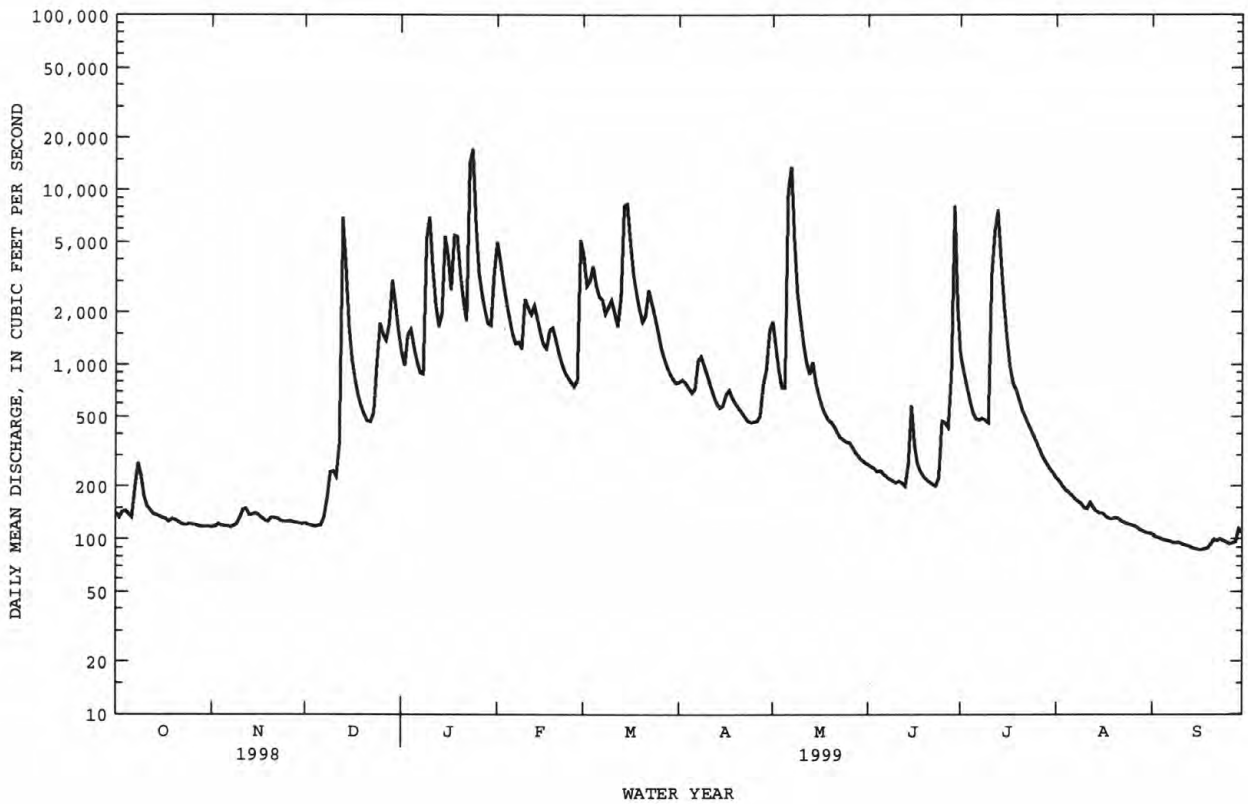
03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	324	784	1610	2145	2387	2525	1781	1085	645	440	317	291
MAX	2345	4286	6783	6262	6564	6279	4412	3825	4216	2091	1439	1204
(WY)	1976	1958	1991	1974	1939	1929	1994	1984	1928	1989	1942	1992
MIN	63.5	69.0	107	126	391	619	462	225	85.9	115	76.2	62.9
(WY)	1932	1932	1940	1940	1941	1988	1986	1941	1988	1944	1925	1925

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1925 - 1999	
ANNUAL TOTAL	506720		423895			
ANNUAL MEAN	1388		1161		1189	
HIGHEST ANNUAL MEAN					2193	1973
LOWEST ANNUAL MEAN					409	1931
HIGHEST DAILY MEAN	27300	Jan 8	17100	Jan 24	64100	Dec 23 1990
LOWEST DAILY MEAN	117	Nov 1	87	Sep 16	a37	Oct 28 1961
ANNUAL SEVEN-DAY MINIMUM	118	Oct 27	88	Sep 13	50	Sep 24 1925
INSTANTANEOUS PEAK FLOW			25500	Jan 23	b75300	Mar 23 1929
INSTANTANEOUS PEAK STAGE			23.04	Jan 23	39.10	Mar 23 1929
INSTANTANEOUS LOW FLOW			c86	Sep 15	35	Sep 21 1930
ANNUAL RUNOFF (CFSM)	2.17		1.81		1.86	
ANNUAL RUNOFF (INCHES)	29.45		24.64		25.24	
10 PERCENT EXCEEDS	3110		2820		2610	
50 PERCENT EXCEEDS	593		469		539	
90 PERCENT EXCEEDS	128		117		112	

a Caused by regulation from highway construction.
b From rating curve extended above 42,000 ft^3/s on basis of slope-area measurement of peak flow.
c Also occurred Sept. 17.



03424730 SMITH FORK AT TEMPERANCE HALL, TN

LOCATION.--Lat 36°05'14", long 85°54'29", Dekalb County, Hydrologic Unit 05130108, on left bank 150 ft downstream from James Slager Memorial bridge on State Highway 264, 0.3 mi northwest of Temperance Hall, and at mile 8.8.

DRAINAGE AREA.--214 mi^2.

PERIOD OF RECORD.--August 1991 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 499.00 ft above sea level.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0700	12,600	20.66	May 6	1030	8,650	16.73
Jan 9	0830	11,500	19.68	Jun 28	2030	4,260	11.24
Jan 23	0930	*19,900	*26.12	Jun 29	0200	4,940	12.20

Minimum discharge, 9.0 ft^3/s, Sept. 8, 9, 10, 11, 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	31	177	1770	882	205	176	87	281	29	14
2	20	24	31	219	1020	573	216	153	87	1360	27	13
3	20	27	30	1200	646	837	202	137	85	528	26	13
4	21	27	29	447	452	812	189	124	82	261	25	13
5	22	27	29	265	327	588	178	143	81	173	24	12
6	22	27	30	207	275	622	189	4350	78	129	23	12
7	25	27	37	179	268	573	206	1130	76	112	23	11
8	50	28	75	212	296	454	189	549	75	89	23	10
9	51	29	152	6050	254	624	185	371	73	77	24	11
10	35	33	86	1190	250	678	174	294	71	253	24	9.7
11	29	46	58	534	240	521	159	243	70	288	23	10
12	26	e45	521	340	396	416	149	217	73	453	23	10
13	24	e41	6590	263	592	1030	139	191	70	249	25	11
14	21	e38	829	538	388	2330	135	172	91	183	28	11
15	21	e35	327	532	314	2230	228	158	172	125	26	11
16	22	e33	217	355	265	1160	361	145	118	95	25	13
17	22	31	174	278	705	782	256	135	95	76	24	12
18	21	30	142	1540	631	564	204	129	83	63	22	12
19	23	29	123	743	440	427	180	127	76	56	22	12
20	23	29	116	423	334	358	169	122	71	51	23	11
21	25	30	107	296	276	331	154	114	68	119	21	12
22	24	32	104	442	237	287	142	107	67	231	20	16
23	23	30	111	11800	216	254	133	103	65	76	20	18
24	23	30	141	1880	210	243	161	112	78	56	20	16
25	22	30	163	879	195	223	153	107	147	50	22	14
26	22	30	175	551	182	205	135	102	142	48	23	13
27	22	31	217	400	254	190	149	97	240	44	20	12
28	24	30	398	316	1800	180	344	94	1740	39	17	12
29	25	29	581	264	---	178	241	90	2160	36	16	14
30	27	29	303	247	---	171	203	87	512	33	15	17
31	25	---	216	736	---	171	---	86	---	31	15	---
TOTAL	780	931	12143	33503	13233	18894	5728	10165	6933	5665	698	375.7
MEAN	25.2	31.0	392	1081	473	609	191	328	231	183	22.5	12.5
MAX	51	46	6590	11800	1800	2330	361	4350	2160	1360	29	18
MIN	20	24	29	177	182	171	133	86	65	31	15	9.7
CFSM	.12	.15	1.83	5.05	2.21	2.85	.89	1.53	1.08	.85	.11	.06
IN.	.14	.16	2.11	5.82	2.30	3.28	1.00	1.77	1.21	.98	.12	.07

e Estimated

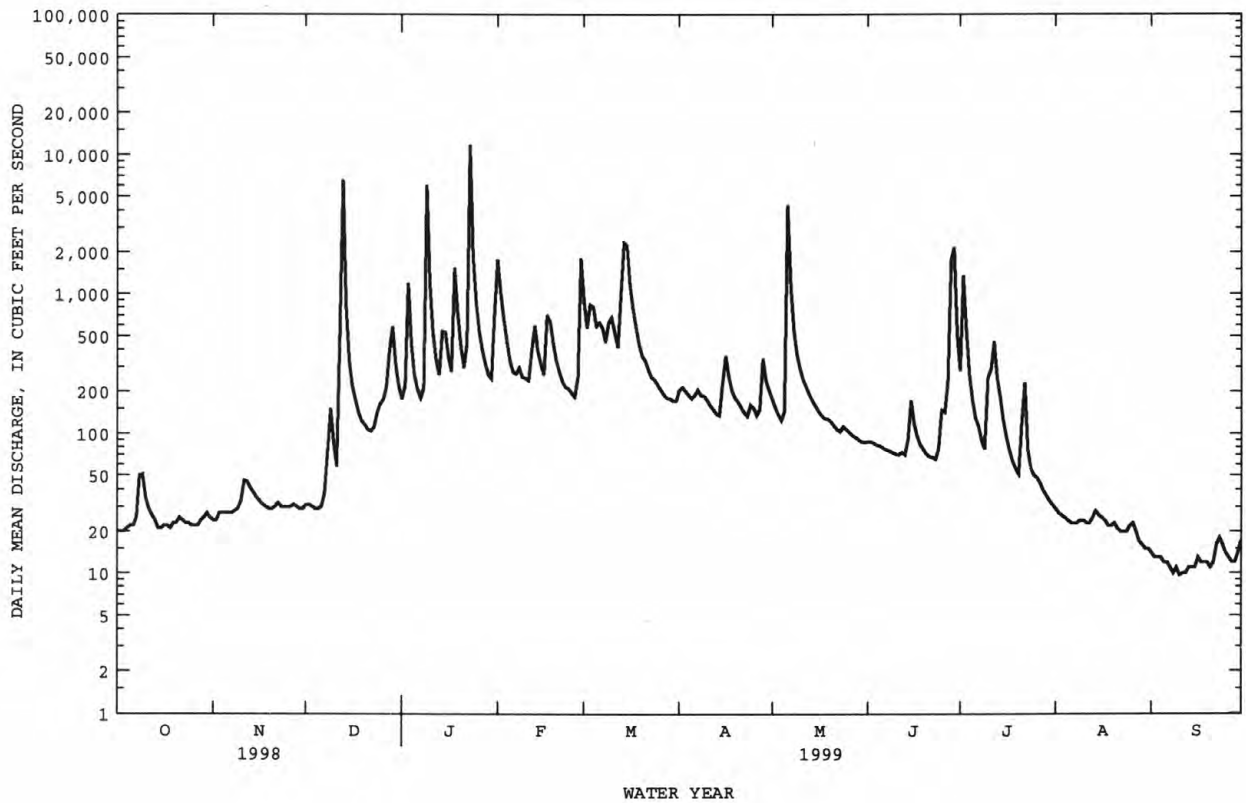
03424730 SMITH FORK AT TEMPERANCE HALL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	96.7	220	486	666	507	768	438	274	274	148	76.5	84.6
MAX	270	559	811	1081	1190	1516	1095	506	768	460	225	389
(WY)	1996	1997	1992	1999	1994	1994	1994	1995	1998	1992	1996	1992
MIN	21.0	31.0	120	463	212	477	158	61.4	52.7	49.5	22.5	12.5
(WY)	1994	1999	1998	1995	1993	1995	1992	1992	1993	1995	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	134383		109048.7			
ANNUAL MEAN	368		299		337	
HIGHEST ANNUAL MEAN					488	1994
LOWEST ANNUAL MEAN					234	1995
HIGHEST DAILY MEAN	6590	Dec 13	11800	Jan 23	11800	Jan 23 1999
LOWEST DAILY MEAN	20	Sep 29	9.7	Sep 10	9.7	Sep 10 1999
ANNUAL SEVEN-DAY MINIMUM	20	Sep 27	10	Sep 7	10	Sep 7 1999
INSTANTANEOUS PEAK FLOW			19900	Jan 23	19900	Jan 23 1999
INSTANTANEOUS PEAK STAGE			26.12	Jan 23	26.12	Jan 23 1999
INSTANTANEOUS LOW FLOW			a9.0	Sep 8	a9.0	Sep 8 1999
ANNUAL RUNOFF (CFSM)	1.72		1.40		1.58	
ANNUAL RUNOFF (INCHES)	23.36		18.96		21.41	
10 PERCENT EXCEEDS	770		576		703	
50 PERCENT EXCEEDS	134		112		128	
90 PERCENT EXCEEDS	23		20		24	

a Also occurred Sept. 9, 10, 11, 12, 13.



03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN

LOCATION.--Lat 36°17'47", long 86°39'28", Davidson County, Hydrologic Unit 05130202, at right bank in powerhouse, at Old Hickory Dam, 2.0 mi west of Hendersonville, and at mile 216.2.

DRAINAGE AREA.--11,673 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to September 1942, October 1947 to current year. Prior to July 1953, published as "at dam 3, near Old Hickory". July 1953 to September 1986 published as "below Old Hickory".

GAGE.--Datum of gage is sea level.

REMARKS.--Flow regulated by six lakes or reservoirs (see p. 116).

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft^3/s, Jan. 29, 1937; maximum gage height, 438.80 ft, Mar. 14, 1975; minimum daily discharge, 86 ft^3/s, Aug. 15, 1936; minimum gage height since filling of Cheatham Lake on Oct. 1, 1956, 383.49 ft, Sept. 10, 1962, at present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 437.4 ft Dec. 31, 1926, at present datum, from profile by U.S. Army Corps of Engineers, discharge, 200,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 86,400 ft^3/s, Jan. 24; minimum daily, 4,780 ft^3/s, June 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6770	6530	5130	11800	36600	33600	18600	10500	5780	24400	11500	9050
2	6780	6290	5080	14700	42100	28000	19500	8420	4780	28300	10700	9590
3	6800	6290	5070	16900	38400	23800	19600	7330	5700	33400	10100	9870
4	6780	6590	5080	20400	36300	34400	14800	6800	8960	30400	11900	8950
5	6820	6820	5120	20000	35500	29400	12800	7050	8400	9120	14500	5740
6	7360	7840	5870	16600	29100	30600	14000	27600	7070	8400	16400	6810
7	9390	7350	6360	12200	28700	22100	15500	33000	6500	7880	15500	6540
8	8500	5780	15200	20600	26500	13600	15600	20000	7340	11800	12100	8680
9	9460	5700	11700	42400	25400	17000	12400	19300	7690	16300	7800	11500
10	8620	6780	14100	54200	21000	15400	10600	12300	8220	13400	8090	12700
11	7090	7620	12300	36900	20700	17100	12200	13900	8270	10300	10600	10000
12	6770	8870	7320	17900	25500	18400	9510	22200	5750	12200	14700	9880
13	8360	9600	27800	17400	31000	19600	9150	19700	5720	11400	16000	9720
14	7600	12400	32100	20000	29000	25000	12200	14700	4980	15400	14700	8680
15	6780	11700	21300	25400	24300	35600	12200	14100	6740	15400	11200	8420
16	5770	10400	12500	25600	24800	37500	12200	16100	10900	14500	10800	9550
17	5800	7050	10600	23800	26400	37400	11600	16300	11000	14400	8680	7660
18	7090	7610	10800	24700	26000	33700	7080	15200	11000	12200	9450	5720
19	5800	8100	10200	27200	28000	28400	8660	15000	7670	12800	10000	6800
20	5780	7040	12700	28700	23700	26900	8050	14400	7910	12400	10800	7350
21	5770	5900	12000	25600	22300	21700	11000	14400	8180	12600	11800	7380
22	5700	5900	10600	22200	22600	20000	11100	12200	8790	15200	9350	8950
23	5710	6730	11300	77900	21600	18000	11100	9490	10900	18100	7850	9250
24	5700	5900	12200	86400	21100	17100	8720	7850	16000	13500	7820	8460
25	5950	8060	13100	53900	20400	20400	7610	8860	18000	12200	16500	8890
26	5720	8080	12300	33200	23100	19200	7020	9670	20500	10000	17900	7960
27	6750	8970	13200	37600	22100	17500	7840	9480	13000	10000	12600	7110
28	7030	6990	12900	32900	31400	16700	10500	5800	11600	12500	10200	6380
29	8050	5170	12600	29800	---	16000	8680	5780	22700	15000	8980	6350
30	8390	5160	14000	25500	---	16400	9220	5750	19500	16100	6790	7560
31	7340	---	10500	32100	---	17700	---	5750	---	12300	8260	---
TOTAL	216230	223220	371030	934500	763600	728200	349040	408930	299550	461900	353570	251500
MEAN	6975	7441	11970	30150	27270	23490	11630	13190	9985	14900	11410	8383
MAX	9460	12400	32100	86400	42100	37500	19600	33000	22700	33400	17900	12700
MIN	5700	5160	5070	11800	20400	13600	7020	5750	4780	7880	6790	5720

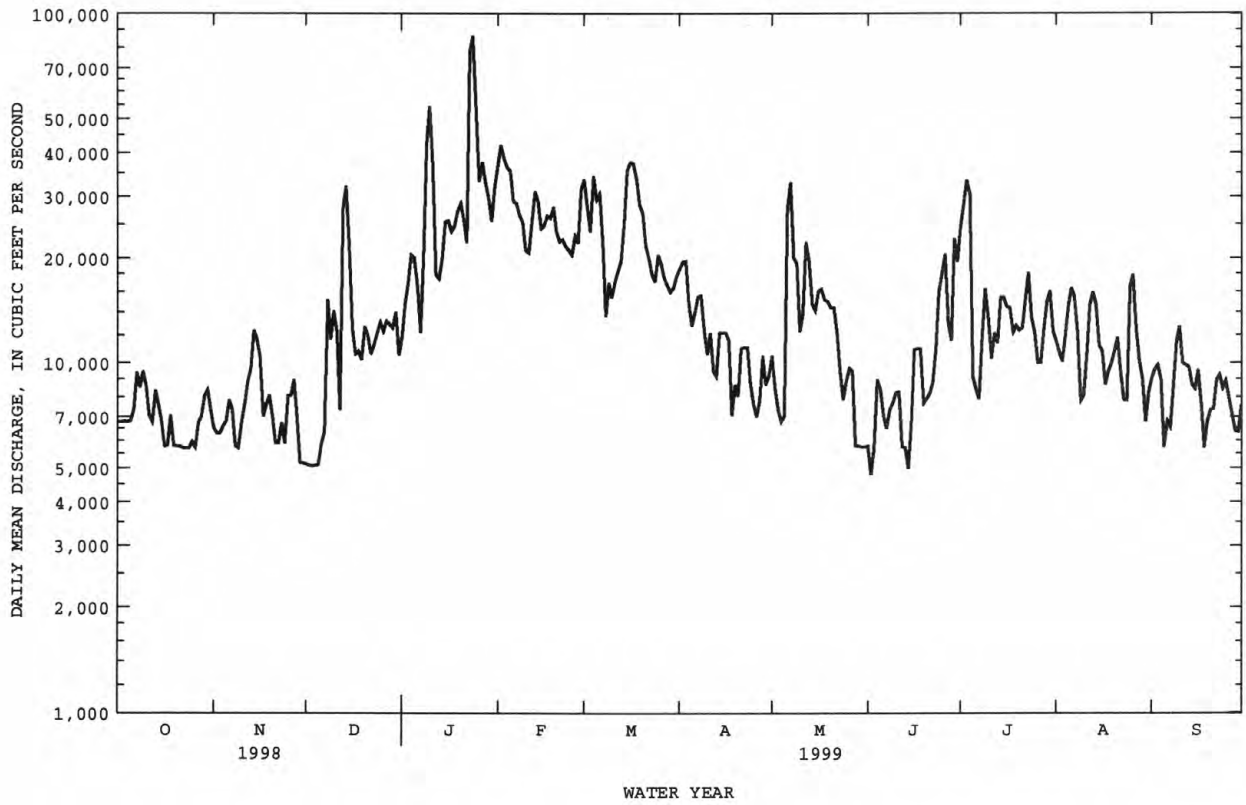
03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9309	12490	22300	29010	27860	31940	28910	20710	16080	12860	12050	9979
MAX	29430	29530	43590	79580	61700	73880	74400	65100	40510	28410	21400	27600
(WY)	1990	1980	1979	1974	1957	1975	1994	1984	1997	1967	1982	1979
MIN	2660	3449	3974	4656	8524	6778	6963	5465	6048	4211	4991	2723
(WY)	1969	1981	1981	1981	1981	1981	1986	1988	1988	1974	1975	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1957 - 1999	
ANNUAL TOTAL	7404230		5361270			
ANNUAL MEAN	20290		14690		19420	
HIGHEST ANNUAL MEAN					28560	1974
LOWEST ANNUAL MEAN					8780	1988
HIGHEST DAILY MEAN	74600	Jun 11	86400	Jan 24	146000	Mar 14 1975
LOWEST DAILY MEAN	5070	Dec 3	4780	Jun 2	200	Nov 3 1957
ANNUAL SEVEN-DAY MINIMUM	5120	Nov 29	5120	Nov 29	1070	Oct 28 1969
10 PERCENT EXCEEDS	46000		28100		41200	
50 PERCENT EXCEEDS	15600		11600		14000	
90 PERCENT EXCEEDS	6760		6290		5390	

* Regulated period only.



03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1979 to current year.
pH: April 1979 to current year.
WATER TEMPERATURE: April 1979 to current year.
DISSOLVED OXYGEN: April 1979 to current year.
TURBIDITY: October 1992 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1979.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Periods of missing record were due to instrument malfunctions. Supersaturation of dissolved oxygen may occur due to local hydraulic conditions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 262 microsiemens, Apr. 15, Dec. 2, 1988; minimum, 137 microsiemens, Mar. 14, 1994.
pH: Maximum, 9.8 units, Mar. 26, 1988; minimum, 6.4 units, July 28, 1991, July 24, 25, 26, 1993.
WATER TEMPERATURE: Maximum, 27.6°C, Aug. 8, 1988; minimum, 2.1°C, Dec. 24, 1989.
DISSOLVED OXYGEN: Maximum, 16.0 mg/L, March 25, 1994; minimum, 2.9 mg/L, Sept. 5, 1988, July 8, 1993.
TURBIDITY: Maximum recorded, 170 NTU, Mar. 5, 1997, minimum, 1 NTU, many days during the 1996 water year; Sept. 20, 1997.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 224 microsiemens, Jan. 10; minimum, 180 microsiemens, Jan. 24, 25.
pH: Maximum, 9.0 units, May 4; minimum, 7.4 units, several days.
WATER TEMPERATURE: Maximum, 26.4, Aug. 6, 16; minimum, 5.6°C, Jan. 6.
DISSOLVED OXYGEN: Maximum, 15.2 mg/L, Jan. 11; minimum, 4.2 mg/L, June 15.
TURBIDITY: Maximum, 38 NTU, Jan. 23, but may have been higher during period of missing record; minimum, 2 NTU, many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	185	182	184	184	183	184	191	189	190	205	204	204
2	186	184	185	184	183	183	192	190	191	206	203	204
3	186	184	185	184	182	183	191	190	191	205	204	205
4	186	184	185	184	183	183	191	190	191	207	204	205
5	185	183	184	185	183	183	192	190	191	209	205	208
6	186	184	185	185	183	184	193	191	192	211	208	209
7	185	184	185	184	183	183	191	190	191	214	211	212
8	185	184	184	184	182	183	191	190	190	213	210	212
9	185	183	184	183	182	182	191	189	190	220	211	214
10	184	183	184	184	182	183	191	190	190	224	220	222
11	184	183	183	184	183	184	191	190	191	220	214	217
12	184	183	183	185	183	184	191	190	190	214	212	213
13	184	182	183	184	183	184	191	187	190	212	211	212
14	183	181	182	183	182	183	196	188	190	213	212	212
15	183	181	182	186	182	183	201	196	198	216	213	214
16	182	181	181	186	185	186	202	200	201	221	216	218
17	182	181	182	187	185	186	203	200	202	222	217	221
18	182	181	181	187	185	186	204	202	203	217	206	211
19	183	181	182	186	184	186	207	203	205	206	199	202
20	183	182	183	186	184	185	210	207	208	200	193	196
21	184	182	183	186	184	185	210	208	210	200	193	196
22	184	183	183	186	184	185	210	207	209	204	200	202
23	184	183	184	185	184	185	211	208	210	214	202	209
24	184	183	184	186	184	185	216	211	214	213	180	197
25	185	183	184	187	185	186	216	215	216	185	180	183
26	184	182	183	188	186	187	218	215	216	193	185	187
27	184	183	183	188	186	187	216	213	215	207	192	200
28	185	182	183	188	187	187	214	210	212	209	199	205
29	184	182	183	188	187	188	210	206	208	199	191	195
30	184	183	184	190	188	189	207	206	206	191	187	189
31	184	183	184	---	---	---	207	204	206	187	182	184
MONTH	186	181	183	190	182	185	218	187	200	224	180	205

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	194	182	186	204	201	202	200	198	199	201	199	201
2	207	194	202	205	202	203	200	198	199	203	201	202
3	213	207	211	206	205	205	198	196	197	205	203	204
4	216	213	214	212	205	207	197	194	195	206	204	205
5	217	215	216	216	212	215	195	193	194	207	205	206
6	216	212	215	218	215	216	195	193	194	208	203	206
7	212	207	209	217	216	217	195	194	194	211	207	209
8	207	204	206	218	216	217	196	193	194	209	207	208
9	205	201	203	218	216	217	196	193	194	208	206	207
10	202	200	200	218	216	217	196	194	195	209	206	208
11	201	199	200	218	216	216	196	194	195	210	209	210
12	201	199	200	217	216	217	196	194	195	210	209	209
13	203	200	202	217	215	216	196	195	195	216	209	213
14	209	203	205	215	215	215	196	194	195	218	215	216
15	211	209	210	215	210	212	197	195	196	215	210	213
16	214	210	212	213	209	211	197	196	197	212	207	210
17	214	212	214	214	212	213	198	196	197	207	204	206
18	215	213	214	223	213	220	198	196	198	204	200	201
19	213	208	211	220	214	217	198	197	198	202	199	201
20	211	208	209	214	210	212	198	196	197	201	199	200
21	212	208	210	210	205	208	197	194	195	200	198	199
22	211	209	210	207	201	204	196	194	195	199	195	197
23	213	210	211	203	199	200	198	194	196	197	194	195
24	213	210	211	199	196	198	198	196	197	195	192	193
25	211	207	210	197	193	195	197	195	196	196	192	195
26	208	206	207	194	192	193	197	195	196	195	193	194
27	207	203	205	195	193	194	198	196	197	195	194	195
28	205	203	204	195	193	194	198	196	198	195	192	193
29	---	---	---	196	195	195	201	198	199	195	193	194
30	---	---	---	197	195	196	201	199	200	198	195	196
31	---	---	---	199	197	197	---	---	---	198	195	197
MONTH	217	182	207	223	192	208	201	193	196	218	192	203

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	198	196	197	192	188	190	196	194	195	199	198	199
2	197	195	196	191	188	190	197	195	196	199	198	198
3	197	194	195	194	189	192	198	192	196	198	196	197
4	198	195	197	202	192	197	192	188	191	198	196	197
5	199	196	198	202	196	200	192	190	191	198	197	197
6	200	198	199	197	189	193	193	187	190	198	197	197
7	201	199	200	191	187	189	191	189	190	199	197	198
8	202	200	201	194	191	193	192	190	191	199	197	198
9	202	201	201	196	191	194	192	190	191	198	196	197
10	202	200	201	205	196	202	192	187	190	197	195	196
11	202	199	201	207	204	206	189	187	188	196	195	195
12	201	199	200	209	206	208	190	188	189	196	194	195
13	201	199	200	211	207	209	196	188	191	196	194	195
14	204	200	202	211	205	208	195	189	192	196	194	195
15	204	202	204	209	207	208	196	188	191	196	195	195
16	204	202	203	212	207	209	193	189	191	196	195	195
17	205	202	204	213	208	210	194	191	192	195	194	194
18	205	202	203	213	207	210	196	191	193	195	193	194
19	206	203	205	217	208	213	197	192	194	195	193	194
20	206	203	205	223	212	218	196	191	193	195	193	194
21	204	203	204	218	213	215	193	188	191	194	192	193
22	204	201	203	219	211	215	195	189	191	193	192	193
23	202	196	199	215	208	212	194	189	192	193	191	192
24	201	198	200	217	209	212	194	188	190	193	191	192
25	202	198	200	213	207	210	193	189	191	193	191	192
26	198	197	198	212	206	208	195	193	193	193	192	193
27	199	197	198	209	196	204	196	194	195	194	193	194
28	197	193	195	196	193	194	197	195	196	195	194	194
29	193	189	191	196	193	195	198	196	197	195	194	194
30	192	187	190	196	193	194	199	198	198	195	194	194
31	---	---	---	197	193	195	199	198	199	---	---	---
MONTH	206	187	200	223	187	203	199	187	193	199	191	195

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.6	8.3	7.8	7.8	7.6	7.8	7.7	7.7	7.7	8.2	8.1
2	8.3	7.8	8.4	7.9	7.7	7.5	7.8	7.8	7.7	7.7	8.2	8.1
3	8.3	7.8	8.3	7.8	7.8	7.6	7.8	7.8	7.7	7.7	8.3	8.1
4	8.1	7.8	7.9	7.7	7.8	7.7	7.9	7.8	7.8	7.7	8.2	8.1
5	8.8	7.8	7.8	7.7	7.8	7.7	7.9	7.8	7.8	7.8	8.2	8.1
6	8.6	7.8	7.8	7.8	7.8	7.6	7.9	7.8	7.8	7.7	8.2	8.1
7	8.3	7.8	8.0	7.8	7.7	7.6	8.0	7.8	7.8	7.7	8.2	8.1
8	7.9	7.7	7.9	7.8	7.6	7.6	8.0	7.9	7.8	7.8	8.2	8.1
9	8.0	7.8	7.8	7.8	7.7	7.6	8.0	7.9	7.9	7.8	8.2	8.2
10	8.2	7.9	7.8	7.8	7.6	7.6	7.9	7.9	7.8	7.8	8.3	8.1
11	8.1	7.9	7.8	7.8	7.6	7.5	7.9	7.8	7.8	7.8	8.3	8.1
12	8.1	7.8	7.9	7.7	7.6	7.5	7.8	7.8	7.9	7.8	8.3	8.1
13	8.0	7.7	7.8	7.7	7.6	7.6	7.8	7.8	8.0	7.9	8.1	8.1
14	8.2	7.7	7.8	7.7	7.6	7.6	7.8	7.8	8.0	7.9	8.1	8.0
15	8.5	8.0	7.8	7.7	7.6	7.6	7.8	7.8	7.9	7.9	8.1	8.0
16	8.3	7.9	7.8	7.7	7.6	7.6	7.9	7.8	7.9	7.8	8.0	7.9
17	8.5	8.1	7.8	7.6	7.6	7.6	7.9	7.8	7.9	7.8	8.0	7.8
18	8.3	8.1	7.8	7.6	7.6	7.6	7.8	7.8	8.0	7.8	7.9	7.8
19	8.1	7.8	7.8	7.7	7.6	7.6	7.8	7.8	8.0	8.0	8.1	7.9
20	7.9	7.8	7.7	7.6	7.6	7.5	7.8	7.7	8.1	8.0	8.1	8.0
21	8.0	7.9	7.7	7.6	7.6	7.5	7.8	7.7	8.1	8.0	8.2	8.0
22	8.1	7.9	7.8	7.7	7.6	7.5	7.8	7.8	8.1	8.0	8.3	8.1
23	8.3	8.0	7.9	7.7	7.6	7.6	8.0	7.8	8.1	8.0	8.2	8.1
24	8.2	8.0	7.8	7.7	7.6	7.6	7.9	7.6	8.1	8.0	8.3	8.1
25	8.1	8.0	7.9	7.8	7.7	7.6	7.6	7.6	8.1	8.0	8.3	8.1
26	8.3	8.0	7.8	7.7	7.7	7.6	7.7	7.6	8.1	8.0	8.4	8.2
27	8.3	8.1	7.9	7.7	7.7	7.7	7.7	7.6	8.1	8.0	8.5	8.3
28	8.3	8.0	7.9	7.8	7.7	7.6	7.7	7.6	8.1	8.0	8.5	8.3
29	8.3	7.9	7.9	7.8	7.7	7.6	7.6	7.6	---	---	8.5	8.3
30	8.2	7.8	8.0	7.8	7.7	7.6	7.7	7.6	---	---	8.6	8.5
31	8.0	7.7	---	---	7.7	7.6	7.7	7.7	---	---	8.5	8.4
MONTH	8.8	7.6	8.4	7.6	7.8	7.5	8.0	7.6	8.1	7.7	8.6	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.6	8.3	8.9	8.6	8.2	7.8	8.5	8.0	7.8	7.5	8.5	8.1
2	8.6	8.5	8.9	8.7	7.9	7.6	8.5	7.8	7.8	7.5	8.5	7.9
3	8.6	8.5	8.7	8.5	7.8	7.6	8.3	8.0	7.8	7.5	8.4	7.9
4	8.6	8.4	9.0	8.2	8.0	7.6	8.2	7.9	8.1	7.6	8.1	7.8
5	8.7	8.4	8.9	8.5	8.1	7.6	8.2	7.7	7.9	7.6	8.0	7.8
6	8.6	8.3	8.6	8.1	8.0	7.7	7.8	7.6	8.5	7.7	8.0	7.8
7	8.6	8.3	8.3	8.1	7.8	7.6	7.6	7.5	8.3	7.7	8.2	7.8
8	8.6	8.4	8.3	8.1	7.8	7.5	8.2	7.6	8.0	7.7	8.2	7.8
9	8.6	8.1	8.3	8.1	7.8	7.5	7.9	7.7	7.8	7.6	8.0	7.7
10	8.5	8.1	8.3	8.0	7.8	7.5	7.8	7.6	7.8	7.6	8.4	7.9
11	8.4	8.1	8.4	7.9	8.0	7.7	7.9	7.7	7.9	7.6	8.5	7.9
12	8.2	8.0	8.5	7.9	8.0	7.7	8.0	7.9	8.2	7.6	8.8	7.9
13	8.5	8.1	8.2	7.7	7.9	7.7	8.5	7.9	8.2	7.6	8.1	7.8
14	8.6	8.4	8.0	7.7	7.7	7.4	8.6	7.9	8.0	7.6	8.1	7.8
15	8.5	8.4	8.4	7.9	7.6	7.4	8.3	7.8	8.4	7.7	8.2	7.8
16	8.5	8.3	8.6	8.1	7.8	7.6	8.3	7.8	8.4	7.9	8.7	8.2
17	8.3	8.1	8.4	8.0	8.0	7.6	8.1	7.8	8.0	7.8	8.7	8.4
18	8.4	8.2	8.1	7.8	8.4	7.9	7.9	7.8	7.9	7.6	8.6	8.3
19	8.5	8.3	8.1	7.9	8.4	7.9	7.8	7.7	8.1	7.6	8.7	8.1
20	8.5	8.4	8.4	8.0	8.1	7.8	7.8	7.6	7.8	7.5	8.2	7.8
21	8.8	8.4	8.4	8.1	8.0	7.8	7.8	7.6	8.3	7.6	8.0	7.7
22	8.7	8.4	8.2	7.7	8.3	7.7	7.9	7.6	8.3	7.7	8.4	7.9
23	8.5	8.0	8.2	7.7	8.4	7.6	8.1	7.7	8.1	7.7	8.6	8.1
24	8.4	7.9	7.8	7.6	8.1	7.6	7.8	7.7	8.1	7.7	8.6	7.9
25	8.8	8.4	7.8	7.6	8.0	7.6	7.8	7.7	8.1	7.6	8.4	7.8
26	8.8	8.6	7.9	7.7	8.4	7.8	7.7	7.6	8.2	7.8	8.4	7.8
27	8.9	8.3	8.2	7.7	8.2	7.8	7.7	7.4	8.5	7.8	8.2	7.9
28	8.8	8.3	8.0	7.9	8.4	7.7	7.7	7.4	8.4	7.8	8.2	7.7
29	8.7	8.1	8.0	7.9	7.9	7.8	7.7	7.4	8.4	7.9	7.9	7.4
30	8.8	8.5	8.4	7.9	8.1	7.9	7.9	7.6	8.3	7.8	7.9	7.5
31	---	---	8.5	7.8	---	---	7.8	7.5	8.6	8.2	---	---
MONTH	8.9	7.9	9.0	7.6	8.4	7.4	8.6	7.4	8.6	7.5	8.8	7.4

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.1	23.5	23.7	18.8	18.3	18.6	14.0	13.8	13.9	8.0	7.3	7.7
2	24.5	24.0	24.2	18.9	18.6	18.7	13.9	13.7	13.8	7.5	7.2	7.4
3	24.3	23.7	24.1	18.8	18.4	18.7	14.0	13.8	13.9	7.2	6.6	6.9
4	24.0	23.5	23.7	18.4	17.5	18.0	14.3	13.9	14.1	6.6	6.0	6.3
5	24.7	23.7	24.2	17.5	16.7	17.1	14.5	14.3	14.4	6.1	5.8	6.0
6	24.5	23.8	24.2	16.7	16.0	16.3	14.9	14.4	14.6	5.8	5.6	5.7
7	24.4	23.3	24.0	16.0	15.7	15.8	14.9	14.5	14.8	5.9	5.7	5.8
8	23.3	22.7	23.0	15.7	15.4	15.5	14.6	14.2	14.4	6.2	5.8	5.9
9	22.7	22.2	22.4	15.4	15.2	15.2	14.2	13.8	14.0	6.4	6.1	6.2
10	22.3	22.0	22.1	15.4	15.1	15.3	13.8	13.3	13.6	6.3	5.8	6.0
11	22.1	21.7	21.9	15.1	14.7	14.9	13.3	13.0	13.1	6.8	6.3	6.6
12	21.8	21.5	21.7	14.7	14.5	14.6	13.0	12.7	12.9	7.0	6.7	6.8
13	21.6	21.2	21.4	14.5	14.3	14.4	12.8	12.4	12.6	7.2	6.9	7.1
14	21.5	21.1	21.3	14.6	14.4	14.5	12.4	12.3	12.4	7.1	6.8	6.9
15	21.5	21.2	21.3	14.7	14.5	14.6	12.3	11.9	12.1	6.8	6.7	6.7
16	21.3	21.0	21.2	14.8	14.5	14.6	11.9	11.6	11.7	7.0	6.7	6.8
17	21.3	21.1	21.2	14.7	14.5	14.6	11.6	11.1	11.4	7.5	6.9	7.1
18	21.2	20.8	21.0	14.7	14.4	14.6	11.1	10.7	10.9	8.1	7.5	7.9
19	20.8	20.4	20.6	14.7	14.6	14.6	10.8	10.5	10.6	8.3	8.1	8.2
20	20.4	20.0	20.2	14.7	14.1	14.4	10.9	10.7	10.8	8.4	8.1	8.3
21	20.1	19.8	19.9	14.1	13.8	13.9	11.1	10.8	10.9	8.9	8.3	8.6
22	19.9	19.1	19.5	13.8	13.6	13.7	11.1	10.0	10.5	9.9	8.9	9.4
23	19.1	18.8	18.9	13.9	13.6	13.7	10.0	9.1	9.6	10.8	9.9	10.5
24	18.8	18.5	18.6	14.0	13.8	13.9	9.3	8.6	9.0	11.5	10.8	11.1
25	18.5	18.3	18.5	13.9	13.8	13.8	8.6	8.2	8.4	11.5	11.2	11.3
26	18.5	18.2	18.3	13.8	13.7	13.8	8.4	8.1	8.2	11.3	11.1	11.2
27	18.5	18.2	18.3	13.8	13.5	13.7	8.1	7.9	7.9	11.6	11.2	11.4
28	18.4	18.1	18.3	13.7	13.6	13.6	8.2	7.9	8.0	11.8	11.5	11.6
29	18.6	18.1	18.4	13.9	13.7	13.8	8.4	8.2	8.3	11.6	11.2	11.4
30	18.5	18.3	18.4	14.0	13.8	13.9	8.4	7.8	8.1	11.2	11.0	11.1
31	18.6	18.3	18.4	---	---	---	8.0	7.8	7.8	11.0	10.8	10.9
MONTH	24.7	18.1	21.1	18.9	13.5	15.1	14.9	7.8	11.5	11.8	5.6	8.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.8	10.4	10.7	9.3	9.1	9.2	12.2	11.8	12.0	18.4	17.7	18.1
2	10.4	9.9	10.2	9.5	9.0	9.3	12.7	11.9	12.3	18.8	18.2	18.5
3	10.0	9.7	9.8	9.4	9.0	9.1	13.1	12.5	12.8	18.9	18.1	18.5
4	10.1	9.8	9.9	9.3	8.9	9.1	13.4	12.9	13.1	20.0	18.3	19.0
5	10.0	9.8	9.9	9.1	8.9	9.0	14.3	13.1	13.6	19.9	19.2	19.6
6	10.0	9.8	9.9	9.2	9.0	9.1	14.3	13.8	14.0	19.8	18.8	19.3
7	10.4	9.9	10.2	9.1	8.8	9.0	14.9	13.7	14.3	19.5	18.7	19.2
8	10.7	10.3	10.5	8.9	8.4	8.6	15.8	14.5	14.9	19.5	19.1	19.3
9	10.7	10.5	10.6	8.4	8.3	8.4	15.9	14.5	15.4	19.8	19.2	19.5
10	11.0	10.5	10.7	8.4	8.1	8.3	16.7	14.6	15.6	20.0	19.3	19.7
11	11.4	10.9	11.1	8.4	8.0	8.2	16.7	15.9	16.2	20.5	19.7	20.0
12	11.4	10.9	11.1	8.4	8.0	8.3	16.5	15.8	16.2	20.9	19.8	20.4
13	11.1	10.2	10.6	8.4	8.1	8.2	16.9	16.4	16.6	20.5	19.7	19.9
14	10.2	9.8	10.0	8.2	8.1	8.1	16.9	16.6	16.7	19.8	19.4	19.5
15	10.1	9.7	9.9	8.2	7.9	8.1	16.7	16.5	16.6	20.0	19.3	19.6
16	10.2	9.8	10.0	8.8	8.2	8.4	16.5	15.7	16.0	20.6	19.5	20.0
17	10.2	9.9	10.0	9.2	8.5	8.9	15.7	15.2	15.3	20.1	19.2	19.7
18	9.9	9.6	9.7	9.7	9.1	9.4	15.2	15.0	15.1	19.4	18.8	19.0
19	9.7	9.4	9.5	10.3	9.6	9.9	15.2	15.0	15.1	19.7	18.9	19.3
20	9.5	9.2	9.4	10.2	9.9	10.0	15.6	15.1	15.3	20.3	19.4	19.8
21	9.5	9.1	9.3	10.5	10.0	10.2	16.6	15.3	15.9	20.5	19.9	20.2
22	9.1	8.6	8.9	10.8	10.2	10.5	16.4	15.9	16.2	20.1	19.3	19.7
23	8.9	8.3	8.6	10.9	10.7	10.8	16.6	15.9	16.4	20.7	19.3	20.0
24	8.4	8.1	8.3	10.9	10.7	10.8	16.8	15.7	16.3	20.0	19.2	19.5
25	8.5	8.1	8.2	11.0	10.6	10.8	17.4	16.8	17.1	20.3	19.5	20.0
26	8.7	8.3	8.5	10.9	10.6	10.8	17.6	17.2	17.4	20.3	19.9	20.0
27	9.1	8.6	8.8	11.2	10.6	10.9	17.9	16.9	17.4	20.9	19.9	20.4
28	9.2	9.0	9.1	11.1	10.9	11.0	17.8	17.0	17.4	20.7	20.3	20.5
29	---	---	---	11.5	11.0	11.2	17.7	17.0	17.4	20.7	20.3	20.5
30	---	---	---	11.9	11.4	11.7	18.1	17.5	17.7	22.1	20.7	21.3
31	---	---	---	11.9	11.8	11.9	---	---	---	22.6	20.5	21.5
MONTH	11.4	8.1	9.8	11.9	7.9	9.6	18.1	11.8	15.5	22.6	17.7	19.7

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.2	20.8	21.4	24.6	23.6	24.2	25.1	23.8	24.4	25.2	24.4	24.7
2	21.5	20.4	21.1	24.2	23.4	23.9	25.5	24.0	24.8	25.0	24.0	24.4
3	21.6	20.3	20.9	24.3	23.8	24.0	25.5	24.5	25.0	24.9	23.8	24.3
4	22.6	20.9	21.8	24.3	23.8	24.1	25.6	24.2	24.8	24.6	23.8	24.2
5	23.5	21.6	22.4	24.3	23.0	23.5	25.6	24.2	24.8	24.4	23.7	24.0
6	23.2	22.2	22.8	23.4	22.7	23.1	26.4	24.6	25.4	24.3	23.6	23.9
7	22.8	22.1	22.4	23.0	22.5	22.8	26.1	24.3	25.2	24.8	23.7	24.1
8	23.5	22.1	22.6	24.5	22.6	23.7	25.1	24.2	24.6	25.0	23.9	24.5
9	24.1	22.2	22.9	24.6	23.5	24.1	24.4	23.6	24.0	24.8	23.9	24.4
10	24.4	22.7	23.3	24.0	22.9	23.3	24.5	23.7	24.1	25.1	24.4	24.7
11	24.8	23.0	23.8	24.1	23.2	23.7	24.8	23.5	24.0	24.9	24.2	24.6
12	24.9	23.9	24.4	24.4	24.0	24.1	25.9	23.5	24.6	25.3	24.2	24.6
13	24.9	23.6	24.3	25.0	23.9	24.3	25.6	23.9	24.7	24.6	24.1	24.3
14	24.1	23.3	23.6	24.9	23.8	24.4	25.0	23.5	24.3	24.2	23.8	24.0
15	24.8	23.6	24.2	24.6	22.9	23.8	25.4	24.2	24.7	23.9	23.6	23.7
16	25.2	24.4	24.8	24.8	23.0	23.8	25.4	24.5	25.0	23.7	23.2	23.5
17	25.2	24.5	24.8	24.5	23.5	23.9	24.9	24.4	24.7	23.2	22.7	23.1
18	25.7	25.1	25.4	23.9	23.5	23.7	24.8	24.2	24.4	22.9	22.6	22.7
19	25.4	24.8	25.2	24.4	23.6	23.9	25.1	24.0	24.6	22.9	22.4	22.6
20	25.1	24.6	24.8	24.2	23.2	23.7	24.5	23.5	24.0	22.5	22.0	22.3
21	25.0	24.6	24.7	23.8	22.7	23.3	25.2	23.7	24.4	22.1	21.8	22.0
22	25.5	24.4	24.8	24.5	22.6	23.5	25.1	24.0	24.5	22.1	21.7	21.9
23	25.6	24.3	24.9	25.1	22.9	24.1	24.8	24.0	24.3	21.9	21.5	21.7
24	25.3	23.8	24.7	24.2	23.2	23.6	24.8	24.1	24.4	21.6	21.2	21.4
25	24.5	23.8	24.2	23.8	23.3	23.5	25.3	23.8	24.6	21.6	21.1	21.3
26	24.9	24.2	24.5	23.4	22.9	23.1	25.0	24.4	24.8	21.7	21.1	21.4
27	24.8	24.0	24.4	24.1	22.6	23.2	25.1	23.8	24.4	21.7	21.4	21.5
28	24.8	23.6	24.1	24.4	22.3	23.2	25.0	23.8	24.3	21.9	21.3	21.6
29	24.1	23.3	23.7	24.4	22.5	23.6	24.9	23.8	24.2	21.8	21.0	21.3
30	23.9	23.5	23.7	25.2	23.9	24.6	24.8	23.9	24.4	21.4	20.9	21.1
31	---	---	---	25.3	23.5	24.3	25.1	24.6	24.9	---	---	---
MONTH	25.7	20.3	23.7	25.3	22.3	23.7	26.4	23.5	24.6	25.3	20.9	23.1

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.0	5.0	5.5	9.6	8.2	8.9	9.2	8.8	9.0	11.9	11.6	11.7
2	7.4	6.0	6.7	9.8	8.7	9.2	9.4	8.7	9.1	11.9	11.7	11.8
3	7.3	6.2	7.0	9.2	7.8	8.6	9.6	9.2	9.3	12.1	11.7	11.8
4	7.0	5.8	6.4	8.4	7.8	8.2	9.4	9.1	9.3	11.9	11.7	11.8
5	8.8	6.4	7.3	9.0	8.3	8.6	9.4	9.1	9.2	11.8	11.6	11.7
6	8.5	6.4	7.3	9.2	8.6	8.9	9.3	9.0	9.2	11.6	11.3	11.5
7	7.7	6.9	7.4	9.7	9.1	9.4	9.1	8.5	8.9	11.3	11.1	11.3
8	7.6	6.7	7.1	9.6	9.1	9.2	8.8	8.4	8.6	11.4	11.1	11.3
9	8.5	7.3	7.9	9.3	9.0	9.2	9.1	8.6	8.8	14.4	11.2	12.3
10	9.5	8.2	8.7	9.5	9.2	9.3	9.0	8.7	8.9	14.4	13.6	14.2
11	9.2	8.3	8.7	9.6	9.2	9.4	9.0	8.8	8.9	15.3	11.9	13.0
12	9.3	8.1	8.6	9.7	9.0	9.4	9.2	8.8	9.0	12.2	11.9	12.0
13	8.9	8.0	8.4	9.8	8.8	9.5	9.3	9.1	9.2	12.2	12.0	12.1
14	9.6	8.0	8.8	9.7	9.4	9.5	9.4	9.2	9.3	12.4	12.1	12.2
15	9.3	8.3	8.8	9.5	9.3	9.4	9.5	9.3	9.4	12.4	12.3	12.4
16	9.0	8.1	8.5	9.7	9.2	9.5	9.9	9.3	9.5	12.6	12.4	12.5
17	9.0	8.2	8.5	9.9	9.4	9.6	9.9	9.6	9.8	12.6	12.2	12.4
18	8.3	8.0	8.1	10.1	9.4	9.8	10.4	9.7	10.0	12.2	11.9	12.1
19	8.3	7.9	8.1	9.8	9.6	9.7	10.4	10.2	10.3	12.0	11.9	11.9
20	8.5	8.1	8.3	9.6	9.3	9.4	10.2	9.9	10.1	12.0	11.9	11.9
21	8.9	8.2	8.5	9.7	9.4	9.5	10.3	9.8	10.0	11.9	11.9	11.9
22	9.1	8.5	8.8	10.0	9.6	9.8	10.6	10.1	10.2	12.1	11.9	12.0
23	9.2	8.4	8.9	10.0	9.7	9.8	10.9	10.5	10.7	15.0	11.9	14.1
24	9.0	8.4	8.7	9.8	9.5	9.6	11.1	10.7	10.9	14.2	13.0	13.7
25	8.7	8.4	8.6	9.7	9.3	9.6	11.5	11.1	11.3	13.1	11.1	12.2
26	8.9	8.4	8.7	9.7	9.4	9.6	11.6	11.3	11.4	11.1	11.0	11.1
27	8.8	8.4	8.6	9.7	9.3	9.5	11.8	11.4	11.6	11.0	10.8	11.0
28	8.7	8.1	8.5	9.6	9.3	9.5	11.6	11.3	11.4	10.8	10.6	10.7
29	9.2	7.8	8.6	9.6	9.1	9.4	11.6	11.2	11.5	10.7	10.6	10.7
30	8.9	8.1	8.4	9.5	9.1	9.3	11.9	11.5	11.7	11.0	10.7	10.8
31	8.8	7.7	8.3	---	---	---	11.9	11.6	11.8	11.0	10.8	10.9
MONTH	9.6	5.0	8.1	10.1	7.8	9.3	11.9	8.4	9.9	15.3	10.6	12.0

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.8	10.8	11.1	11.4	11.0	11.2	11.9	11.5	11.7	8.1	7.6	8.0
2	12.8	12.2	12.5	11.4	11.0	11.2	12.3	11.6	11.9	7.6	6.9	7.3
3	12.9	11.2	11.8	11.2	10.8	10.9	12.3	11.9	12.1	7.1	6.8	7.0
4	11.5	11.3	11.4	10.8	10.3	10.6	12.4	11.8	12.1	9.1	6.7	8.0
5	11.5	11.4	11.4	10.8	10.2	10.5	12.6	11.8	12.2	8.4	7.1	7.5
6	11.4	11.4	11.4	10.9	10.2	10.4	12.4	11.5	11.8	8.1	6.9	7.5
7	11.4	11.3	11.3	10.7	10.1	10.4	11.9	11.4	11.6	---	---	---
8	11.4	11.2	11.3	10.9	10.0	10.5	11.7	11.2	11.4	---	---	---
9	11.5	11.1	11.2	10.6	10.0	10.3	11.4	10.4	10.8	---	---	---
10	11.1	11.0	11.0	10.9	9.9	10.3	11.2	10.5	10.8	---	---	---
11	11.0	10.2	10.6	11.9	10.9	11.5	10.9	10.4	10.5	9.5	8.4	8.9
12	10.4	10.2	10.3	12.5	11.8	12.2	10.9	10.5	10.7	9.4	8.1	8.8
13	10.9	10.4	10.6	12.5	12.2	12.4	11.0	10.5	10.7	8.7	7.6	8.1
14	11.0	10.8	10.9	12.4	11.7	12.1	10.7	10.2	10.4	8.8	7.8	8.2
15	11.2	10.8	11.0	---	---	---	10.2	9.8	10.0	9.6	8.2	8.9
16	11.1	10.8	11.0	---	---	---	9.8	9.3	9.5	10.0	8.3	9.1
17	11.1	10.8	11.0	---	---	---	9.6	9.1	9.4	9.0	7.7	8.3
18	11.3	11.0	11.1	---	---	---	9.8	9.3	9.5	8.3	7.6	8.0
19	11.5	11.2	11.3	11.3	10.7	11.0	10.1	9.7	9.8	8.6	7.9	8.3
20	11.7	11.4	11.5	11.6	11.1	11.4	10.1	9.7	9.9	9.2	7.4	8.6
21	11.7	11.4	11.6	11.8	11.4	11.6	10.6	9.6	10.1	9.0	8.5	8.8
22	11.7	11.5	11.6	11.8	11.5	11.7	10.2	9.5	9.9	8.6	7.7	8.1
23	11.7	11.4	11.6	11.7	11.4	11.6	9.6	8.6	9.3	8.5	7.6	8.0
24	11.6	11.4	11.5	11.6	11.4	11.5	9.8	8.5	9.3	7.6	7.2	7.4
25	11.6	11.4	11.5	11.8	11.3	11.6	10.2	9.7	9.9	7.5	7.2	7.3
26	11.7	11.4	11.6	11.9	11.4	11.6	9.8	9.1	9.5	7.6	7.2	7.4
27	11.7	11.3	11.5	12.0	11.5	11.8	9.7	8.4	9.0	8.1	7.2	7.6
28	11.4	11.1	11.3	12.0	11.6	11.8	9.1	8.3	8.7	7.6	7.1	7.4
29	---	---	---	12.1	11.6	11.9	9.3	8.2	8.8	7.2	6.8	7.0
30	---	---	---	12.2	11.9	12.0	9.0	8.1	8.5	7.8	6.9	7.3
31	---	---	---	12.0	11.5	11.8	---	---	---	7.8	6.5	7.1
MONTH	12.9	10.2	11.3	12.5	9.9	11.3	12.6	8.1	10.3	10.0	6.5	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	6.5	6.9	9.1	8.1	8.5	6.6	4.9	5.8	6.8	6.0	6.4
2	6.8	6.0	6.5	9.5	7.7	8.5	6.8	5.6	6.3	6.9	5.8	6.2
3	6.6	5.9	6.2	9.0	8.2	8.6	7.2	5.7	6.5	6.8	5.7	6.3
4	7.2	6.0	6.6	9.2	7.9	8.6	8.0	6.4	7.1	6.6	5.6	6.1
5	7.5	5.9	6.7	9.1	7.4	7.9	7.5	6.5	7.0	6.2	5.5	5.8
6	7.2	6.2	6.9	7.5	6.5	7.2	9.2	6.9	8.1	6.5	5.5	6.0
7	6.6	5.6	6.2	6.5	5.1	5.9	9.0	7.7	8.3	6.8	5.7	6.0
8	6.3	5.2	5.6	7.3	5.2	6.2	8.9	8.0	8.3	6.7	5.7	6.2
9	6.1	4.4	5.5	6.3	5.5	5.9	8.4	7.8	8.1	6.1	5.3	5.7
10	6.3	5.0	5.6	5.7	5.0	5.2	8.3	7.5	7.9	6.9	5.4	6.1
11	6.8	5.3	6.0	5.9	5.3	5.6	8.5	7.4	7.9	7.4	5.8	6.6
12	7.3	6.1	6.6	5.9	5.3	5.5	8.6	6.6	7.4	7.8	6.3	6.8
13	6.6	5.9	6.2	6.8	5.3	5.9	8.5	6.6	7.5	---	---	---
14	6.1	4.3	4.9	7.3	5.7	6.5	7.9	6.0	7.3	---	---	---
15	5.0	4.2	4.5	6.6	5.2	6.1	9.0	6.7	7.8	---	---	---
16	5.7	4.5	5.0	7.3	5.7	6.5	9.0	7.5	8.2	---	---	---
17	6.2	5.1	5.5	6.7	5.9	6.2	8.3	7.2	7.7	---	---	---
18	7.3	6.1	6.5	6.1	5.5	5.8	7.9	6.7	7.3	---	---	---
19	7.7	6.2	6.7	5.8	5.2	5.4	8.9	6.9	7.7	---	---	---
20	7.2	5.8	6.5	5.9	4.7	5.3	7.5	6.4	6.9	---	---	---
21	6.9	6.1	6.4	5.7	5.0	5.4	8.7	6.4	7.5	---	---	---
22	8.0	5.9	6.6	6.1	4.9	5.5	8.8	7.1	7.7	---	---	---
23	8.5	5.8	7.1	6.3	5.0	5.6	8.3	6.9	7.5	---	---	---
24	7.1	6.1	6.7	5.5	5.0	5.2	7.9	6.7	7.4	---	---	---
25	7.2	5.9	6.4	5.3	4.6	5.0	7.4	6.6	6.8	---	---	---
26	8.3	6.9	7.6	5.2	4.6	4.9	---	---	---	---	---	---
27	7.8	7.1	7.5	5.7	4.5	5.1	---	---	---	---	---	---
28	8.7	6.7	7.4	6.4	4.5	5.3	---	---	---	---	---	---
29	7.7	7.2	7.4	6.2	4.4	5.3	---	---	---	---	---	---
30	8.3	7.7	7.9	6.9	5.6	6.2	---	---	---	---	---	---
31	---	---	---	6.5	4.9	5.7	6.8	6.2	6.5	---	---	---
MONTH	8.7	4.2	6.4	9.5	4.4	6.1	9.2	4.9	7.4	7.8	5.3	6.2

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9	6	5	3	5	2	4	2	---	---	7	5
2	11	6	5	2	4	3	4	3	---	---	6	4
3	10	7	5	3	5	3	7	3	---	---	9	5
4	8	5	8	3	6	3	5	3	---	---	12	9
5	8	5	6	3	7	3	4	3	---	---	10	8
6	11	5	6	3	12	4	4	3	---	---	10	7
7	11	6	7	3	7	2	3	3	---	---	11	7
8	9	5	6	4	4	2	4	2	---	---	9	6
9	9	5	6	3	4	2	10	3	---	---	7	5
10	10	5	7	3	4	2	18	8	---	---	8	6
11	9	6	5	2	4	2	26	16	---	---	8	6
12	9	5	5	3	6	2	30	24	9	7	9	6
13	10	5	5	2	5	3	26	23	10	7	9	5
14	11	5	4	3	6	4	28	22	9	7	9	5
15	9	4	5	3	5	4	24	12	9	6	7	5
16	8	4	5	3	5	3	13	9	10	6	9	6
17	8	4	5	2	6	2	11	9	10	7	15	8
18	9	3	4	3	5	2	15	10	9	6	17	10
19	8	6	4	2	4	3	20	14	8	6	11	9
20	9	5	5	2	6	3	25	20	9	6	10	8
21	9	6	4	2	6	5	27	15	8	5	9	7
22	9	6	4	2	8	6	18	14	7	5	9	7
23	9	4	3	2	7	5	38	14	8	5	9	7
24	8	4	4	2	7	4	---	---	7	5	8	7
25	7	3	5	2	6	4	---	---	7	5	9	7
26	10	3	6	2	8	3	---	---	6	4	9	7
27	8	4	6	3	5	2	---	---	7	4	9	7
28	9	3	6	2	4	2	---	---	8	4	9	7
29	6	4	7	2	4	2	---	---	---	---	8	7
30	6	3	4	2	4	2	---	---	---	---	8	6
31	6	3	---	---	4	3	---	---	---	---	9	6
MONTH	11	3	8	2	12	2	38	2	10	4	17	4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7	6	7	5	7	4	11	7	9	5	9	6
2	7	6	8	5	7	3	11	8	8	6	9	6
3	9	5	7	5	7	4	11	8	9	6	9	6
4	7	5	7	4	7	4	12	9	10	5	9	6
5	6	4	8	4	6	3	13	7	11	5	10	5
6	9	4	9	7	5	3	15	11	11	7	9	5
7	6	5	---	---	5	3	19	13	11	6	7	5
8	6	4	---	---	5	3	18	12	10	5	8	6
9	9	5	---	---	5	2	15	11	12	6	10	6
10	9	5	---	---	5	3	13	8	9	6	11	6
11	7	5	7	5	5	2	11	8	9	6	9	6
12	8	5	8	6	5	2	11	7	10	6	9	6
13	8	5	9	7	---	---	10	7	10	6	11	6
14	7	3	8	6	---	---	12	7	10	6	10	6
15	9	6	9	6	7	4	12	8	9	6	10	6
16	10	5	8	6	9	4	12	6	11	6	11	6
17	8	5	9	7	10	5	13	8	10	6	10	6
18	11	5	9	7	9	6	15	7	10	6	11	6
19	7	5	8	6	9	5	10	8	9	5	8	6
20	7	5	7	6	8	6	11	6	9	5	8	5
21	7	5	8	6	9	6	11	7	10	5	8	6
22	8	5	8	6	9	6	13	7	9	6	9	6
23	8	6	8	6	10	5	12	7	10	6	9	6
24	8	5	7	5	12	6	10	7	8	5	8	6
25	8	5	8	5	9	7	9	6	12	6	9	6
26	7	5	8	5	8	7	9	6	12	8	9	6
27	7	4	8	5	10	6	9	6	11	6	9	6
28	7	4	7	4	9	6	9	5	11	7	8	4
29	7	4	6	4	11	7	10	6	11	7	10	5
30	7	4	6	4	10	8	10	6	10	7	9	5
31	---	---	7	4	---	---	10	6	10	6	---	---
MONTH	11	3	9	4	12	2	19	5	12	5	11	4

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03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN

LOCATION.--Lat 36°20'20", long 86°43'04", Davidson County, Hydrologic Unit 05130202, on left bank at downstream end of bridge on U.S. Highway 31W, at mouth of Slater Creek, 400 ft below Lumsley Fork, and 1.2 mi north of Goodlettsville.

DRAINAGE AREA.--27.7 mi^2, includes Slater Creek.

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Data collection platform. Datum of gage is 434.99 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for Aug. 29 to Sept. 30, which are poor. Periodic obsevations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 8	1330	1,280	6.51	May 5	2300	1,550	7.11
Jan 8	2330	2,230	8.46	Jul 1	2330	1,400	6.79
Jan 23	0115	*3,710	*11.43				

Minimum daily discharge, 0.02 ft^3/s, Sept. 9.

REVISIONS.--The peak discharges and annual maximums (*) reported for water 1997 and water year 1998 have been revised as shown in the following table. They supersede figures published in reports for 1997 and 1998.

Water year	Date	Time	Discharges (ft^3/s)	Gage height (ft)
1997	Mar. 2, 1997	0200	*4,654	*13.31
	Mar. 3, 1997	0400	4,040	12.08
1998	June 5, 1998	0400	4,040	12.08
	June 9, 1998	1100	*4,169	*12.34

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

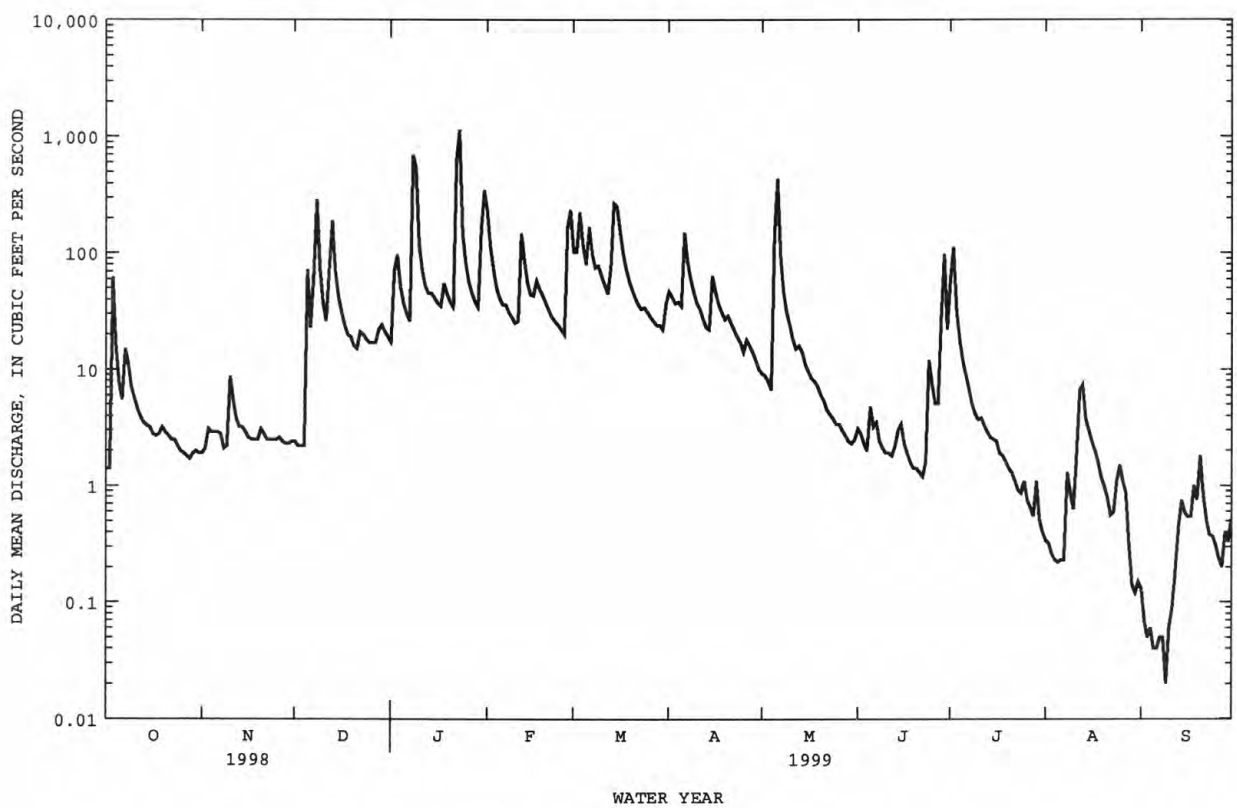
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.9	2.4	17	233	102	47	9.2	3.1	58	.34	.13
2	1.4	2.1	2.2	71	116	102	42	8.8	2.8	112	.32	.07
3	62	3.1	2.2	96	72	225	37	7.9	2.3	31	.26	.05
4	16	2.9	2.2	52	50	113	38	6.7	2.0	18	.23	.06
5	7.6	2.9	72	37	41	80	35	147	4.8	12	.22	.04
6	5.5	2.9	23	30	36	169	150	435	3.2	9.0	.23	.04
7	15	2.8	61	26	36	98	85	86	3.5	6.9	.23	.05
8	11	2.1	286	691	31	75	60	45	2.4	5.1	1.3	.05
9	7.0	2.2	73	533	28	78	46	31	2.1	4.2	.87	.02
10	5.7	8.7	37	118	25	64	37	24	1.9	3.7	.63	.06
11	4.6	5.5	26	71	26	53	33	18	1.9	3.8	1.8	.09
12	3.9	3.8	74	52	147	45	27	15	1.8	3.3	6.6	.18
13	3.5	3.2	189	45	87	75	23	16	2.2	2.9	7.4	.44
14	3.3	3.2	70	45	56	269	22	14	3.0	2.6	3.8	.75
15	3.2	2.9	42	41	44	251	64	11	3.4	2.5	3.0	.59
16	2.8	2.6	31	37	43	155	46	9.6	2.3	2.4	2.4	.54
17	2.7	2.5	24	35	58	99	36	8.4	1.9	1.9	2.0	.54
18	2.8	2.5	20	55	49	72	31	7.9	1.6	1.8	1.6	1.0
19	3.2	2.5	19	45	43	57	27	7.2	1.4	1.6	1.2	.76
20	2.9	3.1	16	38	37	48	29	6.1	1.4	1.4	1.0	1.8
21	2.7	2.8	15	34	32	41	25	5.4	1.3	1.3	.80	.83
22	2.5	2.5	21	633	28	36	22	4.5	1.2	1.1	.56	.51
23	2.5	2.5	20	1140	26	33	19	4.1	1.6	.92	.60	.38
24	2.2	2.5	18	146	24	34	17	3.8	12	.86	1.1	.37
25	2.0	2.5	17	82	22	31	14	3.4	7.7	1.1	1.5	.31
26	1.9	2.6	17	57	20	28	18	3.4	5.1	.75	1.1	.24
27	1.8	2.4	17	45	168	26	16	3.0	5.1	.65	.86	.20
28	1.7	2.3	22	38	235	24	14	2.7	28	.55	.32	.40
29	1.9	2.3	24	34	---	24	12	2.4	98	1.1	.14	.33
30	2.0	2.4	21	164	---	22	10	2.3	22	.51	.12	.51
31	1.9	---	19	348	---	36	---	2.5	---	.40	.15	---
TOTAL	188.6	88.2	1283.0	4856	1813	2565	1082	951.3	231.0	293.34	42.68	11.34
MEAN	6.08	2.94	41.4	157	64.8	82.7	36.1	30.7	7.70	9.46	1.38	.38
MAX	62	8.7	286	1140	235	269	150	435	98	112	7.4	1.8
MIN	1.4	1.9	2.2	17	20	22	10	2.3	1.2	.40	.12	.02
CFSM	.22	.11	1.49	5.66	2.34	2.99	1.30	1.11	.28	.34	.05	.01
IN.	.25	.12	1.72	6.52	2.43	3.44	1.45	1.28	.31	.39	.06	.02

03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.9	35.4	57.1	88.2	77.5	115	67.5	54.5	47.3	8.57	5.16	10.1
MAX	21.7	81.9	123	157	169	251	116	97.3	127	12.7	14.0	52.2
(WY)	1996	1997	1997	1999	1994	1997	1998	1998	1998	1998	1994	1996
MIN	6.01	2.94	15.2	67.2	46.4	44.8	23.2	22.7	7.70	2.58	1.17	.38
(WY)	1998	1999	1996	1996	1995	1998	1995	1997	1999	1995	1993	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	18018.21		13405.46			
ANNUAL MEAN	49.4		36.7		47.0	
HIGHEST ANNUAL MEAN					63.9	1997
LOWEST ANNUAL MEAN					1.99	1993
HIGHEST DAILY MEAN	1230	Jun 5	1140	Jan 23	1890	Mar 2 1997
LOWEST DAILY MEAN	.27	Sep 18	.02	Sep 9	.02	Sep 9 1999
ANNUAL SEVEN-DAY MINIMUM	.32	Sep 12	.04	Sep 3	.04	Sep 3 1999
INSTANTANEOUS PEAK FLOW			3710	Jan 23	12500	Mar 2 1997
INSTANTANEOUS PEAK STAGE			11.43	Jan 23	13.31	Mar 2 1997
INSTANTANEOUS LOW FLOW					.20	Aug 22 1993
ANNUAL RUNOFF (CFSM)	1.78		1.33		1.70	
ANNUAL RUNOFF (INCHES)	24.20		18.00		23.04	
10 PERCENT EXCEEDS	92		79		94	
50 PERCENT EXCEEDS	21		7.2		16	
90 PERCENT EXCEEDS	1.9		.54		1.7	



03426470 DRY CREEK NEAR EDENWOLD, TN

LOCATION.--Lat 36°17'05", long 86°42'24", Davidson County, Hydrologic Unit 05130202, on right wingwall on downstream side of bridge on Gallatin Pike, 0.6 mi southwest of Edenwold, 0.6 mi northeast of Amqui, and at mile 1.2.

DRAINAGE AREA.--7.64 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Data collection platform. Elevation of gage is 430 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,050 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 8	2045	1,460	7.88	Jan 22	2400	1,530	7.94
Jan 22	2045	2,200	8.43	Jun 28	1745	*3,830	*9.30

Minimum discharge, 0.02 ft^3/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

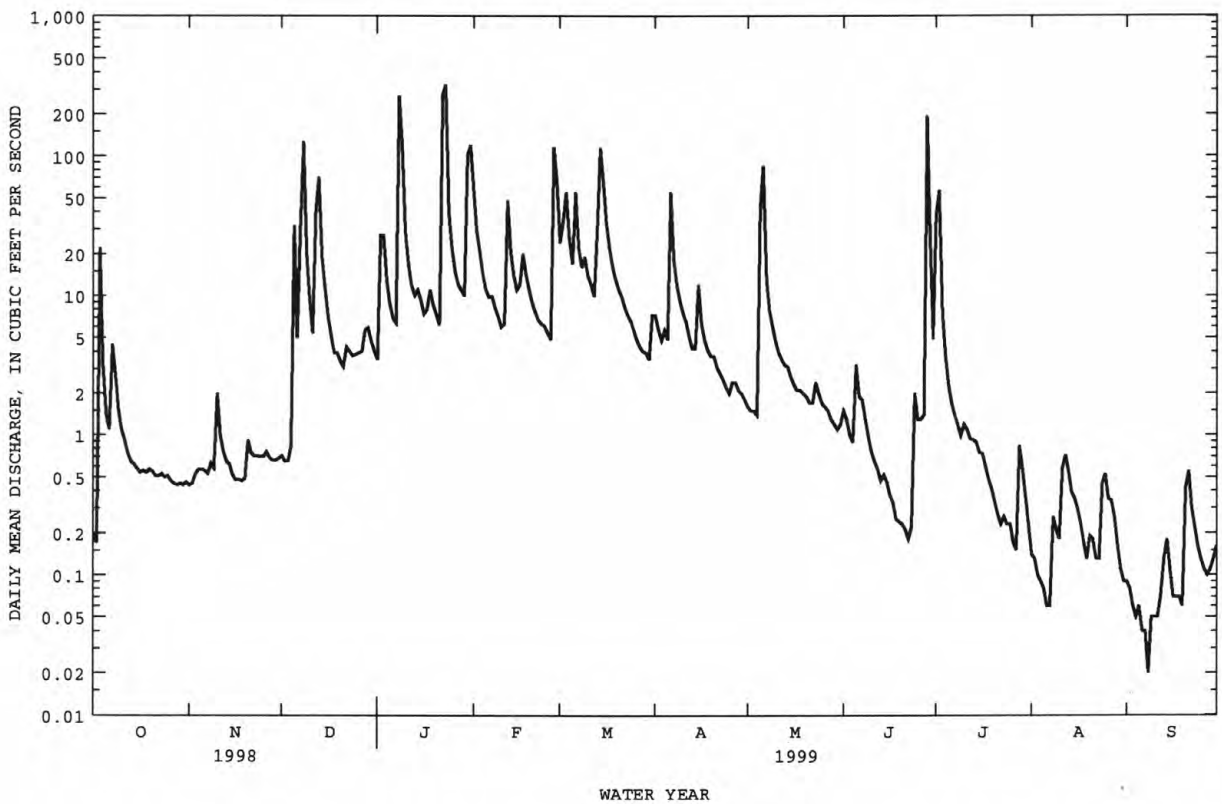
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.44	.71	3.5	57	24	7.3	1.6	1.5	38	.14	.09
2	.17	.45	.65	27	29	34	5.7	1.5	1.3	57	.13	.08
3	22	.53	.65	27	20	55	4.8	1.5	1.0	7.5	.10	.06
4	3.1	.57	.84	13	14	25	5.7	1.4	.89	3.7	.09	.05
5	1.4	.57	32	8.8	11	17	4.9	42	3.2	2.3	.08	.06
6	1.1	.56	5.0	6.9	9.8	55	55	85	1.9	1.7	.06	.04
7	4.5	.53	30	6.4	9.9	22	18	13	1.8	1.4	.06	.04
8	2.7	.63	127	271	8.2	16	12	7.8	1.3	1.2	.26	.02
9	1.5	.58	20	117	7.1	19	9.1	6.0	.98	.99	.21	.05
10	1.1	2.0	9.3	29	6.0	14	7.5	4.7	.76	1.2	.18	.05
11	.92	1.0	5.4	17	6.3	12	6.5	3.9	.65	1.1	.58	.05
12	.74	.76	41	12	48	10	5.1	3.5	.57	.94	.72	.07
13	.65	.65	70	10	21	30	4.2	3.2	.47	.93	.55	.13
14	.62	.62	19	11	14	115	4.2	3.1	.52	.89	.39	.18
15	.58	.52	11	9.3	11	65	12	2.6	.46	.75	.35	.11
16	.54	.48	7.0	7.4	12	33	6.2	2.3	.37	.74	.29	.07
17	.56	.48	5.1	8.0	20	22	4.8	2.1	.33	.60	.23	.07
18	.54	.47	3.9	11	14	16	4.1	2.1	.25	.48	.17	.07
19	.57	.49	3.9	8.6	11	13	3.7	2.0	.24	.41	.13	.06
20	.55	.92	3.4	7.3	8.9	11	3.7	1.9	.23	.33	.19	.42
21	.51	.75	3.1	6.2	7.6	9.8	3.1	1.7	.21	.27	.18	.55
22	.51	.71	4.3	275	6.7	8.2	2.8	1.7	.18	.23	.13	.30
23	.53	.71	4.0	324	6.3	7.2	2.5	2.4	.22	.26	.13	.22
24	.50	.70	3.7	40	6.1	6.6	2.2	2.0	2.0	.23	.45	.16
25	.51	.70	3.8	22	5.4	5.6	2.0	1.7	1.3	.23	.53	.13
26	.47	.76	3.9	15	4.9	4.8	2.4	1.6	1.3	.17	.35	.11
27	.45	.69	4.0	12	116	4.3	2.4	1.5	1.4	.15	.34	.10
28	.44	.66	5.7	11	65	4.0	2.1	1.3	193	.84	.26	.11
29	.45	.66	5.9	10	---	3.9	2.0	1.2	24	.58	.16	.13
30	.44	.68	4.7	102	---	3.5	1.8	1.1	4.9	.37	.11	.16
31	.46	---	4.0	120	---	7.3	---	1.2	---	.23	.09	---
TOTAL	49.30	20.27	442.95	1548.4	556.2	673.2	207.8	208.6	247.23	125.72	7.64	3.74
MEAN	1.59	.68	14.3	49.9	19.9	21.7	6.93	6.73	8.24	4.06	.25	.12
MAX	22	2.0	127	324	116	115	55	85	193	57	.72	.55
MIN	.17	.44	.65	3.5	4.9	3.5	1.8	1.1	.18	.15	.06	.02
CFSM	.21	.09	1.87	6.54	2.60	2.84	.91	.88	1.08	.53	.03	.02
IN.	.24	.10	2.16	7.54	2.71	3.28	1.01	1.02	1.20	.61	.04	.02

03426470 DRY CREEK NEAR EDENWOLD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.65	14.2	19.9	29.6	16.4	30.2	20.8	10.6	29.3	3.19	1.05	1.04
MAX	5.15	30.8	34.2	49.9	19.9	57.0	48.5	20.8	47.3	4.06	1.91	2.58
(WY)	1997	1997	1997	1999	1999	1997	1998	1998	1998	1999	1997	1997
MIN	1.21	.68	11.2	19.0	11.7	11.8	6.93	4.24	8.24	2.10	.25	.12
(WY)	1998	1999	1998	1998	1997	1998	1999	1997	1999	1998	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	5593.71		4091.05			
ANNUAL MEAN	15.3		11.2		14.9	
HIGHEST ANNUAL MEAN					17.6	1997
LOWEST ANNUAL MEAN					11.2	1999
HIGHEST DAILY MEAN	679	Jun 5	324	Jan 23	679	Jun 5 1998
LOWEST DAILY MEAN	.04	Sep 17	.02	Sep 8	.02	Sep 8 1999
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 11	.04	Sep 4	.04	Sep 4 1999
INSTANTANEOUS PEAK FLOW			3830	Jun 28	6360	Jun 5 1998
INSTANTANEOUS PEAK STAGE			9.30	Jun 28	10.21	Jun 5 1998
INSTANTANEOUS LOW FLOW					.03	Sep 17 1998
ANNUAL RUNOFF (CFSM)	2.01		1.47		1.95	
ANNUAL RUNOFF (INCHES)	27.24		19.92		26.47	
10 PERCENT EXCEEDS	27		23		27	
50 PERCENT EXCEEDS	4.0		1.7		4.3	
90 PERCENT EXCEEDS	.35		.16		.31	



03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN

LOCATION.--Lat 35°54'10", long 86°25'48", Rutherford County, Hydrologic Unit 05130203, on left bank at Murfreesboro sewage treatment plant outfall, 3,000 ft downstream from Sinking Creek, 4.5 mi northwest of the courthouse in Murfreesboro, and at mile 10.7.
DRAINAGE AREA.--177 mi^2, includes 17 mi^2 without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1972 to January 1982, January 1986 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 514.95 ft above sea level.

REMARKS.--Records good except Dec. 13 to Feb. 8, which are poor. Flow is affected by Murfreesboro sewage treatment plant outflow. An annual average of 11.6 ft^3/s, with a maximum of 15.5 ft^3/s is discharged to the West Fork Stones River 25 ft above the station. Prior to July 1987 an annual average of 7.7 ft^3/s was discharged. Natural flow of stream affected by transbasin diversion of water from East Fork Stones River basin into the West Fork Stones River basin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1100	12,000	18.32	Jan 23	1500	*26,600	*22.89
Jan 9	1230	7,680	15.43	May 6	1330	7,010	14.77

Minimum discharge, 7.6 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	16	21	421	e1020	769	211	96	44	126	24	14
2	18	16	20	422	e781	558	193	83	38	169	22	15
3	22	15	20	1290	e600	868	176	75	34	182	21	13
4	29	15	22	712	e500	702	172	67	33	145	17	13
5	24	16	22	514	e400	488	155	126	51	106	17	12
6	21	16	22	412	e342	498	160	3780	42	82	17	12
7	e23	16	36	357	e327	461	148	990	34	72	17	12
8	e40	16	86	413	e351	378	135	486	32	70	16	12
9	e32	16	65	4520	270	469	128	340	28	64	16	12
10	e33	28	49	1290	292	486	114	260	23	65	16	12
11	e31	40	62	763	271	399	108	217	24	351	15	12
12	e29	26	371	589	403	355	105	175	27	643	21	12
13	e27	26	6900	495	484	1120	96	151	26	374	19	12
14	e25	24	1280	855	372	2300	71	129	46	244	17	13
15	24	22	771	708	314	1490	119	116	54	185	16	13
16	23	21	600	558	268	855	103	100	48	145	16	12
17	21	20	484	463	418	631	89	87	40	118	15	12
18	20	18	408	1450	427	485	80	97	35	98	17	12
19	26	18	349	827	345	398	73	85	32	87	16	12
20	27	20	216	596	290	349	67	73	30	70	14	14
21	24	25	182	480	248	351	63	67	27	62	14	25
22	22	21	185	569	220	317	59	61	26	62	12	25
23	21	20	209	14100	203	276	57	57	24	55	14	22
24	20	20	277	e2110	196	259	55	53	37	52	16	19
25	20	20	260	e1130	176	235	50	49	66	47	18	16
26	19	21	214	e820	162	215	63	48	50	39	17	14
27	19	19	324	e700	544	197	98	45	88	36	15	16
28	18	20	1150	e550	1810	180	188	40	87	32	14	19
29	17	19	1230	e450	---	180	154	37	206	29	14	41
30	18	20	724	e600	---	182	118	36	180	27	13	41
31	18	---	544	e1400	---	200	---	42	---	25	13	---
TOTAL	730	610	17103	40564	12034	16651	3408	8068	1512	3862	509	489
MEAN	23.5	20.3	552	1309	430	537	114	260	50.4	125	16.4	16.3
MAX	40	40	6900	14100	1810	2300	211	3780	206	643	24	41
MIN	17	15	20	357	162	180	50	36	23	25	12	12

e Estimated

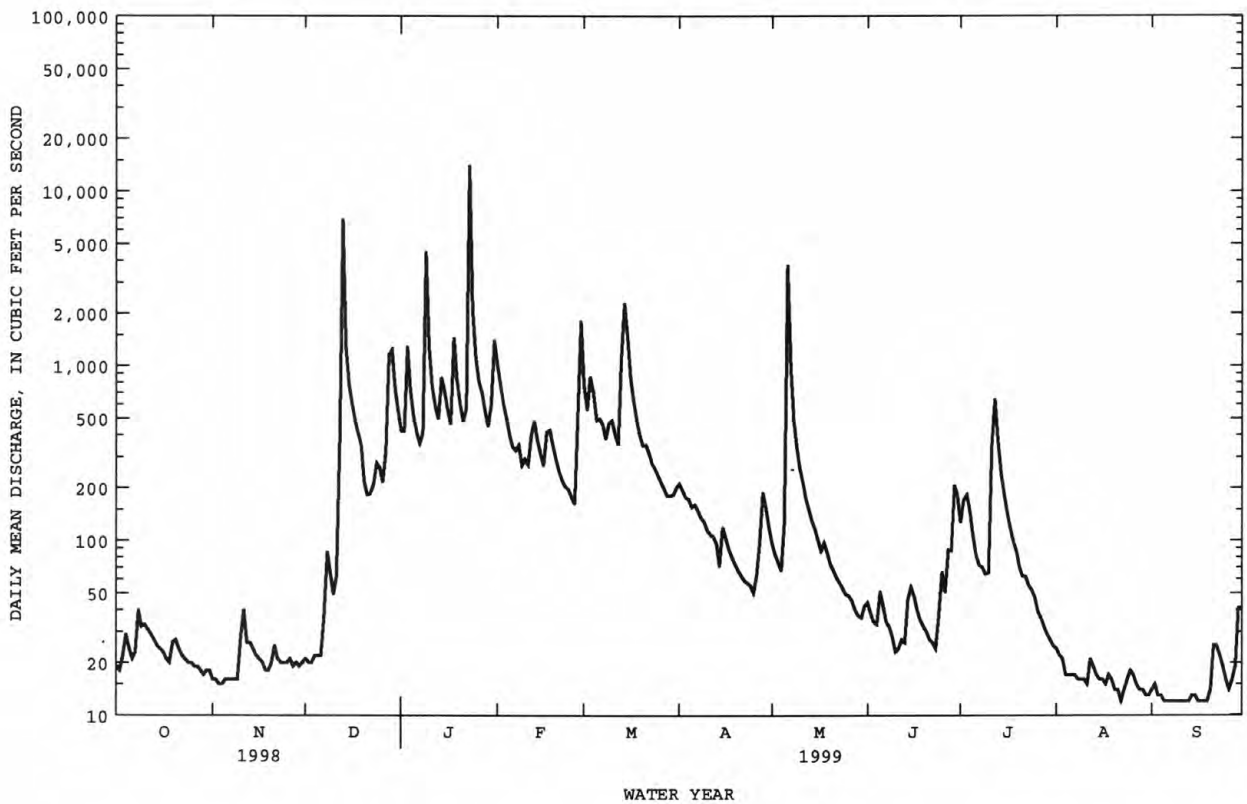
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	150	290	504	599	516	687	331	216	170	101	70.1	141
MAX	894	1035	1259	1453	1156	1773	954	818	765	658	348	880
(WY)	1976	1987	1991	1974	1991	1975	1994	1973	1989	1989	1996	1979
MIN	7.60	10.4	31.6	25.4	133	216	58.4	23.8	11.0	13.9	12.2	11.3
(WY)	1981	1981	1981	1981	1978	1981	1986	1981	1988	1988	1976	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		aWATER YEARS 1972 - 1999	
ANNUAL TOTAL	114907		105540			
ANNUAL MEAN	315		289		319	
HIGHEST ANNUAL MEAN					517	1973
LOWEST ANNUAL MEAN					76.0	1981
HIGHEST DAILY MEAN	6900	Dec 13	14100	Jan 23	21200	Mar 13 1975
LOWEST DAILY MEAN	15	Sep 20	12	Aug 22	4.7	Oct 13 1980
ANNUAL SEVEN-DAY MINIMUM	16	Nov 1	12	Sep 5	5.3	Nov 8 1980
INSTANTANEOUS PEAK FLOW			26600	Jan 23	31000	Mar 13 1975
INSTANTANEOUS PEAK STAGE			22.89	Jan 23	23.80	Mar 13 1975
INSTANTANEOUS LOW FLOW			7.6	Sep 27	2.9	Jul 7 1988
10 PERCENT EXCEEDS	718		600		658	
50 PERCENT EXCEEDS	136		63		112	
90 PERCENT EXCEEDS	20		16		15	

a See REMARKS.



03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

WATER-QUALITY RECORDS

LOCATION.--At bridge on Blanton Drive, 900 ft upstream from Sinking Creek, 0.7 mi upstream from discharge station.

PERIOD OF RECORD.--February 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1986 to current year.
pH: February 1986 to current year.
WATER TEMPERATURE: February 1986 to current year.
DISSOLVED OXYGEN: February 1986 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Periods of missing record were due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 520 microsiemens, Nov. 2, 1993; minimum 63 microsiemens, Dec. 25, 1987.
pH: Maximum, 9.0 units, Mar. 24, 1986; minimum, 5.8 units, June 18, 1992.
WATER TEMPERATURE: Maximum, 33.3°C, July 31, 1999; minimum, 0.2°C, Feb. 3, 4, 5, 6, 1996.
DISSOLVED OXYGEN: Maximum, 18.4 mg/L, Feb. 1, 1998; minimum, 1.6 mg/L, Sept. 12, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 461 microsiemens, Nov. 18, 19; minimum 89 microsiemens, Jan. 23.
pH: Maximum, 8.7 units, Mar. 19, 21, 22; minimum, 7.2 units, Jan. 23.
WATER TEMPERATURE: Maximum, 33.3°C, July 31; minimum, 4.2°C, Jan. 5.
DISSOLVED OXYGEN: Maximum, 17.2 mg/L, Mar. 11, 12; minimum, 1.9 mg/L, Aug. 17.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	391	384	388	437	435	436	435	431	434	410	398	404
2	390	386	388	441	437	439	443	435	439	417	399	410
3	395	377	389	444	441	442	447	443	445	399	291	333
4	407	377	395	447	444	445	446	441	444	357	298	327
5	413	405	410	448	446	447	446	439	443	389	357	374
6	417	389	413	451	447	449	458	446	453	412	389	399
7	421	347	412	452	449	450	458	431	448	417	412	413
8	413	394	407	450	448	449	439	389	413	430	380	419
9	406	400	401	454	445	451	397	385	390	380	156	228
10	404	383	397	458	391	443	418	397	409	329	229	288
11	385	381	383	445	420	438	425	418	423	360	329	347
12	389	382	387	439	430	432	422	278	390	374	360	367
13	393	388	391	435	432	434	301	105	165	387	374	377
14	396	391	394	432	412	418	315	210	272	390	344	364
15	401	396	398	418	412	414	355	315	338	349	343	346
16	405	401	402	421	416	418	375	355	366	372	349	360
17	411	404	407	423	419	421	387	375	381	382	369	377
18	416	411	413	423	420	422	397	387	392	377	243	312
19	419	409	413	426	422	425	401	397	399	331	253	295
20	425	419	423	429	422	426	409	401	405	365	331	350
21	425	415	420	440	427	434	415	409	412	378	365	372
22	418	412	415	440	437	439	416	411	414	380	257	363
23	423	418	420	443	438	440	417	409	414	257	89	137
24	427	421	425	441	437	439	458	---	---	295	195	258
25	429	425	427	441	428	439	461	420	432	325	295	312
26	427	424	426	438	433	436	420	401	409	341	325	333
27	427	425	426	440	436	439	413	408	411	351	341	345
28	429	404	417	442	439	440	413	305	388	356	351	354
29	430	428	430	441	436	439	331	284	299	362	356	358
30	433	430	431	437	431	435	378	331	358	360	338	353
31	436	433	435	---	---	---	398	378	388	338	287	298
MONTH	436	347	409	458	391	436	461	105	392	430	89	341

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	329	296	315	332	263	303	356	344	350	383	372	379
2	351	329	341	353	332	345	364	338	354	394	383	390
3	361	351	355	354	333	350	367	338	354	402	386	394
4	366	361	363	333	308	314	365	338	352	405	391	398
5	369	362	367	354	322	338	367	341	355	395	353	379
6	374	364	369	364	354	358	363	338	351	356	149	211
7	374	363	368	366	356	363	356	336	347	333	237	289
8	370	356	366	366	361	364	356	340	350	364	329	349
9	373	362	368	368	357	362	355	343	349	378	364	372
10	371	359	367	370	363	366	354	345	350	385	377	379
11	377	365	371	369	353	363	352	345	349	387	376	383
12	375	350	360	370	340	361	351	346	349	391	372	384
13	361	356	359	364	212	333	350	341	347	393	368	383
14	370	360	366	261	193	226	350	346	347	395	365	383
15	378	365	372	303	260	281	349	329	341	394	354	376
16	379	364	374	337	302	319	348	337	343	389	353	372
17	375	352	363	358	337	346	366	344	360	381	363	370
18	370	359	366	358	345	354	362	356	359	379	365	374
19	373	360	368	365	345	356	360	353	358	382	371	376
20	375	359	368	362	349	356	363	355	359	386	374	381
21	375	360	369	364	335	353	368	360	365	389	371	379
22	373	351	362	355	330	347	371	363	367	383	370	377
23	373	358	367	355	339	347	375	369	373	381	367	375
24	375	366	372	359	352	356	378	370	375	378	365	372
25	378	355	369	361	335	352	383	373	378	375	367	371
26	381	348	366	362	330	349	377	371	373	375	369	372
27	379	317	356	363	322	345	372	358	366	375	367	372
28	317	234	250	361	325	344	365	358	361	372	364	369
29	---	---	---	358	333	347	371	356	363	367	359	363
30	---	---	---	363	331	348	372	362	368	361	308	353
31	---	---	---	365	342	353	---	---	---	347	341	344
MONTH	381	234	359	370	193	342	383	329	357	405	149	367

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	349	346	348	380	354	372	364	355	359	356	343	350
2	356	345	351	379	345	369	358	351	354	360	347	354
3	348	340	345	371	353	363	357	348	353	366	356	360
4	349	336	343	385	365	374	358	344	351	397	366	388
5	350	332	339	385	372	379	357	343	351	403	376	390
6	357	350	354	381	366	374	354	341	348	390	365	379
7	362	357	359	378	353	372	357	345	351	387	370	377
8	357	348	353	383	367	375	374	355	363	372	328	349
9	348	340	345	381	368	376	367	350	360	346	336	340
10	345	337	342	376	367	373	360	347	353	346	330	340
11	349	341	345	369	263	321	356	335	348	339	325	335
12	348	341	345	350	246	310	363	345	352	348	330	339
13	345	339	341	326	314	320	363	357	360	351	340	344
14	355	335	345	336	300	315	362	349	354	353	345	351
15	371	349	359	355	326	341	358	349	353	354	341	350
16	371	338	353	368	349	359	358	347	352	351	339	347
17	338	322	331	375	357	368	357	348	352	348	339	346
18	323	320	321	379	360	370	357	348	352	352	341	348
19	325	319	321	392	365	378	364	353	358	353	345	350
20	327	324	325	396	357	375	359	355	357	355	340	350
21	335	327	331	370	353	363	357	348	354	384	353	371
22	339	333	335	358	351	355	356	348	353	387	370	376
23	339	333	337	361	353	357	358	329	351	406	387	396
24	342	338	340	371	298	360	351	341	347	412	406	410
25	351	342	348	370	356	365	353	342	348	412	409	411
26	355	346	352	368	361	365	356	349	352	413	406	410
27	353	323	338	367	359	363	355	348	351	413	337	395
28	345	316	331	366	359	363	350	343	347	381	334	358
29	340	272	316	369	362	365	347	338	344	377	252	340
30	361	340	348	369	365	367	348	341	345	391	377	388
31	---	---	---	368	361	365	351	342	347	---	---	---
MONTH	371	272	341	396	246	360	374	329	352	413	252	365

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.9	7.6	7.9	7.8	7.7	7.6	8.2	7.9	7.7	7.6	8.0	7.8
2	7.9	7.7	7.8	7.7	7.8	7.6	8.1	7.9	7.8	7.7	8.3	7.9
3	7.9	7.8	7.8	7.7	7.8	7.7	8.0	7.8	8.0	7.7	8.0	7.9
4	7.8	7.7	7.8	7.7	7.9	7.7	7.9	7.8	8.0	7.8	8.0	7.8
5	7.9	7.8	7.9	7.8	7.8	7.7	8.1	7.9	8.1	7.8	8.1	7.9
6	7.9	7.7	8.0	7.8	7.8	7.7	8.1	7.9	8.1	7.8	8.1	7.9
7	7.8	7.8	7.9	7.9	7.8	7.7	8.2	8.0	8.1	7.8	8.4	7.9
8	7.9	7.7	7.9	7.8	7.7	7.5	8.1	7.9	8.3	7.8	8.3	7.9
9	8.0	7.8	7.8	7.8	7.7	7.5	7.9	7.5	8.4	8.0	8.1	7.9
10	8.2	7.9	7.8	7.7	7.8	7.6	7.8	7.6	8.5	8.0	8.2	7.9
11	8.2	7.8	7.8	7.7	7.8	7.7	7.9	7.7	8.4	8.0	8.5	7.9
12	8.1	7.8	7.8	7.8	7.8	7.7	8.0	7.8	8.3	7.9	8.6	8.1
13	8.1	7.8	7.8	7.7	7.8	7.5	8.0	7.8	8.3	7.9	8.1	7.8
14	8.0	7.9	7.8	7.7	7.7	7.5	7.9	7.8	8.4	7.9	7.8	7.7
15	8.0	7.9	7.8	7.7	7.8	7.7	7.8	7.7	8.4	7.9	7.9	7.8
16	8.0	7.9	7.8	7.7	7.9	7.8	7.9	7.7	8.5	7.9	8.2	7.8
17	7.9	7.8	7.9	7.7	8.0	7.9	7.9	7.7	8.0	7.9	8.4	7.9
18	7.9	7.8	7.9	7.8	8.1	7.9	7.8	7.6	8.3	7.9	8.6	8.0
19	7.9	7.7	7.8	7.7	8.1	8.0	7.7	7.6	8.4	7.9	8.7	8.0
20	7.9	7.7	7.8	7.7	8.1	8.0	7.9	7.7	8.5	7.9	8.6	8.1
21	7.9	7.8	7.9	7.8	8.2	8.0	7.9	7.8	8.4	7.9	8.7	8.0
22	8.0	7.8	8.0	7.9	8.2	8.1	8.0	7.7	8.5	7.9	8.6	8.0
23	8.0	7.8	8.0	7.9	8.2	8.1	7.7	7.2	8.3	7.9	8.4	8.0
24	8.0	7.9	7.9	7.8	8.2	8.1	7.5	7.3	8.3	7.9	8.3	7.9
25	8.0	7.9	7.8	7.7	8.2	8.0	7.6	7.5	8.4	7.9	8.5	7.9
26	8.0	7.9	7.8	7.7	8.1	8.0	7.7	7.6	8.4	7.9	8.5	7.9
27	7.9	7.8	7.8	7.7	8.1	8.0	7.8	7.6	8.1	7.9	8.5	7.9
28	8.0	7.8	7.8	7.7	8.0	7.8	7.8	7.7	7.9	7.7	8.3	7.8
29	8.0	7.9	7.8	7.7	7.8	7.7	7.8	7.7	---	---	8.3	7.8
30	7.9	7.8	7.8	7.7	8.0	7.8	7.8	7.7	---	---	8.3	7.8
31	7.9	7.8	---	---	8.1	7.9	7.7	7.6	---	---	8.1	7.8
MONTH	8.2	7.6	8.0	7.7	8.2	7.5	8.2	7.2	8.5	7.6	8.7	7.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	7.7	8.0	7.8	8.0	7.6	8.0	7.6	8.1	7.8	7.8	7.4
2	8.4	7.8	8.0	7.8	8.1	7.6	8.0	7.6	8.2	7.9	7.7	7.5
3	8.3	7.7	8.0	7.8	8.1	7.7	8.0	7.5	8.4	7.9	7.7	7.5
4	8.2	7.6	8.0	7.8	8.2	7.7	8.0	7.6	8.3	8.0	7.6	7.4
5	8.1	7.6	7.9	7.7	8.2	7.7	8.1	7.6	8.3	8.0	7.7	7.4
6	8.1	7.6	7.8	7.6	8.2	7.6	8.1	7.7	8.3	8.0	7.7	7.4
7	8.1	7.6	7.8	7.6	8.1	7.7	8.2	7.7	8.3	7.9	7.6	7.4
8	7.9	7.5	8.0	7.8	7.9	7.6	8.1	7.7	8.1	7.9	7.7	7.4
9	8.1	7.5	8.1	7.9	7.8	7.5	8.0	7.6	8.2	7.9	7.7	7.4
10	7.9	7.4	8.2	7.9	7.8	7.5	7.9	7.7	8.2	7.9	7.6	7.4
11	7.9	7.4	8.3	7.9	7.8	7.5	7.6	7.3	8.1	7.9	7.7	7.4
12	7.8	7.4	8.4	7.9	8.0	7.6	7.8	7.5	8.0	7.9	7.6	7.4
13	8.0	7.5	8.4	7.9	7.9	7.6	7.8	7.6	8.0	7.8	7.5	7.4
14	7.9	7.6	8.4	7.9	7.7	7.5	7.9	7.6	8.1	7.9	7.6	7.4
15	7.9	7.7	8.4	7.9	7.8	7.5	8.1	7.7	8.2	8.0	7.7	7.5
16	8.1	7.7	8.4	7.9	7.9	7.5	8.2	7.7	8.2	7.9	7.7	7.5
17	8.1	7.8	8.3	7.9	7.9	7.6	8.4	7.8	8.1	7.9	7.7	7.5
18	8.2	7.8	8.1	7.8	7.8	7.6	8.4	7.8	8.0	7.8	7.7	7.5
19	8.1	7.8	8.1	7.8	7.9	7.6	8.3	7.8	8.0	7.7	7.7	7.5
20	8.1	7.8	8.1	7.7	7.8	7.5	8.2	7.7	7.8	7.7	7.6	7.4
21	8.1	7.7	8.2	7.8	7.9	7.5	8.2	7.8	7.9	7.7	7.7	7.6
22	8.0	7.7	8.1	7.8	7.8	7.4	8.1	7.8	7.9	7.6	7.7	7.6
23	7.9	7.6	8.1	7.8	7.7	7.4	8.1	7.7	7.8	7.6	7.8	7.7
24	7.7	7.5	8.1	7.8	7.6	7.4	7.9	7.8	7.8	7.5	7.8	7.7
25	7.7	7.5	8.0	7.8	7.8	7.5	8.0	7.7	7.8	7.5	7.8	7.7
26	7.7	7.5	8.0	7.8	7.7	7.5	8.0	7.7	7.7	7.5	7.8	7.6
27	7.7	7.6	7.9	7.7	7.8	7.4	8.1	7.8	7.7	7.5	7.8	7.6
28	7.9	7.6	7.9	7.7	7.6	7.4	8.1	7.8	7.7	7.4	7.6	7.5
29	7.8	7.8	7.9	7.7	7.6	7.4	8.1	7.8	7.7	7.4	7.6	7.5
30	8.0	7.7	8.1	7.7	7.9	7.4	8.1	7.8	7.7	7.4	8.2	7.5
31	---	---	7.9	7.6	---	---	8.1	7.8	7.7	7.4	---	---
MONTH	8.4	7.4	8.4	7.6	8.2	7.4	8.4	7.3	8.4	7.4	8.2	7.4

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.2	23.8	25.1	17.9	15.5	16.8	14.9	13.2	13.8	7.6	6.7	7.1
2	23.8	21.2	22.7	17.9	16.5	17.3	14.0	11.9	13.0	8.0	7.0	7.6
3	22.8	21.6	22.2	18.1	16.7	17.3	14.8	12.5	13.5	7.8	6.0	7.1
4	24.7	21.8	23.1	16.8	13.9	15.3	15.5	13.5	14.5	6.0	4.9	5.4
5	25.1	23.5	24.2	14.2	12.0	13.2	16.7	15.4	16.1	5.2	4.2	4.6
6	25.5	23.9	24.5	12.0	10.0	11.1	17.5	15.6	16.5	5.1	4.3	4.6
7	24.2	22.1	23.4	10.9	8.8	9.8	17.5	16.9	17.2	6.3	5.1	5.8
8	22.1	20.1	20.8	10.8	9.9	10.4	16.9	14.1	15.4	9.4	6.3	7.7
9	20.1	18.5	19.3	12.5	10.8	11.6	14.1	12.0	12.9	9.7	6.2	8.0
10	19.3	17.3	18.5	14.9	12.5	13.9	12.0	10.4	10.8	6.8	6.0	6.4
11	19.8	17.5	18.7	14.7	12.3	13.2	11.2	10.6	10.9	7.4	6.6	7.0
12	20.3	18.1	19.3	12.3	10.8	11.3	11.0	10.1	10.7	9.2	7.4	8.3
13	20.2	18.6	19.4	12.5	11.0	11.7	11.3	9.5	10.2	11.0	9.2	10.1
14	19.0	17.2	18.2	13.4	12.5	13.0	11.8	11.2	11.5	11.1	9.5	10.6
15	19.0	16.7	17.9	15.2	13.4	14.0	11.4	10.6	10.9	9.5	8.5	8.9
16	20.2	17.3	18.6	14.6	12.5	13.6	11.0	9.8	10.4	9.6	8.1	8.8
17	20.6	18.2	19.3	14.5	12.8	13.6	10.8	9.6	10.3	10.2	8.9	9.6
18	20.8	19.0	19.9	13.6	11.2	12.4	10.2	8.9	9.5	10.7	10.0	10.4
19	20.4	18.8	19.7	14.7	12.6	13.6	10.5	9.4	10.0	10.3	9.3	9.9
20	18.8	17.0	17.9	14.1	12.2	13.5	12.2	10.5	11.3	11.8	10.2	10.9
21	18.5	16.8	17.5	12.2	10.4	11.3	14.1	11.6	12.9	13.3	11.5	12.4
22	17.2	15.1	16.2	11.1	9.1	10.1	13.6	9.4	11.3	14.9	13.3	14.1
23	15.4	13.2	14.3	12.9	9.9	11.4	9.4	---	---	14.9	14.1	14.3
24	15.1	12.5	13.8	14.5	12.5	13.2	---	5.5	---	14.3	11.8	12.9
25	16.1	13.3	14.6	13.8	12.2	13.0	5.6	4.9	5.3	11.9	11.1	11.5
26	16.2	13.7	14.9	13.6	12.0	12.7	6.3	5.3	5.8	12.1	10.9	11.5
27	16.6	14.0	15.3	12.8	10.7	11.7	7.4	5.9	6.6	13.3	11.8	12.4
28	17.4	14.6	15.9	12.7	10.5	11.6	8.9	7.4	8.1	13.7	12.9	13.3
29	18.0	15.1	16.6	13.7	11.3	12.4	9.9	8.8	9.4	13.7	12.8	13.3
30	19.3	16.5	17.8	13.8	12.0	13.0	9.5	8.1	8.8	12.8	12.6	12.7
31	18.8	16.7	17.5	---	---	---	8.7	7.6	8.1	12.7	11.7	12.3
MONTH	26.2	12.5	18.9	18.1	8.8	12.9	17.5	4.9	11.2	14.9	4.2	9.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.7	11.2	11.3	12.1	10.8	11.4	15.9	13.7	14.7	20.8	16.7	18.7
2	11.5	11.1	11.3	12.6	10.5	11.6	18.2	13.9	15.9	21.6	17.6	19.5
3	11.9	10.4	11.1	12.2	9.7	11.1	19.6	16.1	17.8	22.0	18.5	20.2
4	12.5	11.0	11.6	9.8	8.3	9.2	20.8	17.7	19.2	22.9	19.5	21.1
5	12.3	10.4	11.2	9.9	9.0	9.6	20.8	18.0	19.5	21.8	20.1	20.8
6	12.5	11.0	11.7	10.5	9.9	10.2	23.1	19.4	20.9	20.4	17.6	18.3
7	13.9	12.2	13.0	11.2	9.2	10.0	22.7	18.5	20.6	19.4	---	---
8	14.5	12.4	13.2	9.8	9.2	9.4	21.6	20.3	21.0	19.8	17.5	18.5
9	14.5	13.2	13.8	9.2	8.9	9.1	23.7	20.3	21.7	19.2	17.8	18.4
10	14.9	13.4	14.1	9.3	8.8	9.1	23.2	19.7	21.5	20.9	17.8	19.1
11	15.8	14.4	15.0	10.6	8.3	9.2	24.3	21.6	22.6	22.1	18.8	20.2
12	15.2	12.5	13.8	11.1	8.4	9.5	22.0	19.0	20.5	23.0	19.7	21.2
13	12.5	9.7	11.0	9.8	7.5	9.2	20.7	17.2	19.0	22.4	20.1	21.2
14	10.1	8.4	9.2	8.8	7.5	8.3	19.6	17.9	18.5	21.5	19.6	20.5
15	10.2	8.3	9.1	9.8	8.2	9.1	18.1	16.4	17.1	23.0	19.0	20.9
16	11.4	8.9	10.0	11.7	9.4	10.6	18.0	14.5	16.1	24.2	20.5	22.2
17	11.1	10.4	10.9	13.8	11.3	12.5	16.4	14.1	14.8	25.3	21.8	23.4
18	10.9	9.7	10.2	15.2	13.1	13.9	16.3	13.4	14.7	24.1	22.1	23.0
19	11.7	9.8	10.5	14.7	12.7	13.6	17.2	13.7	15.4	24.2	20.4	22.1
20	11.4	9.7	10.4	13.6	12.5	13.0	20.2	15.7	17.7	24.1	20.6	22.3
21	9.8	8.1	9.3	15.1	12.4	13.4	21.4	17.4	19.3	24.9	21.3	23.1
22	9.6	7.1	8.4	14.8	11.9	13.1	21.4	18.7	20.1	25.6	22.6	24.0
23	8.5	7.6	8.0	13.5	12.6	13.0	22.7	20.1	21.4	25.3	22.3	24.0
24	8.4	7.7	8.0	13.1	12.0	12.8	22.3	20.1	20.9	25.2	22.5	24.0
25	10.6	7.5	8.9	14.6	11.4	12.6	20.4	18.5	19.5	24.3	22.0	23.0
26	11.3	7.7	9.5	13.8	10.7	12.1	20.2	18.9	19.6	23.7	21.6	22.7
27	12.0	10.0	11.0	14.7	10.2	12.3	20.5	19.1	19.7	24.0	20.5	22.4
28	12.4	11.7	12.1	13.9	10.5	12.4	21.8	18.9	20.2	24.0	20.8	22.6
29	---	---	---	14.0	12.0	13.0	20.4	18.3	19.4	24.2	21.3	23.0
30	---	---	---	15.0	11.6	13.4	20.5	16.7	18.5	24.9	22.6	23.7
31	---	---	---	14.1	13.2	13.7	---	---	---	24.3	23.2	23.6
MONTH	15.8	7.1	11.0	15.2	7.5	11.3	24.3	13.4	18.9	25.6	16.7	21.6

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	22.6	23.3	27.8	25.2	26.4	33.2	30.4	31.6	27.7	23.4	25.5
2	26.2	23.2	24.7	27.7	25.9	26.7	32.1	29.8	30.8	27.6	23.9	25.7
3	27.1	24.6	25.9	29.2	25.6	27.3	31.1	27.8	29.3	28.2	23.5	25.6
4	28.1	25.0	26.6	29.4	26.5	27.9	30.3	26.4	28.2	28.8	24.1	26.2
5	28.5	25.3	26.9	30.2	26.9	28.5	30.4	26.3	28.1	28.7	24.0	26.3
6	28.5	26.1	27.5	30.8	27.7	29.3	30.3	26.1	28.1	28.2	24.1	26.1
7	29.2	26.0	27.6	30.9	27.5	29.2	30.7	26.3	28.3	29.0	24.1	26.1
8	29.7	26.2	27.9	31.0	27.5	29.3	29.1	27.3	28.1	28.0	23.6	25.8
9	29.9	26.8	28.3	30.1	28.1	29.0	30.4	26.9	28.4	28.0	24.2	25.9
10	30.0	26.6	28.0	29.1	27.7	28.4	30.7	26.3	28.4	26.5	21.4	23.7
11	29.7	26.1	27.7	28.1	23.7	25.4	29.6	26.6	27.9	26.1	21.5	23.5
12	29.5	26.5	27.8	25.7	23.7	24.6	30.0	26.6	28.0	26.4	22.4	24.1
13	28.9	26.3	27.5	24.9	23.2	24.0	31.0	27.3	28.9	24.6	22.7	23.7
14	27.2	25.9	26.4	26.2	23.2	24.5	29.1	26.0	27.5	26.1	21.1	22.8
15	26.9	24.2	25.7	27.3	23.7	25.4	27.8	23.9	25.8	24.9	19.6	21.6
16	26.1	24.0	25.2	28.1	24.8	26.3	29.1	24.3	26.6	24.4	19.6	21.3
17	25.8	23.3	24.7	29.0	25.8	27.2	30.2	25.2	27.5	23.9	18.6	20.7
18	25.4	22.2	23.9	29.7	26.9	28.2	30.3	26.3	28.1	22.4	18.2	20.1
19	25.5	22.7	24.2	30.2	27.2	28.7	29.7	26.0	27.7	22.7	19.1	20.8
20	26.4	23.4	24.8	30.5	27.9	29.2	27.7	25.8	26.6	24.3	20.9	22.4
21	27.3	23.9	25.5	30.9	27.8	29.4	28.8	24.1	26.1	22.9	20.2	21.9
22	28.0	24.5	26.2	31.1	28.5	29.8	28.6	23.4	25.8	20.4	18.3	19.3
23	26.3	25.1	25.7	31.5	28.7	30.1	26.5	23.8	25.2	20.4	17.1	18.7
24	25.5	24.5	25.0	30.8	28.7	29.5	27.4	24.4	25.7	21.8	17.6	19.6
25	28.0	24.4	26.0	30.9	27.4	29.2	28.8	24.9	26.6	22.5	18.0	20.2
26	27.6	26.4	26.9	31.5	28.5	30.1	28.2	25.1	26.6	23.1	18.6	20.8
27	27.8	25.4	26.6	31.7	28.8	30.4	28.7	24.6	26.5	23.3	20.6	21.7
28	27.0	25.4	26.1	31.7	29.2	30.4	28.7	24.7	26.6	25.3	21.4	23.2
29	27.5	24.7	25.8	32.2	29.0	30.6	29.0	24.8	26.7	24.1	20.3	22.4
30	26.7	24.3	25.5	33.0	29.6	31.2	28.5	24.1	26.1	20.4	18.5	19.5
31	---	---	---	33.3	30.1	31.6	27.9	22.3	25.0	---	---	---
MONTH	30.0	22.2	26.1	33.3	23.2	28.3	33.2	22.3	27.4	29.0	17.1	22.8

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.9	4.9	5.3	8.8	7.4	8.0	10.0	8.8	9.2	14.1	12.5	13.1
2	7.1	4.7	5.7	8.1	6.9	7.5	10.5	8.6	9.5	13.0	12.2	12.6
3	6.9	5.2	6.0	7.6	6.6	6.9	10.7	9.3	9.9	12.9	12.3	12.6
4	7.4	5.0	6.2	7.1	6.4	6.7	10.4	8.5	9.5	13.5	12.8	13.2
5	7.4	5.6	6.5	8.3	6.7	7.6	8.5	6.6	7.8	14.3	13.1	13.5
6	7.9	5.2	6.4	9.8	8.0	8.9	7.6	6.2	6.7	13.8	13.0	13.3
7	6.5	5.0	5.6	10.3	9.4	10.0	7.0	6.2	6.7	13.8	12.7	13.1
8	8.4	4.9	6.6	10.2	9.7	10.0	7.9	6.5	7.3	13.0	11.7	12.5
9	9.4	6.0	7.7	9.8	9.2	9.5	9.7	7.6	8.6	12.4	11.2	11.7
10	10.7	7.0	8.7	9.2	8.2	8.6	10.1	8.7	9.4	12.6	12.3	12.4
11	10.3	6.7	8.5	9.3	8.0	8.6	10.9	9.3	10.0	12.7	12.0	12.4
12	9.6	6.4	8.3	9.8	8.8	9.4	11.4	9.7	10.4	12.4	11.7	12.0
13	9.1	6.5	7.8	9.8	9.3	9.6	11.4	11.0	11.2	11.7	11.1	11.5
14	8.5	6.6	7.6	9.9	9.1	9.5	11.4	11.3	11.3	11.3	11.0	11.2
15	8.4	7.0	7.7	10.0	8.7	9.3	11.8	11.3	11.5	11.6	11.0	11.3
16	8.4	6.6	7.5	10.7	9.3	9.9	12.0	11.4	11.6	12.1	10.8	11.3
17	7.6	6.0	6.8	11.3	9.4	10.2	12.1	11.3	11.7	12.0	10.3	11.0
18	8.2	5.9	7.1	11.5	9.7	10.6	12.6	11.7	12.0	10.6	10.3	10.5
19	6.9	5.1	5.9	11.2	9.0	10.4	12.3	11.5	11.9	11.1	10.5	10.8
20	8.3	4.9	6.8	10.3	9.1	9.8	12.4	11.3	11.7	11.4	10.1	10.6
21	9.3	6.7	7.9	11.0	9.2	10.2	12.0	10.6	11.3	10.9	9.6	10.2
22	9.6	7.4	8.3	12.1	10.9	11.4	12.7	10.6	11.6	10.9	9.3	9.8
23	10.2	7.4	9.0	12.1	10.8	11.3	13.2	11.7	12.5	9.3	8.6	8.8
24	10.8	8.8	9.7	11.2	10.3	10.6	14.1	---	---	10.2	9.1	9.9
25	11.3	9.0	10.1	10.4	9.4	9.8	14.6	13.5	13.9	10.9	10.2	10.5
26	10.9	9.2	9.8	10.4	9.3	9.7	14.5	13.2	13.7	11.2	10.3	10.6
27	10.5	8.6	9.5	11.1	9.6	10.2	13.8	12.9	13.3	11.2	9.9	10.4
28	10.5	8.5	9.5	11.4	10.0	10.6	12.9	12.5	12.7	10.7	9.7	10.1
29	10.1	8.6	9.3	11.0	10.1	10.4	12.5	12.0	12.2	10.7	9.7	10.0
30	9.8	8.2	9.0	10.9	9.3	10.1	13.0	12.0	12.4	10.2	9.5	9.9
31	8.9	7.7	8.2	---	---	---	13.7	12.5	12.8	10.4	10.1	10.2
MONTH	11.3	4.7	7.7	12.1	6.4	9.5	14.6	6.2	10.8	14.3	8.6	11.3

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.7	10.4	10.5	11.0	9.7	10.2	13.7	9.4	11.2	9.7	7.3	8.2
2	10.8	10.4	10.5	12.4	9.7	10.5	15.1	9.6	11.8	9.7	6.9	8.0
3	12.0	10.4	10.9	10.5	9.4	10.0	14.6	9.1	11.3	9.6	6.9	8.0
4	12.5	10.2	10.9	12.0	10.4	11.0	14.1	8.6	10.9	9.2	6.1	7.5
5	13.3	10.4	11.3	11.7	10.2	10.7	13.8	8.3	10.6	7.9	6.3	7.1
6	12.9	10.0	10.9	11.1	9.9	10.4	14.3	8.1	10.5	8.7	7.2	8.5
7	12.6	9.8	10.7	14.0	10.2	11.5	14.2	8.0	10.5	9.8	9.3	9.5
8	13.4	9.8	11.1	13.0	10.2	11.2	11.6	7.6	9.3	10.7	9.2	9.7
9	13.3	9.8	11.0	11.2	10.1	10.5	12.9	7.2	9.6	10.8	9.2	9.7
10	13.2	9.3	10.7	12.6	10.3	11.3	12.7	7.3	9.5	11.7	9.0	10.0
11	12.6	9.0	10.2	17.2	10.8	12.9	12.4	6.9	9.0	12.6	8.7	10.2
12	12.4	9.0	10.1	17.2	11.1	13.3	12.7	7.3	9.5	13.4	8.2	10.2
13	12.7	9.7	10.7	13.2	11.2	12.0	---	8.0	---	13.7	7.8	10.1
14	14.1	10.3	11.6	13.4	12.4	12.6	---	---	---	14.4	7.9	10.5
15	14.7	10.4	11.9	13.9	12.6	13.2	---	7.6	---	15.8	8.2	11.3
16	14.6	10.0	11.7	15.4	12.9	13.8	10.8	7.3	8.7	15.2	7.7	10.8
17	10.6	9.6	10.0	---	---	---	10.6	7.6	9.0	13.5	7.1	9.7
18	13.5	9.9	11.1	15.8	11.4	13.7	12.0	8.1	9.8	10.2	6.3	8.1
19	14.4	9.9	11.4	16.6	11.1	13.0	12.0	8.2	9.7	11.0	7.0	8.6
20	14.6	9.9	11.6	15.3	10.9	12.5	11.3	7.3	8.9	11.5	6.6	8.6
21	14.4	10.1	11.8	16.7	10.7	12.9	10.7	6.7	8.2	11.4	6.5	8.6
22	15.7	10.6	13.4	16.8	10.9	13.0	9.5	5.8	7.4	10.9	6.1	8.1
23	14.3	10.7	12.0	14.4	10.6	12.1	8.4	5.6	6.8	10.6	6.2	8.1
24	13.9	10.2	11.7	13.5	10.4	11.6	7.8	4.8	6.5	10.5	6.1	8.0
25	14.8	10.2	12.1	16.3	10.5	12.9	7.8	5.6	6.7	8.8	5.9	7.4
26	14.8	10.1	12.0	16.3	10.8	13.2	7.4	5.6	6.4	9.6	5.9	7.7
27	11.1	9.5	10.2	16.4	10.9	13.3	7.3	5.5	6.4	9.8	6.3	8.0
28	9.8	9.6	9.7	15.6	10.9	12.9	8.8	6.5	7.5	10.1	6.5	8.3
29	---	---	---	14.5	10.3	12.1	7.8	7.1	7.4	10.0	6.3	8.2
30	---	---	---	15.8	10.2	12.6	9.6	7.3	8.2	11.4	6.4	8.7
31	---	---	---	12.2	9.9	10.9	---	---	---	9.2	6.1	7.6
MONTH	15.7	9.0	11.1	17.2	9.4	12.1	15.1	4.8	8.9	15.8	5.9	8.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.2	5.9	7.6	11.3	6.4	8.2	9.7	5.1	7.1	9.5	5.3	7.2
2	11.0	6.3	8.5	10.5	6.3	8.1	9.7	5.3	7.1	8.9	6.2	7.5
3	11.7	5.9	9.0	11.5	6.6	8.3	10.2	5.8	7.5	9.2	5.8	7.0
4	13.1	6.7	9.8	11.4	6.3	8.2	10.3	5.9	7.7	9.9	4.9	6.8
5	12.5	6.5	9.3	12.1	6.2	8.5	10.5	6.1	8.0	10.5	4.7	7.1
6	12.6	6.8	9.7	11.7	5.9	8.4	10.3	6.0	8.1	10.5	4.9	7.3
7	11.2	5.9	8.5	11.4	5.3	7.9	10.4	3.7	7.2	10.5	4.5	6.9
8	8.9	5.1	6.9	10.4	5.2	7.6	9.2	5.9	7.4	11.3	4.7	7.3
9	8.0	4.5	6.0	9.1	5.3	7.1	10.2	4.9	7.5	11.2	4.3	7.0
10	8.8	4.4	6.3	8.2	4.6	6.5	9.9	5.1	7.2	10.3	4.4	6.8
11	9.1	4.6	6.6	8.4	4.9	6.9	7.3	5.0	6.1	11.3	4.7	7.0
12	10.4	5.5	7.6	9.3	8.0	8.8	7.9	5.2	6.3	11.2	3.5	6.9
13	10.4	6.1	8.1	10.0	8.5	9.1	8.5	4.9	6.4	8.0	3.4	5.2
14	8.1	6.1	7.1	10.6	8.3	9.1	7.5	4.5	6.0	10.2	4.1	6.2
15	10.2	5.0	7.6	11.8	8.0	9.4	8.0	4.3	5.6	11.1	5.4	7.3
16	11.1	6.0	8.5	13.0	7.5	9.8	8.8	2.8	5.8	10.9	5.7	7.7
17	11.0	6.6	8.9	15.0	7.6	10.5	9.6	1.9	6.2	11.4	6.5	8.2
18	10.8	7.1	9.1	15.6	7.6	10.8	9.7	4.9	7.3	11.3	6.2	8.3
19	10.9	7.3	9.1	13.9	6.7	9.8	9.5	6.0	7.4	10.5	6.3	7.9
20	10.3	6.6	8.6	11.2	6.1	8.5	7.4	5.3	6.2	10.4	5.9	8.0
21	9.8	5.1	7.8	10.9	5.3	7.9	8.9	4.6	6.3	9.4	8.0	8.6
22	10.1	5.9	7.2	9.2	4.8	6.9	9.1	5.1	6.6	10.7	8.6	9.5
23	7.2	5.2	6.0	8.9	4.8	6.7	8.2	5.2	6.4	11.2	9.6	10.2
24	6.6	4.9	5.7	6.6	4.1	5.5	8.0	5.3	6.4	9.9	7.9	8.8
25	9.3	5.4	7.0	8.7	4.1	6.2	9.0	5.4	7.1	9.8	7.7	8.5
26	8.0	5.4	6.7	9.2	4.8	6.9	8.8	5.8	7.2	9.9	7.2	8.2
27	8.9	5.5	6.7	10.0	5.3	7.4	9.2	5.9	7.3	9.4	6.3	7.8
28	7.7	5.0	6.1	8.9	5.1	6.9	9.3	5.8	7.2	8.8	7.4	8.0
29	7.7	5.8	6.5	8.8	5.1	6.8	9.8	5.8	7.3	8.5	6.9	7.8
30	9.7	6.0	7.5	9.5	4.8	6.8	9.4	5.3	6.9	11.0	8.1	9.3
31	---	---	---	10.0	5.2	7.3	9.2	5.4	6.9	---	---	---
MONTH	13.1	4.4	7.7	15.6	4.1	8.0	10.5	1.9	6.9	11.4	3.4	7.7

03430147 STONERS CREEK NEAR HERMITAGE, TN

LOCATION.--Lat 36°11'40", long 86°36'28", Davidson County, Hydrologic Unit 05130203, on downstream end of pier at center of culvert under Andrew Jackson Parkway, 0.8 mi southwest of Hermitage.

DRAINAGE AREA.--20.6 mi^2.

PERIOD OF RECORD.--January 1992 to current year.

GAGE.--Data logger. Datum of gage is 411.70 ft above sea level.

REMARKS.--Records good, except for Oct. 18 to Nov. 9, Sept. 8-12, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	0045	829	6.50	Jun 28	1930	1,080	7.16
Jan 23	0400	*3,120	*10.96				

Minimum daily discharge, 0.04 ft^3/s, Sept. 5, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.23	1.5	13	127	54	16	15	10	12	1.0	.08
2	.21	.26	1.3	43	82	55	13	13	6.5	54	.95	.07
3	4.2	.26	1.3	61	60	188	12	12	4.9	18	.79	.06
4	.46	.34	1.3	34	46	79	15	11	3.9	11	.74	.05
5	.37	.23	12	25	36	58	13	98	12	8.6	.69	.04
6	.34	.23	5.0	20	31	89	30	243	7.8	7.6	.65	.05
7	3.8	.23	27	18	31	58	22	59	5.7	44	.59	.04
8	1.6	.23	81	123	26	47	20	35	4.2	11	.86	.05
9	.96	.23	24	309	23	49	18	24	3.5	7.9	.78	.14
10	.61	5.5	13	80	20	39	16	19	2.9	9.1	.65	.24
11	.47	1.3	9.6	51	19	33	15	15	2.6	32	2.6	.26
12	.38	1.5	76	39	136	28	14	12	2.2	22	4.1	.27
13	.32	1.2	159	33	68	60	13	13	2.1	12	6.9	.56
14	.29	1.1	42	44	48	204	14	11	5.2	8.8	2.5	.52
15	.28	.97	25	36	38	145	41	9.5	4.7	6.8	1.6	.33
16	.27	.95	18	30	34	82	24	8.6	2.9	5.5	1.1	.27
17	.27	1.1	14	27	61	58	19	7.6	2.2	4.7	.86	.20
18	.26	1.1	11	34	44	44	16	13	1.8	4.1	.69	.20
19	.30	1.1	11	28	35	35	15	11	1.7	3.5	.57	.20
20	.26	2.2	10	24	30	30	14	8.2	1.6	3.0	.46	2.1
21	.26	1.4	9.4	21	26	26	13	6.9	1.4	3.3	1.0	.33
22	.26	1.3	13	269	22	22	12	6.1	1.2	2.7	.55	.18
23	.30	1.4	13	1150	21	19	11	5.7	1.5	2.1	.38	.12
24	.26	1.4	12	144	20	18	10	5.7	7.5	8.4	1.5	.09
25	.26	1.4	12	79	18	16	9.7	4.8	6.8	6.6	1.5	.07
26	.26	1.4	13	57	17	15	35	4.5	4.3	3.4	.41	.07
27	.23	1.3	14	45	67	13	41	4.0	6.1	2.5	.33	.06
28	.23	1.2	22	42	98	13	30	3.7	234	2.0	.28	.08
29	.23	1.2	24	54	---	13	22	3.4	65	1.7	.22	5.0
30	.23	1.3	18	185	---	12	18	3.1	19	1.5	.17	2.1
31	.23	---	15	233	---	16	---	3.0	---	1.2	.11	---
TOTAL	18.64	33.56	708.4	3351	1284	1618	561.7	688.8	435.2	321.0	35.53	13.83
MEAN	.60	1.12	22.9	108	45.9	52.2	18.7	22.2	14.5	10.4	1.15	.46
MAX	4.2	5.5	159	1150	136	204	41	243	234	54	6.9	5.0
MIN	.21	.23	1.3	13	17	12	9.7	3.0	1.2	1.2	.11	.04
CFSM	.03	.05	1.11	5.25	2.23	2.53	.91	1.08	.70	.50	.06	.02
IN.	.03	.06	1.28	6.05	2.32	2.92	1.01	1.24	.79	.58	.06	.02

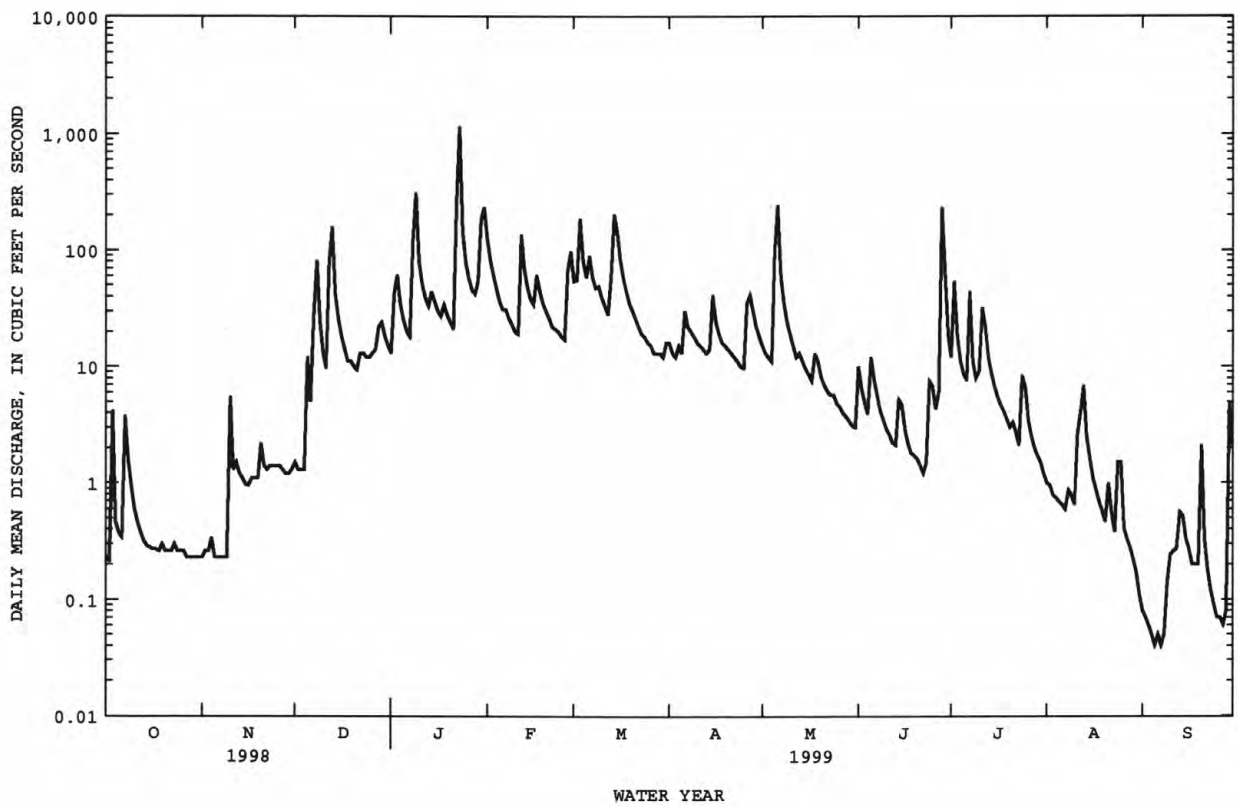
03430147 STONERS CREEK NEAR HERMITAGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.1	25.1	40.5	58.7	46.1	75.4	40.4	29.0	33.0	14.2	4.36	5.33
MAX	43.3	53.1	75.6	108	119	149	112	83.6	101	62.0	13.3	11.5
(WY)	1996	1996	1997	1999	1994	1997	1994	1995	1998	1992	1994	1995
MIN	.60	1.12	19.8	39.4	27.5	31.1	10.6	5.24	7.22	3.11	.79	.28
(WY)	1999	1999	1996	1993	1995	1998	1992	1992	1993	1993	1993	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	11244.02		9069.66			
ANNUAL MEAN	30.8		24.8		32.6	
HIGHEST ANNUAL MEAN					44.2	1994
LOWEST ANNUAL MEAN					23.1	1993
HIGHEST DAILY MEAN	919	Jun 5	1150	Jan 23	1260	Jul 3 1992
LOWEST DAILY MEAN	.10	Sep 25	.04	Sep 5	.04	Sep 5 1999
ANNUAL SEVEN-DAY MINIMUM	.10	Sep 23	.05	Sep 2	.05	Sep 2 1999
INSTANTANEOUS PEAK FLOW			3120	Jan 23	a4220	Jul 3 1992
INSTANTANEOUS PEAK STAGE			10.96	Jan 23	12.60	Jul 3 1992
ANNUAL RUNOFF (CFSM)	1.50		1.21		1.58	
ANNUAL RUNOFF (INCHES)	20.30		16.38		21.48	
10 PERCENT EXCEEDS	68		57		65	
50 PERCENT EXCEEDS	15		8.2		12	
90 PERCENT EXCEEDS	.26		.25		1.2	

a From rating curve extended above 500 ft^3/s on basis of contracted-opening measurement of peak flow.



03430550 MILL CREEK NEAR NOLENSVILLE, TN

LOCATION.--Lat 36°00'33", long 86°42'06", Davidson County, Hydrologic Unit 05130202, near left bank on downstream side of bridge on US Highway 31A, 800 ft upstream from Hoit Creek, 0.6 mi upstream from Owl Creek, 4.6 mi northwest of Nolensville, and at mile 19.6.

DRAINAGE AREA.--40.5 mi^2.

PERIOD OF RECORD.--March 1992 to current year.

REVISED RECORD.--WRD TN-94-1: 1992 (M).

GAGE.--Data logger. Datum of gage is 527.74 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for the period Sept. 5-30, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	0115	3,590	10.89	Jan 23	0115	*8,760	*15.35

Minimum discharge, 0.19 ft^3/s, Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

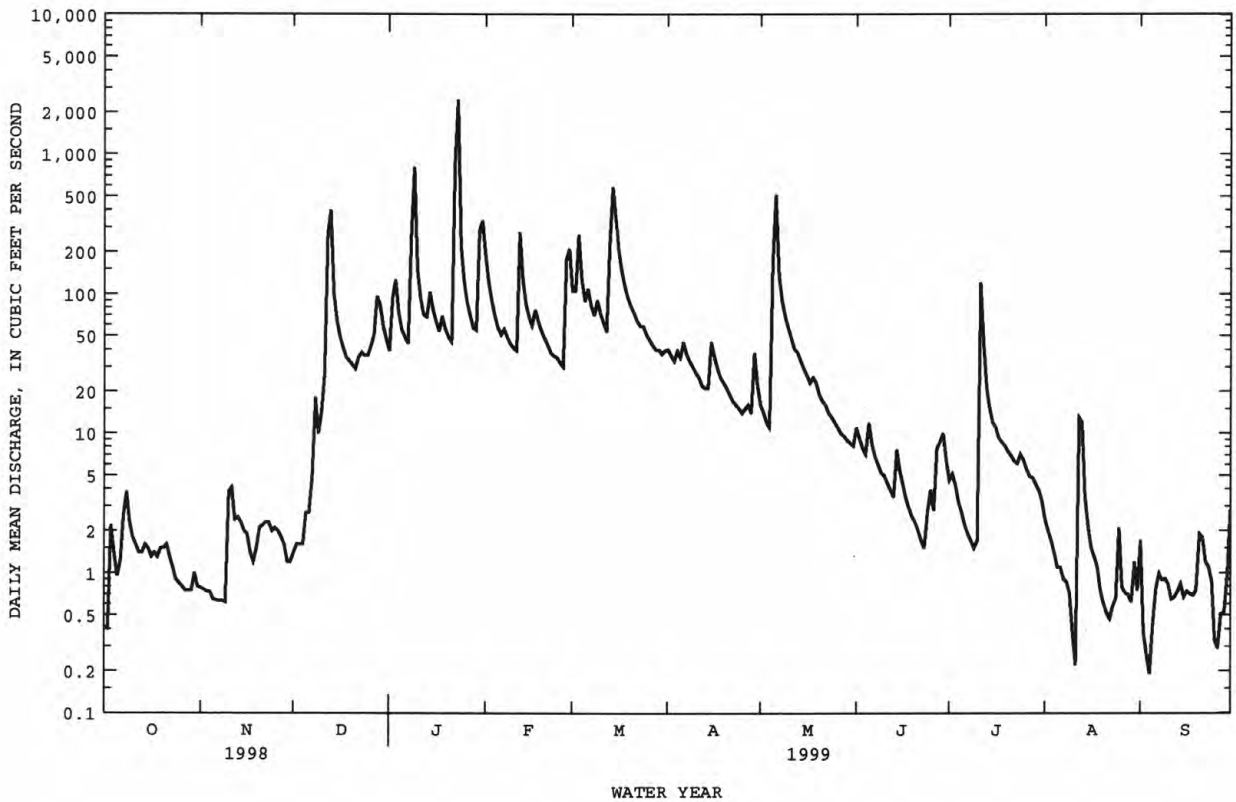
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.78	1.4	39	191	105	40	16	11	4.6	2.4	1.7
2	.40	.76	1.6	94	122	105	36	14	9.2	5.1	2.0	.38
3	2.2	.74	1.6	126	88	265	33	12	7.8	4.2	1.7	.26
4	1.4	.73	1.6	73	69	124	39	11	7.1	3.2	1.4	.19
5	.95	.65	2.7	55	57	89	35	165	12	2.7	1.1	.42
6	1.2	.64	2.7	49	51	109	45	512	8.4	2.2	1.1	.77
7	2.6	.63	4.8	44	56	82	37	135	6.8	1.9	.91	.99
8	3.8	.63	18	262	49	70	33	89	6.0	1.7	.86	.89
9	2.3	.62	10	810	44	90	30	69	5.2	1.5	.72	.91
10	1.8	3.8	14	150	41	73	27	57	5.0	1.7	.38	.83
11	1.6	4.1	26	93	39	62	25	48	4.4	120	.22	.65
12	1.4	2.4	264	71	278	54	22	40	3.9	43	13	.67
13	1.4	2.5	398	68	126	224	21	38	3.5	21	12	.74
14	1.6	2.3	100	103	85	583	21	33	7.6	15	3.5	.84
15	1.5	2.0	64	77	68	354	45	29	5.4	12	2.1	.67
16	1.3	1.9	49	63	59	206	35	26	4.3	11	1.5	.74
17	1.4	1.4	41	54	77	146	29	23	3.4	9.3	1.3	.71
18	1.3	1.2	35	69	63	113	25	25	2.9	8.6	1.1	.69
19	1.5	1.5	33	56	54	93	23	23	2.5	8.1	.75	.75
20	1.5	2.1	31	49	48	81	21	19	2.3	7.4	.61	1.9
21	1.6	2.2	29	45	43	73	19	17	2.0	6.9	.52	1.8
22	1.3	2.3	35	845	38	64	17	16	1.7	6.3	.47	1.2
23	1.1	2.3	38	2450	36	59	16	14	1.5	6.1	.58	1.1
24	.90	2.0	36	222	35	59	15	13	2.7	7.1	.66	.87
25	.85	2.1	36	124	32	51	14	12	3.9	6.4	2.1	.33
26	.80	2.0	42	88	30	47	15	11	2.8	5.5	.79	.29
27	.75	1.8	50	70	177	43	16	10	7.8	4.9	.72	.51
28	.75	1.6	96	57	211	40	14	9.6	8.7	4.8	.70	.52
29	.75	1.2	84	55	---	40	38	8.9	10	4.3	.62	.91
30	1.0	1.2	58	284	---	37	22	8.5	6.5	3.9	1.2	2.8
31	.80	---	47	334	---	39	---	8.1	---	3.3	.75	---
TOTAL	42.16	50.08	1650.4	6979	2267	3580	808	1512.1	166.3	343.7	57.76	26.03
MEAN	1.36	1.67	53.2	225	81.0	115	26.9	48.8	5.54	11.1	1.86	.87
MAX	3.8	4.1	398	2450	278	583	45	512	12	120	13	2.8
MIN	.40	.62	1.4	39	30	37	14	8.1	1.5	1.5	.22	.19
CFSM	.03	.04	1.31	5.55	2.00	2.85	.66	1.20	.14	.27	.05	.02
IN.	.04	.05	1.51	6.41	2.08	3.29	.74	1.39	.15	.32	.05	.02

03430550 MILL CREEK NEAR NOLENSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.4	46.0	83.9	138	107	192	77.1	61.7	57.7	22.4	10.5	6.84
MAX	146	122	159	225	263	372	209	190	210	58.8	35.0	16.1
(WY)	1996	1996	1997	1999	1994	1997	1994	1995	1998	1992	1995	1994
MIN	1.18	1.67	43.1	64.5	60.6	81.9	20.3	8.40	5.54	2.82	1.73	.87
(WY)	1994	1999	1996	1993	1995	1998	1992	1992	1999	1995	1993	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	24212.49		17482.53			
ANNUAL MEAN	66.3		47.9		71.0	
HIGHEST ANNUAL MEAN					104	1994
LOWEST ANNUAL MEAN					41.3	1993
HIGHEST DAILY MEAN	2390	Jun 4	2450	Jan 23	4070	Mar 27 1994
LOWEST DAILY MEAN	.23	Sep 19	.19	Sep 4	.08	Sep 13 1993
ANNUAL SEVEN-DAY MINIMUM	.28	Sep 13	.56	Sep 2	.10	Sep 9 1993
INSTANTANEOUS PEAK FLOW			8760	Jan 23	13000	Oct 5 1995
INSTANTANEOUS PEAK STAGE			15.35	Jan 23	17.27	Oct 5 1995
ANNUAL RUNOFF (CFSM)	1.64		1.18		1.75	
ANNUAL RUNOFF (INCHES)	22.22		16.05		23.82	
10 PERCENT EXCEEDS	137		95		131	
50 PERCENT EXCEEDS	29		9.6		21	
90 PERCENT EXCEEDS	.88		.75		1.6	



03431060 MILL CREEK AT THOMPSON LANE NEAR WOODBINE, TN

LOCATION.--Lat 36°07'04", long 86°43'08", Davidson County, Hydrologic Unit 05130202, at bridge on Thompson Lane, 1.4 miles west of Arlington Church, 1.5 miles upstream from U.S. Highway 41 and 70S, 1.6 miles downstream from Sevenmile Creek, and at mile 6.3.

DRAINAGE AREA.--93.4 mi^2.

PERIOD OF RECORD.--Crest-stage gage July 1964 to September 1996. October 1996 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 432.55 ft above sea level. July 1964 to September 1996, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good, except for Oct. 25 to Nov. 11, Aug. 16 to Sept. 30, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	0430	4,460	9.73	Jan 23	0415	*11,200	*14.55

Minimum daily discharge, 1.4 ft^3/s, Sept. 7-8, 11-12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

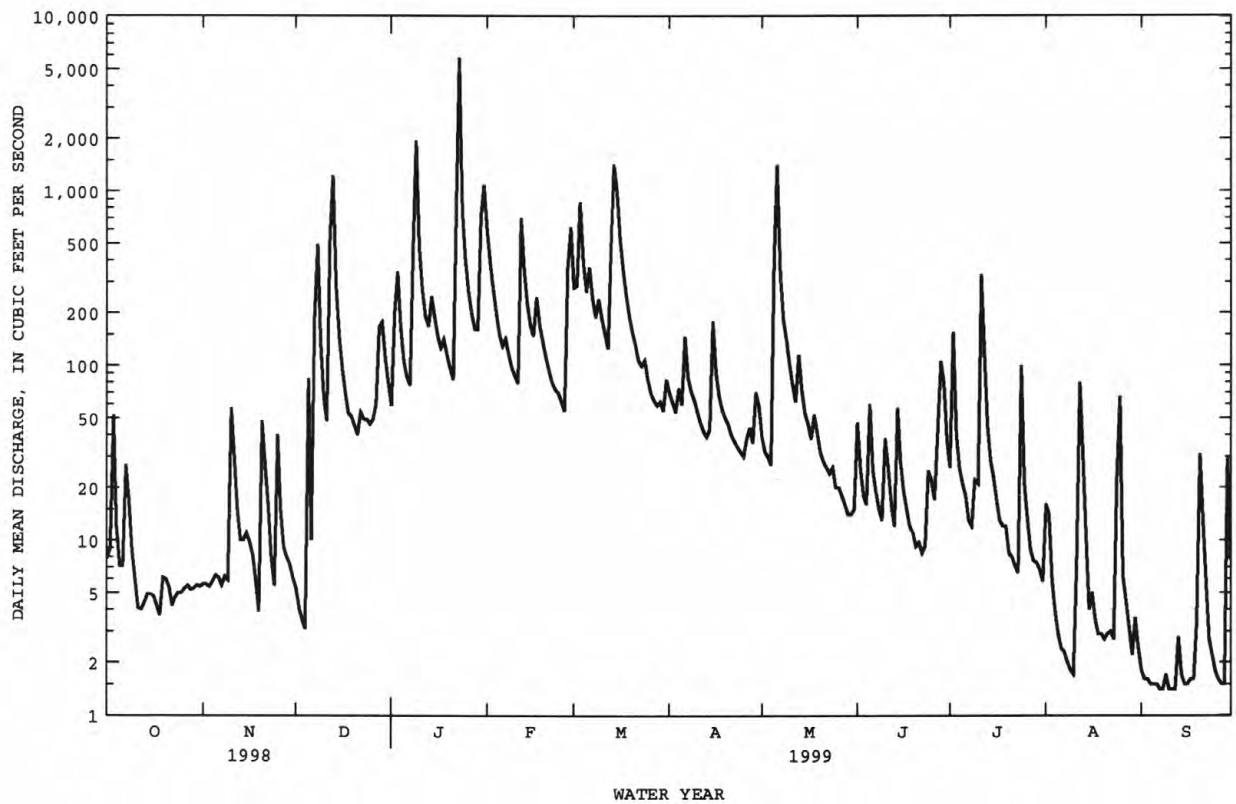
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	5.6	5.3	59	612	279	70	39	47	26	16	1.8
2	9.0	5.6	4.1	202	388	287	61	32	26	155	14	1.6
3	52	5.4	3.5	343	268	865	54	30	18	40	5.9	1.6
4	12	5.8	3.1	165	197	388	74	27	16	26	3.9	1.5
5	7.1	6.3	84	106	150	265	60	416	60	21	2.9	1.5
6	7.1	6.1	10	85	129	363	145	1410	25	18	2.4	1.5
7	27	5.5	184	77	142	239	85	328	19	13	2.3	1.4
8	17	6.2	493	498	116	189	71	181	15	12	2.0	1.4
9	8.8	5.9	133	1940	97	240	63	140	13	22	1.8	1.7
10	6.0	57	65	470	87	186	54	101	38	21	1.7	1.4
11	4.1	30	48	273	79	151	47	77	26	330	7.6	1.4
12	4.0	15	542	192	695	125	42	62	16	118	80	1.4
13	4.4	10	1220	167	350	489	39	115	12	46	32	2.8
14	4.9	10	280	248	225	1420	43	71	57	29	11	1.7
15	4.9	11	145	188	170	999	178	53	28	23	4.0	1.5
16	4.8	9.8	96	147	147	533	91	46	19	17	5.0	1.5
17	4.2	8.2	69	126	247	351	67	38	15	13	3.5	1.6
18	3.7	5.8	53	141	169	250	56	52	12	12	2.9	1.6
19	6.1	3.9	51	115	136	189	50	41	11	12	2.9	3.4
20	6.0	48	45	96	111	154	46	32	9.2	8.4	2.7	31
21	5.4	27	40	83	93	130	40	28	9.7	8.0	2.9	13
22	4.2	16	54	876	80	106	37	26	8.4	7.1	3.0	5.8
23	4.7	8.1	49	5800	73	99	34	24	9.2	6.5	2.7	2.7
24	5.0	5.5	49	759	70	107	32	26	25	99	23	2.2
25	5.0	40	46	404	62	82	30	20	22	21	66	1.8
26	5.3	15	49	265	55	69	38	20	17	13	6.2	1.6
27	5.5	9.1	60	197	365	63	44	18	42	8.8	4.5	1.5
28	5.2	8.0	165	161	618	59	36	16	105	7.6	3.2	1.5
29	5.3	7.3	177	161	---	62	70	14	78	7.4	2.2	30
30	5.5	6.1	108	716	---	55	58	14	37	6.8	3.6	7.8
31	5.4	---	78	1080	---	83	---	15	---	5.8	2.4	---
TOTAL	257.5	403.2	4409.0	16140	5931	8877	1815	3512	835.5	1153.4	324.2	131.2
MEAN	8.31	13.4	142	521	212	286	60.5	113	27.9	37.2	10.5	4.37
MAX	52	57	1220	5800	695	1420	178	1410	105	330	80	31
MIN	3.7	3.9	3.1	59	55	55	30	14	8.4	5.8	1.7	1.4
CFSM	.09	.14	1.52	5.57	2.27	3.07	.65	1.21	.30	.40	.11	.05
IN.	.10	.16	1.76	6.43	2.36	3.54	.72	1.40	.33	.46	.13	.05

03431060 MILL CREEK AT THOMPSON LANE NEAR WOODBINE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.9	89.2	207	359	223	411	128	123	311	44.8	19.5	25.2
MAX	59.2	167	349	521	283	771	271	134	586	48.8	25.3	65.3
(WY)	1997	1997	1997	1999	1998	1997	1998	1997	1998	1997	1997	1997
MIN	8.31	13.4	129	247	175	177	52.9	113	27.9	37.2	10.5	4.37
(WY)	1999	1999	1998	1998	1997	1998	1997	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	58025.6		43789.0			
ANNUAL MEAN	159		120		164	
HIGHEST ANNUAL MEAN					207	1997
LOWEST ANNUAL MEAN					120	1999
HIGHEST DAILY MEAN	5360	Jun 4	5800	Jan 23	6420	Mar 3 1997
LOWEST DAILY MEAN	1.1	Sep 17	1.4	Sep 7	.87	Sep 19 1997
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 11	1.5	Sep 6	1.2	Sep 11 1998
INSTANTANEOUS PEAK FLOW			11200	Jan 23	26200	May 4 1979
INSTANTANEOUS PEAK STAGE			14.55	Jan 23	20.63	May 4 1979
INSTANTANEOUS LOW FLOW					.49	Sep 19 1997
ANNUAL RUNOFF (CFSM)	1.70		1.28		1.76	
ANNUAL RUNOFF (INCHES)	23.11		17.44		23.89	
10 PERCENT EXCEEDS	316		266		327	
50 PERCENT EXCEEDS	60		32		62	
90 PERCENT EXCEEDS	4.2		2.9		5.2	



03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°09'46", long 86°43'31", Davidson County, Hydrologic Unit 05130202, on left bank 0.8 mi downstream from Mill Creek, at intake of Omohundro Filtration Plant, and at mile 193.7

DRAINAGE AREA.--12,819 mi^2.

PERIOD OF RECORD.--October 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1996 to current year.
pH: October 1996 to current year.
WATER TEMPERATURE: October 1996 to current year.
DISSOLVED OXYGEN: October 1996 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1996.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Periods of missing record were due to instrument malfunctions. Period Jan. 24 to Feb. 28 missing due to plugged intake at monitor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 276 microsiemens, Nov. 21, 29, 1996; minimum, 166 microsiemens, June 4, 1998.
pH: Maximum, 8.6 units, May 3, 4, 6, 1997, Apr. 26, May 1, 1999; minimum, 6.9 units, July 30, 1997.
WATER TEMPERATURE: Maximum, 27.3°C, July 31, 1997; minimum, 4.6°C, Jan. 19, 1997.
DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Mar. 30, 1999; minimum, 4.9 mg/L, July 29, 1997, Sept. 22, 1998.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 246 microsiemens, June 8; minimum, 178 microsiemens, July 31, Aug. 15.
pH: Maximum, 8.6 units, April 26, May 1; minimum, 7.3 units, Oct. 2, 3, June 11, 12, 14, 15, 16, Sept. 30.
WATER TEMPERATURE: Maximum, 26.5°C, Aug. 7; minimum, 5.5°C, Jan. 6.
DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Mar. 30; minimum, 5.0 mg/L, July 20.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	191	188	189	197	191	195	194	189	190	230	211	222
2	190	188	189	197	190	194	192	188	190	223	205	214
3	197	188	190	200	191	197	199	189	192	236	205	220
4	197	189	193	199	193	197	211	190	194	226	205	215
5	195	192	194	200	193	198	232	190	223	226	209	220
6	193	191	192	200	192	197	232	225	229	226	208	219
7	193	188	190	200	192	196	230	222	226	236	217	229
8	193	188	191	199	192	196	225	205	214	237	220	229
9	192	188	190	199	197	198	223	194	202	229	210	220
10	195	188	191	201	193	198	214	196	205	228	222	226
11	193	189	191	200	193	197	212	196	201	229	225	227
12	192	189	191	199	192	196	216	196	208	229	226	228
13	191	189	190	199	189	195	222	206	215	234	225	230
14	194	187	190	195	185	189	212	208	210	230	226	227
15	191	188	190	192	184	187	219	211	215	228	224	226
16	190	186	189	193	185	189	223	219	221	231	224	227
17	189	188	189	194	186	191	232	217	223	235	230	233
18	189	186	187	195	187	193	233	216	224	231	216	225
19	187	183	185	195	187	193	231	207	222	221	206	215
20	189	185	187	195	189	192	234	208	222	216	204	209
21	191	187	189	192	188	189	228	208	220	213	197	206
22	192	188	190	189	188	188	223	209	212	221	204	214
23	192	189	190	190	187	188	229	212	223	219	205	213
24	192	188	190	188	186	187	233	212	222	---	---	---
25	192	190	191	189	186	188	238	217	225	---	---	---
26	193	191	192	189	186	187	237	217	225	---	---	---
27	194	192	193	189	186	187	236	216	224	---	---	---
28	194	189	192	190	185	188	231	214	219	---	---	---
29	195	190	193	191	187	188	235	210	223	---	---	---
30	199	189	192	194	189	190	230	209	219	---	---	---
31	195	190	192	---	---	---	226	210	220	---	---	---
MONTH	199	183	190	201	184	192	238	188	215	237	197	221

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	216	200	206	200	186	191	191	188	190
2	---	---	---	213	197	205	199	188	190	193	188	190
3	---	---	---	216	200	208	195	186	190	194	191	192
4	---	---	---	214	201	208	192	186	188	195	193	194
5	---	---	---	220	209	215	188	185	186	205	194	198
6	---	---	---	224	211	217	190	186	188	209	195	200
7	---	---	---	223	213	218	196	188	190	209	200	206
8	---	---	---	229	214	222	191	186	188	224	204	218
9	---	---	---	230	211	220	189	186	188	223	201	214
10	---	---	---	228	211	218	195	188	191	221	202	210
11	---	---	---	228	209	217	189	187	188	230	202	211
12	---	---	---	226	210	218	222	188	196	224	200	211
13	---	---	---	225	210	215	195	189	191	223	204	213
14	---	---	---	227	211	217	190	188	189	233	211	220
15	---	---	---	220	217	218	196	189	191	233	210	220
16	---	---	---	217	215	216	193	191	192	227	205	213
17	---	---	---	219	216	217	194	190	192	207	201	204
18	---	---	---	228	217	221	198	190	193	217	199	204
19	---	---	---	228	213	224	196	192	194	212	198	202
20	---	---	---	223	205	216	192	190	191	211	198	202
21	---	---	---	218	202	209	192	188	191	211	197	202
22	---	---	---	222	199	208	188	186	187	209	197	200
23	---	---	---	219	195	204	192	187	188	200	196	197
24	---	---	---	215	191	202	195	187	190	199	196	198
25	---	---	---	212	190	198	190	187	188	201	195	198
26	---	---	---	208	185	195	190	187	188	199	197	198
27	---	---	---	203	184	190	191	188	190	199	196	198
28	---	---	---	196	184	187	192	187	189	200	197	199
29	---	---	---	196	185	188	192	187	189	201	199	200
30	---	---	---	198	186	189	192	187	190	202	199	200
31	---	---	---	189	185	186	---	---	---	203	201	202
MONTH	---	---	---	230	184	209	222	185	190	233	188	203

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	217	203	205	217	194	209	187	180	182	195	187	193
2	209	205	206	213	196	204	190	185	186	196	187	194
3	211	205	207	206	194	197	190	185	187	196	187	194
4	207	203	205	204	197	200	189	183	186	195	190	193
5	206	202	203	215	204	209	185	179	181	195	192	194
6	207	203	205	224	214	220	185	181	182	197	192	195
7	208	205	206	221	204	207	185	179	181	195	191	194
8	246	206	212	226	200	213	185	182	183	194	193	194
9	240	207	213	216	197	205	189	183	186	193	190	192
10	210	205	207	211	199	203	189	186	188	191	190	190
11	216	207	210	212	204	208	188	184	186	190	188	189
12	209	204	206	236	205	210	186	183	184	190	184	188
13	207	204	206	237	209	224	187	182	184	189	184	187
14	212	206	208	230	209	220	187	181	184	190	186	188
15	210	207	208	216	204	211	187	178	184	189	186	188
16	211	208	210	218	204	212	188	185	186	188	187	188
17	208	204	205	217	200	207	190	187	188	187	186	187
18	208	205	206	200	199	199	191	189	190	188	185	187
19	207	204	206	224	197	200	193	190	191	189	186	188
20	210	207	209	228	203	216	194	191	192	192	187	189
21	210	208	209	222	201	210	193	190	192	190	189	190
22	211	209	210	216	195	202	192	189	191	190	188	189
23	211	204	208	207	189	197	192	190	191	189	187	188
24	207	201	204	202	187	192	195	192	193	188	186	187
25	217	205	212	188	183	186	197	192	194	188	187	188
26	214	211	213	185	180	182	194	192	193	188	187	188
27	216	213	215	181	179	180	195	191	194	189	188	188
28	215	199	207	182	179	180	196	189	193	198	189	190
29	218	198	206	184	180	181	196	190	193	194	189	191
30	219	199	214	182	180	182	196	186	194	192	189	191
31	---	---	---	185	178	180	196	193	195	---	---	---
MONTH	246	198	208	237	178	201	197	178	188	198	184	190

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.4	7.9	7.7	8.0	7.8	7.9	7.8	---	---	8.4	8.2
2	7.4	7.3	7.9	7.7	8.0	7.8	7.8	7.8	---	---	8.2	7.8
3	7.6	7.3	7.9	7.7	7.8	7.7	7.8	7.8	---	---	8.2	8.1
4	7.8	7.5	7.9	7.7	7.8	7.8	7.9	7.8	---	---	8.2	8.0
5	7.7	7.4	7.7	7.6	7.8	7.7	8.0	7.9	---	---	8.1	8.0
6	8.3	7.6	7.7	7.6	7.8	7.7	8.0	7.9	---	---	8.0	8.0
7	8.0	7.6	7.7	7.6	7.8	7.8	8.0	7.9	---	---	8.1	8.0
8	7.8	7.6	7.7	7.6	7.8	7.6	8.0	7.9	---	---	8.1	8.0
9	7.6	7.5	7.6	7.6	7.7	7.6	7.9	7.8	---	---	8.1	7.9
10	7.9	7.6	7.6	7.6	7.7	7.6	7.9	7.9	---	---	8.0	7.9
11	8.1	7.8	7.6	7.6	7.7	7.6	7.9	7.8	---	---	8.0	7.9
12	8.1	7.8	7.6	7.6	7.7	7.7	7.8	7.8	---	---	8.1	7.9
13	8.2	7.8	7.7	7.5	7.7	7.7	7.8	7.8	---	---	8.0	7.9
14	8.0	7.8	7.7	7.7	7.7	7.7	7.8	7.8	---	---	8.0	7.9
15	8.2	7.8	7.8	7.7	7.7	7.7	7.8	7.8	---	---	7.9	7.9
16	8.2	8.0	7.7	7.6	7.7	7.7	7.9	7.8	---	---	7.9	7.9
17	8.1	7.8	7.8	7.6	7.8	7.7	7.9	7.8	---	---	8.0	7.9
18	8.1	7.9	7.7	7.7	7.8	7.7	7.8	7.8	---	---	7.9	7.9
19	8.0	7.8	7.8	7.7	7.8	7.7	7.8	7.8	---	---	8.0	7.8
20	7.8	7.6	7.8	7.7	7.8	7.7	7.8	7.7	---	---	8.0	7.8
21	7.7	7.5	7.8	7.7	7.7	7.6	7.8	7.7	---	---	8.1	7.9
22	7.9	7.6	7.8	7.7	7.7	7.6	7.9	7.7	---	---	8.2	7.9
23	7.9	7.7	7.8	7.7	7.7	7.7	---	7.8	---	---	8.1	8.0
24	8.0	7.7	8.0	7.8	7.8	7.7	---	---	---	---	8.1	7.9
25	8.1	7.8	7.9	7.8	7.8	7.7	---	---	---	---	8.1	7.9
26	8.0	7.8	7.9	7.8	7.8	7.8	---	---	---	---	8.1	7.9
27	8.0	7.8	7.9	7.8	7.8	7.8	---	---	---	---	8.3	7.9
28	8.1	8.0	7.9	7.8	7.8	7.8	---	---	---	---	8.2	8.1
29	8.1	8.0	8.0	7.8	7.8	7.7	---	---	---	---	8.3	8.1
30	8.1	7.9	7.9	7.8	7.8	7.7	---	---	---	---	8.3	8.1
31	8.0	7.8	---	---	7.9	7.8	---	---	---	---	8.2	8.0
MONTH	8.3	7.3	8.0	7.5	8.0	7.6	8.0	7.7	---	---	8.4	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	8.0	8.6	8.2	7.9	7.6	8.2	7.7	7.8	7.5	8.3	8.0
2	8.3	8.2	8.6	8.4	8.0	7.8	8.1	7.7	7.7	7.5	8.3	7.8
3	8.3	8.2	8.5	8.4	7.9	7.7	8.1	7.8	7.7	7.5	8.2	7.8
4	8.2	8.1	8.4	8.1	7.7	7.4	7.9	7.8	7.9	7.5	8.1	7.8
5	8.1	8.0	8.4	7.8	7.9	7.4	8.0	7.8	7.9	7.6	7.9	7.7
6	8.2	7.9	8.4	7.8	8.0	7.5	7.9	7.5	8.0	7.6	7.8	7.6
7	8.1	7.9	8.1	7.7	7.7	7.6	7.7	7.5	8.2	7.7	7.8	7.6
8	8.1	8.0	8.0	7.9	7.6	7.5	7.7	7.4	8.1	7.7	7.8	7.6
9	8.3	7.9	8.1	7.9	7.5	7.4	7.8	7.6	7.8	7.6	7.9	7.6
10	8.0	7.7	8.2	7.8	7.6	7.4	7.9	7.6	7.8	7.6	7.9	7.6
11	8.1	7.7	8.3	7.7	7.5	7.3	7.7	7.6	7.7	7.6	8.0	7.8
12	7.9	7.7	8.4	7.9	7.6	7.3	8.0	7.7	7.8	7.6	8.1	7.8
13	7.9	7.7	8.3	7.7	7.6	7.4	7.9	7.6	8.0	7.7	7.9	7.4
14	8.1	7.9	7.8	7.7	7.5	7.3	8.2	7.7	8.0	7.5	7.6	7.4
15	8.1	8.0	8.1	7.7	7.5	7.3	8.4	7.9	8.1	7.8	7.6	7.4
16	8.3	8.0	8.3	7.9	7.5	7.3	8.1	7.8	8.3	7.8	7.9	7.4
17	8.2	7.9	8.4	8.2	7.8	7.5	8.2	7.9	8.3	7.8	8.1	7.9
18	8.1	7.9	8.4	8.0	7.9	7.5	8.0	7.9	7.9	7.7	8.2	7.9
19	8.1	8.0	8.2	7.9	8.1	7.7	7.9	7.7	7.8	7.6	8.0	7.6
20	8.3	8.1	8.3	8.1	8.2	7.7	7.8	7.5	7.7	7.5	7.9	7.5
21	8.3	8.1	8.4	8.1	8.0	7.6	7.7	7.5	7.6	7.5	7.7	7.5
22	8.5	8.3	8.4	8.0	7.8	7.6	7.7	7.5	8.1	7.6	7.7	7.4
23	8.4	8.2	8.0	7.8	7.8	7.5	7.7	7.5	8.0	7.6	8.1	7.7
24	8.3	7.8	8.1	7.8	7.9	7.6	7.9	7.6	7.8	7.6	8.2	7.8
25	8.3	7.8	7.9	7.7	7.8	7.6	7.6	7.4	8.1	7.6	8.3	7.7
26	8.4	8.2	7.8	7.7	7.6	7.4	7.5	7.5	8.3	8.0	8.2	7.7
27	8.5	8.3	7.9	7.7	7.6	7.5	7.5	7.5	8.3	7.9	8.1	7.7
28	8.6	8.0	8.1	7.8	7.9	7.5	7.7	7.4	8.5	7.9	7.9	7.7
29	8.2	7.8	8.0	7.8	8.0	7.6	7.7	7.5	8.4	7.9	7.9	7.5
30	8.3	7.8	7.8	7.7	7.9	7.6	7.7	7.6	8.2	7.9	7.6	7.3
31	---	---	7.8	7.7	---	---	7.8	7.5	8.2	7.9	---	---
MONTH	8.6	7.7	8.6	7.7	8.2	7.3	8.4	7.4	8.5	7.5	8.3	7.3

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.3	24.0	24.6	18.9	18.5	18.7	14.2	13.9	14.0	7.8	7.4	7.6
2	24.0	23.3	23.5	19.0	18.6	18.8	14.0	13.8	13.9	7.7	7.4	7.5
3	24.0	23.4	23.8	19.0	18.8	18.9	14.1	13.7	13.9	7.4	6.5	7.0
4	24.2	23.7	23.9	18.8	17.7	18.3	14.5	13.9	14.1	6.5	6.2	6.3
5	24.1	23.7	23.9	17.7	16.9	17.3	14.9	14.2	14.7	6.2	5.7	6.0
6	24.4	23.7	24.0	16.9	16.2	16.6	15.1	14.7	14.9	6.0	5.5	5.7
7	24.1	23.5	23.7	16.2	15.8	16.0	15.3	15.1	15.2	5.8	5.7	5.8
8	23.5	22.3	23.0	15.8	15.6	15.7	15.2	14.0	14.7	6.3	5.8	6.0
9	22.3	22.0	22.2	15.6	15.5	15.5	14.1	13.8	13.9	6.7	6.1	6.3
10	22.0	21.6	21.7	15.7	15.5	15.6	13.9	13.4	13.6	6.2	5.8	5.9
11	21.8	21.4	21.6	15.5	14.9	15.2	13.4	13.0	13.2	6.5	6.0	6.3
12	21.7	21.3	21.5	14.9	14.5	14.6	13.1	12.4	12.8	6.8	6.3	6.6
13	21.5	21.1	21.3	14.7	14.4	14.5	12.6	12.1	12.4	7.0	6.7	6.9
14	21.1	20.8	20.9	14.6	14.3	14.5	12.5	12.3	12.4	7.0	6.5	6.7
15	21.0	20.7	20.8	15.0	14.6	14.7	12.3	12.1	12.3	6.6	6.4	6.5
16	21.1	20.7	20.9	14.7	14.3	14.6	12.1	11.9	12.0	6.7	6.4	6.5
17	21.2	20.8	21.0	14.8	14.5	14.6	12.0	11.4	11.7	7.1	6.5	6.7
18	21.1	20.8	21.0	14.6	14.4	14.5	11.5	11.1	11.2	7.6	7.1	7.4
19	20.9	20.5	20.8	14.9	14.5	14.7	11.1	10.7	11.0	8.0	7.5	7.8
20	20.5	20.0	20.2	14.8	14.3	14.6	11.2	10.9	11.0	8.2	7.8	8.1
21	20.2	19.6	20.0	14.3	13.7	14.0	11.4	10.9	11.1	8.6	8.1	8.3
22	19.6	18.9	19.3	13.8	13.5	13.6	11.3	10.1	10.6	10.2	8.6	9.1
23	18.9	18.5	18.7	13.8	13.5	13.6	10.1	9.2	9.7	---	---	---
24	18.6	18.1	18.4	14.1	13.8	13.9	9.3	8.7	9.0	---	---	---
25	18.7	18.3	18.4	13.9	13.7	13.8	9.1	8.4	8.6	---	---	---
26	18.6	18.2	18.4	13.9	13.7	13.8	8.6	8.1	8.3	---	---	---
27	18.8	18.2	18.5	13.7	13.5	13.6	8.3	7.9	8.1	---	---	---
28	18.8	18.5	18.7	13.6	13.5	13.6	8.1	7.8	7.9	---	---	---
29	19.0	18.6	18.8	13.9	13.5	13.7	8.4	8.1	8.3	---	---	---
30	19.3	18.8	19.0	14.0	13.6	13.8	8.2	7.8	8.1	---	---	---
31	19.0	18.6	18.8	---	---	---	8.1	7.8	7.9	---	---	---
MONTH	25.3	18.1	21.0	19.0	13.5	15.2	15.3	7.8	11.6	10.2	5.5	6.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	9.3	9.0	9.1	12.3	11.8	12.0	18.6	18.0	18.2
2	---	---	---	9.5	9.0	9.3	12.7	12.0	12.3	18.8	18.5	18.7
3	---	---	---	9.6	9.0	9.3	13.3	12.5	12.9	19.1	18.8	19.0
4	---	---	---	9.3	8.9	9.1	13.6	13.1	13.3	19.5	18.8	19.1
5	---	---	---	9.2	9.0	9.1	13.9	13.0	13.4	20.1	19.1	19.4
6	---	---	---	9.2	9.0	9.1	15.1	13.9	14.5	20.1	19.2	19.6
7	---	---	---	9.2	8.8	9.0	15.0	14.0	14.4	19.6	18.6	19.1
8	---	---	---	8.9	8.6	8.8	15.2	14.8	15.0	19.3	18.7	19.0
9	---	---	---	8.6	8.3	8.4	16.8	15.1	16.0	19.4	18.4	18.9
10	---	---	---	8.4	8.2	8.3	16.5	15.5	15.9	20.2	18.4	19.3
11	---	---	---	8.5	8.1	8.3	17.4	15.9	16.7	20.6	18.5	19.8
12	---	---	---	8.6	7.9	8.3	17.1	16.0	16.4	20.8	19.3	20.1
13	---	---	---	8.4	8.1	8.3	16.7	16.2	16.3	20.5	18.9	19.8
14	---	---	---	8.2	8.0	8.1	16.8	16.6	16.7	19.5	18.4	19.1
15	---	---	---	8.3	7.9	8.1	16.7	16.5	16.6	20.1	18.2	19.2
16	---	---	---	8.8	8.1	8.4	16.5	16.0	16.2	20.4	18.9	19.7
17	---	---	---	9.2	8.5	8.9	16.1	15.2	15.5	20.5	20.0	20.2
18	---	---	---	9.7	9.1	9.4	15.3	14.9	15.1	20.4	19.2	19.8
19	---	---	---	10.0	9.4	9.7	15.3	15.2	15.2	20.0	19.0	19.4
20	---	---	---	10.1	9.7	9.9	15.9	15.3	15.5	20.3	19.4	19.8
21	---	---	---	10.5	9.9	10.2	16.2	15.7	16.0	20.6	19.9	20.3
22	---	---	---	10.8	9.9	10.3	16.9	16.2	16.5	20.7	20.1	20.5
23	---	---	---	10.9	10.3	10.6	17.1	16.5	16.8	20.4	19.6	19.9
24	---	---	---	10.9	10.6	10.7	17.0	16.3	16.8	20.8	20.0	20.5
25	---	---	---	11.0	10.4	10.7	16.9	16.3	16.6	20.3	19.7	19.8
26	---	---	---	10.9	10.4	10.6	17.5	16.9	17.2	20.5	19.7	20.1
27	---	---	---	11.2	10.4	10.7	18.0	17.5	17.7	20.4	20.3	20.3
28	---	---	---	11.1	10.7	10.9	18.4	17.4	17.9	20.9	20.4	20.6
29	---	---	---	11.4	11.0	11.2	17.9	17.1	17.7	21.2	20.6	20.8
30	---	---	---	11.9	11.2	11.6	18.0	16.9	17.4	21.4	20.7	21.0
31	---	---	---	11.9	11.9	11.9	---	---	---	21.5	20.8	21.2
MONTH	---	---	---	11.9	7.9	9.6	18.4	11.8	15.7	21.5	18.0	19.7

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.9	20.9	21.3	24.4	22.8	23.7	26.0	24.9	25.5	25.3	25.0	25.1
2	22.1	21.7	21.9	24.0	23.3	23.6	25.5	25.0	25.2	25.3	24.6	24.9
3	22.5	22.1	22.3	24.3	23.3	24.0	25.8	25.2	25.4	25.1	24.3	24.6
4	22.4	21.2	21.7	24.5	24.0	24.3	26.2	25.1	25.6	25.2	24.3	24.6
5	23.1	21.6	22.4	24.8	24.0	24.4	26.2	25.0	25.6	24.8	24.5	24.6
6	23.9	22.5	23.1	24.7	23.1	24.3	26.1	25.1	25.5	24.8	24.1	24.6
7	23.6	23.1	23.4	24.1	23.3	23.9	26.5	25.3	26.2	24.7	24.0	24.3
8	23.6	22.9	23.2	24.6	22.2	23.2	26.3	24.7	25.8	24.8	24.0	24.4
9	23.9	22.7	23.2	24.7	23.7	24.2	25.5	24.6	25.1	25.1	24.2	24.7
10	24.4	23.1	23.5	24.9	23.9	24.4	24.9	24.4	24.6	24.9	24.0	24.3
11	24.8	23.4	23.8	23.9	23.0	23.5	24.8	24.1	24.6	24.9	24.4	24.6
12	25.0	23.8	24.3	25.0	23.4	24.2	25.2	24.2	24.6	24.9	24.5	24.7
13	25.2	24.6	24.9	24.6	22.8	23.6	26.1	24.9	25.4	25.1	24.1	24.7
14	25.1	24.4	24.7	25.0	23.3	23.9	25.9	23.8	25.1	24.5	23.9	24.1
15	24.9	23.7	24.4	24.8	23.5	24.2	25.3	24.7	24.9	24.2	23.7	24.0
16	25.0	23.7	24.3	24.2	23.5	23.8	25.8	24.8	25.2	23.7	23.5	23.6
17	25.5	24.9	25.1	24.9	23.7	24.2	25.9	25.2	25.5	23.6	23.1	23.4
18	25.8	24.5	25.0	24.7	24.3	24.5	25.4	25.1	25.3	23.2	22.9	23.1
19	25.8	25.2	25.5	24.6	24.1	24.4	25.1	24.7	24.9	23.1	22.6	22.9
20	25.9	25.3	25.5	24.7	23.0	23.7	25.1	24.0	24.7	23.0	22.8	22.9
21	25.7	25.3	25.4	24.5	22.9	23.7	24.7	24.1	24.4	22.9	21.7	22.4
22	25.4	25.2	25.3	24.4	23.1	23.8	25.4	24.5	24.9	21.7	21.3	21.5
23	25.4	24.7	25.2	24.9	23.8	24.3	25.0	24.4	24.7	21.8	21.5	21.6
24	25.5	24.7	25.2	25.5	23.7	24.7	25.0	24.3	24.5	21.8	21.5	21.7
25	25.3	24.8	25.0	24.5	23.6	24.2	25.2	24.3	24.7	21.7	21.4	21.5
26	25.3	25.1	25.2	24.5	24.0	24.3	25.2	24.5	24.9	21.7	21.3	21.5
27	25.3	24.9	25.2	24.0	23.6	23.8	25.1	24.5	24.7	21.8	21.5	21.6
28	25.2	24.1	24.7	25.0	23.2	24.0	25.5	24.5	24.9	22.2	21.6	21.9
29	24.7	22.9	24.1	25.1	23.7	24.4	25.3	24.4	24.7	22.2	21.4	21.9
30	23.8	22.2	23.1	25.4	24.5	24.8	24.8	24.2	24.4	21.4	20.7	20.9
31	---	---	---	26.1	24.7	25.6	25.0	24.2	24.5	---	---	---
MONTH	25.9	20.9	24.1	26.1	22.2	24.1	26.5	23.8	25.0	25.3	20.7	23.4

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	6.2	6.6	9.1	8.1	8.5	10.3	9.8	10.0	11.2	11.0	11.1
2	6.5	6.0	6.2	9.1	8.3	8.7	10.3	9.8	10.0	11.2	11.0	11.1
3	7.2	6.3	6.9	9.2	8.5	8.9	9.8	9.4	9.6	11.6	11.0	11.3
4	7.1	6.8	7.0	9.2	8.3	8.9	9.8	9.4	9.6	11.8	11.4	11.6
5	7.6	6.4	7.1	8.6	8.0	8.4	9.7	9.5	9.6	12.0	11.7	11.8
6	8.8	7.4	8.1	8.9	8.6	8.8	9.9	9.3	9.6	12.2	11.9	12.0
7	8.3	7.5	7.8	9.2	8.9	9.0	9.8	9.6	9.6	12.2	11.9	12.1
8	8.3	7.3	8.0	9.3	8.9	9.1	9.7	9.3	9.5	12.0	11.8	11.9
9	8.0	7.3	7.6	9.0	8.9	9.0	9.7	9.3	9.5	12.2	11.7	11.9
10	8.3	7.8	8.0	8.9	8.9	8.9	9.7	9.0	9.3	13.0	12.2	12.7
11	8.5	8.0	8.3	9.3	8.8	9.0	9.4	9.0	9.2	12.6	11.5	12.0
12	8.4	8.0	8.2	9.4	9.1	9.3	9.4	8.9	9.2	11.6	11.5	11.5
13	8.8	7.8	8.2	9.2	8.9	9.1	9.3	9.0	9.2	11.6	11.4	11.5
14	8.4	7.8	8.1	9.1	8.9	9.1	9.1	8.9	9.0	11.5	11.4	11.4
15	9.6	8.2	8.8	9.4	8.9	9.1	9.1	8.7	9.0	11.6	11.5	11.6
16	9.4	8.6	9.0	9.2	8.8	9.0	9.4	8.5	8.9	11.6	11.5	11.6
17	9.3	8.4	8.9	9.4	8.8	9.1	10.3	9.3	9.8	11.6	11.3	11.5
18	9.2	8.8	9.0	9.4	9.1	9.3	10.6	10.2	10.4	11.3	10.9	11.1
19	8.9	8.0	8.3	9.6	9.1	9.4	10.6	10.3	10.5	10.9	10.6	10.8
20	8.4	7.7	8.0	9.6	9.4	9.4	10.5	10.1	10.3	10.8	10.4	10.6
21	---	8.0	---	9.5	9.1	9.3	10.2	9.8	9.9	10.5	10.2	10.4
22	---	---	---	9.9	9.2	9.6	10.6	9.8	10.2	10.4	9.9	10.3
23	---	8.5	---	10.1	9.6	9.8	10.4	10.2	10.3	---	---	---
24	10.0	9.1	9.5	10.4	9.7	10.1	10.6	10.4	10.5	---	---	---
25	9.8	8.8	9.3	10.1	9.8	10.0	10.8	10.5	10.7	---	---	---
26	9.5	8.7	9.1	10.1	9.8	10.0	10.8	10.7	10.8	---	---	---
27	9.4	8.6	9.0	10.1	9.7	9.9	10.8	10.7	10.8	---	---	---
28	9.3	8.7	9.0	10.1	9.8	10.0	10.8	10.5	10.7	---	---	---
29	9.1	8.5	8.8	10.5	10.0	10.2	10.5	10.2	10.3	---	---	---
30	9.2	8.4	8.8	10.1	10.0	10.1	10.9	10.3	10.6	---	---	---
31	8.8	8.3	8.6	---	---	---	11.2	10.8	11.0	---	---	---
MONTH	10.0	6.0	8.2	10.5	8.0	9.3	11.2	8.5	9.9	13.0	9.9	11.4

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	12.7	12.2	12.4	11.0	10.2	10.5
2	---	---	---	12.2	11.8	12.1	12.5	12.2	12.3	11.2	10.6	10.9
3	---	---	---	12.2	11.8	12.0	12.4	12.2	12.3	11.1	10.6	10.9
4	---	---	---	12.0	11.8	11.9	12.2	11.9	12.0	10.8	10.0	10.3
5	---	---	---	12.0	11.8	11.9	11.9	11.6	11.8	10.5	9.2	9.7
6	---	---	---	11.9	11.8	11.8	11.9	11.3	11.7	10.0	8.6	9.2
7	---	---	---	12.0	11.8	11.9	11.6	11.2	11.4	10.1	9.0	9.0
8	---	---	---	12.1	11.8	12.0	11.5	11.3	11.5	---	---	---
9	---	---	---	12.0	11.9	12.0	11.4	10.9	11.2	---	---	---
10	---	---	---	12.0	11.9	11.9	10.9	10.2	10.4	---	9.2	---
11	---	---	---	12.1	11.8	11.9	11.0	10.3	10.6	10.6	8.7	9.6
12	---	---	---	12.3	11.9	12.1	10.7	10.0	10.2	10.6	9.3	9.8
13	---	---	---	12.2	11.9	12.0	10.5	10.1	10.3	10.0	8.3	9.3
14	---	---	---	11.9	11.8	11.9	10.7	10.4	10.6	8.8	8.2	8.5
15	---	---	---	12.2	11.9	12.0	10.6	10.3	10.4	9.9	8.2	9.1
16	---	---	---	12.3	12.0	12.1	11.0	10.1	10.5	10.8	9.3	10.1
17	---	---	---	12.2	12.1	12.1	10.7	10.1	10.4	10.9	10.2	10.7
18	---	---	---	12.3	11.7	11.9	10.9	10.2	10.5	10.8	9.9	10.3
19	---	---	---	12.4	11.8	12.1	10.9	10.5	10.7	10.5	9.6	9.9
20	---	---	---	12.5	12.0	12.2	11.6	10.9	11.1	10.8	9.9	10.3
21	---	---	---	12.9	12.2	12.5	11.6	10.9	11.3	10.9	10.1	10.6
22	---	---	---	13.3	12.3	12.7	12.1	11.3	11.6	10.6	10.0	10.3
23	---	---	---	13.0	12.5	12.7	11.6	11.0	11.3	10.1	9.2	9.5
24	---	---	---	12.7	12.2	12.4	11.5	10.1	11.0	10.0	9.3	9.6
25	---	---	---	12.9	12.1	12.5	11.6	10.0	10.8	9.3	8.4	8.8
26	---	---	---	12.8	12.1	12.5	11.5	10.9	11.1	8.8	8.5	8.6
27	---	---	---	13.3	12.2	12.7	11.5	10.9	11.2	8.8	8.6	8.7
28	---	---	---	13.1	12.5	12.9	11.7	9.9	10.7	9.4	8.7	9.1
29	---	---	---	13.3	12.6	12.9	10.5	9.6	10.3	9.3	8.8	9.0
30	---	---	---	13.7	12.8	13.3	10.5	9.4	9.9	8.8	8.3	8.5
31	---	---	---	13.4	12.4	12.9	---	---	---	8.4	8.1	8.2
MONTH	---	---	---	13.7	11.7	12.3	12.7	9.4	11.1	11.2	8.1	9.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.7	7.9	8.8	8.3	6.6	7.7	7.3	6.5	6.9	7.1	6.6	6.8
2	9.9	9.2	9.6	8.0	7.2	7.5	6.8	6.5	6.6	7.0	6.4	6.6
3	9.2	8.4	8.9	8.3	7.6	8.1	7.0	6.3	6.6	7.2	6.2	6.6
4	8.4	7.5	7.8	8.5	7.5	8.0	7.1	6.3	6.6	7.1	6.2	6.6
5	8.9	7.3	8.1	9.1	8.2	8.7	7.0	6.4	6.7	6.7	6.2	6.4
6	8.6	7.7	8.1	8.8	6.4	8.0	7.4	6.3	6.6	6.5	5.8	6.2
7	8.2	7.9	8.0	7.4	6.5	7.1	7.8	7.2	7.5	6.3	5.7	6.0
8	7.9	7.5	7.6	7.5	5.4	6.1	7.5	7.1	7.3	6.3	5.5	5.8
9	7.7	7.0	7.2	7.8	6.7	7.1	7.3	6.9	7.1	6.4	5.7	5.9
10	7.5	6.9	7.1	7.3	6.3	6.7	7.4	6.9	7.1	6.3	5.4	5.7
11	7.2	7.0	7.1	6.6	6.1	6.3	7.2	6.9	7.0	6.4	6.1	6.2
12	7.1	6.9	7.0	7.5	6.3	6.9	7.2	6.7	6.9	6.9	6.3	6.6
13	7.0	6.7	6.8	7.2	5.6	6.4	7.6	6.5	7.0	6.5	6.1	6.3
14	6.9	6.3	6.5	8.0	6.2	7.0	7.3	6.6	7.1	7.0	6.0	6.5
15	6.6	5.6	6.1	8.7	7.2	7.8	7.8	6.7	7.1	7.8	7.0	7.4
16	6.2	5.5	5.7	8.4	6.8	7.4	8.5	7.1	7.7	9.2	7.8	8.4
17	7.5	6.0	6.6	8.7	7.1	7.9	8.3	7.3	7.7	9.2	8.6	8.9
18	7.8	6.1	6.7	8.3	7.8	8.0	7.6	6.8	7.2	8.7	8.1	8.4
19	8.4	7.1	7.7	8.0	5.8	6.9	6.9	6.5	6.7	8.2	7.6	7.9
20	8.5	7.2	7.7	6.3	5.0	5.5	7.0	6.1	6.8	8.4	7.3	7.8
21	8.1	6.9	7.5	6.6	5.2	5.8	6.6	6.1	6.4	8.0	7.2	7.4
22	7.4	6.7	7.0	6.5	5.6	6.0	7.7	6.6	7.1	8.1	6.8	7.3
23	7.6	6.4	6.8	6.2	5.5	5.9	7.3	6.1	6.7	9.0	8.1	8.5
24	7.5	6.7	7.1	5.9	5.5	5.6	7.0	5.9	6.5	9.7	8.7	9.1
25	6.9	6.2	6.4	---	---	---	6.8	5.9	6.4	10.2	8.4	9.1
26	---	---	---	6.9	6.6	6.9	7.3	6.3	6.7	10.2	8.6	9.3
27	---	---	---	7.1	6.7	6.9	7.6	6.7	7.0	9.8	8.7	9.2
28	7.2	6.6	7.0	7.2	6.4	6.8	8.0	7.0	7.4	9.5	8.9	9.1
29	7.4	6.4	6.9	6.9	6.5	6.7	7.8	6.9	7.2	9.3	8.3	8.6
30	7.7	6.0	6.9	7.3	6.6	6.9	7.6	6.8	7.1	8.8	7.2	7.8
31	---	---	---	7.5	6.4	7.1	7.4	6.7	6.9	---	---	---
MONTH	9.9	5.5	7.3	9.1	5.0	7.0	8.5	5.9	7.0	10.2	5.4	7.4

03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN

LOCATION.--Lat 36°07'47", long 86°45'40", Davidson County, Hydrologic Unit 05130202, near center of span on downstream side of bridge on access road to pit area of the race track at State Fairgrounds, 300 ft west of Craighead Street, 0.3 mi upstream from bridge on U.S. Highway 31A and 41A, and 2.8 mi southwest of the State Capitol in Nashville.

DRAINAGE AREA.--11.8 mi^2.

PERIOD OF RECORD.--December 1963 to September 1975. August 1993 to current year.

REVISED RECORDS.--WDR TN-94-1: 1975 (p).

GAGE.--Data collection platform. Datum of gage is 439.81 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specfic conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 8	2115	547	4.41	Jul 24	1300	844	5.32
Jan 22	2135	*1,370	*6.55	Aug 24	1950	591	4.56

Minimum discharge, 0.41 ft^3/s, Nov. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.74	.80	5.2	127	20	17	5.6	18	20	11	1.6
2	1.1	.77	.76	58	96	51	15	5.3	6.2	30	3.8	1.5
3	22	.76	.68	31	71	73	14	5.1	4.9	13	2.9	1.5
4	3.9	.76	.94	17	52	46	22	5.0	4.3	8.8	2.5	1.4
5	2.6	.73	29	11	31	38	15	69	13	6.8	2.3	1.4
6	2.1	e.72	3.7	9.7	23	51	26	72	5.2	5.6	2.1	1.3
7	14	e.80	62	13	24	34	17	26	4.4	4.7	2.0	1.3
8	3.9	e.90	105	132	19	31	15	19	4.0	5.0	1.9	1.3
9	2.8	e1.1	18	168	17	33	14	19	3.5	4.4	1.8	1.4
10	2.3	e22	7.0	82	15	26	13	15	13	15	1.7	1.3
11	2.0	1.0	4.2	48	23	23	11	12	7.8	43	6.6	1.3
12	1.8	.68	119	30	63	21	10	10	4.5	16	2.1	1.2
13	1.6	.73	121	26	33	51	9.6	16	3.5	11	1.9	2.5
14	1.6	.70	42	19	27	109	13	11	13	8.1	1.7	1.5
15	1.6	.58	22	15	23	86	34	8.9	5.5	6.6	1.6	1.4
16	1.3	.56	13	12	24	62	14	7.7	4.1	5.4	1.6	1.4
17	1.2	.51	8.5	18	22	48	11	6.7	3.4	4.6	1.5	1.4
18	1.1	.48	5.9	12	18	39	9.7	15	3.2	19	1.4	1.4
19	1.8	.54	7.2	8.9	16	32	8.5	8.7	2.7	7.0	1.4	2.1
20	1.2	5.7	4.7	7.4	14	28	7.8	7.0	2.5	4.8	1.4	19
21	1.4	.87	6.0	7.2	13	25	7.4	6.0	2.3	4.0	1.3	9.0
22	.86	.80	11	227	12	22	6.8	5.6	2.3	3.5	1.3	3.3
23	.68	.78	4.8	429	12	23	6.4	5.3	5.5	4.1	1.3	2.3
24	.65	.77	5.0	147	11	21	6.0	5.0	11	45	29	1.8
25	.64	1.5	5.5	95	9.7	18	6.8	4.7	5.1	9.7	6.2	1.6
26	.71	.82	5.5	68	8.9	16	9.3	4.6	22	5.9	3.2	1.5
27	.68	.77	5.1	49	40	15	8.7	4.3	12	4.5	2.6	1.4
28	e.68	.76	13	56	23	14	6.4	4.1	18	6.7	2.2	1.3
29	e.69	.76	9.0	51	---	16	7.6	3.9	10	3.8	2.0	16
30	.68	.88	6.8	127	---	13	6.0	3.8	6.9	3.1	1.8	2.5
31	.70	---	5.7	165	---	23	---	5.7	---	2.7	1.7	---
TOTAL	79.37	49.47	652.78	2144.4	867.6	1108	368.0	397.0	221.8	331.8	105.8	87.9
MEAN	2.56	1.65	21.1	69.2	31.0	35.7	12.3	12.8	7.39	10.7	3.41	2.93
MAX	22	22	121	429	127	109	34	72	22	45	29	19
MIN	.64	.48	.68	5.2	8.9	13	6.0	3.8	2.3	2.7	1.3	1.2
CFSM	.22	.14	1.78	5.86	2.63	3.03	1.04	1.09	.63	.91	.29	.25
IN.	.25	.16	2.06	6.76	2.74	3.49	1.16	1.25	.70	1.05	.33	.28

e Estimated

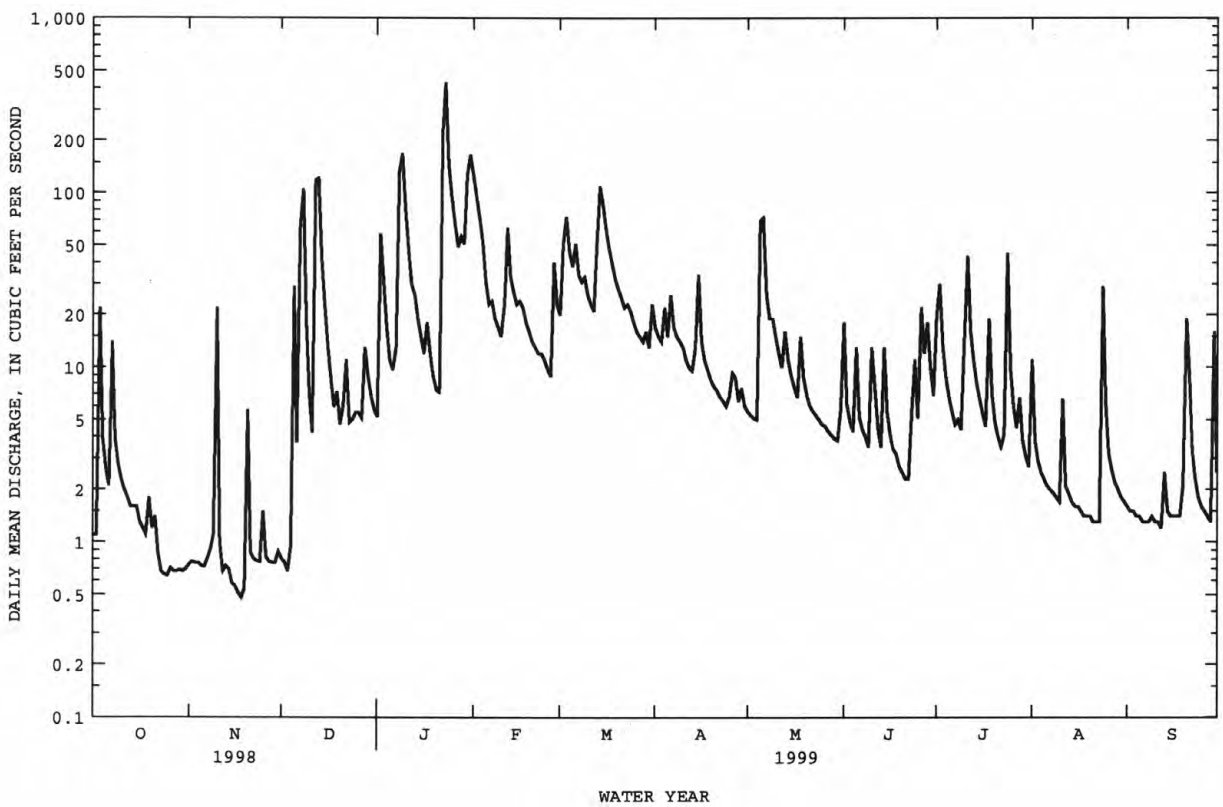
03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.14	13.2	22.0	28.0	25.0	38.2	23.7	18.4	15.2	7.13	6.20	5.77
MAX	24.5	34.8	63.8	86.5	49.2	102	50.3	38.5	61.0	19.8	23.2	21.0
(WY)	1996	1974	1973	1974	1969	1975	1973	1970	1998	1967	1971	1974
MIN	.71	1.36	1.28	5.79	5.87	9.70	4.36	5.42	1.71	.96	1.65	.92
(WY)	1966	1966	1966	1966	1967	1966	1967	1971	1966	1964	1968	1965

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	6441.27		6413.92			
ANNUAL MEAN	17.6		17.6		17.5	
HIGHEST ANNUAL MEAN					29.6	1973
LOWEST ANNUAL MEAN					6.67	1966
HIGHEST DAILY MEAN	571	Jun 5	429	Jan 23	696	Mar 12 1975
LOWEST DAILY MEAN	.48	Nov 18	.48	Nov 18	.29	Sep 5 1973
ANNUAL SEVEN-DAY MINIMUM	.59	Nov 13	.59	Nov 13	.36	Sep 2 1973
INSTANTANEOUS PEAK FLOW			1370	Jan 22	2210	Nov 27 1994
INSTANTANEOUS PEAK STAGE			6.55	Jan 22	8.20	Nov 27 1994
INSTANTANEOUS LOW FLOW			a.41	Nov 17	.15	Sep 5 1973
ANNUAL RUNOFF (CFSM)	1.50		1.49		1.48	
ANNUAL RUNOFF (INCHES)	20.31		20.22		20.16	
10 PERCENT EXCEEDS	36		44		39	
50 PERCENT EXCEEDS	9.0		6.6		6.5	
90 PERCENT EXCEEDS	.77		.88		1.3	

a Also occurred Nov. 18.



034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN

LOCATION.--Lat 36°10'02", long 86°46'35", Davidson County, Hydrologic Unit 05130202, on left bank at northwest corner of Woodland Street Bridge, at Nashville, 3.5 mi downstream from Mill Creek, and at mile 190.9.

DRAINAGE AREA.--12,860 mi^2, approximately.

PERIOD OF RECORD.--May 1992 to current year. October 1892 to September 1954, monthly and yearly discharges published in WSP 1306 and 1726, October 1986 to September 1991, gage height, published as "at Nashville." Gage height record collected in this vicinity since 1873 are contained in reports of U.S. Weather Bureau.

GAGE.--Data collection platform and acoustic velocity meter. Datum of gage is 368.17 ft above sea level. Prior to fall of 1922 inclined and vertical staff gage at site 350 ft downstream and from fall of 1922 to Apr. 9, 1940, staff gage at site 400 ft downstream, both gages at same datum. Nov. 1, 1930, to Sept. 30, 1954, upper staff gage at former lock 1, 2.7 mi downstream was used as auxiliary gage. Prior to May 1992 at site 0.2 mi upstream at same datum.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203,000 ft^3/s, Jan. 1, 1927, gage height 56.2 ft; minimum gage height observed after first filling of pool at dam 1, 6.1 ft, Oct. 19, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101,000 ft^3/s, Jan. 24, maximum gage height, 34.90 ft, Jan. 24, minimum daily discharge, 5,460 ft^3/s, June 2; minimum gage height, 15.90 ft, July 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7210	7500	5730	13800	54300	43600	19300	10700	6250	28100	12200	9190
2	7150	7340	5690	17400	58900	34700	21100	9310	5460	31500	11200	9630
3	7420	7140	5700	16400	56900	30600	20900	7730	5890	38300	10600	9980
4	7310	8040	6550	25800	52700	41900	18200	7300	8680	34900	11400	9440
5	7810	8030	10800	24800	47900	40100	14100	7470	9100	16600	13900	6650
6	7390	9150	10900	22700	40900	36900	14500	26700	7730	8650	16700	7110
7	9490	8790	10200	16200	38000	32300	16300	40600	7000	8990	16300	6750
8	9060	7650	13600	22300	34900	19200	16400	27300	7860	11900	13500	8770
9	9570	6990	17000	51000	32500	17600	14500	23700	7630	16000	9580	11100
10	9190	7820	15400	67700	25800	19100	11300	16000	8620	15500	8070	12600
11	7940	8740	14700	52900	23300	19400	12800	14500	8750	11300	9990	11100
12	7020	10200	9450	28800	29600	20600	11100	24200	7070	14000	e15900	10100
13	8640	10900	27100	22700	37500	23300	9180	22900	6330	13800	e17300	9850
14	8540	12500	44700	25700	37000	28200	12400	19800	5840	16500	16200	9450
15	7280	12900	30700	30300	30600	47900	12800	15400	6750	17400	11900	8860
16	6310	11700	20000	34500	27500	49700	12800	16400	9810	17400	11300	9320
17	6510	9110	16100	29200	30700	49600	12200	17400	11400	15200	9870	8600
18	7430	8510	16200	30500	31300	46900	8940	16200	11300	13400	9100	6090
19	7050	8560	15200	34300	32900	37000	8600	15700	9320	14700	10500	7150
20	6290	7860	13300	33800	31400	33000	8720	15700	8390	13400	10800	7470
21	6370	6380	14800	32500	23900	27300	10400	15200	8390	14700	12200	7440
22	6320	6220	12100	28700	26100	23400	11500	13200	9280	16500	10500	8760
23	6400	6860	14300	83100	25100	21300	11800	10300	10400	19800	8420	9830
24	6490	6150	14100	99000	24600	19600	e9420	8430	15000	15600	7890	9410
25	6560	7930	14400	78400	23600	21900	e8220	8670	18900	13000	14600	8840
26	6470	8500	15400	50600	25700	22200	e7590	9320	20700	10500	19300	9060
27	7680	9590	13900	52300	24900	19800	7880	9840	15100	10900	14000	7680
28	7890	7670	14800	50100	34700	18600	10800	7330	12200	12000	11000	6520
29	9490	5490	15000	44300	---	17700	9350	6180	25500	14400	9690	6650
30	9330	5670	16400	41700	---	17000	9830	6430	24400	17400	7750	7810
31	8820	---	14800	45700	---	18100	---	6240	---	13700	8110	---
TOTAL	236430	249890	469020	1207200	963200	898500	372930	456150	319050	516040	369770	261210
MEAN	7627	8330	15130	38940	34400	28980	12430	14710	10640	16650	11930	8707
MAX	9570	12900	44700	99000	58900	49700	21100	40600	25500	38300	19300	12600
MIN	6290	5490	5690	13800	23300	17000	7590	6180	5460	8650	7750	6090

e Estimated

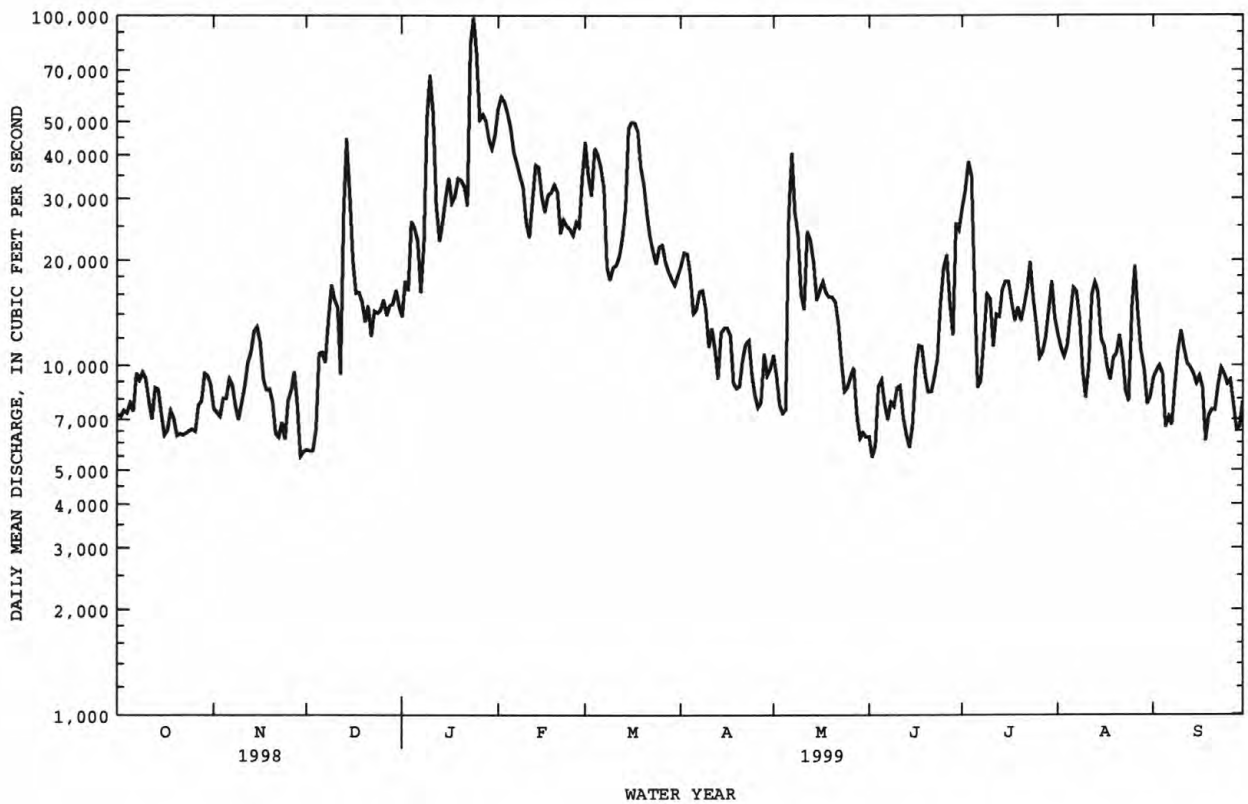
034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11070	13770	22700	34740	33890	42930	36340	23460	23240	15130	14250	11090
MAX	18380	22670	40930	43570	71760	82050	92860	47660	50810	20320	20680	18820
(WY)	1993	1996	1997	1994	1994	1994	1994	1998	1997	1992	1996	1992
MIN	7627	8167	9310	22930	19200	24750	10680	7195	10210	11490	10490	8176
(WY)	1999	1994	1998	1995	1993	1998	1995	1992	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1992 - 1999	
ANNUAL TOTAL	8841320		6319390			
ANNUAL MEAN	24220		17310		23590	
HIGHEST ANNUAL MEAN					34940	1994
LOWEST ANNUAL MEAN					17310	1999
HIGHEST DAILY MEAN	92300	Jun 12	99000	Jan 24	122000	Mar 3 1997
LOWEST DAILY MEAN	5490	Nov 29	5460	Jun 2	4290	Oct 10 1993
ANNUAL SEVEN-DAY MINIMUM	6070	Nov 28	6070	Nov 28	5410	Oct 6 1993
INSTANTANEOUS PEAK FLOW			101000	Jan 24	134000	Mar 4 1997
INSTANTANEOUS PEAK STAGE			34.90	Jan 24	39.26	Mar 4 1997
10 PERCENT EXCEEDS	56800		34700		47900	
50 PERCENT EXCEEDS	17500		12600		16000	
90 PERCENT EXCEEDS	7430		7040		7740	

* Period of daily discharge only.



03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°10'59", long 86°49'56", Davidson County, Hydrologic Unit 05130202, on center pier of Nashville to Ashland City Railroad Bridge, 0.8 mi south of Bordeaux, 2.6 mi upstream of Whites Creek, and at mile 185.2.

DRAINAGE AREA.--12,862mi^2, approximately.

PERIOD OF RECORD.--November 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1996 to current year.
pH: November 1996 to current year.
WATER TEMPERATURE: November 1996 to current year.
DISSOLVED OXYGEN: November 1996 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1996.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Periods of missing record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 268 microsiemens, Dec. 19, 1997; minimum, 171 microsiemens, June 4, 1998.
pH: Maximum, 8.7 units, May 1, 3, 1997; minimum, 6.6 units, Nov. 30, 1997, June 11, 1997.
WATER TEMPERATURE: Maximum, 27.6°C, Aug. 4, 1997; minimum, 4.6°C, Jan. 19, 1997.
DISSOLVED OXYGEN: Maximum, 13.4 mg/L, March 30, 1999; minimum,4.8 mg/L, July 31, 1997.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 248 microsiemens, Dec. 8, May 15; minimum, 181 microsiemens, Apr. 7.
pH: Maximum, 8.6 units, several days; minimum, 7.2 units, June 7, 8, 9.
WATER TEMPERATURE: Maximum, 27.1°C, Aug. 7; minimum, 5.7°C, Jan. 6.
DISSOLVED OXYGEN: Maximum, 13.4 mg/L, Mar. 30; minimum, 4.9 mg/L, July 11.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	197	191	194	194	188	191	200	197	198	232	220	227
2	199	191	195	193	190	191	202	198	200	229	214	223
3	---	---	---	194	188	190	206	199	202	239	216	225
4	---	---	---	197	193	195	215	201	206	228	208	215
5	200	196	197	200	190	195	239	201	218	228	213	224
6	202	194	196	198	191	195	243	234	239	230	212	224
7	204	191	195	196	191	194	242	235	238	241	227	234
8	203	190	194	198	190	194	248	214	237	245	231	241
9	197	187	192	196	192	194	216	203	207	238	219	229
10	194	188	190	196	194	195	228	204	213	234	228	231
11	192	187	190	---	---	---	216	198	206	236	230	233
12	190	187	189	210	201	205	226	201	211	236	220	231
13	192	185	188	207	200	205	228	203	216	242	229	238
14	190	185	187	---	---	---	208	200	203	238	231	234
15	193	189	191	---	---	---	217	206	212	234	228	232
16	192	188	189	195	190	191	229	215	223	233	228	230
17	193	187	189	197	193	195	237	226	230	241	233	237
18	189	185	187	202	195	198	236	224	229	238	221	231
19	186	182	185	202	196	200	235	215	226	232	209	221
20	189	184	187	203	196	200	238	214	230	219	205	213
21	192	187	189	203	197	201	228	214	220	224	200	209
22	193	188	191	200	196	198	237	216	227	225	206	215
23	196	189	191	199	194	196	232	214	223	227	208	217
24	195	189	192	197	193	195	236	216	225	217	196	211
25	195	186	190	200	194	196	240	219	231	212	193	199
26	193	190	191	196	192	194	240	223	230	223	212	217
27	194	189	191	193	190	191	241	224	233	223	213	217
28	195	189	192	195	190	192	235	223	228	232	223	227
29	199	187	191	200	193	196	240	222	230	230	220	226
30	193	185	189	198	193	196	234	216	225	226	217	220
31	192	184	188	---	---	---	232	217	224	231	211	223
MONTH	204	182	191	210	188	196	248	197	221	245	193	224

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	211	203	206	218	205	211	204	192	196	211	203	206
2	218	205	211	219	206	213	202	192	195	208	203	206
3	227	218	221	227	208	217	205	189	194	210	205	208
4	225	220	223	224	211	218	194	188	191	218	207	211
5	226	222	224	229	210	221	191	188	189	227	212	218
6	227	222	225	231	219	225	192	187	190	222	207	215
7	226	219	222	234	221	226	191	181	187	226	209	212
8	219	210	216	241	223	230	202	183	189	234	217	225
9	215	206	212	243	227	234	192	186	188	235	214	226
10	217	203	210	241	222	229	200	189	193	238	220	231
11	219	203	210	244	225	232	196	190	194	244	217	227
12	221	206	214	240	221	229	198	193	195	234	214	221
13	218	207	213	247	226	231	222	198	206	234	217	226
14	220	209	216	247	227	235	204	197	201	237	223	231
15	226	210	216	240	235	237	210	199	204	248	221	239
16	226	213	218	236	232	234	209	206	207	237	216	226
17	228	216	223	234	232	233	209	205	207	218	212	216
18	229	219	224	241	232	235	208	204	206	226	212	217
19	228	217	222	243	231	240	212	207	209	222	209	214
20	225	215	221	238	224	233	210	205	208	218	207	211
21	221	212	216	231	218	224	209	205	207	217	206	210
22	225	212	218	233	210	220	206	199	202	214	204	208
23	224	212	217	230	208	217	204	200	202	208	204	206
24	224	212	218	225	207	215	207	201	204	207	203	205
25	225	213	219	223	200	208	209	203	206	208	202	205
26	225	209	215	216	199	205	209	202	205	209	202	204
27	220	210	213	214	195	199	212	203	206	208	203	205
28	217	207	211	208	193	196	208	203	206	210	202	206
29	---	---	---	203	192	194	210	203	205	211	207	209
30	---	---	---	204	192	197	211	204	207	212	205	209
31	---	---	---	204	193	196	---	---	---	208	203	206
MONTH	229	203	217	247	192	220	222	181	200	248	202	215

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	212	202	208	220	198	213	201	188	192	205	199	201
2	218	209	212	217	200	209	195	189	192	207	199	202
3	216	211	212	210	196	202	197	191	194	206	199	203
4	215	207	212	210	199	203	201	188	195	204	199	201
5	---	---	---	220	205	212	192	183	189	204	199	201
6	---	---	---	242	217	222	189	186	188	203	200	202
7	---	---	---	242	215	228	188	182	185	204	201	203
8	214	204	207	236	210	216	187	185	186	205	201	203
9	216	205	211	210	197	203	191	186	188	208	199	202
10	215	207	211	205	194	200	196	188	193	205	198	201
11	217	207	212	210	200	204	197	191	194	202	198	199
12	220	208	212	213	208	210	192	187	190	201	197	199
13	222	208	215	239	206	219	192	186	189	202	197	199
14	216	207	210	233	208	219	189	185	187	204	197	199
15	217	210	213	220	204	214	189	186	188	204	197	199
16	217	210	212	219	203	212	190	184	188	202	198	200
17	212	205	209	217	202	211	189	184	187	203	199	200
18	211	204	207	203	198	201	190	185	188	206	199	201
19	213	206	208	202	197	199	190	186	188	207	200	203
20	211	206	208	227	197	209	188	184	186	206	199	202
21	211	208	210	225	204	214	188	183	186	210	199	203
22	212	210	211	221	201	213	187	183	185	203	199	201
23	213	208	210	212	194	204	194	185	189	202	196	199
24	214	203	208	208	193	200	201	189	195	199	194	196
25	208	205	206	201	194	196	204	191	198	198	194	196
26	208	203	206	196	193	194	197	194	195	197	193	195
27	211	204	206	198	191	195	198	195	196	197	192	194
28	214	208	210	199	192	196	201	195	198	203	193	197
29	215	202	209	196	188	192	202	196	199	205	195	199
30	221	202	216	192	188	190	202	196	199	200	196	198
31	---	---	---	192	184	189	204	198	200	---	---	---
MONTH	222	202	210	242	184	206	204	182	191	210	192	200

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.4	7.8	7.6	7.9	7.6	7.9	7.9	7.6	7.6	8.2	8.1
2	7.6	7.4	7.7	7.6	7.9	7.6	7.9	7.8	7.6	7.6	8.2	8.0
3	---	---	7.8	7.6	7.9	7.7	7.9	7.8	7.6	7.6	8.1	8.0
4	---	---	7.9	7.7	7.8	7.7	8.2	7.8	7.6	7.6	8.2	8.1
5	7.7	7.4	7.8	7.6	7.8	7.7	8.3	8.2	7.6	7.6	8.2	7.9
6	7.7	7.4	7.7	7.6	7.7	7.7	8.2	8.0	7.6	7.6	8.1	7.9
7	7.9	7.5	7.7	7.6	7.7	7.6	8.1	8.0	7.6	7.6	8.2	8.1
8	7.7	7.6	7.6	7.5	7.7	7.6	8.1	7.9	7.6	7.6	8.2	8.1
9	7.7	7.4	7.6	7.5	7.8	7.7	8.0	8.0	7.6	7.5	8.2	8.1
10	7.7	7.4	7.5	7.5	7.8	7.7	8.1	8.0	7.5	7.5	8.3	8.1
11	7.9	7.5	7.7	7.5	7.8	7.7	8.0	8.0	7.7	7.5	8.3	8.0
12	8.1	7.6	7.7	7.5	7.8	7.7	8.0	7.9	7.8	7.6	8.2	8.1
13	7.9	7.7	7.8	7.6	7.7	7.6	8.0	7.9	7.9	7.6	8.2	8.0
14	7.8	7.6	---	---	7.7	7.7	8.0	7.9	7.9	7.8	8.0	7.9
15	7.7	7.5	---	---	7.8	7.7	8.0	7.9	7.9	7.8	8.1	7.8
16	8.0	7.6	7.9	7.7	7.8	7.7	8.0	8.0	8.0	7.8	8.1	8.0
17	8.0	7.7	7.9	7.7	7.8	7.8	8.0	7.9	8.1	7.9	8.1	8.0
18	7.9	7.6	7.9	7.7	7.8	7.8	8.0	7.9	8.1	8.0	8.1	8.0
19	7.8	7.7	7.8	7.7	7.8	7.8	8.0	7.9	8.1	8.0	8.1	8.0
20	7.8	7.7	7.8	7.8	7.9	7.8	8.0	7.9	8.1	8.0	8.2	8.1
21	7.7	7.5	7.9	7.8	7.8	7.7	7.9	7.8	8.1	8.0	8.3	8.1
22	7.7	7.5	7.8	7.7	7.8	7.7	7.9	7.8	8.2	8.1	8.3	8.2
23	7.8	7.6	8.0	7.7	7.8	7.7	7.9	7.8	8.1	8.0	8.4	8.3
24	7.8	7.6	8.0	7.7	7.8	7.8	7.9	7.7	8.1	8.1	8.3	8.1
25	7.8	7.6	7.8	7.7	7.9	7.8	7.7	7.7	8.1	8.0	8.4	8.1
26	7.8	7.6	7.9	7.8	7.9	7.8	7.8	7.7	8.1	8.1	8.4	8.2
27	7.8	7.6	7.9	7.7	7.9	7.9	7.8	7.7	8.1	7.8	8.5	8.2
28	7.8	7.6	7.9	7.6	7.9	7.8	7.8	7.7	8.2	8.0	8.5	7.9
29	7.8	7.6	7.9	7.6	7.9	7.8	7.7	7.6	---	---	8.5	8.0
30	7.8	7.7	7.9	7.7	7.9	7.8	7.7	7.6	---	---	8.6	8.0
31	7.9	7.7	---	---	7.9	7.9	7.6	7.6	---	---	8.6	7.8
MONTH	8.1	7.4	8.0	7.5	7.9	7.6	8.3	7.6	8.2	7.5	8.6	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.4	7.9	8.6	8.2	7.7	7.6	8.1	7.6	7.9	7.6	8.0	7.6
2	8.4	8.1	8.6	8.2	7.8	7.6	7.9	7.6	7.8	7.6	8.0	7.8
3	8.4	7.8	8.6	8.4	7.8	7.6	8.0	7.6	7.8	7.6	7.9	7.7
4	8.3	7.8	8.6	8.2	7.8	7.5	7.8	7.6	7.9	7.6	7.9	7.7
5	8.2	7.8	8.2	7.9	---	---	7.7	7.5	8.1	7.6	8.0	7.7
6	8.1	7.9	8.1	7.8	---	---	7.8	7.5	7.9	7.7	7.8	7.7
7	8.2	7.8	8.0	7.8	---	---	7.5	7.2	8.4	7.8	7.7	7.6
8	8.3	7.9	8.0	7.8	7.6	7.3	7.4	7.2	8.2	7.8	7.7	7.6
9	8.4	8.0	8.0	7.8	7.7	7.5	7.8	7.2	8.0	7.7	7.7	7.6
10	8.3	7.9	8.1	7.9	7.7	7.4	7.7	7.6	7.9	7.7	7.7	7.6
11	8.2	7.8	8.1	7.9	7.7	7.5	7.6	7.5	7.8	7.7	7.9	7.6
12	8.2	7.9	8.4	7.9	7.8	7.5	7.8	7.6	7.8	7.7	8.0	7.7
13	8.2	7.8	8.2	7.8	7.8	7.6	7.9	7.6	8.1	7.7	7.9	7.7
14	8.1	7.8	7.8	7.7	7.8	7.5	8.1	7.7	8.1	7.7	7.9	7.7
15	8.1	8.0	7.9	7.7	7.6	7.4	8.3	7.9	8.0	7.7	7.8	7.7
16	8.3	8.0	8.3	7.9	7.5	7.3	8.0	7.8	8.3	7.8	7.9	7.7
17	8.2	8.0	8.4	8.1	7.7	7.4	8.1	7.8	8.3	8.0	8.4	7.8
18	8.3	8.0	8.2	7.9	7.8	7.4	8.1	7.9	8.3	7.9	8.3	8.0
19	8.3	8.0	8.0	7.8	7.9	7.6	7.9	7.8	7.9	7.7	8.3	8.0
20	8.5	8.1	8.3	7.9	8.3	7.8	7.8	7.6	7.9	7.7	8.0	7.8
21	8.6	8.2	8.4	8.0	8.2	7.7	7.7	7.5	7.8	7.6	7.9	7.6
22	8.6	8.2	8.3	8.0	8.0	7.6	7.7	7.5	8.0	7.6	7.8	7.5
23	8.5	8.3	8.2	7.8	7.7	7.5	7.7	7.5	8.0	7.8	8.1	7.5
24	8.6	8.3	8.1	7.6	7.8	7.4	7.7	7.5	7.9	7.8	8.3	7.9
25	8.3	8.1	8.1	7.7	7.7	7.5	7.6	7.5	7.8	7.5	8.3	8.1
26	8.4	8.2	7.7	7.6	7.8	7.5	7.5	7.4	7.8	7.5	8.3	8.0
27	8.5	8.2	7.9	7.6	8.0	7.6	7.6	7.3	8.0	7.8	8.3	7.9
28	8.5	8.3	7.8	7.6	7.9	7.6	7.7	7.4	8.1	7.6	8.2	7.7
29	8.5	8.2	8.0	7.8	7.7	7.4	7.8	7.5	8.1	7.8	8.0	7.7
30	8.3	8.1	7.9	7.7	7.8	7.4	7.7	7.5	8.0	7.7	7.8	7.6
31	---	---	7.7	7.6	---	---	8.1	7.6	8.1	7.7	---	---
MONTH	8.6	7.8	8.6	7.6	8.3	7.3	8.3	7.2	8.4	7.5	8.4	7.5

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.4	24.7	25.0	18.9	18.5	18.7	14.5	14.1	14.3	7.9	7.5	7.8
2	24.7	23.7	24.1	18.9	18.6	18.7	14.5	14.1	14.3	8.0	7.5	7.8
3	---	---	---	19.0	18.6	18.8	14.3	14.1	14.2	7.6	6.7	7.3
4	---	---	---	18.6	18.0	18.4	14.4	13.9	14.2	6.7	6.3	6.5
5	24.5	24.1	24.4	18.0	16.9	17.6	14.9	14.3	14.7	6.4	6.1	6.2
6	24.3	24.0	24.1	16.9	16.3	16.7	15.2	14.8	15.0	6.2	5.7	5.9
7	24.3	23.6	24.1	16.3	15.8	16.0	15.4	15.1	15.2	6.0	5.8	6.0
8	23.7	23.0	23.5	15.8	15.6	15.7	15.4	14.4	15.1	6.6	6.0	6.2
9	23.0	22.2	22.7	15.9	15.5	15.7	14.4	13.9	14.1	6.7	6.3	6.5
10	22.3	22.0	22.2	15.9	15.5	15.7	13.9	13.4	13.7	6.3	5.9	6.1
11	22.2	21.7	22.0	15.8	15.2	15.6	13.5	13.2	13.4	6.6	6.0	6.3
12	22.4	21.8	22.1	15.2	14.6	14.9	13.2	12.8	13.1	7.0	6.4	6.7
13	22.1	21.8	21.9	14.7	14.4	14.6	12.8	12.5	12.6	7.2	7.0	7.1
14	21.8	21.3	21.5	---	---	---	12.6	12.4	12.5	7.2	6.7	7.0
15	21.4	21.0	21.2	---	---	---	12.5	12.3	12.4	6.7	6.6	6.6
16	21.6	21.1	21.3	15.3	15.0	15.1	12.3	12.0	12.1	6.8	6.4	6.6
17	21.7	21.2	21.5	15.3	14.9	15.1	12.1	11.5	11.9	7.0	6.6	6.8
18	21.6	21.2	21.4	15.1	14.8	15.0	11.5	11.1	11.4	7.9	7.0	7.4
19	21.5	21.0	21.3	15.1	14.9	15.0	11.3	10.9	11.1	8.2	7.5	7.8
20	21.1	20.6	20.9	15.2	14.9	15.1	11.4	11.0	11.2	8.4	7.9	8.2
21	20.6	20.2	20.4	14.9	14.4	14.7	11.5	11.1	11.3	8.7	8.1	8.4
22	20.2	19.5	20.0	14.4	13.9	14.2	11.4	10.3	11.1	9.9	8.6	9.1
23	19.6	18.9	19.3	14.1	13.8	14.0	10.3	9.4	10.0	11.1	9.9	10.7
24	19.3	18.6	18.9	14.3	14.1	14.2	9.4	8.8	9.2	11.1	10.8	10.9
25	18.9	18.4	18.7	14.3	14.1	14.2	9.2	8.5	8.9	11.3	10.7	11.1
26	19.0	18.4	18.7	14.3	14.0	14.1	8.7	8.3	8.5	10.7	10.4	10.5
27	18.9	18.4	18.6	14.1	13.8	14.0	8.6	8.1	8.4	11.1	10.6	10.9
28	18.9	18.4	18.6	14.0	13.6	13.8	8.2	8.1	8.1	11.4	11.1	11.2
29	19.0	18.6	18.8	14.2	13.8	14.0	8.6	8.2	8.4	11.3	10.9	11.1
30	19.1	18.6	18.8	14.3	14.0	14.1	8.4	8.0	8.2	10.9	10.7	10.8
31	19.1	18.7	18.9	---	---	---	8.3	7.9	8.2	10.9	10.7	10.8
MONTH	25.4	18.4	21.2	19.0	13.6	15.5	15.4	7.9	11.8	11.4	5.7	8.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.9	10.7	10.8	9.6	9.2	9.3	12.0	11.7	11.8	18.9	17.7	18.3
2	10.7	10.2	10.4	9.7	9.3	9.5	12.4	11.9	12.1	19.5	18.1	18.8
3	10.2	9.9	10.0	9.8	9.1	9.6	13.0	12.4	12.7	19.9	18.7	19.2
4	10.1	9.9	10.0	9.4	9.0	9.2	13.5	13.0	13.2	20.4	19.2	19.5
5	10.1	9.8	10.0	9.3	9.2	9.2	13.5	13.2	13.3	20.0	19.3	19.6
6	10.1	9.9	10.0	9.4	9.1	9.3	14.8	13.5	14.2	20.0	19.3	19.7
7	10.5	10.1	10.3	9.4	9.0	9.2	15.0	14.5	14.7	19.6	18.9	19.2
8	10.7	10.4	10.5	9.2	8.8	9.0	15.5	14.6	15.2	19.8	18.8	19.2
9	10.8	10.6	10.7	8.9	8.5	8.8	16.8	15.3	16.0	19.8	18.6	19.1
10	11.0	10.7	10.9	8.8	8.4	8.6	17.2	16.3	16.9	20.0	18.7	19.2
11	11.7	11.0	11.3	8.8	8.3	8.5	17.1	15.8	16.5	20.5	19.5	20.1
12	11.7	11.0	11.5	8.6	8.2	8.4	17.4	16.3	17.1	21.1	19.8	20.5
13	11.1	10.6	10.9	8.4	8.0	8.3	17.0	16.1	16.6	20.9	19.5	20.1
14	10.6	9.9	10.2	8.2	7.7	8.0	17.1	16.3	16.7	20.0	19.0	19.4
15	10.1	9.8	9.9	8.1	7.6	7.9	16.9	16.5	16.7	20.0	18.7	19.2
16	10.2	9.8	10.0	8.5	7.8	8.2	16.6	16.1	16.4	20.6	19.8	20.1
17	10.4	10.0	10.3	9.0	8.4	8.7	16.1	15.2	15.8	21.2	20.3	20.7
18	10.1	9.9	10.0	9.5	8.9	9.2	15.7	15.1	15.4	20.8	19.8	20.5
19	10.0	9.7	9.9	9.7	9.2	9.5	15.8	15.1	15.5	20.4	19.3	19.8
20	9.8	9.5	9.6	9.9	9.6	9.7	16.4	15.4	15.9	20.6	19.7	20.2
21	9.6	9.2	9.4	10.3	9.7	10.0	16.8	15.8	16.3	21.2	20.2	20.7
22	9.3	8.9	9.1	10.4	9.9	10.1	17.1	16.1	16.6	21.6	20.7	21.1
23	9.1	8.7	8.9	10.6	10.2	10.4	17.4	17.0	17.2	21.3	20.4	21.0
24	8.7	8.4	8.5	10.7	10.3	10.6	17.6	17.0	17.3	21.3	20.0	20.6
25	8.7	8.3	8.5	10.8	10.3	10.6	17.0	16.7	16.9	21.5	20.3	21.0
26	8.8	8.4	8.6	10.6	10.3	10.5	17.4	16.8	17.1	21.0	20.0	20.5
27	9.3	8.8	9.0	10.8	10.3	10.6	18.2	17.4	17.8	21.4	20.5	21.0
28	9.6	9.2	9.3	10.8	10.6	10.7	18.5	18.0	18.2	21.5	20.5	21.0
29	---	---	---	11.2	10.8	11.0	18.4	17.8	18.2	22.0	21.2	21.6
30	---	---	---	11.5	11.0	11.3	17.9	17.5	17.7	22.2	21.5	21.8
31	---	---	---	11.8	11.5	11.7	---	---	---	22.1	21.6	21.8
MONTH	11.7	8.3	9.9	11.8	7.6	9.5	18.5	11.7	15.9	22.2	17.7	20.1

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	21.6	22.0	24.8	23.2	23.9	26.2	24.7	25.4	25.8	24.5	25.2
2	23.0	22.0	22.5	24.3	23.5	23.9	25.9	25.1	25.5	26.0	25.3	25.6
3	24.0	22.8	23.2	24.5	23.4	24.0	25.9	25.1	25.5	25.6	25.1	25.3
4	24.0	22.4	23.3	24.7	24.2	24.4	26.3	25.3	25.8	25.4	24.9	25.1
5	---	---	---	24.9	24.4	24.6	26.6	25.4	25.9	25.9	25.0	25.3
6	---	---	---	25.8	24.7	25.2	26.2	25.0	25.5	25.3	24.9	25.1
7	---	---	---	25.0	24.3	24.7	27.1	25.5	26.3	25.6	24.7	25.0
8	24.7	---	---	24.8	23.2	24.2	26.7	25.5	26.1	25.2	24.6	24.8
9	24.8	23.4	23.9	24.9	23.5	24.4	25.9	24.9	25.5	25.1	24.8	24.9
10	25.0	23.6	24.1	25.5	24.4	24.9	25.9	25.2	25.5	25.0	24.4	24.6
11	25.1	23.5	24.2	24.5	23.4	24.2	25.4	24.9	25.1	25.2	24.5	24.8
12	25.8	23.7	24.7	24.6	23.2	23.9	25.4	24.5	24.9	25.1	24.5	24.8
13	25.8	24.4	25.0	25.0	23.7	24.5	26.5	24.7	25.5	25.0	24.7	24.9
14	25.6	25.0	25.3	25.0	24.1	24.5	25.9	24.4	25.4	25.0	24.2	24.6
15	25.3	24.7	25.0	25.2	23.9	24.5	25.4	24.0	24.7	24.5	24.1	24.3
16	24.9	24.3	24.5	24.6	23.6	24.1	25.8	24.9	25.4	24.1	23.6	23.8
17	25.4	24.4	24.9	25.1	23.5	24.3	26.5	25.8	26.0	23.9	23.3	23.6
18	25.3	25.0	25.1	25.6	24.3	25.0	26.6	25.8	26.1	23.7	23.1	23.3
19	25.9	25.1	25.5	25.2	24.5	24.8	25.8	25.1	25.5	23.4	23.0	23.3
20	26.3	25.4	25.8	25.3	24.1	24.8	25.5	24.9	25.2	23.7	23.0	23.2
21	26.4	25.5	25.9	24.8	23.8	24.3	25.1	24.1	24.7	23.2	22.5	23.0
22	26.2	25.5	25.8	24.7	23.3	24.0	25.4	24.6	25.0	22.5	21.5	22.0
23	25.5	25.3	25.4	25.0	23.9	24.3	25.8	24.9	25.3	22.2	21.4	21.8
24	25.7	24.8	25.2	25.8	24.6	25.2	25.5	24.8	25.1	22.2	21.5	21.8
25	25.5	24.6	25.2	25.3	23.9	24.5	25.3	24.5	24.9	22.1	21.7	21.9
26	24.9	24.7	24.8	25.4	24.5	24.9	25.4	24.5	25.2	22.1	21.5	21.8
27	25.7	24.8	25.2	25.9	24.0	24.7	25.8	25.2	25.4	22.3	21.7	21.9
28	25.4	24.7	25.1	25.0	24.0	24.3	25.7	24.8	25.3	23.0	21.9	22.2
29	25.1	24.0	24.5	25.4	23.6	24.3	25.7	25.2	25.4	22.3	21.9	22.2
30	24.3	22.7	23.4	25.4	23.8	24.7	25.6	24.8	25.3	21.9	21.3	21.6
31	---	---	---	26.5	24.8	25.7	25.4	24.4	24.9	---	---	---
MONTH	26.4	21.6	24.6	26.5	23.2	24.5	27.1	24.0	25.4	26.0	21.3	23.7

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.9	6.5	7.0	8.2	7.8	7.9	9.6	9.2	9.4	10.9	10.5	10.7
2	7.3	6.3	---	8.1	7.7	8.0	9.9	9.2	9.5	10.8	10.5	10.7
3	---	---	---	8.3	7.8	8.1	9.9	9.3	9.6	11.0	10.5	10.7
4	---	---	---	8.4	7.9	8.2	10.2	9.5	9.9	11.6	10.8	11.1
5	7.5	7.1	---	8.4	8.0	8.2	10.2	9.4	9.9	11.5	10.8	11.1
6	7.6	6.8	7.1	8.7	8.1	8.3	10.3	9.3	9.8	11.3	10.5	10.9
7	7.4	6.8	7.2	8.8	8.4	8.6	10.2	9.6	9.9	11.6	11.0	11.4
8	7.6	7.2	7.4	8.6	8.2	8.5	9.8	9.0	9.3	11.4	11.2	11.3
9	7.8	7.4	7.6	8.6	8.2	8.3	9.6	9.2	9.4	11.4	11.2	11.3
10	8.2	7.3	7.7	8.4	8.0	8.3	9.6	9.2	9.4	12.4	11.3	12.0
11	9.0	7.8	8.1	8.7	8.1	8.4	9.6	9.1	9.4	12.2	11.4	11.8
12	9.0	7.9	8.4	8.9	8.2	8.6	9.5	9.3	9.4	11.4	11.0	11.3
13	8.7	7.8	8.2	8.9	8.4	---	9.6	9.5	9.5	11.5	11.1	11.4
14	8.4	7.7	8.1	---	---	---	9.6	9.4	9.5	11.5	11.4	11.4
15	8.6	7.5	8.2	---	---	---	9.6	9.4	9.5	11.7	11.5	11.6
16	8.7	7.6	8.2	8.6	7.8	---	9.7	9.5	9.6	11.8	11.5	11.6
17	8.2	7.7	7.9	8.3	7.7	8.0	9.8	9.6	9.7	11.9	11.6	11.8
18	7.9	7.5	7.6	8.6	7.8	8.2	10.0	9.6	9.8	11.7	11.3	11.5
19	7.8	7.4	7.6	8.5	8.0	8.3	10.3	10.0	10.0	11.5	10.9	11.2
20	7.8	7.3	7.6	8.5	8.2	8.4	10.2	10.0	10.1	11.4	10.9	11.2
21	7.7	7.3	7.5	8.7	8.3	8.5	10.1	9.7	9.9	11.3	10.8	11.1
22	8.0	7.4	7.7	8.7	8.3	8.5	10.2	9.7	9.9	11.4	10.9	11.1
23	8.3	7.6	7.9	9.0	8.5	8.8	10.3	9.9	10.0	---	---	---
24	8.5	7.9	8.1	9.3	8.7	9.0	10.4	10.0	10.2	---	---	---
25	8.6	8.2	8.4	9.3	8.6	8.9	10.7	10.2	10.5	---	---	---
26	8.8	8.1	8.4	9.4	9.0	9.2	10.7	10.6	10.6	---	---	---
27	8.7	8.1	8.4	9.7	9.1	9.4	10.8	10.4	10.7	---	---	---
28	8.7	8.1	8.4	9.4	8.9	9.2	10.9	10.7	10.7	---	---	---
29	8.6	8.0	8.3	9.6	9.0	9.4	10.7	10.4	10.5	---	---	---
30	8.3	7.8	8.1	9.6	9.3	9.5	10.8	10.3	10.6	---	---	---
31	8.4	7.9	8.2	---	---	---	10.8	10.6	10.7	---	---	---
MONTH	9.0	6.3	7.9	9.7	7.7	8.6	10.9	9.0	9.9	12.4	10.5	11.3

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.4	12.0	12.2	12.5	12.1	12.3	11.4	10.1	10.7
2	---	---	---	12.4	11.8	12.2	12.4	12.0	12.2	11.4	10.0	10.8
3	---	---	---	12.4	11.9	12.1	12.3	11.8	12.0	11.4	10.2	10.7
4	---	---	---	12.3	12.1	12.2	12.0	11.7	11.8	10.8	9.8	10.3
5	---	---	---	12.3	11.9	12.1	11.8	11.4	11.5	10.2	8.4	9.2
6	---	---	---	12.2	11.8	12.0	11.6	11.2	11.4	9.7	8.8	9.2
7	---	---	---	12.4	11.9	12.2	11.4	10.3	10.7	9.8	9.1	9.4
8	---	---	---	12.4	12.0	12.2	10.6	10.3	10.4	10.1	9.4	9.7
9	---	---	---	12.6	12.1	12.2	10.4	10.0	10.2	10.1	9.3	9.7
10	---	---	---	12.4	12.1	12.3	10.3	9.6	10.0	10.0	9.4	9.7
11	10.6	9.9	10.4	---	---	---	10.1	9.2	9.6	9.9	8.4	9.1
12	10.3	9.7	10.0	---	---	---	10.2	9.4	9.8	9.4	7.7	8.5
13	10.9	10.1	10.5	---	---	---	10.3	9.3	9.8	---	---	---
14	11.4	10.6	10.9	---	---	---	10.2	9.4	9.8	---	---	---
15	11.6	11.0	11.3	11.6	11.3	11.5	10.0	9.6	9.8	---	---	---
16	11.8	11.2	11.5	11.6	11.4	11.5	10.4	9.6	10.0	---	---	---
17	11.7	10.7	11.2	11.6	11.4	11.5	10.4	10.0	10.2	10.2	---	---
18	11.1	10.5	10.8	11.5	11.3	11.4	10.8	9.9	10.3	10.3	8.8	9.4
19	11.3	10.6	11.0	11.6	11.2	11.4	11.0	10.1	10.6	9.2	8.4	8.8
20	11.4	10.8	11.2	11.6	11.4	11.5	11.8	10.3	11.0	9.8	8.8	9.2
21	11.6	11.1	11.3	11.9	11.4	11.7	12.3	10.7	11.4	9.9	8.9	9.3
22	11.7	11.1	11.4	12.2	11.6	11.9	12.1	10.7	11.4	9.5	8.8	9.2
23	11.8	11.2	11.5	12.2	12.0	12.1	11.7	11.0	11.4	9.1	8.1	8.7
24	11.9	11.3	11.6	12.1	11.8	11.9	12.1	10.8	11.4	8.9	7.5	8.2
25	12.1	11.4	11.7	12.2	11.8	12.0	11.1	10.7	10.8	8.7	7.5	8.1
26	12.2	11.6	11.9	12.4	12.0	12.1	11.6	10.7	11.1	7.7	7.1	7.4
27	12.3	11.7	12.0	12.6	12.0	12.3	11.7	10.4	11.0	7.9	7.0	7.4
28	12.2	11.7	12.0	12.7	12.3	12.6	11.3	10.7	11.0	7.8	7.1	7.5
29	---	---	---	13.0	12.4	12.7	11.1	10.1	10.5	8.2	7.4	7.8
30	---	---	---	13.4	12.7	13.0	10.4	9.8	10.0	8.1	7.3	7.6
31	---	---	---	13.3	12.5	12.9	---	---	---	7.3	6.8	7.0
MONTH	12.3	9.7	11.2	13.4	11.2	12.1	12.5	9.2	10.8	11.4	6.8	8.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	6.5	6.7	9.3	8.0	8.5	---	---	---	7.9	6.6	7.3
2	7.1	6.2	6.6	9.3	8.1	8.4	---	---	---	7.8	6.6	7.2
3	7.1	6.4	6.7	9.0	8.1	8.6	---	---	---	7.2	6.4	6.8
4	6.9	5.9	6.4	8.8	8.2	8.5	---	---	---	7.1	6.5	6.9
5	---	---	---	8.8	8.3	8.6	7.1	6.4	6.7	7.8	6.7	7.0
6	---	---	---	9.1	8.2	8.7	6.6	6.1	6.4	7.4	6.6	7.0
7	---	---	---	8.2	7.2	7.6	7.8	6.5	7.2	7.1	6.2	6.5
8	6.6	6.4	6.5	7.6	6.3	7.0	7.5	6.8	7.1	6.7	6.1	6.3
9	---	---	---	7.0	5.8	6.4	7.6	6.6	7.1	6.6	5.8	6.2
10	---	---	---	6.4	5.3	5.9	7.6	6.6	7.1	6.3	5.6	6.0
11	---	6.5	---	5.7	4.9	5.3	7.5	6.9	7.1	6.9	5.9	6.4
12	6.5	6.2	6.4	6.4	5.4	6.0	7.6	6.6	6.9	7.3	5.9	6.6
13	6.4	6.1	6.3	6.4	5.6	6.1	7.4	6.4	6.8	6.8	6.2	6.4
14	6.4	5.8	6.0	6.8	5.7	6.1	7.5	6.8	7.1	6.7	5.9	6.3
15	6.2	5.5	5.8	6.9	5.7	6.4	7.5	6.5	7.0	7.0	5.9	6.5
16	5.8	5.2	5.4	---	---	---	8.0	6.9	7.5	7.6	5.9	6.7
17	6.4	5.3	5.8	---	---	---	8.5	7.3	7.9	9.1	6.8	7.9
18	6.6	6.1	6.4	---	---	---	8.4	7.5	7.9	9.0	7.4	8.2
19	7.8	6.6	7.2	7.8	6.9	7.5	7.6	6.8	7.3	8.8	7.9	8.4
20	9.0	7.3	7.9	7.2	5.9	6.7	7.6	6.9	7.2	8.0	7.3	7.7
21	9.0	7.3	8.0	6.9	5.5	6.2	7.4	6.5	7.0	7.5	6.5	7.1
22	8.6	7.4	7.9	6.8	5.5	6.2	7.9	6.8	7.4	7.2	6.2	6.8
23	7.5	6.9	7.2	7.1	6.2	6.6	8.1	7.4	7.7	8.6	6.4	7.5
24	8.1	6.7	7.4	7.4	6.4	6.8	7.9	7.3	7.4	9.2	7.4	8.3
25	7.5	7.1	7.3	7.0	6.3	6.7	7.3	6.2	6.9	9.2	8.1	8.7
26	8.1	7.1	7.6	7.5	6.6	7.0	7.0	6.2	6.6	9.5	8.5	9.0
27	9.1	7.8	8.4	7.5	6.4	6.9	7.6	6.9	7.2	9.5	8.4	8.9
28	8.8	7.9	8.2	8.2	6.7	7.3	8.3	6.8	7.6	9.6	7.9	8.6
29	8.4	7.5	7.9	7.8	7.0	7.3	8.2	7.2	7.8	9.1	7.6	8.0
30	8.8	7.4	8.0	8.4	---	---	8.2	7.4	7.8	8.1	6.8	7.6
31	---	---	---	---	---	---	8.5	7.3	7.8	---	---	---
MONTH	9.1	5.2	7.0	9.3	4.9	7.1	8.5	6.1	7.2	9.6	5.6	7.3

03431599 WHITES CREEK NEAR BORDEAUX, TN

LOCATION.--Lat 36°13'03", long 86°49'13", Davidson County, Hydrologic Unit 05130202, on right bank on downstream side of bridge on Buena Vista Pike, 0.4 mi downstream from Ewing Creek, 1.8 mi northeast of Bordeaux, 2.1 mi above Drakes Branch, and at mile 6.1.

DRAINAGE AREA.--51.3 mi^2.

PERIOD OF RECORD.--October 1964 to April 1975 (published as at Tucker Road, near Bordeaux), August 1993 to current year. Occasional low-flow measurements, water years 1962-64.

GAGE.--Data collection platform. Datum of gage is 402.87 ft above sea level. Oct. 1964 to April 1975 at site 0.4 mi downstream at datum 1.23 ft lower, August 1993 to Sept. 1995 at datum 3.85 ft higher.

REMARKS.--Records good. Peak discharge of 12,200 ft^3/s, Feb. 23, 1975, gage height 17.06 ft, occurred at Tucker Road near Bordeaux site. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 8	2315	4,040	13.19	Feb 27	2115	3,230	12.02
Jan 23	0230	*6,820	*16.61	Jun 28	1930	5,940	15.60

Minimum discharge, 0.07 ft^3/s, Sept. 10, 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.6	6.2	18	456	256	79	16	10	65	3.6	.49
2	2.2	3.7	6.1	85	281	218	62	14	9.4	232	3.0	.53
3	107	5.0	5.9	144	190	471	51	12	8.0	101	2.8	.55
4	21	5.7	5.6	83	135	258	61	11	6.7	60	2.4	.49
5	8.1	6.0	132	e55	101	175	51	104	15	48	2.1	.43
6	5.5	5.9	33	40	79	338	328	639	12	39	1.9	.34
7	20	6.2	92	32	80	207	210	168	19	33	1.6	.39
8	14	6.6	450	869	66	153	150	99	11	25	1.7	.35
9	7.0	6.3	123	936	51	144	119	66	8.4	25	2.0	.36
10	4.4	21	59	241	41	113	93	49	8.4	20	1.8	.29
11	3.3	13	32	138	35	91	81	36	7.3	28	2.8	.21
12	2.9	7.3	124	98	255	74	66	28	7.6	22	2.9	.19
13	2.7	5.6	340	79	171	166	56	28	6.3	17	1.9	.32
14	2.5	4.8	127	81	122	674	54	31	6.0	20	1.8	.72
15	2.3	4.4	75	68	94	520	141	22	5.9	16	1.7	.81
16	2.4	4.2	47	55	79	323	97	18	5.7	16	1.6	.77
17	2.5	4.2	32	48	136	220	76	16	5.7	11	1.5	.77
18	2.6	4.2	23	65	102	156	61	15	5.5	9.3	1.1	.75
19	2.8	4.3	20	50	81	117	52	16	5.4	8.4	1.1	.62
20	2.8	7.4	16	42	64	90	53	13	5.2	6.9	1.2	4.7
21	2.5	6.9	13	33	48	75	44	12	4.9	6.2	1.2	3.0
22	2.7	6.1	20	865	40	60	38	10	5.1	5.4	.95	2.4
23	2.7	5.8	18	2320	34	52	32	9.3	5.2	5.0	.71	1.9
24	3.1	5.9	17	377	31	55	27	11	27	11	2.1	1.6
25	3.3	5.9	16	237	25	46	24	9.2	26	7.7	4.5	1.3
26	3.2	6.0	16	170	22	39	29	9.0	14	5.0	2.1	1.1
27	3.2	5.7	16	129	514	33	30	8.2	16	3.9	1.1	.99
28	3.4	5.8	24	101	570	29	24	7.4	734	30	.81	1.0
29	3.4	5.7	29	92	---	28	21	6.8	228	15	.73	.97
30	3.7	5.9	25	637	---	25	18	6.8	107	7.3	.53	1.0
31	3.6	---	20	746	---	64	---	7.2	---	4.9	.34	---
TOTAL	253.0	189.1	1962.8	8934	3903	5270	2228	1497.9	1335.7	904.0	55.57	29.34
MEAN	8.16	6.30	63.3	288	139	170	74.3	48.3	44.5	29.2	1.79	.98
MAX	107	21	450	2320	570	674	328	639	734	232	4.5	4.7
MIN	2.2	3.6	5.6	18	22	25	18	6.8	4.9	3.9	.34	.19
CFSM	.16	.12	1.23	5.62	2.72	3.31	1.45	.94	.87	.57	.03	.02
IN.	.18	.14	1.42	6.48	2.83	3.82	1.62	1.09	.97	.66	.04	.02

e Estimated

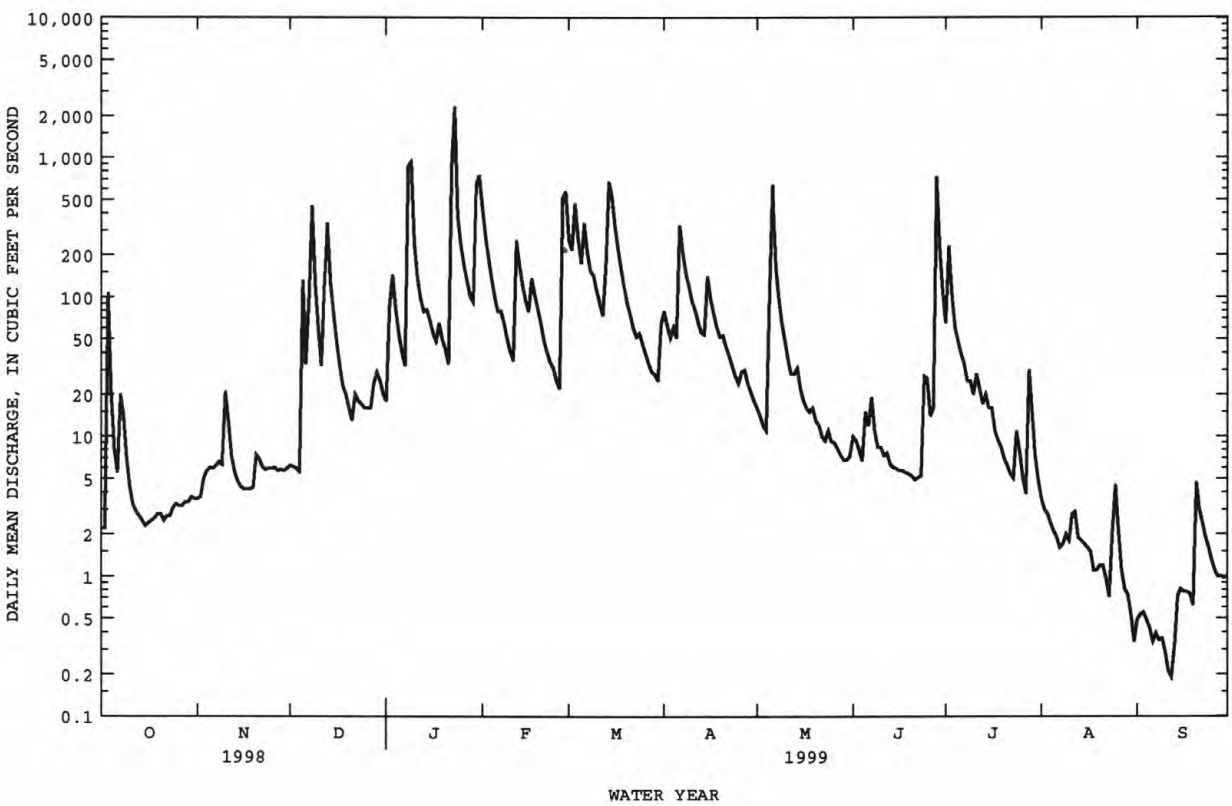
03431599 WHITES CREEK NEAR BORDEAUX, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.5	57.3	110	141	151	196	130	90.3	54.9	16.4	17.0	18.5
MAX	67.1	138	286	288	369	530	286	277	264	48.3	87.2	122
(WY)	1996	1973	1973	1999	1975	1975	1994	1995	1998	1967	1972	1974
MIN	2.05	6.30	8.18	25.2	36.3	46.0	18.8	20.2	4.70	1.11	1.79	.98
(WY)	1970	1999	1966	1966	1968	1966	1967	1969	1966	1966	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1965 - 1999	
ANNUAL TOTAL	33217.46		26562.41			
ANNUAL MEAN	91.0		72.8		79.7	
HIGHEST ANNUAL MEAN					129	1994
LOWEST ANNUAL MEAN					35.2	1966
HIGHEST DAILY MEAN	3190	Jun 5	2320	Jan 23	5100	Feb 23 1975
LOWEST DAILY MEAN	.88	Sep 14	.19	Sep 12	.19	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 10	.30	Sep 7	.30	Sep 7 1999
INSTANTANEOUS PEAK FLOW			6820	Jan 23	a12200	Feb 23 1975
INSTANTANEOUS PEAK STAGE			16.61	Jan 23	b19.08	Jun 5 1998
INSTANTANEOUS LOW FLOW			c.07	Sep 10	c.07	Sep 10 1999
ANNUAL RUNOFF (CFSM)	1.77		1.42		1.55	
ANNUAL RUNOFF (INCHES)	24.09		19.26		21.10	
10 PERCENT EXCEEDS	181		169		180	
50 PERCENT EXCEEDS	26		16		23	
90 PERCENT EXCEEDS	2.4		1.4		2.6	

a From rating curve extended above 6,900 ft^3/s on basis of contracted opening measurement of peak flow, see REMARKS.
b Current site and datum.
c Also occurred Sept. 11, 1999.



03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN

LOCATION.--Lat 36°09'04", long 86°51'16", Davidson County, Hydrologic Unit 05130202, near right bank on downstream end of pier of Charlotte Avenue bridge on U.S. Highway 70, 4.0 mi southwest of the State Capitol in Nashville, and at mile 3.7.

DRAINAGE AREA.--24.3 mi^2.

PERIOD OF RECORD.--July 1964 to September 1990, August 1993 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 409.56 ft above sea level.

REMARKS.--No estimated daily discharges. Records good, except below 5 ft^3/s which are fair. Diversions above station used for irrigation of golf courses. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 8	2215	1,600	6.32	Jan 22	2200	*2,140	*7.33

Minimum discharge, 0.89 ft^3/s, June 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

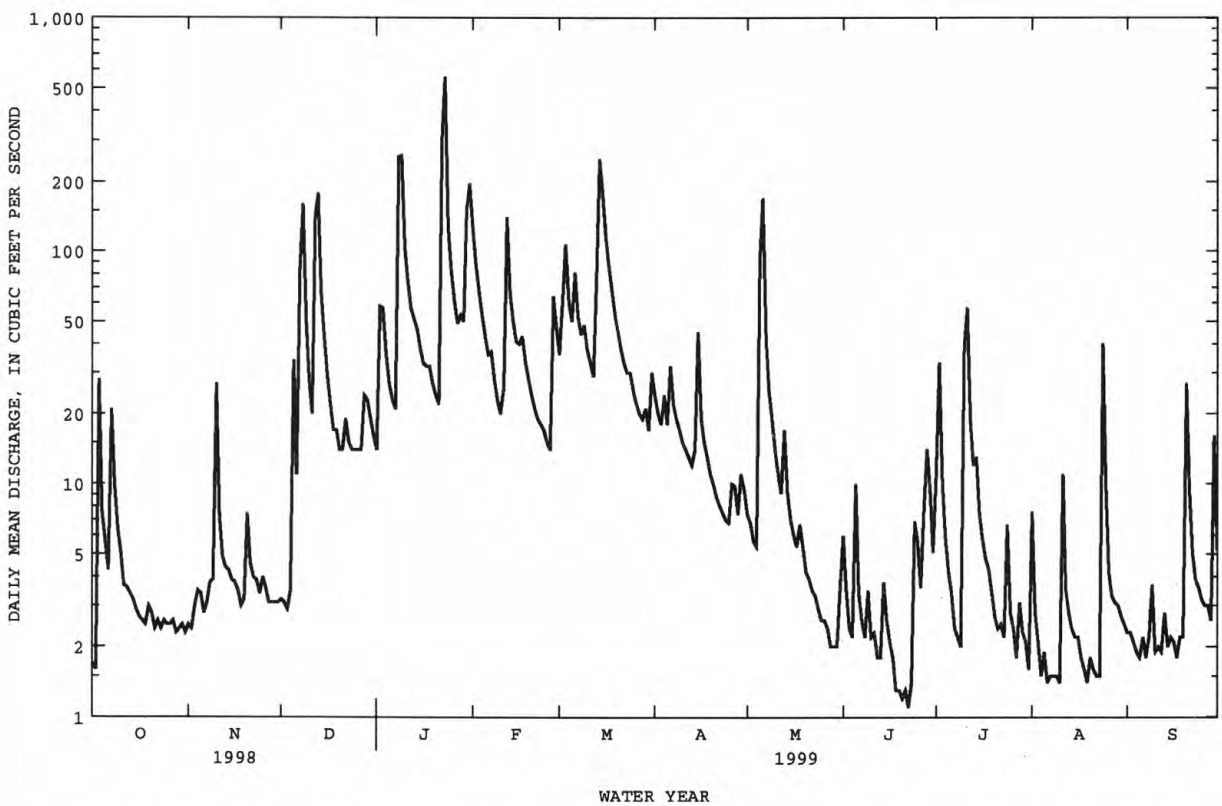
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.5	3.2	14	129	36	24	7.4	6.0	11	7.6	2.3
2	1.6	2.4	3.1	58	89	61	20	6.8	3.5	33	2.8	2.3
3	28	3.0	2.9	57	67	107	18	5.7	2.4	10	2.1	2.1
4	7.6	3.5	3.5	36	53	60	24	5.4	2.2	5.8	1.5	1.9
5	5.6	3.4	34	27	43	50	18	91	10	4.2	1.9	1.8
6	4.3	2.8	11	23	36	81	32	169	3.4	3.4	1.4	2.2
7	21	3.1	82	21	37	52	22	42	2.6	2.4	1.5	1.8
8	10	3.8	160	255	28	44	19	25	2.2	2.2	1.5	2.2
9	6.5	3.9	51	258	23	48	17	19	3.5	2.0	1.5	3.7
10	5.1	27	28	104	20	38	15	14	2.2	39	1.4	1.9
11	3.7	7.3	20	74	26	33	14	11	2.3	57	11	2.0
12	3.6	4.9	142	57	140	29	13	9.1	1.8	19	3.5	1.9
13	3.4	4.4	178	51	66	78	12	17	1.8	12	2.8	2.8
14	3.2	4.3	66	46	50	249	14	9.1	3.8	13	2.4	2.0
15	2.9	3.9	42	38	41	179	45	7.0	2.6	7.5	2.2	2.2
16	2.7	3.8	29	33	40	117	19	6.0	2.1	5.8	2.2	2.1
17	2.6	3.5	22	32	43	87	15	5.4	1.8	4.8	1.8	1.8
18	2.5	3.0	17	32	33	67	13	6.7	1.3	4.3	1.6	2.2
19	3.0	3.2	17	27	28	53	11	5.4	1.3	3.4	1.4	2.2
20	2.8	7.5	14	24	24	45	10	4.2	1.2	2.7	1.8	27
21	2.4	4.6	14	22	21	38	8.8	3.9	1.3	2.4	1.6	9.5
22	2.6	4.0	19	301	19	33	8.1	3.5	1.1	2.5	1.5	5.1
23	2.4	3.9	15	559	18	30	7.5	3.3	1.4	2.2	1.5	3.9
24	2.6	3.4	14	128	17	30	7.0	2.9	6.9	6.7	40	3.6
25	2.5	4.0	14	83	15	25	6.8	2.6	5.7	2.8	9.8	3.2
26	2.5	3.6	14	62	14	22	10	2.6	3.6	2.4	4.2	3.0
27	2.6	3.1	14	49	64	20	9.8	2.4	7.7	1.8	3.3	3.0
28	2.3	3.1	24	53	47	19	7.4	2.0	14	3.1	3.1	2.6
29	2.4	3.1	23	50	---	21	11	2.0	9.5	2.3	3.0	16
30	2.5	3.1	19	152	---	17	9.4	2.0	5.1	2.1	2.7	5.2
31	2.3	---	16	196	---	30	---	3.6	---	1.6	2.5	---
TOTAL	148.9	137.1	1111.7	2922	1231	1799	460.8	497.0	114.3	272.4	127.1	123.5
MEAN	4.80	4.57	35.9	94.3	44.0	58.0	15.4	16.0	3.81	8.79	4.10	4.12
MAX	28	27	178	559	140	249	45	169	14	57	40	27
MIN	1.6	2.4	2.9	14	14	17	6.8	2.0	1.1	1.6	1.4	1.8
CFSM	.20	.19	1.48	3.88	1.81	2.39	.63	.66	.16	.36	.17	.17
IN.	.23	.21	1.70	4.47	1.88	2.75	.71	.76	.17	.42	.19	.19

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.4	33.0	56.1	53.5	55.6	64.9	44.3	37.0	22.8	11.5	8.04	12.5
MAX	53.0	89.8	247	151	205	208	146	131	107	42.0	24.6	127
(WY)	1976	1987	1965	1974	1989	1975	1979	1984	1998	1979	1994	1979
MIN	.41	1.79	2.57	3.96	10.3	18.2	5.76	5.06	1.33	1.34	1.18	.92
(WY)	1966	1972	1966	1986	1968	1966	1986	1977	1988	1966	1980	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	12320.1		8944.8			
ANNUAL MEAN	33.8		24.5		34.2	
HIGHEST ANNUAL MEAN					71.3	1979
LOWEST ANNUAL MEAN					13.6	1966
HIGHEST DAILY MEAN	1120	Jun 5	559	Jan 23	7020	Nov 2 1990
LOWEST DAILY MEAN	1.3	Sep 12	1.1	Jun 22	.05	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 10	1.3	Jun 17	.23	Oct 8 1965
INSTANTANEOUS PEAK FLOW			2140	Jan 22	9470	Sep 13 1979
INSTANTANEOUS PEAK STAGE			7.33	Jan 22	15.13	Sep 13 1979
INSTANTANEOUS LOW FLOW			.89	Jun 22	.05	Oct 7 1980
ANNUAL RUNOFF (CFSM)	1.39		1.01		1.41	
ANNUAL RUNOFF (INCHES)	18.86		13.69		19.11	
10 PERCENT EXCEEDS	67		57		75	
50 PERCENT EXCEEDS	19		7.3		11	
90 PERCENT EXCEEDS	2.6		2.0		1.6	



03432350 HARPETH RIVER AT FRANKLIN, TN

LOCATION.--Lat 35°55'14", long 86°51'56", Williamson County, Hydrologic Unit 05130204, on left bank 15 ft downstream from State Highway 96 bridge, 0.4 mi southeast of the courthouse in Franklin, and at mile 88.1.

DRAINAGE AREA.--191 mi^2, includes 15 mi^2 without surface drainage.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 604.42 ft above sea level.

REMARKS.--Records good except those below 5.0 ft^3/s, which are poor. The Franklin Utility District diverts part of its municipal water supply from the river above the gage. This water along with other water is returned to the river through the sewage treatment plant 2.7 mi below gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0830	3,430	15.58	Jan 23	1730	*13,900	*30.09
Jan 9	1300	4,930	19.05	Mar 14	2400	3,300	15.26

Minimum daily discharge, 0.71 ft^3/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	4.9	2.6	243	1260	763	133	99	23	25	2.0	1.3
2	2.0	5.0	2.2	274	907	573	131	74	18	18	2.0	1.3
3	6.5	5.6	14	820	706	851	121	62	17	59	1.9	1.3
4	2.1	3.6	16	495	564	692	131	61	24	42	1.9	.98
5	3.6	2.5	18	347	454	528	122	139	37	26	1.8	.98
6	3.4	2.0	8.4	271	400	566	112	1930	27	13	1.7	1.0
7	13	4.0	22	230	405	495	102	1000	18	5.9	1.7	1.2
8	7.2	7.0	64	439	399	408	99	475	12	3.9	1.6	1.0
9	4.8	7.1	42	3760	339	542	103	333	10	3.2	1.6	1.1
10	1.5	10	22	1400	298	538	93	261	e47	13	1.6	1.1
11	.94	6.8	12	820	267	428	88	212	e21	127	1.6	1.1
12	1.2	5.5	250	643	837	364	71	170	17	302	2.8	1.1
13	1.3	3.5	2780	522	798	846	61	128	10	101	68	1.5
14	1.4	2.4	1050	936	547	2630	60	102	12	52	8.0	1.6
15	.90	2.0	471	709	428	2380	116	94	65	42	1.5	1.4
16	.76	2.5	334	539	351	1320	146	81	32	27	1.0	1.6
17	4.6	8.5	259	435	473	917	113	64	17	19	1.1	1.8
18	6.8	9.4	213	759	475	690	91	62	18	23	1.1	1.7
19	9.7	9.5	196	625	371	542	75	54	14	23	1.2	1.8
20	5.8	12	181	463	293	456	69	49	12	16	1.4	2.9
21	4.7	8.4	138	378	241	389	67	51	6.8	7.5	2.8	2.3
22	4.4	5.6	123	609	206	301	61	45	2.3	5.4	3.0	1.4
23	4.1	2.5	120	10400	185	240	58	35	2.2	5.7	3.0	1.0
24	6.0	2.4	121	5540	176	219	49	25	3.8	11	4.0	.82
25	5.4	13	124	1220	158	193	41	22	12	9.8	7.1	.71
26	4.6	16	141	849	142	169	48	24	5.0	5.8	1.8	.86
27	4.9	15	212	674	503	153	66	30	30	2.2	1.7	.91
28	4.4	15	541	547	1360	140	129	28	42	2.2	1.5	1.1
29	4.1	10	753	481	---	132	149	25	54	2.2	1.2	1.8
30	3.7	9.4	442	724	---	133	151	21	57	2.2	1.0	1.9
31	4.4	---	328	1670	---	124	---	13	---	2.1	1.0	---
TOTAL	129.40	211.1	9000.2	37822	13543	18722	2856	5769	666.1	997.1	133.6	40.56
MEAN	4.17	7.04	290	1220	484	604	95.2	186	22.2	32.2	4.31	1.35
MAX	13	16	2780	10400	1360	2630	151	1930	65	302	68	2.9
MIN	.76	2.0	2.2	230	142	124	41	13	2.2	2.1	1.0	.71
CFSM	.02	.04	1.52	6.39	2.53	3.16	.50	.97	.12	.17	.02	.01
IN.	.03	.04	1.75	7.37	2.64	3.65	.56	1.12	.13	.19	.03	.01

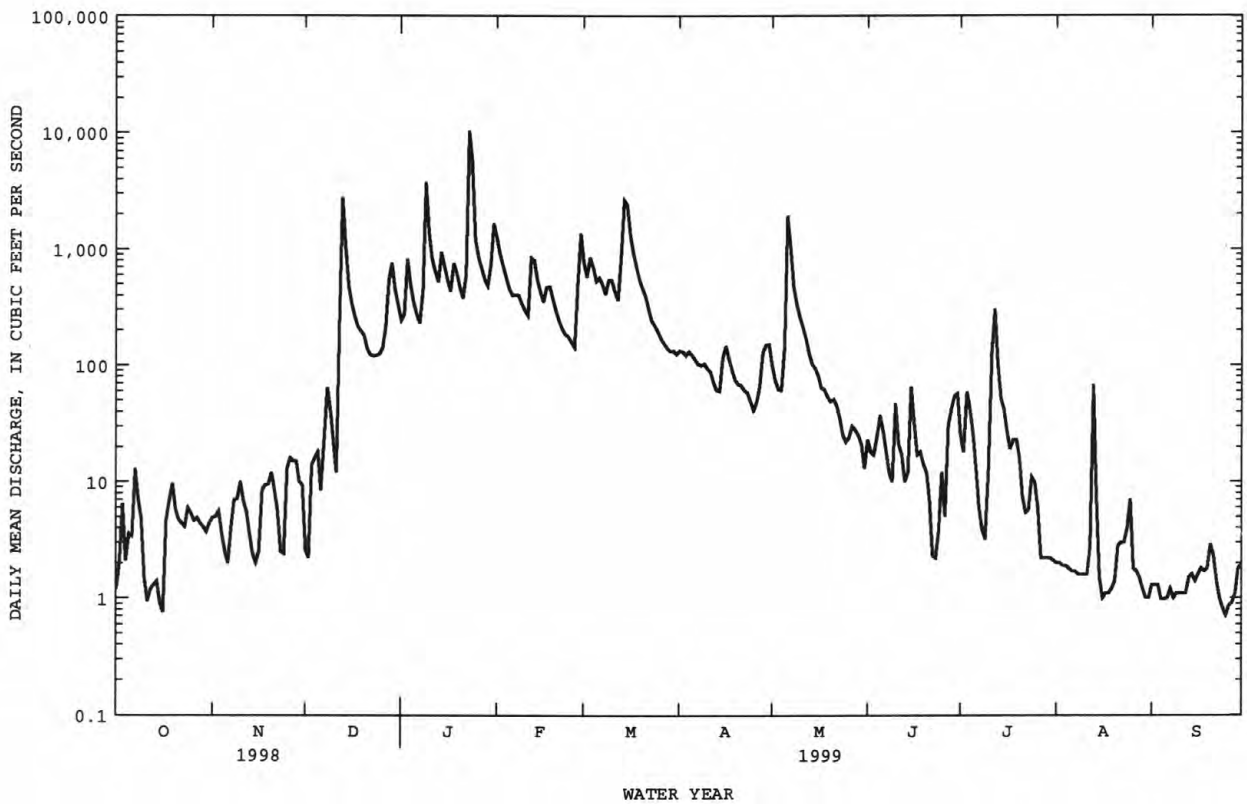
e Estimated

03432350 HARPETH RIVER AT FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	96.5	271	479	550	534	673	357	315	129	67.3	39.8	71.5
MAX	610	778	1172	1472	1358	1945	1066	1489	574	431	208	971
(WY)	1976	1980	1991	1979	1990	1975	1979	1984	1997	1989	1998	1979
MIN	.52	4.08	16.2	14.4	139	159	62.2	21.8	1.25	1.44	1.58	1.17
(WY)	1981	1981	1981	1986	1978	1985	1986	1988	1988	1988	1988	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1975 - 1999	
ANNUAL TOTAL	112441.60		89890.06			
ANNUAL MEAN	308		246		298	
HIGHEST ANNUAL MEAN					522	1979
LOWEST ANNUAL MEAN					68.7	1981
HIGHEST DAILY MEAN	4940	Jun 5	10400	Jan 23	18500	Mar 13 1975
LOWEST DAILY MEAN	.76	Oct 16	.71	Sep 25	.30	Oct 14 1980
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 10	.97	Sep 22	.32	Oct 20 1980
INSTANTANEOUS PEAK FLOW			13900	Jan 23	20200	Mar 13 1975
INSTANTANEOUS PEAK STAGE			30.09	Jan 23	33.65	Mar 13 1975
INSTANTANEOUS LOW FLOW					.30	Oct 14 1980
ANNUAL RUNOFF (CFSM)	1.61		1.29		1.56	
ANNUAL RUNOFF (INCHES)	21.90		17.51		21.18	
10 PERCENT EXCEEDS	726		615		656	
50 PERCENT EXCEEDS	138		28		96	
90 PERCENT EXCEEDS	3.4		1.5		2.9	



03432400 HARPETH RIVER BELOW FRANKLIN, TN

LOCATION.--Lat 35°56'53", long 86°52'54", Williamson County, Hydrologic Unit 05130204, on right bank 0.1 mi below bridge on U.S. Highway 431, 1.2 mi downstream from Spencer Creek, 1.8 mi northwest of the courthouse in Franklin, and at mile 84.3.

DRAINAGE AREA.--210 mi^2, includes 15 mi^2 without surface drainage.

PERIOD OF RECORD.--August 1988 to current year, discharge for gage height of 6.00 ft and below only.

GAGE.--Data collection platform.

REMARKS.--Records good. Flow is affected by Franklin sewage treatment plant outflow 1.1 mi upstream. Periodic observations of water temperature and specific conductance are published in the report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 28.97 ft, Feb. 4, 1990; minimum discharge, 3.0 ft^3/s, Aug. 19, 1988, Sept. 12, 18, 1999; minimum daily, 4.1 ft^3/s, Aug. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 28.07, Jan. 23; minimum discharge, 3.0 ft^3/s, Sept. 12, 18; minimum daily, 6.8 ft^3/s, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	11	13	273	---	---	150	110	53	41	9.6	7.5
2	8.8	13	12	340	---	---	148	86	37	37	9.1	7.4
3	42	12	15	---	---	---	134	72	34	63	8.4	8.0
4	20	13	21	---	---	---	154	69	39	52	9.2	7.5
5	19	12	37	382	454	---	139	194	64	36	8.5	6.8
6	19	11	21	306	400	---	142	---	43	25	8.5	7.2
7	48	10	122	265	407	491	121	---	39	14	8.3	7.7
8	33	12	290	---	394	407	115	---	30	13	8.2	7.2
9	24	13	157	---	336	---	116	334	24	12	9.8	7.2
10	16	46	107	---	303	---	107	270	66	22	8.7	7.4
11	14	27	80	---	278	417	101	223	44	---	11	7.3
12	12	22	---	---	---	355	86	185	34	335	14	7.3
13	18	18	---	527	---	---	75	140	28	128	73	11
14	18	16	---	---	---	---	72	114	37	69	23	10
15	15	14	---	---	420	---	151	105	74	55	13	8.8
16	11	11	368	---	350	---	160	92	48	41	11	7.4
17	12	13	293	431	445	---	122	76	30	32	9.5	7.7
18	14	17	244	---	449	---	102	83	30	32	8.5	7.9
19	15	18	229	---	354	---	84	68	26	32	9.1	7.7
20	16	29	211	453	292	458	77	62	24	27	8.1	28
21	13	21	167	374	251	394	74	62	19	18	8.7	26
22	13	18	159	---	220	319	74	58	13	13	9.8	16
23	13	13	144	---	200	271	70	50	12	13	9.0	11
24	15	12	141	---	190	256	63	40	23	19	13	11
25	13	15	143	---	169	226	55	36	39	19	37	9.8
26	11	19	165	---	151	204	66	36	20	17	11	9.1
27	12	18	233	---	---	181	78	43	72	11	9.7	9.1
28	10	17	---	---	---	163	132	40	64	9.7	10	9.6
29	9.0	17	---	487	---	156	161	38	78	12	9.6	15
30	9.9	14	---	---	---	149	166	35	72	11	8.9	14
31	13	---	353	---	---	154	---	28	---	9.9	8.0	---
TOTAL	513.8	502	---	---	---	---	3295	---	1216	---	403.2	307.6
MEAN	16.6	16.7	---	---	---	---	110	---	40.5	---	13.0	10.3
MAX	48	46	---	---	---	---	166	---	78	---	73	28
MIN	7.1	10	---	---	---	---	55	---	12	---	8.0	6.8

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03433500 HARPETH RIVER AT BELLEVUE, TN

LOCATION.--Lat 36°03'16", long 86°55'42", Davidson County, Hydrologic Unit 05130204, on State Highway 100, 0.1 mi downstream from Little Harpeth River, 0.9 mi southeast of Bellevue, and at mile 62.1.

DRAINAGE AREA.--408 mi^2, includes 15 mi^2 without surface drainage.

PERIOD OF RECORD.--April 1920 to current year. Monthly discharge only November 1929 to December 1931, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1920-30, 1932-35. WSP 1386: 1948. WSP 1556: Drainage area. WSP 1910: 1960.

GAGE.--Data collection platform. Datum of gage is 541.04 ft above sea level (levels by U.S. Army Corps of Engineers). Apr. 11, 1920, to Oct. 31, 1929, Jan. 1, 1932, to Sept. 30, 1933, nonrecording gage at site 2.8 mi downstream at datum 7.85 ft lower.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 13, 1948.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	1530	8,270	13.00	Jan 23	2100	*15,900	*18.40

Minimum discharge, 6.4 ft^3/s, Sept. 8, 9, 10, 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	22	39	599	e2660	1610	416	258	73	120	17	11
2	24	29	34	680	e1930	1160	399	204	116	99	15	9.3
3	45	29	36	1570	e1460	2300	370	173	89	97	14	9.0
4	110	31	37	1160	e1180	1670	393	154	75	117	13	8.3
5	85	31	101	852	e968	1220	396	346	120	88	12	8.3
6	66	33	126	693	e844	1270	484	2880	120	66	13	8.4
7	85	31	197	599	e802	1130	445	2030	90	49	11	9.0
8	140	30	990	1060	e797	944	395	963	74	34	12	7.1
9	112	29	646	6840	e714	992	371	681	61	30	10	8.0
10	81	59	363	3670	e673	1050	332	537	66	28	11	7.7
11	59	137	273	1850	e620	885	302	438	e230	297	14	7.3
12	48	102	621	1370	e1190	776	274	367	e215	603	15	7.7
13	39	72	5220	1140	e1680	1110	243	331	e200	347	18	13
14	40	58	2520	1490	e1180	4830	235	277	e190	250	105	13
15	44	47	1100	1360	e938	6120	377	239	118	161	47	11
16	42	42	803	1100	e826	3170	429	215	135	131	27	14
17	36	34	636	944	e856	2040	360	192	86	102	18	11
18	27	29	525	1160	e880	1480	301	187	62	83	15	9.5
19	29	32	470	1200	e785	1160	261	213	56	77	12	9.7
20	29	42	446	973	e678	994	239	167	49	71	11	18
21	35	71	391	845	e590	876	224	147	43	62	12	41
22	34	67	376	1240	e526	740	214	136	38	46	9.4	46
23	29	52	364	e12800	e480	633	205	124	29	37	9.4	36
24	29	43	359	e9800	e461	610	192	106	32	34	13	24
25	30	35	332	e5360	e437	534	166	92	57	37	22	17
26	31	38	345	e1960	e381	479	171	84	68	40	52	16
27	27	47	409	e1480	755	433	202	81	70	36	24	15
28	23	45	711	e1220	2440	396	219	84	142	27	16	14
29	25	45	1410	e1140	---	385	271	77	192	22	13	19
30	24	44	975	e1310	---	366	346	72	150	19	13	17
31	21	---	745	e3030	---	384	---	71	---	19	12	---
TOTAL	1473	1406	21600	70495	27731	41747	9232	11926	3046	3229	605.8	445.3
MEAN	47.5	46.9	697	2274	990	1347	308	385	102	104	19.5	14.8
MAX	140	137	5220	12800	2660	6120	484	2880	230	603	105	46
MIN	21	22	34	599	381	366	166	71	29	19	9.4	7.1
CFSM	.12	.11	1.71	5.57	2.43	3.30	.75	.94	.25	.26	.05	.04
IN.	.13	.13	1.97	6.43	2.53	3.81	.84	1.09	.28	.29	.06	.04

e Estimated

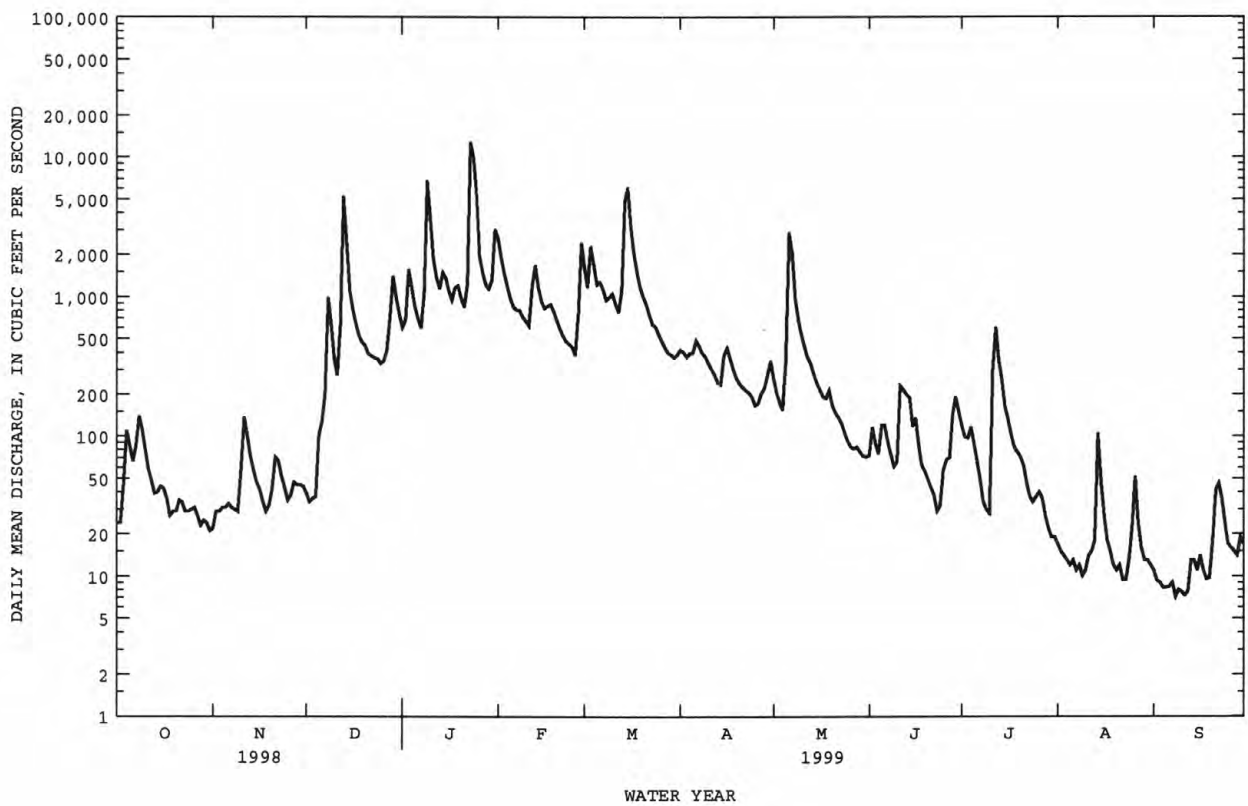
03433500 HARPETH RIVER AT BELLEVUE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	114	369	839	1177	1280	1347	874	569	286	146	114	118
MAX	953	1678	3952	4305	3606	4263	2579	3232	1834	827	663	1685
(WY)	1976	1987	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	1.90	10.4	32.3	40.5	90.2	167	138	38.7	13.1	15.6	5.76	1.28
(WY)	1932	1940	1940	1940	1941	1941	1967	1941	1988	1954	1954	1948

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1920 - 1999	
ANNUAL TOTAL	257338		192936.1			
ANNUAL MEAN	705		529		599	
HIGHEST ANNUAL MEAN					1157	1973
LOWEST ANNUAL MEAN					137	1941
HIGHEST DAILY MEAN	11200	Jun 5	12800	Jan 23	32400	Mar 13 1975
LOWEST DAILY MEAN	20	Sep 12	7.1	Sep 8	.00	Oct 5 1922
ANNUAL SEVEN-DAY MINIMUM	20	Sep 12	7.9	Sep 6	.07	Oct 4 1922
INSTANTANEOUS PEAK FLOW			15900	Jan 23	40000	Feb 13 1948
INSTANTANEOUS PEAK STAGE			18.40	Jan 23	a24.34	Feb 13 1948
INSTANTANEOUS LOW FLOW			b6.4	Sep 8	c.00	Oct 5 1922
ANNUAL RUNOFF (CFSM)	1.73		1.30		1.47	
ANNUAL RUNOFF (INCHES)	23.46		17.59		19.96	
10 PERCENT EXCEEDS	1570		1210		1390	
50 PERCENT EXCEEDS	392		131		190	
90 PERCENT EXCEEDS	32		14		17	

a From floodmarks.
b Also occurred Sept. 9, 10, 11, 12.
c Also occurred Oct. 6-10, 1922.



03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, Hydrologic Unit 05130204, on right bank 400 ft upstream from bridge on U.S. Highway 70, 1.7 mi northeast of Kingston Springs, 3.0 mi downstream from Turnbull Creek, and at mile 32.4.

DRAINAGE AREA.--681 mi^2, includes 15 mi^2 without surface drainage.

PERIOD OF RECORD.--October 1924 to current year. Prior to July 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M). WSP 1706: 1945(P). WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 447.04 ft above sea level. July 8, 1925, to Jan. 22, 1939, nonrecording gage at site 150 ft downstream, and Jan. 22, 1939, to July 26, 1988, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Jan. 7, 1946. Flood of March 1902 reached a stage about 3 ft lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	0630	12,700	16.23	Jan 23	1000	*26,200	*24.42

Minimum discharge, 40 ft^3/s, Sept. 11, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	101	132	845	4510	2790	892	480	269	274	89	52
2	97	102	128	839	3270	1990	822	392	233	1900	85	52
3	289	104	123	2040	2480	3520	767	345	233	577	80	51
4	264	110	123	1910	1990	2980	794	317	210	361	75	49
5	199	108	297	1310	1640	2180	805	505	301	307	72	47
6	195	105	264	1030	1430	2420	904	3840	283	248	72	46
7	194	105	312	878	1360	2130	986	3580	240	206	68	45
8	250	113	1980	1970	1350	1730	830	1730	203	178	68	44
9	220	115	1590	10300	1210	1670	761	1160	185	155	69	45
10	190	147	785	6670	1140	1710	695	914	168	199	69	44
11	164	236	544	3060	1050	1500	625	761	176	846	72	41
12	145	210	718	2220	2020	1310	553	640	251	1240	77	43
13	134	182	5800	1790	2840	1650	496	564	184	829	88	46
14	125	162	4410	1790	2000	6160	472	522	211	865	79	51
15	121	154	1950	2020	1590	8740	746	438	320	449	121	50
16	123	138	1280	1610	1370	5300	819	397	242	326	105	45
17	121	132	976	1380	1450	3420	727	361	237	272	85	43
18	116	126	787	1360	1490	2580	609	337	188	229	73	42
19	114	121	684	1680	1330	2050	537	351	161	199	66	46
20	112	135	645	1370	1150	1710	483	339	153	184	62	77
21	110	155	577	1190	1000	1520	445	296	144	171	59	130
22	106	147	561	2550	891	1320	415	282	135	158	57	109
23	108	151	561	19700	814	1150	394	261	131	141	55	103
24	106	140	537	15000	782	1150	372	246	158	132	55	94
25	107	131	487	8250	740	1030	350	225	172	143	73	82
26	107	125	471	3010	683	920	359	214	169	130	84	74
27	109	122	514	2280	1230	837	388	201	285	123	87	68
28	108	125	733	1880	3170	768	396	193	279	117	85	71
29	105	127	1630	1760	---	746	407	192	422	114	68	70
30	104	127	1460	2020	---	719	472	186	348	103	60	100
31	103	---	1060	4660	---	754	---	208	---	94	54	---
TOTAL	4449	4056	32119	108372	45980	68454	18321	20477	6691	11270	2312	1860
MEAN	144	135	1036	3496	1642	2208	611	661	223	364	74.6	62.0
MAX	289	236	5800	19700	4510	8740	986	3840	422	1900	121	130
MIN	97	101	123	839	683	719	350	186	131	94	54	41
MED	116	127	645	1910	1360	1710	581	351	210	199	72	50
CFSM	.21	.20	1.52	5.13	2.41	3.24	.90	.97	.33	.53	.11	.09
IN.	.24	.22	1.75	5.92	2.51	3.74	1.00	1.12	.37	.62	.13	.10

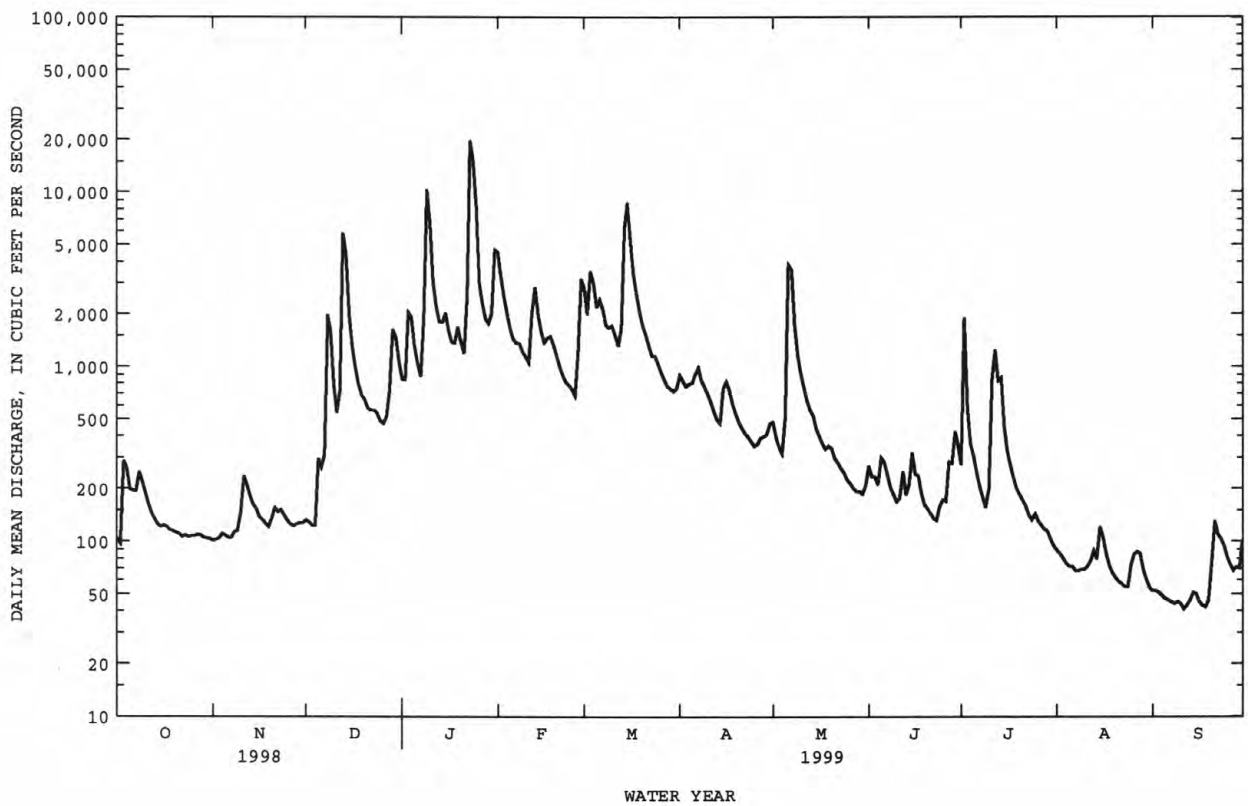
03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	228	621	1312	1893	2056	2177	1480	1026	532	276	213	215
MAX	1516	2761	6274	6975	6078	6806	3942	5107	2849	1071	1099	2530
(WY)	1976	1980	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	28.9	63.2	94.9	116	187	279	269	99.3	59.0	62.7	38.5	25.0
(WY)	1932	1955	1936	1940	1941	1941	1967	1941	1988	1954	1954	1939

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1925 - 1999	
ANNUAL TOTAL	437916		324361			
ANNUAL MEAN	1200		889		998	
HIGHEST ANNUAL MEAN					2000	1973
LOWEST ANNUAL MEAN					249	1941
HIGHEST DAILY MEAN	23700	Jun 5	19700	Jan 23	43100	Feb 14 1948
LOWEST DAILY MEAN	92	Sep 19	41	Sep 11	16	Sep 28 1939
ANNUAL SEVEN-DAY MINIMUM	95	Sep 13	44	Sep 6	18	Sep 22 1939
INSTANTANEOUS PEAK FLOW			26200	Jan 23	60000	Jan 7 1946
INSTANTANEOUS PEAK STAGE			24.42	Jan 23	a32.20	Jan 7 1946
INSTANTANEOUS LOW FLOW			b40	Sep 11	12	Sep 18 1939
ANNUAL RUNOFF (CFSM)	1.76		1.30		1.47	
ANNUAL RUNOFF (INCHES)	23.92		17.72		19.91	
10 PERCENT EXCEEDS	2610		2010		2250	
50 PERCENT EXCEEDS	698		285		352	
90 PERCENT EXCEEDS	114		72		71	

a From high-water mark in gage house.
b Also occurred Sept. 18.



03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°19'22", long 87°13'42", Cheatham County, Hydrologic Unit 05130205, on left bank 0.4 mi downstream from Cheatham Dam, 2.0 mi southwest of Neptune, 2.6 mi upstream from Half Pone Creek, 9.7 mi west of Ashland City, and at mile 148.4.

DRAINAGE AREA.--14,163 mi^2.

PERIOD OF RECORD.--February 1993 to December 1997, October 1998 to September 1999.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1993 to December 1997, October 1998 to September 1999.
pH: February 1993 to September 1999.
WATER TEMPERATURE: February 1993 to September 1999.
DISSOLVED OXYGEN: February 1993 to September 1999.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cheatham Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 298 microsiemens, May 4, 1995; minimum, 152 microsiemens, Jan. 23, 1999.
pH: Maximum, 8.9 units, May 16, 17, 18, 1993; minimum, 6.0 units, June 13, 1993.
WATER TEMPERATURE: Maximum, 28.4°C, Aug. 2, 3, 1995; minimum, 2.3°C, Feb. 6, 1996.
DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Feb. 18, 1996, Jan. 11, 1999; minimum, 3.7 mg/L, June 29, 1994.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 253 microsiemens, Dec. 31; minimum, 152 microsiemens, Jan. 23.
pH: Maximum, 8.7 units, Apr. 24, 25, 26; minimum, 7.3 units, July 6, Sep. 13, 23, 24, 28.
WATER TEMPERATURE: Maximum, 27.3°C, Aug. 10; minimum, 5.2°C, Jan. 6, 7.
DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Jan. 11; minimum, 5.8 mg/L, July 13.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	207	202	204	204	189	201	243	231	238
2	---	---	---	207	198	202	202	196	200	236	229	233
3	---	---	---	201	197	199	203	200	201	245	229	237
4	---	---	---	200	197	199	203	188	201	241	233	237
5	---	---	---	202	197	199	213	193	203	244	224	232
6	---	---	---	203	200	201	212	207	210	236	223	230
7	214	204	208	204	198	201	214	203	209	236	225	231
8	215	204	209	208	203	206	240	207	221	235	206	226
9	208	203	206	209	205	207	244	225	235	223	184	198
10	206	201	204	209	205	207	250	224	241	225	217	221
11	204	200	202	208	204	206	232	214	221	230	223	228
12	205	200	203	209	205	207	224	215	220	231	226	228
13	205	199	202	209	205	208	227	206	220	233	230	232
14	201	188	194	211	207	209	233	206	220	239	232	236
15	193	187	191	209	204	206	211	204	206	239	233	235
16	195	192	193	206	201	203	227	211	217	235	227	232
17	198	193	195	202	195	199	240	221	224	227	224	226
18	197	194	195	200	194	196	237	224	231	236	227	232
19	199	189	196	198	194	196	239	234	237	235	223	230
20	202	197	200	202	194	198	240	234	237	230	213	221
21	206	200	203	205	201	203	241	221	235	218	208	213
22	205	201	203	209	204	207	242	231	236	210	176	201
23	203	199	201	212	208	210	242	224	232	191	152	170
24	202	198	199	211	207	208	239	225	233	204	178	197
25	203	198	200	213	205	210	237	225	230	205	190	197
26	203	192	201	212	206	209	238	229	233	223	204	215
27	209	201	203	207	201	204	245	233	239	227	221	223
28	210	206	208	206	201	204	241	235	238	230	222	226
29	210	204	207	205	201	203	246	235	240	234	230	233
30	207	202	205	204	201	203	248	241	244	233	225	230
31	206	203	204	---	---	---	253	237	245	230	221	225
MONTH	215	187	201	213	194	204	253	188	225	245	152	223

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	232	212	221	222	218	220	210	204	207	218	211	215
2	216	212	214	223	214	219	209	203	205	217	212	214
3	224	215	220	224	216	221	210	203	206	219	214	216
4	230	224	227	230	219	225	208	203	205	221	211	216
5	231	227	229	227	220	225	211	204	208	218	208	214
6	231	228	230	234	223	230	210	201	206	222	202	211
7	231	228	229	235	228	232	210	204	206	219	212	216
8	230	223	227	237	232	234	210	206	208	216	210	213
9	224	216	221	242	234	238	213	209	210	231	216	226
10	222	214	219	247	237	242	220	211	216	239	222	231
11	220	216	218	246	240	243	215	211	212	236	217	229
12	219	213	216	242	238	240	216	212	214	235	225	232
13	223	216	219	242	233	238	218	214	216	240	224	230
14	224	214	218	239	220	232	218	210	213	234	219	226
15	225	215	220	227	219	223	221	210	213	234	221	226
16	224	217	220	232	223	227	226	215	220	236	226	232
17	228	220	225	234	231	232	216	212	214	242	222	232
18	232	225	227	237	233	235	217	213	214	232	217	224
19	231	225	228	243	233	237	219	214	216	219	213	216
20	229	223	226	245	239	242	217	213	215	222	210	214
21	228	222	225	243	232	238	218	214	216	215	208	212
22	229	222	226	238	229	234	219	212	215	212	204	209
23	229	219	223	233	225	229	216	213	215	214	207	211
24	226	222	224	233	223	227	215	211	213	216	206	212
25	228	221	225	228	216	222	211	208	210	215	207	210
26	229	222	226	226	210	217	210	206	208	215	206	210
27	227	221	225	218	207	212	213	209	211	209	205	206
28	228	209	217	219	204	211	213	209	211	205	203	204
29	---	---	---	210	204	207	215	210	213	209	204	206
30	---	---	---	206	200	203	217	213	215	207	200	204
31	---	---	---	208	201	204	---	---	---	207	202	204
MONTH	232	209	223	247	200	227	226	201	212	242	200	217

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	206	202	204	214	200	207	212	201	206	207	201	204
2	206	203	204	214	196	207	208	197	203	206	203	205
3	208	205	207	206	192	200	201	196	199	211	203	206
4	218	205	212	199	187	192	203	198	201	212	207	209
5	217	209	213	206	189	195	206	198	201	211	204	207
6	221	216	219	206	197	202	208	198	203	209	204	207
7	223	218	220	209	202	206	206	194	199	209	203	206
8	222	214	219	214	206	209	201	193	197	211	202	205
9	218	211	215	228	211	217	200	195	198	211	202	205
10	217	210	213	231	211	221	198	195	197	206	202	204
11	218	209	212	227	207	213	200	198	199	206	202	203
12	225	214	217	217	207	212	202	197	200	206	199	203
13	228	216	222	217	210	214	207	196	203	205	199	201
14	228	219	223	222	213	216	206	196	200	200	196	198
15	221	217	219	236	215	224	200	195	198	200	196	198
16	220	216	218	232	216	226	198	193	195	201	197	199
17	219	215	217	229	218	224	197	193	195	202	196	199
18	222	215	219	229	219	223	199	196	198	203	198	201
19	222	215	218	228	215	220	196	182	191	209	199	203
20	224	210	215	227	210	218	191	184	186	206	201	204
21	218	209	213	221	209	215	198	190	194	205	201	203
22	219	212	215	229	213	220	204	198	201	205	202	203
23	218	211	214	230	218	224	208	203	205	209	204	207
24	222	213	216	229	216	222	206	201	204	210	206	208
25	219	210	214	223	211	217	205	200	202	209	204	207
26	215	205	209	216	206	212	203	198	201	205	199	202
27	212	205	207	216	206	213	205	201	203	200	197	198
28	210	199	205	213	205	210	201	198	200	200	195	197
29	206	194	200	215	203	210	201	199	200	197	192	194
30	209	204	206	213	203	208	203	201	202	196	187	190
31	---	---	---	213	202	207	204	200	202	---	---	---
MONTH	228	194	214	236	187	213	212	182	199	212	187	203

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	8.0	7.9	8.2	8.0	7.9	7.9	7.7	7.7	7.9	7.8
2	---	---	8.0	7.8	8.1	8.0	7.9	7.8	7.7	7.7	7.9	7.8
3	---	---	7.9	7.6	8.0	7.8	7.9	7.9	7.7	7.7	7.9	7.8
4	---	---	7.6	7.6	8.0	7.8	7.9	7.8	7.7	7.7	7.8	7.8
5	---	---	7.7	7.5	7.9	7.8	7.8	7.8	7.7	7.7	7.8	7.8
6	---	---	7.8	7.6	7.8	7.8	7.9	7.8	7.8	7.7	7.8	7.8
7	7.6	7.5	7.8	7.7	7.8	7.7	7.9	7.8	7.8	7.7	7.8	7.8
8	7.6	7.5	7.8	7.7	7.7	7.6	7.9	7.8	7.8	7.8	7.9	7.8
9	7.7	7.6	7.8	7.7	7.7	7.6	7.8	7.7	7.8	7.8	7.8	7.7
10	7.8	7.6	7.8	7.7	7.6	7.6	7.8	7.7	7.8	7.8	7.8	7.7
11	7.9	7.7	7.8	7.7	7.6	7.6	7.8	7.8	7.8	7.8	7.8	7.7
12	7.9	7.8	7.8	7.7	7.6	7.6	7.8	7.8	7.8	7.8	7.8	7.8
13	7.9	7.8	7.8	7.7	7.7	7.6	7.8	7.8	7.8	7.8	7.8	7.8
14	8.0	7.8	7.8	7.7	7.6	7.5	7.8	7.8	7.9	7.8	7.8	7.7
15	8.1	7.9	7.9	7.8	7.6	7.6	7.8	7.8	7.9	7.8	7.7	7.6
16	8.0	7.9	7.9	7.8	7.7	7.6	7.8	7.7	7.9	7.9	7.8	7.7
17	8.0	7.9	7.9	7.8	7.7	7.6	7.7	7.6	7.9	7.8	7.8	7.8
18	7.9	7.8	8.0	7.9	7.7	7.7	7.8	7.7	7.8	7.7	7.8	7.7
19	7.8	7.8	8.1	7.9	7.7	7.7	7.8	7.7	7.8	7.8	7.7	7.7
20	7.8	7.7	8.0	7.9	7.7	7.6	7.7	7.7	7.8	7.8	7.8	7.7
21	7.8	7.7	8.0	7.9	7.6	7.6	7.7	7.7	7.8	7.8	7.8	7.7
22	7.8	7.7	8.1	7.9	7.7	7.6	7.7	7.7	7.9	7.8	8.0	7.8
23	7.8	7.7	8.1	7.9	7.7	7.6	7.7	7.5	7.9	7.8	8.1	7.9
24	7.8	7.7	8.2	7.9	7.7	7.6	7.6	7.6	7.9	7.8	8.1	7.8
25	7.8	7.7	8.1	7.9	7.7	7.6	7.6	7.6	7.9	7.8	8.0	7.8
26	7.8	7.7	8.1	7.9	7.7	7.6	7.6	7.6	7.9	7.8	8.2	7.9
27	7.8	7.8	8.1	7.9	7.7	7.6	7.7	7.6	7.9	7.7	8.2	8.0
28	7.9	7.8	8.1	8.0	7.7	7.7	7.7	7.7	7.9	7.8	8.2	8.1
29	8.0	7.8	8.2	8.0	7.8	7.7	7.7	7.7	---	---	8.3	8.1
30	7.9	7.8	8.2	8.0	7.9	7.8	7.7	7.7	---	---	8.4	8.2
31	8.0	7.8	---	---	7.9	7.8	7.7	7.7	---	---	8.3	8.2
MONTH	8.1	7.5	8.2	7.5	8.2	7.5	7.9	7.5	7.9	7.7	8.4	7.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	8.2	8.5	8.3	7.6	7.5	7.7	7.6	8.0	7.7	8.1	7.7
2	8.2	8.1	8.5	8.2	7.6	7.5	7.9	7.6	8.0	7.7	8.0	7.8
3	8.1	8.0	8.4	8.2	7.6	7.5	7.8	7.6	8.2	7.8	8.0	7.8
4	8.1	7.9	8.6	8.3	7.8	7.6	7.9	7.6	8.1	7.8	7.8	7.7
5	8.1	7.9	8.5	8.3	7.8	7.6	7.7	7.5	8.2	7.8	7.9	7.7
6	8.0	7.8	8.5	7.9	7.8	7.6	7.9	7.3	8.2	7.7	7.9	7.6
7	7.9	7.7	8.0	7.7	7.8	7.6	7.9	7.4	8.2	7.7	7.9	7.6
8	7.7	7.6	8.0	7.8	7.9	7.7	8.0	7.7	8.1	7.8	8.0	7.7
9	7.7	7.5	8.0	7.8	7.9	7.6	8.1	7.8	8.2	7.8	8.1	7.7
10	7.7	7.6	8.0	7.8	7.9	7.7	7.8	7.4	8.3	8.0	7.8	7.5
11	7.8	7.6	8.2	7.9	7.9	7.7	7.5	7.4	8.2	7.9	7.6	7.5
12	8.2	7.7	8.3	8.0	7.8	7.6	7.5	7.4	8.0	7.8	7.7	7.5
13	8.2	8.1	8.2	8.0	7.8	7.7	7.6	7.4	7.8	7.6	7.6	7.3
14	8.1	7.9	8.2	8.0	7.7	7.6	7.7	7.4	7.7	7.3	7.7	7.4
15	8.1	8.0	8.1	7.8	7.6	7.5	7.8	7.6	7.6	7.4	7.8	7.7
16	8.0	7.9	8.0	7.7	7.5	7.4	7.9	7.6	7.8	7.4	8.0	7.8
17	8.1	7.9	8.0	7.7	7.6	7.4	8.3	7.6	7.9	7.6	7.9	7.7
18	8.1	7.9	8.1	7.8	7.5	7.4	8.1	7.8	7.8	7.5	7.9	7.7
19	8.2	8.0	8.0	7.5	7.5	7.4	8.0	7.8	7.8	7.7	7.9	7.7
20	8.3	8.1	8.1	7.5	7.7	7.5	8.1	7.9	8.1	7.7	7.8	7.6
21	8.5	8.2	8.0	7.5	7.8	7.6	8.3	7.8	8.0	7.8	7.8	7.6
22	8.6	8.4	8.0	7.6	7.9	7.6	8.1	7.9	7.9	7.7	7.9	7.5
23	8.6	8.5	7.9	7.6	8.0	7.8	7.9	7.7	7.9	7.6	7.7	7.3
24	8.7	8.5	7.9	7.5	7.9	7.6	7.8	7.6	7.7	7.5	7.6	7.3
25	8.7	8.5	8.1	7.6	7.7	7.6	7.8	7.6	7.7	7.5	7.7	7.4
26	8.7	8.5	8.0	7.9	7.7	7.5	7.8	7.6	7.7	7.4	7.5	7.4
27	8.6	8.4	7.9	7.7	7.7	7.5	7.9	7.6	7.6	7.3	7.7	7.5
28	8.6	8.4	7.7	7.6	7.7	7.5	8.0	7.7	7.8	7.4	7.7	7.3
29	8.5	8.2	7.7	7.5	7.8	7.5	8.0	7.7	7.9	7.5	7.6	7.5
30	8.4	8.2	7.6	7.6	7.8	7.6	7.9	7.7	8.0	7.6	7.6	7.5
31	---	---	7.6	7.5	---	---	8.1	7.6	8.1	7.7	---	---
MONTH	8.7	7.5	8.6	7.5	8.0	7.4	8.3	7.3	8.3	7.3	8.1	7.3

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	18.8	18.4	18.6	13.7	13.1	13.5	7.4	7.1	7.2
2	---	---	---	18.9	18.5	18.6	13.9	13.1	13.5	7.3	7.1	7.2
3	---	---	---	18.5	18.1	18.4	13.7	13.4	13.5	7.1	6.2	6.6
4	---	---	---	18.1	17.5	17.9	14.0	13.4	13.7	6.3	5.8	6.1
5	---	---	---	17.5	16.7	17.3	14.3	13.9	14.1	5.8	5.4	5.6
6	---	---	---	16.8	16.1	16.5	14.7	14.2	14.4	5.5	5.2	5.4
7	23.9	23.4	23.8	16.5	16.0	16.2	14.7	14.7	14.7	5.5	5.2	5.4
8	23.6	23.3	23.5	16.2	15.8	16.1	14.7	14.3	14.6	5.9	5.4	5.5
9	23.3	22.8	23.1	15.8	15.4	15.6	14.3	14.0	14.2	6.5	5.7	6.3
10	22.9	22.6	22.8	15.6	15.1	15.5	14.1	13.4	13.8	6.3	6.0	6.2
11	22.8	22.5	22.6	15.4	14.8	15.1	13.4	13.0	13.1	6.0	5.6	5.8
12	22.6	22.2	22.5	15.0	14.5	14.8	13.0	12.4	12.7	6.6	6.0	6.3
13	22.3	21.7	22.1	14.6	14.3	14.5	12.5	12.0	12.2	7.1	6.6	6.9
14	22.0	21.5	21.7	14.6	14.4	14.5	12.1	11.7	11.9	7.2	7.0	7.2
15	21.6	21.3	21.5	14.5	14.1	14.4	11.9	11.7	11.8	7.0	6.8	6.9
16	21.6	21.2	21.4	14.4	14.0	14.2	11.7	11.4	11.6	6.8	6.5	6.7
17	21.5	21.2	21.4	14.3	14.0	14.2	11.5	11.3	11.4	7.0	6.6	6.8
18	21.2	21.1	21.2	14.2	13.9	14.1	11.3	10.9	11.0	7.1	7.0	7.1
19	21.1	20.6	20.9	14.3	14.0	14.2	11.0	10.8	10.9	7.8	7.1	7.4
20	20.8	20.4	20.6	14.1	13.5	13.8	11.0	10.8	10.9	8.3	7.7	8.0
21	20.6	20.2	20.4	13.8	12.9	13.4	11.4	11.0	11.2	8.8	8.2	8.5
22	20.4	19.8	20.1	13.9	12.8	13.1	11.2	10.4	10.6	10.4	8.7	9.3
23	19.9	19.4	19.7	14.4	13.0	13.6	10.4	9.6	10.0	11.7	10.4	11.2
24	19.7	19.2	19.4	14.2	13.7	13.9	9.6	9.2	9.4	11.5	11.2	11.3
25	19.4	18.8	19.2	14.2	13.7	13.9	9.2	8.3	8.6	11.5	11.1	11.3
26	19.1	18.7	18.9	14.1	13.6	13.8	8.6	8.2	8.3	11.1	10.6	10.8
27	19.2	18.5	18.7	13.6	13.2	13.5	8.2	8.0	8.1	10.9	10.4	10.6
28	19.1	18.3	18.6	13.6	13.2	13.4	8.1	7.8	8.0	11.3	10.9	11.1
29	18.9	18.2	18.5	13.7	13.1	13.4	8.1	7.6	7.9	11.4	11.3	11.3
30	18.8	18.4	18.6	13.7	13.4	13.6	7.6	7.2	7.3	11.3	10.9	11.0
31	18.8	18.4	18.6	---	---	---	7.5	7.3	7.4	10.9	10.7	10.8
MONTH	23.9	18.2	20.8	18.9	12.8	15.0	14.7	7.2	11.4	11.7	5.2	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.8	10.7	10.7	9.5	9.3	9.4	12.0	11.5	11.8	18.9	18.3	18.6
2	10.7	10.4	10.6	9.8	9.3	9.6	12.7	12.0	12.3	19.1	18.6	18.8
3	10.4	10.1	10.2	9.8	9.3	9.5	13.3	12.6	13.0	19.1	18.7	18.9
4	10.1	9.9	10.0	9.4	9.1	9.3	13.9	13.3	13.5	19.4	18.6	18.9
5	10.1	9.8	10.0	9.2	9.0	9.1	14.6	13.8	14.1	19.7	18.8	19.3
6	10.2	9.9	10.1	9.2	9.0	9.1	15.2	14.4	14.8	19.7	19.4	19.6
7	10.5	10.2	10.4	9.0	8.9	9.0	15.4	14.9	15.1	19.9	19.4	19.7
8	10.8	10.4	10.6	8.9	8.5	8.8	16.1	15.2	15.5	19.7	19.0	19.3
9	10.9	10.7	10.8	8.5	8.5	8.5	16.4	16.1	16.2	19.8	19.3	19.5
10	11.2	10.9	11.0	8.5	8.2	8.3	16.9	16.1	16.4	19.8	19.3	19.6
11	11.6	11.1	11.4	8.3	8.0	8.2	17.2	16.8	17.0	20.4	19.5	19.9
12	11.6	11.3	11.5	8.5	8.1	8.3	17.7	17.0	17.3	20.8	19.7	20.1
13	11.5	10.5	11.1	8.5	8.0	8.3	17.7	17.1	17.5	20.9	20.0	20.5
14	10.5	10.2	10.4	8.0	7.6	7.8	17.1	16.8	17.0	20.8	20.1	20.4
15	10.2	9.8	9.9	8.0	7.4	7.7	17.1	16.3	16.8	20.9	20.1	20.5
16	9.9	9.6	9.7	8.6	7.9	8.2	16.3	15.9	16.0	20.7	19.8	20.2
17	9.9	9.8	9.9	9.3	8.5	8.9	15.9	15.6	15.8	21.0	19.9	20.4
18	10.0	9.8	9.9	9.8	9.2	9.4	15.9	15.4	15.6	21.1	20.6	20.9
19	10.0	9.8	9.9	10.0	9.7	9.8	15.8	15.5	15.6	21.4	20.9	21.2
20	9.9	9.6	9.7	9.9	9.7	9.8	16.2	15.6	15.9	21.3	20.6	21.0
21	9.6	9.0	9.3	10.2	9.8	10.0	16.5	16.0	16.2	21.0	20.3	20.7
22	9.0	8.9	8.9	10.5	10.0	10.2	16.9	16.4	16.6	21.2	20.7	21.0
23	8.9	8.7	8.8	10.6	10.3	10.5	17.5	16.9	17.2	21.7	21.0	21.3
24	8.7	8.4	8.6	10.7	10.5	10.6	17.7	17.3	17.5	21.9	21.5	21.7
25	8.6	8.4	8.4	10.9	10.4	10.7	17.8	17.4	17.6	22.0	21.6	21.8
26	8.7	8.3	8.5	10.8	10.5	10.6	18.1	17.8	17.9	22.5	21.9	22.0
27	8.9	8.6	8.8	10.9	10.4	10.7	18.2	17.9	18.0	21.9	21.4	21.7
28	9.5	8.9	9.3	10.9	10.7	10.8	18.5	18.1	18.2	22.1	21.2	21.7
29	---	---	---	11.2	10.8	11.0	18.2	18.0	18.1	22.4	21.7	22.0
30	---	---	---	11.5	11.1	11.2	18.5	17.8	18.2	22.2	21.7	22.0
31	---	---	---	11.5	11.4	11.5	---	---	---	22.3	22.1	22.2
MONTH	11.6	8.3	9.9	11.5	7.4	9.5	18.5	11.5	16.1	22.5	18.3	20.5

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	22.1	22.3	25.2	24.0	24.5	26.4	25.5	25.9	26.1	25.4	25.8
2	22.7	22.2	22.5	25.2	24.1	24.5	26.5	26.1	26.3	26.1	25.6	25.8
3	23.3	22.6	23.0	24.8	24.3	24.5	27.0	26.4	26.7	25.9	25.5	25.7
4	23.7	23.2	23.4	25.0	24.1	24.6	26.7	25.9	26.3	25.9	25.4	25.6
5	24.1	23.3	23.6	25.8	24.9	25.2	26.7	26.0	26.3	26.2	25.7	26.0
6	24.8	24.1	24.4	26.2	25.5	25.8	26.2	25.7	26.0	26.2	25.7	26.0
7	25.1	24.6	24.8	26.3	25.9	26.1	26.5	25.9	26.2	26.2	25.6	25.9
8	25.6	24.9	25.2	26.4	25.8	26.0	26.2	25.7	26.0	26.1	25.5	25.8
9	25.4	24.9	25.1	26.6	25.8	26.2	26.7	25.9	26.2	25.9	25.5	25.7
10	25.7	25.2	25.4	25.8	24.3	25.2	27.3	26.7	26.9	25.5	24.9	25.2
11	26.5	25.5	25.9	24.8	24.2	24.5	26.8	26.4	26.6	24.9	24.6	24.8
12	26.3	25.8	26.0	25.1	24.6	24.8	26.8	26.3	26.6	25.0	24.6	24.8
13	25.9	25.6	25.8	25.1	24.6	24.9	26.4	25.9	26.1	24.9	24.4	24.6
14	25.8	25.6	25.7	24.8	24.2	24.5	25.9	25.3	25.5	24.9	24.3	24.5
15	25.6	25.3	25.5	25.4	24.7	25.0	25.7	24.9	25.3	24.7	24.2	24.4
16	25.4	25.1	25.3	25.5	24.7	25.1	26.0	25.5	25.7	24.5	24.0	24.3
17	25.5	25.1	25.3	25.7	24.9	25.2	26.2	25.5	25.9	24.2	23.8	24.0
18	25.4	25.1	25.2	25.4	24.7	25.0	26.3	25.4	25.8	23.9	23.4	23.6
19	25.1	24.5	24.7	25.9	25.1	25.4	26.3	26.1	26.2	23.7	23.2	23.5
20	25.4	24.6	24.9	26.5	25.8	26.1	26.4	26.1	26.2	23.8	23.3	23.4
21	25.9	25.2	25.5	26.5	26.1	26.4	26.2	26.0	26.1	23.4	22.9	23.2
22	26.1	25.6	25.7	26.3	25.8	26.1	26.0	25.6	25.7	23.1	22.4	22.8
23	26.2	26.0	26.1	25.9	25.1	25.5	25.6	25.2	25.3	22.8	22.1	22.4
24	26.1	25.8	26.0	25.4	24.4	24.8	25.3	24.9	25.1	22.3	22.0	22.1
25	25.9	25.6	25.7	25.4	24.6	25.0	25.2	24.8	25.0	22.1	21.8	22.0
26	25.8	25.4	25.7	26.2	25.1	25.5	25.3	25.1	25.3	21.8	21.4	21.6
27	25.8	25.3	25.6	26.9	26.1	26.4	25.5	25.0	25.2	22.0	21.5	21.8
28	25.6	24.8	25.4	26.4	25.7	26.0	26.0	25.0	25.5	22.4	21.7	22.1
29	25.8	25.2	25.5	26.2	25.9	26.0	26.0	25.5	25.8	22.4	21.7	22.1
30	25.6	25.0	25.2	25.9	25.3	25.6	26.1	25.6	25.9	22.0	21.3	21.6
31	---	---	---	26.4	25.1	25.7	26.1	25.4	25.6	---	---	---
MONTH	26.5	22.1	25.0	26.9	24.0	25.4	27.3	24.8	25.9	26.2	21.3	24.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.1	9.1	9.5	9.9	9.2	9.5	11.5	11.3	11.4
2	---	---	---	9.5	8.4	9.1	9.9	9.3	9.5	11.5	11.3	11.4
3	---	---	---	9.8	8.3	9.4	9.6	9.2	9.4	11.8	11.4	11.6
4	---	---	---	9.7	9.1	9.4	9.7	9.0	9.4	11.8	11.5	11.6
5	---	---	---	9.8	8.8	9.2	9.5	9.2	9.4	12.1	11.7	12.0
6	---	---	---	9.4	8.6	9.0	9.6	9.0	9.3	12.3	12.1	12.2
7	7.1	5.9	6.7	9.0	8.4	8.7	9.4	9.0	9.2	12.6	12.3	12.4
8	6.6	5.9	6.3	8.7	7.9	8.4	9.1	8.2	8.6	12.4	12.2	12.3
9	6.7	6.3	6.5	8.6	7.8	8.1	8.7	8.3	8.4	12.5	11.7	12.1
10	7.3	6.5	6.9	9.3	8.4	8.9	8.7	8.1	8.4	13.1	12.4	12.6
11	7.7	6.7	7.2	9.5	8.6	9.1	9.2	8.4	8.7	13.7	12.6	13.1
12	8.1	7.0	7.7	10.0	9.2	9.6	9.1	8.7	8.9	12.6	12.3	12.5
13	8.2	7.3	7.7	10.2	8.6	9.4	9.5	8.7	9.1	12.3	11.9	12.1
14	8.4	7.5	7.9	10.2	8.6	9.4	9.7	9.1	9.3	12.0	11.9	12.0
15	8.8	8.0	8.4	11.2	9.5	10.7	9.7	9.2	9.4	12.0	12.0	12.0
16	8.6	8.0	8.4	11.1	10.2	10.6	9.9	9.2	9.6	12.2	12.0	12.2
17	8.7	7.9	8.3	11.1	9.8	10.4	9.8	9.2	9.6	12.3	11.8	12.2
18	8.5	7.7	8.2	10.5	9.2	9.8	10.4	9.7	9.9	12.5	11.9	12.3
19	8.2	7.5	7.9	9.8	8.1	9.0	10.2	9.8	9.9	12.4	12.0	12.2
20	8.4	7.5	7.9	9.1	8.0	8.6	10.3	9.8	10.0	12.1	11.9	12.0
21	8.0	7.5	7.7	9.1	8.0	8.5	10.5	9.7	10.1	11.9	11.7	11.8
22	8.0	7.4	7.7	9.6	7.9	8.4	11.0	10.1	10.5	11.8	11.1	11.5
23	8.1	7.5	7.7	9.6	8.1	8.7	10.9	10.2	10.5	11.6	10.7	11.0
24	8.0	7.3	7.6	9.3	8.5	8.9	10.9	10.1	10.4	11.8	11.0	11.6
25	8.0	7.3	7.6	9.3	8.5	8.8	11.2	10.2	10.6	11.7	11.2	11.4
26	8.4	7.4	7.9	9.4	8.6	8.9	11.5	10.5	10.8	12.0	11.3	11.4
27	8.7	7.7	8.3	9.2	8.8	9.0	11.6	10.7	11.1	11.5	11.4	11.4
28	9.8	8.4	8.8	9.8	9.1	9.4	11.7	10.8	11.1	11.4	11.2	11.3
29	9.9	8.4	8.9	9.9	8.9	9.6	11.7	10.8	11.3	11.2	11.1	11.2
30	9.7	8.6	8.9	9.9	9.3	9.6	11.7	11.5	11.6	11.3	11.1	11.2
31	9.6	8.8	9.2	---	---	---	11.5	11.3	11.4	11.4	11.2	11.3
MONTH	9.9	5.9	7.9	11.2	7.8	9.2	11.7	8.1	9.8	13.7	10.7	11.8

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.5	11.4	11.5	12.6	12.2	12.3	11.9	11.2	11.5	10.5	10.2	10.3
2	11.6	11.5	11.5	12.6	12.3	12.4	11.7	10.7	11.1	10.6	9.9	10.2
3	11.9	11.6	11.7	12.5	12.3	12.4	11.4	10.4	10.9	10.6	10.1	10.3
4	11.9	11.8	11.9	12.5	12.3	12.4	11.0	9.8	10.4	10.8	10.1	10.4
5	11.9	11.8	11.9	12.4	12.1	12.3	10.7	9.7	10.1	10.3	9.5	9.9
6	11.9	11.8	11.9	12.1	12.0	12.0	10.3	9.5	9.7	9.6	8.6	8.8
7	11.9	11.8	11.9	12.0	11.9	11.9	9.9	9.2	9.5	8.8	7.3	7.8
8	11.9	11.8	11.9	12.0	11.8	11.9	9.8	9.4	9.6	8.5	7.8	8.1
9	12.0	11.9	11.9	11.8	11.7	11.7	10.3	9.1	9.8	8.8	7.6	8.2
10	12.0	11.9	11.9	11.7	11.4	11.6	10.3	9.3	9.8	8.8	8.0	8.4
11	12.1	11.4	11.9	11.7	11.4	11.6	10.1	9.2	9.8	9.0	8.0	8.5
12	11.8	11.6	11.7	11.7	11.6	11.7	10.3	9.2	10.0	9.4	8.5	8.9
13	11.8	11.4	11.6	11.6	11.4	11.5	10.4	9.9	10.1	9.2	8.5	8.8
14	12.2	11.8	12.0	11.4	11.0	11.2	10.3	9.6	10.1	8.8	7.6	8.3
15	12.3	12.1	12.2	11.0	10.8	10.9	10.1	9.7	9.9	8.2	7.4	7.9
16	12.5	12.3	12.4	11.0	10.8	10.9	10.0	9.5	9.7	8.4	7.2	7.7
17	12.4	12.2	12.3	10.9	10.8	10.8	10.0	9.7	9.9	8.8	7.3	8.2
18	12.2	12.1	12.1	10.8	10.6	10.7	10.1	9.5	9.8	8.9	8.0	8.5
19	12.4	12.1	12.2	10.6	10.2	10.4	10.4	9.7	10.0	8.9	7.9	8.4
20	12.6	12.2	12.4	10.5	10.2	10.3	10.8	9.9	10.4	9.4	8.3	8.8
21	12.6	12.4	12.5	10.4	10.2	10.3	11.1	10.5	10.8	9.3	8.1	8.8
22	12.8	12.5	12.7	10.7	10.3	10.5	11.5	10.6	11.1	9.1	8.6	8.8
23	12.9	12.7	12.8	10.6	10.2	10.5	11.5	11.0	11.3	9.1	8.2	8.7
24	12.8	12.6	12.7	.8	10.5	10.6	11.6	11.0	11.2	8.9	8.1	8.4
25	12.8	12.5	12.6	11.1	10.4	10.8	11.6	10.8	11.1	8.2	7.7	7.9
26	12.9	12.7	12.8	11.5	10.9	11.2	11.2	10.5	10.9	7.7	7.3	7.5
27	12.9	12.3	12.7	11.8	11.1	11.5	11.2	10.1	10.6	7.6	7.2	7.4
28	12.8	12.2	12.4	12.0	11.3	11.7	11.3	10.1	10.7	7.4	7.0	7.2
29	---	---	---	12.0	11.5	11.8	11.1	10.3	10.7	7.6	6.3	7.2
30	---	---	---	12.2	11.7	12.0	10.7	10.1	10.4	7.5	7.2	7.4
31	---	---	---	12.0	11.6	11.8	---	---	---	7.3	7.0	7.2
MONTH	12.9	11.4	12.1	12.6	10.2	11.4	11.9	9.1	10.4	10.8	6.3	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.1	7.2	7.9	7.0	7.4	8.3	7.3	7.9	9.4	8.1	8.6
2	7.3	7.1	7.2	8.2	7.4	7.8	8.8	7.6	8.2	9.1	8.2	8.6
3	7.5	7.0	7.3	8.1	7.6	7.8	9.3	8.1	8.7	8.9	7.9	8.5
4	8.3	7.3	7.7	8.4	7.6	8.0	9.2	8.0	8.5	8.4	7.5	8.1
5	8.5	7.6	8.0	8.3	7.9	8.1	9.8	8.5	8.9	8.3	7.6	7.9
6	8.3	7.7	8.0	8.6	7.9	8.1	9.1	7.9	8.7	8.2	7.4	7.8
7	8.4	7.5	7.8	9.1	8.4	8.7	8.9	7.6	8.4	8.7	7.3	8.0
8	8.8	7.6	8.1	9.2	8.4	8.7	8.3	7.6	8.0	9.0	8.0	8.4
9	8.8	7.8	8.3	9.3	8.5	8.9	8.3	7.4	7.9	8.8	7.9	8.3
10	8.5	7.3	8.2	8.5	6.3	7.5	8.6	7.7	8.2	8.4	7.6	8.1
11	7.9	7.2	7.4	6.8	6.2	6.4	8.5	8.0	8.3	8.0	7.5	7.7
12	7.9	6.9	7.4	6.5	5.9	6.2	8.2	7.5	7.9	8.0	7.1	7.5
13	7.9	7.2	7.6	6.5	5.8	6.2	7.9	6.9	7.4	7.5	6.6	7.1
14	7.5	6.2	7.0	7.2	6.0	6.5	7.4	6.8	7.1	7.6	6.5	6.9
15	6.6	6.0	6.2	7.3	6.9	7.1	7.2	6.2	6.7	7.8	6.7	7.2
16	7.1	6.2	6.7	8.2	6.8	7.4	8.2	6.8	7.4	8.4	7.4	7.9
17	7.1	6.6	6.8	8.6	7.3	7.8	8.3	7.4	7.8	8.5	7.8	8.1
18	7.6	6.6	7.0	8.1	7.3	7.7	8.9	7.5	8.1	8.6	7.8	8.2
19	7.2	6.5	6.9	8.5	7.7	8.1	8.4	7.7	7.9	9.0	7.7	8.4
20	7.8	6.9	7.2	8.8	7.8	8.4	---	---	---	8.8	7.2	8.2
21	7.9	7.1	7.4	9.2	7.9	8.5	---	---	---	8.7	7.8	8.2
22	8.0	6.9	7.4	8.5	7.4	8.0	---	---	---	9.4	7.7	8.3
23	7.9	7.2	7.6	7.7	6.9	7.3	8.2	7.7	8.0	8.8	7.6	8.2
24	7.4	6.7	7.1	7.6	6.2	6.8	8.1	7.7	7.9	8.5	7.8	8.2
25	7.2	6.6	6.9	7.4	6.2	6.8	7.9	7.4	7.7	8.5	8.2	8.3
26	7.0	6.5	6.8	7.4	6.6	7.0	7.7	6.5	7.3	8.9	8.1	8.4
27	7.3	6.4	6.8	8.1	6.5	7.1	7.1	6.0	6.6	8.5	8.0	8.3
28	7.4	6.6	7.0	8.4	6.8	7.5	7.6	6.6	7.1	8.6	7.7	8.1
29	7.6	6.6	7.0	8.9	7.7	8.3	8.1	7.0	7.5	7.9	7.1	7.5
30	7.6	6.6	7.1	8.7	7.9	8.3	8.5	7.5	7.9	8.2	6.8	7.5
31	---	---	---	8.7	7.1	7.8	9.3	7.8	8.3	---	---	---
MONTH	8.8	6.0	7.3	9.3	5.8	7.6	9.8	6.0	7.9	9.4	6.5	8.0

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN

LOCATION.--Lat 36°38'32", long 86°59'18", Robertson County, Hydrologic Unit 05130206, on left bank in pump house of Springfield water plant, 0.2 mi south of Kentucky-Tennessee state line, 0.7 mi below Highway 161 bridge, 4.8 mi northwest of Barren Plains.

DRAINAGE AREA.--549 mi^2, includes 246 mi^2 without surface drainage.

PERIOD OF RECORD.--October 1994 to current year. Occasional low-flow measurements, water years 1966-1967 at site 1.8 mi upstream.

GAGE.-- Data collection platform. Datum of gage is 440.00 ft above sea level (levels based on information provided by City of Springfield).

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	1500	12,700	18.48	Mar 15	0530	4,630	11.39
Jan 23	2100	*21,300	*27.61	May 6	1400	7,350	13.88
Feb 1	0745	4,600	11.36				

Minimum daily discharge, 37 ft^3/s, Sept. 10, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

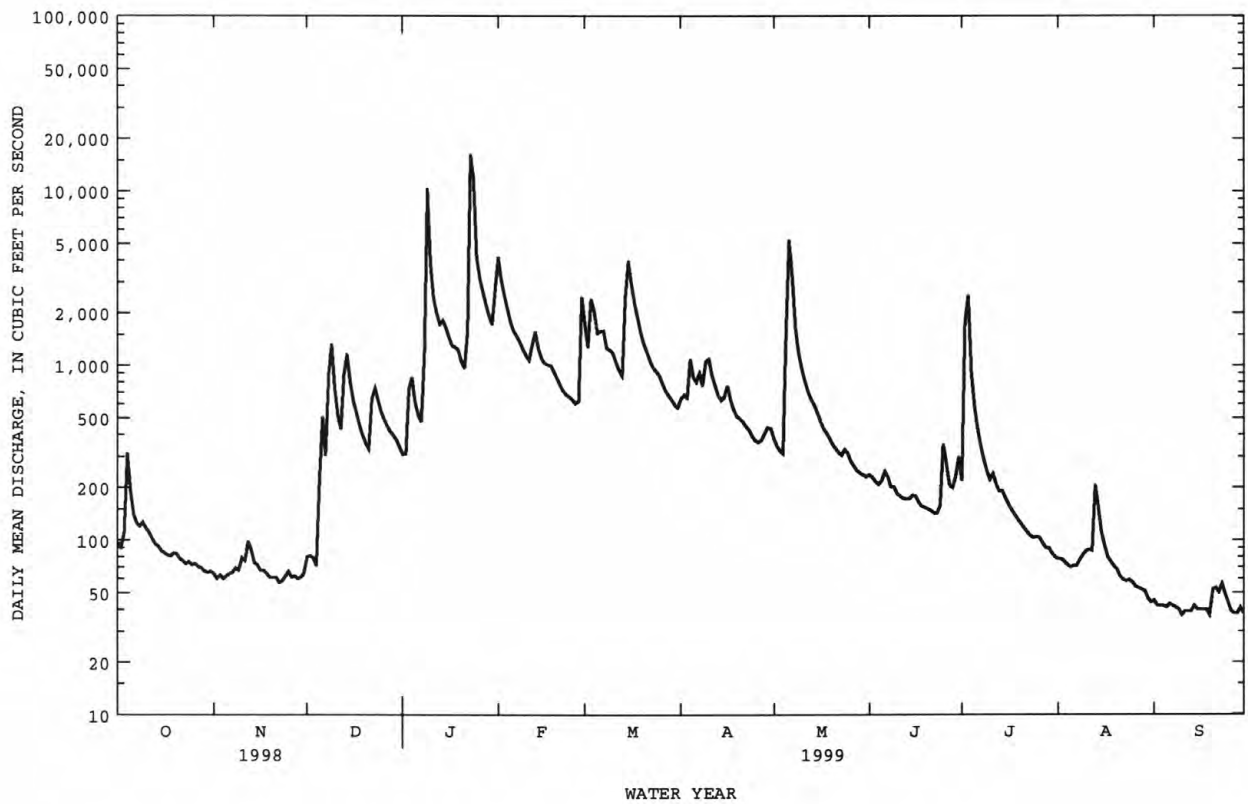
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	64	80	308	4170	1720	643	379	236	218	78	45
2	91	60	81	311	3090	1270	677	344	228	1760	78	42
3	110	63	79	732	2490	2410	654	323	216	2530	75	42
4	313	60	71	848	2090	2040	1090	311	207	915	72	42
5	190	62	216	617	1760	1530	856	1550	219	587	70	41
6	140	64	503	517	1570	1570	800	5250	247	440	71	43
7	125	65	305	476	1470	1580	904	3210	229	351	71	42
8	120	69	901	1150	1360	1260	763	1630	201	292	77	41
9	126	67	1320	10400	1240	1230	1060	1190	201	250	82	40
10	117	79	735	3860	1140	1180	1090	969	184	221	86	37
11	111	76	514	2450	1070	1040	878	821	178	239	88	39
12	102	98	430	2010	1310	935	766	720	173	209	87	39
13	95	88	884	1720	1560	871	675	647	171	190	207	39
14	92	74	1160	1810	1250	2430	631	599	172	191	155	42
15	87	72	795	1640	1100	4010	658	543	180	174	110	40
16	84	67	624	1450	1030	2990	764	487	178	160	93	40
17	82	67	533	1300	1010	2320	635	440	164	149	80	40
18	81	64	453	1270	997	1880	559	414	156	139	75	40
19	84	61	397	1230	918	1550	513	385	153	131	71	37
20	83	61	357	1050	845	1330	494	355	151	124	68	52
21	78	61	331	962	771	1200	476	335	147	117	62	53
22	76	57	638	1570	715	1070	449	317	143	111	59	50
23	73	58	739	16200	681	974	424	306	142	106	58	56
24	75	62	626	11700	662	926	391	330	158	103	59	49
25	72	66	541	4210	633	875	370	314	354	104	57	44
26	73	61	486	3200	605	787	362	282	272	103	54	39
27	70	62	446	2650	625	718	373	265	206	96	53	38
28	69	60	415	2240	2480	673	406	250	199	90	52	38
29	66	61	396	1930	---	635	441	241	231	90	51	41
30	65	64	371	1720	---	597	434	235	299	84	46	38
31	66	---	338	2730	---	574	---	230	---	80	44	---
TOTAL	3112	1993	15765	84261	38642	44175	19236	23672	5995	10354	2389	1269
MEAN	100	66.4	509	2718	1380	1425	641	764	200	334	77.1	42.3
MAX	313	98	1320	16200	4170	4010	1090	5250	354	2530	207	56
MIN	65	57	71	308	605	574	362	230	142	80	44	37
CFSM	.18	.12	.93	4.95	2.51	2.60	1.17	1.39	.36	.61	.14	.08
IN.	.21	.14	1.07	5.71	2.62	2.99	1.30	1.60	.41	.70	.16	.09

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	187	414	783	1377	1228	1819	928	1177	1132	385	273	177
MAX	422	1073	2335	2718	1829	4219	1594	1794	3219	655	507	529
(WY)	1997	1997	1997	1999	1997	1997	1998	1995	1998	1998	1998	1996
MIN	82.0	66.4	224	782	920	521	345	496	200	206	77.1	42.3
(WY)	1998	1999	1996	1998	1996	1998	1995	1997	1999	1995	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL	321010		250863			
ANNUAL MEAN	879		687		822	
HIGHEST ANNUAL MEAN					1170	1997
LOWEST ANNUAL MEAN					577	1995
HIGHEST DAILY MEAN	19100	Jun 10	16200	Jan 23	19800	Mar 3 1997
LOWEST DAILY MEAN	57	Nov 22	37	Sep 10	37	Sep 10 1999
ANNUAL SEVEN-DAY MINIMUM	61	Nov 18	39	Sep 9	39	Sep 9 1999
INSTANTANEOUS PEAK FLOW			21300	Jan 23	22100	Mar 2 1997
INSTANTANEOUS PEAK STAGE			27.61	Jan 23	28.49	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.60		1.25		1.50	
ANNUAL RUNOFF (INCHES)	21.75		17.00		20.34	
10 PERCENT EXCEEDS	1780		1570		1760	
50 PERCENT EXCEEDS	561		272		434	
90 PERCENT EXCEEDS	76		57		84	



03436100 RED RIVER AT PORT ROYAL, TN

LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork, and at mile 25.5.

DRAINAGE AREA.--935 mi^2 includes 437 mi^2 without surface drainage.

PERIOD OF RECORD.--July 1961 to September 1991. October 1991 to September 1996, crest-stage partial record station. October 1997 to September 1998.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 376.25 ft above sea level. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft; from flood profile of U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	Unknown	*31,400	*37.88	May 6	1830	11,900	22.76

Minimum discharge, 67 ft^3/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	111	175	e750	7630	3580	1120	658	451	508	162	93
2	158	109	169	e1120	5920	2500	1180	594	434	1230	158	94
3	382	107	150	e1550	4530	4230	1130	552	413	4190	153	90
4	687	112	143	e1300	3760	4080	1580	528	391	1750	145	88
5	510	108	668	e950	3100	2970	1470	2680	422	e1200	141	88
6	306	111	959	e840	2710	2940	1540	10400	435	e980	138	86
7	258	111	758	898	2510	3040	1690	7110	440	724	137	87
8	252	118	1650	1480	2320	2410	1460	3230	392	614	145	84
9	255	122	2180	e18000	2100	2290	1610	2240	368	536	154	82
10	230	140	1420	e7000	1910	2190	1900	1750	349	476	155	78
11	205	186	1020	e5440	1770	1910	1500	1440	331	457	155	76
12	186	170	898	e4100	1980	1680	1290	1250	324	450	158	77
13	172	190	1460	e3400	2730	1590	1130	1120	314	406	268	78
14	160	167	2120	e3000	2180	4000	1060	1030	326	396	340	77
15	156	151	1460	e2700	1900	7720	1110	959	335	384	237	78
16	148	140	1130	e2400	1750	5690	1260	875	335	349	190	79
17	142	131	992	2300	1760	4360	1090	815	299	327	167	77
18	138	127	882	2180	1750	3500	965	772	266	305	151	78
19	142	123	803	2220	1610	2820	891	729	251	287	142	79
20	141	127	735	1880	1470	2390	869	690	242	270	133	98
21	139	125	e1000	1710	1340	2130	845	648	234	255	126	110
22	129	121	e1200	e12000	1230	1890	801	617	225	241	119	96
23	125	116	e1700	e30000	1170	1700	754	585	222	228	113	88
24	122	117	e1220	e15000	1150	1630	707	592	255	226	115	89
25	123	119	e1100	e6200	1100	1520	663	586	384	229	114	81
26	124	119	e950	e5400	1060	1360	645	544	599	217	113	76
27	125	116	828	4620	1180	1240	661	508	428	207	111	73
28	120	116	783	3870	4460	1160	655	481	e825	194	112	71
29	116	116	751	3260	---	1100	700	461	e970	182	108	73
30	113	130	713	2990	---	1040	723	445	686	177	102	77
31	111	---	665	5280	---	1020	---	431	---	167	94	---
TOTAL	6148	3856	30682	153838	68080	81680	32999	45320	11946	18162	4656	2501
MEAN	198	129	990	4963	2431	2635	1100	1462	398	586	150	83.4
MAX	687	190	2180	30000	7630	7720	1900	10400	970	4190	340	110
MIN	111	107	143	750	1060	1020	645	431	222	167	94	71
CFSM	.21	.14	1.06	5.31	2.60	2.82	1.18	1.56	.43	.63	.16	.09
IN.	.24	.15	1.22	6.12	2.71	3.25	1.31	1.80	.48	.72	.19	.10

e Estimated

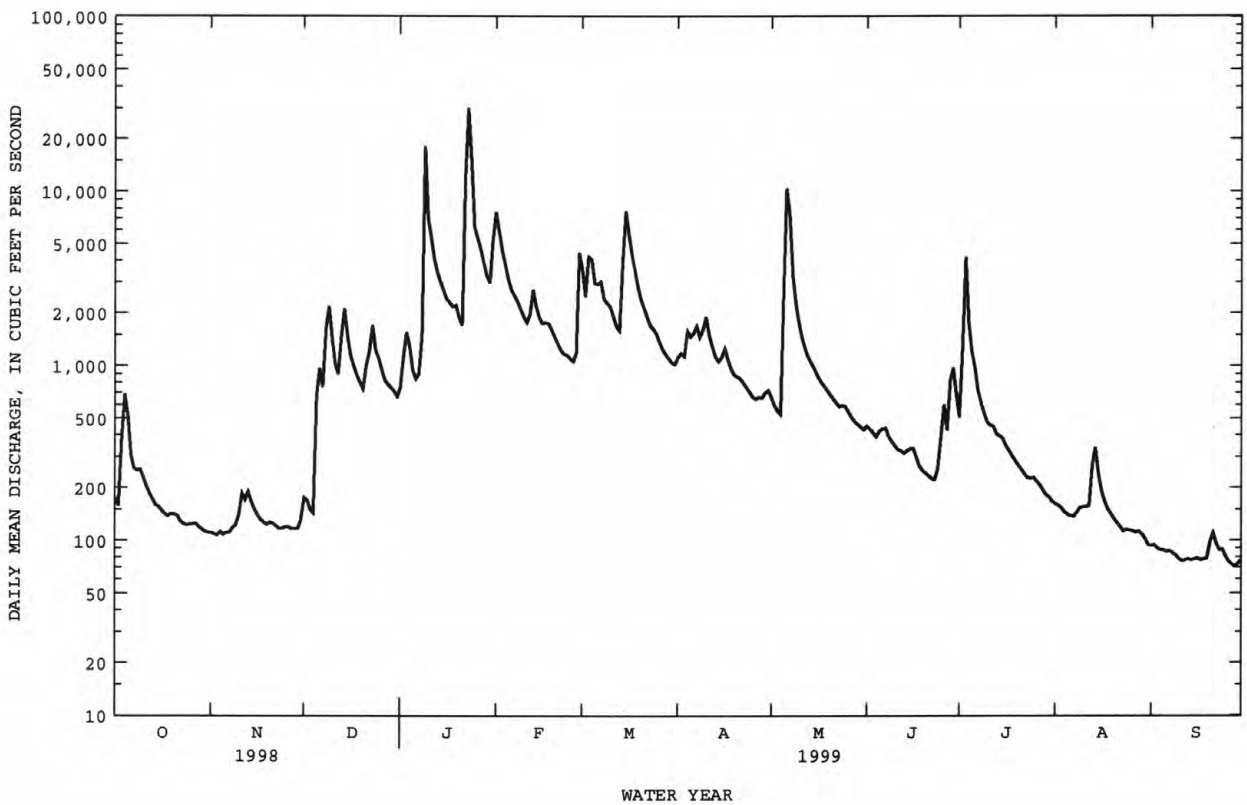
03436100 RED RIVER AT PORT ROYAL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	264	664	1773	2078	2504	2733	2086	1638	1102	612	314	382
MAX	855	3610	5054	5984	7429	9874	6482	7183	5467	2858	809	3939
(WY)	1980	1980	1991	1974	1989	1975	1979	1983	1998	1989	1998	1979
MIN	68.2	74.4	73.4	91.7	562	795	490	270	140	143	130	83.4
(WY)	1964	1964	1964	1981	1964	1966	1986	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	570363		459868			
ANNUAL MEAN	1563		1260		1353	
HIGHEST ANNUAL MEAN					2594	1979
LOWEST ANNUAL MEAN					632	1963
HIGHEST DAILY MEAN	28400	Jun 11	30000	Jan 23	56600	Mar 13 1975
LOWEST DAILY MEAN	107	Nov 3	71	Sep 28	55	Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	110	Oct 31	77	Sep 24	58	Sep 12 1964
INSTANTANEOUS PEAK FLOW			31400	Jan 23	60300	Mar 13 1975
INSTANTANEOUS PEAK STAGE			37.88	Jan 23	48.26	Mar 13 1975
INSTANTANEOUS LOW FLOW			67	Sep 28	a54	Sep 17 1964
ANNUAL RUNOFF (CFSM)	1.67		1.35		1.45	
ANNUAL RUNOFF (INCHES)	22.69		18.30		19.66	
10 PERCENT EXCEEDS	3290		2950		2970	
50 PERCENT EXCEEDS	1000		552		611	
90 PERCENT EXCEEDS	140		111		125	

a Also occurred Sept. 18, 1964.



RESERVOIRS IN CUMBERLAND RIVER BASIN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russell County, KY, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi^2. PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft higher.

REVISIONS.--WSP 1556: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor gates, each 37 high by 50 ft wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft top of gates, is 3,070,000 cfs-days, of which 1,056,000 cfs-days above elevation 723.00 ft, crest of spillway, are reserved for flood control and 1,080,000 cfs-days between elevation 673.00 ft, minimum power pool, and 723.00 ft are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days below elevation 673.00 ft is dead storage. Reservoir is used for flood control, power, navigation, and recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,811,000 cfs-days, May 13, 1984, elevation, 751.70 ft; minimum, first filling, 934,400 cfs-days, Jan. 1, 1956, elevation, 673.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,049,000 cfs-days, May 10, elevation, 724.42 ft; minimum, 1,266,100 cfs-days, Dec. 8, elevation, 690.26 ft.

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3.0 mi east of Celina, and 7.3 mi upstream from mouth. DRAINAGE AREA, 936 mi^2. PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

REVISIONS.--WSP 1306: 1944. WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft high by 60 ft wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft, top of gates, is 859,800 cfs-days of which 177,500 cfs-days between elevations 663.00 ft and 651.00 ft, crest of spillway, are reserved for flood control, and 250,200 cfs-days between elevations 651.00 ft and 631.00 ft, ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days below elevation 631.00 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 828,600 cfs-days, Mar. 15, 1975, elevation, 660.98 ft; minimum, first filling, 428,000 cfs-days, Sept. 11, 1944, elevation, 630.63 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 680,500 cfs-days, May 24, elevation, 650.87 ft; minimum, 498,200 cfs-days, Dec. 11, elevation, 636.76 ft.

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam Cumberland River, 2.7 mi north of Carthage, and at mile 313.5. DRAINAGE AREA, 8,095 mi^2. PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five gates, each 41 ft high and 45 ft wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft, maximum surcharge pool, is 156,700 cfs-days, of which 53,400 cfs-days is controlled storage between elevations 508.0 ft and 499.0 ft, ordinary minimum pool. Contents of 5,000 cfs-days between elevation of 499.0 ft and 500.0 ft full winter pool, is available for power production. Contents of 48,400 cfs-days above 500.0 ft is available for flood control during the winter, and 26,100 cfs-days above 504.0 ft, full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days below elevation 499.0 ft is dead storage. Reservoir is used for navigation, power, and flood control.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 156,700 cfs-days, Mar. 13, 1975, May 8, 1984, elevation, 508.00 ft; minimum, after first filling to ordinary minimum pool, 96,700 cfs-days, Apr. 18, 1974, elevation, 497.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 136,200 cfs-days, Aug. 24, elevation, 504.94 ft; minimum, 103,300 cfs-days, Jan. 11, elevation, 499.00 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03413500 LAKE CUMBERLAND			03416500 DALE HOLLOW LAKE			03418400 CORDELL HULL RESERVOIR		
Sept. 30...	704.35	1,568,300	-	641.98	562,200	-	504.04	130,900	-
Oct. 31...	697.90	1,426,300	-142,000	639.30	528,900	-33,300	502.30	120,700	-10,200
Nov. 30...	691.41	1,289,600	-136,700	637.17	503,100	-25,800	500.07	108,700	-12,000
Dec. 31...	693.27	1,328,100	+38,500	638.73	521,900	+18,800	500.51	111,000	+2,300
CAL YR 1998	-	-	+60,300	-	-	+16,300	-	-	+2,400
Jan. 31...	715.92	1,838,400	+510,300	645.88	612,700	+90,800	499.92	107,900	-3,100
Feb. 28...	712.26	1,750,800	-87,600	645.11	602,600	-10,100	500.14	109,000	+1,100
Mar. 31...	720.67	1,955,300	+204,500	649.05	655,300	+52,700	500.65	111,700	+2,700
Apr. 30...	720.91	1,961,300	+6,000	648.70	650,600	-4,700	504.42	133,200	+21,500
May 31...	722.24	1,994,700	+33,400	650.30	672,600	+22,000	504.08	131,100	-2,100
June 30...	718.47	1,900,700	-94,000	648.30	645,100	-27,500	503.44	127,300	-3,800
July 31...	714.00	1,792,200	-108,500	646.12	615,900	-29,200	504.44	133,300	+6,000
Aug. 31...	704.76	1,577,600	-214,600	641.68	558,400	-57,500	504.26	132,200	-1,100
Sept. 30...	696.41	1,394,300	-183,300	637.71	509,500	-48,900	504.25	132,200	0
WTR YR 1999	-	-	-174,000	-	-	-52,700	-	-	+1,300

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at pen-stock inlet on Collins River, 700 ft southwest of powerhouse of Tennessee Valley Authority, 1.5 mi northwest of Rock Island, 1.8 mi upstream from mouth of Collins River, and 2.0 mi upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi^2. PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is sea level. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft high by 25 ft wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft top of gates, is 25,900 cfs-days, of which 18,700 cfs-days are controlled storage above elevation 780.0 ft, normal minimum pool. Contents of 1,500 cfs-days below elevation 762.0 ft is dead storage. Reservoir is used primarily for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight elevation, 817.48 ft, Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days, Aug. 19, 1918, elevation, 756.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 25,600 cfs-days, Jan. 23, elevation, 805.53 ft; minimum, 11,800 cfs-days, Apr. 5, elevation, 788.08 ft.

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi north of Smithville, 14 mi southeast of Carthage, and at mile 26.6. DRAINAGE AREA, 2,174 mi^2. PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft upstream at same datum. REVISIONS.--WSP 1910: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft high by 50 ft wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft, top of gates, is 1,054,800 cfs-days, of which 384,500 cfs-days between 685.0 ft and 648.0 ft, crest of spillway, are reserved for flood control, and 248,000 cfs-days between elevations 648.0 ft and 618.0 ft, ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days below 618.0 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,014,600 cfs-days, May 10, 1984, elevation, 681.52 ft; minimum, after first filling, 171,000 cfs-days, Dec. 1, 2, 1949, elevation, 576.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 715,500 cfs-days, May 9, elevation, 653.12 ft; minimum, 487,500 cfs-days, Dec. 6, elevation, 626.56 ft.

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2. DRAINAGE AREA, 11,673 mi^2. PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft, maximum surcharge pool, 274,600 cfs-days of which 63,000 cfs-days between elevations 450.0 ft and 445.0 ft, normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days between elevations 445.0 ft and 442.0 ft, ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days below elevation 442.0 ft, is dead storage. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 277,200 cfs-days, May 9, 1984, elevation, 450.18 ft; minimum, after first filling to ordinary minimum pool, 179,400 cfs-days, Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 229,800 cfs-days, Jan. 24, elevation, 446.55 ft, minimum, 186,500 cfs-days, Nov. 20, elevation, 442.67 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03422000 GREAT FALLS LAKE			03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30...	798.62	19,300	-	634.20	549,400	-	444.71	208,400	-
Oct. 31...	789.05	12,400	-6,900	631.05	523,500	-25,900	444.81	209,500	+1,100
Nov. 30...	789.59	12,700	+300	627.79	497,200	-26,300	443.02	190,100	-19,400
Dec. 31...	801.60	21,800	+9,100	629.22	508,700	+11,500	444.65	207,700	+17,600
CAL YEAR 1998	-	-	+6,100	-	-	+13,000	-	-	-1,100
Jan. 31...	805.08	25,100	+3,300	650.75	695,800	+187,100	444.72	208,500	+800
Feb. 28...	804.79	24,800	-300	640.98	607,300	-88,500	445.11	212,900	+4,400
Mar. 31...	796.13	17,300	-7,500	645.93	651,400	+44,100	444.83	209,700	-3,200
Apr. 30...	793.76	15,500	-1,800	645.35	646,200	-5,200	444.86	210,000	+300
May 31...	792.20	14,400	-1,100	646.63	657,800	+11,600	444.51	206,100	-3,900
June 30...	804.98	25,000	+10,600	646.45	656,100	-1,700	445.28	214,800	+8,700
July 31...	799.30	19,900	-5,100	643.15	626,500	-29,600	444.60	207,100	-7,700
Aug. 31...	799.96	20,400	+500	635.75	562,400	-64,100	444.67	207,900	+800
Sept. 30...	798.86	19,500	-900	630.73	520,900	-41,500	444.81	209,500	+1,600
WTR YR 1999	-	-	+200	-	-	-28,500	-	-	+1,100

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi east of Donelson, and 6.8 mi above mouth. DRAINAGE AREA, 892 mi^2. PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft high by 45 ft wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft, maximum controlled pool, is 328,700 cfs-days of which 193,600 cfs-days is controlled storage between elevations 504.5 ft and 480.0 ft, ordinary minimum pool. Contents of 17,200 cfs-days between elevations 480.0 ft and 483.0 ft, full winter pool, is available for power production. Contents of 176,400 cfs-days above 483.0 ft is available for flood control during the winter, and 131,100 cfs-days above 490.0 ft, full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days below elevation 480.0 ft is dead storage. Reservoir is used for flood control, power, recreation, and wildlife.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 336,600 cfs-days, May 9, 1984, elevation, 505.18 ft; minimum, after first filling to ordinary minimum pool, 109,500 cfs-days, Dec. 5, 1968, elevation, 474.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 223,400 cfs-days, Jan. 25, elevation, 493.44 ft, minimum, 148,600 cfs-days, Dec. 7, elevation, 482.38 ft.

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi west of Ashland City, 16 mi southeast of the courthouse in Clarksville, and at mile 148.7. DRAINAGE AREA, 14,159 mi^2.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft high by 60 ft wide. Total capacity at elevation 385.0 ft, normal pool, is 52,200 cfs-days, of which 9,800 cfs-days are controlled storage. Records of contents not published herein.

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, KY, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi northeast of Grand Rivers, KY, and at mile 30.6. DRAINAGE AREA, 17,598 mi^2. PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is sea level, (levels by U.S. Army Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft upstream from Barkley Dam at same datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates, each 50 ft high by 55 ft wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft, top of gates, is 1,049,600 cfs-days, of which 742,000 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Contents of 130,500 cfs-days between ordinary minimum pool elevation, 354.0 ft, and full pool elevation, 359.0 ft, is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft, contents 171,000 cfs-days. Reservoir is used for navigation, flood control, power, and recreation. Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 370.04 ft, May 13, 1984; minimum after reaching permanent pool elevation, 353.20 ft, Dec. 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 549,000 cfs-days, May 11, elevation, 362.60 ft; minimum content, 300,900 cfs-days, Feb. 13, minimum, 353.70 ft. Contents based on backwater profile.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03430050 J. PERCY PRIEST LAKE			*03438210 LAKE BARKLEY		
Sept. 30.....	489.42	193,500	-	354.85	327,400	-
Oct. 31.....	487.68	181,500	-12,000	354.40	316,800	-10,600
Nov. 30.....	484.75	162,800	-18,700	354.60	321,500	+4,700
Dec. 31.....	483.60	155,800	-7,000	354.65	322,700	+1,200
CAL YR 1998	-	-	+4,200	-	-	-10,700
Jan. 31.....	488.41	186,500	+30,700	357.40	392,900	+70,200
Feb. 28.....	484.33	160,300	-26,200	354.75	325,000	-67,900
Mar. 31.....	486.43	173,400	+13,100	355.30	338,300	+13,300
Apr. 30.....	488.16	184,800	+11,400	358.90	435,200	+96,900
May 31.....	490.28	199,700	+14,900	359.20	443,900	+8,7000
June 30.....	490.79	203,400	+3,700	359.70	458,800	+14,900
July 31.....	489.86	196,600	-6,800	357.60	398,400	-60,400
Aug. 31.....	489.48	193,900	-2,700	356.10	358,400	-40,000
Sept. 30.....	489.15	191,600	-2,300	356.15	359,700	+1,300
WTR YR 1999	-	-	-1,900	-	-	32,300

* Contents based on backwater profile.

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03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft upstream from bridge on U.S. Highway 321, 1.0 mi northeast of Newport city limits, 3.7 mi upstream from Pigeon River, and at mile 77.5.

DRAINAGE AREA.--1,858 mi^2.

PERIOD OF RECORD.--September to December 1900, February to August 1901, October to November 1901, November 1902 to December 1905, September to December 1907, October 1920 to September 1994, October 1996 to current year. Monthly discharge only October to November 1920, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1933-34, WSP 823: Drainage area. WSP 893: 1928(M), WSP 1306: 1900-1908. WSP 1336: 1903(M), 1921-22(M), 1923, 1925(M), 1927(M), 1928, 1932. WSP 1706: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft above sea level. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation during low flow caused by powerplants above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft, present datum, discharge estimated, 110,000 ft^3/s, has not been exceeded since that date. From the same reports, other outstanding floods occurred Feb. 28, 1902, gage height, 23.0 ft present datum, discharge estimated, 101,000 ft^3/s; and July 17, 1916, gage height, 22.5 ft present datum, discharge estimated 97,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 7	0815	*1,720	*5.28				

Minimum discharge, 345 ft^3/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

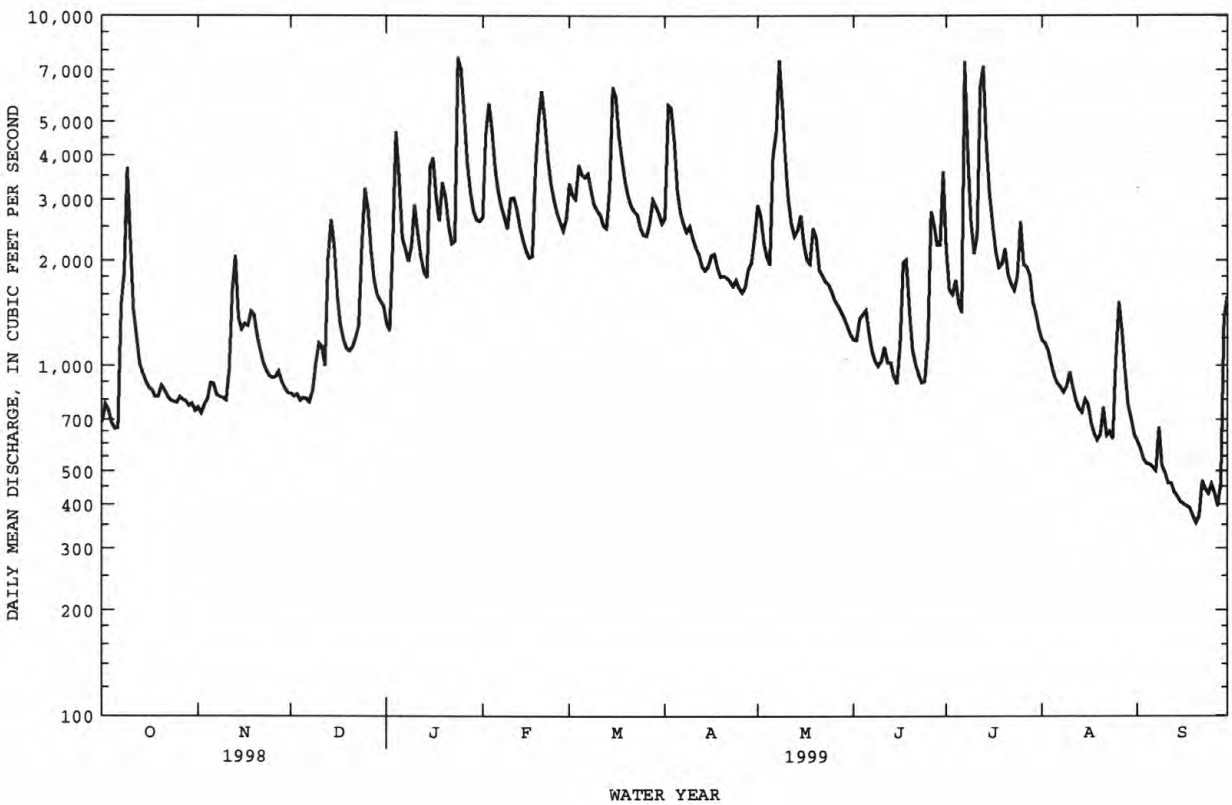
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	760	832	1320	2660	3330	2660	2880	1190	2170	1180	608
2	775	730	819	1260	4610	3090	5580	2690	1180	1650	1160	579
3	746	774	829	2260	5630	3000	5460	2260	1360	1600	1100	541
4	685	802	795	4670	4720	3760	4380	2050	1400	1760	1010	525
5	661	894	809	3500	3680	3530	3170	1950	1440	1510	933	522
6	663	886	804	2330	3160	3460	2750	3980	1240	1420	889	512
7	1490	825	787	2160	2860	3550	2550	4690	1100	7410	869	500
8	1840	815	846	1990	2660	3180	2420	7490	1030	4050	839	667
9	3690	809	1010	2200	2470	2890	2510	5530	998	2600	874	516
10	2300	796	1160	2890	3010	2790	2320	3920	1030	2090	957	494
11	1450	976	1130	2430	3030	2700	2180	2990	1130	2390	866	461
12	1200	1650	999	2070	2800	2520	2090	2550	1020	6280	795	461
13	1010	2070	2030	1860	2490	2480	1930	2350	1020	7200	754	433
14	952	1370	2620	1790	2290	3220	1880	2450	931	4280	735	422
15	902	1270	2200	3710	2140	6270	1920	2700	888	3120	803	407
16	864	1320	1600	3940	2040	5880	2070	2240	1140	2550	774	402
17	853	1300	1310	3020	2060	4550	2090	2010	1970	2140	688	396
18	814	1430	1190	2600	3690	3850	1910	1960	2010	1910	639	391
19	817	1400	1120	3350	5090	3360	1800	2480	1430	1960	612	372
20	878	1220	1100	3030	6120	3050	1810	2330	1110	2160	635	354
21	851	1110	1130	2520	5090	2860	1790	1880	1010	1820	759	370
22	817	1020	1200	2240	3960	2770	1750	1810	944	1710	631	468
23	795	970	1310	2280	3340	2720	1690	1740	895	1640	648	443
24	790	934	2240	7630	2990	2490	1760	1710	903	1800	617	430
25	783	922	3220	7060	2730	2370	1670	1630	1180	2580	1050	458
26	814	930	2810	5310	2580	2360	1620	1540	2760	1950	1520	432
27	798	963	2130	3790	2440	2570	1680	1490	2540	1920	1260	396
28	790	899	1760	3150	2630	2990	1890	1430	2220	1820	968	461
29	767	864	1590	2770	---	2870	1970	1370	2220	1520	764	1360
30	778	835	1530	2620	---	2730	2340	1300	3600	1410	703	1570
31	742	---	1480	2590	---	2560	---	1230	---	1270	634	---
TOTAL	32005	31544	44390	94340	92970	99750	71640	78630	42889	79690	26666	15951
MEAN	1032	1051	1432	3043	3320	3218	2388	2536	1430	2571	860	532
MAX	3690	2070	3220	7630	6120	6270	5580	7490	3600	7410	1520	1570
MIN	661	730	787	1260	2040	2360	1620	1230	888	1270	612	354
CFSM	.56	.57	.77	1.64	1.79	1.73	1.29	1.37	.77	1.38	.46	.29
IN.	.64	.63	.89	1.89	1.86	2.00	1.43	1.57	.86	1.60	.53	.32

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1903	2144	2869	3590	4269	4885	4358	3382	2624	2232	2297	1744
MAX	9875	7249	7478	9533	8814	12710	11650	9448	6148	7620	14640	6358
(WY)	1965	1980	1962	1937	1990	1903	1903	1901	1901	1905	1901	1928
MIN	508	713	819	968	1450	1399	1362	1252	722	711	380	421
(WY)	1955	1932	1940	1956	1941	1988	1986	1941	1988	1986	1925	1925

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1901 - 1999	
ANNUAL TOTAL	1227878		710465			
ANNUAL MEAN	3364		1946		2967	
HIGHEST ANNUAL MEAN					4641	1973
LOWEST ANNUAL MEAN					1348	1988
HIGHEST DAILY MEAN	31400	Jan 8	7630	Jan 24	62200	Apr 8 1903
LOWEST DAILY MEAN	495	Sep 17	354	Sep 20	240	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM	501	Sep 14	385	Sep 15	276	Aug 25 1925
INSTANTANEOUS PEAK FLOW			12400	Jul 7	76300	Aug 30 1940
INSTANTANEOUS PEAK STAGE			6.82	Jul 7	19.25	Aug 30 1940
INSTANTANEOUS LOW FLOW			345	Sep 21	208	Oct 23 1952
ANNUAL RUNOFF (CFSM)	1.81		1.05		1.60	
ANNUAL RUNOFF (INCHES)	24.58		14.22		21.70	
10 PERCENT EXCEEDS	7290		3570		5490	
50 PERCENT EXCEEDS	1950		1670		2290	
90 PERCENT EXCEEDS	745		665		973	



03461500 PIGEON RIVER AT NEWPORT, TN

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft upstream from bridge on U.S. Highway 25 and 70 at Newport, 0.6 mi downstream from Morell Branch, and at mile 6.8

DRAINAGE AREA.--666 mi^2.

PERIOD OF RECORD.-- September 1900 to September 1929, October 1944 to September 1946, August 1948 to February 1982, October 1996 to current year. Monthly discharge only for some peiods, published in WSP 1306. Published as "near Newport" 1945-46.

REVISED RECORDS.--WSP 1143: Drainage area. WSP 1306: 1901, 1904-10. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M), 1948-52 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi downstream at datum 35.85 ft lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft higher.

REMARKS.--Records good, except for periods of estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days. The largest of these, Lake Walters, usable capacity, 10,400 cfs-days was completed in 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft present datum, under present conditions about 21.1 ft, due to removal of mill dam in 1945, discharge, 48,000 ft^3/s, and flood of August 30, 1940, reached a stage of 19.3 ft present datum, discharge 36,000 ft^3/s, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 6	1200	*4,950	*6.40				

Minimum discharge, 137 ft^3/s, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	157	437	609	1570	2250	2090	822	642	e1100	438	223
2	190	162	233	958	2750	1340	2600	683	789	e900	369	406
3	146	225	166	1790	2420	1880	1440	387	891	e1000	961	221
4	146	359	168	1670	1690	2530	2070	1030	543	e350	532	409
5	146	707	169	1120	2120	2170	1630	1140	828	e500	532	225
6	143	366	169	977	1170	1800	1370	3100	462	e900	461	303
7	142	298	168	1070	664	1870	1340	3100	725	e950	511	220
8	183	163	206	560	988	1570	962	3480	1090	e1200	446	304
9	177	163	659	774	735	1440	1310	2510	736	e800	227	217
10	160	466	664	1230	2280	1820	887	1970	834	e1000	518	319
11	164	779	426	1480	1830	1490	931	1010	544	e1500	489	217
12	164	518	231	502	1970	1730	1200	1410	690	e2800	527	149
13	166	576	1460	1230	1470	1450	1790	1820	350	e2500	288	152
14	193	476	1280	1860	798	1790	1070	1470	552	e2300	448	150
15	243	316	568	2720	1200	2390	364	1880	791	e1500	256	149
16	191	455	713	2820	1340	2560	460	766	811	e1200	193	157
17	210	368	301	1500	1030	1730	268	705	1200	e1300	462	154
18	168	427	647	e1000	2060	1850	1170	1510	739	e1400	289	152
19	164	606	609	e1500	2180	1320	735	2030	899	e800	479	151
20	205	252	365	e800	1930	1030	941	1470	572	935	267	151
21	177	170	296	e1600	1860	1470	1190	786	490	1040	433	159
22	176	166	904	957	1840	1240	956	822	1150	1150	230	189
23	238	225	911	2450	1810	1610	785	986	714	812	176	197
24	180	171	2530	3070	1390	1150	567	990	696	1060	427	161
25	160	221	1630	2550	1310	1260	329	794	721	806	254	155
26	183	296	1360	2040	763	1310	994	947	e1000	871	429	144
27	225	185	897	1840	496	1120	918	797	e750	1170	257	149
28	221	180	724	1270	1610	798	989	745	e600	1210	437	179
29	226	181	519	1130	---	1270	1080	574	2190	1090	274	248
30	175	383	1110	1320	---	1210	1430	412	1980	688	223	292
31	183	---	826	1030	---	1020	---	659	---	833	405	---
TOTAL	5592	10017	21346	45427	43274	49468	33866	40805	24979	35665	12238	6302
MEAN	180	334	689	1465	1546	1596	1129	1316	833	1150	395	210
MAX	243	779	2530	3070	2750	2560	2600	3480	2190	2800	961	409
MIN	142	157	166	502	496	798	268	387	350	350	176	144
CFSM	.27	.50	1.03	2.20	2.32	2.40	1.69	1.98	1.25	1.73	.59	.32
IN.	.31	.56	1.19	2.54	2.42	2.76	1.89	2.28	1.40	1.99	.68	.35

e Estimated

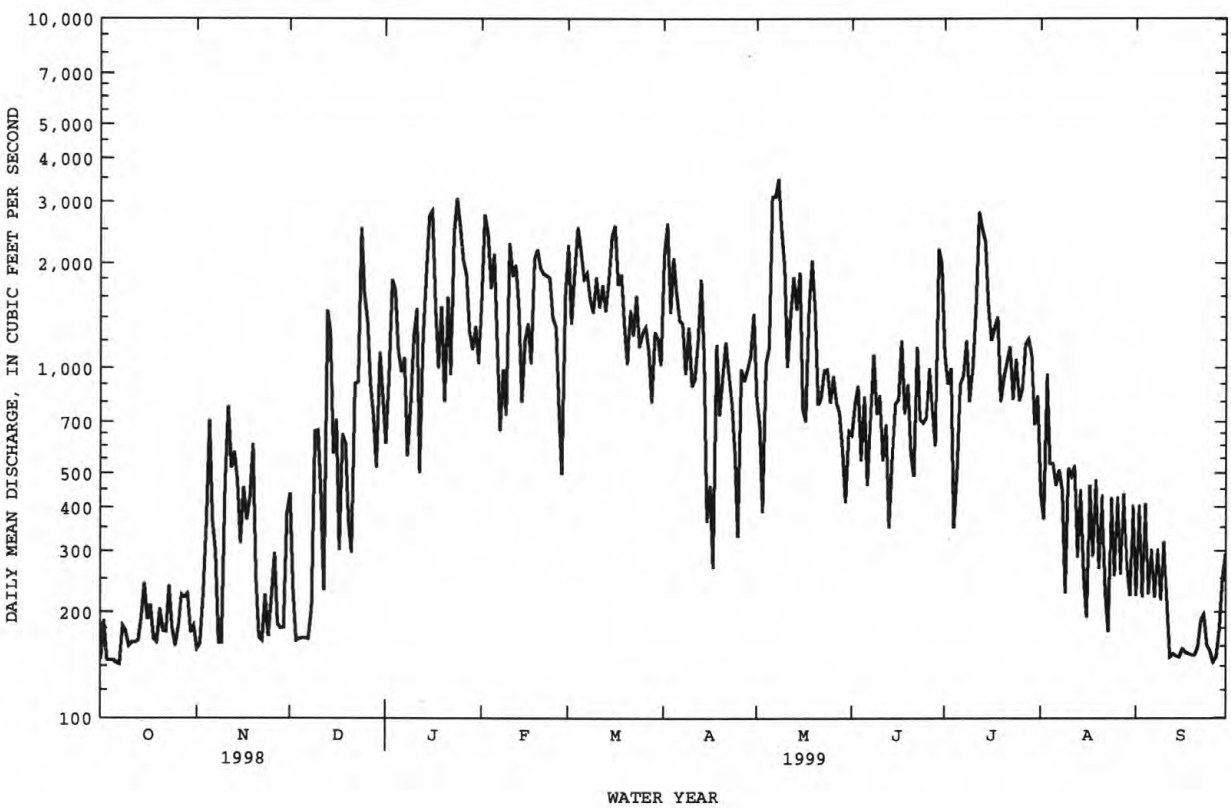
03461500 PIGEON RIVER AT NEWPORT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	639	770	1254	1616	1847	2217	1818	1328	1083	911	774	611
MAX	2263	2265	3271	3407	4762	5136	4270	2693	2436	2498	2229	2182
(WY)	1965	1980	1962	1974	1957	1963	1903	1929	1967	1916	1928	1928
MIN	148	234	391	369	853	907	716	651	457	328	158	145
(WY)	1979	1954	1904	1981	1904	1915	1967	1914	1925	1925	1925	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1901 - 1999	
ANNUAL TOTAL	464468		328979			
ANNUAL MEAN	1273		901		1232	
HIGHEST ANNUAL MEAN					1761	1909
LOWEST ANNUAL MEAN					644	1914
HIGHEST DAILY MEAN	17300	Jan 8	3480	May 8	31000	Apr 2 1920
LOWEST DAILY MEAN	139	Sep 7	142	Oct 7	48	Sep 21 1953
ANNUAL SEVEN-DAY MINIMUM	151	Oct 1	151	Oct 1	65	Nov 7 1980
INSTANTANEOUS PEAK FLOW			4950	May 6	50000	Feb 28 1902
INSTANTANEOUS PEAK STAGE			6.40	May 6	a23.40	Feb 28 1902
INSTANTANEOUS LOW FLOW			137	Sep 26	38	Oct 5 1952
ANNUAL RUNOFF (CFSM)	1.91		1.35		1.85	
ANNUAL RUNOFF (INCHES)	25.94		18.38		25.14	
10 PERCENT EXCEEDS	2650		1870		2440	
50 PERCENT EXCEEDS	738		774		935	
90 PERCENT EXCEEDS	168		169		330	

a Present datum, under present conditions, the stage for this flood would be about 1.9 ft lower due to removal of dam 1.3 miles downstream in 1945, from reports of Tennessee Valley Authority.



03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft upstream from bridge on State Highway 81, 3 mi northwest of Erwin, 5.2 mi downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi^2.

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

GAGE.--Data collection platform. Datum of gage is 1,519.30 ft above sea level. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft^3/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	2330	*7,580	*4.51				

Minimum discharge, 161 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	245	270	556	1100	2320	1320	1770	606	951	622	248
2	248	245	265	550	1780	1840	1770	1420	601	810	731	238
3	231	255	265	1670	1600	2100	1310	1230	791	754	588	227
4	238	265	265	1780	1330	2820	1170	1080	747	1030	518	221
5	252	264	265	1030	1160	2270	1090	988	606	886	476	218
6	277	262	270	720	1040	2230	996	1820	557	733	444	461
7	286	255	271	853	999	2370	937	2400	530	919	416	527
8	471	252	302	847	961	2010	891	5070	502	1200	403	405
9	879	263	368	1550	893	1780	969	3410	477	881	495	310
10	463	266	360	2150	1020	1690	901	2250	576	713	494	267
11	353	432	324	1410	959	1490	840	1750	736	746	433	242
12	311	548	313	1100	875	1350	797	1460	573	2650	384	226
13	288	413	2790	939	847	1300	745	1320	521	3710	363	210
14	278	334	2320	915	769	1940	721	1530	460	2010	364	207
15	265	371	1020	3270	726	3190	754	1560	449	1470	354	198
16	261	409	695	2830	724	2810	862	1270	666	1340	333	197
17	254	380	575	1810	749	2410	759	1120	1070	2060	311	191
18	250	335	504	1660	1890	2320	684	1030	779	1490	296	186
19	255	311	454	1720	2310	2200	669	1780	571	1240	282	181
20	272	303	558	1410	2430	1900	678	1610	488	1100	486	182
21	271	304	526	1210	1990	1740	681	1210	457	961	585	192
22	258	288	502	1080	1630	1740	632	1080	442	1040	439	193
23	245	280	501	2040	1370	1540	606	1020	426	923	348	192
24	245	280	1740	6060	1220	1460	611	992	448	1960	331	188
25	245	280	2540	3900	1120	1390	599	925	573	2940	380	177
26	246	304	1320	2480	1070	1310	568	854	1170	1490	468	169
27	247	319	950	1880	1010	1320	618	819	928	1090	424	167
28	245	302	784	1560	1510	1250	989	753	1370	1060	350	222
29	245	284	721	1340	---	1180	978	700	1170	887	309	1430
30	245	276	704	1290	---	1120	1470	665	1300	743	290	847
31	245	---	629	1190	---	1070	---	631	---	659	268	---
TOTAL	9146	9325	23371	52800	35082	57460	26615	45517	20590	40446	12985	8919
MEAN	295	311	754	1703	1253	1854	887	1468	686	1305	419	297
MAX	879	548	2790	6060	2430	3190	1770	5070	1370	3710	731	1430
MIN	231	245	265	550	724	1070	568	631	426	659	268	167
MED	255	286	504	1410	1080	1780	818	1230	574	1040	403	214
CFSM	.37	.39	.94	2.12	1.56	2.30	1.10	1.82	.85	1.62	.52	.37
IN.	.42	.43	1.08	2.44	1.62	2.66	1.23	2.10	.95	1.87	.60	.41

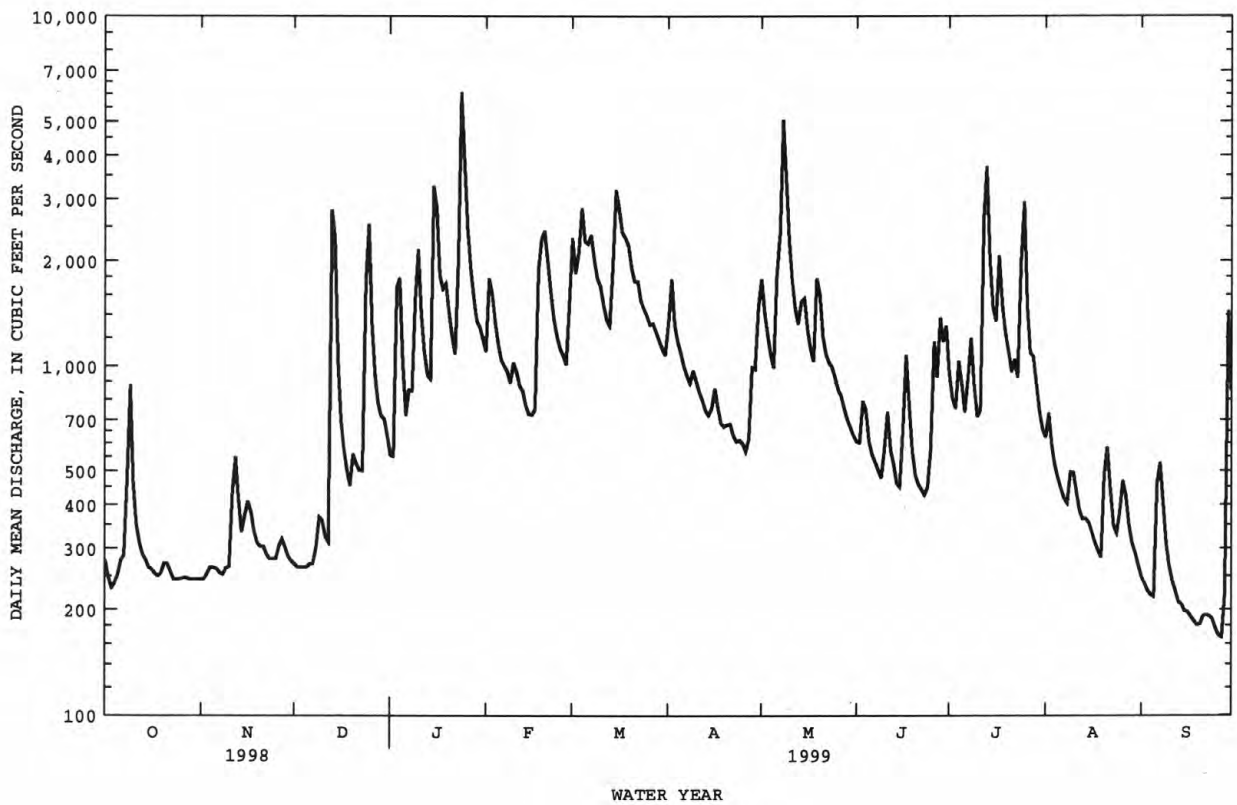
03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	818	1012	1293	1726	2065	2359	2019	1585	1132	941	913	762
MAX	2630	4720	3073	4020	4494	5102	4169	3171	3196	2525	4876	2648
(WY)	1930	1978	1962	1995	1957	1963	1983	1984	1992	1949	1940	1928
MIN	246	294	353	382	635	649	699	597	376	351	182	187
(WY)	1954	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1925

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1920 - 1999	
ANNUAL TOTAL	625828		342256			
ANNUAL MEAN	1715		938		1381	
HIGHEST ANNUAL MEAN					1948	1974
LOWEST ANNUAL MEAN					694	1988
HIGHEST DAILY MEAN	28800	Jan 8	6060	Jan 24	50800	Nov 6 1977
LOWEST DAILY MEAN	231	Oct 3	167	Sep 27	88	Sep 8 1925
ANNUAL SEVEN-DAY MINIMUM	245	Oct 27	183	Sep 21	121	Sep 3 1925
INSTANTANEOUS PEAK FLOW			7580	Jan 23	a110000	Nov 6 1977
INSTANTANEOUS PEAK STAGE			4.51	Jan 23	21.52	Nov 6 1977
INSTANTANEOUS LOW FLOW			161	Sep 27	b85	Sep 8 1925
ANNUAL RUNOFF (CFSM)	2.13		1.16		1.72	
ANNUAL RUNOFF (INCHES)	28.92		15.82		23.31	
10 PERCENT EXCEEDS	3450		1920		2580	
50 PERCENT EXCEEDS	997		731		1010	
90 PERCENT EXCEEDS	264		248		402	

a From rating curve extended above 48,000 ft^3/s on basis of contracted opening and slope-area measurements of peak flow.
b Also occurred on Sept. 9, 1925.



03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN

LOCATION.--Lat 36°12'21", long 82°39'02", Greene County, Hydrologic Unit 06010108, on right bank, 0.6 mi above confluence with Nolichucky River, 1.8 mi southwest of Limestone, and at mile 0.6.

DRAINAGE AREA.--79.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,340 ft above sea level, from topographic map.

REMARKS.--Records fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 284 ft^3/s, Jan. 24, gage height, 4.01 ft; minimum, 12 ft^3/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	23	35	96	94	97	68	37	40	e24	16
2	29	27	22	34	93	87	90	59	36	37	e27	16
3	29	27	22	43	89	131	83	56	43	36	e24	16
4	32	27	22	42	85	155	83	55	45	35	e23	15
5	31	25	23	37	80	133	84	55	38	35	e24	16
6	29	25	24	35	78	120	92	82	37	35	e24	18
7	30	25	23	35	80	110	77	82	34	36	e23	17
8	41	25	29	37	77	104	75	142	34	43	e23	16
9	e30	27	46	64	73	105	80	88	37	33	e23	16
10	e27	27	28	74	74	102	78	79	33	38	e22	16
11	26	29	24	56	69	96	80	81	35	44	e22	15
12	25	26	25	50	68	93	86	78	32	119	20	15
13	25	26	140	47	65	92	88	73	26	83	19	15
14	25	27	83	51	61	105	85	79	25	51	21	15
15	25	28	52	173	60	160	80	124	28	40	22	15
16	24	26	44	105	60	135	72	66	33	36	22	14
17	24	27	40	88	66	118	62	54	37	34	20	14
18	24	25	36	115	99	109	60	49	29	36	21	14
19	23	25	32	108	111	103	59	60	28	31	23	15
20	24	25	31	93	139	100	60	53	27	36	22	15
21	24	24	30	86	109	98	58	49	26	33	19	15
22	24	23	31	81	97	93	58	51	26	33	18	15
23	25	24	31	133	93	92	58	47	26	29	17	15
24	26	25	103	252	89	91	57	47	26	27	19	15
25	26	24	78	154	87	87	59	44	43	31	19	14
26	26	26	56	127	83	84	56	46	43	26	19	14
27	26	24	48	115	82	92	67	47	32	23	18	15
28	25	23	43	109	98	90	89	72	113	27	18	18
29	25	23	41	103	---	88	67	59	67	26	17	17
30	26	23	39	98	---	84	78	44	53	22	17	18
31	27	---	37	93	---	82	---	40	---	e23	16	---
TOTAL	833	764	1306	2673	2361	3233	2218	2029	1129	1178	646	465
MEAN	26.9	25.5	42.1	86.2	84.3	104	73.9	65.5	37.6	38.0	20.8	15.5
MAX	41	29	140	252	139	160	97	142	113	119	27	18
MIN	23	23	22	34	60	82	56	40	25	22	16	14
CFSM	.34	.32	.53	1.09	1.07	1.32	.94	.83	.48	.48	.26	.20
IN.	.39	.36	.61	1.26	1.11	1.52	1.04	.96	.53	.55	.30	.22

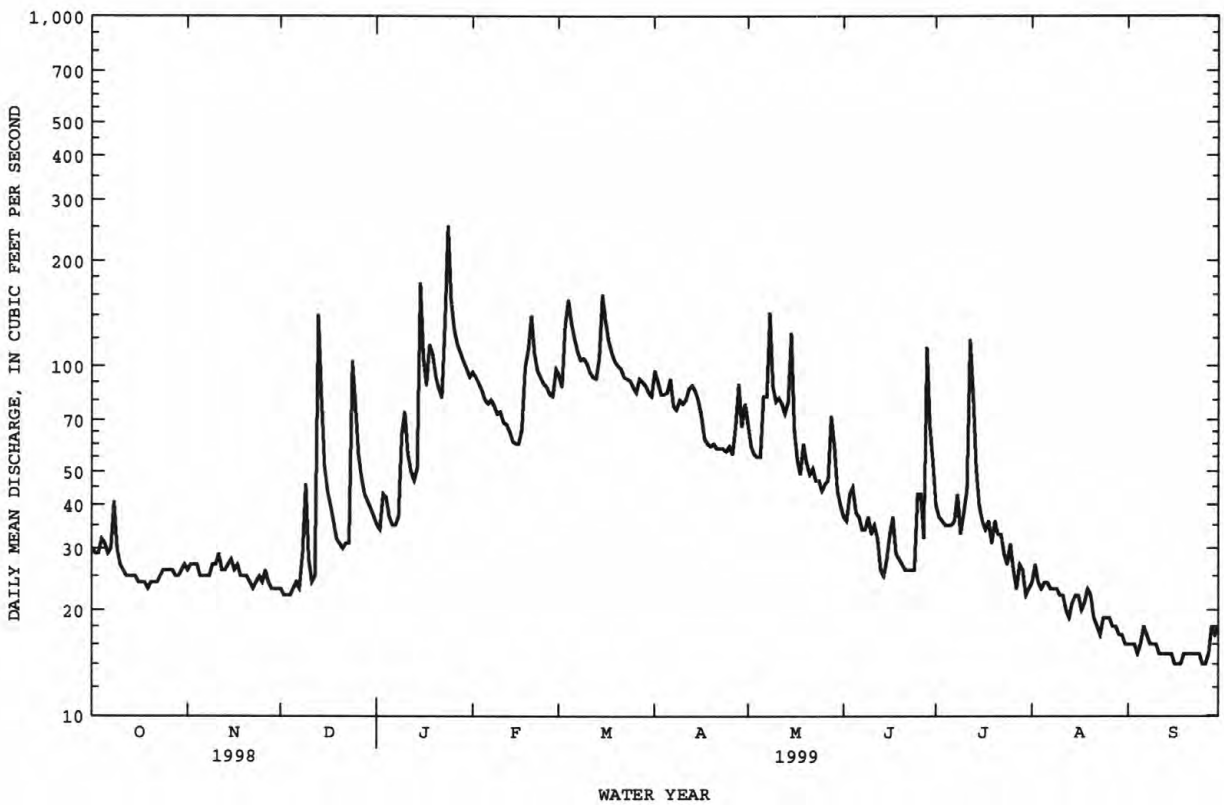
e Estimated

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.5	39.2	66.1	109	132	143	121	106	75.2	67.2	45.6	29.5
MAX	34.9	67.5	127	172	175	264	165	137	104	93.0	65.8	40.8
(WY)	1997	1997	1997	1997	1997	1997	1998	1998	1998	1998	1998	1996
MIN	23.9	24.7	29.5	69.3	84.3	96.3	73.9	65.5	37.6	38.0	20.8	15.5
(WY)	1998	1998	1998	1998	1999	1998	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	30143		18835			
ANNUAL MEAN	82.6		51.6		79.6	
HIGHEST ANNUAL MEAN					106	1997
LOWEST ANNUAL MEAN					51.6	1999
HIGHEST DAILY MEAN	939	Apr 17	252	Jan 24	939	Apr 17 1998
LOWEST DAILY MEAN	22	Dec 2	14	Sep 16	14	Sep 16 1999
ANNUAL SEVEN-DAY MINIMUM	23	Nov 28	15	Sep 12	15	Sep 12 1999
INSTANTANEOUS PEAK FLOW			284	Jan 24	1930	May 27 1996
INSTANTANEOUS PEAK STAGE			4.01	Jan 24	5.41	May 27 1996
INSTANTANEOUS LOW FLOW			12	Sep 17	12	Sep 17 1999
ANNUAL RUNOFF (CFSM)	1.05		.65		1.01	
ANNUAL RUNOFF (INCHES)	14.19		8.87		13.69	
10 PERCENT EXCEEDS	143		98		150	
50 PERCENT EXCEEDS	73		37		67	
90 PERCENT EXCEEDS	25		18		24	



03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1996 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1996 to current year.
WATER TEMPERATURE: March 1996 to current year.

INSTRUMENTATION.--Two-parameter water-quality monitor since March 1996.

REMARKS.--Specific conductance records fair, temperature records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 609 microsiemens, May 11, 1999; minimum, 158 microsiemens, July 31, 1998.
WATER TEMPERATURE: Maximum, 25.4°C, July 11, 1999; minimum, 0.1°C, Jan. 6, 1999.

EXTREMES FOR CURRENT WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 609 microsiemens, May 11; minimum, 336 microsiemens, Jan. 24.
WATER TEMPERATURE: Maximum, 25.4°C, July 31; minumum, 0.1°C, Jan. 6.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	455	446	451	461	456	458	434	426	430	487	483	485
2	452	445	448	457	456	457	432	423	428	486	482	484
3	452	441	446	458	456	457	428	418	425	485	482	483
4	445	435	439	458	456	457	427	419	423	486	481	483
5	444	436	440	460	458	459	430	423	427	490	486	488
6	448	439	443	459	457	458	436	430	434	491	486	489
7	450	427	440	459	457	458	437	432	435	486	479	482
8	429	415	422	458	457	458	437	414	429	483	479	481
9	428	423	---	457	456	457	449	420	435	481	458	470
10	443	434	---	457	456	456	457	440	448	462	453	456
11	447	440	444	456	447	452	---	---	---	469	462	466
12	452	442	448	457	441	448	---	---	---	474	469	473
13	453	448	450	447	442	445	---	---	---	478	472	475
14	452	445	449	452	447	450	---	---	---	478	444	472
15	446	443	445	453	450	452	---	---	---	444	377	392
16	446	443	444	455	451	453	---	---	---	412	379	395
17	446	443	445	454	449	452	---	---	---	437	412	426
18	447	443	445	462	445	455	463	455	460	446	437	443
19	450	447	448	455	425	446	462	459	461	447	441	443
20	451	450	450	439	426	433	462	458	460	461	447	453
21	454	450	451	443	436	439	463	459	461	462	460	461
22	451	449	450	445	439	442	461	454	457	466	461	462
23	453	449	451	442	436	440	463	454	460	466	361	416
24	456	452	453	440	436	438	454	410	427	363	336	344
25	457	452	455	442	432	438	448	419	431	417	352	384
26	456	448	452	437	431	434	472	448	461	450	417	435
27	453	449	451	435	427	432	480	472	476	471	450	461
28	468	448	454	435	426	432	484	480	482	484	471	478
29	460	449	452	435	430	433	486	482	484	514	477	483
30	456	450	453	437	427	432	486	482	484	489	481	486
31	459	454	457	---	---	---	487	481	485	489	482	484
MONTH	468	415	447	462	425	447	487	410	450	514	336	456

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	482	478	479	---	---	---	---	---	---	468	462	464
2	482	478	481	---	---	---	---	---	---	469	461	465
3	483	479	481	468	390	423	---	---	---	473	464	468
4	482	477	479	422	383	397	---	---	---	468	462	465
5	480	475	477	444	415	434	---	---	---	472	466	469
6	478	475	476	465	444	455	---	---	---	471	436	448
7	478	474	476	476	458	469	---	---	---	453	436	445
8	476	473	475	483	468	477	---	---	---	468	419	434
9	475	468	471	486	477	482	---	---	---	568	468	522
10	475	470	472	492	482	487	---	---	---	590	568	584
11	477	470	474	493	485	490	---	---	---	609	523	587
12	477	471	474	492	482	487	---	---	---	523	495	502
13	475	469	472	489	482	486	---	---	---	507	489	497
14	472	467	470	488	477	483	---	---	---	497	475	479
15	471	467	469	478	419	434	---	---	---	498	480	491
16	470	464	467	436	421	427	---	---	---	498	463	480
17	467	462	465	446	428	440	---	---	---	480	467	474
18	462	455	459	461	442	453	---	---	---	484	472	478
19	---	---	---	465	452	459	---	---	---	472	462	468
20	---	---	---	464	454	459	---	---	---	478	471	475
21	---	---	---	466	455	460	---	---	---	484	477	481
22	---	---	---	467	452	462	---	---	---	487	479	483
23	---	---	---	464	454	460	---	---	---	484	480	482
24	---	---	---	467	454	461	---	---	---	480	470	476
25	---	---	---	469	458	462	---	---	---	471	466	469
26	---	---	---	465	457	460	---	---	---	466	460	464
27	---	---	---	467	459	462	---	---	---	465	460	463
28	---	---	---	467	459	463	427	375	399	464	457	461
29	---	---	---	466	459	462	450	427	442	461	455	459
30	---	---	---	467	463	465	467	450	458	460	454	457
31	---	---	---	474	466	469	---	---	---	462	455	458
MONTH	483	455	473	493	383	460	467	375	433	609	419	479

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	461	456	459	---	---	---	---	---	---	461	454	458
2	462	458	460	---	---	---	---	---	---	458	454	457
3	460	452	456	---	---	---	---	---	---	466	457	463
4	462	456	460	---	---	---	---	---	---	470	460	466
5	463	460	462	---	---	---	---	---	---	468	461	465
6	467	463	465	---	---	---	---	---	---	470	466	468
7	472	465	469	---	---	---	---	---	---	473	467	470
8	470	467	469	---	---	---	---	---	---	470	467	468
9	472	467	470	---	---	---	---	---	---	471	466	469
10	474	470	472	---	---	---	---	---	---	468	463	466
11	474	471	473	---	---	---	---	---	---	464	459	462
12	482	468	471	---	---	---	449	444	---	462	455	459
13	470	467	468	---	---	---	454	446	451	458	452	456
14	469	467	468	---	---	---	460	450	455	457	450	454
15	475	465	469	---	---	---	454	448	451	456	451	454
16	471	441	457	---	---	---	454	448	452	457	452	454
17	448	437	443	---	---	---	475	449	455	456	447	451
18	462	447	457	---	---	---	458	450	454	451	446	449
19	470	461	465	---	---	---	458	451	454	449	444	447
20	471	464	467	---	---	---	461	440	452	446	443	445
21	471	461	465	---	---	---	457	437	446	445	443	444
22	468	457	463	---	---	---	445	441	444	447	442	445
23	472	462	465	---	---	---	451	445	448	445	441	443
24	473	464	469	---	---	---	463	443	450	447	443	445
25	468	443	454	---	---	---	462	448	457	445	440	442
26	460	441	449	---	---	---	456	448	453	442	438	440
27	458	446	452	---	---	---	457	453	455	438	434	436
28	447	362	397	---	---	---	457	454	456	436	429	432
29	---	---	---	---	---	---	460	454	458	432	427	429
30	---	---	---	---	---	---	458	448	456	436	430	433
31	---	---	---	---	---	---	484	448	462	---	---	---
MONTH	482	362	460	---	---	---	484	437	453	473	427	452

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.2	19.9	20.6	14.4	12.9	13.8	11.2	9.3	10.2	3.7	2.5	3.1
2	19.9	17.1	18.0	14.0	12.9	13.5	10.1	8.3	9.2	4.4	3.2	3.6
3	17.5	15.9	16.7	14.9	13.7	14.4	10.2	8.3	9.3	4.8	3.5	4.5
4	18.9	17.2	17.9	14.8	13.0	14.1	11.0	9.3	10.2	3.5	1.3	2.2
5	20.1	17.9	19.1	13.0	10.2	11.5	11.2	10.1	10.6	1.3	.4	.8
6	20.3	18.9	19.8	10.2	7.7	8.8	12.8	10.8	11.8	.6	.1	.3
7	20.0	19.0	19.4	7.7	6.2	7.1	14.0	11.9	12.9	3.6	.6	2.2
8	19.4	17.3	18.4	8.1	7.0	7.4	15.1	14.0	14.5	6.5	3.6	4.9
9	17.8	15.9	---	10.3	8.1	9.3	14.9	11.1	13.1	7.4	5.8	6.9
10	15.2	12.9	---	13.3	10.2	11.7	11.1	8.8	9.6	5.8	4.0	4.5
11	15.7	13.8	14.9	13.6	11.3	12.9	9.5	9.0	9.3	4.4	2.9	3.8
12	15.9	13.9	15.1	11.3	9.1	10.1	9.0	8.5	8.7	5.2	4.1	4.6
13	16.1	14.4	15.4	11.0	9.4	10.2	9.9	8.5	9.1	7.1	4.7	5.7
14	15.9	13.9	14.8	12.0	11.0	11.5	9.9	8.8	9.6	9.3	7.1	8.2
15	14.5	12.6	13.7	13.0	12.0	12.4	8.8	6.7	7.5	9.3	7.1	8.0
16	14.7	12.7	13.9	12.1	10.5	11.6	7.6	6.6	7.3	7.4	5.8	6.7
17	15.5	13.3	14.5	13.8	12.1	12.8	7.2	6.4	7.0	8.1	6.1	7.0
18	16.0	14.0	15.2	12.2	10.2	11.2	6.4	4.9	5.7	9.7	8.1	9.0
19	15.9	15.3	15.6	11.3	10.0	10.7	7.0	5.5	6.0	9.0	7.2	8.0
20	16.1	15.3	15.8	11.4	10.5	11.0	9.0	7.0	8.1	8.8	7.5	8.1
21	15.3	13.4	14.1	10.5	8.1	9.4	10.1	8.2	9.1	10.9	8.2	9.5
22	13.9	11.4	12.5	8.1	6.4	7.4	10.4	7.5	9.5	13.1	10.5	11.6
23	11.4	9.3	10.3	8.7	6.1	7.4	7.5	5.3	6.0	13.3	12.4	12.9
24	10.7	8.7	10.0	11.2	8.7	10.0	5.8	5.3	5.6	12.4	10.0	11.4
25	11.1	9.3	10.4	10.9	9.0	10.1	5.9	4.9	5.4	10.0	8.4	9.3
26	11.4	9.4	10.7	11.3	10.0	10.7	5.6	5.0	5.3	10.1	8.6	9.5
27	11.9	9.9	11.2	10.0	8.3	9.2	5.5	4.0	4.9	10.6	8.6	9.7
28	13.3	10.5	11.9	9.1	7.4	8.4	6.3	5.5	5.8	11.9	10.1	10.9
29	14.4	12.8	13.7	9.0	7.2	8.3	7.2	6.3	6.8	11.9	11.4	11.7
30	14.7	13.0	14.0	9.3	7.4	8.6	7.1	4.4	5.8	12.2	11.3	11.7
31	15.0	13.3	14.3	---	---	---	4.4	3.6	4.0	12.2	8.3	10.1
MONTH	21.2	8.7	14.9	14.9	6.1	10.5	15.1	3.6	8.3	13.3	.1	7.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.2	7.9	8.5	9.8	8.4	8.9	14.8	11.7	13.1	16.0	12.9	14.4
2	10.7	8.8	9.7	10.5	7.1	8.7	16.1	13.2	14.7	16.7	13.9	15.3
3	11.7	10.2	10.9	10.5	6.5	9.3	16.4	13.8	15.1	17.5	14.4	16.0
4	11.0	9.9	10.4	7.8	5.1	6.4	18.9	15.4	17.1	18.4	15.4	16.9
5	10.1	8.0	9.0	10.0	6.7	8.1	19.4	16.0	17.9	18.1	16.7	17.3
6	9.2	8.0	8.5	11.2	9.7	10.3	18.7	16.4	17.5	18.3	16.8	17.5
7	11.7	9.2	10.5	10.7	8.8	9.6	18.8	16.0	17.4	18.2	16.6	17.6
8	11.8	10.2	11.1	9.1	6.9	7.8	17.7	15.4	16.5	18.3	16.8	17.6
9	11.6	9.1	10.4	8.4	7.1	7.8	18.9	15.7	17.3	18.3	16.1	17.3
10	13.4	11.4	12.3	8.5	7.7	8.3	19.0	16.0	17.7	19.1	16.4	17.7
11	14.5	11.9	13.2	9.2	6.8	8.0	19.3	17.5	18.3	19.9	17.6	18.8
12	14.3	9.2	12.2	9.5	7.0	8.3	17.7	13.3	15.1	19.7	17.7	18.4
13	9.2	6.0	7.2	9.0	7.4	7.8	14.7	11.4	13.1	18.4	17.1	17.7
14	6.1	4.1	5.2	9.6	7.4	8.2	14.1	12.1	12.9	17.8	16.5	17.2
15	7.3	4.6	6.0	9.6	7.1	8.2	14.0	12.6	13.3	18.1	15.7	16.9
16	9.0	6.1	7.6	10.9	7.2	9.0	14.4	12.7	13.5	18.9	16.9	17.9
17	10.4	8.9	9.5	12.6	9.0	10.8	13.3	11.6	12.3	19.7	17.5	18.6
18	10.4	9.7	10.1	13.0	10.7	12.0	12.1	11.2	11.7	19.6	18.8	19.2
19	9.7	8.1	8.7	12.5	10.1	11.3	14.1	10.8	12.4	19.1	17.9	18.6
20	9.1	7.5	8.1	13.6	9.9	11.7	16.3	13.6	14.9	18.6	16.6	17.6
21	9.1	7.6	8.5	13.5	11.3	12.6	17.3	14.0	15.6	18.8	16.4	17.6
22	7.6	6.3	6.9	11.9	9.3	10.8	18.0	15.3	16.7	19.0	17.4	18.2
23	7.1	6.5	6.7	12.7	10.0	11.4	17.6	15.9	16.7	19.7	18.0	18.7
24	7.1	6.1	6.5	13.1	11.9	12.5	18.5	16.5	17.5	19.5	18.1	18.9
25	7.7	6.8	7.2	12.9	11.6	12.2	18.7	16.5	17.6	18.1	16.5	17.2
26	8.8	6.6	7.6	12.1	8.0	10.1	18.3	16.6	17.1	17.5	16.5	17.1
27	9.7	8.2	8.8	11.1	7.6	9.2	18.0	16.3	17.2	17.6	15.6	16.6
28	10.3	9.7	10.1	12.2	8.8	10.6	17.7	16.0	16.9	17.8	15.6	16.7
29	---	---	---	12.5	10.7	11.6	16.0	12.3	14.1	18.9	16.6	17.6
30	---	---	---	13.4	10.0	11.9	14.2	11.3	12.6	19.9	18.1	18.9
31	---	---	---	13.0	11.5	12.0	---	---	---	20.1	18.5	19.3
MONTH	14.5	4.1	9.0	13.6	5.1	9.9	19.4	10.8	15.5	20.1	12.9	17.6

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.9	18.9	19.2	22.4	22.0	22.2	---	---	---	19.5	17.6	18.8
2	20.0	18.3	19.1	22.5	21.8	22.2	---	---	---	20.1	17.9	19.1
3	20.5	19.4	19.8	23.3	22.0	22.6	---	---	---	20.4	18.5	19.6
4	20.6	19.2	19.9	23.7	22.7	23.2	---	---	---	20.5	18.5	19.7
5	20.9	18.9	19.9	24.0	23.2	23.6	---	---	---	20.5	19.5	19.9
6	21.7	20.0	20.8	24.9	23.7	24.2	---	---	---	21.1	20.1	20.5
7	22.1	20.3	21.2	24.6	23.6	24.1	---	---	---	21.7	20.1	20.9
8	22.1	20.4	21.3	24.2	23.5	23.8	---	---	---	21.2	19.4	20.5
9	22.9	21.0	21.9	24.2	23.0	23.7	---	---	---	20.7	19.4	20.1
10	22.5	21.5	22.0	24.1	23.4	23.8	---	---	---	20.4	19.1	19.8
11	22.8	21.1	21.9	23.4	21.8	22.5	---	---	---	19.1	17.0	18.2
12	22.5	21.0	21.8	21.8	19.0	20.1	24.0	21.8	22.9	19.7	18.1	18.9
13	22.5	20.7	21.7	20.1	19.1	19.4	24.5	22.4	23.5	19.8	18.5	19.3
14	22.1	20.7	21.3	20.7	19.9	20.2	24.6	23.4	24.1	20.4	19.5	19.9
15	21.3	20.5	20.9	21.6	20.6	20.9	23.8	22.1	22.9	20.0	18.7	19.2
16	21.0	18.8	19.8	22.4	21.4	21.8	23.5	21.4	22.5	18.7	17.1	18.1
17	19.2	18.5	18.8	22.4	21.6	22.0	24.1	22.0	23.1	17.1	15.1	16.3
18	18.9	17.4	18.2	22.4	21.7	22.0	24.1	22.3	23.2	16.6	14.9	16.0
19	19.3	17.4	18.4	23.1	21.9	22.4	24.0	22.1	23.1	17.3	15.8	16.6
20	19.8	17.9	18.9	23.3	22.8	23.0	23.8	22.0	22.8	18.1	16.5	17.4
21	20.6	18.7	19.6	23.1	22.3	22.7	22.7	21.1	21.8	18.3	17.0	17.9
22	21.7	19.9	20.8	23.5	22.7	23.0	21.6	19.7	20.8	17.0	14.6	15.9
23	22.1	20.7	21.4	24.5	23.2	23.7	21.7	20.0	21.0	14.7	12.9	14.0
24	21.9	20.8	21.2	24.4	23.4	24.0	22.1	20.8	21.4	15.0	12.9	14.1
25	20.8	20.2	20.5	23.4	22.1	22.6	22.3	21.4	21.9	15.7	13.7	14.8
26	21.8	20.4	21.0	23.5	22.0	22.7	22.5	21.6	22.0	17.1	14.8	15.9
27	22.7	21.6	22.1	23.7	23.2	23.5	22.4	21.4	22.0	18.5	17.1	17.8
28	22.9	21.6	22.2	23.9	22.7	23.3	22.5	21.0	21.9	19.6	18.4	19.0
29	22.9	21.7	22.1	24.0	23.0	23.5	22.3	21.0	21.8	19.9	19.0	19.6
30	22.4	21.1	21.7	24.4	23.2	23.7	22.3	20.8	21.3	19.0	16.1	17.5
31	---	---	---	25.4	24.9	---	20.8	18.9	19.7	---	---	---
MONTH	22.9	17.4	20.6	25.4	19.0	22.7	24.6	18.9	22.2	21.7	12.9	18.2

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT												
14...	1200	25	452	8.3	15.0	732	9.8	101	190	170	840	230
NOV												
10...	1030	26	454	8.2	11.5	731	10.3	99	160	150	480	230
DEC												
08...	1300	27	427	8.1	15.0	729	9.9	103	230	>80	370	210
FEB												
10...	1200	72	475	8.3	12.5	734	10.4	101	570	K1300	1400	240
MAR												
16...	1415	135	438	7.9	9.5	730	12.4	114	730	K670	110	220
APR												
27...	1045	52	456	7.9	17.0	728	9.4	102	280	K150	1000	240
MAY												
26...	1200	43	462	8.2	17.0	730	8.8	95	630	K500	1700	240
JUN												
15...	1015	25	448	8.3	20.5	731	7.8	91	580	<3	1400	230

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT												
14...	0	70	13	2.2	2	.1	3.8	24	230	229	2.2	8.0
NOV												
10...	10	69	13	2.0	2	.1	3.3	0	267	219	2.5	8.4
DEC												
08...	0	63	13	2.2	2	.1	3.5	10	237	211	3.1	7.8
FEB												
10...	37	76	13	2.8	2	.1	3.1	2	247	203	2.1	9.9
MAR												
16...	27	68	12	3.9	4	.1	4.1	0	231	189	--	13
APR												
27...	14	76	13	2.3	2	.1	2.8	30	220	231	--	7.6
MAY												
26...	16	72	14	2.6	2	.1	3.3	2	263	218	--	8.6
JUN												
15...	8	70	13	2.2	2	.1	4.0	10	250	221	--	7.5

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT												
14...	5.1	.18	9.1	252	255	.34	--	<.010	1.36	.040	.12	.25
NOV												
10...	5.0	.18	8.1	259	247	.35	1.27	.014	1.28	.056	.16	.14
DEC												
08...	4.6	.19	4.3	244	229	.33	--	<.010	.928	.024	.18	.19
FEB												
10...	6.8	.14	8.4	271	255	.37	2.41	.015	2.43	<.020	.11	.26
MAR												
16...	8.1	.15	7.8	253	240	.34	2.31	.012	2.32	.044	.30	.54
APR												
27...	5.4	.18	9.4	264	262	.36	1.50	.022	1.53	.044	.25	.31
MAY												
26...	6.5	.17	9.1	261	258	.35	2.18	.026	2.21	.091	.19	.40
JUN												
15...	6.8	.18	11	280	255	.38	1.65	.019	1.67	.047	.23	.56

K--Results based on non-ideal colony count.

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)
OCT												
14...	1.6	.067	.045	.049	E8.2	8.5	1.4	.30	<.002	<.0020	.068	<.0020
NOV												
10...	1.4	.036	.030	.044	E9.8	6.9	1.4	<.20	<.002	<.0020	.054	<.0020
DEC												
08...	1.1	.051	.031	.031	11	9.3	1.6	.20	<.002	<.0020	.041	<.0020
FEB												
10...	2.7	.067	.045	.051	14	16	1.2	.50	<.002	<.0020	.059	<.0020
MAR												
16...	2.9	--	.061	.048	14	16	2.7	.50	<.002	<.0020	.028	<.0020
APR												
27...	1.8	.068	.044	.033	11	18	1.5	.30	<.002	<.0020	.050	<.0020
MAY												
26...	2.6	.102	.054	.099	<10	<3.0	1.6	.70	<.002	.0055	.109	<.0020
JUN												
15...	2.2	.137	.070	.059	E8.9	20	2.6	1.1	<.002	<.0020	.069	<.0020

DATE	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
OCT												
14...	<.0020	<.0040	<.0040	E.0654	<.002	<.001	<.0030	<.004	<.005	<.004	.021	<.0060
NOV												
10...	<.0020	<.0040	<.0040	E.0562	<.002	<.001	<.0030	<.004	<.005	<.004	.008	<.0060
DEC												
08...	<.0020	<.0040	<.0040	E.0577	<.002	<.001	<.0030	<.004	<.005	<.004	E.003	<.0060
FEB												
10...	<.0020	<.0040	<.0040	E.0574	<.002	<.001	<.0030	<.004	<.005	<.004	.007	<.0060
MAR												
16...	<.0020	<.0040	<.0040	E.0298	<.002	<.001	<.0030	<.004	<.005	<.004	.009	<.0060
APR												
27...	<.0020	<.0040	<.0040	E.0520	<.002	<.001	<.0030	<.004	<.005	<.004	.005	<.0060
MAY												
26...	<.0020	<.0040	<.0040	E.0404	<.002	<.001	<.0030	<.004	<.005	<.004	.046	<.0060
JUN												
15...	<.0020	<.0040	<.0040	E.0433	<.002	<.001	<.0030	<.004	<.005	<.004	.010	<.0060

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT											
14...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
NOV											
10...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
DEC											
08...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
FEB											
10...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
MAR											
16...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
APR											
27...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
MAY											
26...	<.004	<.0070	<.0180	<.0100	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
JUN											
15...	<.004	<.0070	<.0180	.0053	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040

E--Estimated

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
OCT											
14...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
NOV											
10...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
DEC											
08...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
FEB											
10...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
MAR											
16...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
APR											
27...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
MAY											
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
JUN											
15...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT											
14...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	8	59
NOV											
10...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	8	49
DEC											
08...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	20	31
FEB											
10...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	28	72
MAR											
16...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	33	88
APR											
27...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	57	26
MAY											
26...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	103	37
JUN											
15...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	144	40

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03466228 SINKING CREEK AT AFTON, TN

LOCATION.--Lat 36°11'55", long 82°44'31", Greene County, Hydrologic Unit 06010108, on left bank 300 ft upstream from bridge on county road, 0.4 mi northwest of Afton, and at mile 3.1.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1,459.36 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 12	1115	*153	*3.04				

Minimum discharge, 2.5 ft^3/s, Sept. 13, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	3.8	3.3	6.6	18	22	21	12	7.4	8.7	5.6	3.7
2	5.1	3.9	3.3	6.3	18	19	18	11	7.4	8.0	9.3	3.7
3	4.9	3.8	3.2	8.7	17	35	17	9.9	7.5	7.5	5.9	3.6
4	5.4	3.8	3.2	8.2	16	35	16	9.5	7.6	7.0	5.5	3.6
5	5.0	3.8	3.4	7.1	15	29	15	9.3	7.2	6.6	5.5	3.6
6	4.8	3.8	3.3	6.7	15	26	14	24	7.0	6.5	5.3	3.6
7	5.1	3.7	3.2	6.6	15	23	14	17	6.9	6.3	5.1	3.5
8	6.6	3.7	4.4	7.1	14	21	13	28	6.8	6.2	5.1	3.4
9	5.4	3.8	6.1	18	14	21	14	17	6.7	6.1	5.7	3.4
10	5.0	3.7	4.1	16	16	21	13	15	6.7	6.6	4.9	3.3
11	4.9	4.3	3.7	12	14	19	13	13	6.6	7.6	4.6	3.3
12	4.8	3.9	4.3	10	14	18	12	12	6.4	38	4.3	3.3
13	4.8	3.7	31	9.1	14	18	12	12	6.4	16	4.3	3.1
14	4.7	3.8	13	12	14	24	12	12	6.3	11	4.2	3.2
15	4.7	4.0	8.2	59	13	72	13	11	6.4	9.2	4.2	3.1
16	4.4	3.8	6.6	25	13	35	13	11	7.3	8.0	4.0	3.0
17	4.4	3.7	5.9	20	15	27	12	10	6.9	7.3	4.0	3.1
18	4.4	3.6	5.4	26	27	23	11	10	5.9	6.9	4.0	3.2
19	4.3	3.6	5.1	23	33	21	11	11	5.8	6.5	3.8	3.2
20	4.2	3.7	4.9	20	34	20	11	9.8	5.7	6.3	5.2	3.1
21	4.1	3.7	4.7	18	26	19	10	9.4	5.6	6.2	4.4	3.1
22	4.0	3.6	5.1	16	22	18	10	9.4	5.5	6.4	4.3	3.1
23	3.9	3.5	5.6	27	21	17	9.8	9.2	5.5	5.9	4.2	3.1
24	4.0	3.4	27	70	19	17	9.7	9.2	5.6	5.9	4.3	3.0
25	4.1	3.5	15	31	19	16	9.4	8.8	8.7	6.1	4.3	3.0
26	4.0	3.7	11	26	18	16	9.4	8.9	7.3	5.7	4.2	3.0
27	3.9	3.5	8.9	23	17	19	15	8.6	6.7	5.5	3.9	2.9
28	3.6	3.4	8.0	21	24	19	19	8.2	27	5.4	4.0	3.3
29	3.8	3.4	7.5	20	---	17	13	8.2	13	5.3	3.9	3.4
30	3.8	3.3	7.6	18	---	15	15	7.8	10	5.2	3.7	3.5
31	3.8	---	7.0	18	---	15	---	7.4	---	5.2	3.7	---
TOTAL	141.0	110.9	233.0	595.4	515	717	395.3	359.6	229.8	249.1	145.4	98.4
MEAN	4.55	3.70	7.52	19.2	18.4	23.1	13.2	11.6	7.66	8.04	4.69	3.28
MAX	6.6	4.3	31	70	34	72	21	28	27	38	9.3	3.7
MIN	3.6	3.3	3.2	6.3	13	15	9.4	7.4	5.5	5.2	3.7	2.9
CFSM	.33	.27	.55	1.40	1.34	1.69	.96	.85	.56	.59	.34	.24
IN.	.38	.30	.63	1.62	1.40	1.95	1.07	.98	.62	.68	.39	.27

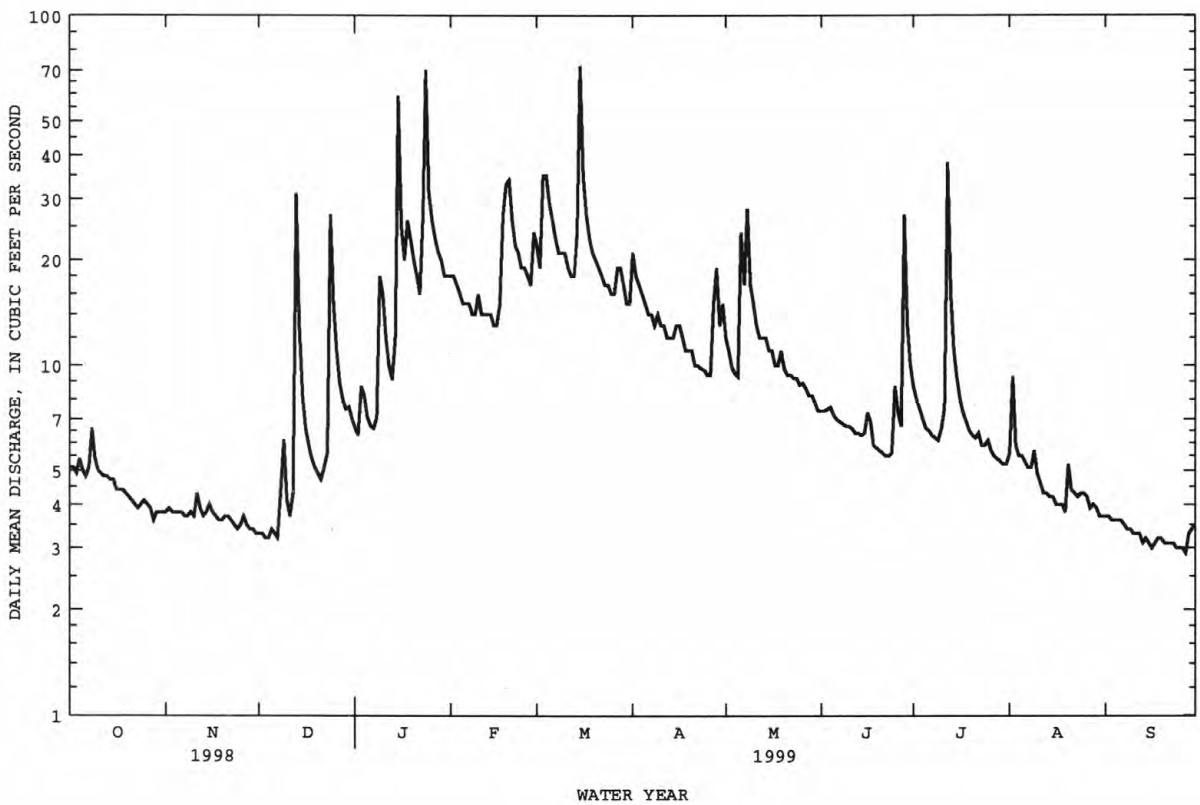
03466228 SINKING CREEK AT AFTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.87	6.68	11.3	19.0	25.7	24.8	18.8	15.5	11.8	11.0	7.22	5.70
MAX	10.5	26.0	32.6	38.4	57.1	53.1	48.9	50.6	21.0	32.5	14.6	18.5
(WY)	1990	1978	1992	1996	1994	1994	1994	1984	1989	1979	1984	1982
MIN	1.28	2.16	3.04	3.23	10.7	5.96	4.13	3.49	2.11	1.86	1.68	1.49
(WY)	1989	1987	1988	1981	1981	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	5929.2		3789.9			
ANNUAL MEAN	16.2		10.4		13.5	
HIGHEST ANNUAL MEAN					21.5	1994
LOWEST ANNUAL MEAN					3.62	1988
HIGHEST DAILY MEAN	245	Apr 17	72	Mar 15	561	May 7 1984
LOWEST DAILY MEAN	3.2	Dec 3	2.9	Sep 27	1.1	Sep 22 1988
ANNUAL SEVEN-DAY MINIMUM	3.3	Dec 1	3.0	Sep 21	1.1	Oct 20 1988
INSTANTANEOUS PEAK FLOW			153	Jul 12	1510	Jul 21 1979
INSTANTANEOUS PEAK STAGE			3.04	Jul 12	7.79	Jul 21 1979
INSTANTANEOUS LOW FLOW			a2.5	Sep 13	.90	Jul 9 1988
ANNUAL RUNOFF (CFSM)	1.19		.76		.98	
ANNUAL RUNOFF (INCHES)	16.10		10.29		13.36	
10 PERCENT EXCEEDS	31		21		26	
50 PERCENT EXCEEDS	12		6.9		9.0	
90 PERCENT EXCEEDS	3.8		3.5		3.2	

a Also occurred Sept. 27.



03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 mi southeast of Lowland, and at mile 10.3.

DRAINAGE AREA.--1,687 mi^2.

PERIOD OF RECORD.--March 1996 to February 1998 (destroyed by flood of February 1998). Re-established November 1998, September 1999.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1996 to February 1998, November 1998 to September 1999.
WATER TEMPERATURE: March 1996 to February 1998, November 1998 to September 1999.

INSTRUMENTATION.--Two-parameter water-quality monitor since March 1996.

REMARKS.--Specific conductance records fair. Water temperature records good. Interruptions in the record were due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 340 microsiemens, May 26, 1997; minimum, 60 microsiemens, Jan. 9, 1998.
WATER TEMPERATURE: Maximum, 30.1°C, Aug. 1, 1999; minimum, 0.2°C, Jan. 19, 1997.

EXTREMES FOR CURRENT PERIOD NOVEMBER 1998 TO SEPTEMBER 1999.--
SPECIFIC CONDUCTANCE: Maximum, 327 microsiemens, July 1; minimum, 112 microsiemens, July 26.
WATER TEMPERATURE: Maximum, 30.1°C, Aug. 1; minumum, 3.1°C, Jan. 12, but may have been lower during period of missing record.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	238	223	233	---	---	---
2	---	---	---	---	---	---	232	218	225	---	---	---
3	---	---	---	---	---	---	226	218	223	---	---	---
4	---	---	---	248	243	245	227	219	224	---	---	---
5	---	---	---	250	247	249	239	223	233	---	---	---
6	---	---	---	250	246	248	242	234	238	---	---	---
7	---	---	---	250	247	249	238	231	235	---	---	---
8	---	---	---	254	247	251	237	231	234	---	---	---
9	---	---	---	260	253	256	---	---	---	---	---	---
10	---	---	---	260	254	258	---	---	---	---	---	---
11	---	---	---	258	253	256	---	---	---	---	---	---
12	---	---	---	255	251	254	---	---	---	171	164	167
13	---	---	---	259	245	252	---	---	---	181	166	175
14	---	---	---	254	244	248	---	---	---	208	180	190
15	---	---	---	253	240	247	---	---	---	227	191	208
16	---	---	---	244	236	240	---	---	---	205	178	196
17	---	---	---	238	221	230	---	---	---	185	169	175
18	---	---	---	223	214	219	---	---	---	204	185	193
19	---	---	---	217	211	214	---	---	---	212	204	209
20	---	---	---	217	213	215	---	---	---	218	207	213
21	---	---	---	228	216	224	---	---	---	220	212	215
22	---	---	---	225	219	222	---	---	---	225	214	219
23	---	---	---	223	216	219	---	---	---	234	219	225
24	---	---	---	228	217	224	---	---	---	248	200	223
25	---	---	---	231	222	227	---	---	---	201	132	143
26	---	---	---	234	223	229	---	---	---	163	137	150
27	---	---	---	233	226	230	---	---	---	172	159	163
28	---	---	---	236	228	231	---	---	---	188	172	180
29	---	---	---	240	227	233	---	---	---	204	188	197
30	---	---	---	240	227	234	---	---	---	213	202	209
31	---	---	---	---	---	---	---	---	---	220	213	218
MONTH	---	---	---	260	211	237	242	218	231	248	132	193

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	235	218	229	238	215	229	---	---	---	234	196	212
2	241	233	238	217	182	198	---	---	---	196	173	186
3	243	221	232	194	179	184	---	---	---	173	158	164
4	228	209	219	198	187	191	---	---	---	161	156	159
5	210	207	208	191	187	189	---	---	---	161	155	159
6	214	209	212	200	188	195	---	---	---	199	154	174
7	229	213	220	200	192	196	---	---	---	209	193	202
8	233	225	229	195	187	192	---	---	---	---	---	---
9	238	231	234	196	188	191	---	---	---	---	---	---
10	250	232	241	204	196	201	---	---	---	---	---	---
11	251	245	248	213	203	210	---	---	---	---	---	---
12	249	240	243	225	212	218	---	---	---	---	---	---
13	241	234	237	228	222	226	---	---	---	---	---	---
14	241	237	240	237	224	232	---	---	---	---	---	---
15	249	239	242	232	200	214	---	---	---	---	---	---
16	242	239	241	203	190	196	---	---	---	---	---	---
17	254	239	243	200	190	195	---	---	---	---	---	---
18	264	241	254	200	189	194	---	---	---	---	---	---
19	262	204	234	192	185	188	---	---	---	---	---	---
20	206	172	187	196	192	195	---	---	---	---	---	---
21	174	170	172	197	187	193	---	---	---	---	---	---
22	174	168	170	193	187	189	---	---	---	---	---	---
23	194	173	184	190	182	186	---	---	---	---	---	---
24	198	192	196	189	184	187	229	224	226	---	---	---
25	207	198	204	191	185	189	228	223	226	---	---	---
26	215	207	211	186	182	184	230	224	227	183	177	180
27	220	212	216	190	182	186	228	225	227	184	180	182
28	237	219	228	192	181	187	228	222	225	189	182	186
29	---	---	---	192	186	190	236	221	225	191	182	188
30	---	---	---	---	---	---	237	229	234	193	185	189
31	---	---	---	---	---	---	---	---	---	192	186	189
MONTH	264	168	222	238	179	197	237	221	227	234	154	182

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	197	188	192	327	238	301	190	180	185	232	226	229
2	198	193	196	241	208	224	197	184	191	241	224	232
3	199	191	195	209	182	194	225	194	210	242	227	235
4	198	191	194	195	188	191	218	199	210	238	229	232
5	208	197	202	197	190	194	205	196	199	250	228	238
6	203	192	198	197	191	193	208	200	204	253	246	249
7	194	188	191	194	181	190	210	201	207	255	249	252
8	191	187	189	204	176	188	219	205	213	253	244	248
9	206	189	197	195	177	189	222	216	219	253	245	248
10	213	203	210	198	184	191	222	217	220	248	242	245
11	237	210	222	187	180	184	225	211	218	245	240	243
12	212	203	207	220	180	192	220	210	215	240	234	238
13	260	204	223	215	164	198	225	214	218	238	231	233
14	248	201	210	164	132	143	240	222	232	243	234	237
15	206	194	198	168	146	157	235	221	229	240	232	235
16	206	194	201	169	154	160	234	219	227	242	236	238
17	214	204	208	167	156	161	239	222	232	245	235	239
18	213	208	210	174	148	161	241	228	235	247	236	241
19	213	199	206	148	136	141	238	228	234	247	239	243
20	202	188	197	157	140	149	232	224	229	246	235	239
21	189	183	186	170	153	162	236	227	229	254	244	247
22	191	184	187	180	169	174	243	235	239	257	254	256
23	196	185	189	229	174	201	246	235	242	256	251	254
24	209	193	200	217	185	194	247	238	242	258	253	255
25	245	200	212	194	165	184	238	223	232	259	254	256
26	256	237	243	166	112	131	230	224	227	259	251	254
27	268	236	249	136	120	123	224	214	221	256	244	249
28	269	228	248	156	136	146	232	214	224	258	248	252
29	285	262	272	171	154	163	241	225	234	260	253	257
30	317	268	292	177	171	175	248	230	241	255	242	248
31	---	---	---	180	175	178	245	231	240	---	---	---
MONTH	317	183	211	327	112	178	248	180	223	260	224	244

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	12.1	10.3	11.0	---	---	---
2	---	---	---	---	---	---	11.4	9.4	10.3	---	---	---
3	---	---	---	---	---	---	11.2	9.9	10.4	---	---	---
4	---	---	---	15.6	14.5	15.3	11.8	9.8	10.6	---	---	---
5	---	---	---	14.5	12.2	13.3	11.2	10.8	10.9	---	---	---
6	---	---	---	12.2	10.4	11.3	13.0	10.9	11.8	---	---	---
7	---	---	---	11.6	9.4	10.2	13.4	12.1	12.6	---	---	---
8	---	---	---	10.4	9.8	10.1	13.5	13.1	13.3	---	---	---
9	---	---	---	11.0	10.2	10.7	---	---	---	---	---	---
10	---	---	---	12.6	10.7	11.6	---	---	---	---	---	---
11	---	---	---	13.5	11.9	12.5	---	---	---	---	---	---
12	---	---	---	12.0	10.4	11.2	---	---	---	3.6	3.1	3.4
13	---	---	---	11.8	10.5	11.3	---	---	---	4.0	3.4	3.7
14	---	---	---	12.4	11.5	12.0	---	---	---	6.0	4.0	4.6
15	---	---	---	14.3	12.4	13.0	---	---	---	6.7	5.6	6.0
16	---	---	---	13.2	11.6	12.5	---	---	---	6.6	5.5	6.0
17	---	---	---	14.2	12.6	13.2	---	---	---	6.2	5.4	5.7
18	---	---	---	13.6	11.3	12.4	---	---	---	7.3	5.9	6.5
19	---	---	---	12.7	11.6	12.1	---	---	---	7.1	6.0	6.7
20	---	---	---	12.3	11.3	12.1	---	---	---	7.3	6.7	7.0
21	---	---	---	11.8	10.2	10.8	---	---	---	7.7	7.0	7.3
22	---	---	---	10.9	8.8	9.8	---	---	---	9.7	7.5	8.5
23	---	---	---	10.5	8.8	9.6	---	---	---	10.5	9.6	10.0
24	---	---	---	12.2	10.5	11.0	---	---	---	11.1	10.5	10.9
25	---	---	---	11.3	10.0	10.8	---	---	---	10.9	9.7	10.3
26	---	---	---	11.9	10.2	10.9	---	---	---	9.7	8.6	9.0
27	---	---	---	11.3	9.3	10.2	---	---	---	9.2	8.0	8.7
28	---	---	---	10.6	8.8	9.7	---	---	---	9.8	8.6	9.1
29	---	---	---	10.6	8.5	9.5	---	---	---	9.8	9.4	9.6
30	---	---	---	10.7	8.7	9.7	---	---	---	10.6	9.7	10.1
31	---	---	---	---	---	---	---	---	---	10.6	9.0	9.8
MONTH	---	---	---	15.6	8.5	11.4	13.5	9.4	11.4	11.1	3.1	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	8.7	9.0	8.3	7.2	7.6	13.3	11.5	12.3	17.8	15.7	16.7
2	9.9	9.2	9.4	8.7	6.8	7.9	14.3	12.6	13.4	17.8	15.5	16.6
3	10.2	9.0	9.5	8.7	6.7	7.8	15.2	13.7	14.4	18.1	15.7	16.9
4	10.1	8.7	9.3	7.2	5.9	6.6	17.3	14.9	16.0	19.5	16.6	17.9
5	9.6	8.1	8.9	7.2	5.9	6.6	18.8	16.1	17.4	19.1	18.0	18.6
6	9.0	8.3	8.7	7.9	6.8	7.3	18.8	17.5	18.1	18.8	17.9	18.4
7	10.2	8.8	9.4	8.5	6.9	7.8	20.0	17.6	18.6	19.4	18.0	18.7
8	10.5	8.9	9.6	8.2	7.0	7.6	18.9	17.9	18.4	19.3	18.1	18.8
9	10.5	8.9	9.7	7.9	7.0	7.2	20.4	17.8	18.9	18.9	17.4	18.1
10	12.2	10.4	11.2	7.2	6.6	6.8	20.8	18.2	19.4	19.3	17.1	18.1
11	13.1	11.2	12.1	7.3	6.0	6.6	21.3	19.5	20.2	20.3	18.0	19.2
12	12.7	10.5	11.9	7.6	5.6	6.6	19.6	16.9	18.1	20.2	18.9	19.7
13	10.5	8.4	9.4	6.9	5.9	6.3	18.2	15.5	16.8	20.9	19.4	20.0
14	8.9	7.3	8.0	8.2	5.9	7.0	17.0	15.3	16.0	20.0	17.6	19.1
15	8.2	6.7	7.5	8.2	6.8	7.3	15.9	15.0	15.4	20.7	18.6	19.6
16	8.3	6.7	7.4	8.0	6.2	7.2	16.1	14.2	15.1	21.4	19.3	20.3
17	8.2	7.5	8.0	9.2	7.1	8.1	14.6	13.6	14.1	22.2	19.8	20.9
18	8.7	8.0	8.3	10.6	8.6	9.5	14.3	13.4	13.8	22.1	21.1	21.5
19	8.2	7.7	7.9	10.6	9.3	10.0	15.3	13.0	14.1	22.9	20.5	21.5
20	8.3	7.4	7.9	11.8	9.7	10.7	16.9	14.6	15.5	22.4	20.4	21.4
21	8.2	6.9	7.6	11.8	10.9	11.3	17.9	15.3	16.4	22.5	20.2	21.3
22	7.3	5.9	6.6	11.8	9.9	10.9	18.7	16.4	17.3	22.5	20.8	21.6
23	6.8	5.5	6.0	11.6	10.5	11.2	19.0	17.4	18.1	23.1	20.8	21.8
24	5.5	5.0	5.3	12.4	11.2	11.7	20.6	18.0	19.1	22.9	21.5	22.2
25	5.8	4.8	5.2	12.3	11.1	11.8	20.8	18.3	19.4	22.2	20.9	21.5
26	6.5	4.5	5.5	11.8	9.0	10.2	19.7	18.9	19.4	21.6	20.7	21.2
27	6.7	5.8	6.2	10.7	8.5	9.4	20.1	18.6	19.4	22.5	19.9	20.9
28	8.0	6.7	7.5	10.5	8.6	9.7	20.0	19.0	19.5	22.4	20.0	21.0
29	---	---	---	11.3	10.0	10.5	19.0	16.4	17.7	23.2	20.6	21.6
30	---	---	---	12.5	10.1	11.3	17.8	15.4	16.4	24.0	21.4	22.5
31	---	---	---	12.2	11.4	11.7	---	---	---	24.6	21.6	23.0
MONTH	13.1	4.5	8.3	12.5	5.6	8.8	21.3	11.5	17.0	24.6	15.5	20.0

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.6	22.1	22.9	25.8	24.6	25.3	30.1	28.1	29.0	26.2	23.3	24.5
2	24.5	21.9	23.0	25.9	24.8	25.3	29.8	27.6	28.6	26.4	23.6	24.7
3	24.5	22.6	23.5	27.4	24.9	25.9	29.2	26.9	27.9	26.7	24.1	24.9
4	25.1	22.4	23.6	28.5	26.3	27.2	29.1	26.4	27.6	26.8	23.9	24.9
5	25.3	22.8	24.0	29.1	27.1	27.9	28.7	26.2	27.3	25.1	24.3	24.8
6	26.3	23.5	24.8	29.6	28.0	28.6	29.0	25.8	27.3	26.3	24.5	25.0
7	27.5	24.0	25.5	28.7	27.5	28.0	29.1	25.7	27.3	27.5	24.5	25.4
8	27.6	24.3	26.0	28.0	26.7	27.3	27.9	25.8	26.8	27.1	23.7	25.3
9	28.0	25.1	26.5	28.7	26.9	27.6	28.1	25.6	26.7	25.6	23.4	24.4
10	27.5	25.2	26.4	28.1	27.3	27.6	28.9	25.0	26.8	24.9	22.2	23.4
11	28.1	25.0	26.4	27.3	25.7	26.5	29.0	25.7	27.3	24.3	21.5	22.7
12	28.2	25.3	26.7	25.7	22.1	23.7	29.2	26.0	27.5	25.5	22.7	23.6
13	27.4	25.8	26.4	23.4	21.9	22.6	29.7	26.5	28.0	24.6	22.9	23.6
14	26.4	24.9	25.7	22.8	21.5	22.0	29.7	27.2	28.3	25.3	23.4	24.0
15	26.7	24.8	25.6	22.9	21.3	22.1	28.8	25.9	27.4	23.9	21.5	22.9
16	25.8	23.6	24.6	24.7	22.4	23.4	29.2	25.7	27.4	23.2	20.4	21.3
17	24.7	22.8	23.6	25.7	23.8	24.6	29.3	26.5	27.9	22.9	19.3	20.5
18	24.8	22.2	23.3	25.8	24.6	25.2	29.6	26.9	28.1	21.6	19.0	20.1
19	24.6	22.4	23.3	26.6	24.7	25.6	29.2	26.7	28.0	22.8	19.5	20.6
20	25.0	22.2	23.4	26.3	25.3	25.8	28.8	26.6	27.7	22.4	19.9	20.9
21	26.4	22.4	24.1	26.8	25.1	25.8	28.0	25.5	26.8	21.2	19.5	20.5
22	26.6	23.4	24.9	27.6	25.8	26.5	27.6	24.5	26.1	21.2	18.2	19.2
23	26.9	24.1	25.4	28.5	26.6	27.3	26.7	24.6	25.7	20.9	17.0	18.4
24	26.4	24.4	25.3	27.8	26.4	27.4	26.3	24.6	25.5	21.2	17.1	18.5
25	25.5	23.9	24.5	27.3	25.8	26.4	26.9	24.6	25.6	21.9	17.4	19.0
26	25.3	23.5	24.3	27.0	25.3	26.1	27.3	25.2	26.1	22.6	18.0	19.8
27	25.5	24.0	24.8	25.3	23.9	24.6	26.8	25.0	26.0	23.3	20.3	21.5
28	25.3	23.8	24.8	26.5	24.0	25.1	27.8	24.6	26.0	24.0	21.1	22.1
29	25.2	24.5	24.9	27.5	25.8	26.4	27.3	24.8	26.2	22.7	21.1	22.1
30	25.7	24.1	24.8	28.5	26.2	27.1	27.3	24.5	25.9	21.1	19.5	20.3
31	---	---	---	30.0	27.4	28.4	26.4	23.6	25.0	---	---	---
MONTH	28.2	21.9	24.8	30.0	21.3	25.9	30.1	23.6	27.0	27.5	17.0	22.3

03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN

LOCATION.--Lat 35°51'55", long 83°32'01", Sevier County, Hydrologic Unit 06010107, on left bank of county road, 1.2 mi downstream from East Fork, 1.2 mi upstream from West Prong, 0.8 mi east of Sevierville, and at mi 7.5.

DRAINAGE AREA.-- 184 mi^2.

PERIOD OF RECORD.--August 1988 to current year.

REVISED RECORD.--WDR TN-94-1: 1989-91 (M): 1992, 1993(P).

GAGE.--Data collection platform. Datum of gage is 898.08 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. The town of Sevierville diverts an average of about 1.5 ft^3/s (1.0 MGD) for municipal supply above gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 6	1200	*5,730	*9.44	No other peak greater than base discharge.			

Minimum discharge, 17 ft^3/s, Sept. 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	26	41	193	1000	502	979	393	120	573	115	32
2	31	25	41	162	955	367	536	304	118	339	106	30
3	28	25	39	921	573	997	410	248	112	246	98	29
4	28	26	39	492	439	1080	347	209	107	191	90	28
5	27	28	39	319	345	715	293	202	101	159	85	27
6	27	30	39	e246	289	623	261	3120	199	335	80	26
7	26	30	38	214	274	560	234	1670	128	1180	75	26
8	76	28	74	195	254	460	224	1380	106	713	72	26
9	90	27	422	530	225	450	293	811	95	377	89	24
10	50	30	183	521	835	387	242	548	94	522	80	23
11	40	229	113	341	499	323	209	416	113	852	68	24
12	34	116	114	270	393	283	191	353	91	1860	63	23
13	31	67	1370	223	331	379	173	309	82	1790	59	21
14	29	57	728	340	269	1100	163	910	78	1030	56	21
15	28	146	333	1890	241	1520	182	422	82	688	56	21
16	26	117	204	871	217	1220	216	310	595	474	53	22
17	25	87	164	512	299	803	169	258	580	368	49	21
18	26	71	150	764	1210	643	154	230	260	322	46	21
19	27	60	122	667	944	569	145	1060	180	383	44	22
20	28	54	175	458	1030	457	145	444	144	277	47	20
21	33	54	237	352	703	435	138	318	122	316	50	20
22	30	51	505	294	493	414	128	262	108	276	44	28
23	28	46	426	746	393	e330	129	227	99	221	42	33
24	26	45	1860	1420	328	e300	419	260	97	395	48	27
25	25	44	964	867	283	e280	255	214	499	746	57	24
26	26	48	464	549	251	308	205	198	488	312	52	22
27	25	63	303	411	227	410	238	188	363	236	43	21
28	25	52	239	325	684	542	226	161	248	192	40	54
29	24	47	272	274	---	462	285	148	1410	165	37	189
30	24	43	302	265	---	389	467	139	1560	147	36	421
31	26	---	248	306	---	366	---	129	---	130	33	---
TOTAL	1006	1772	10248	15938	13984	17674	8056	15841	8379	15815	1913	1326
MEAN	32.5	59.1	331	514	499	570	269	511	279	510	61.7	44.2
MAX	90	229	1860	1890	1210	1520	979	3120	1560	1860	115	421
MIN	24	25	38	162	217	280	128	129	78	130	33	20
CFSM	.18	.32	1.80	2.79	2.71	3.10	1.46	2.78	1.52	2.77	.34	.24
IN.	.20	.36	2.07	3.22	2.83	3.57	1.63	3.20	1.69	3.20	.39	.27

e Estimated

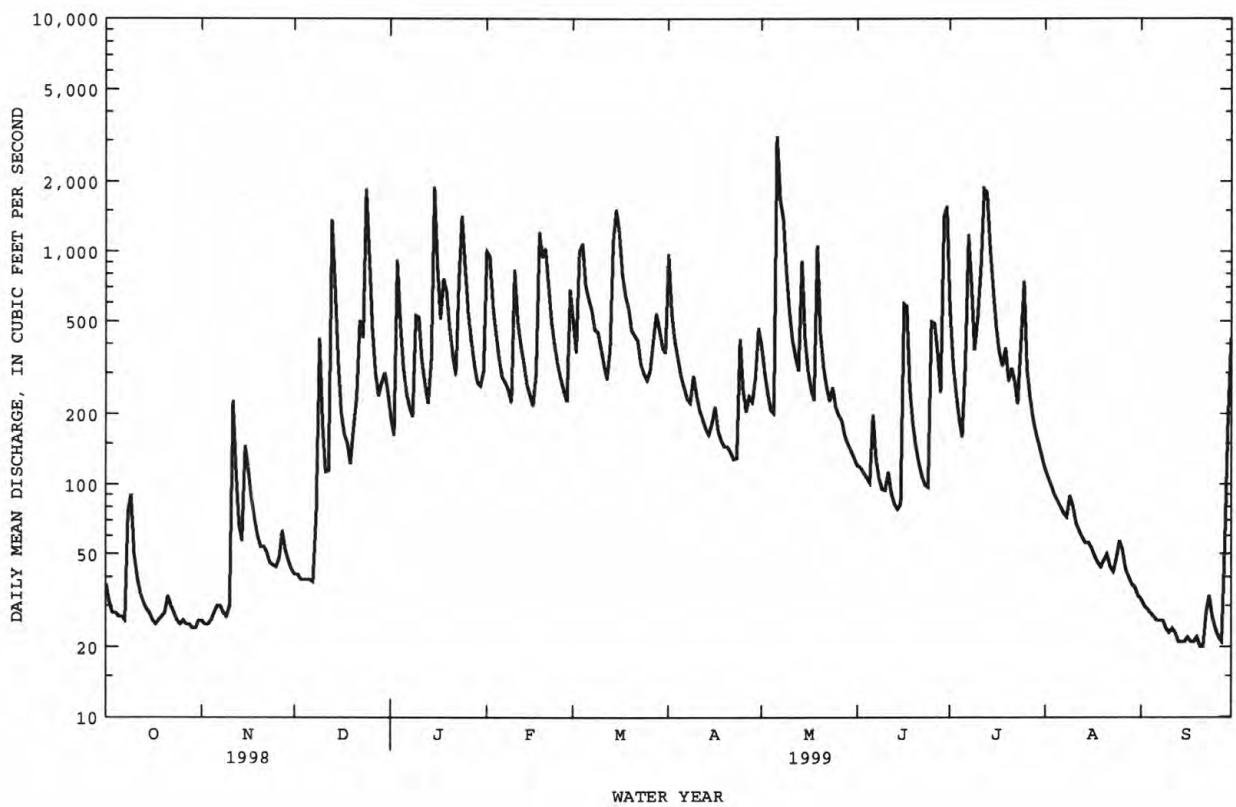
03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	136	215	392	581	628	736	481	388	347	244	188	148
MAX	335	374	743	873	1024	1426	1141	576	635	510	477	530
(WY)	1990	1990	1992	1994	1994	1994	1994	1989	1997	1999	1996	1989
MIN	32.5	59.1	135	317	240	463	124	192	121	90.7	61.7	29.8
(WY)	1999	1999	1989	1991	1993	1996	1995	1995	1990	1993	1999	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	133277		111952			
ANNUAL MEAN	365		307		373	
HIGHEST ANNUAL MEAN					573	1994
LOWEST ANNUAL MEAN					221	1995
HIGHEST DAILY MEAN	5810	Apr 19	3120	May 6	10900	Mar 28 1994
LOWEST DAILY MEAN	19	Sep 19	20	Sep 20	19	Sep 19 1998
ANNUAL SEVEN-DAY MINIMUM	20	Sep 14	21	Sep 15	20	Sep 14 1998
INSTANTANEOUS PEAK FLOW			5730	May 6	19700	Mar 28 1994
INSTANTANEOUS PEAK STAGE			9.44	May 6	17.50	Mar 28 1994
INSTANTANEOUS LOW FLOW			a17	Sep 20	16	Sep 19 1998
ANNUAL RUNOFF (CFSM)	1.98		1.67		2.03	
ANNUAL RUNOFF (INCHES)	26.95		22.63		27.56	
10 PERCENT EXCEEDS	852		746		800	
50 PERCENT EXCEEDS	183		202		225	
90 PERCENT EXCEEDS	27		27		59	

a Also occurred Sept. 21.



03491000 BIG CREEK NEAR ROGERSVILLE, TN

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, Hydrologic Unit 06010104, on left bank 300 ft upstream from county road bridge, 3 mi northeast of Rogersville, and at mile 2.0.

DRAINAGE AREA.--47.3 mi^2 .

PERIOD OF RECORD.--April 1941 to June 1949. Occasional low-flow measurements, water years 1950-55, 1957. Annual maximum, water years 1955-57; October 1957 to current year.

REVISED RECORDS.--WSP 1436: 1945.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1,128.9 ft above sea level (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 22	0030	*1,720	*5.28	No other peak greater than base discharge.			

Minimum discharge, 1.8 ft^3/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	8.2	11	67	62	147	54	23	8.1	14	14	3.1
2	3.7	7.6	10	66	82	99	56	20	8.1	9.4	13	2.7
3	3.6	7.5	10	166	69	272	52	18	12	7.6	13	2.8
4	5.1	6.7	9.8	133	58	309	49	17	11	6.8	11	2.8
5	5.5	6.0	10	101	50	171	45	17	8.5	6.1	9.4	2.8
6	4.8	5.7	11	88	45	131	41	128	7.8	5.6	8.4	2.6
7	4.3	5.8	13	82	43	103	38	103	7.4	6.8	7.6	2.6
8	5.8	6.7	20	80	42	84	36	69	6.9	6.7	7.0	2.8
9	7.4	6.8	48	316	37	82	38	51	6.3	5.2	6.8	3.1
10	6.1	7.9	20	156	35	89	34	39	6.2	5.5	6.7	2.7
11	5.1	13	13	87	33	81	32	31	5.8	32	6.1	2.8
12	4.6	17	12	63	31	71	42	27	5.5	19	5.6	2.2
13	4.3	15	236	51	31	64	34	25	5.1	15	5.2	2.2
14	3.9	13	157	55	28	70	31	23	5.2	11	4.8	2.4
15	3.8	12	104	369	26	145	37	21	5.3	8.2	4.5	2.4
16	5.1	12	85	153	26	175	46	18	5.5	7.0	4.3	2.3
17	4.0	12	76	99	32	123	38	17	6.0	6.1	4.2	2.2
18	4.0	12	68	142	58	96	34	17	5.8	9.9	3.8	2.2
19	2.8	12	64	143	67	78	32	19	5.1	29	3.9	2.2
20	3.8	12	62	99	170	67	31	17	4.7	16	5.0	2.2
21	3.2	13	59	77	102	81	29	14	4.3	73	5.7	2.5
22	2.7	12	61	63	74	90	26	13	4.4	369	4.6	2.4
23	3.0	11	71	126	60	74	25	14	4.5	56	4.0	2.3
24	5.0	11	187	374	53	66	23	15	4.5	97	4.1	2.3
25	8.3	11	150	178	47	59	22	14	12	240	5.4	2.3
26	10	13	110	118	42	56	21	12	17	66	5.7	2.2
27	10	14	93	93	38	62	22	11	11	38	5.3	2.1
28	9.1	13	83	76	175	58	24	10	16	28	4.3	2.6
29	9.6	12	78	64	---	54	26	10	31	25	3.9	3.5
30	9.2	11	74	55	---	49	27	8.6	17	20	3.5	4.8
31	8.6	---	71	49	---	45	---	8.4	---	16	3.2	---
TOTAL	170.1	319.9	2076.8	3789	1616	3151	1045	830.0	258.0	1254.9	194.0	78.1
MEAN	5.49	10.7	67.0	122	57.7	102	34.8	26.8	8.60	40.5	6.26	2.60
MAX	10	17	236	374	175	309	56	128	31	369	14	4.8
MIN	2.7	5.7	9.8	49	26	45	21	8.4	4.3	5.2	3.2	2.1
CFSM	.12	.23	1.42	2.58	1.22	2.15	.74	.57	.18	.86	.13	.06
IN.	.13	.25	1.63	2.98	1.27	2.48	.82	.65	.20	.99	.15	.06

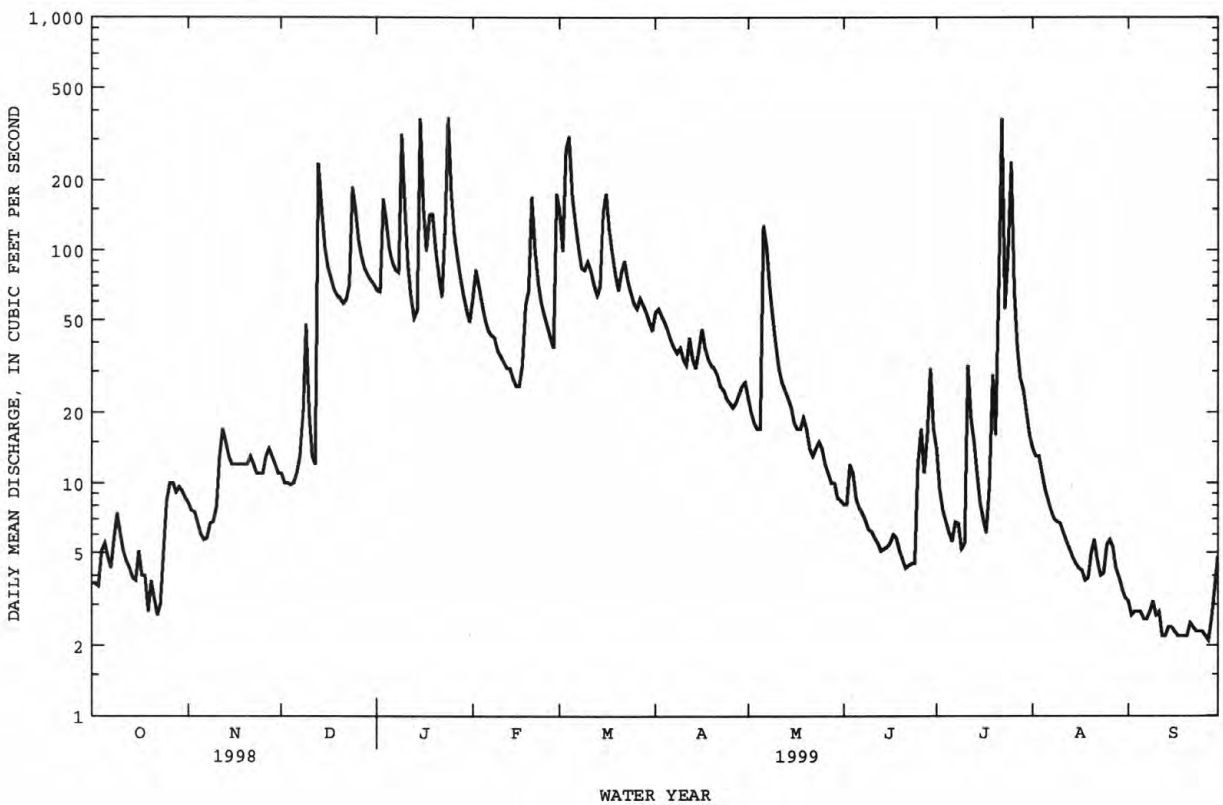
03491000 BIG CREEK NEAR ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.6	30.1	72.7	106	133	133	90.5	58.5	30.2	23.7	17.2	11.8
MAX	109	124	258	331	472	366	342	206	150	96.5	67.1	58.7
(WY)	1972	1974	1992	1974	1994	1963	1998	1958	1989	1960	1942	1989
MIN	3.53	4.43	5.06	9.33	34.4	27.4	15.4	10.7	7.61	4.35	2.45	2.60
(WY)	1989	1988	1966	1981	1968	1983	1986	1985	1941	1988	1988	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1941 - 1999	
ANNUAL TOTAL	27431.2		14782.8			
ANNUAL MEAN	75.2		40.5		59.7	
HIGHEST ANNUAL MEAN					123	1994
LOWEST ANNUAL MEAN					20.9	1988
HIGHEST DAILY MEAN	3000	Apr 17	374	Jan 24	4000	Feb 11 1994
LOWEST DAILY MEAN	2.7	Oct 22	2.1	Sep 27	1.4	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	3.4	Oct 17	2.3	Sep 12	1.8	Aug 14 1988
INSTANTANEOUS PEAK FLOW			1720	Jul 22	a5760	Mar 12 1963
INSTANTANEOUS PEAK STAGE			5.28	Jul 22	b12.21	Apr 17 1998
INSTANTANEOUS LOW FLOW			1.8	Sep 6	1.3	Sep 23 1955
ANNUAL RUNOFF (CFSM)	1.59		.86		1.26	
ANNUAL RUNOFF (INCHES)	21.57		11.63		17.16	
10 PERCENT EXCEEDS	163		99		129	
50 PERCENT EXCEEDS	29		15		24	
90 PERCENT EXCEEDS	4.5		3.7		5.4	

a From rating curve extended above 3,000 ft^3/s on basis of contracted-opening measurements of peak flow.
b Due to backwater from debris.



03491544 CROCKETT CREEK BELOW ROGERSVILLE, TN

LOCATION.--Lat 36°22'47", long 83°02'48", Hawkins County, Hydrologic Unit 06010104, on right bank at Rogersville sewage treatment plant, 3.0 mi southwest of Rogersville, and at mile 1.2.

DRAINAGE AREA.--4.67 mi^2.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1092.53 ft above sea level.

REMARKS.--No estimated daily dischrages. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jul 7	1745	*342	*3.45	No other peak greater than base discharge.			

Minimum discharge, 0.28 ft^3/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

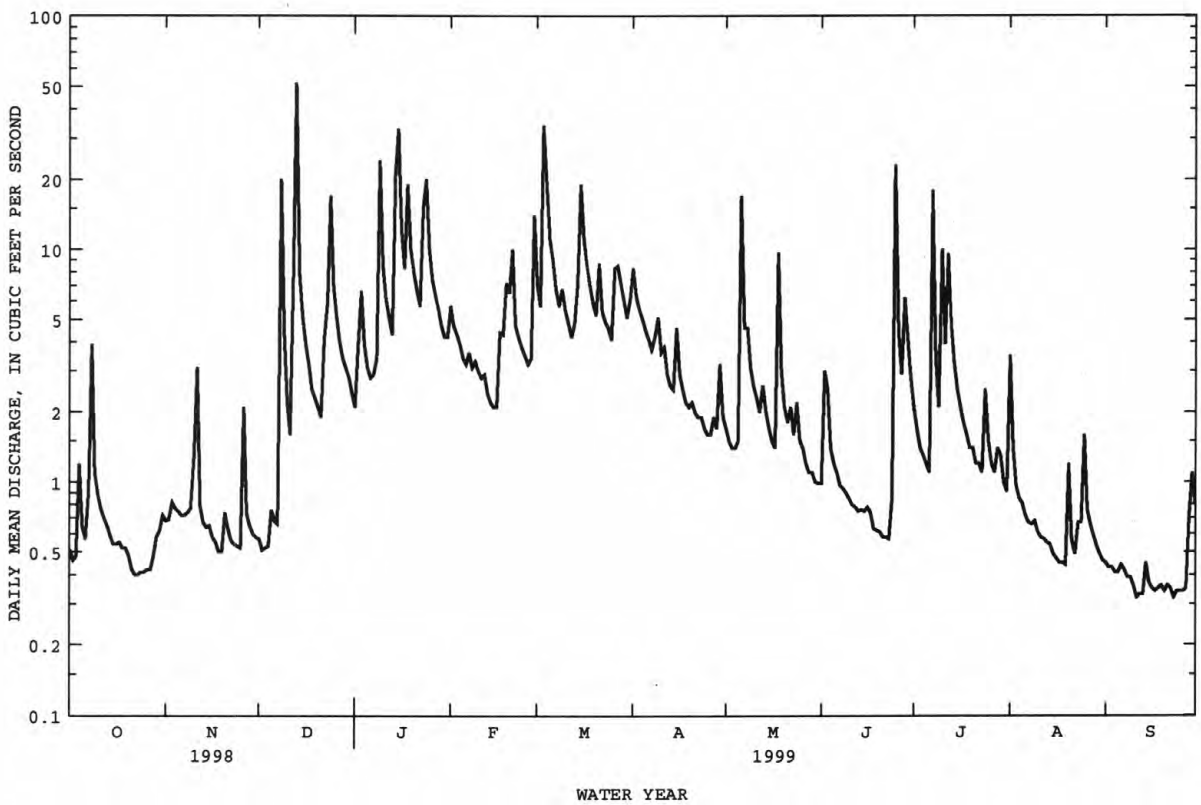
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.68	.57	2.1	5.7	7.1	8.3	1.7	.99	2.1	3.5	.45
2	.46	.69	.51	3.9	4.7	5.7	6.2	1.5	3.0	1.7	1.4	.43
3	.48	.82	.52	6.6	4.3	34	5.5	1.4	2.5	1.4	.96	.43
4	1.2	.77	.53	3.9	3.9	19	5.0	1.4	1.4	1.3	.85	.41
5	.64	.75	.76	3.1	3.4	11	4.5	1.5	1.2	1.2	.81	.41
6	.57	.72	.68	2.8	3.2	8.9	4.1	17	1.1	1.1	.72	.44
7	.90	.72	.66	2.9	3.6	6.7	3.7	4.6	.97	18	.67	.42
8	3.9	.74	20	3.4	3.1	5.7	4.2	4.6	.94	3.4	.66	.39
9	1.1	.77	4.4	24	3.3	6.8	5.1	3.1	.90	2.1	.68	.39
10	.89	1.3	2.2	8.5	3.0	5.5	3.6	2.6	.85	10	.61	.36
11	.77	3.1	1.6	6.1	2.8	4.8	3.8	2.3	.80	3.9	.58	.32
12	.70	.79	7.8	5.1	2.9	4.2	2.9	2.0	.78	9.6	.57	.33
13	.65	.67	52	4.3	2.4	4.8	2.6	2.6	.75	4.7	.55	.33
14	.59	.64	7.9	21	2.2	7.2	2.5	2.0	.76	3.2	.54	.45
15	.54	.65	5.1	33	2.1	19	4.6	1.7	.75	2.5	.49	.37
16	.54	.58	3.9	12	2.1	11	2.9	1.5	.78	2.1	.47	.35
17	.55	.55	3.2	8.3	4.4	8.6	2.5	1.4	.74	1.8	.45	.34
18	.52	.50	2.5	19	4.3	7.0	2.2	9.7	.63	1.6	.45	.35
19	.52	.50	2.3	10	7.2	5.9	2.1	3.0	.62	1.4	.44	.36
20	.48	.74	2.1	7.9	6.5	5.2	2.2	2.1	.61	1.4	1.2	.34
21	.42	.63	1.9	6.6	10	8.7	2.0	1.8	.58	1.2	.56	.36
22	.40	.56	4.1	5.7	4.7	5.4	1.9	2.1	.58	1.2	.49	.35
23	.40	.54	5.9	15	4.2	4.9	1.9	1.6	.57	1.1	.67	.32
24	.41	.53	17	20	3.8	4.6	1.7	2.2	.84	2.5	.67	.34
25	.41	.52	6.9	10	3.5	4.1	1.6	1.5	23	1.5	1.6	.34
26	.42	2.1	5.1	7.4	3.2	8.3	1.6	1.4	4.4	1.2	.76	.34
27	.42	.73	4.0	6.3	3.4	8.5	1.9	1.2	2.9	1.1	.66	.35
28	.48	.65	3.4	5.5	14	7.1	1.7	1.1	6.2	1.4	.59	.70
29	.58	.60	3.1	4.7	---	6.0	3.2	1.1	4.1	1.3	.53	1.1
30	.62	.58	2.8	4.2	---	5.1	1.9	1.0	2.8	1.0	.49	.80
31	.72	---	2.4	4.2	---	6.1	---	.99	---	.91	.46	---
TOTAL	21.79	24.12	175.83	277.5	121.9	256.9	97.9	83.69	67.04	88.91	24.08	12.67
MEAN	.70	.80	5.67	8.95	4.35	8.29	3.26	2.70	2.23	2.87	.78	.42
MAX	3.9	3.1	52	33	14	34	8.3	17	23	18	3.5	1.1
MIN	.40	.50	.51	2.1	2.1	4.1	1.6	.99	.57	.91	.44	.32
CFSM	.15	.17	1.21	1.92	.93	1.77	.70	.58	.48	.61	.17	.09
IN.	.17	.19	1.40	2.21	.97	2.05	.78	.67	.53	.71	.19	.10

03491544 CROCKETT CREEK BELOW ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.46	2.87	7.24	10.0	12.7	11.5	7.86	5.22	4.29	3.02	2.74	2.14
MAX	3.75	4.69	18.7	16.2	31.3	26.4	22.6	9.82	9.95	7.51	5.39	7.63
(WY)	1990	1990	1992	1996	1994	1994	1998	1995	1989	1996	1994	1989
MIN	.53	.80	1.83	7.30	4.35	6.38	1.62	2.37	1.01	.59	.78	.42
(WY)	1989	1999	1998	1991	1999	1992	1995	1994	1993	1993	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	2096.60		1252.33			
ANNUAL MEAN	5.74		3.43		5.89	
HIGHEST ANNUAL MEAN					10.1	1994
LOWEST ANNUAL MEAN					3.43	1999
HIGHEST DAILY MEAN	182	Apr 17	52	Dec 13	223	Mar 27 1994
LOWEST DAILY MEAN	.40	Oct 22	.32	Sep 11	.31	Oct 20 1988
ANNUAL SEVEN-DAY MINIMUM	.41	Oct 21	.34	Sep 20	.34	Oct 14 1988
INSTANTANEOUS PEAK FLOW			342	Jul 7	996	Apr 17 1998
INSTANTANEOUS PEAK STAGE			3.45	Jul 7	5.39	Apr 17 1998
INSTANTANEOUS LOW FLOW			.28	Sep 11	.28	Sep 11 1999
ANNUAL RUNOFF (CFSM)	1.23		.73		1.26	
ANNUAL RUNOFF (INCHES)	16.70		9.98		17.13	
10 PERCENT EXCEEDS	11		7.6		12	
50 PERCENT EXCEEDS	2.4		1.7		2.9	
90 PERCENT EXCEEDS	.57		.45		.78	



03497300 LITTLE RIVER ABOVE TOWNSEND, TN
(Hydrologic bench-mark station)

LOCATION.--Lat 35°39'52", long 83°42'41", Blount County, Hydrologic Unit 06010201, in Great Smoky Mountains National Park, on left bank along Tennessee Highway 73, 0.3 mi upstream from Rush Branch, 0.4 mi southeast of Park entrance, 2.2 mi southeast of Townsend, and at mile 35.3.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Data logger and crest-stage gage. Datum of gage is 1,106.92 ft above sea level.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 6	1115	*3,540	*5.94	No other peak greater than base discharge.			

Minimum discharge, 22 ft^3/s, Sept. 17, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	26	45	177	847	470	430	170	102	467	140	37
2	30	26	43	177	813	399	345	156	101	340	134	36
3	27	26	41	692	591	676	313	145	163	271	121	34
4	26	29	40	453	483	665	288	136	133	225	112	33
5	27	30	39	338	387	561	259	152	110	200	106	32
6	26	30	40	284	335	639	262	1900	151	244	99	32
7	25	29	40	249	335	643	233	1070	112	198	93	33
8	108	28	148	278	308	535	232	834	99	168	87	31
9	67	32	333	517	e270	489	246	581	93	151	93	29
10	42	39	164	507	e700	430	214	446	91	275	85	32
11	36	257	120	401	e500	367	205	363	105	810	78	29
12	32	93	116	331	e430	328	189	309	83	1310	74	28
13	30	60	863	279	357	366	177	300	77	1060	69	26
14	29	62	481	464	305	604	170	325	73	622	70	26
15	28	141	288	1430	277	771	203	253	76	447	68	27
16	27	94	210	757	256	682	196	225	428	347	64	27
17	26	84	182	527	405	589	170	204	345	294	59	25
18	25	69	146	623	842	539	162	228	226	251	56	25
19	25	59	139	530	663	494	156	267	179	257	53	25
20	35	57	186	444	566	434	180	210	151	217	63	24
21	33	62	171	372	486	426	159	183	131	193	58	25
22	28	51	304	323	406	379	148	166	117	174	52	33
23	26	47	291	606	353	328	142	156	118	159	53	30
24	27	46	1080	777	314	310	138	186	134	431	62	26
25	27	45	660	595	282	286	130	146	591	451	53	24
26	26	71	418	470	256	277	132	151	484	281	50	23
27	26	61	309	388	245	254	139	135	464	231	47	23
28	25	51	269	329	636	240	145	119	354	218	45	127
29	25	48	263	290	---	231	181	113	822	189	44	205
30	26	45	244	277	---	220	204	148	732	178	41	244
31	26	---	203	342	---	220	---	111	---	155	39	---
TOTAL	1002	1798	7876	14227	12648	13852	6148	9888	6845	10814	2268	1351
MEAN	32.3	59.9	254	459	452	447	205	319	228	349	73.2	45.0
MAX	108	257	1080	1430	847	771	430	1900	822	1310	140	244
MIN	25	26	39	177	245	220	130	111	73	151	39	23
CFSM	.30	.57	2.40	4.33	4.26	4.22	1.93	3.01	2.15	3.29	.69	.42
IN.	.35	.63	2.76	4.99	4.44	4.86	2.16	3.47	2.40	3.80	.80	.47

e Estimated

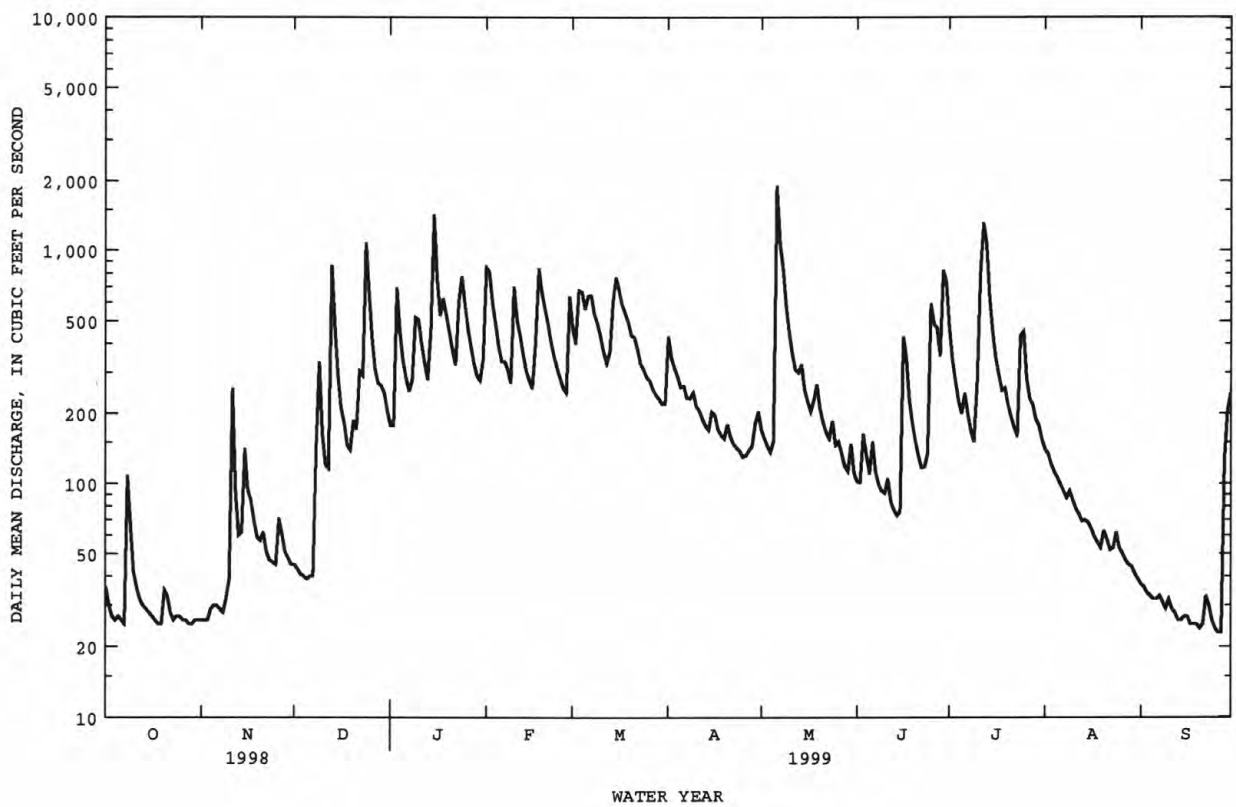
03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued
(Hydrologic bench-mark station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	127	210	343	419	455	526	390	283	227	197	171	116
MAX	373	436	725	796	857	1195	818	774	648	815	530	492
(WY)	1973	1967	1992	1996	1990	1994	1998	1984	1989	1971	1966	1989
MIN	28.9	36.0	58.8	72.7	191	185	141	124	50.4	63.8	40.5	31.9
(WY)	1988	1988	1966	1981	1978	1988	1995	1986	1988	1993	1987	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	102481		88717			
ANNUAL MEAN	281		243		288	
HIGHEST ANNUAL MEAN					460	1994
LOWEST ANNUAL MEAN					141	1988
HIGHEST DAILY MEAN	4720	Apr 19	1900	May 6	9000	Mar 28 1994
LOWEST DAILY MEAN	22	Sep 15	23	Sep 26	22	Sep 15 1998
ANNUAL SEVEN-DAY MINIMUM	23	Sep 12	25	Sep 15	23	Sep 12 1998
INSTANTANEOUS PEAK FLOW			3540	May 6	27100	Mar 27 1994
INSTANTANEOUS PEAK STAGE			5.94	May 6	a15.75	Mar 27 1994
INSTANTANEOUS LOW FLOW			b22	Sep 17	c21	Jan 18 1981
ANNUAL RUNOFF (CFSM)	2.65		2.29		2.72	
ANNUAL RUNOFF (INCHES)	35.97		31.13		36.91	
10 PERCENT EXCEEDS	592		572		564	
50 PERCENT EXCEEDS	148		171		198	
90 PERCENT EXCEEDS	28		28		60	

a From flood marks in gage house.
b Also occurred on Sept. 27.
c Results of freeze-up.



03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on left bank 200 ft above bridge on U.S. Highway 411, 0.8 mi downstream from Crooked Creek, 5.0 mi east of Maryville, and at mile 17.3.

DRAINAGE AREA.--269 mi^2.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Data-collection platform and crest-stage gage. Datum of gage is 850.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuations of flow caused by small mills above station. The town of Maryville diverted an average of about 4.0 ft^3/s (2.6 MGD) for municipal supply 100 ft upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water- quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft, discharge, 50,000 ft^3/s, and flood of April 1, 1896, reached a stage of 26 ft, discharge, 36,000 ft^3/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 6	1500	*8,560	*13.98	Jul 12	2045	6,350	12.58

Minimum discharge, 43 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	53	85	321	1470	949	597	508	201	739	203	71
2	64	52	83	293	1430	756	532	384	196	497	196	69
3	60	54	80	1010	1010	1810	467	327	252	394	182	67
4	59	54	78	767	814	1710	433	294	247	330	170	66
5	57	57	79	551	663	1140	398	293	212	289	162	64
6	56	57	79	433	564	1080	384	4540	228	330	155	62
7	55	57	78	387	531	1050	377	2570	207	486	148	61
8	149	57	141	377	520	887	350	1660	187	449	141	60
9	150	58	594	867	476	872	403	1070	175	294	140	59
10	88	64	280	925	1270	788	351	812	173	442	137	57
11	73	280	197	695	875	672	330	662	181	1790	125	58
12	68	178	201	546	758	591	311	568	164	3970	120	56
13	63	114	1890	446	676	691	293	503	155	3130	114	52
14	60	104	987	688	544	1650	284	561	151	1320	109	52
15	59	166	505	3090	481	2170	309	433	151	898	111	51
16	56	159	351	1490	439	1690	334	387	436	674	105	50
17	56	137	288	944	588	1240	284	354	591	528	101	50
18	55	124	249	1380	1660	1020	271	331	343	473	95	49
19	53	107	213	996	1220	887	260	431	276	426	90	49
20	55	103	247	804	1060	783	280	348	237	476	89	49
21	62	108	235	673	885	767	271	310	211	398	97	50
22	57	102	424	564	741	686	247	288	194	342	88	51
23	53	91	472	1190	635	587	236	277	186	310	93	57
24	53	87	2210	2250	554	536	232	320	197	363	116	53
25	53	86	1310	1250	484	498	221	276	676	740	111	50
26	53	101	744	898	434	462	217	267	695	373	94	49
27	52	120	531	735	408	438	251	261	677	307	86	47
28	52	98	429	613	1260	410	345	232	504	296	84	52
29	50	91	479	520	---	389	757	218	1130	260	81	185
30	51	86	448	502	---	373	812	255	1220	249	78	318
31	52	---	372	608	---	366	---	221	---	224	74	---
TOTAL	1997	3005	14359	26813	22450	27948	10837	19961	10453	21797	3695	2064
MEAN	64.4	100	463	865	802	902	361	644	348	703	119	68.8
MAX	150	280	2210	3090	1660	2170	812	4540	1220	3970	203	318
MIN	50	52	78	293	408	366	217	218	151	224	74	47
CFSM	.24	.37	1.72	3.22	2.98	3.35	1.34	2.39	1.30	2.61	.44	.26
IN.	.28	.42	1.99	3.71	3.10	3.86	1.50	2.76	1.45	3.01	.51	.29

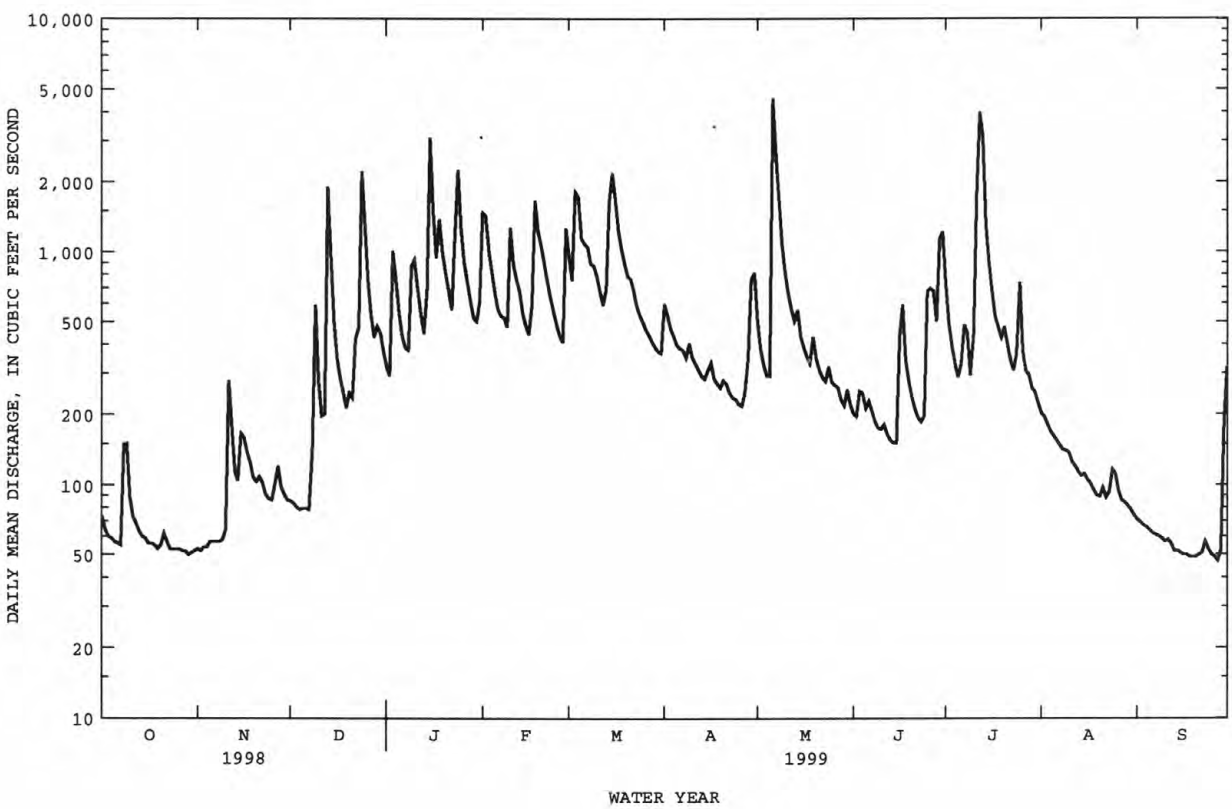
03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	199	343	627	809	950	1022	755	499	382	324	254	176
MAX	830	1160	1679	1792	2254	2517	1701	1782	1261	1391	867	1019
(WY)	1973	1958	1962	1974	1957	1994	1994	1984	1989	1971	1971	1989
MIN	50.7	65.4	103	121	308	385	224	208	86.1	100	78.1	55.6
(WY)	1988	1988	1966	1981	1954	1988	1986	1986	1988	1952	1987	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	197700		165379			
ANNUAL MEAN	542		453		527	
HIGHEST ANNUAL MEAN					862	1994
LOWEST ANNUAL MEAN					220	1988
HIGHEST DAILY MEAN	12400	Apr 19	4540	May 6	23100	Mar 28 1994
LOWEST DAILY MEAN	48	Sep 16	47	Sep 27	43	Oct 19 1987
ANNUAL SEVEN-DAY MINIMUM	49	Sep 14	50	Sep 15	45	Oct 14 1987
INSTANTANEOUS PEAK FLOW			8560	May 6	a42100	Mar 28 1994
INSTANTANEOUS PEAK STAGE			13.98	May 6	27.95	Mar 28 1994
INSTANTANEOUS LOW FLOW			43	Sep 27	32	Aug 27 1956
ANNUAL RUNOFF (CFSM)	2.01		1.68		1.96	
ANNUAL RUNOFF (INCHES)	27.34		22.87		26.60	
10 PERCENT EXCEEDS	1100		1010		1040	
50 PERCENT EXCEEDS	280		289		318	
90 PERCENT EXCEEDS	57		57		100	

a From rating curve extended above 14,800 ft^3/s on the basis of a contracted opening mreasurement and road overflow computations.



03498850 LITTLE RIVER NEAR ALCOA, TN

LOCATION.--Lat 35°48'32", long 83°55'36", Blount County, Hydrologic Unit 06010201, at Singleton Bend on left bank, 3.0 mi northeast of Alcoa, and at mile 9.7.

DRAINAGE AREA.--300 mi^2.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 814.22 ft above sea level.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverts an average of about 4.0 ft^3/s (2.6 MGD) for municipal supply 7.6 mi upstream from gage and the town of Alcoa at the gage diverts about 17.2 ft^3/s (11.1 MGD). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 7,440 ft^3/s, May 6, gage height 12.12 ft; minimum 23 ft^3/s, Oct. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	51	79	390	1350	998	612	572	217	799	239	74
2	66	48	77	356	1420	774	593	468	214	585	247	61
3	58	52	66	945	1000	1840	524	386	273	476	208	69
4	49	52	68	789	821	1910	501	353	290	391	202	71
5	55	54	71	599	690	1170	467	344	236	339	192	68
6	54	56	72	520	606	1050	449	4000	240	372	182	65
7	49	56	71	450	587	1040	455	2970	231	601	173	63
8	132	57	91	434	577	892	412	1730	200	541	162	55
9	188	57	614	834	520	885	473	1100	177	337	160	46
10	104	53	352	962	1200	804	417	847	185	468	147	52
11	81	252	226	708	872	700	391	725	183	1580	151	68
12	68	254	199	596	750	634	369	658	164	4080	136	57
13	65	107	1790	529	707	683	347	606	157	3690	115	52
14	61	98	1080	651	601	1660	334	644	149	1410	109	51
15	58	142	578	3090	546	2300	357	545	150	962	120	52
16	55	184	419	1550	515	1810	401	485	305	762	118	44
17	45	141	338	954	577	1260	336	436	705	659	109	40
18	52	128	305	1360	1580	1040	315	410	411	606	97	43
19	50	107	253	1040	1190	908	309	514	305	533	85	48
20	50	98	277	817	1060	801	323	433	247	606	97	48
21	60	99	274	702	883	783	309	382	234	522	103	50
22	57	101	411	619	750	720	281	351	197	430	96	52
23	50	87	551	1110	662	641	270	331	177	384	95	55
24	49	82	2090	2400	615	597	265	377	202	352	134	57
25	49	80	1370	1290	550	566	250	336	642	844	117	51
26	48	90	764	902	513	531	248	306	786	498	119	48
27	50	116	601	754	482	528	261	308	720	424	100	46
28	47	97	505	664	1240	480	404	261	583	385	95	50
29	30	87	535	584	---	471	716	233	1050	321	90	174
30	49	81	519	568	---	442	816	283	1260	322	86	349
31	49	---	448	604	---	434	---	266	---	281	81	---
TOTAL	1955	2967	15094	27771	22864	29352	12205	21660	10890	24560	4165	2059
MEAN	63.1	98.9	487	896	817	947	407	699	363	792	134	68.6
MAX	188	254	2090	3090	1580	2300	816	4000	1260	4080	247	349
MIN	30	48	66	356	482	434	248	233	149	281	81	40

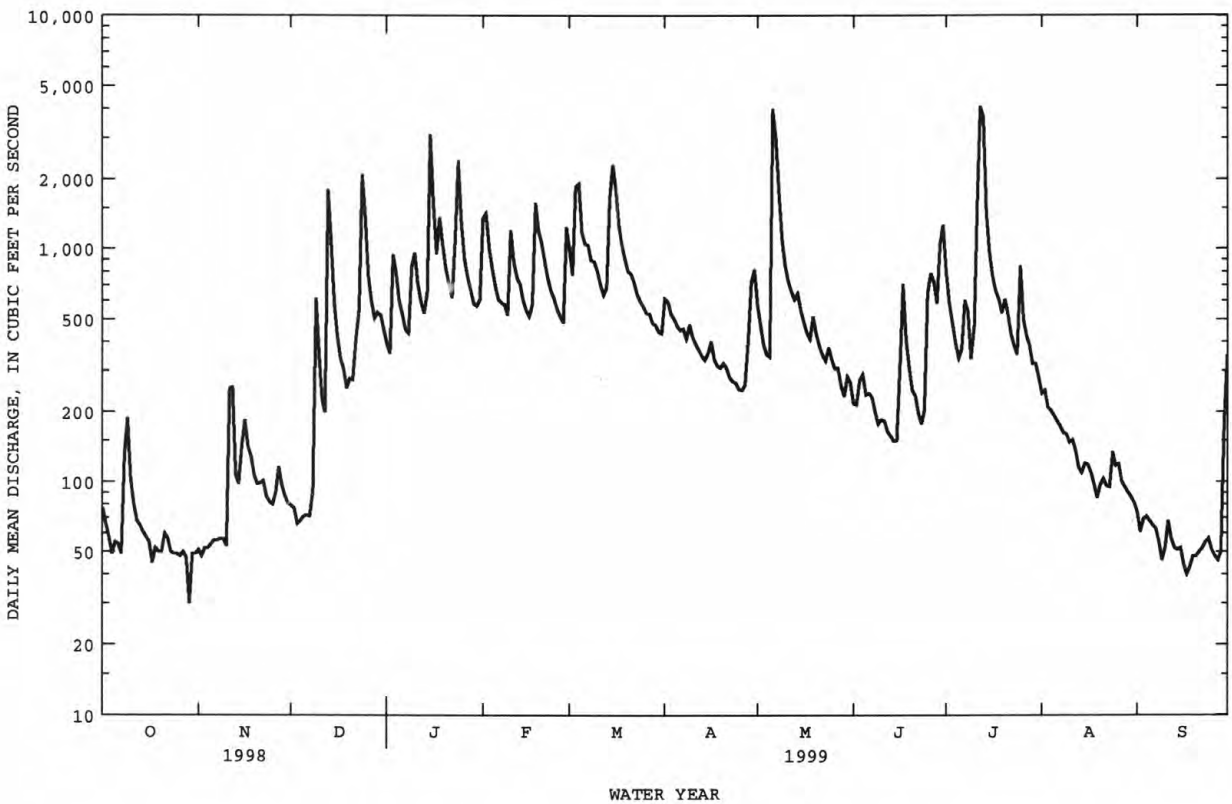
03498850 LITTLE RIVER NEAR ALCOA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	194	318	652	933	1032	1151	790	544	503	342	235	212
MAX	779	783	1624	1410	1980	2764	2008	989	1335	792	586	1123
(WY)	1990	1990	1992	1996	1994	1994	1994	1989	1989	1999	1994	1989
MIN	43.4	60.6	176	432	435	403	295	199	73.6	106	69.0	59.8
(WY)	1988	1988	1988	1988	1988	1988	1995	1988	1988	1988	1987	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	204650		175542			
ANNUAL MEAN	561		481		573	
HIGHEST ANNUAL MEAN					953	1994
LOWEST ANNUAL MEAN					220	1988
HIGHEST DAILY MEAN	13000	Apr 19	4080	Jul 12	e28000	Mar 28 1994
LOWEST DAILY MEAN	30	Sep 16	30	Oct 29	28	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	41	Sep 14	46	Oct 24	35	Oct 14 1987
INSTANTANEOUS PEAK FLOW			7440	May 6	NOT DETERMINED	Mar 28 1994
INSTANTANEOUS PEAK STAGE			12.12	May 6	25.63	Mar 28 1994
INSTANTANEOUS LOW FLOW			23	Oct 29	21	Sep 16 1998
10 PERCENT EXCEEDS	1090		1040		1130	
50 PERCENT EXCEEDS	335		339		356	
90 PERCENT EXCEEDS	55		54		87	

e Estimated



03528000 CLINCH RIVER ABOVE TAZEWELL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi upstream from Grissom Island, 4.6 mi downstream from Big War Creek, 10 mi east of Tazewell, and at mile 159.8.

DRAINAGE AREA.--1,474 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to current year. Published as "near Lone Mountain" October 1918 to September 1927; as "near Tazewell" August 1927 to December 1936; and as "above Tazewell" July 1935 to current year. Prior to April 1919, monthly discharge only, published in WSP 1306. Gage-height record "near Tazewell" January 1937 to July 1941.

REVISED RECORDS.--WSP 803: Drainage area at site "near Tazewell". WSP 1306: Drainage area at site "near Lone Mountain". WSP 1336: 1928.

GAGE.--Data collection platform. Datum of gage is 1,060.7 ft above sea level. April 1, 1919, to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi downstream at datum 102.7 ft lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi downstream at datum 47.2 ft lower. Water-stage recorder at present site and datum since July 29, 1935.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft, present site and datum, from information by local resident, discharge, about 66,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	1530	*10,500	*8.01				

Minimum discharge, 109 ft^3/s, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	206	221	707	1680	7150	1490	2110	527	871	568	198
2	236	207	221	672	1760	5550	1520	1750	499	744	989	188
3	300	213	216	1200	1750	5370	1460	1490	488	598	874	177
4	329	218	208	2770	1600	7940	1390	1310	475	472	914	167
5	330	216	208	2780	1460	7970	1300	1180	441	404	705	159
6	281	217	216	1970	1310	5840	1200	1600	412	384	554	155
7	254	212	233	1370	1220	4890	1120	2780	386	349	458	153
8	289	217	312	1160	1230	4540	1050	2710	366	343	398	152
9	275	218	832	2490	1220	3990	1030	2090	347	335	361	158
10	278	227	1630	5180	1160	3650	988	1820	330	287	338	219
11	285	265	1320	3740	1100	3610	1010	1550	318	450	323	300
12	298	272	931	2660	1050	3330	1750	1280	331	656	311	250
13	302	266	2290	1960	1020	2980	2800	1120	312	551	294	232
14	282	282	2490	1690	1040	2830	2620	1020	290	555	274	214
15	253	271	2240	4650	1030	3570	2130	1080	284	490	258	198
16	236	256	1580	7230	976	4690	2080	1080	279	472	244	178
17	225	244	1100	5340	994	4760	2040	984	279	398	230	156
18	216	234	822	4510	1140	4770	1850	882	271	390	219	143
19	209	231	675	5520	1350	4480	1620	871	263	375	213	132
20	208	223	595	5050	2990	3880	1470	911	258	395	220	129
21	214	218	539	3680	3350	3340	1350	927	253	498	228	125
22	211	212	525	2760	2850	2950	1240	864	246	559	229	123
23	205	208	552	2630	2360	2630	1140	808	236	702	223	119
24	197	206	1410	5570	2010	2330	1060	749	238	483	245	117
25	196	207	1880	9900	1750	2090	984	784	301	1260	275	112
26	198	222	1630	7660	1590	1960	945	1050	327	1190	284	111
27	201	228	1270	4520	1480	1950	942	1030	337	839	264	115
28	203	227	1010	3260	3650	1960	1030	853	476	682	240	123
29	203	221	860	2570	---	1760	1490	719	853	629	232	139
30	203	221	783	2110	---	1580	2400	632	1020	536	219	148
31	204	---	742	1770	---	1450	---	570	---	466	205	---
TOTAL	7565	6865	29541	109079	46120	119790	44499	38604	11443	17363	11389	4890
MEAN	244	229	953	3519	1647	3864	1483	1245	381	560	367	163
MAX	330	282	2490	9900	3650	7970	2800	2780	1020	1260	989	300
MIN	196	206	208	672	976	1450	942	570	236	287	205	111
MED	236	221	822	2770	1400	3610	1370	1050	328	490	274	154
CFSM	.17	.16	.65	2.39	1.12	2.62	1.01	.84	.26	.38	.25	.11
IN.	.19	.17	.75	2.75	1.16	3.02	1.12	.97	.29	.44	.29	.12

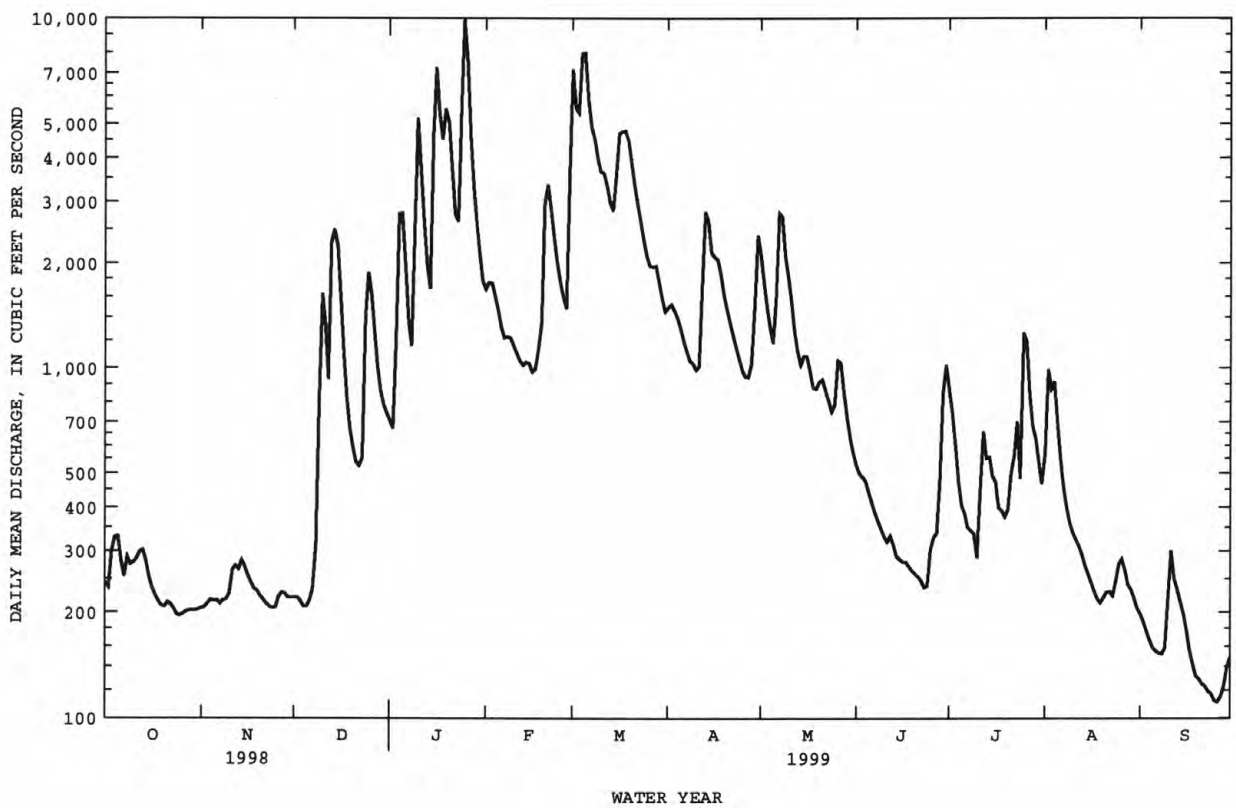
03528000 CLINCH RIVER ABOVE TAZEWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	658	1106	2346	3485	4141	4313	3093	2311	1291	953	860	529
MAX	2871	4794	9107	9500	9426	11950	8860	6382	3865	3251	4411	2939
(WY)	1990	1978	1927	1937	1957	1963	1977	1929	1989	1938	1942	1989
MIN	145	159	217	285	572	990	711	547	301	239	169	136
(WY)	1964	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1955

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1919 - 1999	
ANNUAL TOTAL	891100		447148			
ANNUAL MEAN	2441		1225		2082	
HIGHEST ANNUAL MEAN					3269	1927
LOWEST ANNUAL MEAN					850	1941
HIGHEST DAILY MEAN	33800	Apr 18	9900	Jan 25	83300	Apr 5 1977
LOWEST DAILY MEAN	196	Oct 25	111	Sep 26	108	Sep 11 1925
ANNUAL SEVEN-DAY MINIMUM	200	Oct 24	117	Sep 22	116	Sep 17 1955
INSTANTANEOUS PEAK FLOW			10500	Jan 25	98100	Apr 5 1977
INSTANTANEOUS PEAK STAGE			8.01	Jan 25	a29.32	Apr 5 1977
INSTANTANEOUS LOW FLOW			109	Sep 26	108	Sep 11 1925
ANNUAL RUNOFF (CFSM)	1.66		.83		1.41	
ANNUAL RUNOFF (INCHES)	22.49		11.28		19.19	
10 PERCENT EXCEEDS	5610		2980		4670	
50 PERCENT EXCEEDS	1330		632		1110	
90 PERCENT EXCEEDS	217		206		268	

a From Floodmarks.



03532000 POWELL RIVER NEAR ARTHUR, TN

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, Hydrologic Unit 06010206, on left bank, 500 ft upstream from bridge on U.S. Highway 25E, 2.3 mi east of Arthur, 2.4 mi downstream from Indian Creek, and at mile 65.4.

DRAINAGE AREA.--685 mi^2 .

PERIOD OF RECORD.--October 1919 to February 1982, October 1996 to current year. Gage-height records collected at same site December 1892 to August 1893, September 1904 to March 1925 are in reports of U.S. Weather Bureau (published as "near Tazewell").

REVISED RECORDS.--WSP 1336: 1920, 1921(M), 1923.

GAGE.--Water-stage recorder. Datum of gage is 1,043.84 ft above sea level, Tennessee River Survey datum. Prior to July 23, 1927, nonrecording gage, and July 23, 1927, to Sept. 30, 1970, water-stage recorder, at same site at datum 2.00 ft higher.

REMARKS.--Records good, except for estimated days, which are fair. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1826 reached a stage of 29.5 ft present datum, discharge, 34,000 ft^3/s, and flood of Jan. 29, 1918, reached a stage of 29.2 ft present datum, discharge, 33,000 ft^3/s .

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 4	2130	*5,720	*10.35				

Minimum discharge, 70 ft^3/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	118	131	466	983	4360	848	1060	345	789	239	122
2	129	118	127	445	1020	3730	882	954	335	548	238	116
3	155	125	121	903	1130	3280	878	868	331	396	246	111
4	147	128	119	1590	1050	4920	831	790	304	319	392	106
5	136	127	124	1680	959	4670	794	739	296	284	285	102
6	129	124	127	1110	881	3230	757	1180	295	263	230	99
7	127	122	136	843	829	2550	720	1470	264	232	199	97
8	183	127	363	724	803	e2300	714	1760	255	227	178	98
9	197	131	1010	1850	807	e2000	768	1610	243	213	171	91
10	197	133	1750	3990	782	e1800	718	1340	230	218	161	91
11	224	165	905	3330	730	e1700	773	1130	223	576	151	88
12	206	177	587	1950	712	e1500	1060	975	225	559	146	90
13	166	239	1500	1400	700	e1400	1220	877	229	520	148	88
14	146	301	2100	1240	681	e1300	1090	798	225	418	140	87
15	135	231	1890	2870	651	e1600	1060	777	214	331	133	84
16	128	177	1070	4490	616	e2000	1100	847	201	277	130	80
17	124	154	740	2990	622	e2400	1250	716	187	258	127	78
18	122	141	579	2890	661	e2200	1160	650	176	270	124	76
19	122	133	480	3940	764	e1900	1050	647	170	246	118	75
20	122	131	415	3530	964	e1700	966	609	167	334	142	75
21	122	130	365	2360	1380	e1500	887	615	163	405	151	83
22	123	126	358	1740	1210	e1400	823	557	159	454	129	87
23	120	123	369	2360	1060	e1300	761	512	159	347	156	90
24	119	122	733	3730	950	e1100	716	518	172	313	190	86
25	121	124	1110	4520	872	e1000	666	511	405	289	248	89
26	119	139	1010	3370	804	941	642	622	333	1010	214	85
27	118	136	769	2270	769	923	637	552	291	712	195	84
28	119	132	637	1740	2080	931	747	468	729	474	201	91
29	119	129	559	1420	---	931	816	420	810	375	195	118
30	118	128	511	1200	---	881	1110	387	899	327	158	134
31	119	---	485	1040	---	835	---	354	---	276	136	---
TOTAL	4344	4391	21180	67981	25470	62282	26444	25313	9035	12260	5671	2801
MEAN	140	146	683	2193	910	2009	881	817	301	395	183	93.4
MAX	224	301	2100	4520	2080	4920	1250	1760	899	1010	392	134
MIN	118	118	119	445	616	835	637	354	159	213	118	75
CFSM	.20	.21	1.00	3.20	1.33	2.93	1.29	1.19	.44	.58	.27	.14
IN.	.24	.24	1.15	3.69	1.38	3.38	1.44	1.37	.49	.67	.31	.15

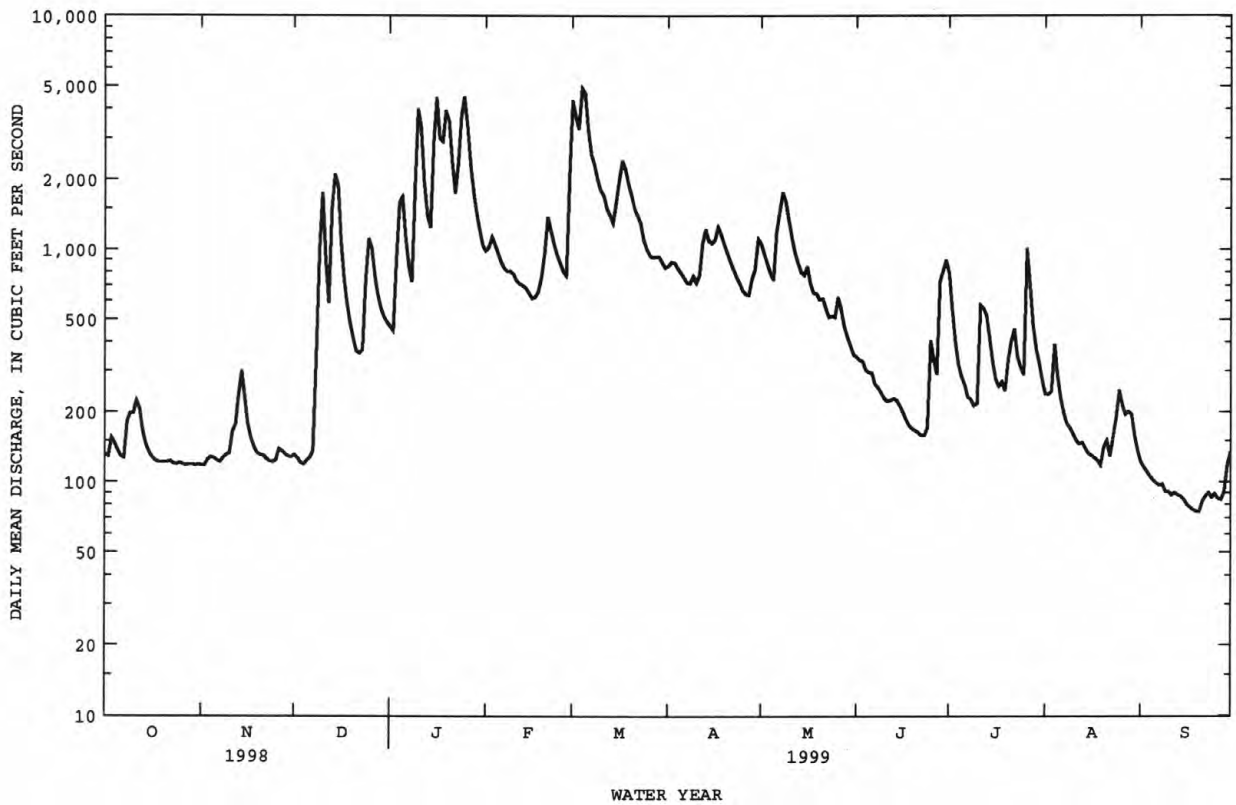
e Estimated

03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	323	672	1347	2023	2198	2419	1724	1139	678	555	455	250
MAX	1648	3045	5557	5812	4887	6596	5224	4220	2495	1917	2030	1081
(WY)	1978	1974	1927	1937	1956	1963	1977	1929	1928	1941	1942	1928
MIN	75.5	96.4	117	143	268	887	477	268	168	137	117	79.7
(WY)	1955	1940	1966	1940	1941	1931	1942	1941	1936	1944	1925	1955

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1920 - 1999	
ANNUAL TOTAL	419213		267172			
ANNUAL MEAN	1149		732		1142	
HIGHEST ANNUAL MEAN					1858	1974
LOWEST ANNUAL MEAN					486	1941
HIGHEST DAILY MEAN	18200	Apr 18	4920	Mar 4	50300	Apr 6 1977
LOWEST DAILY MEAN	118	Oct 27	75	Sep 19	60	Sep 23 1955
ANNUAL SEVEN-DAY MINIMUM	118	Oct 27	79	Sep 15	65	Sep 17 1955
INSTANTANEOUS PEAK FLOW			5720	Mar 4	59500	Apr 6 1977
INSTANTANEOUS PEAK STAGE			10.35	Mar 4	38.96	Apr 6 1977
INSTANTANEOUS LOW FLOW			70	Sep 19	47	Jan 6 1940
ANNUAL RUNOFF (CFSM)	1.68		1.07		1.67	
ANNUAL RUNOFF (INCHES)	22.77		14.51		22.65	
10 PERCENT EXCEEDS	2330		1740		2570	
50 PERCENT EXCEEDS	644		405		590	
90 PERCENT EXCEEDS	127		119		138	



03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN

LOCATION.--Lat 35°59'48", long 84°14'25", Anderson County, Hydrologic Unit 06010207, on left bank upstream from bridge on Bear Creek Road, 0.5 mi south of Oak Ridge, and at mile 14.4.

DRAINAGE AREA.--1.69 mi^2.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 890 ft above sea level, from topographic map.

REMARKS.--Records good below 100 ft^3/s, except for estimated days, which are fair. Flow affected by operations of the Department of Energy, Y-12 Plant. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 523 ft^3/s, gage height, 4.63 ft, June 29; minimum, 1.8 ft^3/s, gage height, 1.12 ft, Oct. 28, Nov. 11; minimum daily, 3.4 ft^3/s, Oct. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	4.0	11	12	22	13	13	12	11	13	12	12
2	13	4.1	9.8	17	15	13	11	12	13	48	12	12
3	16	4.7	13	14	14	31	11	12	12	15	12	12
4	14	5.1	13	12	13	14	11	12	13	13	12	12
5	13	4.6	14	12	13	13	11	15	14	13	12	12
6	13	4.9	13	12	13	15	12	60	13	13	11	12
7	13	5.0	17	12	14	13	11	15	13	e35	11	12
8	22	5.5	53	19	12	12	15	13	13	e13	11	12
9	13	4.6	7.6	50	13	19	11	12	14	e18	11	12
10	13	14	8.0	15	13	13	11	12	14	e28	11	12
11	12	6.3	11	13	12	13	12	12	14	e28	11	11
12	12	9.2	30	13	13	12	11	12	13	e110	11	11
13	12	13	35	12	12	24	11	10	13	e28	12	11
14	12	16	8.6	30	12	26	11	9.0	14	e23	11	11
15	12	16	12	18	12	21	16	12	14	e18	11	11
16	12	16	12	14	12	15	9.4	12	12	e16	11	10
17	12	16	11	14	18	14	11	12	11	e14	11	10
18	13	16	11	27	13	13	11	13	11	e14	11	10
19	13	16	12	15	14	12	11	12	11	e13	11	10
20	13	16	11	14	12	13	11	11	11	30	11	10
21	8.3	16	11	13	12	15	10	9.6	11	13	11	12
22	4.1	16	14	13	12	12	10	12	11	14	11	11
23	4.0	16	18	51	12	12	10	12	11	13	13	12
24	3.9	16	24	17	12	11	11	13	41	13	12	12
25	3.9	17	13	15	12	12	10	12	35	12	25	11
26	4.0	16	12	14	11	11	12	12	19	12	12	11
27	3.9	16	12	13	21	11	13	11	19	15	12	12
28	3.4	16	13	13	25	11	14	11	14	13	12	12
29	3.9	16	12	13	---	11	31	11	45	12	12	17
30	4.0	16	12	13	---	11	14	11	14	12	12	12
31	4.1	---	12	18	---	13	---	11	---	12	12	---
TOTAL	313.5	358.0	466.0	538	389	449	366.4	415.6	474	644	370	347
MEAN	10.1	11.9	15.0	17.4	13.9	14.5	12.2	13.4	15.8	20.8	11.9	11.6
MAX	22	17	53	51	25	31	31	60	45	110	25	17
MIN	3.4	4.0	7.6	12	11	11	9.4	9.0	11	12	11	10

e Estimated

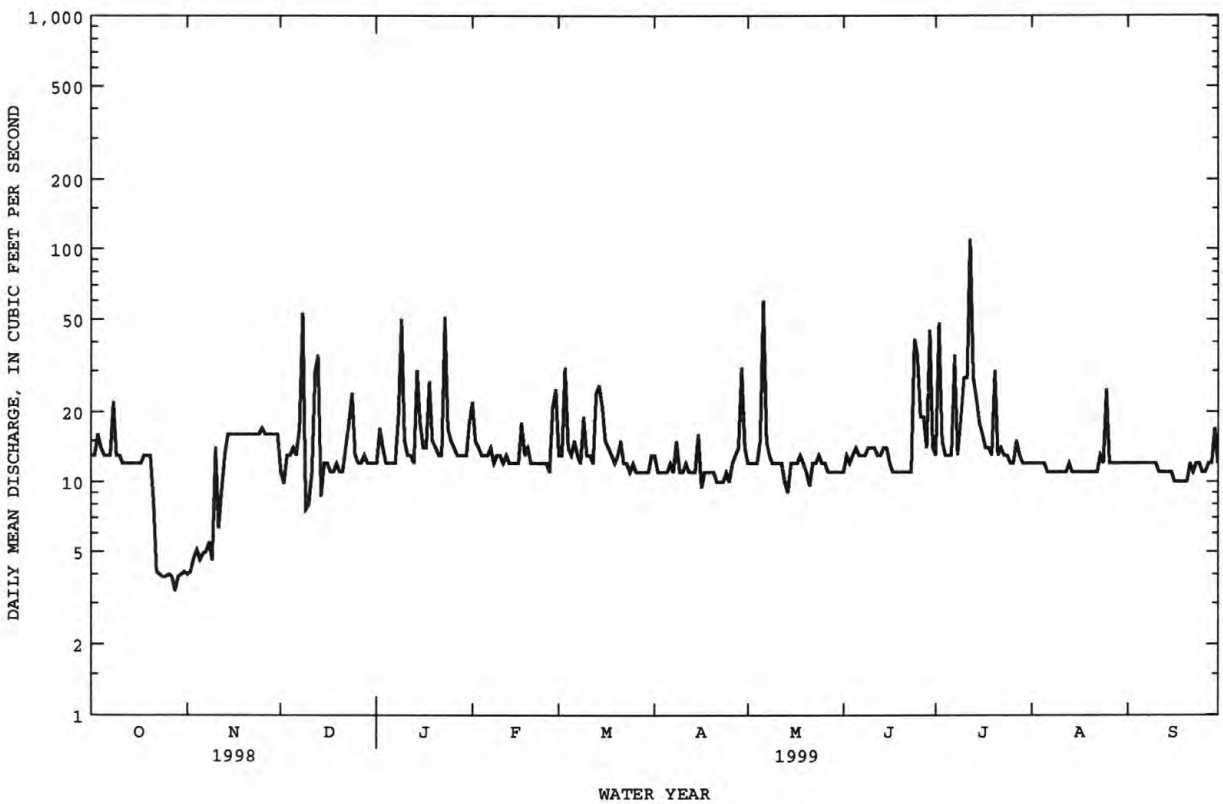
03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.29	9.76	10.5	12.2	12.0	12.4	12.4	10.4	11.0	11.8	10.0	9.29
MAX	11.9	14.5	15.0	17.4	18.1	16.7	23.8	14.4	17.5	20.8	15.5	12.4
(WY)	1998	1997	1999	1999	1994	1997	1998	1998	1998	1999	1996	1996
MIN	5.47	6.47	5.82	7.56	7.42	7.37	4.87	6.04	4.53	4.14	5.03	5.28
(WY)	1995	1995	1995	1993	1995	1995	1995	1994	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	5186.6		5130.5			
ANNUAL MEAN	14.2		14.1		11.3	
HIGHEST ANNUAL MEAN					14.1	1999
LOWEST ANNUAL MEAN					6.30	1995
HIGHEST DAILY MEAN	94	Apr 19	110	Jul 12	163	Dec 4 1993
LOWEST DAILY MEAN	3.4	Oct 28	3.4	Oct 28	3.3	Sep 30 1995
ANNUAL SEVEN-DAY MINIMUM	3.9	Oct 23	3.9	Oct 23	3.6	Oct 16 1995
INSTANTANEOUS PEAK FLOW			523	Jun 29	a2000	Jul 23 1997
INSTANTANEOUS PEAK STAGE			4.63	Jun 29	b14.36	Jul 23 1997
10 PERCENT EXCEEDS	18		18		16	
50 PERCENT EXCEEDS	12		12		9.8	
90 PERCENT EXCEEDS	9.9		10		4.6	

a From area-velocity estimate at contracted section downstream.
b Affected by backwater. From high-water marks.



03538270 BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE, TN

LOCATION.--Lat 35°56'14", long 84°20'22", Roane County, Hydrologic Unit 06010207, on right bank upstream from bridge on Tennessee Highway 95, in triangle formed by intersection of Highway 95 and Bear Creek Road, 6.8 mi southwest of Oak Ridge, and at mile 2.8.

DRAINAGE AREA.--4.34 mi^2.

PERIOD OF RECORD.--April 1959 to June 1964 (discharge measurements only), March 1985 to current year.

REVISED RECORDS.--WDR TN-87-1: Drainage area. WDR TN-89-1: 1985-88 (M).

GAGE.--Water-stage recorder and Cippolletti-weir. Datum of gage is 801.15 ft above sea level.

REMARKS.--Records poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 9	0800	206	2.52	Jun 29	1200	197	2.48
Jan 23	1130	199	2.49	Jul 12	0830	*650	*3.70
May 6	0815	224	2.60				

Minimum discharge, 0.28 ft^3/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.49	.51	2.2	24	20	5.4	13	1.8	5.4	1.6	e1.1
2	.42	e.50	.49	2.2	17	13	5.5	8.9	1.8	21	1.7	e1.1
3	.43	e.40	.48	7.0	12	37	5.2	6.6	2.0	9.2	1.7	e1.1
4	.55	.37	.48	4.9	8.7	23	5.1	6.1	1.5	5.0	e1.7	e1.0
5	.64	.40	.48	3.6	7.1	15	4.8	5.9	1.2	3.8	e1.8	e1.0
6	.64	.40	.48	3.1	6.0	13	4.7	95	1.2	3.6	e1.7	e1.0
7	.67	.42	.50	2.8	5.8	10	4.3	29	1.1	3.6	e1.7	e.94
8	1.3	.42	18	4.7	5.6	8.6	7.9	17	1.0	3.9	e1.7	e.94
9	.73	.43	7.6	63	5.2	13	9.6	12	.91	3.3	e1.7	e1.1
10	.77	.47	3.0	16	7.4	13	8.5	8.8	.90	21	e1.6	e.98
11	.58	1.3	2.1	9.0	5.8	11	7.4	7.4	.86	21	e1.7	e.98
12	.54	.81	6.2	6.2	5.4	8.9	6.0	6.5	.86	254	e1.6	e.94
13	.51	.72	33	5.5	5.3	12	5.4	5.7	.86	43	e1.6	e.98
14	.51	.67	8.3	18	4.7	42	5.0	5.5	.92	16	e1.6	e.98
15	.51	.74	4.6	27	4.2	39	6.3	4.6	1.0	6.8	e1.6	e.94
16	.50	.67	3.0	13	3.9	23	6.4	3.8	.95	4.4	e1.6	e.94
17	.48	.66	2.4	8.9	6.0	16	5.8	3.3	.94	3.7	e1.5	e.90
18	.48	.63	2.0	22	7.7	13	5.3	3.0	.87	3.4	e1.5	e.90
19	.48	.62	1.6	14	7.2	10	5.0	3.2	.86	3.0	e1.5	e.90
20	.53	.62	1.6	9.7	7.0	8.4	4.7	2.8	1.1	7.8	e1.5	e.94
21	.54	.62	1.5	7.6	6.4	9.7	4.3	2.8	1.1	3.6	e1.4	e1.1
22	.53	.62	2.7	6.0	5.9	8.6	4.1	3.0	1.0	3.1	e1.4	e.90
23	.49	.62	2.6	73	5.2	7.5	3.9	2.8	1.5	2.8	e1.5	e.80
24	.51	.62	20	29	5.1	7.4	3.9	3.3	2.7	2.9	e1.6	e.90
25	.53	.62	9.2	16	4.9	6.8	3.9	2.9	24	3.0	e1.9	e.98
26	.55	.62	5.9	11	4.2	6.3	4.1	3.0	4.4	3.0	e1.4	e1.1
27	.54	.60	4.3	8.8	4.6	5.8	4.8	2.7	8.1	5.8	e1.2	e1.1
28	.51	.56	3.6	7.2	50	5.4	5.0	2.3	8.2	3.6	e1.2	e.96
29	.54	.55	3.6	5.9	---	5.2	31	2.2	53	2.1	e1.2	e1.2
30	.51	.54	3.0	5.6	---	4.7	20	2.0	12	1.8	e1.2	e.84
31	.48	---	2.5	6.6	---	4.4	---	1.9	---	1.6	e1.1	---
TOTAL	17.57	17.71	155.72	419.5	242.3	420.7	203.3	277.0	138.63	476.2	47.7	29.54
MEAN	.57	.59	5.02	13.5	8.65	13.6	6.78	8.94	4.62	15.4	1.54	.98
MAX	1.3	1.3	33	73	50	42	31	95	53	254	1.9	1.2
MIN	.42	.37	.48	2.2	3.9	4.4	3.9	1.9	.86	1.6	1.1	.80
CFSM	.13	.14	1.16	3.12	1.99	3.13	1.56	2.06	1.06	3.54	.35	.23
IN.	.15	.15	1.33	3.60	2.08	3.61	1.74	2.37	1.19	4.08	.41	.25

e Estimated

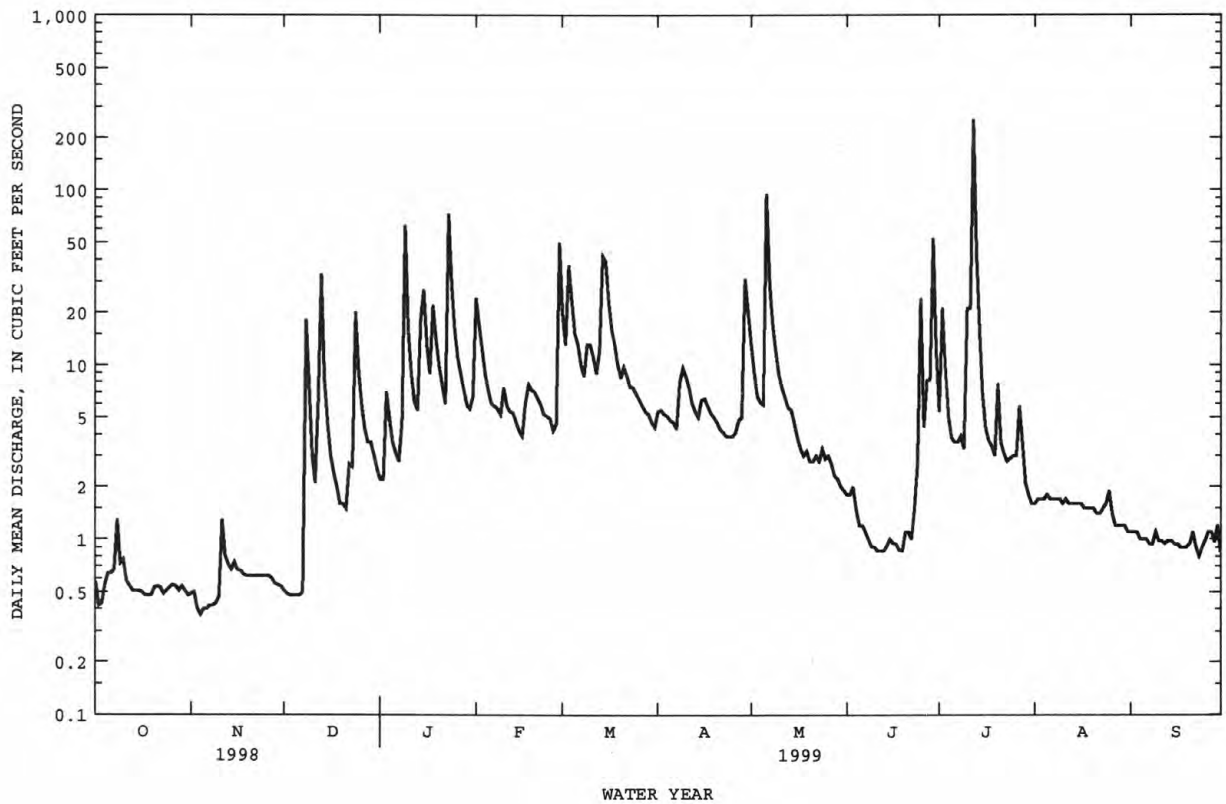
03538270 BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.87	4.70	11.0	14.0	16.1	14.5	11.0	6.39	5.50	3.63	2.76	1.69
MAX	10.3	13.9	34.8	24.2	40.2	30.0	38.1	14.1	19.4	15.4	8.92	9.26
(WY)	1990	1997	1991	1989	1994	1994	1998	1996	1989	1999	1990	1989
MIN	.43	.59	1.54	2.85	4.67	5.52	2.41	1.26	.32	.75	.31	.43
(WY)	1988	1999	1988	1986	1988	1985	1986	1988	1988	1995	1987	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1985 - 1999	
ANNUAL TOTAL	3024.63		2445.87			
ANNUAL MEAN	8.29		6.70		7.82	
HIGHEST ANNUAL MEAN					12.7	1994
LOWEST ANNUAL MEAN					2.57	1988
HIGHEST DAILY MEAN	287	Apr 19	254	Jul 12	329	Feb 11 1994
LOWEST DAILY MEAN	.32	Sep 18	.37	Nov 4	.19	Sep 4 1987
ANNUAL SEVEN-DAY MINIMUM	.36	Sep 15	.41	Nov 3	.21	Sep 1 1987
INSTANTANEOUS PEAK FLOW			a650	Jul 12	a783	Dec 23 1990
INSTANTANEOUS PEAK STAGE			3.70	Jul 12	3.88	Dec 23 1990
INSTANTANEOUS LOW FLOW			.28	Oct 2	b.18	Sep 3 1987
ANNUAL RUNOFF (CFSM)	1.91		1.54		1.80	
ANNUAL RUNOFF (INCHES)	25.93		20.96		24.49	
10 PERCENT EXCEEDS	18		13		16	
50 PERCENT EXCEEDS	2.5		3.0		3.0	
90 PERCENT EXCEEDS	.48		.54		.59	

a From rating curve extended above 120 ft^3/s based on indirect measurement of peak flow.
b Also occurred Sept. 4, 1987.



03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN

LOCATION.--Lat 36°06'11", long 84°43'06", Morgan County, Hydrologic Unit 06010208, on right bank 200 yards upstream of Lilly Bridge, 0.1 mi downstream of Little Clear Creek, 3.8 mi west-southwest of Lancing, and at mile 1.6.

DRAINAGE AREA.--170 mi^2.

PERIOD OF RECORD.--April 1997 to current year.

GAGE.--Data collection platform. Datum of gage is 1,060 ft above sea level, from topographic map.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREME FOR CURRENT YEAR.--Maximum discharge, 14,800 ft^3/s, from rating curve extended above 6,710 ft^3/s, gage height 12.62 ft; minimum, 0.24 ft^3/s, Sept. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	2.1	8.6	283	1120	696	169	574	16	381	38	8.1
2	6.5	1.9	8.1	245	931	480	201	395	16	569	30	7.0
3	8.2	1.9	7.7	648	627	482	178	294	18	862	24	5.9
4	7.0	1.8	7.5	e572	470	516	165	231	28	403	19	5.1
5	6.1	1.7	7.5	e413	360	435	150	276	31	313	16	4.5
6	5.4	1.7	7.4	e325	302	445	139	3810	28	378	14	3.8
7	5.5	1.8	7.9	e250	286	471	131	1600	23	208	12	3.2
8	24	2.0	10	287	347	378	130	751	20	135	11	2.6
9	61	2.2	73	3060	296	634	188	479	16	98	10	2.4
10	36	2.7	87	1460	327	807	182	339	13	92	9.2	2.1
11	21	4.1	57	720	303	580	161	255	11	241	8.3	1.8
12	15	3.8	54	505	309	442	151	198	10	1870	7.6	1.5
13	12	4.3	6220	388	399	396	134	217	8.9	1250	7.1	1.3
14	10	7.1	1330	493	346	1460	123	203	8.9	721	6.5	1.2
15	8.3	9.3	523	1480	306	1650	196	174	9.5	485	5.8	1.1
16	7.2	8.7	321	839	271	937	316	133	9.0	298	5.1	.96
17	6.1	7.8	235	555	271	640	270	108	9.0	202	4.6	.83
18	5.4	7.3	186	1540	300	e480	226	94	8.9	164	4.0	.73
19	5.0	7.0	153	1150	266	e360	195	90	8.1	136	3.6	.62
20	4.5	7.0	148	675	234	e280	183	80	7.4	109	3.4	.53
21	4.0	6.6	139	492	206	e270	171	65	6.6	107	3.2	.57
22	3.3	6.3	139	387	182	e280	149	69	6.0	94	2.7	.59
23	2.9	6.1	153	6520	165	242	130	56	5.2	72	2.5	.47
24	2.6	6.0	e295	2860	157	226	117	53	6.1	151	2.3	.37
25	2.4	6.0	347	1040	151	210	107	50	195	718	12	.31
26	2.5	6.3	292	692	144	187	98	48	179	289	52	.28
27	2.3	6.9	312	523	139	166	98	38	275	167	42	.27
28	2.3	6.8	456	412	612	151	117	31	660	113	25	.26
29	2.3	6.9	681	341	---	141	1050	26	2250	83	16	.31
30	2.3	7.9	490	300	---	133	922	22	1100	63	12	.31
31	2.2	---	362	357	---	126	---	18	---	49	9.8	---
TOTAL	293.2	152.0	13117.7	29812	9827	14701	6547	10777	4982.6	10821	418.7	59.01
MEAN	9.46	5.07	423	962	351	474	218	348	166	349	13.5	1.97
MAX	61	9.3	6220	6520	1120	1650	1050	3810	2250	1870	52	8.1
MIN	2.2	1.7	7.4	245	139	126	98	18	5.2	49	2.3	.26
CFSM	.06	.03	2.49	5.66	2.06	2.79	1.28	2.04	.98	2.05	.08	.01
IN.	.06	.03	2.87	6.52	2.15	3.22	1.43	2.36	1.09	2.37	.09	.01

e Estimated

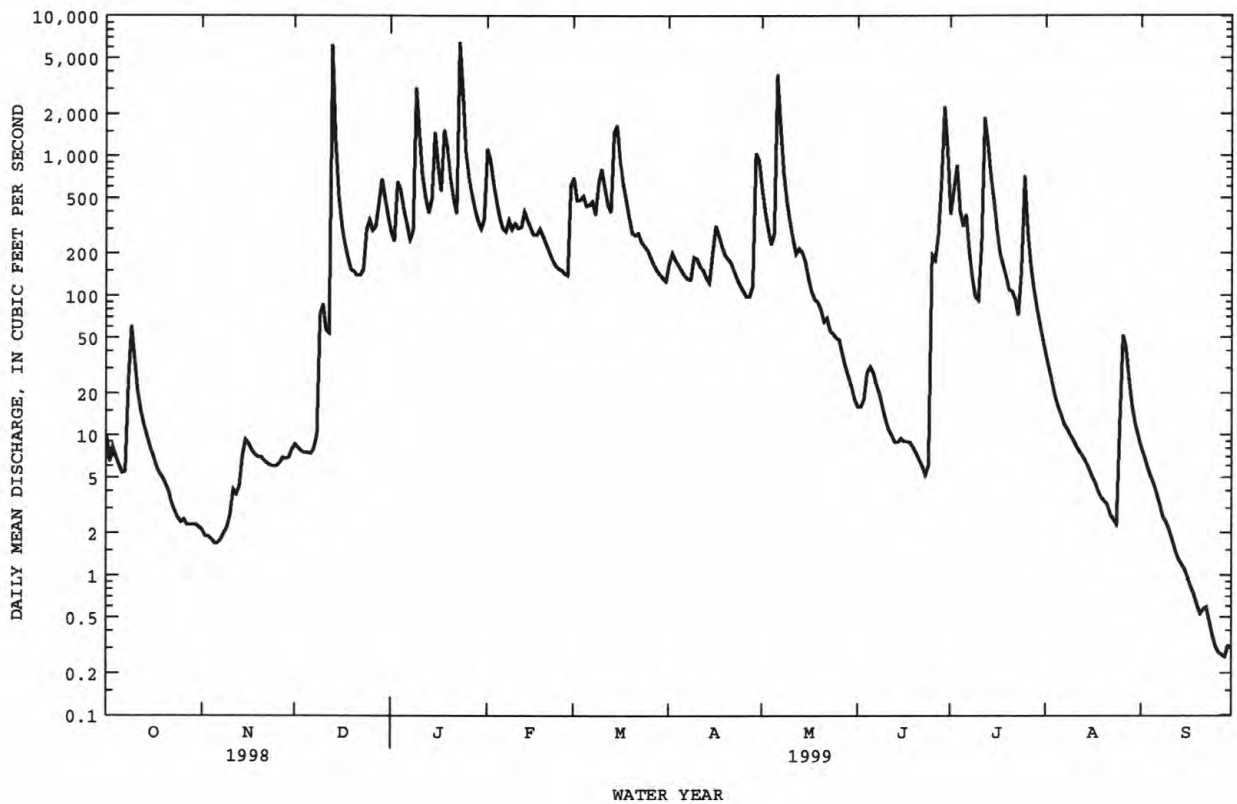
03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.78	20.8	277	955	486	495	519	428	446	164	40.7	2.75
MAX	9.46	36.6	423	962	621	516	1118	635	782	349	104	4.63
(WY)	1999	1998	1999	1999	1998	1998	1998	1998	1997	1999	1998	1998
MIN	4.10	5.07	130	949	351	474	218	302	166	52.7	4.65	1.66
(WY)	1998	1999	1998	1998	1999	1999	1999	1997	1999	1998	1997	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	146270.37		101508.21			
ANNUAL MEAN	401		278		328	
HIGHEST ANNUAL MEAN					378	1998
LOWEST ANNUAL MEAN					278	1999
HIGHEST DAILY MEAN	8850	Jan 7	6520	Jan 23	8850	Jan 7 1998
LOWEST DAILY MEAN	.85	Sep 28	.26	Sep 28	.26	Sep 28 1999
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 22	.30	Sep 24	.30	Sep 24 1999
INSTANTANEOUS PEAK FLOW			14800	Jan 23	a27300	Jan 7 1998
INSTANTANEOUS PEAK STAGE			12.62	Jan 23	14.24	Jan 7 1998
INSTANTANEOUS LOW FLOW			b.24	Sep 28	b.24	Sep 28 1999
ANNUAL RUNOFF (CFSM)	2.36		1.64		1.93	
ANNUAL RUNOFF (INCHES)	32.01		22.21		26.22	
10 PERCENT EXCEEDS	880		643		691	
50 PERCENT EXCEEDS	146		107		100	
90 PERCENT EXCEEDS	3.8		2.4		2.4	

a From rating curve extended above 6,710 ft^3/s.
b Also occurred Sept. 29.



03539800 OBED RIVER NEAR LANCING, TN

LOCATION.--Lat 36°04'53", long 84°40'15", Morgan County, Hydrologic Unit 06010208, on left bank at Alley Ford, 2.9 mi southwest of Lancing, 3.0 mi downstream from Clear Creek, and at mile 1.5.

DRAINAGE AREA.--518 mi^2.

PERIOD OF RECORD.--October 1956 to September 1968, March 1973 to December 1987, March 1999 to September 1999. Prior to May 1957 monthly discharge only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 891.91 ft above sea level.

REMAKRS.--Records good except for estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on Mar. 23, 1929, reached a stage of 33.9 ft, 35 ft downstream from gage, from high water marks by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 6	1245	*24,900	*15.25	Jul 12	1430	14,500	11.76
Jun 29	1730	13,800	11.46				

Minimum discharge, 2.2 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	3290	598	2640	65	1950	177	17
2	---	---	---	---	---	2170	705	1780	61	3040	131	14
3	---	---	---	---	---	2090	605	1310	63	4730	100	13
4	---	---	---	---	---	2340	551	996	79	2500	86	11
5	---	---	---	---	---	1920	495	1020	103	1490	78	9.4
6	---	---	---	---	---	1790	468	14100	85	1360	e66	8.3
7	---	---	---	---	---	1830	460	7770	68	890	e56	7.4
8	---	---	---	---	---	e1650	434	3480	60	602	e50	6.5
9	---	---	---	---	---	e2000	550	2070	55	464	e43	5.8
10	---	---	---	---	---	2800	554	1440	50	543	e39	5.1
11	---	---	---	---	---	2130	472	1080	47	2180	e35	4.6
12	---	---	---	---	---	e1800	463	806	e44	9600	e30	4.1
13	---	---	---	---	---	e1650	406	966	e42	7090	e28	3.7
14	---	---	---	---	---	4880	365	1450	e40	3420	e25	3.5
15	---	---	---	---	---	5710	568	1170	e37	2170	e22	3.3
16	---	---	---	---	---	3680	1170	770	e35	1400	e20	3.2
17	---	---	---	---	---	2530	971	575	e34	937	e19	3.0
18	---	---	---	---	---	1930	776	476	e33	857	e17	2.7
19	---	---	---	---	---	e1600	665	540	e32	782	e15	2.6
20	---	---	---	---	---	e1450	667	467	e30	682	e11	2.5
21	---	---	---	---	---	e1400	815	365	e28	1080	e10	2.7
22	---	---	---	---	---	e1200	658	307	e27	1000	e10	2.7
23	---	---	---	---	---	966	550	268	e26	618	e9.0	2.7
24	---	---	---	---	---	881	485	269	e25	719	e9.0	2.7
25	---	---	---	---	---	821	441	344	e230	3220	e10	2.5
26	---	---	---	---	---	714	390	286	538	1490	e105	2.3
27	---	---	---	---	---	628	386	208	508	841	124	2.4
28	---	---	---	---	---	563	461	155	1650	550	54	2.6
29	---	---	---	---	---	510	5020	115	7070	391	38	3.6
30	---	---	---	---	---	472	4420	91	5180	297	28	3.6
31	---	---	---	---	---	441	---	76	---	232	21	---
TOTAL	---	---	---	---	---	57836	25569	47390	16345	57125	1466.0	158.5
MEAN	---	---	---	---	---	1866	852	1529	545	1843	47.3	5.28
MAX	---	---	---	---	---	5710	5020	14100	7070	9600	177	17
MIN	---	---	---	---	---	441	365	76	25	232	9.0	2.3
CFSM	---	---	---	---	---	3.60	1.65	2.95	1.05	3.56	.09	.01
IN.	---	---	---	---	---	4.15	1.84	3.40	1.17	4.10	.11	.01

e Estimated

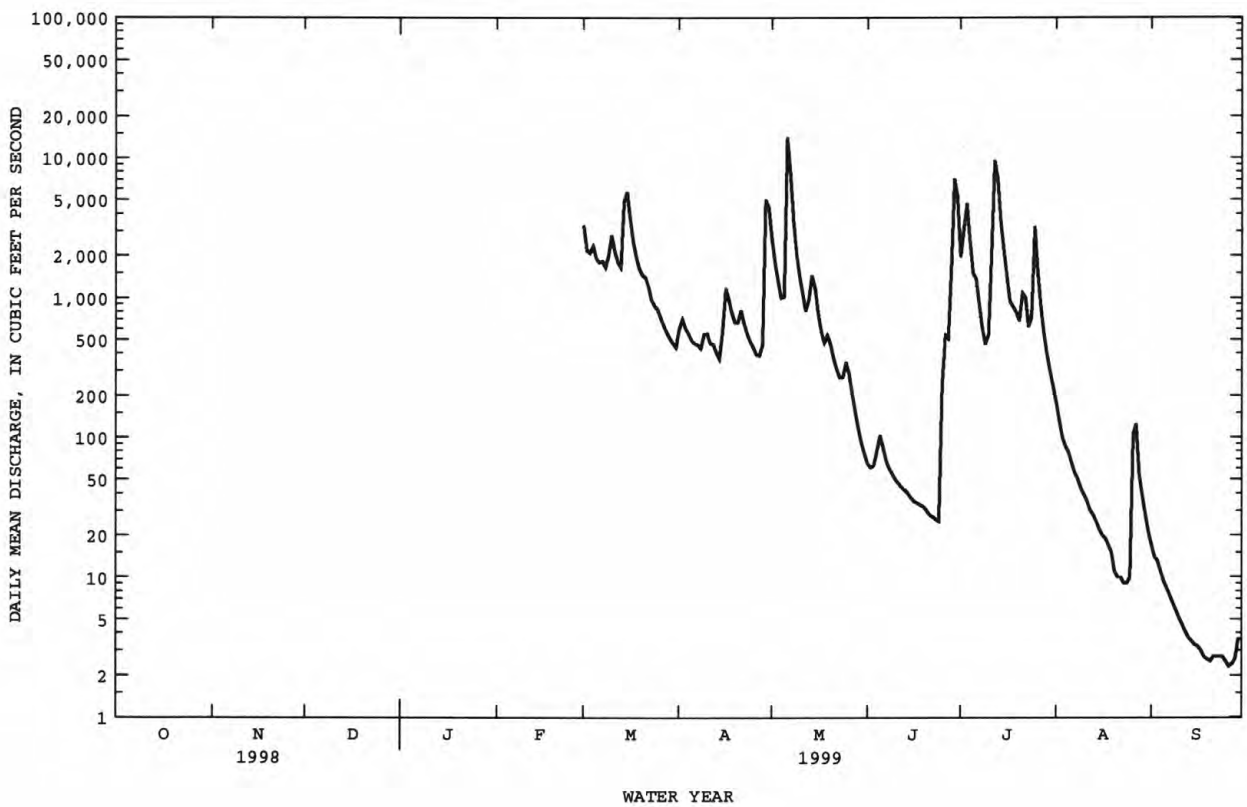
03539800 OBED RIVER NEAR LANCING, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	304	1052	1538	1781	1716	2320	1531	1135	403	430	153	169
MAX	1552	3829	3149	4780	3611	6220	3522	4066	1475	2572	587	856
(WY)	1976	1958	1968	1974	1962	1975	1977	1984	1961	1979	1985	1982
MIN	1.58	4.98	43.5	69.5	354	682	261	115	70.7	11.3	7.13	1.43
(WY)	1981	1964	1964	1981	1968	1985	1986	1962	1958	1980	1980	1968

SUMMARY STATISTICS	FOR 1999 WATER YEAR		WATER YEARS 1957 - 1999	
ANNUAL MEAN			1030	
HIGHEST ANNUAL MEAN			1553	1975
LOWEST ANNUAL MEAN			484	1981
HIGHEST DAILY MEAN	14100	May 6	45000	Apr 4 1977
LOWEST DAILY MEAN	2.3	Sep 26	.50	Oct 30 1963
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 22	.61	Oct 25 1963
INSTANTANEOUS PEAK FLOW	24900	May 6	a105000	May 27 1973
INSTANTANEOUS PEAK STAGE	15.25	May 6	b29.51	May 27 1973
INSTANTANEOUS LOW FLOW	2.2	Sep 27	.40	Oct 31 1963
ANNUAL RUNOFF (CFSM)			1.99	
ANNUAL RUNOFF (INCHES)			27.01	
10 PERCENT EXCEEDS	2420		2410	
50 PERCENT EXCEEDS	450		402	
90 PERCENT EXCEEDS	5.4		19	

a From rating curve extended above 33,000 ft^3/s on basis of slope conveyance study at gage height, 22.40 ft and slope-area measurement of peak flow.
b From dross line in gage well, 30.5 ft, from flood marks.



03540500 EMORY RIVER AT OAKDALE, TN

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, Hydrologic Unit 06010208, on left bank, at Oakdale, 1,000 ft downstream from highway bridge, 1,100 ft downstream from Mud Lick Creek, and at mile 18.3.

DRAINAGE AREA.--764 mi^2.

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emery River at Harriman and October 1929 to September 1934 as Emery River at Oakdale.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

GAGE.--Data collection platform and data logger. Datum of gage is 761.38 ft above sea level. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi downstream at datum 43.60 ft lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1200	30,900	20.08	May 6	1400	35,700	21.22
Jan 9	1430	22,700	17.69	Jun 29	1830	21,700	17.36
Jan 23	1630	*42,200	*22.63	Jul 12	1430	35,200	21.11

Minimum discharge, 4.9 ft^3/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	8.8	32	1250	4930	4930	781	3390	140	2920	229	41
2	74	8.3	31	1040	5160	3070	977	2250	126	3370	177	33
3	48	8.8	30	2300	3470	3030	862	1640	156	6590	137	27
4	39	8.9	28	2670	2540	3500	806	1270	151	3430	109	23
5	30	8.4	27	1830	1940	2810	745	1220	167	1960	93	20
6	24	7.9	26	1400	1600	2500	694	19200	185	1610	80	16
7	20	8.2	28	1180	1460	2450	684	11100	150	1210	71	14
8	21	9.6	45	1170	1670	2030	659	4920	118	859	64	12
9	339	10	80	12700	1500	2410	814	2790	98	650	62	11
10	188	12	355	8490	1670	3680	914	1890	82	677	54	10
11	119	20	256	3940	1740	2900	817	1410	70	2570	49	8.7
12	84	25	210	2550	1640	2230	775	1080	63	20100	44	8.0
13	67	20	15300	1920	1960	1910	698	1040	58	12000	39	7.4
14	54	46	6390	2050	1750	6120	642	1970	53	4940	35	7.2
15	45	44	2350	6640	1540	7680	879	1540	64	2970	30	6.7
16	37	43	1440	4460	1390	5090	1680	1090	62	1900	28	6.1
17	31	42	1070	2820	1400	3450	1490	819	57	1320	26	5.5
18	27	36	853	5630	1730	2570	1240	743	62	1100	22	5.1
19	24	33	712	6270	1660	1980	1070	1250	60	1030	18	4.9
20	21	103	660	3630	1450	1610	975	900	52	927	16	5.2
21	17	108	594	2540	1250	1580	1100	676	44	1140	14	5.9
22	15	102	565	1960	1090	1530	927	549	37	1250	13	6.5
23	13	94	657	19500	960	1310	789	555	33	861	13	6.3
24	11	70	1510	16200	891	1230	693	536	37	695	13	5.9
25	10	53	2250	6200	834	1160	628	555	1050	3330	19	5.7
26	9.3	45	1620	3580	793	1040	567	504	1060	1810	24	5.6
27	9.0	38	1460	2530	758	932	552	384	1260	1090	123	5.5
28	8.7	34	1650	1950	4550	839	609	297	3580	735	107	5.5
29	8.9	31	2640	1590	---	769	4910	239	12400	528	78	7.4
30	9.1	29	2150	1390	---	716	5530	197	8300	382	63	9.4
31	9.0	---	1640	1510	---	671	---	164	---	291	51	---
TOTAL	1435.0	1106.9	46659	132890	53326	77727	34507	66168	29775	84245	1901	335.5
MEAN	46.3	36.9	1505	4287	1904	2507	1150	2134	992	2718	61.3	11.2
MAX	339	108	15300	19500	5160	7680	5530	19200	12400	20100	229	41
MIN	8.7	7.9	26	1040	758	671	552	164	33	291	13	4.9
MED	24	32	660	2540	1620	2230	810	1080	90	1250	49	7.3
CFSM	.06	.05	1.97	5.61	2.49	3.28	1.51	2.79	1.30	3.56	.08	.01
IN.	.07	.05	2.27	6.47	2.60	3.78	1.68	3.22	1.45	4.10	.09	.02

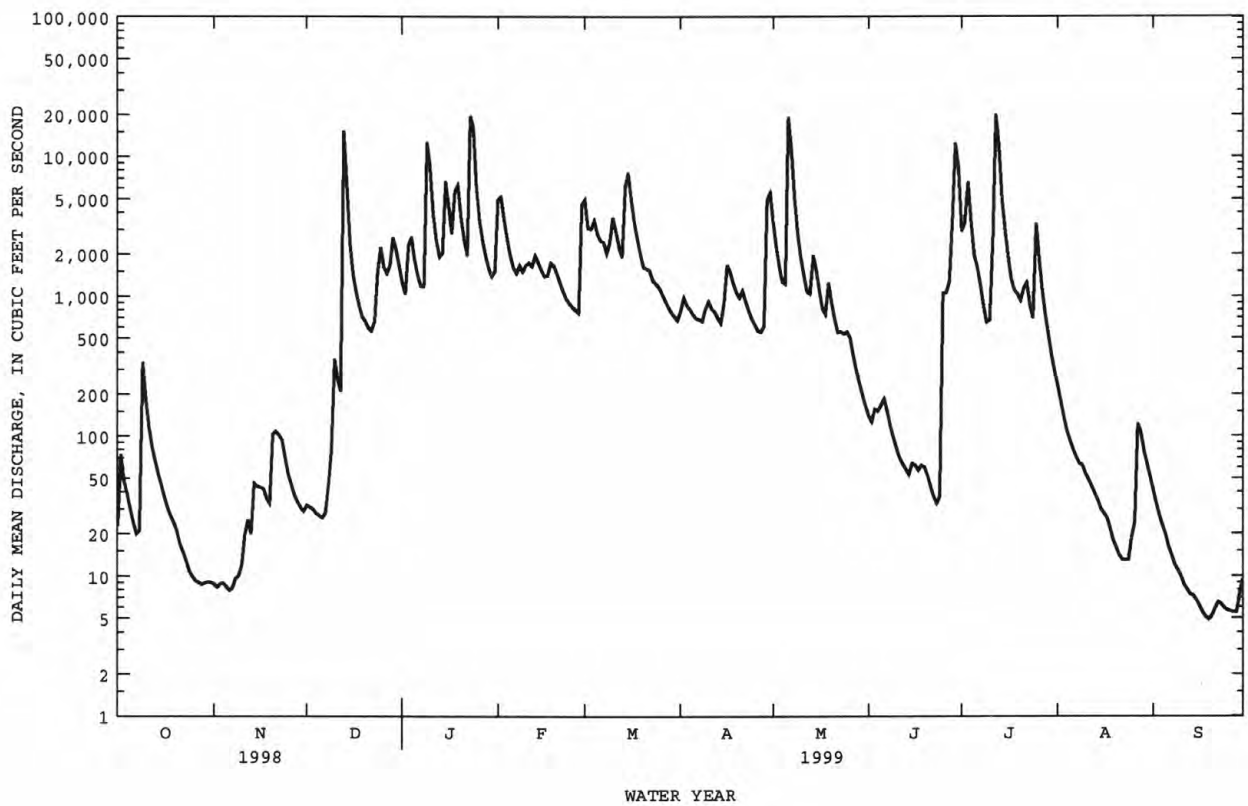
03540500 EMORY RIVER AT OAKDALE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	289	1088	2252	2856	2991	3181	2168	1345	734	510	282	233
MAX	1971	6214	7938	7941	8136	8962	5808	5804	6731	3694	2107	1562
(WY)	1976	1958	1991	1937	1939	1975	1977	1973	1989	1967	1942	1944
MIN	.57	.37	42.1	97.8	422	946	374	140	16.3	5.55	7.70	.91
(WY)	1954	1954	1940	1981	1941	1985	1986	1962	1936	1944	1930	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1927 - 1999	
ANNUAL TOTAL	672943.5		530075.4			
ANNUAL MEAN	1844		1452		1487	
HIGHEST ANNUAL MEAN					2653	1973
LOWEST ANNUAL MEAN					670	1981
HIGHEST DAILY MEAN	31500	Jan 8	20100	Jul 12	103000	Dec 23 1990
LOWEST DAILY MEAN	4.4	Sep 27	4.9	Sep 19	a.00	Aug 13 1944
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 24	5.6	Sep 16	.00	Nov 7 1953
INSTANTANEOUS PEAK FLOW			42200	Jan 23	b195000	Mar 23 1929
INSTANTANEOUS PEAK STAGE			22.63	Jan 23	c41.20	Mar 23 1929
INSTANTANEOUS LOW FLOW			4.9	Sep 19	a.00	Aug 13 1944
ANNUAL RUNOFF (CFSM)	2.41		1.90		1.95	
ANNUAL RUNOFF (INCHES)	32.77		25.81		26.45	
10 PERCENT EXCEEDS	4840		3460		3440	
50 PERCENT EXCEEDS	652		671		563	
90 PERCENT EXCEEDS	11		10		21	

a Also occurred Aug. 14, 15, 1944; Nov. 7, 8, 9, 1952.
b From rating curve extended above 85,000 ft^3/s confirmed by slope-area measurements of May 28, 1973, flood at gage height 38.68 ft.
c From floodmarks and flood profile, present site and datum, 61.1 ft site and datum then in use.



03566000 HIWASSEE RIVER AT CHARLESTON, TN

LOCATION.--Lat 35°17'16", long 84°45'07", until April 9, 1996, lat 35°17'17", long 84°45'10", until Nov. 10, 1998, lat 35°17'42", long 84°45'36" thereafter, Hydrologic Unit 06020002, on left bank 250 ft upstream from Norfolk Southern Railway bridge until April 9, 1996, at Norfolk Southern Railway bridge until Nov. 10, 1998, on right bank at dolphin at Bowater Southern Paper Company's barge facility thereafter, 0.3 mi downstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.2.

DRAINAGE AREA.--2,298 mi^2.

PERIOD OF RECORD.--November 1898 to April 1899, November 1899 to April 1903, October 1919 to January 1940, January 1963 to January 1977, September 1979 to December 1981 (vane lost), August 1987 to current year. Gage-height records collected at this station during the period December 1884 to December 1889 are contained in the United States War Department Stages of Ohio River and Principal Tributaries, 1858-89, Part 1, and during period January 1890 to December 1943 in reports of the U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1436: 1902, 1922(M), 1928, 1936(M).

GAGE.--Data collection platform and velocity recorder. Datum of gage is 665.56 ft above sea level. Prior to July 18, 1925, non-recording gages, and July 18, 1925 to September 6, 1926, water-stage recorder, at present site, at datum 1.50 ft higher. September 1926 to January 1940, January 1963 to January 1977, September 1979 to December 1981, August 1987 to April 1996, on left bank 250 ft upstream of present site, at same datum.

REMARKS.--Records good except for October, which are fair. Some diversions above gage for industrial and municipal water supplies. Flow regulated by seven reservoirs (see p. 221 and Water Resources Data for Georgia and North Carolina). Reverse flow has occurred for short periods each year since closure of Chickamauga Dam on Tennessee River in 1939. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1886, reached a stage of 34.0 ft, present datum, discharge about 70,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,800 ft^3/s, May 6; maximum gage height, 19.50 ft, May 6, 7; minimum daily, 1,170 ft^3/s, Nov. 8, minimum gage height, 10.41 ft, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3950	e2480	1500	e3440	11000	6520	2050	2480	2070	3740	4850	2890
2	e3910	e2920	1580	e1920	11200	6580	1790	2060	2180	3770	5280	2890
3	e3930	e2860	1600	e4130	8490	7160	1930	2170	2210	4430	4680	2680
4	e3920	e2350	1720	e4380	7250	9500	1970	2180	2260	4160	4300	2250
5	e3660	e2420	1520	e3640	6760	7970	1730	2150	1960	3680	4360	2130
6	e3580	e2370	1700	e3460	6150	6870	2430	9860	1480	4640	4530	2160
7	e3380	e1800	1600	e2760	5630	6190	1770	11400	1780	8210	4440	3240
8	e3530	e1170	1980	e2800	5530	5840	1790	6470	2810	5850	4560	3690
9	e4030	e1770	3050	e3080	5200	5820	1770	5960	3190	5580	4620	3740
10	e3260	e2260	3540	e3800	5860	5640	1910	3670	3150	4070	4350	2940
11	e4190	2930	3190	e4900	5570	5440	1820	2930	3310	6110	4550	2630
12	e3420	4080	2350	e3180	5440	5090	1590	2740	2850	7020	4500	2180
13	e3060	3690	2990	e3010	5640	4560	1600	2510	2410	6380	4570	3160
14	e3050	3110	4070	e4250	5350	6230	1610	2790	2370	5420	4730	3480
15	e3040	3090	4460	e11400	5110	6030	1840	1860	2660	5610	4760	3230
16	e3340	3410	4280	9400	3920	5690	1920	2120	2710	5150	4370	3480
17	e3030	4270	4010	7530	2650	4930	1580	1890	3330	5090	e3590	2760
18	e2820	4420	3960	6890	6070	3730	1630	1540	3660	5350	e3850	2370
19	e2950	3740	2690	6480	5930	4300	1370	2710	2400	4880	e3820	2580
20	e2750	3690	1750	5660	4670	2870	1580	1900	2460	5550	e3770	3130
21	e2570	2350	2270	5110	3270	2070	1330	2110	3130	5380	e2780	3000
22	e3450	1670	3170	4730	3930	2930	1300	1480	4590	5070	e3040	3140
23	e2900	1830	4370	8470	3720	2550	1350	1670	4660	4610	e2760	3170
24	e1950	2730	7300	12400	2850	2310	1390	2100	2880	4860	e2650	3170
25	e2110	2660	7350	8140	2550	2600	1440	1930	2900	5100	e2940	2870
26	e3180	2820	5790	6850	2290	2790	1500	1840	3530	4880	3580	2650
27	e2970	2160	4850	6370	1910	2090	2110	1890	3450	4810	3190	2210
28	e2920	1800	4620	5320	3810	2330	2900	1770	3300	4560	3000	2660
29	e2970	1870	4790	4960	---	1790	3090	1480	3300	4650	2450	2990
30	e3000	1600	4690	5500	---	1650	3110	1640	3730	4710	2760	2820
31	e2050	---	4610	6200	---	1800	---	1470	---	5130	2970	---
TOTAL	98870	80320	107350	170160	147750	141870	55200	90770	86720	158450	120600	86290
MEAN	3189	2677	3463	5489	5277	4576	1840	2928	2891	5111	3890	2876
MAX	4190	4420	7350	12400	11200	9500	3110	11400	4660	8210	5280	3740
MIN	1950	1170	1500	1920	1910	1650	1300	1470	1480	3680	2450	2130

e Estimated

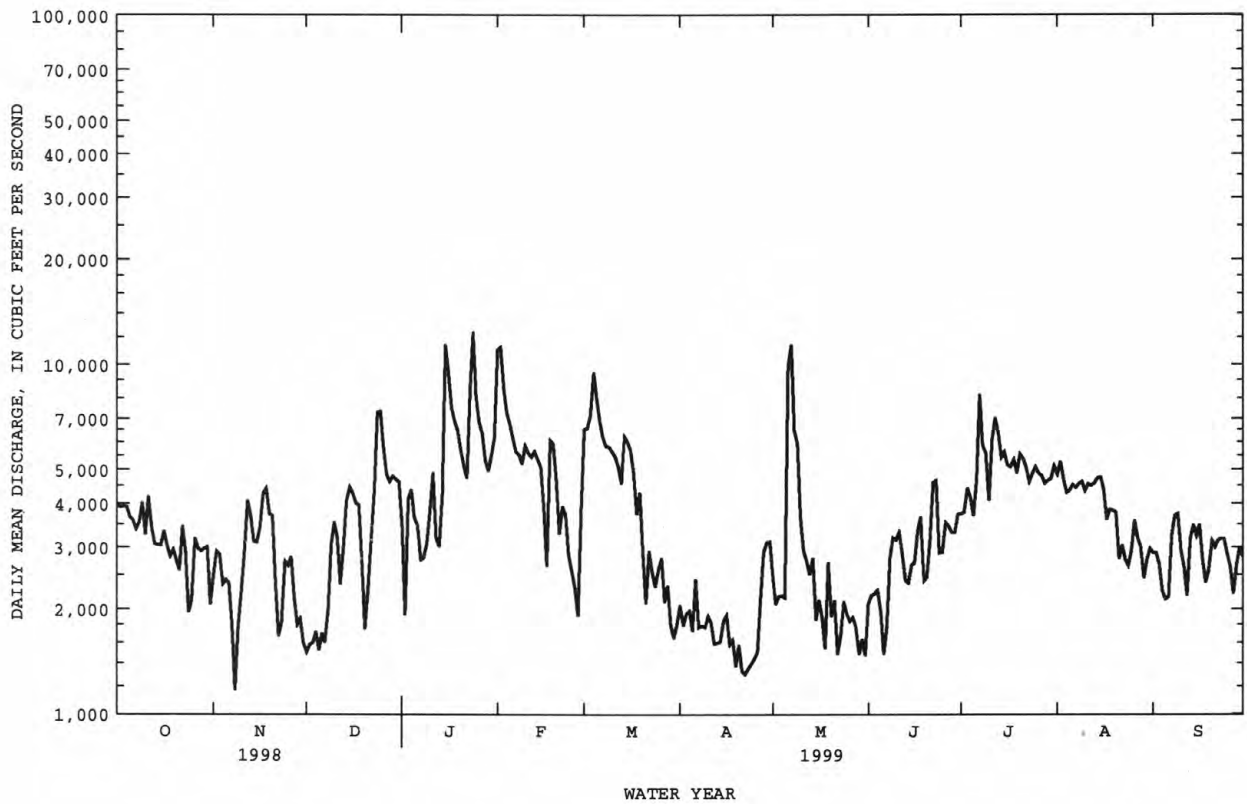
03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4000	4410	5575	6253	6655	6332	4546	3866	4029	3912	3905	3619
MAX	9332	8638	12980	13060	16270	13860	11950	7922	8897	6975	6201	5118
(WY)	1990	1968	1968	1974	1990	1990	1994	1973	1989	1967	1967	1967
MIN	1442	1681	2070	2601	2680	1866	1110	971	1395	1750	1810	1747
(WY)	1989	1982	1988	1981	1988	1988	1988	1988	1988	1988	1988	1987

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	1731700		1344350			
ANNUAL MEAN	4744		3683		4778	
HIGHEST ANNUAL MEAN					6891	1990
LOWEST ANNUAL MEAN					1940	1988
HIGHEST DAILY MEAN	33900	Apr 19	12400	Jan 24	54000	Mar 17 1973
LOWEST DAILY MEAN	1170	Nov 8	1170	Nov 8	524	May 24 1981
ANNUAL SEVEN-DAY MINIMUM	1600	Nov 30	1390	Apr 19	817	Oct 29 1988
INSTANTANEOUS PEAK FLOW			16800	May 6	57000	Mar 17 1973
INSTANTANEOUS PEAK STAGE			a19.50	May 6	29.42	Mar 28 1994
10 PERCENT EXCEEDS	7600		5990		7680	
50 PERCENT EXCEEDS	4050		3170		4130	
90 PERCENT EXCEEDS	2350		1770		2200	

a Also occurred May 7.



035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN

LOCATION.--Lat 35°26'55", long 84°39'23", McMinn County, Hydrologic Unit 06020002, on right bank at downstream end of culvert at county road, 1.5 mi west of Athens.

DRAINAGE AREA.--42.1 mi^2

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 775 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	1730	1,070	12.02	Jul 12	0315	1,050	11.96
May 6	1445	*1,240	*12.39				

Minimum discharge, 16 ft^3/s, Nov. 1, 6, 7, Dec. 4, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	17	18	40	481	140	77	88	48	48	42	26
2	20	18	18	48	268	125	67	77	48	52	42	26
3	19	18	18	75	201	302	64	70	47	46	40	26
4	19	18	18	52	169	215	61	65	44	41	39	25
5	20	18	18	48	147	168	60	81	43	39	38	25
6	19	18	17	46	133	153	64	845	42	38	37	24
7	19	17	18	44	126	133	60	337	41	41	36	24
8	28	18	74	49	117	122	59	249	40	39	35	24
9	21	18	61	178	109	139	58	171	39	37	35	25
10	20	21	31	95	141	124	54	146	48	100	35	24
11	19	26	28	76	109	113	53	129	42	161	34	24
12	19	20	45	68	103	103	51	157	38	862	34	23
13	19	19	142	60	96	150	50	123	39	274	33	23
14	19	22	54	104	87	247	50	114	39	162	32	24
15	19	25	41	150	83	222	56	103	39	133	31	23
16	19	21	38	97	81	179	50	92	38	116	31	22
17	19	20	35	83	102	158	47	86	38	103	31	22
18	18	19	33	190	118	141	46	89	36	93	30	21
19	18	19	32	125	102	127	46	85	34	84	29	22
20	18	19	30	102	93	117	46	73	34	78	29	22
21	18	18	30	89	85	130	44	68	33	91	28	28
22	18	18	39	80	81	112	43	64	33	89	28	24
23	18	18	39	598	79	103	43	69	33	71	29	23
24	18	18	173	367	80	100	41	81	62	63	33	22
25	18	18	73	194	78	92	40	66	100	61	41	22
26	18	19	55	152	72	87	44	65	44	58	35	21
27	18	18	48	131	85	81	93	60	55	54	29	22
28	18	18	53	114	205	77	93	55	51	51	28	22
29	18	18	54	100	---	74	158	53	96	49	27	25
30	18	18	48	104	---	70	108	53	57	47	27	24
31	17	---	44	194	---	72	---	49	---	44	27	---
TOTAL	589	572	1425	3853	3631	4176	1826	3863	1381	3225	1025	708
MEAN	19.0	19.1	46.0	124	130	135	60.9	125	46.0	104	33.1	23.6
MAX	28	26	173	598	481	302	158	845	100	862	42	28
MIN	17	17	17	40	72	70	40	49	33	37	27	21
CFSM	.45	.45	1.09	2.95	3.08	3.20	1.45	2.96	1.09	2.47	.79	.56
IN.	.52	.51	1.26	3.40	3.21	3.69	1.61	3.41	1.22	2.85	.91	.63

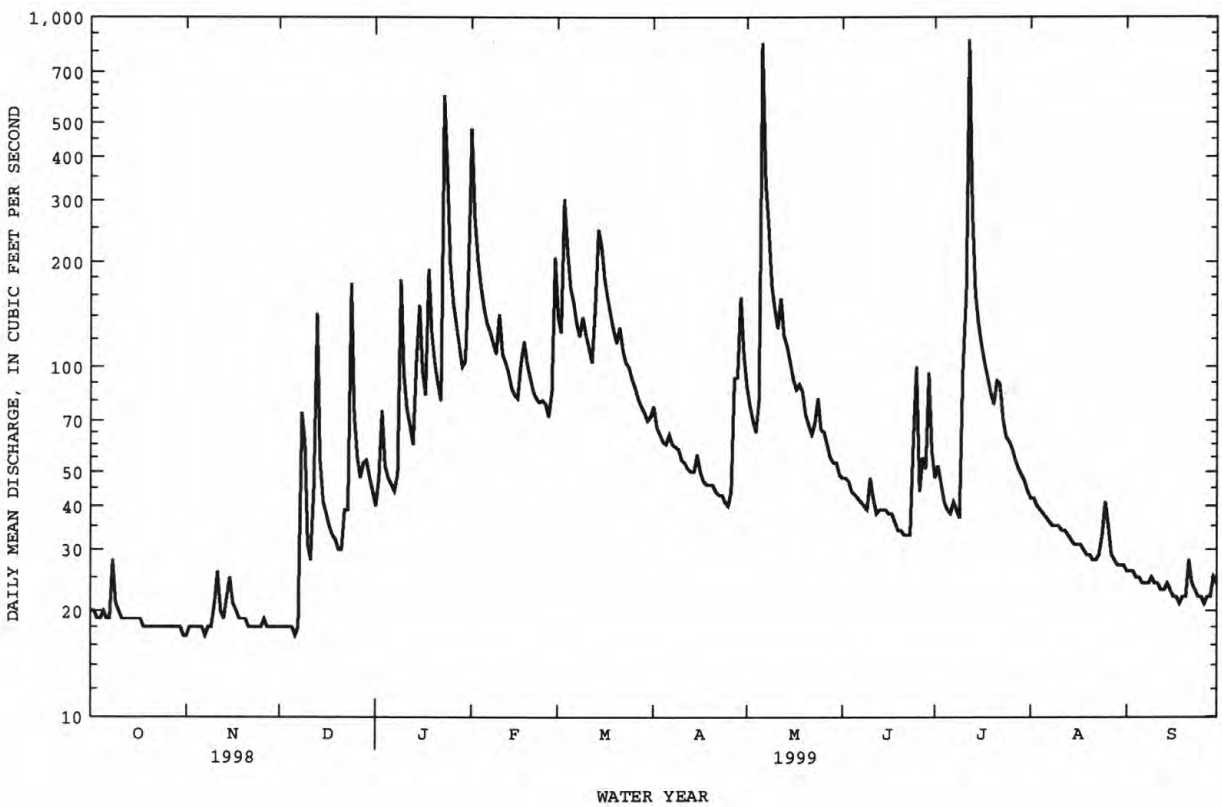
035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.0	53.4	71.7	149	154	188	152	96.4	88.8	65.6	40.4	32.1
MAX	59.5	113	139	225	258	297	381	125	191	113	80.7	41.5
(WY)	1996	1996	1997	1996	1994	1994	1994	1999	1997	1994	1994	1997
MIN	15.1	19.1	42.1	101	119	135	53.1	69.0	39.4	30.7	29.3	22.9
(WY)	1994	1999	1998	1998	1995	1999	1995	1994	1995	1995	1998	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL	31291		26274			
ANNUAL MEAN	85.7		72.0		93.7	
HIGHEST ANNUAL MEAN					125	1994
LOWEST ANNUAL MEAN					70.4	1995
HIGHEST DAILY MEAN	1500	Apr 19	862	Jul 12	2580	Apr 11 1994
LOWEST DAILY MEAN	17	Oct 31	17	Oct 31	13	Oct 28 1993
ANNUAL SEVEN-DAY MINIMUM	18	Oct 26	18	Oct 26	14	Nov 8 1993
INSTANTANEOUS PEAK FLOW			1240	May 6	5790	Apr 11 1994
INSTANTANEOUS PEAK STAGE			12.39	May 6	15.74	Apr 11 1994
INSTANTANEOUS LOW FLOW			a16	Nov 1	b12	Oct 28 1993
ANNUAL RUNOFF (CFSM)	2.04		1.71		2.23	
ANNUAL RUNOFF (INCHES)	27.65		23.22		30.24	
10 PERCENT EXCEEDS	161		141		171	
50 PERCENT EXCEEDS	50		47		61	
90 PERCENT EXCEEDS	18		18		24	

a Also occurred Nov. 6, 7, Dec. 4, 7.
b Also occurred Oct. 29, 1993.



03568000 TENNESSEE RIVER AT CHATTANOOGA, TN

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, Hydrologic Unit 06020001, 0.5 mi downstream from South Chickamauga Creek, 3.0 mi downstream from Chickamauga Dam, 3.5 mi upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6.

DRAINAGE AREA.--21,400 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1874 to current year. Monthly discharges only for some periods, published in WSP 1306. July 1930 to December 1935, published as "at Hales Bar, near Chattanooga." Gage-height records collected in this vicinity since 1874 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1306: 1916(M). WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft above sea level. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi upstream from Chattanooga to Hales Bar Dam 33 mi downstream at or within 0.2 ft of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi downstream from base gage at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1936 by many upstream reservoirs (see p. 219 and Water Resources Data for adjoining states).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft^3/s, Mar. 1, 1875, gage height, 53.8 ft, present datum, at Walnut Street, from rating curve extended above 250,000 ft^3/s; minimum daily, 1,200 ft^3/s, Nov. 1, 1953; minimum gage height, 0.0 ft, Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft, Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 91,400 ft^3/s, Jan. 24; maximum gage height, 21.14 ft, Jan. 24; minimum daily discharge, 7,790 ft^3/s, Apr. 26; minimum gage height, 11.06 ft, Apr. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30800	15800	18200	35700	59900	44800	12000	8390	18400	44200	31100	38200
2	33100	28300	16500	32700	51800	39700	8950	8280	16200	45300	32400	36000
3	33800	33100	16300	25500	48000	38200	13000	18400	15800	34200	35400	34900
4	29400	31000	15400	30600	46000	47000	12400	20100	20200	27100	38600	17300
5	33500	32900	14300	44900	49600	47500	11300	21700	10300	24700	42000	10700
6	28200	34200	15800	28100	58300	49000	12800	37000	8850	35400	40500	10600
7	27700	28600	17300	21200	56700	49000	12800	72900	13100	36000	32000	31600
8	26200	21500	20600	21000	49300	53700	12900	68000	24900	37800	29800	34600
9	22200	22500	26500	34600	35400	61700	14600	59400	29300	39600	34800	31000
10	19900	24900	35100	44100	39500	56700	9750	44900	30500	26000	36300	19700
11	14300	25500	30100	48000	36100	48600	10500	33200	27400	20300	37000	16400
12	29500	31000	25600	41600	32000	45200	9230	27800	17800	48600	35000	14800
13	24900	29700	37300	28600	34500	41600	10400	28700	13800	76400	36600	24500
14	24300	20200	40700	43600	34700	49900	8950	24000	11300	75900	26100	27700
15	26300	18900	57800	56000	36800	50000	9810	13300	17700	72000	21900	21400
16	28100	25100	54500	60400	28800	37000	11400	12800	21900	58400	27800	30200
17	20600	25800	48100	58600	26400	35900	10400	18700	21800	48500	33900	16000
18	21700	24700	47000	58400	21000	38400	11100	19600	22000	44800	33700	13300
19	26700	25900	29200	61800	31000	42700	10900	17600	14100	44800	33400	13900
20	26300	24600	24200	67300	23400	28600	8650	18800	14800	43100	32800	26900
21	26200	17800	32100	66800	24300	25600	9830	20800	12700	44800	23800	26000
22	29200	19600	34100	66400	39100	28300	9830	18000	23300	44300	22200	19700
23	30300	25200	26700	73400	42600	34400	10600	18400	23600	44200	28600	27700
24	15500	26600	26200	89800	29300	31700	9070	19900	24300	30100	28000	31800
25	13200	28200	41200	77600	19600	31600	9090	20900	23100	35300	28500	21200
26	22500	19000	45100	72900	14600	40000	7790	20600	16900	47800	26700	19100
27	23900	19300	33600	71300	12300	21300	7990	17600	13700	43900	30600	31500
28	22800	13000	40800	70100	20800	15100	9060	17200	22200	37400	21200	34500
29	24100	13500	40500	69000	---	13600	9160	11600	33300	43900	23400	29100
30	17800	17100	43800	64200	---	12800	10100	10800	48200	48300	40000	21300
31	17300	---	36600	59200	---	13100	---	10500	---	33900	40100	---
TOTAL	770300	723500	991200	1623400	1001800	1172700	314360	759870	611450	1337000	984200	731600
MEAN	24850	24120	31970	52370	35780	37830	10480	24510	20380	43130	31750	24390
MAX	33800	34200	57800	89800	59900	61700	14600	72900	48200	76400	42000	38200
MIN	13200	13000	14300	21000	12300	12800	7790	8280	8850	20300	21200	10600

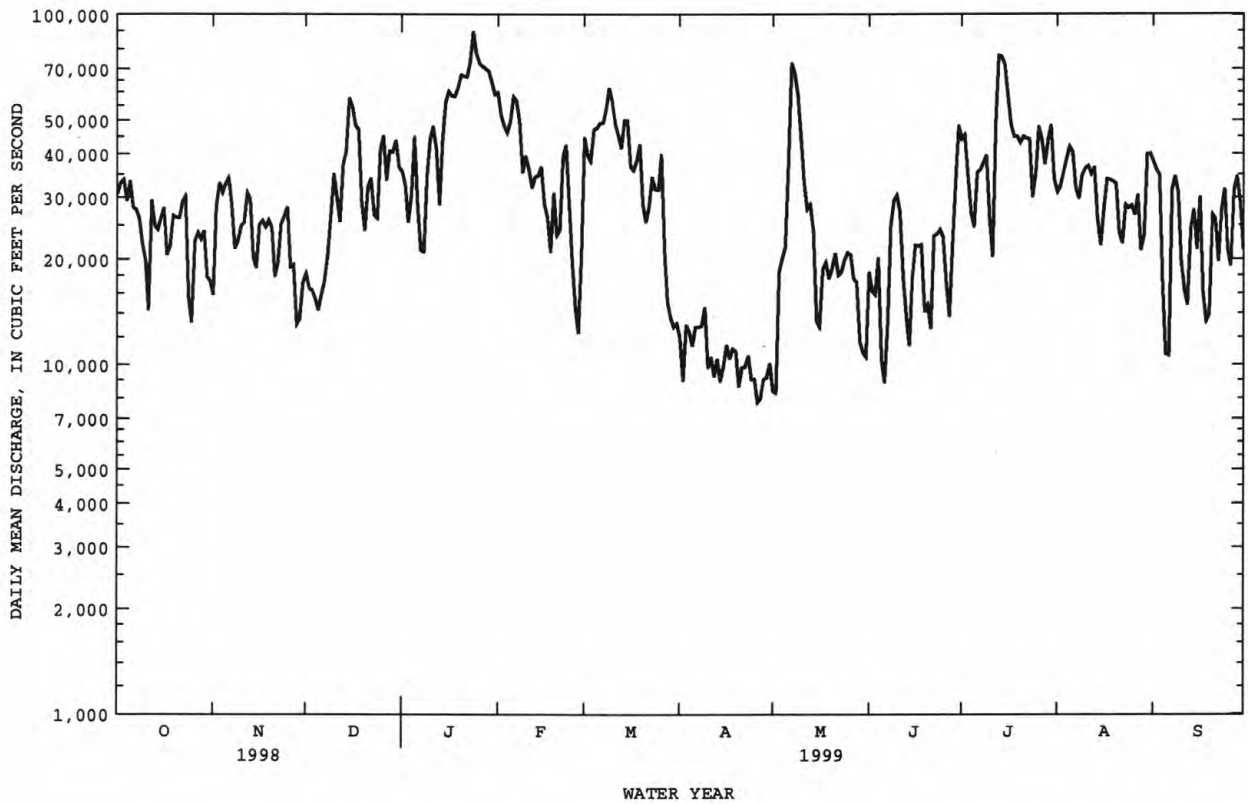
03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29370	34410	44430	49600	50850	47630	28980	28920	30070	30050	31450	28740
MAX	63270	68330	94270	127900	132800	98850	107800	87890	65280	49670	41590	42140
(WY)	1990	1958	1973	1974	1957	1963	1994	1984	1989	1989	1994	1967
MIN	16690	16340	13660	17370	22570	14380	7503	7805	11310	11230	12740	14090
(WY)	1984	1988	1988	1986	1986	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1954 - 1999	
ANNUAL TOTAL	15454900		11021380			
ANNUAL MEAN	42340		30200		36160	
HIGHEST ANNUAL MEAN					53260	1973
LOWEST ANNUAL MEAN					15070	1988
HIGHEST DAILY MEAN	189000	Apr 20	89800	Jan 24	251000	Mar 18 1973
LOWEST DAILY MEAN	13000	Apr 6	7790	Apr 26	1200	Nov 1 1953
ANNUAL SEVEN-DAY MINIMUM	15700	Nov 28	8680	Apr 26	6790	May 29 1986
INSTANTANEOUS PEAK FLOW			91400	Jan 24	267000	Mar 18 1973
INSTANTANEOUS PEAK STAGE			21.14	Jan 24	38.98	Mar 18 1973
10 PERCENT EXCEEDS	72100		49400		58700	
50 PERCENT EXCEEDS	34300		27800		31600	
90 PERCENT EXCEEDS	20700		12600		16200	

* Regulated period only.



03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
FEB											
08...	1300	169	7.8	11.5	750	9.6	88	100	82	61	5
APR											
05...	1315	167	7.8	15.0	745	9.2	93	<1	K3	68	9
JUN											
03...	1145	162	7.5	24.5	747	5.4	66	20	K9	63	8
AUG											
09...	1515	146	7.1	29.5	741	6.0	81	K3	K2	59	--
SEP											
29...	1130	201	7.8	24.5	743	5.5	68	K21	K11	74	10

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
FEB											
08...	17	4.3	6.2	18	.3	1.4	69	56	1.7	13	6.4
APR											
05...	19	4.7	5.2	14	.3	1.3	72	59	--	12	5.4
JUN											
03...	18	4.7	5.4	15	.3	1.4	67	55	--	11	6.8
AUG											
09...	17	4.2	5.4	16	.3	1.4	79	65	--	9.6	5.7
SEP											
29...	21	5.6	9.0	20	.5	1.8	79	65	--	15	8.8

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
FEB											
08...	<.10	4.9	96	90	.13	--	<.010	.522	.048	.12	.22
APR											
05...	<.10	4.6	98	89	.13	--	<.010	.360	.034	.15	.17
JUN											
03...	<.10	3.2	93	84	.13	.119	.011	.130	.121	.26	.25
AUG											
09...	<.10	5.3	84	88	.11	--	<.010	.114	.037	.17	.25
SEP											
29...	<.10	5.0	109	105	.15	.106	.010	.116	.052	.20	.15

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB										
08...	.74	.028	.019	.016	E5.3	15	1.8	.20	4	93
APR										
05...	.53	.020	.015	.010	11	18	1.9	<.20	3	90
JUN										
03...	.38	.023	.016	.040	14	10	1.9	.20	7	44
AUG										
09...	.37	.023	.009	<.010	<10	<3.0	1.9	.30	6	93
SEP										
29...	.27	.028	.023	.024	<10	E2.1	1.8	.20	5	95

K--Results based on non-ideal colony count.
E--Estimated

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035825882 CANE CREEK NEAR HOWELL, TN

LOCATION.--Lat 35°13'22", long 86°37'23", Lincoln County, Hydrologic Unit 06030003, on upstream left bank at bridge on Brown Teal, Sawyer Road, 1 mi southeast of Howell.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to September 1999.

GAGE.--Data logger. Datum of gage is 680.00 ft above sea level, from topographic map.

REMARKS.--Records good, except for estimated daily discharges, Jan. 14 to Feb. 5, which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0245	3,600	14.92	Feb 28	0330	4,020	15.67
Jan 9	0815	3,740	15.20	Mar 13	1500	2,920	13.24
Jan 23	Unknown	*16,200	*20.19	May 6	1144	5,210	16.97

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	1.4	1.6	96	e395	349	49	145	14	5.7	.53	.00
2	.77	1.4	1.5	183	e300	216	45	96	14	5.2	.43	.00
3	1.0	1.4	1.5	534	e225	841	44	72	11	7.1	.34	.00
4	1.2	1.4	1.5	197	e170	331	41	58	8.7	4.9	.26	.00
5	5.0	1.4	1.7	126	e120	218	38	186	9.0	3.4	.21	.00
6	2.6	1.4	2.2	99	103	250	38	3170	9.0	2.7	.17	.00
7	2.6	1.4	5.1	83	114	187	34	468	7.1	2.3	.16	.00
8	53	1.6	42	236	110	147	33	218	5.6	1.9	.14	.00
9	16	1.7	48	1970	185	288	32	139	4.6	1.7	.12	.00
10	7.1	2.5	19	413	408	221	31	103	5.2	2.3	.11	.00
11	4.0	2.6	43	218	212	166	29	80	4.1	7.1	.09	.00
12	2.9	4.0	976	153	189	132	26	65	4.5	49	.08	.00
13	2.2	2.8	1670	136	172	1210	24	63	3.7	29	.07	.00
14	1.7	2.4	274	e1500	132	1480	26	69	72	33	.07	.00
15	1.4	2.4	140	e508	112	783	37	50	56	18	.06	.00
16	1.2	2.3	93	e372	97	367	36	42	23	10	.06	.00
17	1.0	2.4	70	e292	97	237	28	36	14	6.7	.06	.00
18	.91	2.3	55	e1050	89	170	26	32	9.6	4.5	.05	.00
19	.85	2.1	53	e595	79	129	24	32	7.2	3.3	.05	.00
20	.87	2.5	55	e350	68	111	24	27	5.5	4.7	.05	.00
21	.96	2.6	49	e250	60	121	23	23	4.5	11	.04	.00
22	1.3	3.0	54	e5150	54	97	21	22	3.7	7.0	.03	.00
23	1.6	2.8	67	e6050	51	84	20	20	4.1	3.5	.03	.00
24	1.4	2.4	322	e1810	50	77	20	18	11	2.3	.02	.00
25	1.4	2.2	190	e901	46	67	18	16	12	1.8	.02	.00
26	1.3	2.0	182	e382	43	60	29	16	11	1.9	.01	.00
27	1.3	1.8	274	e140	580	55	260	15	12	1.3	.01	.00
28	1.5	1.7	917	e110	1620	52	168	12	16	1.0	.01	.00
29	1.6	1.6	434	e181	---	51	441	11	11	.75	.00	.00
30	1.5	1.6	205	e360	---	47	288	9.6	7.9	.78	.00	.00
31	1.3	---	132	e570	---	47	---	11	---	.66	.00	---
MEAN	3.95	2.10	206	807	210	277	65.1	172	12.7	7.56	.11	.000
MAX	53	4.0	1670	6050	1620	1480	441	3170	72	49	.53	.00
MIN	.77	1.4	1.5	83	43	47	18	9.6	3.7	.66	.00	.00
CFSM	.05	.03	2.61	10.2	2.67	3.52	.83	2.18	.16	.10	.00	.00
IN.	.06	.03	3.01	11.81	2.78	4.06	.92	2.51	.18	.11	.00	.00

e Estimated

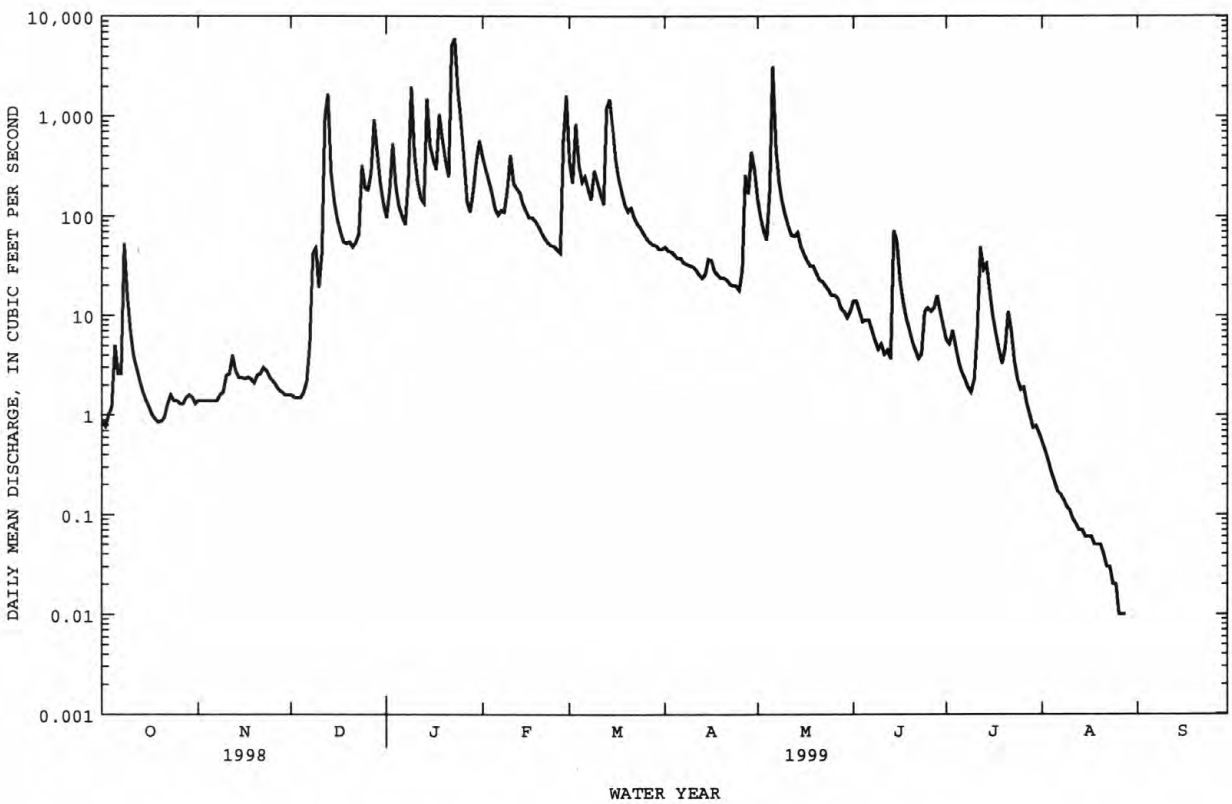
035825882 CANE CREEK NEAR HOWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.95	2.10	206	807	210	277	65.1	172	12.7	7.56	.11	.000
MAX	3.95	2.10	206	807	210	277	65.1	172	12.7	7.56	.11	.000
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	3.95	2.10	206	807	210	277	65.1	172	12.7	7.56	.11	.000
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1999 WATER YEAR	
ANNUAL MEAN	148	
HIGHEST DAILY MEAN	6050	Jan 23
LOWEST DAILY MEAN	.00	Aug 29
ANNUAL SEVEN-DAY MINIMUM	a.00	Aug 29
INSTANTANEOUS PEAK FLOW	16200	Jan 23
INSTANTANEOUS PEAK STAGE	20.19	Jan 23
INSTANTANEOUS LOW FLOW	a.00	Aug 29
ANNUAL RUNOFF (CFSM)	1.88	
ANNUAL RUNOFF (INCHES)	25.47	
10 PERCENT EXCEEDS	295	
50 PERCENT EXCEEDS	14	
90 PERCENT EXCEEDS	.02	

a Many days.
b Gage height from high water mark.



035825882 CANE CREEK NEAR HOWELL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1998 to September 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JAN												
14...	0830	2050	214	7.8	11.4	752	70	9.4	87	K8000	K9700	99
FEB												
17...	0945	98	350	8.2	11.0	748	3	9.1	83	2300	2800	170
MAR												
09...	1445	315	305	7.9	9.0	743	39	10.8	96	4300	3900	150
14...	0945	1720	241	7.9	10.0	734	63	10.2	94	--	--	120
APR												
05...	1100	38	333	8.1	19.5	750	2	9.4	104	K59	100	180
29...	1300	712	312	8.1	17.0	743	100	7.7	82	21000	17000	160
MAY												
06...	1215	5010	195	7.7	17.0	742	52	7.9	84	--	--	100
11...	1500	79	362	8.0	20.0	743	6	9.5	107	660	600	180
JUN												
07...	1000	7.3	359	7.9	24.5	738	6	6.2	77	260	170	170
JUL												
12...	1015	45	318	8.1	24.0	749	17	5.0	61	>200000	K240000	150
AUG												
11...	1500	.06	330	8.1	31.0	744	4	8.1	112	K43	K33	160

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN											
14...	5	34	3.5	1.3	3	.1	2.0	114	93	2.9	7.4
FEB											
17...	5	57	6.2	1.8	2	.1	.89	199	163	2.0	12
MAR											
09...	8	50	5.3	1.5	2	.1	1.0	168	138	--	9.3
14...	8	41	4.0	1.1	2	.0	1.6	134	110	--	7.2
APR											
05...	--	60	6.9	1.9	2	.1	1.1	234	192	--	13
29...	6	54	5.7	1.6	2	.1	1.7	185	152	--	11
MAY											
06...	11	35	3.3	1.2	2	.1	1.9	109	89	--	5.7
11...	9	62	6.4	1.8	2	.1	.97	212	174	--	12
JUN											
07...	--	57	6.4	2.2	3	.1	1.6	294	244	--	12
JUL											
12...	12	51	6.3	2.4	3	.1	4.1	171	140	--	8.6
AUG											
11...	--	52	6.9	2.6	3	.1	2.5	226	187	--	8.1

K--Results based on non-ideal colony count.

035825882 CANE CREEK NEAR HOWELL, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)
JAN											
14...	2.8	<.10	4.5	133	116	.18	.825	.020	.845	.045	.40
FEB											
17...	3.4	<.10	1.6	196	185	.27	--	<.010	.727	.048	.21
MAR											
09...	2.6	.12	3.5	171	160	.23	.816	.010	.826	.031	.28
14...	1.8	<.10	4.8	142	131	.19	.716	.011	.727	.034	.22
APR											
05...	3.0	.13	.88	194	204	.26	--	<.010	.227	.022	.17
29...	3.7	.13	4.7	199	177	.27	.635	.019	.654	.122	.44
MAY											
06...	1.7	.10	5.2	131	111	.18	--	<.010	.542	.053	.43
11...	3.6	.11	5.7	215	202	.29	--	<.010	.997	.066	.15
JUN											
07...	3.8	.21	2.7	208	232	.28	--	<.010	.343	.069	.19
JUL											
12...	5.2	.16	3.6	177	168	.24	.402	.019	.421	.096	.50
AUG											
11...	6.2	.13	4.9	185	195	.25	--	<.010	<.050	<.020	.23

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN											
14...	1.1	1.9	1.01	.383	.343	29	6.1	4.9	2.2	49	91
FEB											
17...	.23	.96	.167	.135	.120	E5.9	15	1.6	.30	3	93
MAR											
09...	.47	1.3	.349	.193	.184	E8.5	8.4	2.5	.80	37	97
14...	.74	1.5	.639	.211	.207	E7.6	6.1	2.8	1.7	96	89
APR											
05...	.25	.48	.166	.137	.100	12	11	1.6	.30	5	84
29...	1.3	2.0	1.02	.254	.208	11	E1.6	4.0	5.0	197	80
MAY											
06...	.69	1.2	.574	.370	.317	22	11	5.6	.80	44	92
11...	.13	1.1	.216	.197	.177	<10	11	1.3	.30	8	80
JUN											
07...	.14	.49	.254	.210	.196	<10	16	1.8	.30	7	78
JUL											
12...	.82	1.2	.486	.346	.279	12	21	4.3	1.1	19	94
AUG											
11...	.40	--	.233	.220	.190	<10	22	3.1	.20	5	89

E--Estimated

03584600 ELK RIVER AT PROSPECT, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 35°00'51", long 86°59'41", Giles County, Hydrologic Unit 06030004, on right bank 25 ft upstream from county road bridge, 800 ft above abandoned L and N Railroad bridge, 0.4 mi above Ford Creek, 0.8 mi south of Prospect, 2.98 mi upstream from Tennessee-Alabama State line, and at mile 36.5

DRAINAGE AREA.--1,805 mi^2 approximately.

PERIOD OF RECORD.--January 1999 to September 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JAN												
13...	1515	5330	231	8.2	10.0	752	9	10.2	92	290	240	110
FEB												
11...	0815	6810	232	7.9	13.0	748	68	9.2	88	>1600	>1200	100
MAR												
10...	0830	7930	213	8.1	9.0	754	26	11.0	96	2500	1400	97
14...	1445	18500	174	7.7	9.0	736	120	10.4	93	--	--	84
APR												
08...	0830	1160	257	8.0	19.5	747	5	8.1	90	41	37	130
MAY												
06...	2045	20000	167	7.7	18.0	741	200	7.1	77	--	--	81
13...	1100	3260	236	8.0	17.0	743	25	8.6	91	740	1200	120
JUN												
09...	1400	1380	245	8.1	27.0	750	17	7.8	100	200	270	120
JUL												
14...	1045	688	231	8.0	23.5	750	10	7.1	85	130	80	110
AUG												
11...	1115	1440	197	8.0	23.5	749	11	7.8	94	220	150	92
SEP												
10...	0830	163	232	7.9	24.0	748	13	4.7	57	62	67	110

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
JAN												
13...	10	38	3.9	1.7	3	.1	1.2	122	100	1.2	8.3	3.7
FEB												
11...	5	36	3.7	1.7	3	.1	1.4	122	100	2.4	8.5	3.3
MAR												
10...	2	33	3.7	1.6	3	.1	.99	116	95	--	7.1	3.7
14...	8	29	3.0	1.1	3	.1	1.5	93	76	--	6.3	2.1
APR												
08...	18	44	4.5	2.0	3	.1	1.1	135	111	--	9.2	4.3
MAY												
06...	9	28	2.8	1.1	3	.1	2.2	87	70	--	6.7	2.3
13...	8	40	4.2	1.9	3	.1	1.2	132	108	--	8.1	4.2
JUN												
09...	12	40	4.5	2.8	5	.1	1.5	129	105	--	8.7	5.3
JUL												
14...	12	37	4.0	2.1	4	.1	1.9	119	98	--	8.0	4.1
AUG												
11...	17	31	3.8	2.0	5	.1	1.3	91	75	--	6.7	4.4
SEP												
10...	10	36	4.7	4.0	7	.2	2.0	121	99	--	6.4	7.8

03584600 ELK RIVER AT PROSPECT, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
JAN												
13...	<.10	4.1	132	126	.18	1.00	.017	1.02	<.020	<.10	.19	1.2
FEB												
11...	<.10	4.0	130	123	.18	--	<.010	.847	<.020	.17	.53	1.4
MAR												
10...	<.10	3.7	122	114	.17	--	<.010	.742	<.020	.14	.32	1.1
14...	<.10	4.3	107	96	.15	.624	.010	.634	.063	.29	.96	1.6
APR												
08...	<.10	1.0	142	135	.19	--	<.010	.440	<.020	.10	.22	.66
MAY												
06...	<.10	4.6	109	94	.15	--	<.010	.535	.079	.42	1.4	1.9
13...	<.10	4.8	148	134	.20	--	<.010	1.02	<.020	E.10	.26	1.3
JUN												
09...	<.10	3.2	147	133	.20	--	<.010	.751	<.020	.15	.31	1.1
JUL												
14...	.12	4.8	133	124	.18	--	<.010	.741	<.020	.18	.30	1.0
AUG												
11...	<.10	2.6	108	100	.15	--	<.010	.751	<.020	E.10	.18	.93
SEP												
10...	.11	3.6	126	124	.17	--	<.010	<.050	<.020	.17	.37	--

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
JAN												
13...	.208	.106	.096	<10	5.3	1.4	.40	--	--	--	--	--
FEB												
11...	.557	.161	.172	E5.3	<3.0	2.1	1.7	--	--	--	--	--
MAR												
10...	.214	.095	.090	<10	3.0	1.7	.60	--	--	--	--	--
14...	.855	.201	.203	15	E2.4	3.1	2.5	--	--	--	--	--
APR												
08...	.140	.096	.075	12	3.1	1.3	.50	--	--	--	--	--
MAY												
06...	1.14	.310	.274	23	E2.4	5.3	3.3	--	--	--	--	--
13...	.108	.116	.094	<10	6.3	1.6	.70	--	--	--	--	--
JUN												
09...	.085	.104	.070	<10	5.9	1.7	1.3	--	--	--	--	--
JUL												
14...	.237	.160	.129	<10	9.0	2.4	.30	<.002	<.0020	.119	<.0020	<.0020
AUG												
11...	.087	.046	.040	<10	5.1	1.8	.50	<.002	<.0020	.178	<.0020	<.0020
SEP												
10...	.142	.074	<.010	<10	6.8	2.3	1.0	<.002	<.0020	.096	<.0020	<.0020

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
JUL											
14...	<.0040	<.0040	E.0225	<.002	<.001	<.0030	<.004	<.005	<.004	.009	<.0060
AUG											
11...	<.0040	<.0040	E.0536	<.002	<.001	<.0030	<.004	<.005	<.004	.009	<.0060
SEP											
10...	<.0040	<.0040	E.0561	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060

E--Estimated

03584600 ELK RIVER AT PROSPECT, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
JUL											
14...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
AUG											
11...	<.004	<.0070	E.0023	.0085	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
SEP											
10...	<.004	<.0070	<.0180	.0077	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
JUL											
14...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
AUG											
11...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
SEP											
10...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN											
13...	--	--	--	--	--	--	--	--	--	28	91
FEB											
11...	--	--	--	--	--	--	--	--	--	66	95
MAR											
10...	--	--	--	--	--	--	--	--	--	41	93
14...	--	--	--	--	--	--	--	--	--	153	93
APR											
08...	--	--	--	--	--	--	--	--	--	9	90
MAY											
06...	--	--	--	--	--	--	--	--	--	236	94
13...	--	--	--	--	--	--	--	--	--	34	88
JUN											
09...	--	--	--	--	--	--	--	--	--	38	84
JUL											
14...	<.0030	<.0040	<.0130	.0598	<.0070	<.0130	<.0010	<.0020	<.0020	38	94
AUG											
11...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	22	89
SEP											
10...	<.0030	<.0040	--	E.0122	<.0070	<.0130	<.0010	<.0020	<.0020	18	97

E--Estimated

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03593500 TENNESSEE RIVER AT SAVANNAH, TN

LOCATION.--Lat 35°13'29", long 88°15'26", Hardin County, Hydrologic Unit 06040001, on right bank at downstream side of bridge on U.S. Highway 64, at Savannah, 16.8 mi downstream from Pickwick Landing Dam, and at mile 189.9.

DRAINAGE AREA.--33,140 mi^2 approximately.

PERIOD OF RECORD.--September 1930 to current year. Gage-height records collected in this vicinity since June 1905, are in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1306: 1936 (monthly runoff). WSP 2110: 1966. WRD TN-73-1: 1973-96. WRD TN-74-1: 1973. WRD TN-85-1: 1985. WRD TN-90-1: 1989.

GAGE.--Data collection platform. Datum of gage is 350.06 ft above sea level (Levels by Tennessee Valley Authority). Prior to Oct. 1, 1992, at datum 50.06 ft lower, prior to Apr. 7, 1945, at datum 8.45 ft lower. Oct. 1, 1948 to Apr. 13, 1978 and Oct. 1, 1989 to present, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam Apr. 13, 1978 to Sept. 30, 1989, auxiliary water-stage recorder over tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, both sites 16.8 mi. upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi downstream from base gage at same datum.

REMARKS.--Records good except for estimated discharges, which are fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station ((see p. 219) and Water Resources Data for adjoining states). Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft, Mar. 21, 1897, datum then in use, from floodmarks, discharge, 450,000 ft^3/s, from rating curve extended above 320,000 ft^3/s. Flood of Jan. 2, 1927, reached a stage of 92.7 ft datum then in use, discharge, 349,000 ft^3/s. Minimum stage since 1905, 38.8 ft datum then in use, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; maximum gage height, unknown; minimum daily discharge, 5,450 ft^3/s, May 31, minimum gage height, 4.00 ft, Oct. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36400	17200	e20500	85000	e118000	e62000	15900	12600	15800	e78000	36200	36000
2	36300	27200	e18000	85800	e116000	e76000	14300	15800	14800	e72000	33100	31400
3	17400	30000	e17800	60400	e98000	e79000	14900	42700	19400	e54500	39100	28400
4	23100	29700	e16300	67700	e84000	e82000	13200	e39000	32900	e40000	33900	13200
5	52000	37500	e16600	68800	e86000	83900	21900	e40500	13800	e27000	41500	16800
6	29800	29900	e13000	42400	e93000	85000	20800	e92000	13000	e43000	41400	13100
7	28400	25400	e16800	40100	e102000	85800	27200	143000	36000	39500	35100	37300
8	28700	19400	e32300	e37000	e94000	85700	22300	155000	32200	45200	39100	41300
9	26000	e27000	e36200	e66000	e86000	91200	20000	148000	31200	44500	35600	29900
10	11500	e25000	e56000	e72000	e70000	90000	15900	159000	27200	23900	37800	13000
11	10700	e24000	e43000	e83000	e64000	84900	15500	e89000	19200	31500	35200	10300
12	27700	e28000	27400	e84000	e62000	84200	16300	e72000	9940	72800	43700	12700
13	25600	e22000	71200	e84800	e70800	93600	15800	e43000	7900	77700	34400	26200
14	24100	e31500	86100	e85200	e82000	121000	12600	39300	28800	64400	18800	22700
15	24800	e21000	86600	e102000	e68000	135000	9170	15100	10100	71600	13600	14700
16	29600	e38000	85700	e125000	e48000	117000	19000	10600	22500	76800	20100	29800
17	17600	e33000	74000	e124000	e40000	89600	12200	34500	21700	66800	29200	9620
18	17300	e31500	54100	e123000	e47500	87800	9950	36900	16600	37800	30900	8530
19	29800	e29000	44700	e123000	e60000	87100	18700	22000	16600	73000	29400	10200
20	30700	e29500	39200	e127000	e42000	69900	12600	23400	17500	56100	27900	22300
21	26900	e14000	48800	e133000	e48000	59400	13000	25700	16200	44700	19600	22100
22	37000	e14800	58500	e135000	e68000	52400	15400	22600	18800	48600	22600	17100
23	27400	e34000	37700	e188000	e63000	55600	16000	22700	19400	52400	23900	33600
24	13600	e24000	30400	e223000	e59000	61900	10200	21200	17000	24300	28400	28200
25	13700	e22400	33700	e217000	e52600	65300	9660	14800	16400	52200	31500	17000
26	23500	e21900	50900	e210000	e30000	59700	8280	16400	22700	55900	23900	16300
27	20400	e19000	54100	e205000	e22000	26000	16000	14100	23100	51100	26700	32000
28	23000	e17500	59000	e190000	e21800	21800	17500	17600	39400	47100	20500	33000
29	23100	e18100	71500	e159000	---	19300	12200	9310	66600	46800	19800	37600
30	16600	e21200	81900	e133000	---	18900	10600	10200	e76000	39300	34500	23800
31	16600	---	83500	e119000	---	18100	---	5450	---	38500	38200	---
TOTAL	769300	762700	1465500	3598200	1895700	2249100	457060	1413460	722740	1597000	945600	688150
MEAN	24820	25420	47270	116100	67700	72550	15240	45600	24090	51520	30500	22940
MAX	52000	38000	86600	223000	118000	135000	27200	159000	76000	78000	43700	41300
MIN	10700	14000	13000	37000	21800	18100	8280	5450	7900	23900	13600	8530

e Estimated

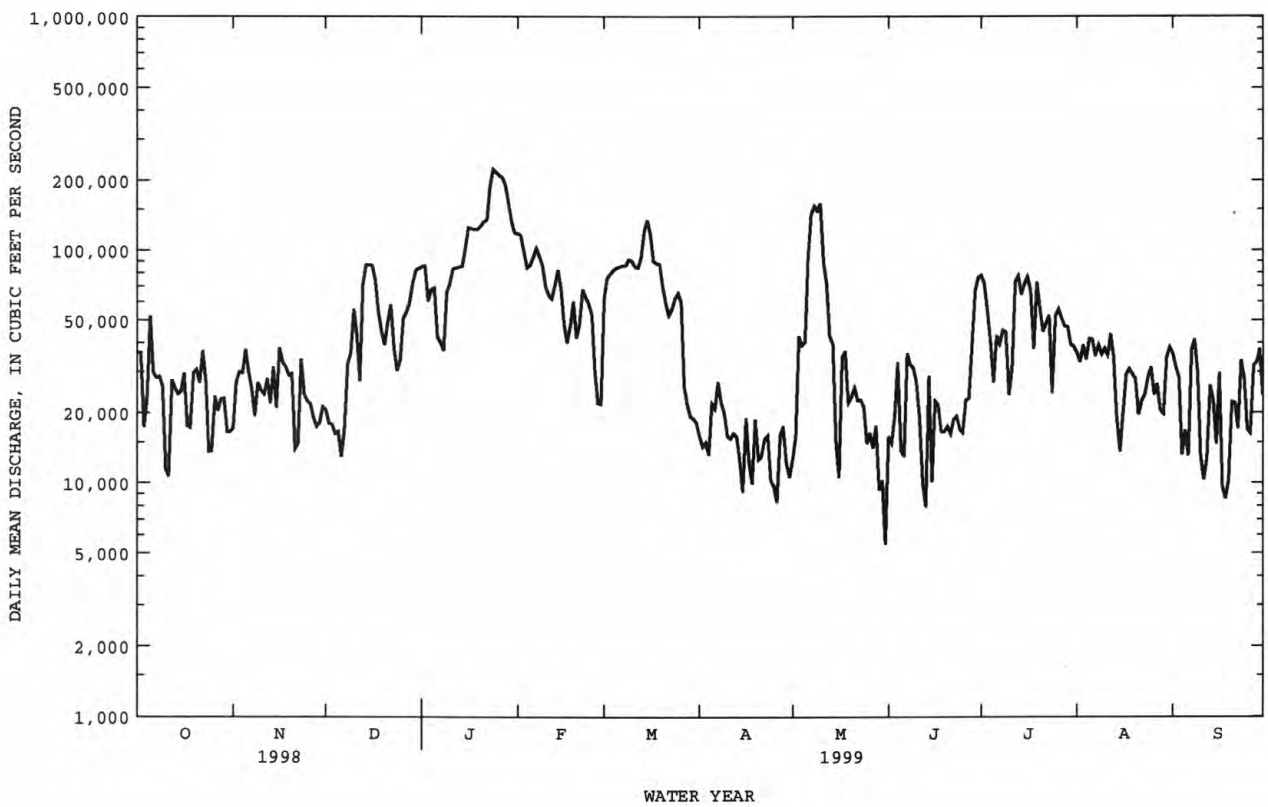
03593500 TENNESSEE RIVER AT SAVANNAH, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36640	47550	72820	90070	94330	86970	55690	48400	41060	38890	37340	34830
MAX	97010	147000	160100	223100	228100	185600	172300	140400	112900	84810	64740	71700
(WY)	1990	1958	1992	1974	1957	1973	1994	1984	1997	1989	1967	1950
MIN	18820	20510	26850	23710	39170	19840	11150	8977	10490	12910	15910	15800
(WY)	1955	1954	1981	1986	1988	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1946 - 1999	
ANNUAL TOTAL	21462700		16564510			
ANNUAL MEAN	58800		45380		56900	
HIGHEST ANNUAL MEAN					86550	1973
LOWEST ANNUAL MEAN					23090	1988
HIGHEST DAILY MEAN	228000	Apr 23	e223000	Jan 24	495000	Mar 18 1973
LOWEST DAILY MEAN	9500	Jul 12	5450	May 31	60	Apr 23 1966
ANNUAL SEVEN-DAY MINIMUM	17000	Dec 1	12100	Apr 24	5890	May 20 1986
INSTANTANEOUS PEAK FLOW			UNKNOWN		507000	Mar 18 1973
INSTANTANEOUS PEAK STAGE			UNKNOWN		a96.11	Mar 20 1973
INSTANTANEOUS LOW FLOW					60	Apr 23 1966
10 PERCENT EXCEEDS	108000		88300		108000	
50 PERCENT EXCEEDS	43000		31500		42700	
90 PERCENT EXCEEDS	18400		13900		22400	

* Regulated period only.
a Datum then in use; see GAGE paragraph.
e Estimated



03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN

LOCATION.--Lat 35°30'42", long 86°19'26", Bedford County, Hydrologic Unit 06040002, on right bank 0.3 mi above Railroad bridge, 0.6 mi below Knob Creek, 1.2 mi southeast of Wartrace, and at mile 3.2.

DRAINAGE AREA.--85.5 mi^2.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 769.30 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for Aug. 17 to Sept. 30, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0130	3,740	11.41	May 6	0630	5,710	13.25
Jan 9	0445	6,120	13.62	Jul 12	0945	3,970	11.64
Jan 23	0615	*12,900	*18.02				

Minimum discharge, 1.7 ft^3/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

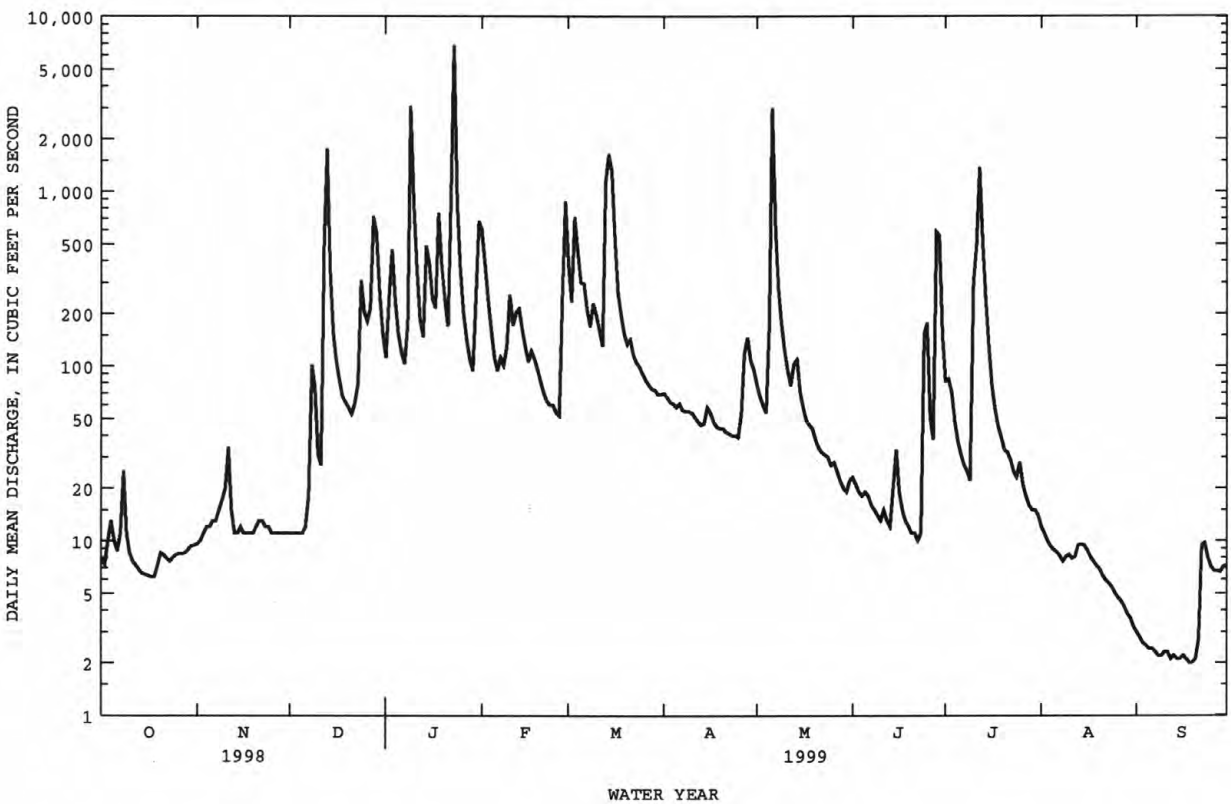
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	9.6	11	112	607	384	70	78	23	82	12	3.0
2	7.3	10	11	250	385	234	66	67	21	84	11	2.8
3	9.9	11	11	462	237	713	62	60	19	70	10	2.6
4	13	12	11	235	160	448	61	54	18	48	9.3	2.5
5	10	12	11	153	111	300	58	169	19	37	8.9	2.4
6	8.7	13	12	119	94	297	61	3000	18	31	8.6	2.4
7	11	13	18	103	112	209	56	602	16	27	8.2	2.3
8	25	15	101	175	101	169	55	273	15	25	7.6	2.2
9	11	17	74	3070	128	230	55	173	14	22	8.1	2.2
10	8.5	20	31	859	256	197	54	122	13	300	8.3	2.3
11	7.6	34	27	361	171	160	51	94	15	487	7.9	2.3
12	7.2	15	513	187	203	130	48	77	13	1370	8.1	2.1
13	6.8	11	1760	147	214	1140	46	102	12	506	9.4	2.2
14	6.5	11	356	487	162	1630	47	109	20	240	9.5	2.1
15	6.4	12	153	385	129	1310	58	71	33	130	9.4	2.1
16	6.3	11	106	242	106	537	54	58	19	78	8.8	2.2
17	6.2	11	83	215	122	264	48	49	15	57	8.1	2.1
18	6.2	11	67	752	109	194	45	46	13	45	7.6	2.0
19	7.2	11	62	378	95	152	44	44	12	39	7.2	2.0
20	8.5	12	58	237	81	133	44	38	11	33	6.9	2.1
21	8.3	13	53	169	70	142	42	34	11	32	6.3	2.7
22	7.9	13	61	982	63	116	41	32	10	29	5.9	9.4
23	7.6	12	79	6840	60	105	40	31	11	25	5.7	9.7
24	8.0	12	309	857	60	99	40	30	153	23	5.4	8.0
25	8.3	11	205	359	54	90	39	27	176	28	5.0	7.1
26	8.4	11	180	203	52	83	53	28	51	21	4.7	6.7
27	8.4	11	215	142	255	78	119	25	38	18	4.5	6.7
28	8.5	11	719	109	878	74	145	22	585	16	4.2	6.6
29	8.9	11	575	94	---	73	108	20	557	15	3.8	7.1
30	9.3	11	252	248	---	69	95	19	147	15	3.6	7.2
31	9.4	---	151	678	---	69	---	22	---	14	3.2	---
TOTAL	274.2	387.6	6275	19610	5075	9829	1805	5576	2078	3947	227.2	117.1
MEAN	8.85	12.9	202	633	181	317	60.2	180	69.3	127	7.33	3.90
MAX	25	34	1760	6840	878	1630	145	3000	585	1370	12	9.7
MIN	6.2	9.6	11	94	52	69	39	19	10	14	3.2	2.0
CFSM	.10	.15	2.37	7.40	2.12	3.71	.70	2.10	.81	1.49	.09	.05
IN.	.12	.17	2.73	8.53	2.21	4.28	.79	2.43	.90	1.72	.10	.05

03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	71.5	124	316	317	314	352	194	128	85.9	54.1	33.7	43.5
MAX	285	296	825	633	793	726	503	261	294	127	92.1	240
(WY)	1996	1997	1991	1999	1991	1994	1994	1997	1997	1999	1996	1992
MIN	7.93	12.9	90.9	183	106	195	60.2	30.8	19.5	13.9	7.33	3.90
(WY)	1994	1999	1998	1995	1995	1992	1999	1992	1990	1993	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	61070.9		55201.1			
ANNUAL MEAN	167		151		169	
HIGHEST ANNUAL MEAN					233	1994
LOWEST ANNUAL MEAN					113	1995
HIGHEST DAILY MEAN	5430	Jan 7	6840	Jan 23	7390	Dec 22 1990
LOWEST DAILY MEAN	5.3	Sep 1	2.0	Sep 18	2.0	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	5.7	Aug 31	2.1	Sep 14	2.1	Sep 14 1999
INSTANTANEOUS PEAK FLOW			12900	Jan 23	12900	Jan 23 1999
INSTANTANEOUS PEAK STAGE			18.02	Jan 23	18.02	Jan 23 1999
INSTANTANEOUS LOW FLOW			1.7	Sep 9	1.7	Sep 9 1999
ANNUAL RUNOFF (CFSM)	1.96		1.77		1.98	
ANNUAL RUNOFF (INCHES)	26.57		24.02		26.87	
10 PERCENT EXCEEDS	368		304		341	
50 PERCENT EXCEEDS	59		38		60	
90 PERCENT EXCEEDS	7.3		6.5		9.7	



03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN

LOCATION.--Lat 35°31'38", long 86°20'25", Bedford County, Hydrologic Unit 06040002, on right bank 300 ft below county road bridge, 0.4 mi upstream from Louisville and Nashville Railroad bridge, 0.4 mi west of Wartrace, and at mile 2.3.

DRAINAGE AREA.--35.7 mi^2.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 781.66 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0215	2,530	9.93	Jan 23	0315	*10,900	*16.02
Jan 9	0600	2,950	10.53	May 6	0700	3,490	11.22

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.06	.48	37	177	107	17	11	1.8	13	.38	.00
2	.00	.07	.54	180	110	67	15	9.0	1.6	23	.32	.00
3	.15	.08	.66	262	74	412	14	7.5	1.3	17	.27	.00
4	.27	.08	.50	84	55	132	14	6.5	1.0	9.3	.19	.00
5	.33	.07	.51	51	42	81	12	108	1.2	5.8	.16	.00
6	.33	.06	.50	40	36	89	12	1560	1.1	4.1	.14	.00
7	.89	.07	1.3	36	52	63	11	153	.87	3.3	.13	.00
8	2.8	.12	14	152	48	50	10	66	.66	3.2	.11	.00
9	.86	.16	15	1250	74	89	9.8	41	.56	2.2	.09	.00
10	.38	.67	4.8	171	107	68	8.8	29	.47	242	.07	.00
11	.25	1.1	4.2	87	65	53	8.2	21	.44	149	.06	.00
12	.24	.85	358	60	88	43	7.0	15	.42	573	.07	.00
13	.20	.66	924	51	79	695	6.9	14	.37	87	.08	.00
14	.14	.73	116	251	57	569	7.5	13	.95	43	.06	.00
15	.11	.62	54	125	46	277	11	9.2	2.0	25	.06	.00
16	.10	.62	34	74	38	133	9.4	7.6	1.1	15	.06	.00
17	.10	.54	24	66	77	84	7.4	5.9	.68	9.9	.05	.00
18	.09	.47	18	421	59	60	6.8	5.6	.45	7.1	.04	.00
19	.11	.44	16	118	46	46	6.4	6.0	.36	5.3	.02	.00
20	.13	.58	15	72	36	41	6.1	4.5	.29	4.1	.01	.00
21	.12	.63	13	52	30	55	5.9	3.5	.25	4.4	.00	.00
22	.11	.68	15	442	25	38	5.5	3.1	.23	3.0	.00	.00
23	.10	.71	23	3770	24	32	5.3	2.7	.25	2.4	.00	.00
24	.09	.69	102	274	23	30	5.1	3.1	17	2.2	.00	.00
25	.09	.64	58	126	20	26	4.9	2.3	40	2.4	.00	.00
26	.08	.63	84	79	18	22	9.4	2.1	7.1	1.6	.00	.00
27	.08	.51	108	58	208	20	31	2.0	5.2	1.2	.00	.00
28	.06	.46	523	46	366	18	52	1.6	225	.87	.00	.00
29	.06	.45	189	41	---	18	21	1.3	112	.70	.00	.00
30	.06	.45	83	213	---	16	16	1.1	26	.53	.00	.00
31	.06	---	53	278	---	17	---	1.6	---	.43	.00	---
TOTAL	8.40	13.90	2852.49	8967	2080	3451	356.4	2117.2	450.65	1261.03	2.37	0.00
MEAN	.27	.46	92.0	289	74.3	111	11.9	68.3	15.0	40.7	.076	.000
MAX	2.8	1.1	924	3770	366	695	52	1560	225	573	.38	.00
MIN	.00	.06	.48	36	18	16	4.9	1.1	.23	.43	.00	.00
CFSM	.01	.01	2.58	8.10	2.08	3.12	.33	1.91	.42	1.14	.00	.00
IN.	.01	.01	2.97	9.34	2.17	3.60	.37	2.21	.47	1.31	.00	.00

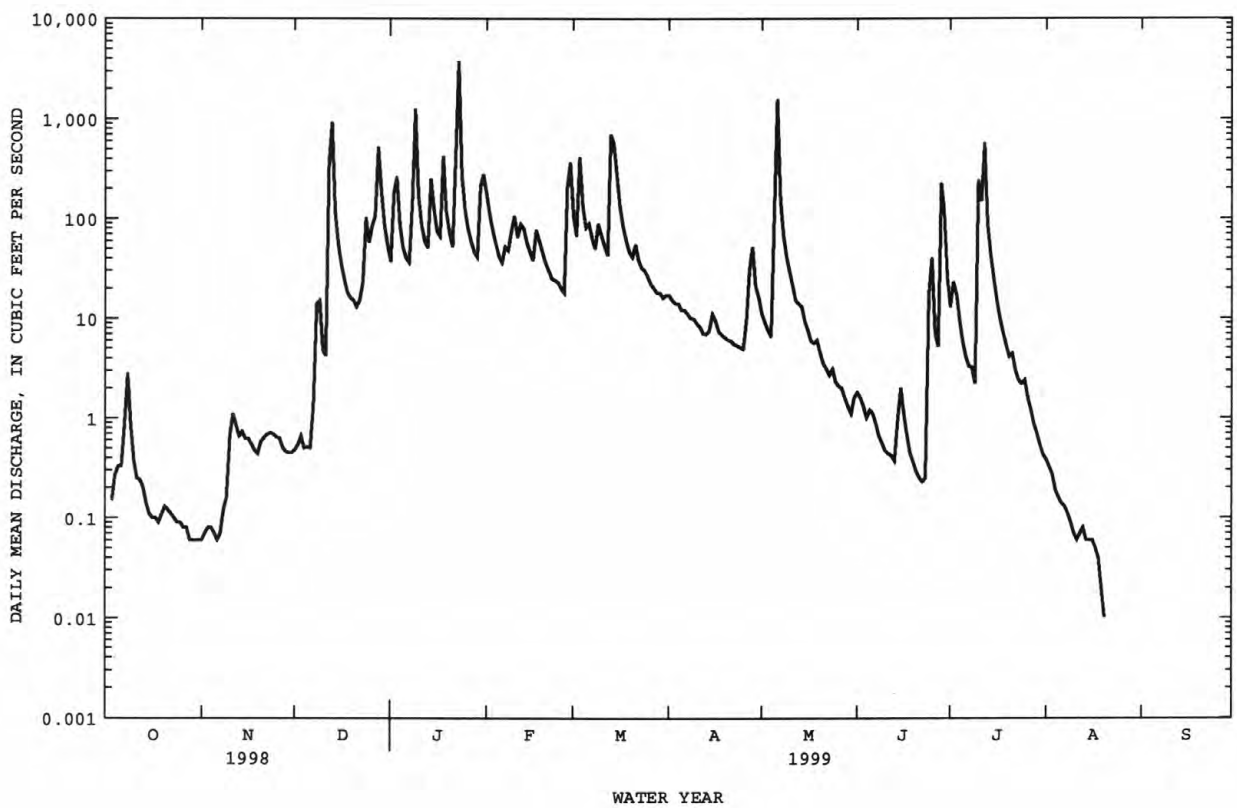
03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.4	61.1	143	143	132	142	74.1	43.8	28.7	16.6	18.3	25.8
MAX	109	172	350	289	326	311	207	114	143	40.7	79.5	167
(WY)	1996	1997	1991	1999	1991	1994	1994	1997	1997	1999	1992	1992
MIN	.065	.46	55.4	84.5	43.3	78.8	11.9	2.23	1.57	1.73	.012	.000
(WY)	1994	1999	1990	1995	1995	1992	1999	1992	1990	1995	1991	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	25162.75		21560.44			
ANNUAL MEAN	68.9		59.1		71.3	
HIGHEST ANNUAL MEAN					97.2	1994
LOWEST ANNUAL MEAN					46.8	1995
HIGHEST DAILY MEAN	2750	Jan 7	3770	Jan 23	4000	Sep 22 1992
LOWEST DAILY MEAN	.00	Oct 2	.00	Oct 2	.00	Aug 24 1990
ANNUAL SEVEN-DAY MINIMUM	.02	Sep 26	.00	Aug 21	.00	Aug 24 1990
INSTANTANEOUS PEAK FLOW			10900	Jan 23	10900	Jan 23 1999
INSTANTANEOUS PEAK STAGE			16.02	Jan 23	16.02	Jan 23 1999
INSTANTANEOUS LOW FLOW			a.00	Oct 2	a.00	Aug 24 1990
ANNUAL RUNOFF (CFSM)	1.93		1.65		2.00	
ANNUAL RUNOFF (INCHES)	26.22		22.47		27.15	
10 PERCENT EXCEEDS	141		111		130	
50 PERCENT EXCEEDS	14		4.9		17	
90 PERCENT EXCEEDS	.10		.00		.23	

a No flow many days.
b No flow many days most years.



03597860 DUCK RIVER AT SHELBYVILLE, TN

LOCATION.--Lat 35°28'51", long 86°27'45", Bedford County, Hydrologic Unit 06040002, on right bank 125 ft upstream from U.S. Highway 231 bridge, one block west of the southwest corner of the public square, and at mile 221.4.

DRAINAGE AREA.--425 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year, discharge for gage height of 12.00 ft and below only. Continuous stage records were collected by Tennessee Valley Authority from December 1981 to September 1991.

GAGE.--Data collection platform. Datum of gage is 680.00 ft above sea level. Prior to Oct. 10, 1991 at datum 10.00 ft higher.

REMARKS.--Records good. Flow regulated by Normandy Reservoir (station 03596460) since January 1976.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 33.13 ft, Mar. 28, 1994; minimum discharge, 129 ft^3/s, May 20, 1992; minimum daily discharge, 131 ft^3/s, May 20, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined, maximum gage height, 27.94 ft, Jan. 23; minimum, 137 ft^3/s, Apr. 25, 26; minimum daily, 143 ft^3/s, Apr. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	191	279	---	---	---	257	404	174	---	179	164
2	186	229	262	---	---	---	246	306	172	---	168	164
3	209	319	258	---	---	---	236	251	162	---	162	164
4	200	308	253	---	---	---	230	217	159	---	161	166
5	190	312	187	---	---	---	215	---	180	784	159	165
6	184	312	181	633	---	---	184	---	172	699	158	163
7	203	439	192	565	---	---	179	---	163	257	167	163
8	229	443	333	---	---	---	174	---	164	221	168	164
9	207	435	403	---	643	---	174	---	157	210	166	167
10	193	448	430	---	---	---	173	---	158	223	164	165
11	187	474	398	---	---	---	170	490	170	---	167	165
12	181	446	---	---	---	738	157	394	175	---	185	165
13	179	440	---	---	---	---	149	370	172	---	183	164
14	177	437	---	---	---	---	151	431	208	---	171	164
15	179	428	---	---	733	---	182	349	283	---	164	162
16	177	419	---	---	---	---	186	313	258	---	161	160
17	177	416	---	---	---	---	164	290	235	---	162	162
18	177	411	---	---	---	---	157	284	177	395	155	158
19	180	407	452	---	643	---	152	276	170	375	153	159
20	181	412	431	---	570	751	150	262	167	364	169	159
21	195	404	401	---	525	782	148	251	161	350	174	169
22	191	397	442	---	492	680	146	201	157	249	171	165
23	190	390	470	---	474	615	145	190	162	242	169	161
24	194	384	---	---	471	590	151	182	---	226	169	162
25	194	378	---	---	454	557	143	177	---	227	171	164
26	193	377	797	---	375	524	172	177	---	224	163	164
27	194	371	---	---	---	326	---	173	---	215	160	166
28	190	368	---	---	---	271	---	166	---	193	161	160
29	193	362	---	---	---	264	---	166	---	183	161	163
30	190	352	---	---	---	258	618	165	---	192	157	162
31	196	---	---	---	---	249	---	173	---	179	155	---
TOTAL	5897	11509	6169	1198	5380	6605	5209	6658	4156	6008	5133	4899
MEAN	190	384	363	599	538	508	193	266	181	300	166	163
MAX	229	474	797	633	733	782	618	490	283	784	185	169
MIN	177	191	181	565	375	249	143	165	157	179	153	158

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1991 to current year.
DISSOLVED OXYGEN: October 1991 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1991.

REMARKS.--Records good. Interruptions in the record were due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.1°C, July 30, 31, 1999; minimum, 0.1°C, Feb. 4, 5, 6, 1996.
DISSOLVED OXYGEN: Maximum, 14.6, mg/L, Jan. 28, 1998; minimum, 5.7 mg/L, June 12, 1999.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 30.1°C, July 30, 31; minimum, 4.3°C, Jan. 6.
DISSOLVED OXYGEN: Maximum, 12.8 mg/L, Jan. 5, 6; minimum, 5.7 mg/L, June 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.7	23.9	24.3	18.1	17.2	17.6	14.3	13.3	13.8	8.3	7.6	7.8
2	24.0	22.9	23.5	17.5	17.0	17.2	14.4	13.3	13.7	8.5	7.7	8.2
3	22.9	21.9	22.2	17.6	16.9	17.3	13.8	13.0	13.3	8.4	6.7	7.4
4	22.7	21.5	22.0	17.2	16.2	16.9	14.4	12.9	13.6	6.7	5.6	6.1
5	23.5	21.8	22.6	16.2	14.1	15.2	14.9	13.9	14.4	5.6	4.6	5.2
6	24.2	22.9	23.4	14.1	12.7	13.6	15.9	14.5	15.2	4.6	4.3	4.4
7	23.5	23.0	23.4	12.7	12.1	12.4	16.0	15.4	15.8	6.0	4.6	5.1
8	23.0	21.0	22.1	14.2	12.5	13.4	16.0	14.8	15.7	8.7	6.0	7.3
9	21.0	19.6	20.3	15.4	14.2	14.8	14.8	12.3	13.6	9.4	7.6	8.5
10	19.6	18.6	19.1	16.5	15.4	16.1	12.3	10.5	11.3	7.7	6.8	7.0
11	19.2	17.9	18.5	16.5	15.0	15.9	10.8	10.5	10.6	6.9	6.4	6.6
12	19.5	17.9	18.5	15.0	13.2	13.9	11.1	10.7	11.0	8.1	6.9	7.4
13	19.3	18.4	18.8	14.1	13.2	13.6	11.8	10.2	10.8	9.2	8.1	8.7
14	19.4	18.4	18.9	14.9	14.1	14.6	11.9	11.2	11.7	9.5	8.7	9.3
15	19.4	18.1	18.6	15.7	14.9	15.3	11.3	10.9	11.1	8.7	7.8	8.1
16	19.0	17.8	18.3	15.6	14.9	15.3	11.1	10.6	10.8	8.2	7.7	8.0
17	19.6	18.0	18.6	15.5	14.9	15.1	11.3	10.6	11.1	8.7	8.0	8.2
18	20.1	18.6	19.2	15.1	14.0	14.6	10.6	9.9	10.1	9.8	8.7	9.4
19	19.6	19.4	19.5	15.0	14.0	14.5	10.3	10.1	10.2	9.7	8.5	8.8
20	19.9	19.2	19.5	15.4	14.6	15.2	11.4	10.3	10.8	9.7	8.6	9.1
21	19.2	18.2	18.7	14.6	12.5	13.7	13.0	11.4	12.2	10.4	9.7	9.8
22	18.2	17.1	17.6	12.5	11.9	12.2	12.9	10.6	12.1	12.6	10.4	10.8
23	17.1	15.7	16.4	13.3	11.9	12.6	10.6	6.8	8.5	14.0	12.6	13.6
24	15.7	14.7	15.1	14.8	13.3	14.3	6.8	6.2	6.4	13.4	10.5	12.3
25	15.5	14.2	14.8	14.9	14.3	14.7	---	---	---	10.5	9.0	9.5
26	16.3	14.6	15.2	14.5	13.6	14.1	6.7	6.7	7.1	9.8	8.9	9.4
27	16.7	15.1	15.7	13.7	12.5	13.3	7.6	7.4	7.5	10.7	9.3	10.0
28	17.0	15.5	16.1	12.9	12.2	12.5	8.8	7.5	8.2	10.7	9.6	10.2
29	17.2	15.9	16.5	13.3	12.2	12.7	10.1	8.8	9.6	10.8	10.4	10.6
30	17.8	16.6	17.2	13.6	12.7	13.2	9.9	8.1	8.9	11.3	10.4	10.7
31	18.2	17.2	17.7	---	---	---	8.3	8.0	8.2	11.5	10.8	11.3
MONTH	24.7	14.2	19.1	18.1	11.9	14.5	16.0	6.2	11.2	14.0	4.3	8.7

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.8	10.2	10.4	11.8	10.7	11.1	14.4	12.9	13.5	16.9	15.9	16.3
2	10.4	10.2	10.3	10.9	9.9	10.4	16.4	13.5	14.7	18.0	16.5	17.3
3	10.3	9.6	10.0	11.1	9.2	10.4	17.6	15.0	16.4	19.8	17.1	18.3
4	10.4	9.8	10.2	9.6	8.3	8.9	19.2	16.8	18.0	20.8	18.2	19.3
5	10.3	9.7	9.9	9.8	9.2	9.5	20.4	18.2	19.2	20.3	19.1	19.6
6	10.2	9.7	9.9	10.2	9.8	10.0	22.9	17.4	19.8	19.1	17.0	17.5
7	11.7	10.2	11.1	10.0	9.1	9.6	21.8	16.5	19.3	17.7	16.4	17.1
8	11.6	11.2	11.4	9.7	8.9	9.2	21.1	20.1	20.6	18.0	16.2	17.2
9	12.1	11.3	11.6	9.0	8.7	8.9	22.4	20.4	21.1	18.0	16.5	17.3
10	12.8	11.9	12.3	9.1	8.8	9.0	22.6	20.5	21.4	18.6	17.1	17.8
11	13.6	12.6	13.0	9.4	8.6	9.0	22.5	21.0	21.6	19.6	18.4	19.0
12	13.6	11.5	12.9	9.7	9.0	9.4	21.9	20.8	21.3	20.6	19.6	20.1
13	11.5	8.6	9.8	9.7	7.0	8.6	21.0	20.0	20.4	20.6	19.9	20.3
14	8.6	7.6	7.9	9.7	7.1	8.9	20.0	18.5	19.3	19.9	19.3	19.7
15	8.4	7.4	7.9	10.0	9.0	9.5	18.5	17.3	18.1	20.0	19.0	19.4
16	10.0	8.2	8.9	10.8	9.5	10.1	17.6	16.3	16.9	21.2	19.2	20.2
17	10.7	9.6	10.2	11.4	10.0	10.7	16.3	15.1	15.6	22.7	20.4	21.4
18	9.9	9.3	9.6	11.8	10.6	11.2	15.7	14.2	14.9	22.5	21.4	21.9
19	10.4	9.8	10.0	11.7	10.6	11.0	15.5	13.7	14.5	21.5	20.5	21.1
20	10.2	9.6	9.9	11.3	10.8	11.1	16.6	14.1	15.2	21.9	19.9	20.7
21	9.8	8.5	9.1	12.1	10.7	11.4	18.8	16.1	17.3	22.4	20.1	21.1
22	8.5	7.3	7.7	12.2	11.5	11.9	19.8	17.4	18.5	22.8	20.8	21.7
23	7.7	7.3	7.5	11.9	11.3	11.6	20.9	19.1	19.8	23.4	21.6	22.5
24	7.8	7.6	7.7	11.7	11.2	11.4	20.5	19.6	20.1	23.3	21.9	22.5
25	8.8	7.7	8.2	11.5	10.8	11.2	21.3	20.0	20.6	23.0	22.1	22.4
26	9.6	8.8	9.2	11.2	10.6	10.9	20.6	20.0	20.2	22.4	21.8	22.1
27	11.1	9.4	10.2	11.3	10.4	10.8	20.0	18.9	19.6	22.1	21.2	21.6
28	12.3	11.1	11.9	12.0	10.3	11.2	18.9	18.1	18.6	22.7	20.8	21.5
29	---	---	---	12.6	11.3	12.0	19.1	17.0	18.5	23.0	20.7	21.7
30	---	---	---	13.2	11.7	12.5	17.0	15.5	16.0	22.9	21.5	22.0
31	---	---	---	13.1	12.4	12.8	---	---	---	22.5	22.0	22.2
MONTH	13.6	7.3	10.0	13.2	7.0	10.5	22.9	12.9	18.4	23.4	15.9	20.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.8	21.9	22.2	23.8	22.5	23.2	29.7	28.5	29.1	25.5	24.8	25.2
2	23.7	21.7	22.5	24.2	23.0	23.6	29.5	28.8	29.2	25.6	24.6	25.1
3	24.3	22.3	23.2	24.5	23.2	23.9	29.2	28.3	28.6	26.1	24.8	25.4
4	25.8	23.7	24.6	24.9	24.4	24.6	28.3	27.5	27.8	26.5	25.0	25.6
5	26.5	24.0	25.4	25.3	24.6	25.0	27.6	26.9	27.2	26.2	25.2	25.8
6	27.0	25.2	25.9	25.5	24.9	25.2	27.3	26.5	26.9	26.1	25.5	25.8
7	27.0	25.2	26.1	26.2	24.9	25.5	27.9	26.1	26.8	26.1	25.4	25.7
8	27.1	25.6	26.2	28.1	25.4	26.6	27.0	26.3	26.6	26.2	25.0	25.6
9	27.6	25.7	26.4	28.1	26.6	27.2	27.2	26.6	26.8	25.6	25.1	25.3
10	27.0	25.9	26.3	27.9	26.4	27.0	28.0	26.2	26.8	25.2	24.5	24.9
11	27.2	25.7	26.3	26.8	23.5	24.7	27.6	26.0	26.5	24.6	23.9	24.2
12	26.8	25.4	26.0	23.5	21.9	22.4	27.1	26.2	26.5	24.3	23.5	23.8
13	26.6	25.2	25.8	22.5	22.0	22.3	27.4	25.9	26.4	23.8	23.5	23.6
14	25.8	25.1	25.4	23.7	22.5	22.9	26.2	25.5	25.8	24.3	23.6	23.9
15	25.1	23.8	24.3	24.3	23.6	23.9	25.8	25.1	25.4	23.6	22.8	23.1
16	24.0	23.0	23.6	24.8	24.1	24.4	26.3	24.8	25.4	22.6	22.6	22.1
17	24.1	23.0	23.5	25.7	24.6	25.1	27.2	24.7	25.7	21.8	21.0	21.4
18	23.9	22.5	23.2	26.1	25.3	25.6	27.2	25.7	26.4	21.4	20.5	20.9
19	23.7	22.5	23.0	25.9	25.2	25.4	28.2	26.3	27.0	21.4	20.5	20.9
20	23.8	22.5	23.1	26.3	25.2	25.7	27.0	26.4	26.6	22.3	20.8	21.4
21	24.4	22.8	23.5	26.2	25.2	25.7	26.5	25.7	26.1	22.3	21.8	22.0
22	25.4	23.3	24.2	26.0	25.1	25.5	26.3	24.9	25.5	22.1	21.1	21.8
23	24.6	24.0	24.4	27.2	25.3	26.2	26.1	24.7	25.2	21.1	19.8	20.4
24	25.4	23.9	24.6	27.8	26.4	27.0	26.2	25.0	25.4	20.5	19.2	19.7
25	23.9	22.1	22.7	28.1	26.9	27.5	26.0	25.1	25.6	21.0	19.1	19.8
26	23.1	22.6	22.9	28.4	26.7	27.5	26.1	25.3	25.7	21.4	19.6	20.4
27	23.5	22.5	22.9	29.0	26.9	27.8	26.2	25.4	25.8	22.0	20.6	21.2
28	23.6	22.5	23.2	29.1	27.3	28.1	26.2	25.5	25.8	23.0	21.5	22.2
29	22.8	22.2	22.6	29.0	27.7	28.3	26.1	25.3	25.8	22.7	22.3	22.5
30	22.7	21.6	22.1	30.1	27.9	28.8	26.0	25.2	25.6	22.6	21.5	22.2
31	---	---	---	30.1	28.0	28.9	26.4	25.0	25.6	---	---	---
MONTH	27.6	21.6	24.2	30.1	21.9	25.7	29.7	24.7	26.4	26.5	19.1	23.1

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.9	7.5	7.7	9.1	8.5	8.8	11.7	11.3	11.4	12.0	11.2	11.5
2	8.1	7.8	7.9	9.0	8.5	8.8	11.6	11.2	11.3	12.0	11.5	11.7
3	8.3	8.0	8.2	8.9	8.4	8.6	11.7	11.3	11.5	12.1	11.5	11.8
4	8.2	7.9	8.0	8.8	8.3	8.5	11.6	11.0	11.3	12.5	12.1	12.3
5	8.2	7.1	7.7	9.4	8.4	9.0	11.1	10.7	10.9	12.8	12.5	12.6
6	8.4	7.9	8.1	10.2	9.1	9.6	10.8	10.3	10.6	12.8	12.5	12.7
7	8.0	7.8	7.9	11.0	10.0	10.5	10.5	10.2	10.3	12.5	12.0	12.3
8	8.6	8.0	8.3	10.8	9.8	10.2	10.6	10.2	10.4	12.0	11.2	11.6
9	9.0	8.6	8.8	10.4	9.6	10.1	11.3	10.6	10.9	11.2	10.3	10.8
10	9.5	9.0	9.3	10.3	10.1	10.2	11.8	11.3	11.6	11.4	11.0	11.3
11	9.7	9.4	9.6	10.7	10.2	10.4	11.8	11.5	11.7	11.5	11.4	11.4
12	9.7	9.4	9.6	11.3	10.7	11.1	11.5	10.6	11.3	11.4	11.1	11.2
13	9.6	9.3	9.5	11.3	11.0	11.2	10.7	10.1	10.4	11.1	10.9	11.0
14	9.6	9.3	9.5	11.0	10.6	10.8	10.8	10.4	10.5	11.0	10.7	10.8
15	9.6	9.3	9.4	10.6	10.4	10.5	11.3	10.8	11.1	11.4	11.0	11.2
16	9.7	9.3	9.5	10.7	10.5	10.6	11.4	11.2	11.3	11.6	11.4	11.5
17	9.6	9.2	9.4	10.8	10.6	10.7	11.3	11.0	11.1	11.7	11.5	11.6
18	9.5	9.1	9.3	10.8	10.6	10.7	11.7	11.2	11.5	11.5	11.0	11.2
19	9.2	8.9	9.1	11.0	10.5	10.8	11.5	11.1	11.4	11.8	11.2	11.6
20	9.3	8.8	9.0	10.8	10.5	10.7	11.1	10.9	11.0	11.8	11.5	11.7
21	9.3	8.9	9.1	11.6	10.7	11.2	10.9	10.3	10.6	11.7	11.5	11.6
22	9.5	9.1	9.3	11.9	11.6	11.8	11.0	10.4	10.6	11.6	10.9	11.5
23	9.7	9.3	9.5	11.9	11.4	11.7	12.1	11.0	11.6	10.9	9.1	9.6
24	10.0	9.5	9.7	11.4	10.9	11.2	12.3	---	---	11.5	9.8	10.8
25	10.1	9.6	9.8	11.1	10.8	11.0	---	---	---	12.0	11.5	11.8
26	9.9	9.3	9.6	11.3	11.0	11.2	12.3	11.9	12.1	12.0	11.7	11.9
27	9.7	8.7	9.5	11.7	11.3	11.5	11.9	11.8	11.9	11.9	11.5	11.8
28	9.9	8.8	9.5	12.1	11.7	11.9	11.9	11.0	11.5	11.6	11.3	11.5
29	9.5	8.8	9.2	12.0	11.6	11.8	11.1	10.8	10.9	11.5	11.0	11.2
30	9.4	8.5	9.1	11.8	11.4	11.6	11.4	10.9	11.1	11.2	10.5	10.9
31	9.5	8.6	9.0	---	---	---	11.9	11.2	11.5	12.1	10.9	11.4
MONTH	10.1	7.1	9.0	12.1	8.3	10.6	12.3	10.1	11.1	12.8	9.1	11.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.6	11.1	11.3	10.8	10.0	10.4	10.8	10.1	10.4	10.0	9.8	9.9
2	11.3	10.8	11.0	11.2	10.5	10.9	10.6	9.9	10.3	10.0	9.6	9.8
3	11.6	10.8	11.1	10.9	10.3	10.6	10.1	9.3	9.8	9.8	9.2	9.6
4	---	---	---	11.6	10.9	11.3	9.4	8.8	9.1	9.6	9.0	9.3
5	---	---	---	11.4	11.0	11.2	8.8	8.0	8.6	9.4	8.9	9.1
6	---	---	---	11.3	11.0	11.2	9.5	8.0	8.5	9.2	8.2	8.6
7	---	---	---	12.1	11.2	11.7	9.7	7.8	8.8	9.7	9.2	9.6
8	12.0	11.2	11.5	12.2	11.7	12.0	8.1	7.8	7.9	9.9	9.6	9.7
9	11.8	10.8	11.2	12.0	11.6	11.8	8.2	7.8	8.0	10.0	9.6	9.8
10	11.1	10.5	10.7	12.2	11.8	11.9	8.3	7.8	8.0	9.9	9.7	9.8
11	10.9	10.5	10.7	12.4	12.2	12.3	8.3	7.8	8.0	9.9	9.2	9.5
12	11.7	10.8	11.1	12.4	12.2	12.3	8.5	7.9	8.1	9.2	8.8	9.0
13	12.4	11.7	12.0	12.4	11.7	12.0	8.8	8.1	8.4	9.1	8.7	8.9
14	12.6	12.2	12.3	11.9	11.4	11.5	9.1	8.4	8.7	9.3	8.9	9.1
15	12.5	11.9	12.1	12.0	11.4	11.7	9.2	8.7	8.9	9.3	9.0	9.2
16	12.0	11.1	11.4	12.0	11.4	11.7	9.5	9.0	9.3	9.2	9.0	9.1
17	11.2	10.6	10.8	12.0	11.3	11.7	10.0	9.4	9.7	9.1	8.7	8.9
18	11.8	11.0	11.5	11.9	11.3	11.6	10.3	9.8	10.0	8.8	8.5	8.7
19	11.7	11.4	11.6	12.2	11.3	11.8	10.5	10.0	10.2	8.9	8.5	8.7
20	11.6	10.8	11.3	11.9	11.5	11.6	10.8	9.9	10.3	9.2	8.7	9.0
21	11.4	11.1	11.3	11.6	11.4	11.5	10.3	9.3	9.9	9.2	8.8	9.0
22	11.6	11.2	11.4	11.5	11.2	11.3	9.9	8.9	9.5	9.0	8.6	8.8
23	12.1	11.5	11.7	11.5	11.2	11.4	9.4	8.6	9.0	8.6	8.4	8.5
24	12.7	11.4	11.9	11.5	11.2	11.4	9.2	8.5	8.8	8.5	8.3	8.4
25	11.7	11.2	11.5	11.7	11.4	11.5	9.0	8.4	8.6	8.4	8.2	8.3
26	11.7	11.0	11.3	11.9	11.6	11.8	8.8	8.4	8.6	8.5	8.3	8.4
27	11.3	10.4	11.0	12.2	11.4	11.8	8.9	8.4	8.6	8.7	8.3	8.5
28	10.4	9.0	9.6	12.2	11.1	11.6	9.2	8.9	9.1	8.9	8.6	8.7
29	---	---	---	11.9	10.9	11.3	9.6	9.1	9.2	8.9	8.5	8.7
30	---	---	---	11.6	10.7	11.1	10.0	9.6	9.9	8.8	8.4	8.6
31	---	---	---	11.2	10.5	10.9	---	---	---	8.4	8.1	8.2
MONTH	12.7	9.0	11.3	12.4	10.0	11.5	10.8	7.8	9.1	10.0	8.1	9.0

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.4	8.1	8.3	8.7	8.3	8.5	8.0	7.7	7.8	7.9	7.6	7.8
2	8.4	8.2	8.3	8.7	8.5	8.7	7.8	7.2	7.6	7.9	7.7	7.8
3	8.4	7.9	8.2	8.9	8.6	8.7	8.2	7.3	7.8	7.9	7.6	7.8
4	8.1	7.6	7.9	8.9	8.8	8.8	7.8	7.8	7.8	7.8	7.6	7.7
5	7.8	7.4	7.7	8.8	8.7	8.7	---	---	---	7.8	7.6	7.7
6	7.5	7.1	7.3	8.8	8.5	8.6	7.5	6.8	7.4	7.8	7.6	7.7
7	7.4	6.9	7.1	8.6	8.2	8.4	6.9	6.1	6.6	7.9	7.6	7.7
8	7.4	6.5	6.9	8.3	8.1	8.2	7.2	6.1	6.6	8.0	7.6	7.8
9	6.9	6.3	6.6	8.0	8.1	8.1	8.5	6.7	7.6	7.9	7.6	7.8
10	6.7	6.0	6.3	8.3	8.1	8.1	8.0	7.1	7.5	7.8	7.5	7.6
11	7.4	6.0	6.7	8.4	8.0	8.3	---	---	---	8.0	7.6	7.8
12	7.1	5.7	6.4	8.9	8.0	8.5	---	---	---	8.0	7.8	7.9
13	7.0	6.0	6.7	9.0	8.5	8.9	---	---	---	8.0	7.8	7.8
14	7.9	6.6	7.2	9.1	8.9	9.0	---	---	---	8.0	7.7	7.8
15	8.2	7.9	8.1	9.0	8.8	8.9	---	---	---	8.1	7.8	8.0
16	8.3	8.1	8.2	8.9	8.8	8.8	---	---	---	8.4	8.0	8.2
17	8.4	8.1	8.2	8.8	8.5	8.6	7.8	7.3	7.7	8.6	8.3	8.4
18	8.5	8.2	8.4	8.5	8.3	8.4	8.1	7.3	7.6	8.6	8.3	8.5
19	8.6	8.3	8.4	8.5	8.3	8.4	7.9	7.6	7.7	8.6	8.3	8.4
20	8.5	8.3	8.4	8.4	8.2	8.3	7.8	7.5	7.6	8.5	8.1	8.3
21	8.5	8.1	8.4	8.4	8.0	8.2	7.8	7.6	7.7	8.3	8.0	8.2
22	8.4	8.0	8.2	8.5	8.0	8.4	8.0	7.6	7.8	8.4	8.1	8.2
23	8.3	8.0	8.2	---	---	---	8.0	7.7	7.8	8.7	8.2	8.5
24	8.3	7.9	8.1	---	---	---	8.0	7.8	7.9	8.9	8.6	8.7
25	8.3	7.5	8.0	---	---	---	8.0	7.8	7.9	8.9	8.5	8.7
26	8.6	8.2	8.3	---	---	---	8.1	7.8	7.9	8.8	8.4	8.6
27	8.6	8.0	8.4	7.9	7.7	7.8	8.1	7.8	7.9	8.6	8.2	8.4
28	8.4	7.8	8.0	8.2	7.8	7.9	8.1	7.7	7.9	8.4	8.0	8.2
29	8.2	7.3	7.8	8.0	7.8	7.8	8.0	7.6	7.8	8.1	7.7	8.0
30	8.6	8.0	8.4	8.4	7.7	8.0	8.0	7.6	7.8	8.2	7.8	8.0
31	---	---	---	8.4	7.8	8.1	8.0	7.6	7.8	---	---	---
MONTH	8.6	5.7	7.8	9.1	7.7	8.4	8.5	6.1	7.6	8.9	7.5	8.1

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03598000 DUCK RIVER NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, Hydrologic Unit 06040002, on right bank 150 ft downstream from Sims Bridge, 2.1 mi upstream from Sugar Creek, 2.2 mi west of Shelbyville, 2.9 mi downstream from Flat Creek, and at mile 216.2.

DRAINAGE AREA.--481 mi^2.

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1934. WSP 853: Drainage area.

GAGE.--Data collection platform. Datum of gage is 683.51 ft above sea level. Prior to Sept. 2, 1966, at datum 2.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge prior to regulation, 62,900 ft^3/s, Feb. 13, 1948, gage height, 38.40 ft, present datum, from floodmarks, from rating curve extended above 35,000 ft^3/s on basis of slope-area measurement of peak flow. Prior to 1948, diurnal fluctuation caused by powerplant upstream. Flow regulated by Normandy Reservoir (station 03596460) since January 1976. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft present datum, discharge, about 70,000 ft^3/s, from high-water profile by Tennessee Valley Authority. Flood in March 1902 reached a stage about 2.0 ft higher than that in March 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,000 ft^3/s, at 1830 hours Jan. 23, gage height 26.46 ft; minimum, 156 ft^3/s, June 9, 10; minimum daily, 158 ft^3/s, June 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	204	309	1110	3790	1830	298	529	178	2520	189	175
2	199	211	297	1220	3080	1830	284	393	174	2220	183	178
3	228	305	296	2860	2620	2860	273	323	166	1810	177	177
4	223	329	295	1760	2260	2390	268	279	162	757	176	178
5	211	332	247	928	1430	1940	259	501	184	703	174	178
6	207	326	237	659	1290	1890	239	8870	174	653	173	177
7	229	416	257	587	1280	1700	227	4610	165	280	179	176
8	257	426	381	672	897	1530	222	2930	163	226	181	176
9	232	423	438	5700	751	1720	221	2420	159	216	180	177
10	215	436	444	2960	1180	1190	220	1990	158	224	178	177
11	210	455	425	1950	995	996	217	527	168	860	182	177
12	204	434	1180	1520	985	856	207	414	171	2250	206	178
13	202	426	5710	1290	1130	2710	199	386	169	1670	230	176
14	200	423	1760	2690	952	5190	199	436	194	1130	195	177
15	200	415	1520	2730	837	4110	226	359	295	961	182	181
16	199	408	1210	1960	767	2900	226	323	243	887	179	180
17	198	405	1040	1620	1320	2340	209	297	225	527	180	185
18	197	400	869	3620	1300	2010	201	286	181	378	173	181
19	201	396	431	2570	742	1710	195	277	169	362	170	181
20	201	401	408	1900	634	847	193	262	167	350	179	180
21	211	396	386	1550	575	867	191	251	165	355	185	190
22	209	390	429	1840	536	748	187	209	164	293	184	189
23	207	385	480	16300	515	671	186	195	169	260	183	183
24	209	380	1400	7760	510	637	190	188	464	237	182	182
25	209	375	1100	3650	490	597	183	181	2240	233	184	182
26	209	375	890	3050	418	556	210	180	791	230	177	181
27	210	370	1020	2750	578	389	527	176	823	220	174	183
28	207	368	1940	2500	3770	320	854	172	1020	206	174	181
29	208	364	2310	2330	---	312	855	169	3790	195	174	185
30	206	359	1540	2650	---	302	893	167	3480	201	172	183
31	210	---	1330	3990	---	291	---	175	---	190	169	---
TOTAL	6508	11333	30579	88676	35632	48239	8859	28475	16771	21604	5624	5404
MEAN	210	378	986	2861	1273	1556	295	919	559	697	181	180
MAX	257	455	5710	16300	3790	5190	893	8870	3790	2520	230	190
MIN	197	204	237	587	418	291	183	167	158	190	169	175
(†)	-3600	-7500	-1100	+1800	+1100	+2900	+4400	+5000	+4200	-5200	-3000	-3300
MEAN‡	93.8	128	951	2919	1312	1650	442	1080	699	529	84.6	70.1
CFSM†	.20	.27	1.98	6.07	2.73	3.43	.92	2.25	1.45	1.10	.18	.15
IN.‡	.22	.30	2.28	7.00	2.84	3.95	1.03	2.59	1.62	1.27	.20	.16

CAL YR 1998 MEAN‡ 998 CFSM‡ 2.07 IN.‡ 28.16
WTR YR 1999 MEAN‡ 831 CFSM‡ 1.73 IN.‡ 23.46

\+ Change in contents, in cfs-days in Normandy Lake.
‡ Adjusted for change in content.
NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority

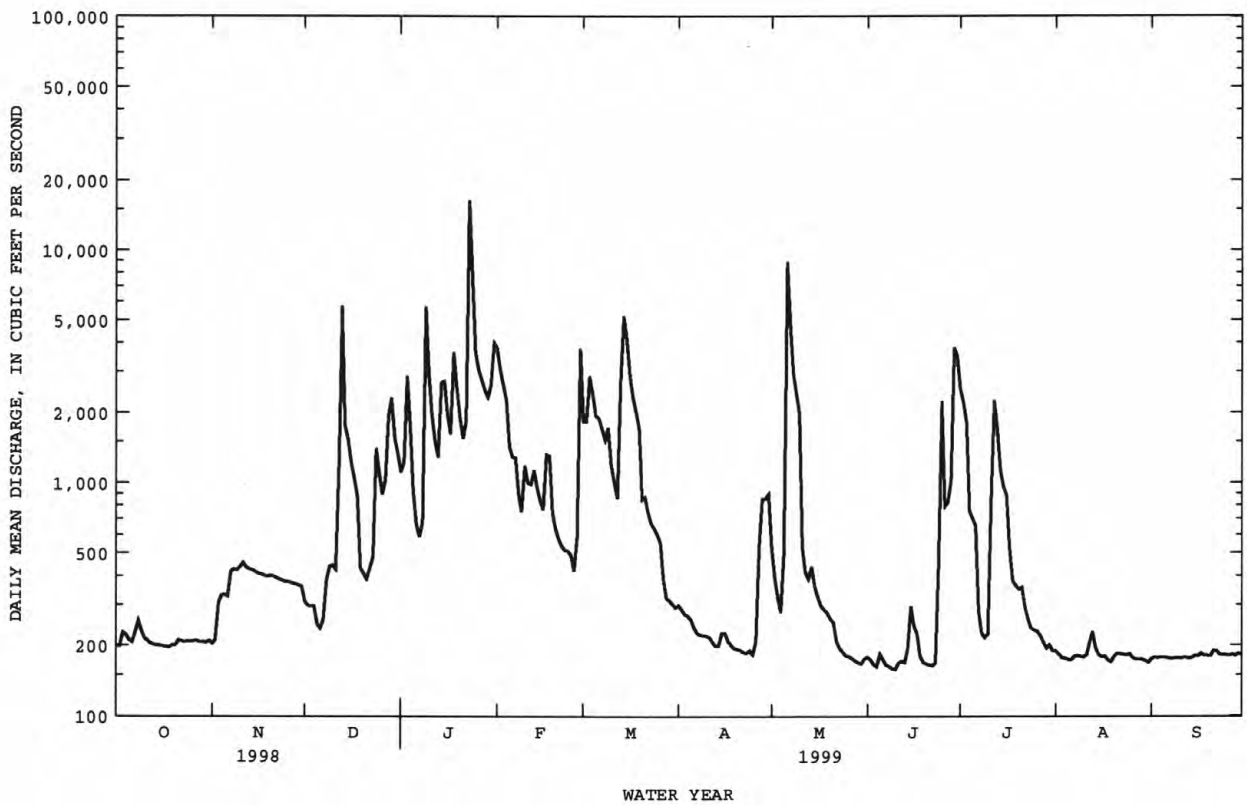
03598000 DUCK RIVER NEAR SHELBYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	404	975	1392	1423	1301	1497	910	739	547	352	288	310
MAX	1314	2277	4132	2873	3730	3649	2992	2753	2151	1670	749	1036
(WY)	1990	1987	1992	1979	1994	1980	1994	1983	1989	1989	1998	1992
MIN	157	170	337	175	339	308	165	137	166	166	154	163
(WY)	1988	1988	1981	1986	1978	1988	1986	1988	1988	1987	1983	1980

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1977 - 1999	
ANNUAL TOTAL	363901		307704			
ANNUAL MEAN	997		843		843	
HIGHEST ANNUAL MEAN					1253	1991
LOWEST ANNUAL MEAN					257	1981
HIGHEST DAILY MEAN	12400	Jan 8	16300	Jan 23	21700	Dec 23 1990
LOWEST DAILY MEAN	180	Sep 18	158	Jun 10	72	Oct 1 1982
ANNUAL SEVEN-DAY MINIMUM	182	Sep 14	165	Jun 7	88	Sep 25 1982
INSTANTANEOUS PEAK FLOW			19000	Jan 23	26100	Dec 23 1990
INSTANTANEOUS PEAK STAGE			26.46	Jan 23	29.88	Dec 23 1990
INSTANTANEOUS LOW FLOW			a156	Jun 9	71	Sep 30 1982
10 PERCENT EXCEEDS	2320		2280		2110	
50 PERCENT EXCEEDS	480		309		323	
90 PERCENT EXCEEDS	201		177		171	

* Regulated period only.
a Also occurred June 10.



03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN

LOCATION.--Lat 35°35'06", long 86°35'45", Bedford County, Hydrologic Unit 06040002, on left bank 25 ft downstream from State Highway 270 bridge, 1.2 mi downstream from Weakly Creek, 0.8 mi northwest of Poplins Crossroads, and at mile 3.4.

DRAINAGE AREA.--71.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1994 to April 1995, October 1998 to September 1999.

GAGE.--Data logger. Elevation of gage is 662 ft above sea level from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s revised and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0645	4,630	13.09	Mar 13	2115	1,930	9.67
Jan 9	0900	3,210	11.49	May 6	0915	2,960	11.19
Jan 23	0715	*7,390	*15.67				

No flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.06	.47	102	287	208	47	52	1.2	13	.05	.00
2	.02	.07	.42	240	194	134	37	36	1.2	8.9	.03	.00
3	.13	.07	.37	528	140	399	30	26	1.0	7.4	.01	.00
4	.27	.07	.39	173	105	190	27	19	1.2	5.9	.00	.00
5	.23	.06	.44	111	83	128	26	113	1.1	3.9	.00	.00
6	.18	.06	.48	90	72	184	24	2340	.92	3.8	.00	.00
7	.86	.13	1.2	88	105	130	25	332	.65	2.6	.00	.00
8	3.0	.40	11	228	101	95	19	153	.52	1.8	.00	.00
9	.94	.90	14	2320	88	198	17	104	.42	1.3	.00	.00
10	.66	1.1	7.1	376	139	146	14	79	.55	2.5	.00	.00
11	.47	1.3	11	212	98	106	12	59	1.1	31	.00	.00
12	.32	.76	576	161	202	83	9.4	44	1.1	38	.01	.00
13	.22	.55	2970	152	154	919	7.9	35	.82	29	.09	.00
14	.17	.57	339	519	104	1200	7.9	28	.91	12	.13	.00
15	.16	.63	167	258	85	601	21	22	1.0	6.7	.09	.00
16	.13	.65	112	166	70	243	28	16	.86	3.9	.06	.00
17	.14	.61	83	132	201	156	17	12	1.5	2.5	.03	.00
18	.14	.48	64	828	135	112	13	11	1.1	1.7	.01	.00
19	.23	.47	58	263	95	86	11	9.8	.81	1.3	.00	.00
20	.26	.62	59	167	72	74	9.5	7.2	.66	1.0	.00	.00
21	.19	.61	49	127	59	95	8.2	5.4	.53	.79	.00	.00
22	.14	.59	60	447	50	68	6.7	4.3	.41	2.3	.00	.00
23	.12	.63	66	4700	45	55	5.7	3.4	.39	1.1	.00	.00
24	.13	.58	170	543	44	50	4.9	2.9	1.6	.71	.00	.00
25	.13	.52	125	271	40	44	4.3	2.2	32	.50	.00	.00
26	.13	.53	167	177	34	37	9.6	2.1	7.3	.31	.00	.00
27	.13	.48	256	133	430	32	139	1.8	6.4	.22	.00	.00
28	.11	.45	841	104	786	28	137	1.5	39	.17	.00	.00
29	.10	.49	460	98	---	27	94	1.2	81	.13	.00	.00
30	.10	.44	208	408	---	27	80	1.0	28	.10	.00	.00
31	.08	---	140	523	---	31	---	1.0	---	.06	.00	---
TOTAL	9.93	14.88	7016.87	14645	4018	5886	892.1	3524.8	215.25	184.59	0.51	0.00
MEAN	.32	.50	226	472	144	190	29.7	114	7.18	5.95	.016	.000
MAX	3.0	1.3	2970	4700	786	1200	139	2340	81	38	.13	.00
MIN	.02	.06	.37	88	34	27	4.3	1.0	.39	.06	.00	.00
CFSM	.00	.01	3.15	6.57	2.00	2.64	.41	1.58	.10	.08	.00	.00
IN.	.01	.01	3.63	7.58	2.08	3.05	.46	1.82	.11	.10	.00	.00

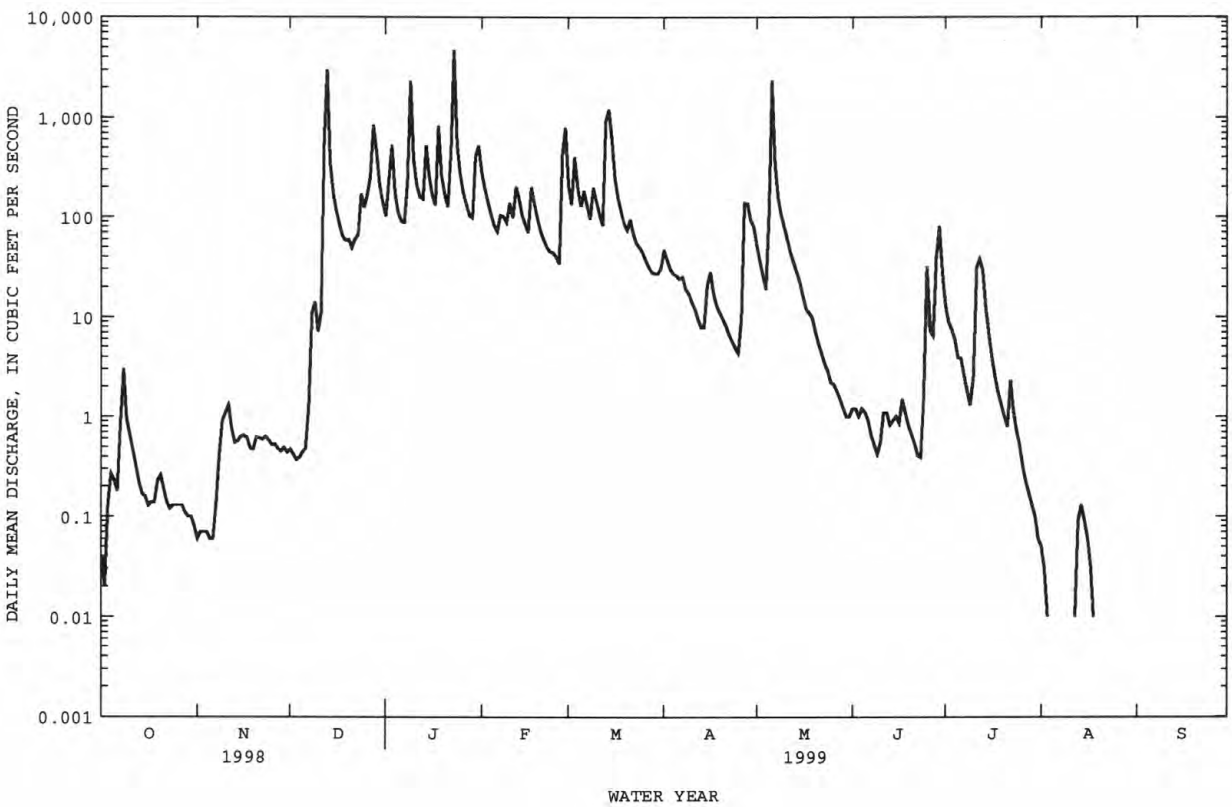
03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.9	52.2	188	319	117	224	165	70.7	4.95	12.3	15.2	8.54
MAX	51.4	104	226	472	144	258	369	114	7.18	18.6	30.4	24.9
(WY)	1995	1995	1999	1999	1999	1995	1994	1999	1999	1994	1994	1994
MIN	.32	.50	150	167	90.9	190	29.7	27.6	2.72	5.95	.016	.000
(WY)	1999	1999	1995	1995	1995	1999	1999	1994	1994	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL			36407.93			
ANNUAL MEAN			99.7		99.7	
HIGHEST ANNUAL MEAN					99.7	1999
LOWEST ANNUAL MEAN					99.7	1999
HIGHEST DAILY MEAN	2970	Dec 13	4700	Jan 23	4700	Jan 23 1999
LOWEST DAILY MEAN	.02	Oct 2	.00	Aug 4	.00	Aug 4 1999
ANNUAL SEVEN-DAY MINIMUM	.07	Oct 31	.00	Aug 4	.00	Aug 4 1999
INSTANTANEOUS PEAK FLOW			7390	Jan 23	7390	Jan 23 1999
INSTANTANEOUS PEAK STAGE			15.67	Jan 23	15.67	Jan 23 1999
INSTANTANEOUS LOW FLOW			a.00	Aug 4	b.00	Aug 4 1999
ANNUAL RUNOFF (CFSM)			1.39		1.39	
ANNUAL RUNOFF (INCHES)			18.84		18.85	
10 PERCENT EXCEEDS	130		199		200	
50 PERCENT EXCEEDS	.76		3.9		17	
90 PERCENT EXCEEDS	.11		.00		.13	

a No flow many days.
b No flow, many days 1999 water year.



03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1998 to September 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JAN												
19...	0930	264	264	7.8	7.9	750	22	9.5	81	760	800	120
FEB												
17...	1415	278	301	8.0	10.5	748	37	9.4	84	3800	3500	150
28...	1015	889	179	7.5	11.0	744	75	8.5	79	--	--	87
MAR												
09...	0945	240	325	7.9	8.0	741	21	11.0	96	700	840	150
APR												
05...	1515	25	301	8.1	19.5	746	3	10.2	114	K35	K35	160
MAY												
10...	1130	78	360	8.0	17.5	745	7	6.9	74	220	220	180
JUN												
07...	1345	.68	330	7.7	26.0	747	6	5.7	72	E60	E60	150
JUL												
12...	1430	43	286	8.1	24.0	748	10	6.3	76	160	130	140
SEP												
10...	0845	.00	279	7.9	21.5	742	5	3.7	43	480	370	130

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN											
19...	11	46	2.6	1.7	3	.1	1.4	139	114	3.6	9.9
FEB											
17...	19	53	2.9	1.9	3	.1	1.2	154	128	2.6	11
28...	16	32	1.9	1.2	3	.1	1.6	87	71	--	7.1
MAR											
09...	0	54	3.0	1.8	3	.1	.76	178	146	--	9.5
APR											
05...	24	59	3.8	2.4	3	.1	.84	169	139	--	12
MAY											
10...	13	67	3.6	2.0	2	.1	1.3	207	170	--	9.3
JUN											
07...	--	54	4.0	2.6	4	.1	1.1	189	157	--	8.0
JUL											
12...	19	52	3.3	2.3	3	.1	2.6	152	124	--	9.6
SEP											
10...	12	43	5.2	3.1	5	.1	2.3	144	118	--	5.1

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
JAN											
19...	4.6	<.10	5.2	159	145	.22	--	<.010	1.16	.030	.15
FEB											
17...	5.1	<.10	4.0	177	159	.24	--	<.010	.813	.021	.30
28...	3.3	<.10	4.2	118	97	.16	.499	.023	.522	.074	.57
MAR											
09...	5.2	<.10	3.5	185	169	.25	.916	.010	.926	.020	.16
APR											
05...	5.1	<.10	.84	187	167	.25	--	<.010	.135	<.020	.19
MAY											
10...	4.4	<.10	5.6	224	201	.30	--	<.010	1.18	.052	.23
JUN											
07...	5.1	<.10	4.1	194	174	.26	.325	.015	.340	.110	.28
JUL											
12...	5.2	<.10	6.7	186	160	.25	.735	.016	.751	.035	.50
SEP											
10...	6.5	.10	5.7	155	142	.21	--	<.010	<.050	<.020	.47

K--Results based on non-ideal colony count.
E--Estimated.

03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN											
19...	.38	1.5	.480	.155	.134	17	E1.8	2.1	.40	4	96
FEB											
17...	.49	1.3	.078	.026	.013	13	4.2	3.6	1.1	12	98
28...	.95	1.5	.220	.098	.063	39	4.2	6.3	2.8	93	99
MAR											
09...	.27	1.2	.046	.014	.026	E5.6	4.2	2.0	.40	30	99
APR											
05...	.24	.37	.011	.008	.014	E7.9	8.3	2.2	.30	7	64
MAY											
10...	.28	1.5	.007	.028	.028	E6.5	8.4	2.5	.20	9	84
JUN											
07...	.29	.63	.038	.025	.027	E7.0	19	2.4	.30	11	50
JUL											
12...	.55	1.3	.032	.040	.034	14	9.1	6.0	.30	39	99
SEP											
10...	.64	--	.036	.012	<.010	E6.7	10	6.5	.90	--	--

E--Estimated

03599000 BIG ROCK CREEK AT LEWISBURG, TN

LOCATION.--Lat 35°26'56", long 86°47'09", Marshall County, Hydrologic Unit 06040002, on downstream side of center pier of bridge on U.S. Highway 431, State Highway 50/431, 800 ft east of Marshall County courthouse in Lewisburg, and at mile 17.9.

DRAINAGE AREA.--24.9 mi^2.

PERIOD OF RECORD.--October 1953 to September 1961, March 1966 to September 1968, July 1995 to current year. Occasional measurements, water years, 1902, 1932-33 (published as West Rock Creek) 1945, 1950-52, 1955, 1963-64, 1988, 1990; water years 1962-66, 1969-70, annual maximums. Prior to December 1953 monthly discharges only published in WSP 1726.

GAGE.--Data collection platform. Datum of gage is 699.78 ft (supplemental adjustment of 1955) above sea level. Prior to July 1, 1995 at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1939 (discharge, 16,300 ft^3/s) exceeded all previously known floods, including those in 1902, and 1856, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 12	2145	3,000	11.31	May 6	0030	2,570	10.78
Jan 22	2300	*12,500	*18.69				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	.78	1.3	39	126	73	25	27	6.4	2.2	.08	.00
2	.66	.74	1.3	90	88	60	23	19	5.8	7.6	.04	.00
3	3.8	.88	1.3	118	63	212	22	15	4.5	4.6	.03	.00
4	3.9	.92	1.2	64	46	95	22	13	3.7	2.7	.02	.00
5	2.2	.90	1.5	44	35	65	21	153	6.7	2.0	.01	.00
6	1.6	.67	1.6	36	31	86	21	841	4.5	1.5	.00	.00
7	4.8	.69	7.2	32	33	63	20	161	3.7	1.2	.00	.00
8	6.8	.97	16	131	29	50	19	74	3.0	1.1	.00	.14
9	3.5	1.3	13	545	124	88	19	42	2.6	.92	.00	.01
10	2.5	4.1	9.4	160	102	64	18	28	2.5	.93	.00	.00
11	2.1	4.3	16	92	55	51	18	22	2.3	1.5	.01	.00
12	1.7	2.2	622	63	55	43	17	18	2.1	2.4	.01	.00
13	1.4	1.9	516	63	46	440	17	16	2.3	2.1	.00	.00
14	1.1	2.3	124	246	38	452	17	14	3.7	1.6	.00	.00
15	1.0	2.5	60	133	33	263	25	13	4.2	1.2	.00	.00
16	.89	2.2	39	85	30	142	22	12	2.9	1.0	.00	.00
17	.77	2.0	29	66	39	94	20	10	2.1	.91	.00	.00
18	.68	2.2	24	184	34	67	20	10	1.8	.90	.00	.00
19	1.3	1.6	23	92	30	51	19	9.1	1.5	.81	.00	.00
20	1.3	2.3	22	66	27	45	19	8.3	1.4	.77	.00	.02
21	1.0	2.8	20	50	24	42	18	7.8	1.2	5.4	.00	.04
22	.85	2.1	23	1550	23	35	17	7.3	1.1	2.4	.00	.01
23	.78	1.9	26	1690	22	32	16	6.8	1.5	1.2	.00	.01
24	.80	1.9	57	297	21	30	15	6.1	3.9	4.8	.00	.01
25	.81	1.6	44	149	20	27	15	5.6	4.4	2.8	.00	.01
26	.78	1.6	50	94	20	25	19	6.0	2.9	1.2	.00	.01
27	.78	1.3	79	63	98	24	42	5.5	3.7	.81	.00	.01
28	.74	1.3	332	46	154	23	23	5.0	4.6	.59	.00	.01
29	.77	1.3	168	44	---	23	96	4.6	4.9	.36	.00	.44
30	.71	1.2	86	148	---	22	52	4.5	3.0	.22	.00	.03
31	.72	---	55	172	---	23	---	5.3	---	.17	.00	---
TOTAL	51.49	52.45	2468.8	6652	1446	2810	717	1569.9	98.9	57.89	0.20	0.75
MEAN	1.66	1.75	79.6	215	51.6	90.6	23.9	50.6	3.30	1.87	.006	.025
MAX	6.8	4.3	622	1690	154	452	96	841	6.7	7.6	.08	.44
MIN	.66	.67	1.2	32	20	22	15	4.5	1.1	.17	.00	.00
CFSM	.07	.07	3.20	8.62	2.07	3.64	.96	2.03	.13	.07	.00	.00
IN.	.08	.08	3.69	9.94	2.16	4.20	1.07	2.35	.15	.09	.00	.00

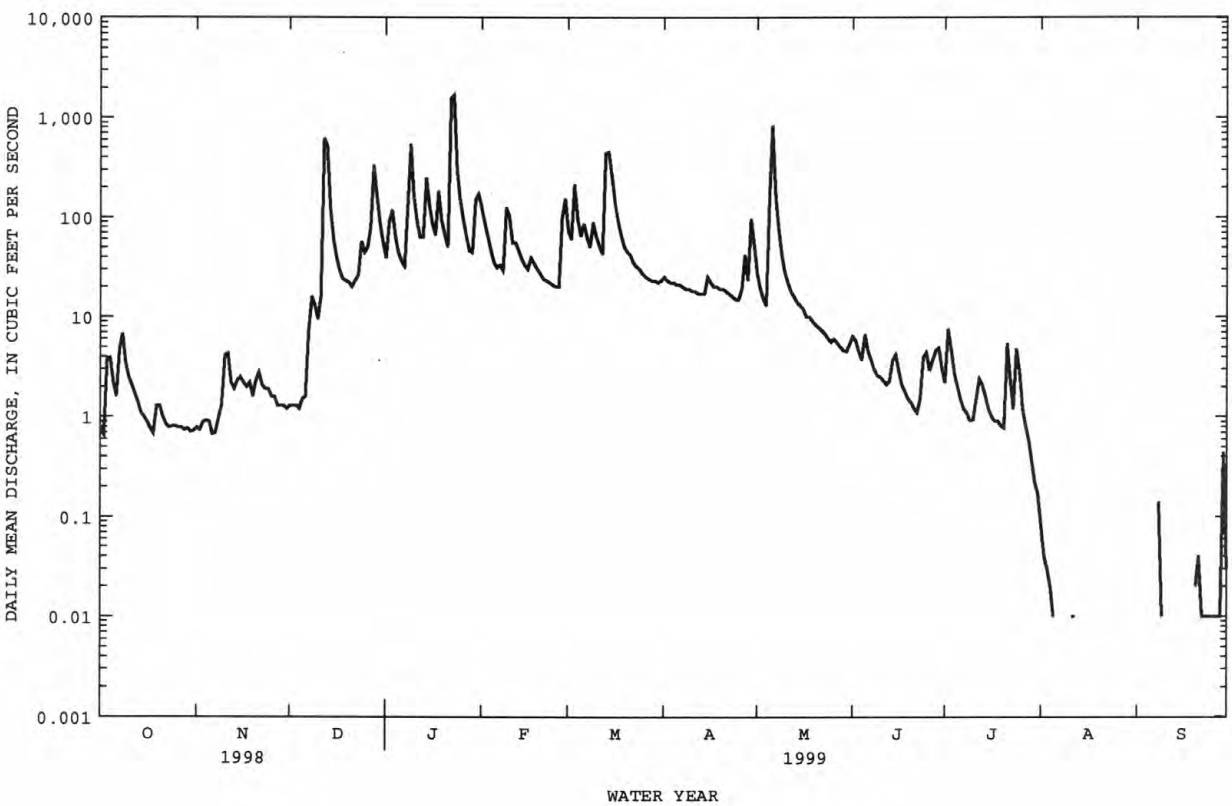
03599000 BIG ROCK CREEK AT LEWISBURG, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.4	36.4	72.7	86.5	80.3	96.0	48.8	46.1	23.8	13.0	7.92	13.6
MAX	89.5	146	166	215	172	234	109	168	136	75.3	49.4	74.3
(WY)	1996	1958	1997	1999	1956	1955	1958	1967	1997	1967	1967	1957
MIN	.002	1.16	9.08	24.0	23.3	32.9	11.4	5.65	1.77	.029	.006	.005
(WY)	1956	1955	1959	1967	1968	1954	1967	1956	1956	1954	1999	1955

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1954 - 1999	
ANNUAL TOTAL	19917.55		15925.38			
ANNUAL MEAN	54.6		43.6		46.1	
HIGHEST ANNUAL MEAN					75.8	1997
LOWEST ANNUAL MEAN					29.0	1959
HIGHEST DAILY MEAN	1190	Jun 5	1690	Jan 23	3800	Mar 21 1955
LOWEST DAILY MEAN	.66	Oct 2	.00	Aug 6	a.00	Jul 2 1954
ANNUAL SEVEN-DAY MINIMUM	.75	Oct 27	.00	Aug 13	.00	Jul 24 1954
INSTANTANEOUS PEAK FLOW			12500	Jan 22	b16700	Mar 21 1955
INSTANTANEOUS PEAK STAGE			18.69	Jan 22	c23.62	Mar 21 1955
INSTANTANEOUS LOW FLOW			d.00	Aug 6	a.00	Jul 2 1954
ANNUAL RUNOFF (CFSM)	2.19		1.75		1.85	
ANNUAL RUNOFF (INCHES)	29.76		23.79		25.16	
10 PERCENT EXCEEDS	126		92		91	
50 PERCENT EXCEEDS	16		4.8		12	
90 PERCENT EXCEEDS	.92		.00		.30	

a Occurred at times 1954-57, 1968.
b From rating curve extended above 2,400 ft^3/s on basis of contracted opening measurement of peak flow at site 0.6 mi upstream (drainage area 19.0 mi^2).
c Current datum, from floodmarks.
d Many days.



03599500 DUCK RIVER AT COLUMBIA, TN

LOCATION.--Lat 35°37'05", long 87°01'56", Maury County, Hydrologic Unit 06040003, on right bank 4 ft downstream from bridge on former U.S. Highway 31, 2 blocks north of public square in Columbia, 2.4 mi upstream from Rutherford Creek, and at mile 132.8.

DRAINAGE AREA.--1,208 mi^2.

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau. Discharge records furnished by Tennessee Valley Authority, 1983-1991.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Data collection platform. Datum of gage is 535.33 ft above sea level, supplementary adjustment of 1955. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft higher prior to Oct. 1, 1933.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Maximum discharge prior to regulation, 61,500 ft^3/s, Mar. 17, 1973; maximum gage height, 51.75 ft Feb. 14, 1948; no flow Oct. 22, 1922, caused by regulation by power plant .75 mi upstream. Flow regulated by Normandy Lake (station 03596460) since January 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1902, reached a stage of 48.0 ft, present datum, discharge, 50,700 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,100 ft^3/s, Jan. 24, gage height, 39.54 ft; minimum, 136 ft^3/s, Sept. 18, gage height, 1.58 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	198	364	2790	8260	7260	747	2920	259	4150	190	146
2	187	201	354	2410	7050	4170	769	1770	252	3180	181	143
3	229	200	303	3950	5480	4360	741	1240	266	2630	171	143
4	244	200	273	5580	4370	6410	739	938	236	2350	167	148
5	296	250	271	3680	3550	4810	711	1140	247	1350	160	148
6	280	296	270	2450	2610	3810	688	10300	239	944	157	148
7	252	301	271	1810	2250	3750	665	17600	244	859	157	147
8	249	308	297	1800	2270	3200	605	11600	235	665	155	147
9	299	411	403	10600	2210	3050	545	5380	213	362	155	147
10	329	481	690	14800	3620	3670	507	4050	207	282	160	146
11	285	503	699	8400	3660	2960	471	3330	203	294	163	140
12	248	495	2410	4700	3820	2330	437	1900	199	550	179	144
13	231	499	14700	3550	4030	3920	401	1250	201	1840	181	148
14	220	477	17100	4540	3220	13100	380	1040	231	2340	232	151
15	214	464	7050	6540	2530	15700	436	953	278	1490	270	147
16	201	448	3460	5590	2090	10700	485	885	300	1210	225	142
17	196	434	2590	4040	2210	6690	535	724	386	1060	182	139
18	194	421	2080	5120	2940	5010	492	653	268	896	168	138
19	200	414	1790	7510	2710	4010	411	587	270	612	162	142
20	199	419	1350	5420	2050	3350	372	535	238	457	159	158
21	197	410	1100	3850	1640	2410	365	438	209	434	154	168
22	195	411	995	4040	1430	2160	327	416	193	382	153	165
23	200	409	1010	27500	1270	1880	319	389	188	403	160	162
24	203	403	1240	34700	1170	1650	307	346	200	341	165	160
25	202	393	2230	33100	1090	1500	300	310	406	294	171	154
26	204	390	2410	15900	1020	1350	354	296	3140	299	166	150
27	212	381	2430	6180	1280	1210	574	282	1430	227	166	151
28	207	371	4350	4830	4740	1060	1470	270	1200	225	162	152
29	204	368	7810	4150	---	845	2240	260	1420	220	155	164
30	203	365	6030	4220	---	761	3800	247	3830	209	150	173
31	200	---	3730	7100	---	744	---	247	---	190	149	---
TOTAL	6966	11321	90060	250850	84570	127830	21193	72296	17188	30745	5325	4511
MEAN	225	377	2905	8092	3020	4124	706	2332	573	992	172	150
MAX	329	503	17100	34700	8260	15700	3800	17600	3830	4150	270	173
MIN	186	198	270	1800	1020	744	300	247	188	190	149	138
(†)	-3600	-7500	-1100	+1800	+1100	+2900	+4400	+5000	+4200	-5200	-3000	-3300
MEAN‡	109	127	2870	8150	3060	4217	853	2493	713	824	75	40.4
CFSM†	.09	.11	2.38	6.75	2.53	3.49	.71	2.06	.59	.68	.06	.03
IN.‡	.10	.12	2.74	7.78	2.64	4.02	.79	2.38	.66	.79	.07	.04

CAL YR 1998 MEAN‡ 2361 CFSM‡ 1.95 IN.‡ 26.53
WTR YR 1999 MEAN‡ 1969 CFSM‡ 1.62 IN.‡ 22.12

† Change in contents, in cfs-days, in Normandy Lake.
‡ Adjusted for change in contents.
NOTE.--(cfs-days) for adjustments furnished by Tennessee Valley Authority.

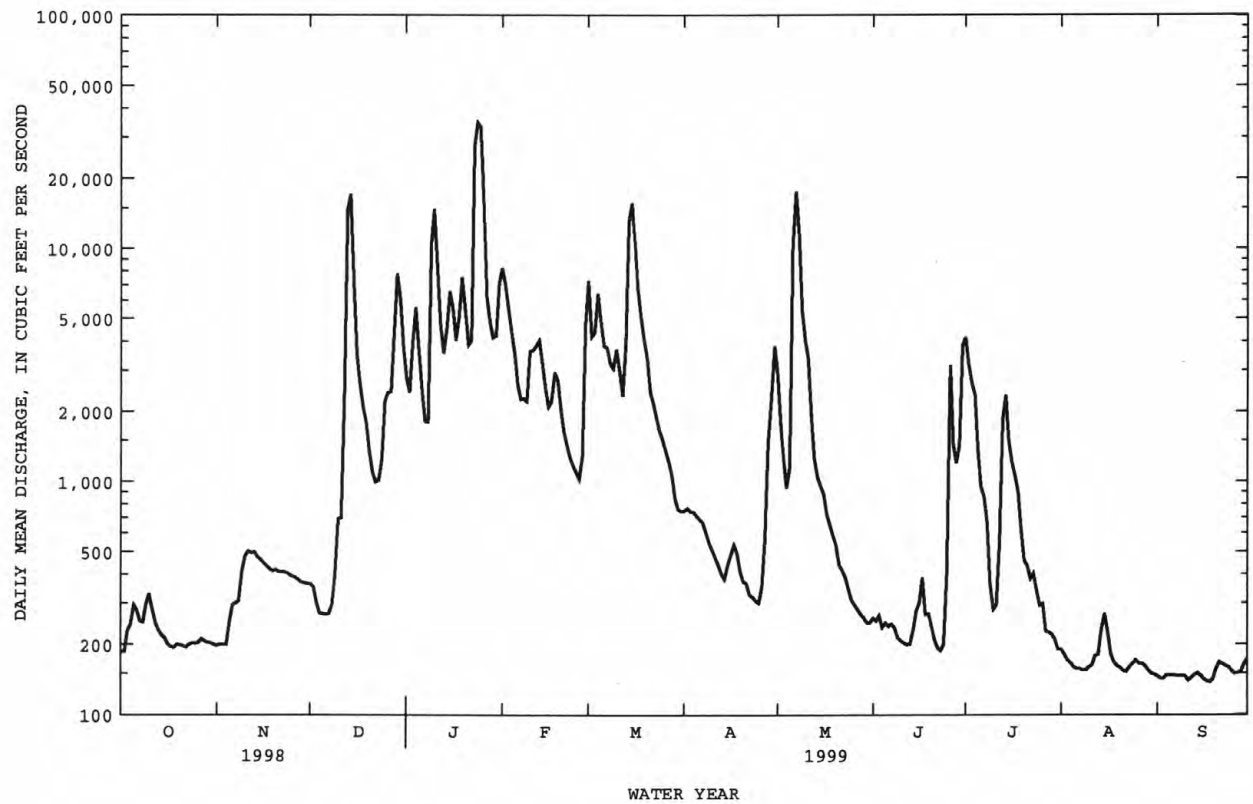
03599500 DUCK RIVER AT COLUMBIA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	841	2180	3662	3809	3559	4239	2592	2055	1105	693	457	635
MAX	3642	5925	10360	8513	9901	10090	7464	9106	5081	4740	1365	3832
(WY)	1990	1987	1991	1979	1991	1980	1994	1983	1997	1989	1998	1979
MIN	180	236	418	273	953	1104	325	244	167	220	172	150
(WY)	1988	1981	1981	1986	1978	1985	1986	1988	1988	1988	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		*WATER YEARS 1977 - 1999	
ANNUAL TOTAL	861595		722855			
ANNUAL MEAN	2361		1980		2147	
HIGHEST ANNUAL MEAN					3282	1989
LOWEST ANNUAL MEAN					553	1981
HIGHEST DAILY MEAN	21700	Jan 9	34700	Jan 24	52300	Feb 20 1991
LOWEST DAILY MEAN	155	Sep 15	138	Sep 18	86	Oct 4 1982
ANNUAL SEVEN-DAY MINIMUM	165	Sep 13	144	Sep 13	100	Sep 28 1982
INSTANTANEOUS PEAK FLOW			36100	Jan 24	52300	Feb 20 1991
INSTANTANEOUS PEAK STAGE			39.54	Jan 24	45.82	Feb 20 1991
10 PERCENT EXCEEDS	6060		4770		4990	
50 PERCENT EXCEEDS	1210		434		806	
90 PERCENT EXCEEDS	201		160		190	

* Regulated period only.



03600085 CARTERS CREEK AT PETTY LANE NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'39", long 86°59'19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mile north of Carters Creek, and at mile 4.7.

DRAINAGE AREA.--16.6 mi^2.

PERIOD OF RECORD.--October 1986 to current year

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV									
23...	0910	80020	1.0	434	9.5	7.5	758	7.9	69
FEB									
23...	0930	80020	18	334	7.0	7.9	746	13.8	117
JUN									
02...	0910	80020	4.4	343	20.0	7.6	745	7.4	83
AUG									
10...	0945	80020	.23	440	22	7.3	745	4.5	53

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV									
23...	80	350	1	<100	<1	<1	6	<1	<.10
FEB									
23...	350	60	<1	<100	<1	<1	4	<1	<.10
JUN									
02...	K450	1600	<1	<1.2	--	<1	--	--	<.10
AUG									
10...	670	--	1	26	<1	<1	1	<1	<.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L) (00556)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV									
23...	1	1	<1	<10	<.010	<1	6	.02	62
FEB									
23...	<1	<1	<1	<10	<.010	<1	4	.19	67
JUN									
02...	--	<1	--	<40	<.010	<1	7	.08	79
AUG									
10...	<1	<1	<1	<40	<.010	<1	6	.00	91

K--Results based on non-ideal colony count.

03600086 CARTERS CREEK TRIBUTARY NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'34", long 86°59'19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mile north of Carters Creek.

DRAINAGE AREA.--2.94 mi^2.

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV									
23...	0950	80020	.71	722	12.5	7.6	758	9.0	85
FEB									
23...	1030	80020	3.9	652	8.5	8.0	746	12.9	114
JUN									
02...	1000	80020	2.4	401	22.0	7.5	745	7.6	89
AUG									
10...	1045	80020	.05	712	22.0	7.5	745	5.5	64

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV									
23...	32	98	<1	<100	<1	<1	20	<1	<.10
FEB									
23...	38	22	<1	<100	<1	<1	2	<1	<.10
JUN									
02...	280	530	2	12	<1	<1	1	<1	<.10
AUG									
10...	20	--	<1	25	<1	<1	<1	<1	<.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L) (00556)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV									
23...	2	<1	<1	<10	<.010	<1	2	.00	50
FEB									
23...	<1	<1	<1	<10	<.010	<1	2	.02	80
JUN									
02...	<1	<1	<1	<40	<.010	<1	7	.04	71
AUG									
10...	<1	<1	<1	<40	<.010	<1	4	.00	77

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN

LOCATION.--Lat 35°43'02", long 86°59'45", Maury County, Hydrologic Unit 06040003, on left bank at end of Butler Road bridge, 0.1 mi west of Carters Creek, 0.3 mi upstream from Terrell Branch, 3.7 mi upstream from Rutherford Creek, and at mile 3.7.

DRAINAGE AREA.--20.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to current year. Occasional low-flow measurements, water year 1986.

REVISED RECORD.--WDR TN-97-1: 1992-96 (M): 1992-96(P).

GAGE.--Data collection platform, crest-stage gage and concrete weir. Datum of gage is 605.94 ft above sea level.

REMARKS.--Records good. Diurnal fluctuation caused by industrial development upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 12	1945	1,390	9.31	Jan 9	0030	1,690	10.30
Dec 12	2330	1,200	8.64	Jan 22	2345	*2,430	*12.78

Minimum discharge, 0.16 ft^3/s, July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.69	2.1	34	102	67	24	19	7.3	2.6	.27	.35
2	.51	.71	1.5	78	79	54	21	15	6.6	15	.28	.31
3	5.5	.79	1.3	86	63	85	19	12	3.9	10	.27	.28
4	5.3	.78	1.2	57	52	61	24	10	2.9	4.5	.25	.30
5	6.4	.77	1.4	44	43	50	21	24	4.6	2.9	.26	.26
6	8.1	.74	1.5	37	38	56	20	176	3.9	2.4	.25	.24
7	8.2	.75	30	33	42	47	17	63	3.1	2.0	.25	.23
8	9.2	.85	74	180	37	42	16	41	2.5	1.7	.25	.22
9	4.8	1.0	36	397	44	56	15	32	2.0	1.5	.25	.21
10	2.9	3.6	21	119	55	49	13	26	2.3	1.9	.24	.20
11	2.0	5.2	17	84	47	43	13	21	2.1	8.1	.24	.23
12	1.6	2.1	329	67	163	37	11	17	1.6	9.4	1.2	.23
13	1.3	1.3	286	63	93	142	9.8	15	1.8	4.4	3.3	.39
14	1.1	1.5	91	77	69	317	11	13	2.3	3.1	1.3	.64
15	1.0	1.3	61	61	56	204	22	11	2.2	2.2	.70	.30
16	.96	1.1	46	51	47	125	19	9.7	1.7	1.6	.50	.24
17	.90	1.0	36	53	56	92	15	8.3	1.4	1.2	.40	.22
18	.85	.98	30	92	46	72	12	14	1.2	1.0	.34	.20
19	1.3	.98	29	64	40	58	11	12	1.1	.91	.30	.21
20	1.1	2.0	27	53	34	49	10	8.4	.98	.74	.28	2.7
21	.86	2.0	25	44	30	42	9.0	6.5	1.1	.67	.27	4.2
22	.82	1.5	27	361	26	36	8.0	5.5	1.1	.60	.24	2.7
23	.77	1.3	27	834	25	33	7.2	5.0	1.0	.47	.23	1.1
24	.73	1.2	24	160	24	30	6.4	4.6	1.6	.43	.57	.57
25	.74	1.2	23	106	21	27	6.0	4.0	2.3	.39	17	.48
26	.74	1.1	27	79	19	24	12	3.9	1.9	.38	4.4	.42
27	.72	1.1	33	64	86	22	12	3.4	9.5	.41	1.9	.37
28	.71	1.0	88	53	98	20	9.6	3.0	7.8	.39	.95	.33
29	.71	.99	74	48	---	21	38	2.7	6.2	.35	.58	.39
30	.69	1.0	52	91	---	18	27	2.5	3.7	.29	.42	.81
31	.69	---	41	119	---	21	---	2.6	---	.23	.38	---
TOTAL	71.78	40.53	1563.0	3689	1535	2000	459.0	591.1	91.68	81.76	38.07	19.33
MEAN	2.32	1.35	50.4	119	54.8	64.5	15.3	19.1	3.06	2.64	1.23	.64
MAX	9.2	5.2	329	834	163	317	38	176	9.5	15	17	4.2
MIN	.51	.69	1.2	33	19	18	6.0	2.5	.98	.23	.23	.20
CFSM	.12	.07	2.51	5.92	2.73	3.21	.76	.95	.15	.13	.06	.03
IN.	.13	.08	2.89	6.83	2.84	3.70	.85	1.09	.17	.15	.07	.04

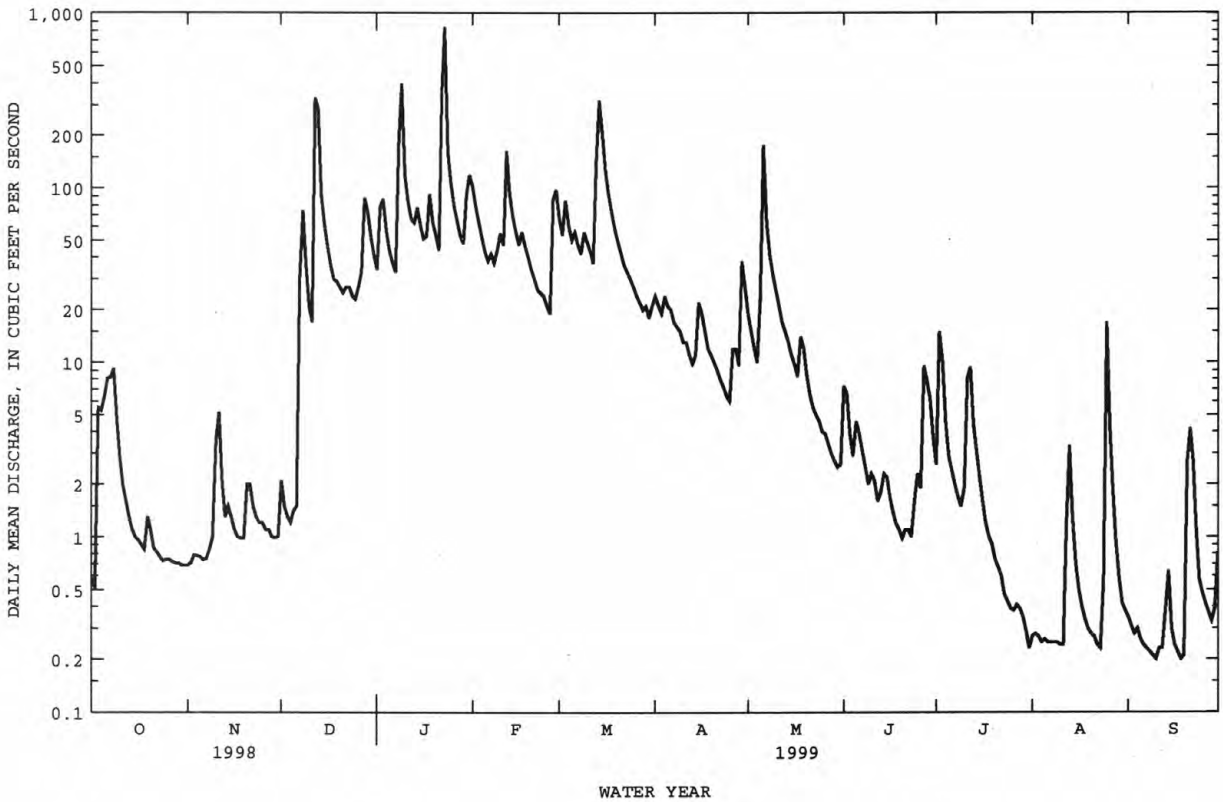
03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.08	29.6	58.6	63.8	70.5	69.4	36.6	29.6	17.8	10.2	3.79	6.49
MAX	44.8	64.7	126	119	146	138	98.7	93.4	54.2	45.5	9.53	20.3
(WY)	1990	1989	1991	1999	1990	1994	1994	1991	1998	1989	1998	1989
MIN	.51	1.35	18.7	33.6	20.8	20.5	13.9	3.11	.51	.54	.47	.64
(WY)	1988	1999	1990	1987	1995	1988	1992	1988	1988	1988	1987	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	12364.33		10180.25			
ANNUAL MEAN	33.9		27.9		33.5	
HIGHEST ANNUAL MEAN					50.0	1989
LOWEST ANNUAL MEAN					17.4	1988
HIGHEST DAILY MEAN	607	Jun 5	834	Jan 23	1430	Feb 3 1990
LOWEST DAILY MEAN	.51	Oct 2	.20	Sep 10	.12	Aug 15 1987
ANNUAL SEVEN-DAY MINIMUM	.70	Oct 27	.22	Sep 6	.15	Jun 25 1988
INSTANTANEOUS PEAK FLOW			2430	Jan 22	3300	May 3 1993
INSTANTANEOUS PEAK STAGE			12.78	Jan 22	15.90	May 3 1993
INSTANTANEOUS LOW FLOW			.16	Jul 30	a.11	Aug 15 1987
ANNUAL RUNOFF (CFSM)	1.69		1.39		1.67	
ANNUAL RUNOFF (INCHES)	22.88		18.84		22.67	
10 PERCENT EXCEEDS	74		68		70	
50 PERCENT EXCEEDS	21		5.3		13	
90 PERCENT EXCEEDS	1.0		.35		.86	

a Also occurred Aug. 16, 1987, June 26, 1988.



03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV									
23...	1035	80020	2.1	521	10.5	7.4	758	9.9	89
FEB									
23...	1120	80020	24	383	7.5	8.4	746	14.7	126
JUN									
02...	1045	80020	6.7	355	22	7.8	745	8.6	100
AUG									
10...	1130	80020	.22	465	23.0	7.7	745	6.0	72

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
NOV									
23...	37	160	<1	<100	<1	<1	<1	<1	<.10
FEB									
23...	200	54	1	<100	<1	<1	2	<1	<.10
JUN									
02...	510	740	1	17	<1	<1	<1	<1	<.10
AUG									
10...	650	--	1	20	<1	<1	<1	<1	<.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L) (00556)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV									
23...	<1	<1	<1	<10	<.010	<1	2	.01	73
FEB									
23...	<1	<1	<1	<10	<.010	<1	4	.26	64
JUN									
02...	<1	<1	<1	<40	<.010	<1	5	.09	89
AUG									
10...	<1	<1	<1	<40	<.010	<1	3	.00	82

03602219 PINEY RIVER AT CEDAR HILL, TN

LOCATION.--Lat 35°59'43", long 87°26'22", Dickson County, Hydrologic Unit 06040003, on right bank 300 ft upstream of Interstate Highway 40 bridge, 0.2 mi southeast of Cedar Hill, 0.5 mi upstream from Double Branch, and at mile 22.

DRAINAGE AREA.--46.6 mi^2.

PERIOD OF RECORD.--October 1987 to current year, discharge for stage of 7.00 ft and below only.

GAGE.--Data collection platform. Datum of gage is 552.20 ft above sea level.

REMARKS.--Records good. The City of Dickson diverts water for municipal water supply at confluence of West Piney River, 1.6 mi upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 19.78 ft, May 27, 1991; minimum discharge, 7.6 ft^3/s, Sept. 4, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 14.54 ft, Jan. 22; minimum discharge, 9.0 ft^3/s, Sept. 16, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	16	27	256	129	82	37	23	20	16	10
2	19	19	16	40	201	139	79	35	21	---	15	10
3	57	20	16	62	156	321	77	34	21	181	14	10
4	29	20	16	53	128	205	85	33	20	101	14	9.9
5	25	20	45	47	108	158	80	61	22	73	14	10
6	27	20	23	44	97	283	82	218	20	56	13	10
7	31	20	44	41	96	188	76	95	20	47	13	9.8
8	28	20	136	---	86	154	74	72	19	42	14	9.9
9	25	20	73	---	85	152	72	59	19	38	14	10
10	23	25	50	316	84	122	69	51	19	116	13	10
11	22	21	40	182	81	106	65	46	18	76	13	9.9
12	21	18	60	135	106	94	59	41	18	58	14	9.8
13	21	18	124	110	98	190	55	40	19	47	14	10
14	20	18	82	95	91	---	56	37	23	40	13	11
15	20	18	62	83	85	---	69	35	20	35	13	10
16	20	17	52	74	85	299	60	33	19	31	13	9.4
17	20	16	46	68	120	212	55	31	18	29	12	9.8
18	19	16	43	68	106	162	53	30	17	27	11	9.7
19	20	17	41	62	99	133	51	29	17	25	11	9.6
20	20	19	37	58	88	118	49	28	17	23	11	15
21	19	17	34	56	80	108	47	27	17	22	12	15
22	19	17	35	---	76	96	46	27	17	21	11	12
23	19	17	32	---	73	90	44	26	17	20	11	11
24	19	16	30	---	70	92	43	25	18	19	11	11
25	19	16	28	265	66	83	42	24	17	19	12	10
26	19	16	28	188	63	76	44	24	22	18	11	10
27	19	16	27	149	173	71	42	23	80	18	11	10
28	19	16	30	129	164	68	40	22	29	18	11	10
29	19	16	30	152	---	67	39	21	33	17	11	10
30	19	16	29	189	---	64	37	21	22	16	10	10
31	19	---	28	346	---	72	---	22	---	17	11	---
TOTAL	695	544	1353	---	3021	---	1772	1307	662	---	387	312.8
MEAN	22.4	18.1	43.6	---	108	---	59.1	42.2	22.1	---	12.5	10.4
MAX	57	25	136	---	256	---	85	218	80	---	16	15
MIN	19	16	16	---	63	---	37	21	17	---	10	9.4
CFSM	.48	.39	.94	---	2.32	---	1.27	.90	.47	---	.27	.22
IN.	.55	.43	1.08	---	2.41	---	1.41	1.04	.53	---	.31	.25

03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, Hydrologic Unit 06040003, on left bank 0.4 mi downstream from Tumbling Creek, 1.3 mi upstream from bridge on State Highway 13, 3.6 mi southeast of Hurricane Mills, and at mile 26.0.

DRAINAGE AREA.--2,557 mi^2.

PERIOD OF RECORD.--October 1966 to September 1967, October 1973 to September 1979, October 1998 to September 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JAN												
20...	1015	9600	269	8.0	9.5	757	31	10.1	89	K1300	1100	120
FEB												
16...	1030	5530	275	8.0	10.0	757	9	10.7	93	240	230	130
MAR												
01...	1530	7760	232	7.9	11.5	750	25	8.4	78	K1300	1400	110
08...	1030	6810	240	7.9	9.5	760	15	10.7	94	300	220	110
15...	1300	24100	177	7.9	8.0	743	190	10.4	90	5700	3800	84
APR												
12...	1300	2050	233	8.6	19.5	759	4	7.8	85	K5	K10	110
MAY												
07...	1200	15300	219	7.8	18.5	747	--	7.4	81	5300	--	93
19...	0845	1890	245	8.6	--	760	5	8.9	99	K24	K31	110
JUN												
08...	1030	E1200	224	8.0	26.5	753	8	7.0	88	K22	K21	98
JUL												
13...	1000	1880	176	8.0	24.0	758	21	6.7	80	320	260	82
AUG												
10...	1130	597	196	8.0	27.0	751	15	6.3	80	--	--	90
SEP												
15...	0930	512	192	7.6	22.0	755	8	5.2	60	K20	K15	91

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
JAN												
20...	8	44	3.6	2.5	4	.1	1.4	142	116	2.2	11	4.6
FEB												
16...	6	45	3.6	2.4	4	.1	1.1	148	121	2.4	11	4.3
MAR												
01...	11	40	3.6	2.6	5	.1	1.2	126	103	--	10	5.1
08...	4	39	3.4	2.1	4	.1	1.0	132	109	--	8.5	3.5
15...	6	29	2.6	1.7	4	.1	1.3	95	78	--	7.8	3.0
APR												
12...	10	40	3.6	2.8	5	.1	1.1	127	104	--	9.4	4.7
MAY												
07...	5	32	2.8	2.8	6	.1	1.9	107	88	--	9.2	4.3
19...	14	40	3.5	2.9	5	.1	1.2	122	100	--	8.8	3.7
JUN												
08...	--	34	3.3	3.6	7	.2	1.3	206	167	--	8.0	5.1
JUL												
13...	19	28	3.0	2.2	5	.1	1.5	77	63	--	6.1	3.1
AUG												
10...	13	30	3.5	4.2	9	.2	1.3	94	77	--	8.3	3.9
SEP												
15...	9	31	3.6	4.7	10	.2	1.4	100	82	--	8.7	4.8

E--Estimated
K--Results based on non-ideal colony count.

03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)
JAN												
20...	.11	5.4	158	147	.21	1.03	.011	1.05	.032	.28	.37	1.4
FEB												
16...	<.10	5.5	158	150	.21	--	<.010	.916	<.020	.12	.16	1.1
MAR												
01...	.13	4.4	141	133	.19	.637	.016	.653	<.020	.11	.29	.94
08...	.10	4.9	137	132	.19	--	<.010	.781	<.020	.14	.23	1.0
15...	.12	4.7	110	101	.15	--	<.010	.707	.067	.20	1.1	1.8
APR												
12...	.12	2.0	133	127	.18	--	<.010	.051	<.020	E.10	.22	.27
MAY												
07...	.16	5.8	128	116	.17	--	<.010	.724	.058	.25	1.2	2.0
19...	<.10	3.5	135	124	.18	--	<.010	.182	<.020	.19	.35	.53
JUN												
08...	.15	4.9	128	162	.17	--	<.010	<.050	.040	.10	E.06	--
JUL												
13...	.10	6.1	100	90	.14	--	<.010	.385	<.020	.15	.33	.71
AUG												
10...	<.10	6.5	108	105	.15	--	<.010	<.050	<.020	.12	.27	--
SEP												
15...	.17	7.4	121	111	.16	--	<.010	.130	<.020	.13	.20	.34

DATE	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)
JAN												
20...	.096	.055	.044	<10	E1.8	3.9	.50	--	--	--	--	--
FEB												
16...	.200	.130	.114	<10	7.1	1.5	.20	--	--	--	--	--
MAR												
01...	.337	.121	.101	<10	4.2	1.6	.60	--	--	--	--	--
08...	.207	.112	.111	E8.5	4.2	2.1	.50	--	--	--	--	--
15...	1.56	.161	.147	E8.4	E2.4	2.4	4.2	--	--	--	--	--
APR												
12...	.110	.074	.062	<10	4.2	1.0	1.3	--	--	--	--	--
MAY												
07...	1.95	.237	.214	10	E1.5	3.5	>5.0	--	--	--	--	--
19...	.102	.074	.062	<10	E1.7	1.5	1.4	--	--	--	--	--
JUN												
08...	.150	.102	.096	<10	<3.0	1.1	1.3	--	--	--	--	--
JUL												
13...	.101	.113	.096	<10	4.1	2.2	.40	<.002	<.0020	.164	<.0020	<.0020
AUG												
10...	.176	.112	.088	<10	19	1.2	.90	<.002	<.0020	.119	<.0020	<.0020
SEP												
15...	.164	.130	.102	<10	29	1.2	.20	<.002	<.0020	.079	<.0020	<.0020

DATE	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
JUL											
13...	<.0040	<.0040	E.0160	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060
AUG											
10...	<.0040	<.0040	E.0196	<.002	<.001	<.0030	<.004	<.005	<.004	E.003	<.0060
SEP											
15...	<.0040	<.0040	E.0260	<.002	<.001	<.0030	<.004	<.005	<.004	E.003	<.0060

E--Estimated

03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
JUL											
13...	<.004	<.0070	<.0180	.0107	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
AUG											
10...	<.004	<.0070	E.0038	.0143	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040
SEP											
15...	<.004	<.0070	E.0031	.0130	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
JUL											
13...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
AUG											
10...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
SEP											
15...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN											
20...	--	--	--	--	--	--	--	--	--	65	94
FEB											
16...	--	--	--	--	--	--	--	--	--	11	96
MAR											
01...	--	--	--	--	--	--	--	--	--	63	96
08...	--	--	--	--	--	--	--	--	--	31	99
15...	--	--	--	--	--	--	--	--	--	285	94
APR											
12...	--	--	--	--	--	--	--	--	--	6	94
MAY											
07...	--	--	--	--	--	--	--	--	--	298	96
19...	--	--	--	--	--	--	--	--	--	8	72
JUN											
08...	--	--	--	--	--	--	--	--	--	13	72
JUL											
13...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	46	98
AUG											
10...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	42	97
SEP											
15...	<.0030	<.0040	<.0130	E.0109	<.0070	<.0130	<.0010	<.0020	<.0020	10	98

E--Estimated

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03604000 BUFFALO RIVER NEAR FLAT WOODS, TN
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, Hydrologic Unit 06040004, on right bank 0.4 mi downstream from Little Opossum Creek, 0.5 mi downstream from bridge on State Highway 13, 1.3 mi north of Flat Woods, 3.9 mi upstream from Sinking Creek, and at mile 58.7.

DRAINAGE AREA.--447 mi^2.

PERIOD OF RECORD.--May 1920 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 803: 1935. WSP 823: Drainage area. WSP 1436: 1921(M), 1922-24, 1925(M), 1927(M), 1934(M), WRD TN-71: 1970.

GAGE.--Data collection platform. Datum of gage is 513.58 ft above sea level. Prior to May 27, 1934, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of May 27, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	2030	5,860	10.46	May 6	2100	9,750	14.11
Jan 9	1930	8,090	12.69	Jun 28	1300	8,780	13.32
Jan 23	1530	*21,000	*21.45	Jul 3	0030	12,000	15.79
Mar 14	1730	8,460	13.05				

Minimum discharge, 158 ft^3/s, Sept. 8, 17, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	236	280	710	2100	1010	678	831	415	505	222	163
2	206	238	312	698	1650	898	671	721	460	4140	219	162
3	245	238	317	1070	1340	1100	647	654	411	4700	213	160
4	397	242	316	1090	1150	1410	715	612	411	1040	206	162
5	389	244	317	858	1000	1170	759	930	444	708	202	163
6	300	243	324	739	905	1160	736	6760	419	565	200	163
7	290	241	349	672	891	1200	732	5770	379	483	198	160
8	319	251	617	695	894	1050	715	2020	359	428	197	160
9	329	265	685	5480	825	1060	692	1330	346	385	204	160
10	296	292	516	4760	864	1140	665	1040	360	362	210	162
11	275	378	470	1890	885	1080	644	866	371	451	204	160
12	264	351	595	1280	1210	992	608	756	350	562	199	160
13	256	329	4400	1040	1880	1500	580	702	377	462	200	163
14	250	319	2850	1420	1430	7310	572	631	367	387	215	165
15	246	320	1180	1640	1170	5660	676	584	354	350	207	172
16	241	309	859	1210	1030	3060	737	545	341	333	201	169
17	238	300	709	1010	1000	2010	670	512	325	317	197	161
18	235	285	609	1410	1000	1470	627	495	314	303	193	158
19	237	278	553	1740	912	1200	604	494	306	291	187	159
20	244	288	540	1220	830	1060	590	467	302	283	185	164
21	241	310	498	1020	771	973	572	446	299	282	184	174
22	236	296	489	2070	723	892	554	460	293	293	185	184
23	230	284	488	17300	679	826	540	422	303	272	182	189
24	230	281	501	9090	649	794	533	409	336	262	180	185
25	235	278	481	2480	621	753	523	400	343	256	180	179
26	235	276	476	1660	591	703	585	395	327	248	180	174
27	235	273	512	1300	605	664	881	391	375	244	178	170
28	235	271	674	1110	803	639	825	373	4390	237	175	171
29	235	270	1150	1280	---	642	749	354	1070	234	172	176
30	237	272	1040	2090	---	641	885	352	622	230	167	183
31	237	---	832	2280	---	631	---	359	---	225	163	---
TOTAL	8058	8458	23939	72312	28408	44698	19965	31081	15769	19838	6005	5031
MEAN	260	282	772	2333	1015	1442	666	1003	526	640	194	168
MAX	397	378	4400	17300	2100	7310	885	6760	4390	4700	222	189
MIN	206	236	280	672	591	631	523	352	293	225	163	158
MED	241	278	516	1280	900	1060	668	545	360	333	197	163
CFSM	.58	.63	1.73	5.22	2.27	3.23	1.49	2.24	1.18	1.43	.43	.38
IN.	.67	.70	1.99	6.02	2.36	3.72	1.66	2.59	1.31	1.65	.50	.42

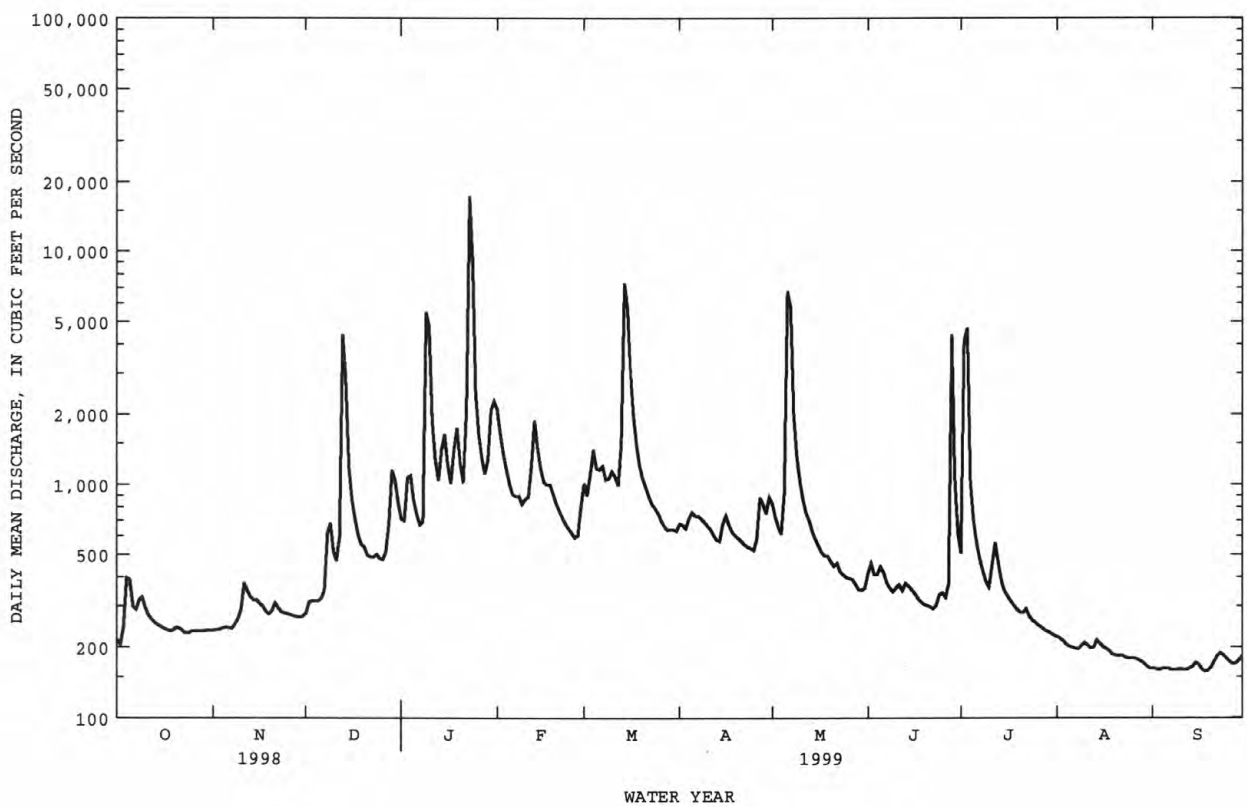
03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued
(Hydrologic bench-mark station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	284	522	933	1221	1362	1483	1182	888	465	372	289	272
MAX	1418	2554	3568	3854	4901	4405	3034	5227	1642	1824	1008	1286
(WY)	1933	1958	1927	1937	1948	1973	1964	1991	1974	1932	1923	1979
MIN	112	174	213	234	316	458	303	210	146	121	117	94.2
(WY)	1932	1925	1964	1940	1926	1966	1986	1942	1941	1943	1925	1925

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1920 - 1999	
ANNUAL TOTAL	329007		283562			
ANNUAL MEAN	901		777		769	
HIGHEST ANNUAL MEAN					1583	1973
LOWEST ANNUAL MEAN					323	1942
HIGHEST DAILY MEAN	13400	Jul 15	17300	Jan 23	75800	May 27 1991
LOWEST DAILY MEAN	206	Oct 2	158	Sep 18	65	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM	228	Sep 26	161	Sep 6	71	Sep 5 1925
INSTANTANEOUS PEAK FLOW			21000	Jan 23	a96300	May 27 1991
INSTANTANEOUS PEAK STAGE			21.45	Jan 23	b32.19	May 27 1991
INSTANTANEOUS LOW FLOW			c158	Sep 8	65	Sep 9 1925
ANNUAL RUNOFF (CFSM)	2.02		1.74		1.72	
ANNUAL RUNOFF (INCHES)	27.38		23.60		23.38	
10 PERCENT EXCEEDS	1760		1290		1460	
50 PERCENT EXCEEDS	551		422		396	
90 PERCENT EXCEEDS	241		184		178	

a From rating curve extended above 50,000 ft^3/s on basis of slope-area and contracted opening measurements and rainfall-runoff study.
b From high water mark in gage house.
c Also occurred Sept. 17, 18, 19.



03605078 CYPRESS CREEK AT CAMDEN, TN

LOCATION.--Lat 36°02'49", long 88°04'33", Benton County, Hydrologic Unit 06040005, on left bank, adjacent to southwest corner of third sewage lagoon at Camden Sewage Treatment Plant, 1.5 mi southeast of Camden, and 1.4 mi upstream from Kentucky Lake.

DRAINAGE AREA.--27.3 mi^2.

PERIOD OF RECORD.--January 1992 to current year, discharge for stage of 4.30 ft and below only.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 10.96 ft, Jan. 22, 1999; minimum discharge, 0.00 ft^3/s, Sept. 2-19, 1999..

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 10.96 ft, Jan. 22; minimum discharge, 0.00 ft^3/s, Sept. 2-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	2.9	e3.1	e6.0	---	59	58	13	3.9	6.1	1.1	.04
2	4.7	3.3	e3.0	62	86	---	34	11	3.4	4.8	.98	.00
3	6.7	3.2	e2.9	78	55	---	27	10	1.8	4.3	.87	.00
4	6.9	3.1	e2.8	29	42	53	---	e9.0	1.5	4.2	.88	.00
5	6.5	3.0	85	21	36	37	68	e20	5.9	3.8	.78	.00
6	6.4	3.0	26	18	33	---	53	---	2.4	3.7	.99	.00
7	---	3.2	46	17	40	63	37	e80	2.2	3.7	.98	.00
8	13	3.7	122	---	29	40	30	e95	10	3.5	.98	.00
9	8.3	4.1	122	---	25	42	25	e61	2.8	3.4	1.5	.00
10	8.1	18	97	---	24	33	19	e25	2.2	3.9	1.8	.00
11	5.5	7.7	23	51	23	28	20	e18	1.8	8.4	1.8	.00
12	5.1	4.5	27	39	61	23	15	e15	1.5	6.2	1.8	.00
13	5.1	3.9	35	33	33	---	18	e13	14	4.3	1.6	.00
14	5.1	3.3	35	30	27	---	17	e11	7.5	3.8	1.0	.00
15	5.1	3.5	31	24	23	---	---	e10	4.5	3.7	.92	.00
16	5.3	3.6	17	22	23	---	37	e9.1	3.3	3.4	.89	.00
17	5.9	4.9	17	18	37	63	22	e8.2	2.0	2.7	.89	.00
18	6.1	5.1	14	25	28	42	19	e7.1	2.2	2.5	.89	.00
19	9.3	3.5	11	19	25	33	16	e5.9	2.0	2.3	.85	.00
20	5.4	4.5	11	15	21	28	15	e5.6	1.9	2.1	.81	---
21	3.6	5.8	11	15	18	25	13	e5.0	1.7	2.0	.74	3.0
22	2.2	e5.5	69	---	16	21	11	e4.6	1.6	2.0	.81	1.8
23	2.2	e5.1	29	---	16	19	10	e4.4	6.4	2.0	.81	1.5
24	2.3	e4.8	21	---	18	37	9.1	e4.4	6.5	---	.81	1.2
25	2.5	e4.4	19	77	18	30	8.7	e4.3	3.5	6.8	.81	1.1
26	2.3	e4.1	16	54	16	21	35	4.5	---	2.7	.81	1.0
27	2.4	e3.8	13	40	---	19	---	4.3	41	2.1	.81	1.1
28	2.3	e3.6	e11	36	---	17	44	7.3	---	1.8	.81	1.2
29	2.3	e3.5	e9.0	---	---	19	23	5.6	32	1.7	.87	.81
30	2.5	e3.4	e8.0	---	---	20	18	3.9	9.5	1.6	.45	.76
31	2.5	---	e7.0	---	---	---	---	3.9	---	1.4	.13	---
TOTAL	150.6	136.0	943.8	729.0	773	772	701.8	479.1	179.0	104.9	30.17	13.51
MEAN	5.02	4.53	30.4	33.1	30.9	33.6	26.0	16.0	6.39	3.50	.97	.47
MAX	13	18	122	78	86	63	68	95	41	8.4	1.8	3.0
MIN	2.2	2.9	2.8	6.0	16	17	8.7	3.9	1.5	1.4	.13	.00
CFSM	.18	.17	1.12	1.21	1.13	1.23	.95	.58	.23	.13	.04	.02
IN.	.21	.19	1.29	.99	1.05	1.05	.96	.65	.24	.14	.04	.02

e Estimated

RESERVOIRS IN TENNESSEE RIVER BASIN

03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at Douglas Dam on French Broad River, 6.5 mi north of Sevierville, and at mile 32.3. DRAINAGE AREA, 4,541 mi^2. PERIOD OF RECORD, February 1943 to current year. GAGE,water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gates, each 32 ft high by 40 ft wide and 8 sluice gates 10 ft high by 5.67 ft wide. Closure of dam was made Feb. 19, 1943; water in reservoir first reached minimum pool elevation Feb. 25, 1943. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,002.00 ft, top of gates, is 743,600 cfs-days, of which 631,200 cfs-days is controlled storage above elevation 940.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 760,000 cfs-days, July 25, 1949, elevation, 1,001.79 ft; minimum after first filling, 1,000 cfs-days, Jan. 16, 1956, elevation, 883.7 ft, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 661,100 cfs-days, July 15, elevation, 997.03 ft; minimum, 107,200 cfs-days, Jan. 22, elevation, 940.27 ft.

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft upstream from South Holston Dam on South Fork Holston River, 7.0 mi southeast of Bristol, Virginia-Tennessee, and at mile 49.8. DRAINAGE AREA, 703 mi^2. PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to May 11, 1951, non-recording gage at same site and datum.

REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter.Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft, spillway crest, is 385,200 cfs-days, of which 220,800 cfs-days is controlled storage above elevation 1,675.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 363,800 cfs-days, May 10, 1984, elevation, 1,736.86 ft; minimum after first filling, 57,700 cfs-days, Jan. 13, 1956, elevation, 1,614.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximim contents, 320,500 cfs-days, June 1, elevation 1,726.04 ft: minimum, 214,000 cfs-days, Dec. 30, elevation, 1,693.65 ft.

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi east of Elizabethton, and at mile 36.7. DRAINAGE AREA, 468 mi^2. PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter.Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,975.00 ft, spillway crest, is 341,300 cfs-days, of which 178,500 cfs-days is controlled storage above elevation 1,915.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 300,800 cfs-days, Apr. 19, 1987, elevation, 1,963.28 ft; minimum after first filling, 25,100 cfs-days, Jan. 13, 1956, elevation, 1,813.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 277,600 cfs-days, May 26, elevation, 1,956.21 ft; minimum, 205,500 cfs-days, Jan. 6, elevation, 1,931.61 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03468500 DOUGLAS LAKE			03476000 SOUTH HOLSTON LAKE			03483500 WATAUGA LAKE		
Sept. 30...	965.81	289,300	-	1,703.25	242,700	-	1,935.54	216,300	-
Oct. 31...	954.26	193,000	-96,300	1,697.23	224,500	-18,200	1,934.08	212,300	-4,000
Nov. 30...	946.72	142,500	-50,500	1,696.32	221,800	-2,700	1,933.96	211,900	-400
Dec. 31...	941.02	110,900	-31,600	1,693.72	214,200	-7,600	1,932.18	207,100	-4,800
CAL YR 1998	-	-	-2,800	-	-	+11,800	-	-	+4,000
Jan. 31...	941.42	112,900	+2,000	1,701.84	238,400	+24,200	1,938.10	223,500	+16,400
Feb. 28...	953.78	189,500	+76,600	1,708.22	258,500	+20,100	1,942.66	236,500	+13,000
Mar. 31...	969.51	324,900	+135,400	1,715.51	282,800	+24,300	1,950.36	259,200	+22,700
Apr. 30...	981.53	454,400	+129,500	1,719.81	297,800	+15,000	1,951.33	262,200	+3,000
May 31...	994.03	617,300	+162,900	1,726.04	320,500	+22,700	1,956.01	276,900	+14,700
June 30...	994.65	626,200	+8,900	1,723.78	312,100	-8,400	1,952.62	266,200	-10,700
July 31...	991.84	586,300	-39,900	1,721.68	304,500	-7,600	1,949.40	256,300	-9,900
Aug. 31...	978.02	414,200	-172,100	1,713.79	276,900	-27,600	1,943.56	239,100	-17,200
Sept. 30...	965.22	283,900	-130,300	1,706.59	253,200	-23,700	1,938.74	225,300	-13,800
WTR YR 1999	-	-	-5,400	-	-	+10,500	-	-	+9,000

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi northeast of Spurgeon, 1.3 mi downstream from Watauga River, and at mile 18.6. DRAINAGE AREA, 1,840 mi^2. PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,385.0 ft, top of gates, is 97,500 cfs-days, of which 74,800 cfs-days is controlled storage above elevation 1,330 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 99,100 cfs-days, May 19, 1964, elevation 1,384.99 ft; minimum after first filling, 21,300 cfs-days, Jan. 23, 1956, elevation, 1,327.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 93,600 cfs-days, July, 13, elevation, 1,383.20 ft; minimum, 45,700 cfs-days, Jan. 23, elevation, 1,353.78 ft.

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi upstream from bridge on U. S. Highway 23, 4.5 mi southeast of Kingsport, and at mile 8.2. DRAINAGE AREA, 1,903 mi^2. PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,263 ft, top of gates, is 13,600 cfs-days, of which 2,200 cfs-days is controlled storage above elevation 1,258 ft, normal minimum pool. Reservoir is used for navigation, flood control and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 14,000 cfs-days, Feb. 11, 1954, elevation, 1,263.80 ft, minimum after first filling, 2,690 cfs-days, Sept. 19, 1986, elevation, 1,226.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,600 cfs-days, Feb. 15, elevation, 1,263.00 ft; minimum, 11,400 cfs-days, Mar. 11, elevation, 1,257.90 ft.

03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi upstream from bridge on State Highway 92, 2.7 mi upstream from Mill Spring Creek, 2.8 mi north of Jefferson City, and at mile 52.3. DRAINAGE AREA, 3,429 mi^2. PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates, each 32 ft high by 40 ft wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,075.0 ft, top of gates, is 778,400 cfs-days, of which 580,300 cfs-days is controlled storage above elevation 1,020.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 779,400 cfs-days, May 11, 1944, maximum elevation, 1,074.47 ft May 30, 1973; minimum after first filling, 48,400 cfs-days, Jan. 7, 1954, elevation, 980.77 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 608,000 cfs-days, July 19, elevation, 1,063.07 ft; minimum, 234,200 cfs-days, Jan. 6, elevation, 1,025.52 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03486800 BOONE LAKE			03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30...	1,378.90	84,700	-	1,260.75	12,600	-	1,042.61	375,500	-
Oct. 31...	1,372.93	73,600	-11,100	1,261.88	13,100	+500	1,036.20	317,000	-58,500
Nov. 30...	1,361.47	55,600	-18,000	1,262.30	13,200	+100	1,029.19	260,700	-56,300
Dec. 31...	1,356.38	48,900	-6,700	1,262.09	13,200	0	1,026.98	244,500	-16,200
CAL YR 1998	-	-	+4,300	-	-	0	-	-	-300
Jan. 31...	1,356.46	49,000	+100	1,261.38	12,800	-400	1,028.33	254,300	+9,800
Feb. 28...	1,363.49	58,600	+9,600	1,261.21	12,800	0	1,036.30	317,900	+63,600
Mar. 31...	1,371.75	71,600	+13,000	1,261.42	12,900	+100	1,047.52	425,000	+107,100
Apr. 30...	1,376.38	79,800	+8,200	1,261.57	12,900	0	1,052.78	482,400	+57,400
May 31...	1,380.50	87,900	+8,100	1,261.03	12,700	-200	1,057.44	537,100	+54,700
June 30...	1,382.12	91,300	+3,400	1,261.34	12,800	+100	1,061.26	584,600	+47,500
July 31...	1,381.68	90,300	-1,000	1,261.48	12,900	+100	1,060.34	573,000	-11,600
Aug. 31...	1,381.54	90,000	-300	1,261.15	12,800	-100	1,051.44	467,300	-105,700
Sept. 30...	1,376.89	80,800	-9,200	1,261.43	12,900	+100	1,044.66	395,700	-71,600
WTR YR 1999	-	-	-3,900	-	-	+300	-	-	+20,200

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi northeast of Lenoir City, and at mile 602.3. DRAINAGE AREA, 9,550 mi^2. PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates, each 32 ft high by 40 ft wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Revised capacity table put into use Jan. 19, 1980. Total level pool capacity at elevation 815.00 ft, top of gates, is 424,000 cfs-days, of which 120,000 cfs-days is controlled flood storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 815.14 ft, May 8, 1984; minimum after first filling, 805.54 ft, Jan. 18, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 193,300 cfs-days, May 6; maximum elevation, 814.41 ft, May 7; minimum contents, 143,600 cfs-days, Jan 30, minimum elevation, 807.00 ft, Jan. 31. Contents based on backwater profile.

03519800 TELLICO LAKE.--Lat 35°46'53", long 84°15'10", Loudon County, Hydrologic Unit 06010201, at Tellico Dam on Little Tennessee River, 1.1 mi south of Lenoir City, and at mile 0.4. DRAINAGE AREA, 2,627 mi^2. PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates, each 42 ft high by 40 ft wide. Closure of dam was made Nov. 29, 1979; water in reservoir first reached ordinary minimum pool elevation Dec. 24, 1979. Total capacity at elevation 815.00 ft, top of gates, is 225,500 cfs-days, of which 63,800 cfs-days is controlled storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and indirectly, power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 228,700 cfs-days, May 8, 1984, elevation, 815.37 ft; minimum after first filling, 155,300 cfs-days, Feb. 17, 1997, elevation, 807.30 ft; minimum elevation, 806.96 ft, Jan. 14, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 208,500 cfs-days, May 6, elevation, 814.36 ft; minimum, 153,600 cfs-days, Jan. 31, elevation, 807.05 ft.

03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi northwest of Norris, and at mile 79.8. DRAINAGE AREA, 2,912 mi^2. PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of stage is 0.11 ft above sea level. Gage readings have been reduced to sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with three drum gates, each 100 ft wide by 14 ft high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936 Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,034.11 ft, top of gates, is 1,286,600 cfs-days, of which 969,000 cfs-days is controlled storage above elevation 960.11 ft normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,236,700 cfs-days, Feb. 11, 1937, elevation, 1,031.21 ft; minimum after first filling, 75,500 cfs-days, Jan. 24, 1956, elevation, 909.46 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 914,800 cfs-days, May 29, elevation, 1013.17 ft; minimum, 461,800 cfs-days, Jan. 6, elevation, 977.10 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03499500 FORT LOUDOUN LAKE			03519800 TELLICO LAKE			03532500 NORRIS LAKE		
Sept. 30...	812.56	180,100	-	812.66	195,000	-	996.99	684,700	-
Oct. 31...	812.39	178,600	-1,500	812.50	193,700	-1,300	987.63	572,000	-12,700
Nov. 30...	808.88	154,300	-24,300	808.96	167,100	-26,600	981.06	501,200	-70,800
Dec. 31...	808.23	149,900	-4,400	808.37	162,900	-4,200	977.61	466,700	-34,500
CAL YR 1998	-	-	+1,500	-	-	+2,300	-	-	+4,600
Jan. 31...	807.84	147,400	-2,500	807.91	159,600	-3,300	985.96	553,400	+86,700
Feb. 28...	809.25	156,600	+9,200	809.34	169,900	+10,300	988.47	581,500	+28,100
Mar. 31...	808.71	153,000	-3,600	808.74	165,500	-4,400	1,003.75	775,200	+193,700
Apr. 30...	812.59	180,200	+27,200	812.84	196,400	+30,900	1,009.08	852,200	+77,000
May 31...	812.75	181,200	+1,000	812.85	196,400	0	1,013.10	913,700	+61,500
June 30...	812.89	182,300	+1,100	812.99	197,600	+1,200	1,012.39	902,600	-11,100
July 31...	812.46	179,400	-2,900	812.54	194,000	-3,600	1,010.33	871,000	-31,600
Aug. 31...	811.76	174,800	-4,600	811.86	188,800	-5,200	1,002.72	760,900	-110,100
Sept. 30...	812.46	179,400	+4,600	812.51	193,800	+5,000	994.77	656,700	-104,200
WTR YR 1999	-	-	-700	-	-	-1,200	-	-	-28,000

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03535900 MELTON HILL LAKE.--Lat 35°53'04", long 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi southwest of Oak Ridge, 19 mi west of Knoxville, 57 mi downstream from Norris Dam on Clinch River, and at mile 23.1. DRAINAGE AREA, 3,343 mi^2. PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft high by 40 ft wide. Dam completed and storage began May 1, 1963; water in reservoir first reached minimum pool elevation May 23, 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 796 ft, top of gates, is 63,500 cfs-days, of which 16,100 cfs-days is controlled storage above elevation 790.0 ft, normal minimum pool. Reservoir is used for navigation, power, and recreation.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,900 cfs-days, Mar. 16, 1973, elevation, 796.45 ft; minimum after first filling, 35,100 cfs-days, Feb. 9, 1966, elevation, 784.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 60,600 cfs-days, July 12, elevation, 795.04 ft; minimum, 47,800 cfs-days, March 25, elevation, 790.16 ft.

03543000 WATTS BAR LAKE.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06010201, at Watts Bar Dam on Tennessee River, 6.5 mi southeast of Spring City, 72.4 mi downstream from Fort Loudoun Dam, and at mile 529.9. DRAINAGE AREA, 17,310 mi^2, approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates, each 32 ft high by 40 ft wide, also one 2-section leaf trashway gate 16.3 ft high by 24 ft wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 745.0 ft, top of gates, is 592,400 cfs-days, of which 191,000 cfs-days is controlled flood storage above elevation 735.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 745.40 ft, Mar. 17, 1973; minimum after first filling, 733.44 ft, Mar. 20, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 561,200 cfs-days, July 12; maximum elevation, 743.51 ft, July 13; minimum midnight contents, 405,200 cfs-days, Feb. 8; minimum elevation , 734.95 ft, Jan. 31. Contents based on backwater profile.

03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi east of Cleveland, and at mile 11.9. DRAINAGE AREA, 595 mi^2. PERIOD OF RECORD, June 1914 to current year. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir," and October 1953 to September 1968, as "Parksville Lake." GAGE, nonrecording gage. Datum of gage is 6.89 ft above sea level. Gage readings have been reduced to sea level.

REMARKS.--Reservoir is formed by concrete dam with 347 ft of spillway. Spillway is equipped with four floodgates, each 6 ft high by 20 ft wide and 265 ft of flashboards about 5.7 ft high. Crest of spillway under gates is at elevation 830.82 ft; remainder of spillway is 1.0 ft higher. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1979. Total capacity at elevation 837.55 ft, about top of flashboards, is 42,300 cfs-days, of which 15,600 cfs-days is controlled storage above elevation 817.9 ft, normal minimum pool. Reservoir is used for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight contents observed, 53,300 cfs-days, July 9, 1916; maximum midnight elevation observed, 840.2 ft, Feb. 10, 1946; minimum contents observed, 27,300 cfs-days, Jan. 27, 1956, elevation, 817.7 ft; minimum midnight elevation observed, 814.8 ft, Dec. 14, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 41,400 cfs-days, May 6, elevation, 837.09 ft; minimum 32,400 cfs-days, Mar. 12, elevation, 826.89 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03535900 MELTON HILL LAKE			*03543000 WATTS BAR LAKE			03564000 LAKE OCOEE		
Sept. 30...	793.61	56,500	-	740.09	492,200	-	834.7	39,100	-
Oct. 31...	793.66	56,700	+200	740.71	503,500	+11,300	835.1	39,500	400
Nov. 30...	793.81	57,100	+400	737.18	438,200	-65,300	831.6	36,300	-3,200
Dec. 31...	793.64	56,600	-500	736.04	419,200	-19,000	827.1	32,600	-3,700
CAL YR 1998	-	-	+400	-	-	0	-	-	-600
Jan. 31...	793.02	54,900	-1,700	735.77	414,000	-5,200	827.9	33,200	+600
Feb. 28...	793.59	56,500	+1,600	736.74	430,600	+16,600	828.8	33,900	+700
Mar. 31...	791.66	51,400	-5,100	736.31	423,100	-7,500	828.6	33,700	-200
Apr. 30...	794.06	57,800	+6,400	740.85	506,200	+83,100	835.3	39,700	+6,000
May 31...	793.65	56,600	-1,200	740.39	797,300	+291,100	835.3	39,700	0
June 30...	793.42	56,000	-600	742.17	532,700	-264,600	835.4	39,800	+3,100
July 31...	793.15	55,300	-700	740.38	498,200	-34,500	835.5	39,900	+100
Aug. 31...	792.05	52,400	-2,900	740.37	497,900	-300	834.8	39,200	-700
Sept. 30...	792.81	54,400	+2,000	740.59	501,200	+3,300	835.0	39,400	+200
WTR YR 1999	-	-	-2,100	-	-	+9,000	-	-	+3,300

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi northeast of Chattanooga, 58.9 mi downstream from Watts Bar Dam, and at mile 471.0. DRAINAGE AREA, 20,790 mi^2, approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates, each 40.44 ft high by 40 ft wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 685.44 ft, top of gates, is 372,600 cfs-days, of which 175,000 cfs-days is controlled flood storage above elevation 675.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 686.19 ft, Mar. 29, 1994; minimum after first filling, 673.27 ft, Jan. 21, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 341,300 cfs-days, July 13; maximum elevation, 683.73 ft, July 13; minimum midnight contents, 204,000 cfs-days, Jan. 2; minimum elevation, 675.00 ft, Jan. 31. Contents based on backwater profile.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi upstream from Sequatchie River, 5 mi south of Jasper, 46.3 mi downstream from Chickamauga Dam, and at mile 424.7. DRAINAGE AREA, 21,870 mi^2, approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft, is equipped with 10 radial gates, each 40 ft high by 40 ft wide. A trash gate, 5.5 ft high by 15 ft wide, is located between the spillway and powerhouse. Dam was completed and storage began on Dec. 14, 1967. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 635.0 ft, top of gates, is 127,200 cfs-days, of which 16,200 cfs-days is controlled storage above elevation 632.0 ft, ordinary minimum. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 634.99 ft, Apr. 19, 1969; minimum after first filling, 630.82 ft, Feb. 20, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 127,500 cfs-days, Jan. 24; maximum elevation, 634.30 ft, June 30; minimum midnight contents, 115,100 cfs-days, Mar. 24; minimum elevation, 632.00 ft, Jan. 21. Contents based on backwater profile.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi upstream from Spring Creek, 2.5 mi northeast of Estill Springs, 6.8 mi upstream from bridge on U.S. Highway 41-A, and at mile 170.0. DRAINAGE AREA, 263 mi^2. PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, each 25 ft high by 50 ft wide, and two sluice gates, each 6 ft high by 4 ft wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft, surcharge pool, is 44,400 cfs-days, of which 9,900 cfs- days is controlled storage above elevation 957.0 ft, normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes.

COOPERATION.--Twice-daily gage readings (0600 and 2400 hours) furnished by U.S. Air Force.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 42,300 cfs-days, April 21 and 22, 1956, elevation, 960.98 ft; minimum after first filling, 26,300 cfs-days, Nov. 8-11, 1953, elevation, 951.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 39,900 cfs-days, May 7, elevation, 959.82 ft; minimum midnight contents, 35,100 cfs-days, Feb. 22; elevation, 957.29 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03566500 CHICKAMAUGA LAKE			*03570520 NICKAJACK LAKE			03579000 WOODS RESERVOIR		
Sept. 30...	681.57	299,200	-	632.83	117,100	-	959.55	39,400	-
Oct. 31...	678.78	251,700	-47,500	633.52	118,800	+1,700	958.53	37,400	-2,000
Nov. 30...	676.29	214,800	-36,900	633.87	120,700	+1,900	958.00	36,400	-1,000
Dec. 31...	675.97	210,800	-4,000	632.98	118,200	-2,500	958.02	36,400	0
CAL YR 1998	-	-	+1,700	-	-	+1,400	-	-	+200
Jan. 31...	676.51	219,500	+8,700	632.67	121,200	+3,000	958.21	36,800	+400
Feb. 28...	677.21	230,400	+10,900	633.82	122,200	+1,000	958.11	36,600	-200
Mar. 31...	676.51	218,000	-12,400	633.74	120,000	-2,200	959.51	39,300	+2,700
Apr. 30...	681.00	287,400	+69,400	633.39	118,200	-1,800	959.55	39,400	+100
May 31...	681.79	301,300	+13,900	633.70	119,800	+1,600	959.52	39,300	-100
June 30...	682.61	318,100	+16,800	634.10	125,400	+5,600	959.37	39,000	-300
July 31...	681.82	301,800	-16,300	633.46	119,300	-6,100	959.48	39,200	+200
Aug. 31...	680.93	288,900	-12,900	633.88	122,600	+3,300	959.45	39,200	0
Sept. 30...	681.18	290,500	+1,600	633.43	118,400	-4,200	959.41	39,100	-100
WTR YR 1999	-	-	-8,700	-	-	+1,300	-	-	-300

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03580740 TIMS FORD LAKE.--Lat 35°11'51", long 86°16'41", Franklin County, Hydrologic Unit 06030003, in intake tower near left bank at Tims Ford Dam on Elk River, 0.4 mi upstream from bridge on State Highway 50, 9.5 mi west of Winchester, and at mile 133.4. DRAINAGE AREA, 529 mi^2. PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates, each 42 ft high by 40 ft wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 3, 1971. Total capacity at elevation 895 ft, top of gates, is 306,500 cfs-days, of which 142,400 cfs-days is controlled storage above elevation 865 ft, normal minimum pool. Reservoir is used for flood control, power, and recreation.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 298,600 cfs-days, Dec. 23, 1990, elevation, 893.62 ft; minimum after first filling 130,600 cfs-days, Dec. 1, 1997, elevation, 855.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 276,300 cfs-days, June 29, elevation, 889.67 ft; minimum, 187,100 cfs-days, Dec. 23, elevation, 870.88 ft.

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi north of town of Pickwick Dam, 6.1 mi upstream from Lick Creek, 52.7 mi downstream from Wilson Dam, and at mile 206.7. DRAINAGE AREA, 38,820 mi^2, approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 2-section lift gates, each 40 ft high by 40 ft wide, one of which is used as a trash gate. Dam completed and storage began Feb. 8, 1938; water in reservoir first reached minimum pool elevation Feb. 18, 1938. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 418.0 ft, top of gates, is 557,100 cfs-days, of which 210,200 cfs-days is controlled flood storage above elevation 408.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 419.49 ft, Mar. 30, 1944; minimum after first filling, 407.12 ft, Dec. 18, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 626,400 cfs-days, May 8; maximum elevation, 416.15 ft, May 8; minimum midnight contents, 437,900 cfs-days, Dec. 22, minimum elevation, 408.16 ft, Jan. 3. Contents based on backwater profile.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'55", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi northeast of Normandy, 2.6 mi downstream from Riley Creek, 8 mi north of Tullahoma, and at mile 248.6. DRAINAGE AREA, 195 mi^2. PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, each 40 ft high by 36 ft wide. Storage began Jan. 5, 1976; water in reservoir first reached minimum pool elevation Mar. 22, 1976. Revised capacity table put into use Jan. 1, 1977. Total capacity at elevation 880 ft, top of gates, is 64,000 cfs-days, of which 30,400 cfs-days is controlled storage above elevation 859 ft, normal minimum pool. Reservoir is used for flood control, water supply, water-quality control, recreation, and shoreline development.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 63,800 cfs-days, Feb. 20, 1991, elevation, 880.12 ft; minimum after first filling, 26,800 cfs-days, Nov. 27, 1981, elevation, 853.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 62,100 cfs-days, June 29, elevation, 879.16 ft; minimum 39,300 cfs-days, Feb. 7, elevation, 863.98 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	03580740 TIMS FORD LAKE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	*03593000 PICKWICK LAKE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	03596460 NORMANDY LAKE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
Sept. 30...	883.71	244,900	-	410.80	486,400	-	873.43	52,900	-
Oct. 31...	880.66	230,000	-14,900	409.87	463,500	-22,900	871.29	49,300	-3,600
Nov. 30...	875.61	207,000	-23,000	409.43	455,000	-8,500	865.85	41,800	-7,500
Dec. 31...	871.37	189,100	-17,900	409.51	465,700	+10,700	865.03	40,700	-1,100
CAL YR 1998	-	-	+56,100	-	-	+17,200	-	-	+300
Jan. 31...	887.75	216,500	+27,400	409.21	458,900	-6,800	866.31	42,500	+1,800
Feb. 28...	877.77	216,600	+100	409.32	451,800	-7,100	867.15	43,600	+1,100
Mar. 31...	879.25	223,400	+6,800	412.06	513,400	+61,600	869.16	46,500	+2,900
Apr. 30...	882.38	238,300	+14,900	414.15	565,900	+52,500	872.17	50,900	+4,400
May 31...	887.99	267,200	+28,900	413.80	557,200	-8,700	875.35	55,900	+5,000
June 30...	888.94	272,300	+5,100	414.48	584,600	+27,400	877.96	60,100	+4,200
July 31...	886.69	260,200	-12,100	413.73	556,100	-28,500	874.74	54,900	-5,200
Aug. 31...	883.79	245,300	-14,900	411.96	511,500	-44,600	872.83	51,900	-3,000
Sept. 30...	883.10	241,800	-3,500	411.24	495,000	-16,500	870.61	48,600	-3,300
WTR YR 1999	-	-	-3,100	-	-	+8,600	-	-	-4,300

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03609000 KENTUCKY LAKE.--Lat 37°00'49", long 88°16'06", Marshall County, KY, Hydrologic Unit 06040006, at Kentucky Dam on Tennessee River at Gilbertsville, KY, and at mile 22.4. DRAINAGE AREA, 40,200 mi^2, approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with 24 lift gates 50 ft high by 40 ft wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft, top of gates, is 3,090,000 cfs-days, of which 2,020,700 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.87 ft, May 24, 1983; minimum after first filling, 348.02 ft, Mar. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 1,811,600 cfs-days May 9; maximum elevation, 362.57 ft, May 11; minimum midnight contents, 1,086,500 cfs-days , Dec. 25, minimum elevation , 353.70 ft, Dec. 29.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Content (cfs-days)	Change contents (cfs-days)
	*03609000	KENTUCKY LAKE	
Sept. 30...	354.88	1,134,500	--
Oct. 31...	354.44	1,104,400	-30,100
Nov. 30...	354.60	1,103,900	-500
Dec. 31...	354.80	1,185,400	+81,500
CAL YR 1998	-	-	-33,100
Jan. 31...	357.70	1,472,200	+286,800
Feb. 28...	354.75	1,125,900	-346,300
Mar. 31...	355.25	1,142,900	+17,000
Apr. 30...	358.93	1,418,300	+275,400
May 31...	359.19	1,430,800	+12,500
June 30...	359.86	1,513,600	+82,800
July 31...	357.68	1,352,900	-160,700
Aug. 31...	356.18	1,239,200	-113,700
Sept. 30...	356.21	1,216,800	-22,400
WTR YR 1999	-	-	82,300

* Contents based on backwater profile.

OTHER RESERVOIRS.--The following small reservoirs in the Tennessee River basin are described below, but records of contents are not published herein.

03466400 DAVY CROCKETT LAKE on Nolichucky River at Nolichucky Dam, with a total capacity of 1,300 cfs-days, none of which is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, with a total capacity of 20,800 cfs-days of which 840 cfs-days is controlled storage.

03518200 CHILHOWEE LAKE on Little Tennessee River at Chilhowee Dam, with a total capacity of 24,800 cfs-days of which 3,400 cfs-days is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles west of Ducktown, with a total capacity of 1,660 cfs-days, of which 1,550 cfs-days is controlled storage. Records of contents previous to 1971 water year published as Ocoee No. 3 Lake near Ducktown, TN.

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mi east of Blue Bank, 0.8 mi west of the spillway, and 3.3 mi southeast of Tiptonville.

DRAINAGE AREA.--240 mi^2.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft above sea level.

REMARKS.--Records for June 28 to July 27 are poor, once daily observer readings from U.S. Fish and Wildlife Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft, from recorded range in stage, about Apr. 26, 1973; minimum, 9.59 ft, July 6, 7, 8, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft, at spillway, present datum, from information by local resident. Minimum stage at spillway, 9.30 ft, Nov. 20, 21, 1953 at a datum of 270.29 ft above sea level.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 14.20 ft, Jan. 25; minimum, 10.72 ft, Sept. 28, 29.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.94	11.79	11.85	12.44	12.36	12.41	12.34	12.29	12.31	12.75	12.70	12.71
2	11.84	11.76	11.79	12.44	12.32	12.37	12.31	12.26	12.29	12.83	12.67	12.75
3	11.78	11.73	11.76	12.43	12.31	12.37	12.29	12.23	12.27	12.84	12.70	12.80
4	11.77	11.73	11.75	12.44	12.32	12.38	12.40	12.22	12.30	12.86	12.81	12.85
5	11.87	11.68	11.74	12.45	12.29	12.36	12.42	12.37	12.40	12.85	12.85	12.85
6	12.38	11.77	12.11	12.35	12.29	12.32	12.45	12.38	12.42	12.85	12.85	12.85
7	12.65	12.33	12.55	12.33	12.29	12.30	12.64	12.41	12.56	12.85	12.84	12.85
8	12.81	12.00	12.72	12.33	12.31	12.31	12.69	12.53	12.63	12.85	12.85	12.85
9	12.87	12.75	12.83	12.36	12.30	12.32	12.68	12.61	12.63	12.85	12.85	12.85
10	12.88	12.85	12.87	12.35	12.20	12.29	12.67	12.61	12.64	12.86	12.85	12.85
11	12.88	12.84	12.86	12.39	12.31	12.35	12.71	12.59	12.65	12.93	12.86	12.87
12	12.85	12.81	12.83	12.37	12.36	12.36	12.69	12.60	12.65	13.03	12.93	13.00
13	12.83	12.74	12.78	12.37	12.35	12.36	12.73	12.62	12.67	13.12	13.00	13.04
14	12.74	12.69	12.71	12.36	12.34	12.35	12.69	12.63	12.66	13.11	13.04	13.07
15	12.70	12.67	12.68	12.45	12.33	12.37	12.65	12.61	12.63	13.05	13.03	13.05
16	12.67	12.62	12.65	12.36	12.32	12.34	12.63	12.57	12.60	13.03	12.99	13.01
17	12.64	12.56	12.60	12.41	12.32	12.36	12.64	12.56	12.60	13.04	12.91	12.98
18	12.70	12.56	12.63	12.36	12.30	12.33	12.59	12.52	12.55	13.03	12.97	13.00
19	12.77	12.66	12.70	12.42	12.28	12.33	12.63	12.53	12.58	13.04	13.00	13.02
20	12.70	12.65	12.67	12.47	12.31	12.38	12.63	12.57	12.60	13.04	13.02	13.03
21	12.77	12.58	12.64	12.36	12.33	12.34	12.89	12.49	12.63	13.03	12.93	12.99
22	12.70	12.56	12.63	12.34	12.31	12.33	12.90	12.65	12.78	13.67	12.88	13.43
23	12.61	12.55	12.57	12.33	12.25	12.30	12.89	12.76	12.82	14.03	13.67	13.87
24	12.55	12.52	12.54	12.37	12.32	12.34	12.92	12.77	12.85	14.11	14.03	14.09
25	12.53	12.49	12.51	12.33	12.25	12.30	12.86	12.80	12.82	14.20	14.10	14.13
26	12.51	12.48	12.49	12.32	12.30	12.31	12.80	12.78	12.79	14.12	13.96	14.06
27	12.48	12.45	12.47	12.33	12.29	12.31	12.79	12.73	12.77	13.98	13.84	13.92
28	12.46	12.43	12.45	12.32	12.27	12.30	12.81	12.76	12.77	14.01	13.89	13.93
29	12.45	12.40	12.43	12.30	12.23	12.28	12.92	12.68	12.76	13.99	13.82	13.92
30	12.46	12.41	12.43	12.30	12.22	12.27	12.87	12.65	12.75	13.91	13.75	13.83
31	12.45	12.41	12.43	---	---	---	12.72	12.71	12.71	13.82	13.70	13.74
MONTH	12.88	11.68	12.47	12.47	12.20	12.33	12.92	12.22	12.62	14.20	12.67	13.23

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.75	13.69	13.72	12.90	12.85	12.87	12.70	12.64	12.68	12.64	12.55	12.57
2	13.70	13.63	13.67	13.05	12.81	12.88	12.69	12.64	12.68	12.56	12.51	12.54
3	13.65	13.50	13.56	13.05	12.77	12.90	12.76	12.61	12.67	12.52	12.48	12.51
4	13.52	13.43	13.48	12.89	12.81	12.84	12.80	12.71	12.76	12.52	12.41	12.46
5	13.43	13.27	13.36	12.92	12.76	12.80	12.94	12.70	12.83	12.68	12.40	12.52
6	13.27	13.13	13.23	13.04	12.84	12.95	12.99	12.89	12.95	12.66	12.60	12.63
7	13.17	12.96	13.10	13.05	12.89	12.98	13.00	12.98	12.99	12.72	12.64	12.68
8	13.10	13.05	13.07	12.99	12.88	12.94	13.00	12.81	12.94	12.75	12.72	12.73
9	13.11	13.05	13.07	12.99	12.87	12.93	12.99	12.82	12.89	12.80	12.74	12.75
10	13.07	13.00	13.04	13.01	12.94	12.97	12.96	12.85	12.91	12.76	12.73	12.74
11	13.00	12.69	12.92	13.00	12.92	12.96	12.91	12.77	12.84	12.74	12.68	12.71
12	13.09	12.81	12.93	13.00	12.90	12.95	12.87	12.78	12.82	12.72	12.65	12.70
13	13.09	12.87	12.98	13.17	12.92	12.99	12.79	12.75	12.77	12.74	12.67	12.69
14	12.95	12.87	12.92	13.37	13.07	13.22	12.88	12.75	12.79	12.71	12.66	12.68
15	12.90	12.80	12.86	13.32	13.24	13.28	12.88	12.71	12.81	12.74	12.63	12.66
16	12.92	12.79	12.84	13.27	13.18	13.24	12.85	12.70	12.79	12.67	12.62	12.64
17	12.94	12.84	12.87	13.22	13.10	13.17	12.88	12.82	12.86	12.70	12.57	12.62
18	12.93	12.82	12.86	13.28	13.15	13.20	12.88	12.83	12.86	12.70	12.61	12.65
19	12.91	12.77	12.84	13.19	13.07	13.13	12.85	12.70	12.81	12.62	12.55	12.59
20	12.87	12.74	12.80	13.13	12.98	13.04	12.82	12.77	12.80	12.56	12.51	12.53
21	12.89	12.71	12.80	13.03	12.88	12.97	12.78	12.65	12.70	12.51	12.43	12.47
22	12.77	12.69	12.72	12.93	12.83	12.88	12.69	12.58	12.66	12.51	12.46	12.48
23	12.72	12.60	12.66	12.87	12.80	12.83	12.76	12.60	12.64	12.53	12.37	12.45
24	12.72	12.63	12.67	12.83	12.78	12.81	12.74	12.58	12.65	12.51	12.38	12.42
25	12.67	12.63	12.65	12.88	12.73	12.82	12.66	12.54	12.58	12.44	12.38	12.41
26	12.67	12.58	12.64	12.84	12.70	12.78	12.57	12.47	12.53	12.43	12.39	12.40
27	12.81	12.62	12.72	12.76	12.69	12.72	12.60	12.52	12.56	12.40	12.36	12.39
28	12.85	12.76	12.81	12.73	12.68	12.70	12.65	12.59	12.61	12.37	12.34	12.36
29	---	---	---	12.77	12.71	12.72	12.70	12.59	12.63	12.36	12.32	12.34
30	---	---	---	12.73	12.68	12.70	12.69	12.57	12.62	12.36	12.26	12.31
31	---	---	---	12.72	12.67	12.70	---	---	---	12.34	12.27	12.33
MONTH	13.75	12.58	12.99	13.37	12.67	12.93	13.00	12.47	12.75	12.80	12.26	12.55

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.34	12.24	12.30	---	---	---	11.96	11.90	11.93	11.24	11.19	11.21
2	12.33	12.23	12.30	---	---	e12.60	11.95	11.88	11.92	11.22	11.19	11.20
3	12.35	12.29	12.32	---	---	---	11.92	11.84	11.88	11.20	11.18	11.19
4	12.31	12.26	12.29	---	---	---	11.87	11.83	11.84	11.18	11.15	11.16
5	12.31	12.23	12.26	---	---	---	11.85	11.81	11.83	11.15	11.13	11.14
6	12.30	12.21	12.24	---	---	---	11.83	11.76	11.79	11.18	11.11	11.14
7	12.30	12.24	12.27	---	---	e12.56	11.76	11.68	11.73	11.15	11.09	11.11
8	12.29	12.26	12.28	---	---	---	11.78	11.69	11.73	11.09	11.03	11.08
9	12.28	12.24	12.27	---	---	---	11.79	11.72	11.76	11.12	11.05	11.08
10	12.29	12.21	12.26	---	---	---	11.74	11.69	11.72	11.06	11.00	11.03
11	12.28	12.22	12.24	---	---	---	11.75	11.69	11.70	11.02	10.99	11.01
12	12.25	12.21	12.23	---	---	e12.40	11.75	11.61	11.67	11.01	10.94	10.99
13	12.25	12.20	12.22	---	---	---	11.70	11.60	11.63	11.06	10.97	11.02
14	12.34	12.20	12.25	---	---	e12.36	11.70	11.59	11.64	11.04	10.99	11.01
15	12.28	12.20	12.23	---	---	---	11.63	11.57	11.60	11.01	10.96	10.99
16	12.27	12.18	12.22	---	---	---	11.60	11.55	11.57	11.06	10.95	11.00
17	12.26	12.13	12.19	---	---	---	11.55	11.52	11.53	10.96	10.91	10.94
18	12.18	12.12	12.15	---	---	---	11.54	11.51	11.53	10.93	10.90	10.91
19	12.15	12.11	12.12	---	---	e12.22	11.58	11.47	11.51	10.90	10.89	10.90
20	12.12	12.08	12.09	---	---	---	11.54	11.45	11.49	10.93	10.84	10.90
21	12.09	12.08	12.08	---	---	---	11.50	11.44	11.46	10.99	10.87	10.91
22	12.08	12.04	12.06	---	---	e12.16	11.46	11.42	11.43	10.92	10.84	10.88
23	12.05	12.00	12.02	---	---	---	11.42	11.37	11.40	10.85	10.80	10.83
24	12.14	11.99	12.08	---	---	---	11.38	11.35	11.37	10.82	10.78	10.80
25	12.16	12.10	12.13	---	---	---	11.39	11.34	11.36	10.80	10.77	10.80
26	12.16	12.09	12.11	---	---	---	11.36	11.33	11.34	10.79	10.75	10.77
27	12.16	12.07	12.13	---	---	---	11.34	11.32	11.33	10.77	10.75	10.76
28	---	---	e12.12	12.06	12.01	12.03	11.34	11.30	11.32	10.77	10.72	10.75
29	---	---	e12.34	12.03	11.98	12.00	11.36	11.28	11.31	10.89	10.72	10.79
30	---	---	e12.58	11.98	11.94	11.97	11.34	11.25	11.30	10.79	10.74	10.76
31	---	---	---	11.95	11.90	11.93	11.28	11.23	11.24	---	---	---
MONTH	12.35	11.99	---	12.06	11.90	12.22	11.96	11.23	11.58	11.24	10.72	10.97

e Once daily observer readings by U.S. Fish and Wildlife service personnel.

07028930 TURKEY CREEK AT MEDINA, TN

LOCATION.--Lat 35°48'26", long 88°48'07", Gibson County, Hydrologic Unit 08010204, at upstream side of bridge on Highway 152, at sewage treatment plant, at Medina.

DRAINAGE AREA.--4.75 mi^2.

PERIOD OF RECORD.--May 1996 to current year.

GAGE.--Data collection platform. Datum of gage is 370.00 ft above sea level.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft^3/s, Jan. 22, gage height, 11.24 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.43	.05	3.5	.10	1.3	.93	.07	.00	.00	.00
2	.00	.00	.14	2.9	2.1	26	1.1	.30	.00	.00	.00	.00
3	.00	.00	.10	4.8	1	3.7	4.3	.22	5.9	.00	.00	.00
4	.00	.03	.51	1.7	.2	.81	13	1.0	.00	.00	.00	.00
5	.00	.04	.29	.09	.00	.62	.70	200	.00	.00	.00	.00
6	.09	.07	.07	.15	.00	12	.18	e70	.00	.00	.00	.00
7	.10	.02	.00	.2	.38	1.1	.00	e15	.00	.00	.00	.00
8	.03	.08	e.00	e.15	.00	.73	.00	e4.0	.00	.00	.00	.00
9	.00	.23	e.00	e.15	.00	1.6	.00	e1.1	.00	.00	.00	.00
10	.00	.12	e.00	e.15	.00	.24	.00	e.25	.00	.00	.00	.00
11	.00	.17	e.00	e.15	.12	.17	.00	.00	.00	.00	.00	.00
12	.00	.12	.95	e.15	2.2	.00	.00	.09	.00	.00	.00	.00
13	.00	.14	1.8	e.15	.02	12	.00	1.4	.00	.00	.00	.00
14	.00	.16	.08	.15	.00	43	1.4	.99	1.1	.00	.00	.00
15	.00	.14	.05	.15	.00	4.8	8.0	.77	.00	.00	.00	.00
16	.00	.07	.02	.14	.00	2.5	.00	.80	.00	.00	.00	.00
17	.00	.04	.01	.14	.00	1.4	.00	.60	.00	.00	.00	.00
18	.00	.07	.01	.14	.00	.47	.00	.40	.00	.00	.00	.00
19	.03	.15	.04	.00	.00	.00	.00	.32	.00	.00	.00	.00
20	.00	.27	.13	.00	.00	.19	.00	.09	.00	.00	.00	.00
21	.00	.09	.16	.13	.00	.32	.00	.02	.00	.00	.00	.00
22	.00	.26	.02	261	.00	.00	.00	.12	.00	.00	.00	.00
23	.00	.71	.00	9.6	.00	.20	.00	.00	.60	.00	.00	.00
24	.00	.14	.04	3.7	.00	.45	.00	.05	.01	.00	.00	.00
25	.00	.09	.05	1.6	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.10	.04	.51	.00	.00	18	.00	13	.00	.00	.00
27	.00	.09	.11	.12	6.8	.00	122	.00	13	.00	.00	.00
28	.00	.27	.15	.12	2.2	.00	3.7	.00	19	.00	.00	.00
29	.00	.21	.15	3.1	---	.01	1.6	.00	.08	.00	.00	.00
30	.00	.15	.13	7.6	---	.00	1.0	.15	.00	.00	.00	.00
31	.00	---	.14	44	---	.60	---	.36	---	.00	.00	---
TOTAL	0.25	4.04	5.62	342.99	18.52	113.01	176.28	298.96	52.76	0.00	0.00	0.00
MEAN	.008	.13	.18	11.1	.66	3.65	5.88	9.64	1.76	.000	.000	.000
MAX	.10	.71	1.8	261	6.8	43	122	200	19	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.00	.03	.04	2.33	.14	.77	1.24	2.03	.37	.00	.00	.00
IN.	.00	.03	.04	2.69	.15	.89	1.38	2.34	.41	.00	.00	.00

e Estimated

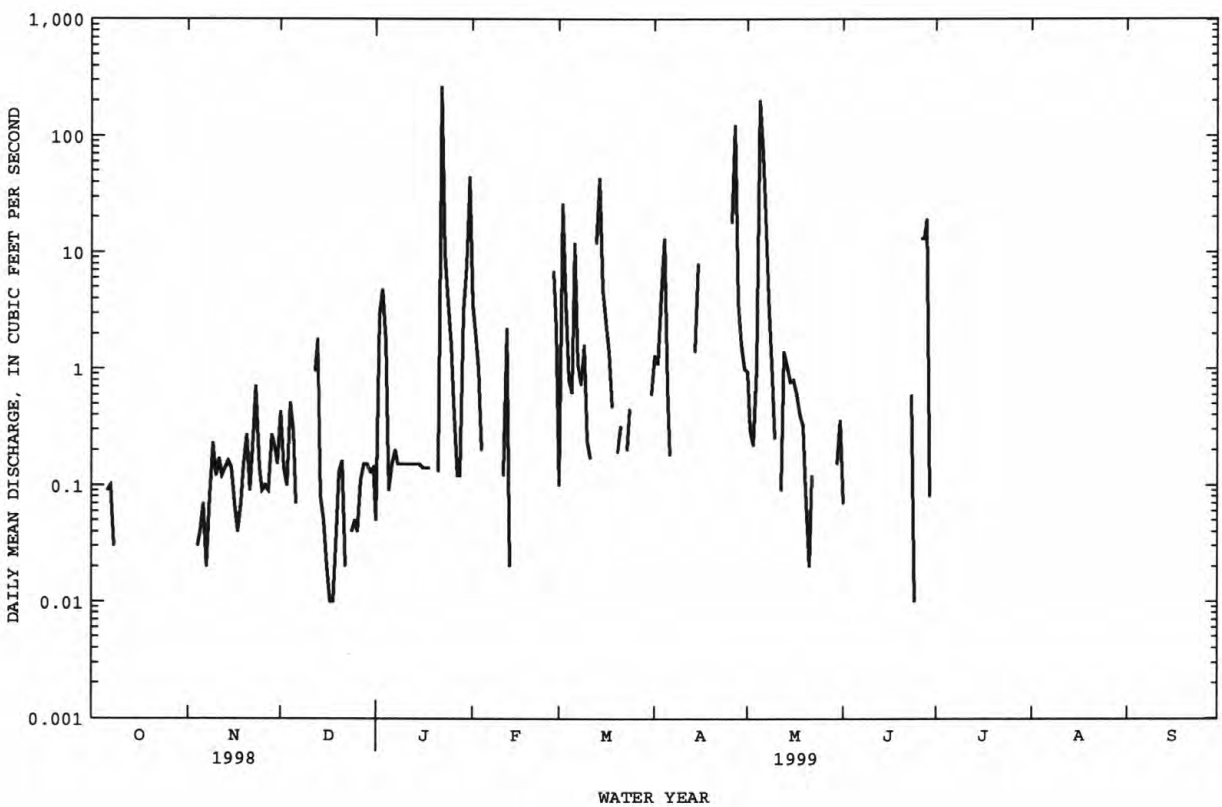
07028930 TURKEY CREEK AT MEDINA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.27	4.37	4.82	12.5	11.1	16.3	7.13	8.81	7.77	4.91	2.38	1.02
MAX	3.80	12.3	10.2	21.7	19.9	27.1	12.1	20.9	15.0	15.4	7.19	3.40
(WY)	1997	1997	1997	1998	1998	1997	1998	1998	1997	1998	1997	1996
MIN	.000	.13	.18	4.70	.66	3.65	3.41	.82	.32	.000	.000	.000
(WY)	1998	1999	1999	1997	1999	1999	1997	1996	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	3372.69		1012.43			
ANNUAL MEAN	9.24		2.77		6.95	
HIGHEST ANNUAL MEAN					9.61	1998
LOWEST ANNUAL MEAN					2.77	1999
HIGHEST DAILY MEAN	310	Jul 30	261	Jan 22	316	Jun 9 1996
LOWEST DAILY MEAN	.00	May 17	a.00	Oct 1	b.00	May 5 1996
ANNUAL SEVEN-DAY MINIMUM	.00	May 17	.00	Oct 9	.00	May 17 1996
INSTANTANEOUS PEAK FLOW			1290	Jan 22	2440	Jun 9 1996
INSTANTANEOUS PEAK STAGE			11.24	Jan 22	14.83	Jun 9 1996
ANNUAL RUNOFF (CFSM)	1.95		.58		1.46	
ANNUAL RUNOFF (INCHES)	26.41		7.93		19.87	
10 PERCENT EXCEEDS	21		1.6		14	
50 PERCENT EXCEEDS	.14		.00		.12	
90 PERCENT EXCEEDS	.00		.00		.00	

a Occurred many days.
b No flow many days each year.



07028960 MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW, TN

LOCATION.--Lat 35°44'39", long 88°50'47", Madison County, Hydrologic Unit 08010204, at upstream side of bridge on Highway 45 bypass, 5 mi north of Jackson, and at mile 30.5.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--October 1967 and April 1989 (discharge measurements only), October 1997 to current year.

GAGE.--Data collection platform. Datum of gage is 327 ft above sea level, from topographic map.

REMARKS.--Records good. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,660 ft^3/s, Jan. 24, gage height, 16.34 ft; minimum discharge, 52 ft^3/s, gage height, 4.43 ft. Aug. 31, Sept. 1, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	103	186	242	1180	375	252	442	101	150	62	52
2	71	107	176	413	1060	346	266	280	107	95	60	53
3	80	107	174	420	768	379	268	198	130	75	58	53
4	84	105	190	483	498	378	729	167	379	67	58	54
5	84	108	398	441	320	447	452	e210	127	63	58	55
6	86	109	275	385	263	554	452	e960	99	60	56	55
7	137	112	474	327	246	407	360	648	86	58	55	55
8	155	126	877	513	233	400	299	748	80	56	62	54
9	157	132	685	698	241	361	254	681	76	53	70	55
10	125	171	576	650	208	323	223	448	77	156	68	54
11	105	188	436	736	199	302	203	286	74	497	64	53
12	95	176	487	600	313	264	181	224	72	126	65	54
13	93	162	462	413	257	391	167	271	104	150	61	56
14	92	158	497	317	242	1030	190	229	335	119	58	58
15	93	158	415	274	202	858	434	210	202	81	58	56
16	90	152	314	296	177	809	349	188	249	66	59	56
17	90	147	261	284	184	668	330	172	200	63	57	56
18	94	145	229	340	184	458	287	167	e130	62	57	55
19	125	148	216	301	183	328	250	146	e125	64	56	56
20	117	173	207	320	159	273	236	135	e110	64	56	57
21	109	180	222	272	137	251	208	134	e98	67	57	60
22	100	173	272	3390	123	230	190	132	e90	67	57	60
23	96	170	279	4940	122	224	148	120	84	66	56	60
24	97	167	295	6900	124	260	140	112	80	64	56	59
25	99	162	303	5340	123	257	143	103	75	68	60	59
26	99	159	280	1520	115	251	274	101	116	e75	58	59
27	99	156	262	551	282	221	1800	102	663	e80	57	59
28	101	154	286	375	368	199	752	100	350	72	56	60
29	106	156	296	405	---	213	693	94	347	69	55	62
30	105	165	283	496	---	212	626	95	237	64	54	62
31	104	---	269	1430	---	235	---	110	---	62	52	---
TOTAL	3162	4429	10582	34072	8511	11904	11156	8013	5003	2879	1816	1697
MEAN	102	148	341	1099	304	384	372	258	167	92.9	58.6	56.6
MAX	157	188	877	6900	1180	1030	1800	960	663	497	70	62
MIN	71	103	174	242	115	199	140	94	72	53	52	52
CFSM	.48	.70	1.62	5.21	1.44	1.82	1.76	1.23	.79	.44	.28	.27
IN.	.56	.78	1.87	6.01	1.50	2.10	1.97	1.41	.88	.51	.32	.30

e Estimated

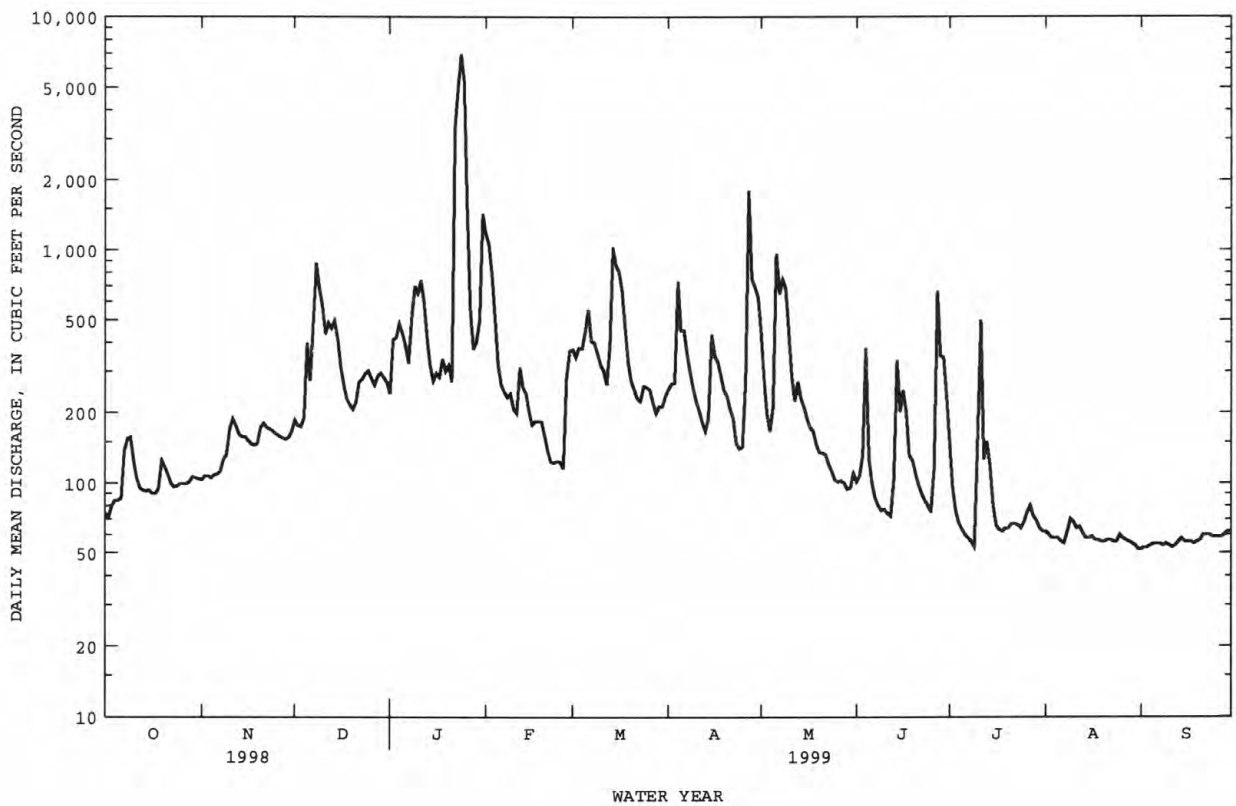
07028960 MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	117	207	356	949	439	487	415	845	229	261	238	64.4
MAX	132	266	370	1099	574	590	458	1431	290	430	418	72.2
(WY)	1998	1998	1998	1999	1998	1998	1998	1998	1998	1998	1998	1998
MIN	102	148	341	800	304	384	372	258	167	92.9	58.6	56.6
(WY)	1999	1999	1999	1998	1999	1999	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	172599		103224			
ANNUAL MEAN	473		283		385	
HIGHEST ANNUAL MEAN					488	1998
LOWEST ANNUAL MEAN					283	1999
HIGHEST DAILY MEAN	6320	May 8	6900	Jan 24	6900	Jan 24 1999
LOWEST DAILY MEAN	64	Sep 10	52	Aug 31	52	Aug 31 1999
ANNUAL SEVEN-DAY MINIMUM	67	Sep 8	53	Aug 29	53	Aug 29 1999
INSTANTANEOUS PEAK FLOW			8660	Jan 24	8660	Jan 24 1999
INSTANTANEOUS PEAK STAGE			16.34	Jan 24	16.34	Jan 24 1999
INSTANTANEOUS LOW FLOW			a51	Aug 31	51	Aug 31 1999
ANNUAL RUNOFF (CFSM)	2.24		1.34		1.83	
ANNUAL RUNOFF (INCHES)	30.43		18.20		24.81	
10 PERCENT EXCEEDS	997		496		670	
50 PERCENT EXCEEDS	261		158		228	
90 PERCENT EXCEEDS	84		58		66	

a Also occurred Sept. 1, 3.



07029035 STOKES CREEK AT STOKES, TN

LOCATION.--Lat 35°58'26", long 89°13'07", Dyer County, Hydrologic Unit 08010204, on left bank, at downstream end of bridge on Greenhill Bottom Road, 2.5 mi north of Stokes, and at mile 2.6.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--October 1998 to September 1999.

GAGE.--Data collection platform. Datum of gage is 265 ft above sea level, from topographic map.

REMARKS.--Records poor. Constant beaver activity downstream of gage. Channel cleaning and modification by Tennessee Department of Transportation (TDOT) and Tennessee Department of Environment and Conservation (TDEC). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 883 ft^3/s, May 6, gage height, 18.27 ft; minimum discharge, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	e1.0	4.1	.01	83	24	3.9	.59	.36	.81	.07	.05
2	.03	e10.0	2.8	84	34	24	.98	.50	.48	.37	.06	.04
3	.72	e12.0	2.0	e41	15	24	2.5	.43	.63	.37	.06	.04
4	.71	e15.0	23	e28	5.5	24	91	.40	.59	.28	.10	.03
5	.24	e9.0	185	e13	1.4	15	2.7	210	.18	.22	.27	.02
6	.12	e7.0	50	e2.1	.46	133	67	484	.15	.20	.25	.01
7	1.8	e4.0	e41.0	1.1	5.0	34	1.9	53	.13	.36	.24	.00
8	1.5	e2.0	e30.0	e235	3.7	9.5	.93	1.8	.13	.22	.24	.00
9	.85	e11.0	e20.0	e201	2.8	13	.79	.68	.13	.22	.25	.00
10	.64	e3.5	e10.0	e81	16	4.9	.66	.52	.13	.19	.24	.00
11	.49	e25.0	2.7	e17	47	2.6	.68	.43	.13	.20	.23	.00
12	.41	e5.0	3.4	1.5	45	2.8	.66	.39	.13	.21	.22	.00
13	.34	.06	3.9	.76	16	103	.84	.45	99	.21	.21	.00
14	e.30	.07	1.2	.55	4.6	236	3.7	.34	43	.19	.19	.00
15	e.34	.10	.85	.25	2.7	91	6.9	.32	.77	.17	.18	.00
16	e.32	.12	1.3	.04	2.7	27	.73	.36	.20	.15	.17	.00
17	e.70	.12	1.3	14	4.3	8.9	.55	.40	.24	.13	.17	.00
18	e8.0	.15	.15	49	5.2	3.2	.51	.46	.26	.12	.16	.00
19	e12.0	.17	.59	14	5.6	2.8	.48	.39	.28	.11	.15	.00
20	e.10	.37	1.2	5.9	5.7	3.7	.45	.38	.30	.10	.14	.00
21	e.25	.46	2.2	5.8	5.5	5.1	.43	.41	.31	.10	.14	.00
22	e.10	.56	99	170	5.6	3.1	.42	.44	.35	.09	.13	.00
23	e.15	.59	e31	152	6.3	3.1	.38	.45	.40	.09	.12	.00
24	e.10	.59	e17	50	8.9	2.3	.38	.45	.85	.09	.11	.00
25	e.05	.61	e9.6	20	7.4	.96	.37	.43	.35	.08	.11	.00
26	e1.5	.65	e2.0	8.0	6.1	.96	117	.43	7.5	.08	.10	.00
27	e5.0	.65	.02	2.4	21	1.0	314	.40	93	.08	.09	.00
28	e.25	.66	.02	.62	25	1.0	71	.36	148	.08	.08	.00
29	e4.0	.76	.02	93	---	1.2	2.8	.34	334	.08	.08	.00
30	e3.0	.92	.02	127	---	1.2	.86	.34	17	.08	.07	.00
31	e1.0	---	.01	170	---	19	---	.34	---	.07	.06	---
TOTAL	45.04	112.11	545.38	1588.03	391.46	825.32	695.50	760.23	748.98	5.75	4.69	0.19
MEAN	1.45	3.74	17.6	51.2	14.0	26.6	23.2	24.5	25.0	.19	.15	.006
MAX	12	25	185	235	83	236	314	484	334	.81	.27	.05
MIN	.03	.06	.01	.01	.46	.96	.37	.32	.13	.07	.06	.00
CFSM	.11	.27	1.29	3.74	1.02	1.94	1.69	1.79	1.82	.01	.01	.00
IN.	.12	.30	1.48	4.32	1.06	2.24	1.89	2.07	2.04	.02	.01	.00

e Estimated

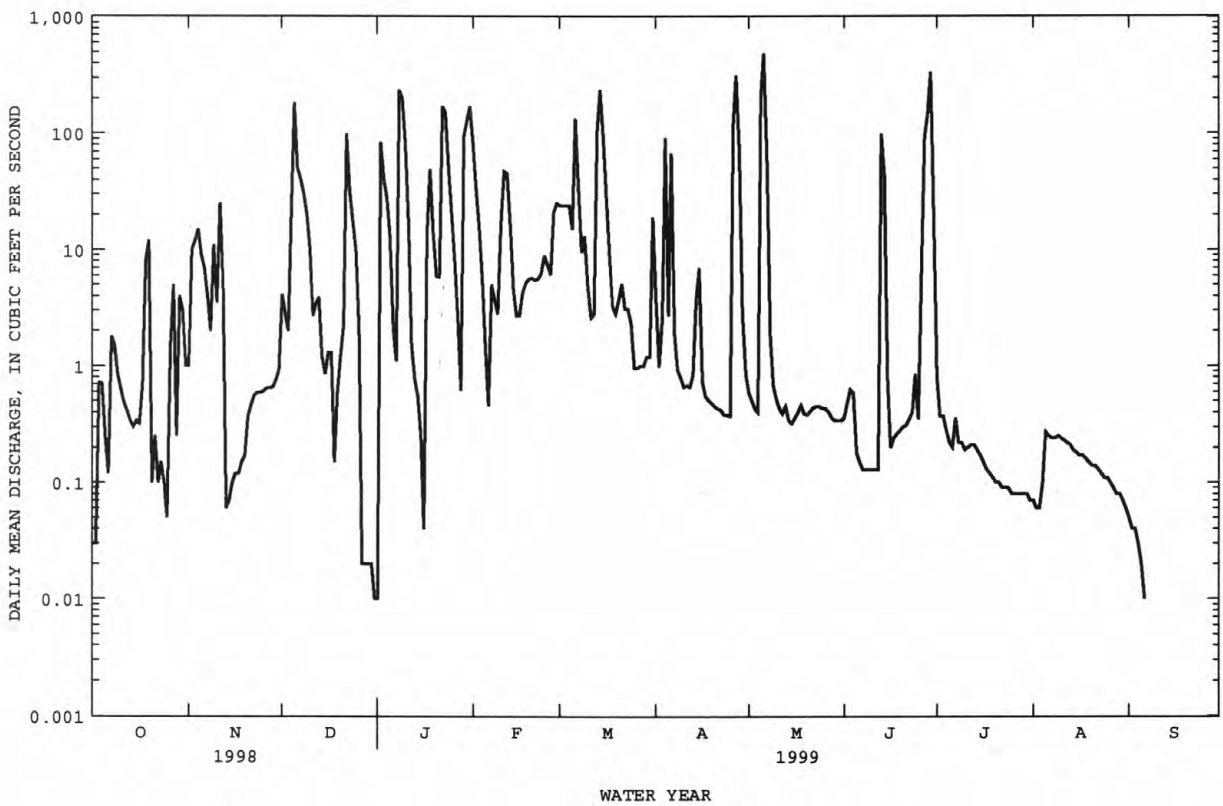
07029035 STOKES CREEK AT STOKES, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.45	3.74	17.6	51.2	14.0	26.6	23.2	24.5	25.0	.19	.15	.006
MAX	1.45	3.74	17.6	51.2	14.0	26.6	23.2	24.5	25.0	.19	.15	.006
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	1.45	3.74	17.6	51.2	14.0	26.6	23.2	24.5	25.0	.19	.15	.006
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS	FOR 1999 WATER YEAR	
ANNUAL TOTAL	5722.68	
ANNUAL MEAN	15.7	
HIGHEST DAILY MEAN	484	May 6
LOWEST DAILY MEAN	a.00	Sep 7
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 7
INSTANTANEOUS PEAK FLOW	833	May 6
INSTANTANEOUS PEAK STAGE	18.27	May 6
INSTANTANEOUS LOW FLOW	a.00	Jun 6
ANNUAL RUNOFF (CFSM)	1.15	
ANNUAL RUNOFF (INCHES)	15.55	
10 PERCENT EXCEEDS	37	
50 PERCENT EXCEEDS	.59	
90 PERCENT EXCEEDS	.04	

a Many days.



07029500 HATCHIE RIVER AT BOLIVAR, TN

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank 25 ft upstream from bridge on State Highway 18, 250 ft upstream from Illinois Central Gulf Railroad bridge, 0.6 mi downstream from Spring Creek, 1.5 mi northeast of Bolivar, and at mile 135.1.

DRAINAGE AREA.--1,480 mi^2.

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Data collection platform. Datum of gage is 323.49 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 2	0500	14,700	16.56	May 6	1530	10,700	15.70
Mar 17	0800	*17,900	*17.12				

Minimum discharge, 188 ft^3/s, Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	352	470	2870	14400	1740	2320	4660	583	2050	327	208
2	355	350	479	3180	14600	2100	2480	4590	590	1240	317	205
3	389	349	483	3460	13400	2280	2560	4420	643	887	308	205
4	518	351	507	3510	11700	2340	3140	4100	632	709	297	205
5	567	359	563	3400	10100	2470	3830	5010	587	592	289	204
6	562	361	568	3470	8830	2960	4120	9260	561	527	279	206
7	636	360	608	3520	7840	3440	4050	9960	536	486	272	205
8	580	371	938	3740	6900	3610	4050	9510	509	464	271	205
9	562	393	1430	4440	6120	3790	4020	9400	485	454	295	204
10	534	446	1930	4720	5370	3910	3890	10100	458	450	306	200
11	481	525	2010	5160	4760	3970	3550	9920	438	604	300	194
12	436	611	2050	5590	4360	3990	2900	8860	425	803	299	194
13	411	642	2540	6440	3830	5020	2140	7720	434	981	290	192
14	396	575	2940	7410	3280	7210	1570	6650	488	883	275	196
15	387	522	3130	7440	2800	9350	1750	5750	614	684	266	197
16	378	504	3180	6790	2410	14600	2240	4970	587	558	261	193
17	368	504	3330	6150	2070	17700	2510	4220	506	499	254	192
18	361	493	3450	5920	1840	15700	2230	3300	448	464	250	191
19	359	472	3560	5900	1740	12800	1810	2220	416	441	247	193
20	358	474	3460	6220	1640	10400	1440	1490	400	423	240	198
21	355	487	3060	5670	1490	8770	1240	1090	388	416	237	214
22	347	515	2290	8200	1360	7530	1100	1040	378	403	234	230
23	344	536	1690	12400	1250	6540	994	1300	383	398	228	233
24	341	523	1400	12200	1180	5790	1020	1200	448	409	229	231
25	340	503	1300	11400	1140	5030	1120	965	591	411	231	225
26	341	485	1330	12300	1100	4380	1560	819	997	396	230	218
27	346	477	1400	13800	1150	3660	4030	739	2460	379	228	215
28	346	469	1650	13000	1410	2850	5120	689	3100	376	228	213
29	351	468	2160	12400	---	2290	5100	647	3440	375	225	211
30	354	464	2560	12100	---	2080	4860	607	3000	359	219	223
31	351	---	2740	13200	---	2130	---	584	---	341	211	---
TOTAL	12800	13941	59206	226000	138070	180430	82744	135790	25525	18462	8143	6200
MEAN	413	465	1910	7290	4931	5820	2758	4380	851	596	263	207
MAX	636	642	3560	13800	14600	17700	5120	10100	3440	2050	327	233
MIN	340	349	470	2870	1100	1740	994	584	378	341	211	191
CFSM	.28	.31	1.29	4.93	3.33	3.93	1.86	2.96	.57	.40	.18	.14
IN.	.32	.35	1.49	5.68	3.47	4.54	2.08	3.41	.64	.46	.20	.16

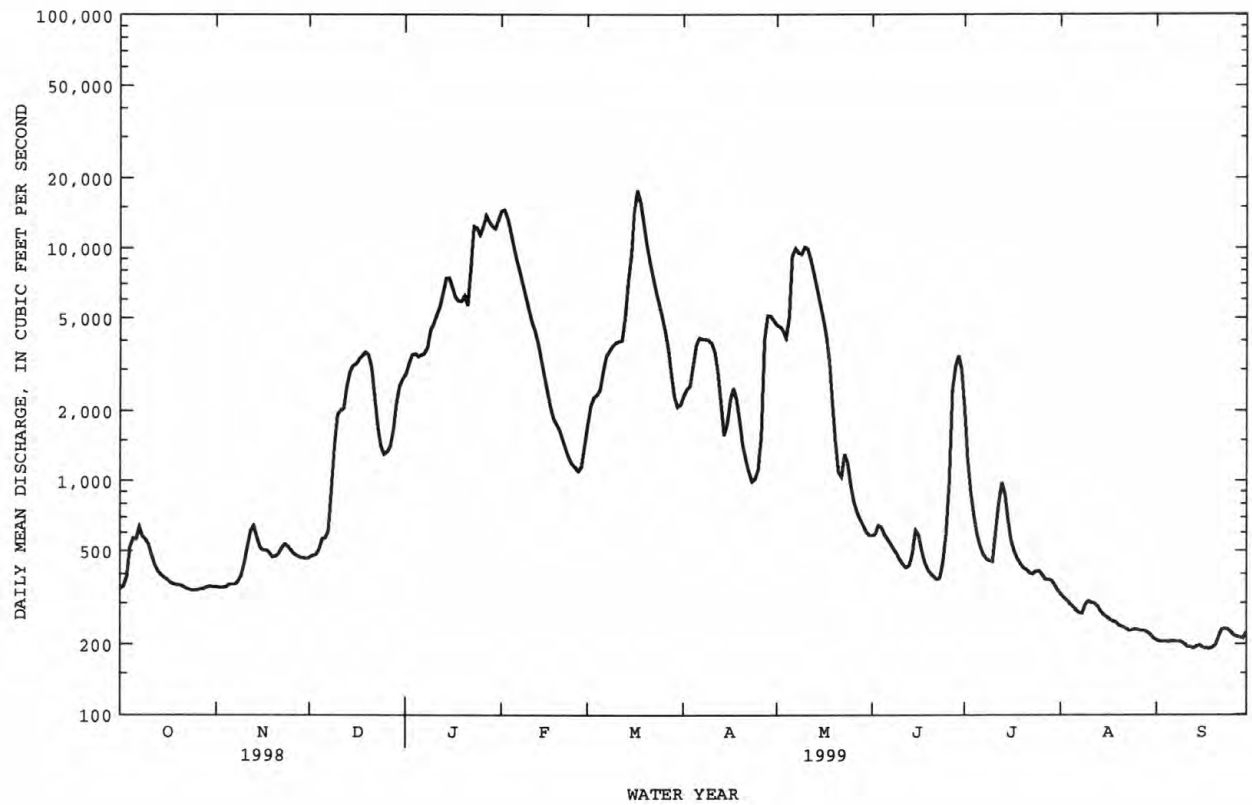
07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	722	1677	3241	4567	4702	4652	3951	2753	1473	945	630	723
MAX	4447	7457	12490	13420	14060	12110	10960	13540	8181	5933	2678	4651
(WY)	1933	1958	1983	1974	1948	1973	1979	1991	1997	1932	1931	1979
MIN	150	233	422	555	829	1053	711	444	209	189	193	127
(WY)	1957	1957	1955	1955	1934	1941	1986	1942	1941	1943	1954	1956

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999	
ANNUAL TOTAL	1059706		907311			
ANNUAL MEAN	2903		2486		2492	
HIGHEST ANNUAL MEAN					5003	1973
LOWEST ANNUAL MEAN					971	1941
HIGHEST DAILY MEAN	18100	May 2	17700	Mar 17	59300	Mar 18 1973
LOWEST DAILY MEAN	318	Sep 12	191	Sep 18	80	Sep 1 1943
ANNUAL SEVEN-DAY MINIMUM	322	Sep 11	193	Sep 13	85	Aug 26 1943
INSTANTANEOUS PEAK FLOW			17900	Mar 17	a61600	Mar 18 1973
INSTANTANEOUS PEAK STAGE			17.12	Mar 17	21.66	Mar 18 1973
INSTANTANEOUS LOW FLOW			188	Sep 18	78	Sep 2 1943
ANNUAL RUNOFF (CFSM)	1.96		1.68		1.68	
ANNUAL RUNOFF (INCHES)	26.64		22.81		22.87	
10 PERCENT EXCEEDS	8470		7020		6100	
50 PERCENT EXCEEDS	1280		709		1120	
90 PERCENT EXCEEDS	359		231		274	

a From rating curve extended above 34,000 ft^3/s.



07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN

LOCATION.--Lat 35°18'37", long 89°38'23", Shelby County, Hydrologic Unit 08010209, on left bank 20 ft downstream from bridge on U.S. Highways 70 and 79, 1.5 mi upstream from Beaver Creek, 1.5 mi northeast of Arlington, and at mile 30.4.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 246.43 ft above sea level.

REMARKS.--No estimated daily discharge. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 22	1900	6,450	16.61	Apr 4	0515	6,750	17.06
Jan 29	1300	5,820	15.59	Apr 27	0945	*7,720	*18.25
Mar 13	1345	6,520	16.71	May 6	0115	7,530	18.10

Minimum daily discharge, 70 ft^3/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	83	83	99	811	139	737	253	123	145	85	72
2	93	84	81	375	381	126	307	222	119	136	84	72
3	95	84	82	449	273	366	412	206	117	132	83	73
4	93	83	83	173	221	165	4930	194	119	129	83	73
5	93	82	93	139	186	139	1020	3340	116	124	83	73
6	98	81	89	134	175	968	441	4760	113	121	82	72
7	194	82	233	129	228	346	306	550	112	123	81	71
8	94	85	337	185	214	210	244	298	112	118	100	71
9	89	e96	212	959	173	262	218	234	111	113	145	70
10	87	e112	140	278	158	205	192	208	110	161	87	71
11	87	e100	208	186	153	171	176	194	109	275	82	72
12	87	e90	399	167	255	156	159	183	109	214	80	72
13	87	e85	360	154	189	4020	149	181	119	115	79	72
14	86	e96	165	140	145	4840	153	178	117	108	77	73
15	86	e90	133	133	135	1670	396	163	108	104	76	71
16	86	e85	122	133	133	512	221	155	106	102	77	72
17	85	81	117	142	135	337	163	152	104	100	77	72
18	86	81	112	303	133	263	140	257	102	98	78	73
19	88	81	117	182	125	223	134	162	102	97	76	74
20	85	85	117	140	119	212	133	143	102	96	75	75
21	85	84	113	130	113	232	127	137	101	95	76	74
22	83	81	111	3260	109	198	125	419	100	95	75	73
23	82	81	106	4140	110	179	122	203	113	95	74	74
24	84	82	104	588	110	183	121	146	161	93	75	75
25	85	82	101	316	109	170	140	135	106	99	75	77
26	84	82	101	244	108	154	2970	133	280	97	74	75
27	85	80	103	212	286	147	6510	128	1620	96	72	75
28	86	81	123	194	225	151	2810	125	267	106	72	76
29	85	81	140	4060	---	186	575	124	181	94	71	79
30	85	82	109	1960	---	220	316	122	156	91	71	77
31	84	---	102	2280	---	684	---	123	---	87	71	---
TOTAL	2823	2562	4496	21984	5512	17834	24447	13828	5315	3659	2496	2199
MEAN	91.1	85.4	145	709	197	575	815	446	177	118	80.5	73.3
MAX	194	112	399	4140	811	4840	6510	4760	1620	275	145	79
MIN	82	80	81	99	108	126	121	122	100	87	71	70
MED	86	82	113	186	156	210	220	181	112	104	77	73
CFSM	.35	.33	.55	2.71	.75	2.20	3.11	1.70	.68	.45	.31	.28
IN.	.40	.36	.64	3.12	.78	2.53	3.47	1.96	.75	.52	.35	.31

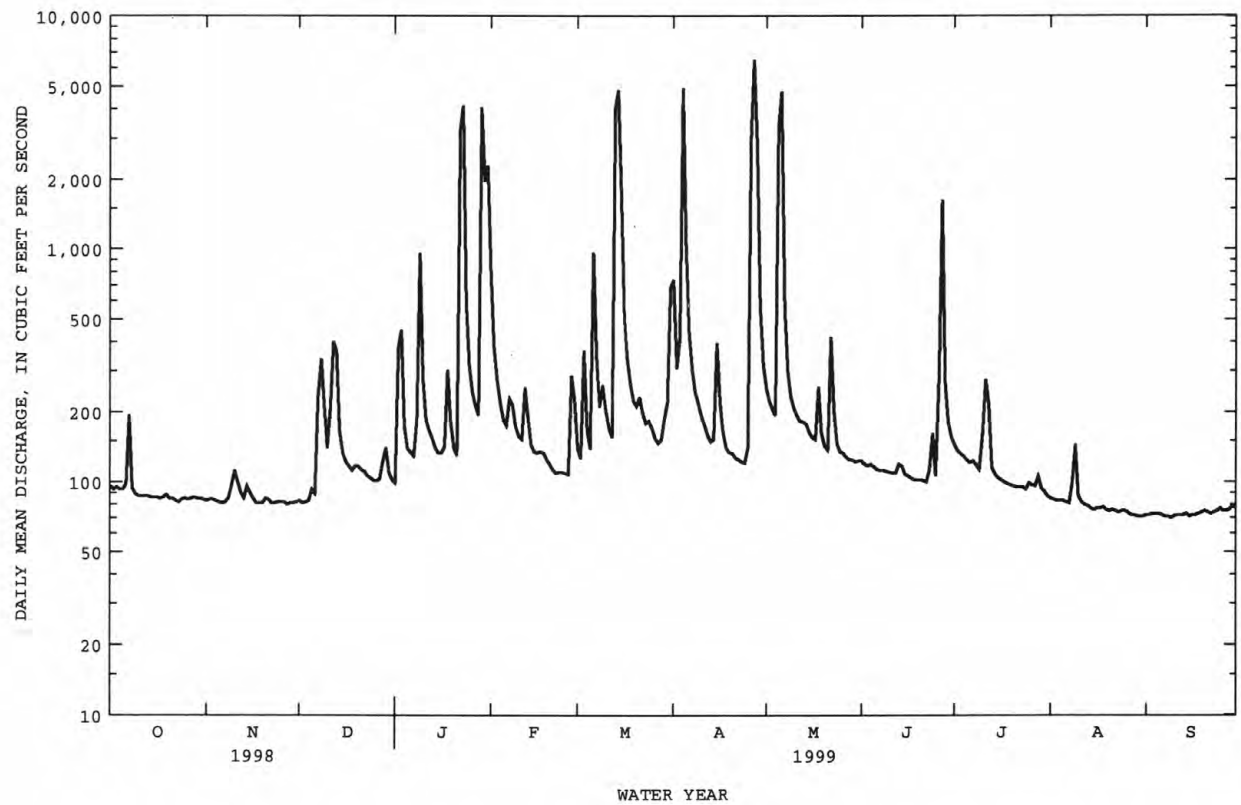
e Estimated

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	142	328	603	531	644	659	597	375	281	206	162	153
MAX	531	1344	1962	1479	2064	2038	2306	1497	1609	1155	521	502
(WY)	1997	1989	1988	1974	1990	1997	1991	1983	1974	1989	1974	1997
MIN	73.4	75.6	106	94.5	128	141	107	93.8	86.7	87.5	80.5	73.3
(WY)	1970	1972	1977	1981	1995	1986	1978	1988	1972	1970	1999	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	152621		107155			
ANNUAL MEAN	418		294		389	
HIGHEST ANNUAL MEAN					769	1989
LOWEST ANNUAL MEAN					154	1986
HIGHEST DAILY MEAN	12600	Mar 8	6510	Apr 27	19900	Dec 26 1987
LOWEST DAILY MEAN	80	Nov 27	70	Sep 9	66	Apr 7 1974
ANNUAL SEVEN-DAY MINIMUM	81	Nov 22	71	Sep 6	68	Nov 5 1982
INSTANTANEOUS PEAK FLOW			7720	Apr 27	27400	Dec 25 1987
INSTANTANEOUS PEAK STAGE			18.25	Apr 27	25.27	Dec 25 1987
INSTANTANEOUS LOW FLOW					66	Apr 6 1974
ANNUAL RUNOFF (CFSM)	1.60		1.12		1.48	
ANNUAL RUNOFF (INCHES)	21.67		15.21		20.15	
10 PERCENT EXCEEDS	855		341		625	
50 PERCENT EXCEEDS	126		117		119	
90 PERCENT EXCEEDS	85		75		85	



07030392 WOLF RIVER AT LAGRANGE, TN

LOCATION.--Lat 35°01'57", long 89°14'48", Fayette County, Hydrologic Unit 08010210, on right bank upstream side of bridge on Yager Road, 0.95 mi south of LaGrange, and at mile 72.6.

DRAINAGE AREA.--210 mi^2.

PERIOD OF RECORD.--September 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350 ft above sea level, from topographic map.

REMARKS.--Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,010 ft^3/s, Mar. 14, gage height, 13.11 ft; minimum discharge, 89 ft^3/s, Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	128	163	249	1220	265	306	282	170	205	105	91
2	119	130	161	304	1030	255	295	217	166	172	103	92
3	134	132	158	436	705	235	279	191	159	160	101	93
4	137	132	160	406	483	227	692	178	e156	144	99	93
5	140	132	179	316	388	226	813	1590	e153	136	99	94
6	180	133	187	259	341	295	892	2430	e148	131	99	95
7	261	133	204	238	367	360	588	1530	e145	126	98	94
8	233	147	339	309	366	396	384	1390	e144	127	100	93
9	171	152	392	934	349	348	322	856	e140	124	110	92
10	151	174	406	1050	320	306	294	424	e138	142	108	91
11	143	201	378	1030	291	302	263	302	e136	349	104	92
12	137	196	478	523	299	279	236	261	131	721	101	91
13	131	188	575	355	298	941	215	240	140	713	99	92
14	128	178	522	307	276	4000	e228	223	142	492	97	92
15	126	170	416	301	249	2390	e265	218	144	270	96	92
16	125	163	283	305	234	1210	e270	208	137	183	96	90
17	123	158	223	290	228	776	e240	195	132	154	96	90
18	122	156	197	644	223	501	e235	225	128	141	95	91
19	126	155	212	505	219	394	253	254	125	136	95	91
20	124	166	242	370	212	358	217	251	124	131	94	92
21	123	176	243	304	209	366	200	216	125	127	94	95
22	121	174	239	767	203	371	187	238	124	122	94	95
23	120	170	227	3740	199	350	178	481	129	119	94	94
24	121	166	225	2710	196	320	170	359	189	116	96	94
25	123	165	219	1180	193	292	175	252	203	113	98	93
26	124	162	214	675	190	272	264	208	218	113	97	92
27	124	158	222	455	197	253	840	190	393	112	96	92
28	125	156	328	376	234	235	992	180	368	111	95	92
29	126	156	389	765	---	240	868	171	382	110	94	101
30	127	158	383	1500	---	256	497	163	303	108	93	105
31	128	---	321	1500	---	287	---	172	---	105	91	---
TOTAL	4292	4765	8885	23103	9719	17306	11658	14095	5292	6013	3037	2794
MEAN	138	159	287	745	347	558	389	455	176	194	98.0	93.1
MAX	261	201	575	3740	1220	4000	992	2430	393	721	110	105
MIN	119	128	158	238	190	226	170	163	124	105	91	90
CFSM	.66	.76	1.36	3.55	1.65	2.66	1.85	2.17	.84	.92	.47	.44
IN.	.76	.84	1.57	4.09	1.72	3.07	2.07	2.50	.94	1.07	.54	.49

e Estimated

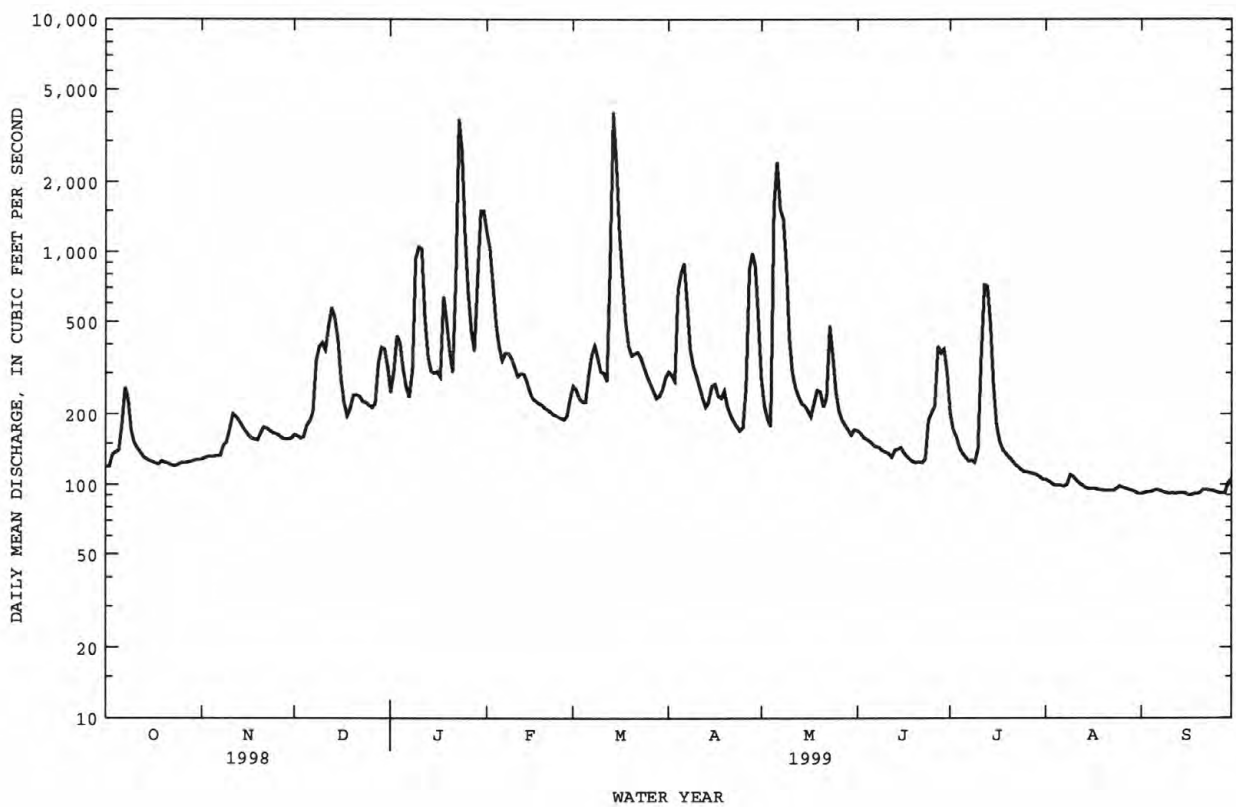
07030392 WOLF RIVER AT LAGRANGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	174	226	342	548	420	594	359	329	297	171	170	169
MAX	274	331	564	745	567	956	492	455	628	207	278	288
(WY)	1997	1997	1997	1999	1998	1997	1998	1999	1997	1997	1998	1996
MIN	89.5	159	232	333	233	341	261	220	172	98.9	98.0	73.5
(WY)	1996	1999	1996	1996	1996	1996	1996	1997	1998	1996	1999	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	119716		110959			
ANNUAL MEAN	328		304		318	
HIGHEST ANNUAL MEAN					412	1997
LOWEST ANNUAL MEAN					222	1996
HIGHEST DAILY MEAN	2670	Apr 29	4000	Mar 14	4430	Mar 3 1997
LOWEST DAILY MEAN	107	Sep 10	90	Sep 16	68	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	108	Sep 10	91	Sep 12	70	Sep 2 1995
INSTANTANEOUS PEAK FLOW			6010	Mar 14	7420	Mar 2 1997
INSTANTANEOUS PEAK STAGE			13.11	Mar 14	13.27	Mar 2 1997
INSTANTANEOUS LOW FLOW			89	Sep 16	a64	Sep 2 1995
ANNUAL RUNOFF (CFSM)	1.56		1.45		1.52	
ANNUAL RUNOFF (INCHES)	21.21		19.66		20.60	
10 PERCENT EXCEEDS	654		522		621	
50 PERCENT EXCEEDS	209		190		205	
90 PERCENT EXCEEDS	118		95		96	

a Also occurred Sept. 3.



07031650 WOLF RIVER AT GERMANTOWN, TN

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, Hydrologic Unit 08010210, on left bank, 30 ft downstream of bridge on Germantown Road, 1.7 mi north of U.S. Hwy 72, 3.6 mi downstream of Grays Creek, 4.0 mi northeast of I-240 and U.S. Highway 72 interchange, and at mile 18.9.

DRAINAGE AREA.--699 mi^2.

PERIOD OF RECORD.--October 1969 to September 1986, October 1990 to current year. Prior to September 1977 published as "near Germantown".

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft above sea level. Apr. 21, 1986, to Dec. 30, 1990, water-stage recorder at site 2.1 mi downstream at datum 9.94 ft lower.

REMARKS.--Records good except for estimated discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. National Weather Service rain gage and telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1430	7,820	14.60	Apr 27	0515	*8,620	*15.28

Minimum daily discharge, 258 ft^3/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	362	399	649	4350	647	1420	1890	470	655	314	281
2	380	362	406	828	3990	623	1020	1320	463	612	305	279
3	450	360	405	698	3230	626	2160	916	447	569	302	278
4	429	359	406	699	2550	549	3730	1440	431	507	301	278
5	499	357	443	725	1940	568	3240	5500	415	462	297	281
6	521	356	474	749	1410	1040	2120	5310	401	429	295	279
7	611	355	614	742	1250	887	1710	5480	386	420	292	277
8	517	366	867	838	1170	778	1580	5420	374	403	298	276
9	543	378	856	722	1020	767	1380	3970	362	390	305	276
10	529	473	933	772	896	709	1080	2920	354	429	323	271
11	506	419	846	899	816	722	852	2320	348	749	319	270
12	474	430	1090	1210	842	667	718	1760	345	597	303	272
13	440	425	1120	1360	785	4180	630	1080	483	579	296	270
14	421	425	1070	1260	708	4820	647	794	407	604	299	266
15	407	436	1020	1030	652	5500	725	687	e398	673	301	270
16	395	434	905	805	628	5720	752	620	e418	696	296	267
17	384	425	798	738	631	5280	666	652	e393	641	290	258
18	383	414	709	840	608	3770	631	609	e377	542	286	259
19	391	405	702	974	581	2620	642	568	e367	468	281	260
20	373	425	661	1070	554	1940	631	654	e356	420	283	260
21	371	418	641	1070	533	1420	588	592	e348	387	281	258
22	365	418	624	2790	522	1090	539	1170	e348	367	279	265
23	361	407	580	3820	513	930	499	2700	e344	362	316	266
24	360	404	578	6570	499	887	523	2610	346	383	344	267
25	359	406	573	6070	489	848	551	2360	336	398	300	268
26	359	402	557	4980	479	761	4070	1430	743	471	296	266
27	359	395	553	3730	516	700	5790	808	1120	349	292	269
28	360	391	661	2760	573	652	4040	640	884	357	288	270
29	360	392	745	3870	---	772	3030	555	819	336	287	287
30	361	397	692	3680	---	700	2360	503	784	326	285	285
31	363	---	656	4650	---	1480	---	476	---	316	278	---
TOTAL	13004	11996	21584	61598	32735	52653	48324	57754	14067	14897	9232	8129
MEAN	419	400	696	1987	1169	1698	1611	1863	469	481	298	271
MAX	611	473	1120	6570	4350	5720	5790	5500	1120	749	344	287
MIN	359	355	399	649	479	549	499	476	336	316	278	258
CFSM	.60	.57	1.00	2.84	1.67	2.43	2.30	2.67	.67	.69	.43	.39
IN.	.69	.64	1.15	3.28	1.74	2.80	2.57	3.07	.75	.79	.49	.43

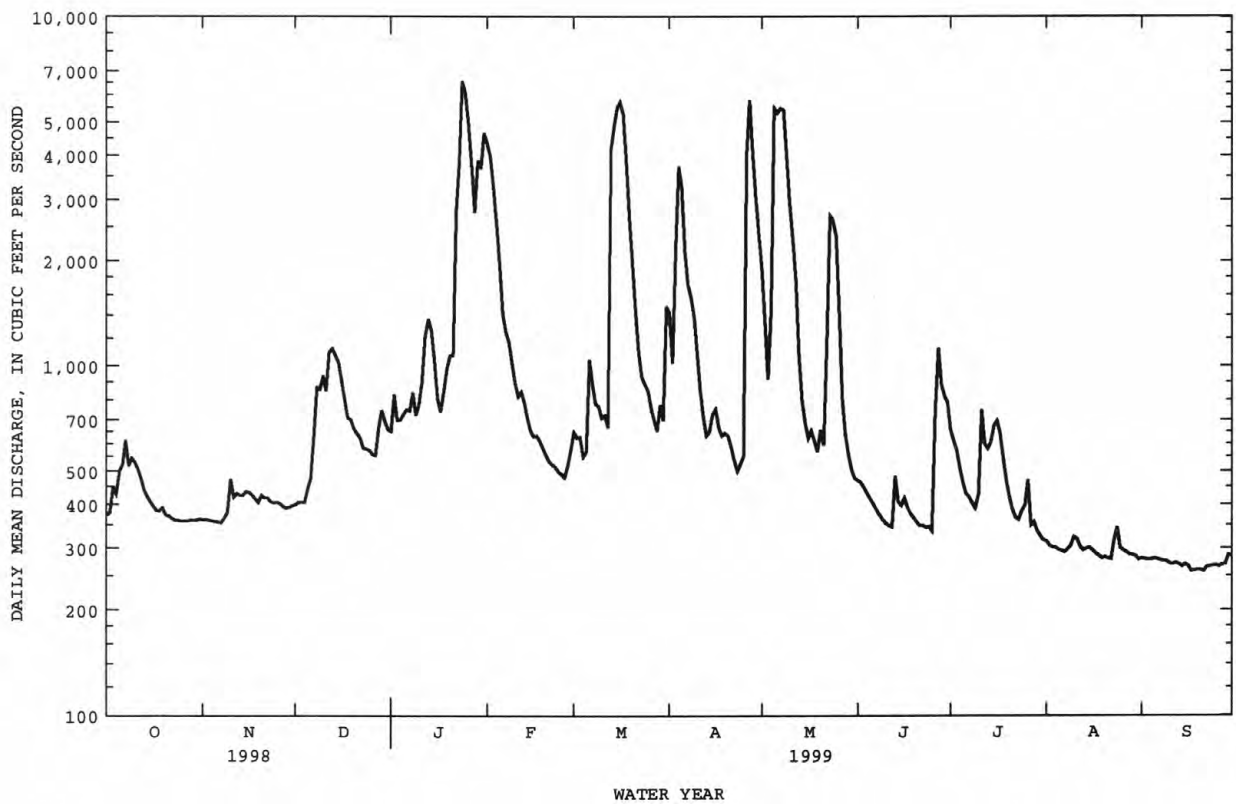
e Estimated

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	447	759	1500	1428	1325	1763	1596	1289	818	473	447	462
MAX	1223	1991	4939	3504	3256	4854	4805	4542	1986	985	1199	1345
(WY)	1997	1980	1983	1974	1991	1980	1991	1991	1974	1994	1998	1979
MIN	213	239	439	372	532	569	448	364	271	258	240	244
(WY)	1970	1972	1981	1981	1995	1986	1986	1992	1972	1971	1986	1986

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	368049		345973			
ANNUAL MEAN	1008		948		1025	
HIGHEST ANNUAL MEAN					1807	1991
LOWEST ANNUAL MEAN					497	1986
HIGHEST DAILY MEAN	6240	Apr 30	6570	Jan 24	30400	Mar 14 1975
LOWEST DAILY MEAN	314	Jul 5	258	Sep 17	196	Sep 15 1972
ANNUAL SEVEN-DAY MINIMUM	317	Jul 2	261	Sep 17	199	Sep 12 1972
INSTANTANEOUS PEAK FLOW			8620	Apr 27	33400	Mar 14 1975
INSTANTANEOUS PEAK STAGE			15.28	Apr 27	27.98	Mar 14 1975
INSTANTANEOUS LOW FLOW			248	Sep 17	184	Oct 8 1987
ANNUAL RUNOFF (CFSM)	1.44		1.36		1.47	
ANNUAL RUNOFF (INCHES)	19.59		18.41		19.92	
10 PERCENT EXCEEDS	2470		2360		2200	
50 PERCENT EXCEEDS	595		539		540	
90 PERCENT EXCEEDS	362		287		285	



07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°10'09", long 89°51'58", Shelby County, Hydrologic Unit 08010210, on Sycamore View Road, 0.4 miles northwest of Interstate 40.

DRAINAGE AREA.--30.5 mi^2.

PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 229.00 ft above sea level.

REMARKS.--Records good. Diurnal fluctuation cause unknown. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,200 ft^3/s, May 5, gage height, 15.09 ft; minimum daily, 0.01 ft^3/s, May 20, 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	20	10	7.7	e4.0	2.4	37	.25	.86	2.4	7.7	6.7
2	78	17	2.5	825	e1.7	287	5.1	.10	.05	1.2	4.0	8.7
3	302	23	.44	51	e5.8	83	957	.06	.04	3.8	7.0	8.6
4	11	16	14	7.4	e1.7	6.1	1270	4.7	.38	.25	6.4	12
5	143	12	53	2.5	e1.4	51	40	3950	.03	.20	7.2	5.8
6	304	7.9	2.7	2.0	1.4	375	46	640	.03	9.5	7.7	6.1
7	808	6.1	391	2.2	128	14	8.8	12	3.8	2.4	9.5	6.2
8	12	22	340	246	9.2	e19	4.7	4.4	3.5	4.9	67	9.0
9	2.5	7.7	18	160	3.2	71	3.2	.23	.38	16	18	8.0
10	.33	158	447	11	1.8	7.1	1.3	.10	.10	256	4.3	12
11	.14	8.3	74	4.8	33	45	.58	.06	.12	1370	4.6	5.3
12	.14	.78	300	2.8	105	8.4	.19	.05	.10	28	3.0	7.6
13	.09	.11	40	e1.6	5.1	3030	.11	.31	7.2	2.6	2.7	18
14	1.2	.32	7.2	e1.7	1.7	751	113	.51	9.6	.25	2.8	15
15	2.7	1.3	2.7	e1.7	.72	63	99	.04	.13	3.2	5.1	12
16	2.5	.24	1.5	e1.7	.74	16	5.3	.03	.05	99	1.3	12
17	4.3	.04	1.3	e50	11	7.6	.59	.13	.04	18	5.2	17
18	26	.03	3.0	e23	1.9	6.8	.11	8.8	.06	1.4	10	12
19	40	.03	46	e6.1	1.2	6.5	.12	.03	.03	8.5	9.0	9.8
20	5.9	91	5.5	e6.1	.64	145	.39	.01	.02	11	7.1	19
21	1.1	4.7	1.3	e5.1	2.3	36	.08	2.3	.11	.33	9.5	19
22	.54	.61	30	e418	e1.6	5.1	.04	90	3.7	2.3	4.2	19
23	1.9	.45	4.6	e10	e.25	3.5	.04	.11	6.0	2.2	9.9	14
24	1.2	.23	e7.6	e70	.09	13	153	.01	1.9	.60	84	16
25	.77	.21	8.1	e80	2.2	3.9	39	.03	1.2	1.7	11	9.0
26	6.2	.19	5.9	e3.0	1.1	1.5	3340	.02	681	6.7	6.6	9.3
27	8.9	.11	3.0	e1.7	121	.52	2080	.04	133	4.3	4.2	18
28	.51	.08	79	e1.7	43	.22	40	.04	2.1	1.0	6.6	15
29	7.9	.16	8.0	e55	---	159	6.7	.02	1.0	2.4	6.0	73
30	6.7	8.1	2.9	e5.0	---	9.8	2.3	.01	.06	.96	6.3	8.4
31	3.7	---	1.1	e20	---	335	---	.16	---	4.4	8.1	---
TOTAL	1801.22	406.69	1911.34	2083.8	490.74	5562.44	8253.65	4714.55	856.59	1865.49	346.0	411.5
MEAN	58.1	13.6	61.7	67.2	17.5	179	275	152	28.6	60.2	11.2	13.7
MAX	808	158	447	825	128	3030	3340	3950	681	1370	84	73
MIN	.09	.03	.44	1.6	.09	.22	.04	.01	.02	.20	1.3	5.3
CFSM	1.91	.44	2.02	2.20	.57	5.88	9.02	4.99	.94	1.97	.37	.45
IN.	2.20	.50	2.33	2.54	.60	6.78	10.07	5.75	1.04	2.28	.42	.50

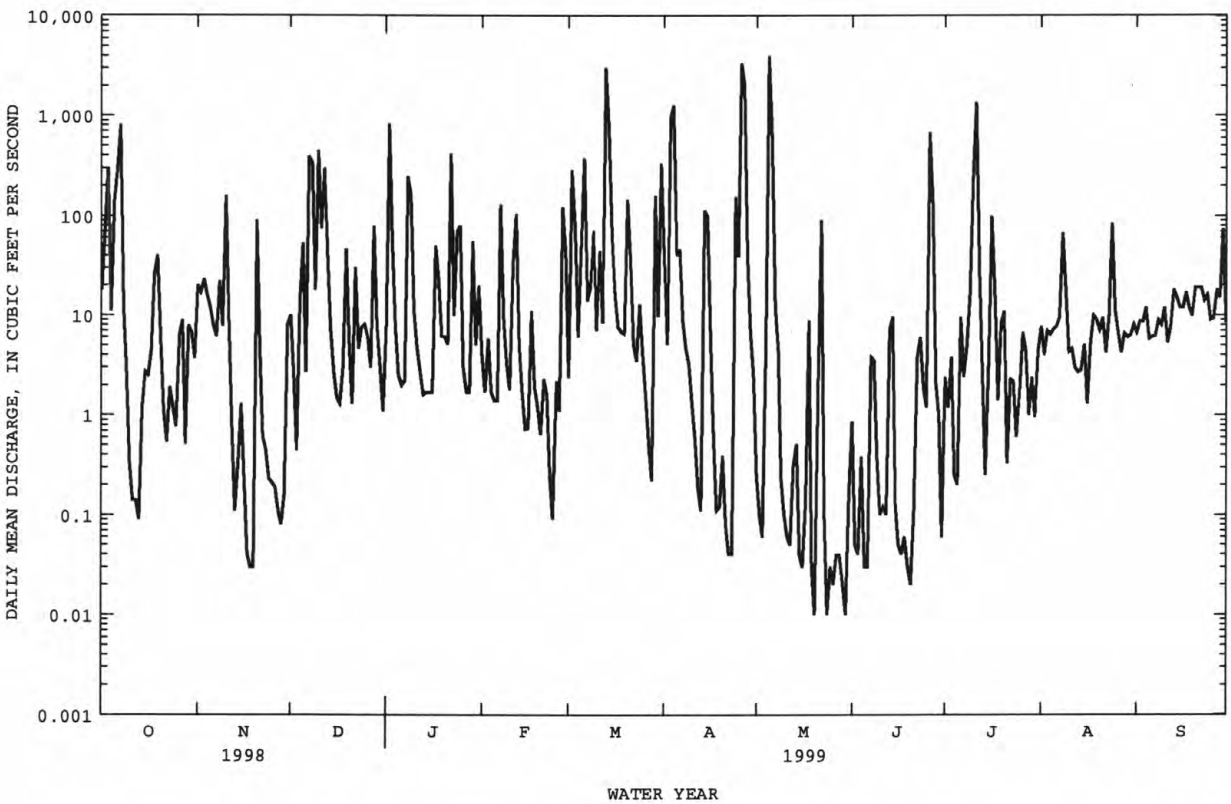
e Estimated

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.7	111	70.2	75.5	88.1	320	154	76.8	101	65.3	42.9	85.2
MAX	140	310	112	120	147	535	275	152	211	90.8	133	291
(WY)	1997	1997	1997	1998	1997	1997	1999	1999	1996	1998	1998	1997
MIN	22.8	8.89	37.1	39.4	17.5	179	15.6	35.8	12.6	42.0	3.59	13.7
(WY)	1998	1998	1998	1997	1999	1999	1996	1998	1998	1996	1996	1999

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	32293.78		28704.01			
ANNUAL MEAN	88.5		78.6		110	
HIGHEST ANNUAL MEAN					170	1997
LOWEST ANNUAL MEAN					78.6	1999
HIGHEST DAILY MEAN	6010	Mar 7	3950	May 5	10000	Mar 2 1997
LOWEST DAILY MEAN	.03	Nov 18	.01	May 20	.01	May 20 1999
ANNUAL SEVEN-DAY MINIMUM	.07	Aug 20	.02	May 24	.02	May 24 1999
INSTANTANEOUS PEAK FLOW			20200	May 5	24400	Mar 2 1997
INSTANTANEOUS PEAK STAGE			15.09	May 5	16.84	Mar 2 1997
ANNUAL RUNOFF (CFSM)	2.90		2.58		3.62	
ANNUAL RUNOFF (INCHES)	39.39		35.01		49.19	
10 PERCENT EXCEEDS	178		99		155	
50 PERCENT EXCEEDS	3.6		5.1		4.9	
90 PERCENT EXCEEDS	.12		.10		.21	



07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, Hydrologic Unit 08010211, on right bank, 100 ft upstream from bridge on Winchester Road, 2.6 mi south of Germantown, and at mile 17.3.

DRAINAGE AREA.--68.2 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, 1959-1964 and 1969; October 1969 to May 1985, October 1985 to January 1995, June 1996 to current year.

REVISED RECORDS.--WRD TN-74-1: Drainage area, WRD TN-87-1 (P).

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft above sea level, (from levels by National Rersources Conservation Service).

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 13	1130	4,520	15.82	May 5	0715	*6,990	*19.12
Apr 27	0900	4,440	15.70				

Minimum discharge, 0.01 ft^3/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.56	3.0	10	9.7	223	4.1	270	20	3.7	6.7	.98	e2.3
2	e1.7	2.8	16	623	91	11	88	12	3.6	4.3	1.2	e2.5
3	e57	2.3	14	191	45	12	243	8.1	2.3	2.2	1.0	1.6
4	e11	1.8	17	41	25	3.3	1590	31	2.6	1.8	1.0	2.1
5	e70	6.6	61	15	13	30	259	3480	2.5	1.8	.70	2.2
6	38	3.8	16	10	8.6	327	116	757	2.9	78	.52	2.5
7	77	2.3	162	16	286	65	60	110	2.5	3.9	1.0	1.7
8	8.0	11	270	378	114	37	29	40	2.3	2.0	7.4	1.4
9	1.8	6.0	34	367	41	128	19	19	2.7	5.0	3.5	1.6
10	.46	80	132	84	19	33	13	13	6.3	28	2.0	.75
11	.20	10	84	35	19	23	9.3	8.9	5.7	122	1.1	.47
12	.16	3.4	364	24	92	15	5.9	9.4	4.8	18	.96	.38
13	.06	1.7	82	24	35	2330	4.8	7.1	56	2.1	1.2	.24
14	.70	3.1	20	15	13	1160	29	5.9	18	1.3	1.2	.20
15	2.8	1.8	11	8.0	7.9	258	66	4.6	3.0	.80	.87	.58
16	.73	1.3	7.2	6.5	10	100	18	3.1	.96	.66	.70	.55
17	.37	2.5	6.0	27	32	53	8.1	4.4	.39	.57	.77	1.4
18	5.9	3.0	3.7	22	12	30	3.8	33	.42	.49	1.3	.97
19	13	2.6	85	13	8.0	19	3.0	4.5	1.1	29	.89	1.0
20	2.6	20	20	11	5.2	173	2.7	1.9	.96	3.1	.57	.86
21	2.9	20	22	14	5.2	158	2.7	1.7	1.3	1.4	.62	.76
22	3.9	9.9	24	1320	4.2	59	2.9	46	1.3	49	.77	1.1
23	2.0	5.0	9.3	715	3.8	35	2.9	79	15	17	.90	.68
24	1.3	4.6	12	131	2.0	66	62	45	44	27	14	.57
25	.91	5.9	12	55	1.5	34	36	9.2	10	202	7.2	.48
26	.95	2.7	16	28	2.0	20	1240	4.5	405	118	2.0	.16
27	1.2	1.5	20	18	30	13	2170	2.0	200	68	2.4	1.1
28	1.3	1.2	179	41	13	10	354	1.7	48	18	6.4	2.9
29	1.1	1.1	58	1810	---	76	81	1.6	15	3.4	1.4	17
30	1.6	9.2	20	754	---	37	36	3.0	6.0	2.0	e2.8	6.8
31	3.8	---	8.7	801	---	463	---	3.0	---	1.1	e1.8	---
TOTAL	313.00	230.1	1795.9	7607.2	1161.4	5782.4	6825.1	4769.6	868.33	818.62	69.15	56.85
MEAN	10.1	7.67	57.9	245	41.5	187	228	154	28.9	26.4	2.23	1.89
MAX	77	80	364	1810	286	2330	2170	3480	405	202	14	17
MIN	.06	1.1	3.7	6.5	1.5	3.3	2.7	1.6	.39	.49	.52	.16
CFSM	.15	.11	.85	3.60	.61	2.74	3.34	2.26	.42	.39	.03	.03
IN.	.17	.13	.98	4.15	.63	3.15	3.72	2.60	.47	.45	.04	.03

e Estimated

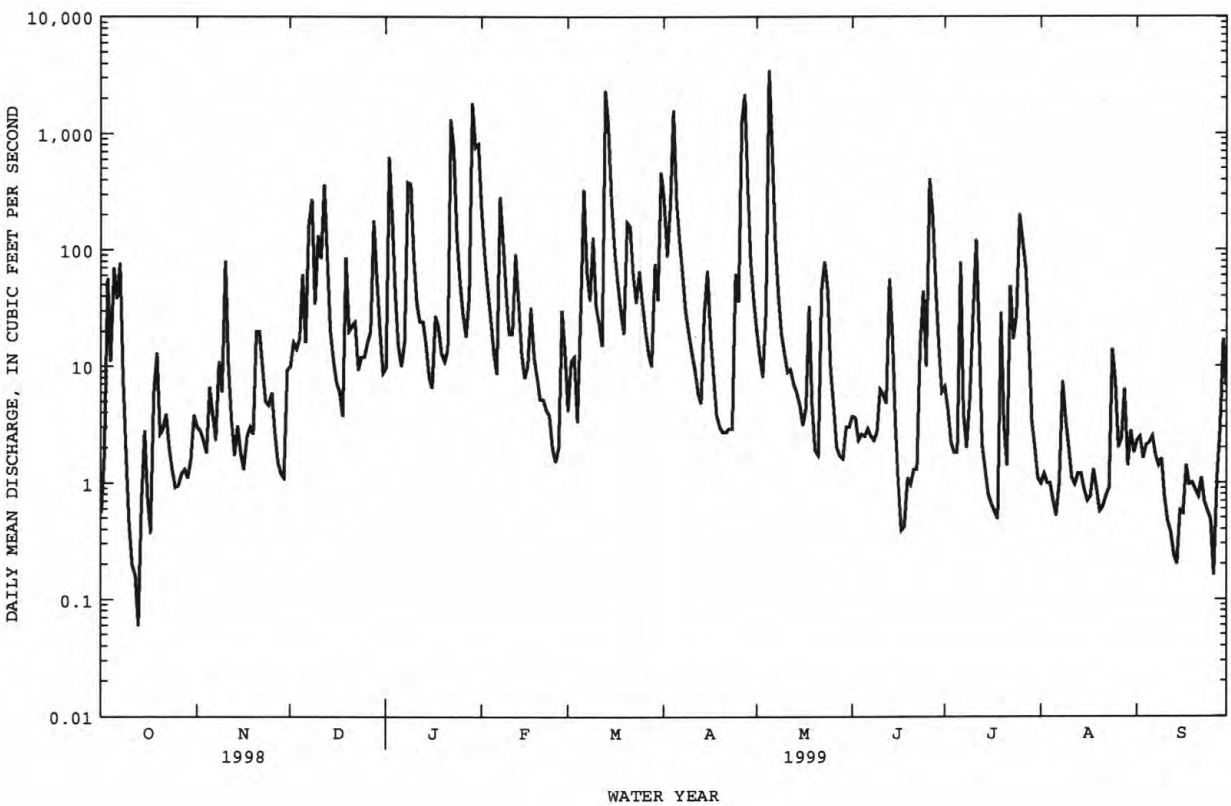
07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.7	95.6	172	164	186	209	191	115	65.8	44.7	16.3	23.9
MAX	69.4	323	616	531	604	659	834	407	300	354	77.4	164
(WY)	1990	1989	1983	1974	1989	1980	1991	1979	1974	1989	1978	1977
MIN	.000	.21	2.24	.41	14.6	15.2	9.44	3.74	3.09	.70	.37	.087
(WY)	1970	1972	1977	1986	1978	1986	1978	1988	1988	1976	1980	1984

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	35238.90		30297.65			
ANNUAL MEAN	96.5		83.0		109	
HIGHEST ANNUAL MEAN					215	1979
LOWEST ANNUAL MEAN					22.4	1986
HIGHEST DAILY MEAN	1700	Apr 30	3480	May 5	5900	Jul 2 1989
LOWEST DAILY MEAN	.06	Oct 13	.06	Oct 13	a.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.39	Sep 2	.45	Sep 10	.00	Oct 1 1969
INSTANTANEOUS PEAK FLOW			6990	May 5	13100	Jul 2 1989
INSTANTANEOUS PEAK STAGE			19.12	May 5	27.11	Mar 12 1975
INSTANTANEOUS LOW FLOW			.01	Oct 14	a.00	Oct 1 1969
ANNUAL RUNOFF (CFSM)	1.42		1.22		1.59	
ANNUAL RUNOFF (INCHES)	19.22		16.53		21.66	
10 PERCENT EXCEEDS	284		129		201	
50 PERCENT EXCEEDS	9.0		8.0		5.4	
90 PERCENT EXCEEDS	1.0		.90		.15	

a Many days most years.



As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for hydrologic studies reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from current meter or indirect measurements of peak flow. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN					
Whiteoak Creek at Sunbright, TN (03409000)	Lat 36°14'38", long 84°40'14", Morgan County, Hydrologic Unit 05130104, at bridge on U.S. Highway 27 in Sunbright. Datum of gage is 1,294.05 ft above sea level. Drainage area is 13.5 mi^2.	1934, 1955-82, 1985-99	1-23-99	7.84	-	5-27-73	17.24a	5,560
East Fork Obey River near Jamestown, TN (03414500)	Lat 36°24'58", long 85°01'35", Fentress County, Hydrologic Unit 05130105, on right bank 200 ft upstream from bridge on State Highway 52, 0.5 mi upstream from Poplar Cove Creek, 5.3 mi west of Jamestown, and at mile 12.7. Datum of gage is 680.30 ft, Sandy Hook Datum. Drainage area is 202 mi^2 includes 6.0 mi^2 without surface drainage.	1942-91†, 1992-99	1- 9-99	20.12	18,600	5-27-73	30.46	44,800
Wolf River near Byrdstown, TN (03416000)	Lat 36°33'37", long 85°04'23", Pickett County, Hydrologic Unit 05130105, on right bank 0.3 mi upstream from bridge on county road, 0.5 mi upstream from Widow Creek, 3.2 mi east of Byrdstown, 5.4 mi upstream from Lick Creek, and at mi 26.2. Datum of gage is 707.54 ft, Sandy Hook Datum. Drainage area is 106 mi^2.	1942-91†, 1992-99	1- 9-99	9.54	9,470	9- 2-82	17.14	23,500
Doe Creek at Gainesboro, TN (03418201)	Lat 36°21'23", long 85°39'20", Jackson County, Hydrologic Unit 05130106, at bridge on Highway 56, at Gainesboro. Datum of gage is 519.37 ft above sea level. Drainage area is 5.72 mi^2.	1978-99	8-24-99	4.54	-	8-31-82	7.28	-

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Cane Creek near Spencer, TN (03419200)	Lat 35°44'36", long 85°23'33", Van Buren County, Hydrologic Unit 05130108, at bridge on State Highway 30, 4.0 mi east of Spencer. Drainage area is 134 mi^2.	1997-99	1-23-99	8.12	-	1-7-98	11.48	-
Charles Creek near McMinnville, TN (03421200)	Lat 35°43'00", long 85°46'05", Warren County, Hydrologic Unit 05130107, at bridge on county road at Faulkner Springs, 2.7 mi north of McMinnville. Drainage area is 31.1 mi^2.	1955-99	1-23-99	9.96	3,810	6-22-89	17.03	24,800
Mulherrin Creek near Gordonsville, TN (03424900)	Lat 36°11'28", long 85°57'11", Smith County, Hydrologic Unit 05130108, at bridge on State Highway 53, 1.3 mi upstream from mouth, 1.5 mi northwest of Gordonsville. Drainage area is 26.9 mi^2.	1982, 1986-99	7-10-99	22.90	-	2-14-89	23.85	-
Peyton Creek near Monoville, TN (03425040)	Lat 36°18'37", long 85°59'21", Smith County, Hydrologic Unit 05130201, at county road bridge 1.3, mi north of Monoville.	1999	1-22-99	16.93	-	-	-	-
Second Creek near Walnut Grove, TN (03425365)	Lat 36°24'01", long 86°12'48", Trousdale County, Hydrologic Unit 05130201, at culvert on State Highways 10 and 25, 2.6 mi west of Hartsville. Drainage area is 3.47 mi^2.	1986-99	1-22-99	25.10	-	6-10-98	29.48	-
Station Camp Creek at Cottontown, TN (03425637)	Lat 36°27'06", long 86°32'16", Sumner County, Hydrologic Unit 05130201, at State Highway 25 bridge in Cottontown.	1995-99	1-23-99	14.59	-	6-9-98	16.74	-
East Fork Stones River at Woodbury, TN (03426800)	Lat 35°49'41", long 86°04'36", Cannon County, Hydrologic Unit 05130203, at bridge on U.S. Highway 70S at Woodbury. Datum of gage is 676.23 ft above sea level. Drainage area is 39.1 mi^2.	1962-89†, 1990-99	1-23-99	12.24	4,030	3-15-73	16.75	13,200
Brawleys Fork below Bradyville, TN (03426874)	Lat 35°44'44", long 86°10'14", Cannon County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 0.5 mi northwest of Bradyville. Drainage area is 15.4 mi^2.	1983-99	1-23-99	27.37	2,710	10-1-89	27.94	2,850

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Reed Creek near Bradyville, TN (034269424)	Lat 35°44'44", long 86°12'31", Rutherford County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 2.4 mi northwest of Bradyville. Drainage area is 3.52 mi^2.	1983-99	1-23-99	4.06	-	4-20-95	5.86	-
East Fork Stones River near Lascassas, TN (03427500)	Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 50 ft upstream from highway bridge, 2.5 mi southwest of Lascassas, 3.7 mi downstream of Bradley Creek, 6.0 mi northeast of the courthouse in Murfreesboro, and at mi 15.4. Datum of gage is 507.88 ft, Sandy Hook Datum. Drainage area is 262 mi^2.	1950-58†, 1963-91†, 1992-99	1-23-99	33.73	24,700	3-13-75	39.48	41,200
Bushman Creek at Pitts Lane Ford near Compton, TN (03427690)	Lat 35°53'08", long 86°20'47", Rutherford County, Hydrologic Unit 05130203, on right bank 75 ft upstream of bridge on De Jarnett Lane, 0.1 mi west of intersection of De Jarnett Lane and State Highway 96, 1.6 mi southwest of Compton. Datum of gage is 569.74 ft above sea level. Drainage area is 9.67 mi^2.	1989-92†, 1993-99	1-23-99	5.77	1,310	7-21-96	7.24	2,020
Lytle Creek at Sanbyrne Drive at Murfreesboro, TN (03428043)	Lat 35°49'38", long 86°23'28", Rutherford County, Hydrologic Unit 05130203, at bridge on Sanbyrne Drive, 1 mi south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft above sea level. Drainage area is 17.6 mi^2.	1978-90, 1991-92†, 1993-99	1-23-99	3.36	-	1-23-99	3.36	-
Unnamed Sink near Almaville, TN (03428270)	Lat 35°51'21", Long 86°32'21" Rutherford Count, Hydrologic Unit 05130203, on left downstream wingwall of culvert on Shored Road, 2.4 miles southeast of Almaville. Datum of gage is sea level.	1994-99	1-23-99	604.27	-	3-27-94	607.36	-
West Fork Stones River near Smyrna, TN (03428500)	Lat 35°56'25", long 86°27'54", Rutherford County, Hydrologic Unit 05130203, near left bank at county bridge on Sulphur Springs Road, 400 ft upstream from Nice's Mill dam, 1.6 mi downstream from Overall Creek, 4.2 mi southeast of Smyrna, and at mi 6.4. Datum of gage is 500 ft, above sea level. Drainage area is 237 mi^2, includes 43 mi^2 without surface drainage.	1965-91†, 1992-99	1-23-99	17.73	40,400	3-13-75	19.18	63,800

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Unnamed Sink on I-840 at Leanna, TN (03428513)	Lat 35°56'13", long 86°26'14", Rutherford County, Hydrologic Unit 05130203, 100 ft above culvert on I-840, 0.4 mile southwest of Leanna. Datum of gage is sea level.	1994-99	1-23-99	532.56	-	1-23-99	532.56	-
Unnamed Sink at Leanna, TN (03428515)	Lat 35°56'19", long 86°26'49", Rutherford County, Hydrologic Unit 05130203, 100 ft south of intersection of E. Buckeye Bottom Road and Sulphur Springs Road 0.9 mi west of Leanna. Datum of gage is sea level.	1994-99	1-23-99	515.41	-	1- 23-99	515.41	-
McCrory Creek at Ironwood Drive at Donelson, TN (03430118)	Lat 36°09'07", long 86°39'02", Davidson County, Hydrologic Unit 05130203, at bridge under Ironwood Drive, 1.3 mi southeast of intersection of U.S. Highway 70 (Lebanon Road) and Donelson Pike in Donelson. Datum of gage is 430.63 ft above sea level. Drainage area is 7.31 mi^2.	1977-99b	1-22-99	6.83	1,270	5- 6-84	9.87	2,850
Mill Creek at Nolensville, TN (03430400)	Lat 35°57'32", long 86°40'31", Williamson County, Hydrologic Unit 05130202, at bridge on Sunset Road, 0.6 mi northwest of Nolensville. Datum of gage is 586.18 ft above sea level. Drainage area is 12.0 mi^2.	1965-99	1-23-99	8.38	7,020	5- 7-84	9.82	11,400
Mill Creek near Antioch, TN (03431000)	Lat 36°04'54", long 86°40'50", Davidson County, Hydrologic Unit 05130202, at bridge on Franklin-Limestone Road, 1.6 miles north of Antioch, Datum of gage is 472.93 ft above sea level. Drainage area is 64.0 mi^2.	1954-61†, 1962-63, 1964-75†, 1976-92, 1993-96† 1997-99	1-23-99	16.98	10,400	5- 4-79	23.78	30,100
Sevenmile Creek at Blackman Road, near Nashville, TN (03431040)	Lat 36°04'21", long 86°44'00", Davidson County, Hydrologic Unit 05130202, at bridge on Blackman Road, 7.0 mi southeast of State capitol in Nashville. Datum of gage is 499.08 ft above sea level. Drainage area is 12.2 mi^2.	1965-99	1-23-99	4.04	1,190	6- 4-98	10.57	10,500
Mill Creek tributary at Glenrose Avenue, at Woodbine, TN (03431062)	Lat 36°07'02", long 86°43'37", Davidson County, Hydrologic Unit 05130202, at culvert under Glenrose Avenue, 1.1 mi northeast of intersection of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth. Datum of gage is 443.52 ft above sea level. Drainage area is 1.17 mi^2.	1977-99b	7-24-99	4.29	234	5- 6-84	9.12	833

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
West Fork Browns Creek at General Bates Drive, at Nashville, TN (03431120)	Lat 36°06'29", long 86°47'07", Davidson County, Hydrologic Unit 05130202, at bridge on General Bates Drive, 4.0 mi south of State capitol in Nashville. Datum of gage is 499.94 ft above sea level. Drainage area is 3.30 mi^2.	1965-99	1-23-99	4.54	566	3-29-75	7.00	2,110
Browns Creek at Factory Street, at Nashville, TN (03431340)	Lat 36°08'26", long 86°45'31", Davidson County, Hydrologic Unit 05130202, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 mi southeast of State capitol in Nashville. Datum of gage is 420.66 ft above sea level. Drainage area is 13.2 mi^2.	1965-99	1-23-99	5.01	554	9-13-79	10.89	7,800
Pages Branch at Avondale, TN (03431490)	Lat 36°12'22", long 86°46'24", Davidson County, Hydrologic Unit 05130202, at culvert under Trinity Lane, 900 ft east of intersection of Interstate 65 and Trinity Lane at Avondale, 0.9 mi upstream from mouth. Drainage area is 2.01 mi^2.	1977-99b	1-22-99	5.65	880	6- 5-98	6.32	1,430
Earthman Fork at Whites Creek, TN (03431550)	Lat 36°15'55", long 86°49'51", Davidson County, Hydrologic Unit 05130202, at bridge on Whites Creek Pike in town of Whites Creek, 1,800 ft upstream from mouth. Drainage area is 6.29 mi^2.	1965-99	6-28-99	7.08	1,320	5- 3-93	9.43	2,510
Ewing Creek below Knight Road, near Bordeaux, TN (03431581)	Lat 36°13'55", long 86°48'14", Davidson County, Hydrologic Unit 05130202, at downstream side of bridge on Knight Road, 3.0 mi northeast of Bordeaux. Datum of gage is sea level. Drainage area is 13.3 mi^2.	1976-99	1-23-99	447.01	-	6- 9-86	449.80	-
Sugartree Creek at YMCA Access Road, at Green Hills, TN (03431677)	Lat 36°06'13", long 86°49'12", Davidson County, Hydrologic Unit 05130202, at bridge on YMCA Access Road, 0.5 mi southwest of Hillsboro High School, at Green Hills. Datum of gage is sea level, Drainage area is 1.51 mi^2.	1976-99	1-23-99	542.59	-	9-13-79	545.23	-
Sugartree Creek at Abbott Martin Road, at Green Hills, TN (03431679)	Lat 36°06'23", long 86°49'17", Davidson County, Hydrologic Unit 05130202, at bridge on Abbott Martin Road, at intersection of Bedford Avenue and Abbott Martin Road, at Green Hills. Datum of gage is sea level. Drainage area is 2.19 mi^2.	1976-99	1-23-99	529.73	-	11-27-94	531.54	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Sycamore Creek near Ashland City, TN (03431800)	Lat 36°19'12", long 87°03'04", Cheatham County, Hydrologic Unit 05130202, near right bank on downstream end of pier of bridge on State Highway 49, at Sycamore, 3.2 mi north of Ashland City, 4.4 mi upstream from Spring Creek, and at mi 8.6. Elevation of gage is 400 ft above sea level, from topograhic map. Drainage area is 97.2 mi^2.	1961-87†, 1988-91†, 1992-99	1-23-99	13.48	18,400	2-21-89	13.50	18,500
Harpeth River Tributary at Franklin, TN (034323531)	Lat 35°55'20", long 86°50'36", Williamson County, Hydrologic Unit 05130204, on downstream side of highway bridge at Mack Hatcher Parkway approximately 0.5 mi north from intersection of Hwy 96 and Mack Hatcher. Drainage area is 0.91 mi^2.	1996-99	1-22-99	4.78	179	7-28-97	5.00	197
Murfrees Fork above Burwood, TN (03432470)	Lat 35°48'58", long 86°57'20", Williamson County, Hydrologic Unit 05130204, at county road bridge, just downstream from Cayce Branch, 1.6 mi east of Burwood. Drainage area is 7.43 mi^2.	1986-99	1-23-99	20.56	-	4-86	26.85	-
Little Harpeth River at Granny White Pike, at Brentwood, TN (03432925)	Lat 36°01'30", long 86°49'09", Williamson County, Hydrologic Unit 05130204, at bridge on Granny White Pike, 2.0 mi southwest of Brentwood. Datum of gage is 618.29 ft above sea level. Drainage area is 22.0 mi^2.	1978-99	1-23-99	11.61	2,640	5- 4-79	17.55	9,260
Jones Creek near Burns, TN (03434590)	Lat 36°06'15", long 87°19'05", Dickson County, Hydrologic Unit 05130204, at bridge on Rock Church Road, 3.5 mi north of Burns and at mi 21.9. Drainage area is 13.3 mi^2.	1984-99	1-23-99	8.03	2,190	5- 6-84	9.87	3,750
Bartons Creek near Cumberland Furnace, TN (034350021)	Lat 36°15'02", long 87°20'00" Dickson County, Hydrologic Unit 05130205, at bridge on Stayton road, 1.9 mi southeast of Cumberland Furnace. Drainage area is 22.3 mi^2.	1984-99	1-23-99	12.82	-	4-16-98	15.88	-
Louise Creek near Grays Chapel, TN (034350035)	Lat 36°21'52", long 87°20'30", Montgomery County, Hydrologic Unit 05130206, at bridge on old State Highway 48, 2.8 mi south of Liverworth. Drainage area is 12.7 mi^2.	1995-99	1-23-99	9.99	-	3- 3-97	10.96	-
Honey Run Creek near Cross Plains, TN (034351105)	Lat 36°31'52", long 87°40'10" Robertson County, Hydrologic Unit 05130206, at county road bridge, 1.2 mi north-northwest of Calistia. Drainage area is 17.0 mi^2.	1995-99	1-23-99	14.74	-	6- 9-98	16.66	-

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Honey Run Creek below Cross Plains, TN (034351113)	Lat 36°32'31", long 86°42'14", Robertson County, Hydrologic Unit 05130206, at Empson Bridge on county road, 0.4 mi above mouth of Empson branch, 0.6 mi southwest of Cross Plains. Drainage area is 20.0 mi^2.	1986-99	1-23-99	22.21	-	2- 3-90	23.11	-
Beaver Dam Creek above Springfield (03435739)	Lat 36°31'40", long 86°49'29" Robertson County, Hydrologic Unit 05130206, at county road bridge, 3.6 miles northeast of Springfield, and at mile 1.6. Drainage area is 12.9 mi^2.	1995-99	1-23-99	14.07	-	6- 9-98	15.17	-
Sulphur Fork Red River above Springfield, TN (03435770)	Lat 36°30'47", long 86°51'44", Robertson County, Hydrologic Unit 05130206, on left bank 150 ft downstream from new bridge on State Highway 49, 1.2 mi downstream from Beaver Dam Creek, 1.3 mi northeast of Springfield. Datum of gage is 538.17 ft above sea level. Drainage area is 65.6 mi^2.	1975-88†, 1988-99	1- 23-99	14.15	10,800	3- 3-97	14.52	12,100
Spring Creek tributary near Cedar Hill, TN (03435930)	Lat 36°32'08", long 86°59'26", Robertson County, Hydrologic Unit 05130206, at culvert on Kinney Road, 1.2 mi southeast of Cedar Hill. Drainage area is 1.40 mi^2.	1986-99	1-23-99	21.27	113	5-17-90	22.23	141
Sulphur Fork Red River above Port Royal, TN (03436082)	Lat 36°32'23", long 87°06'51", Robertson County, Hydrologic Unit 05130206, at bridge on State Highway 76 1.7 miles southeast of Port Royal. Drainage area is 214 mi^2.	1995-99	1-23-99	40.02	-	3- 3-97	42.06	-
Passenger Creek near Sango, TN (03436130)	Lat 36°32'07", long 87°11'50" Montgomery County, Hydrologic Unit 05130206 at county road bridge 2.0 mi northeast of Sango. Datum of gage is sea level. Drainage area is 20.5 mi^2.	1995-99	1-23-99	402.03	-	3- 3-97	405.76	-
Cummings Creek near Dotsonville, TN (03436505)	Lat 36°29'18", long 87°28'06", Montgomery County, Hydrologic Unit 05130205, at bridge on Dotsonville Road, 1.1 mi northeast of Dotsonville. Drainage area is 2.65 mi^2.	1984-99	5- 6-99	7.10	-	12-25-87	9.45	-
			TENNESSEE RIVER BASIN					
Caney Creek near Cosby, TN (03461230)	Lat 35°47'03", long 83°12'11", Cocke County, Hydrologic Unit 06010106, at culvert under State Highway 32, 3.3 mi southeast of Cosby. Drainage area is 1.62 mi^2.	1967-99	-	<3.65	<48	1-26-96	6.45	275

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Cherokee Creek near Embreeville, TN (03465607)	Lat 36°12'24", long 82°29'23", Washington County, Hydrologic Unit 06010108, at culvert on county road, 0.5 mi southeast of Mayday, 1.4 mi northwest of Kansas City, and at mi 1.3. Drainage area is 22.9 mi^2.	1984-99	1-23-99	12.19	-	5- 7-84	18.37	-
Clear Fork near Fairview, TN (03465780)	Lat 36°19'33", long 82°33'47", Washington County, Hydrologic Unit 06010108, at culvert on State Highway 81, 2.0 mi southwest of Sulfur Springs, and at mi 3.8. Drainage area is 10.5 mi^2.	1983-99	-	<2.06	-	5-29-96	7.46	-
Lick Creek near Albany, TN (03466890)	Lat 36°14'54", long 82°55'34", Greene County, Hydrologic Unit 06010108, at State Highway 70 bridge, 0.3 mi downstream from Puncheon Camp Creek, 1.0 mi northwest of Albany, and at mi 33.7. Drainage area is 172 mi^2.	1984-99	7-21-99	14.11	4,320	3-27-94	17.41	10,800
Bent Creek at Taylor Gap, TN (03467480)	Lat 36°14'08", long 83°06'41", Hamblen County, Hydrologic Unit 06010108, at bridge on county road (Mountain Valley Road), 2.1 mi southwest of Bulls Gap, 5.0 mi southeast of Russellville. Drainage area is 2.18 mi^2.	1986-99	1- 9-99	12.16	1,320	3-27-94	15.56	2,550
Carter Branch near White Pine, TN (03467992)	Lat 36°07'05", long 83°18'55", Jefferson County, Hydrologic Unit 06010108, at bridge on county road, 1.6 mi northeast of Kimbrough Crossroad, 1.8 mi northwest of White Pine. Drainage area is 4.25 mi^2.	1986-99	-	<4.83	-	4-29-97	9.14	-
Cedar Creek near Valley Home, TN (03467993)	Lat 36°08'03", long 83°18'47", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 1.7 mi southeast of Valley Home, 1.9 mi southeast of Witt, 2.2 mi northwest of White Pine. Drainage area is 2.01 mi^2.	1986-99	7-10-99	11.67	83	4-29-97	13.38	210
Sinking Fork at White Pine, TN (03467998)	Lat 36°07'21", long 83°17'44", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 0.9 mi northwest of White Pine, 2.7 mi northeast of Kimbrough Crossroad. Drainage area is 6.38 mi^2.	1986-99	7-11-99	6.27	922	4-17-98	7.25	1,600

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Dumplin Creek at Mt. Hareb, TN (03470215)	Lat 36°04'59", long 83°25'51", Jefferson County, Hydrologic Unit 06010107, at culvert on county road, 0.8 mi southeast of Mt. Hareb, 4.3 mi southeast of Jefferson City, 4.6 mi north of Dandridge. Drainage area is 3.65 mi^2.	1986-99	7-21-99	10.36	119	5-28-90	10.92	211
Indian Creek at Childress, TN (03476960)	Lat 36°25'38", long 82°15'54", Sullivan County, Hydrologic Unit 06010102, at bridge on U.S. Highway 19, 3.3 mi south of Bluff City, and at mi 4.6. Drainage area is 6.79 mi^2.	1983-99	12-13-98	7.02	-	5- 7-84	10.73	-
Reedy Creek at Orebank, TN (03487550)	Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, 80 ft upstream from culvert, 0.3 mi north of Orebank, 1.0 mi upstream from Gaines Branch, and at mi 9.8. Drainage area is 36.3 mi^2.	1963-89†, 1990-99	7-21-99	7.21	952	10- 2-77	11.61	4,940d
Forgey Creek at Zion Hill, TN (03490522)	Lat 36°29'12", long 82°53'08", Hawkins County, Hydrologic Unit 06010104, at culvert on county road (Carter Valley Road), 0.9 mi north of Zion Hill, 7.8 mi northeast of Rogersville. Drainage area is 0.86 mi^2.	1986-99	7-21-99	21.93	-	7-21-99	21.93	-
Robertson Creek near Persia, TN (03491540)	Lat 36°20'24", long 83°02'27", Hawkins County, Hydrologic Unit 06010104, at bridge on State Highway 113, 0.25 mi below Mooney Branch, and at mi 3.0. Drainage area is 14.6 mi^2.	1986-99	1- 9-99	10.20	556	8-13-93 3-27-94	12.50 12.50	1,120 1,120
Dry Land Creek tributary near New Market, TN (03494714)	Lat 36°03'33", long 83°34'13", Jefferson County, Hydrologic Unit 06010104, at culvert on county road (Rocky Valley Road), 3.0 mi south of New Market, 3.3 mi northwest of Piedmont. Drainage area is 0.20 mi^2.	1986-99	7- 7-99	12.35	-	4-17-98	13.22	-
Flat Creek at Luttrell, TN (03494990)	Lat 36°11'45", long 83°44'44", Union County, Hydrologic Unit 06010104, at bridge on State Highway 61, 0.3 mi southwest of Luttrell, 3.5 mi northwest of Blaine. Drainage area is 22.4 mi^2.	1986-99	12-13-98	10.78	-	7-1-97	13.85	-
Little Ellejoy Creek at Prospect, TN (03498010)	Lat 35°48'23", long 83°47'57" Blount County, Hydrologic Unit 06010201, at bridge on county road, 0.4 mi south of Prospect, at mile 1.93. Drainage area is 5.48 mi.	1995-99	7-12-99	5.88	-	5-19-95	6.98	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Baker Creek tributary near Binfield, TN (03519610)	Lat 35°41'56", long 84°02'46", Blount County, Hydrologic Unit 06010204, at culvert under county road, 1.5 mi east of Binfield. Drainage area is 2.10 mi^2.	1966-77, 1979-99	7-12-99	3.94	111	6-23-81	8.29	-
Big War Creek at Luther, TN (03527800)	Lat 36°27'18", long 83°14'29", Hancock County, Hydrologic Unit 06010205, at bridge on county road, 0.4 mi south of Luther 0.8 mi northwest of Yount Town, 6.0 mi southwest of Sneedville. Drainage area is 22.3 mi^2.	1986-99	1- 9-99	5.94	1,050	4-17-98	10.61	4,100
Crooked Creek near Maynardville, TN (03528390)	Lat 36°15'56", long 83°50'25", Union County, Hydrologic Unit 06010205, at culvert on State Highway 170, 2.5 mi northwest of Maynardville, 5.5 mi northeast of Paulette. Drainage area is 2.23 mi^2.	1986-99	12-13-98	2.61	160	4-17-98	9.76	1,400c
						7-14-86	2.17	120c
						11-9-86	3.12	220c
						1-20-88	3.53	280c
						6-16-89	2.82	185c
						2-16-90	2.75	175c
						12-23-90	5.57	560c
						12-2-91	3.35	245c
						3-23-93	4.39	380c
						3-27-94	4.63	415c
						5-14-95	4.66	420c
						5-6-96	4.05	330c
						7-1-97	5.10	490c
Coal Creek at Lake City, TN (03534000)	Lat 36°13'14", long 84°09'27" Anderson County, Hydrologic Unit 06010207, at bridge on U.S. Highway 25-W, at Lake City. Datum of gage is 842.76 ft above sea level. Drainage area is 24.5 mi^2.	1932-34†, 1955-99	7-12-99	6.07	2,850	4-17-98	10.65	8,080
Willow Fork near Halls Crossroads, TN (03535180)	Lat 36°05'59", long 83°54'27", Knox County, Hydrologic Unit 06010207, at culvert under Quarry Road, 1.7 mi northeast of Halls Crossroads. Datum of gage is 1,027.82 ft above sea level. Drainage area is 3.23 mi^2.	1967-99	6-28-99	7.14	836	4-17-98	8.40	990
Beaver Creek near Willow Fork at Halls Crossroads, TN (035351830)	Lat 36°04'57", long 83°55'34", Knox County, Hydrologic Unit 06010207, at bridge on Old Andersonville Pike.	1998-99	6-28-99	15.13	-	6-28-99	15.13	-
Beaver Creek at Brickyard Road near Powell, TN (035351950)	Lat 36°01'36", long 84°01'39", Knox County, Hydrologic Unit 06010207, at bridge on Brickyard Road, near Powell High School. Drainage area is 52.5 mi^2.	1998-99	6-28-99	10.94	-	6-28-99	10.94	
Beaver Creek at Solway, TN (03535400)	Lat 35°57'51", long 84°01'41", Knox County, Hydrologic Unit 06010207, at the bridge on Solway Road at Solway. Drainage area is 86.80 mi^2.	1998-99	6-28-99	10.59	-	6-28-99	10.59	-

See footnotes at the end of the table

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Coker Creek near Ironsburg, TN (03555900)	Lat 35°13'05", long 84°20'28", Monroe County, Hydrologic Unit 06020002, at bridge on State Highway 68, 4.2 mi southwest of Coker Creek. Drainage area is 22.4 mi^2.	1983-93e 1997-99	5- 6-99	11.51	-	4-17-98	13.38	-
Wolftever Creek near Ooltewah, TN (03566420)	Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi downstream from Southern Railway bridge, 0.9 mi south of Ooltewah, 1.6 mi upstream from Little Wolftever Creek, and at mi 16.1. Drainage area is 18.8 mi^2.	1964-89†, 1992-99	5- 6-99	6.44	1,140	3-16-73	9.75	7,300
North Chickamauga Creek at Greens Mill, near Hixson, TN (03566599)	Lat 35°10'30", long 85°13'40", Hamilton County, Hydrologic Unit 06020001, at bridge on Boy Scout Road, 2.3 mi north of Hixson. Drainage area is 99.5 mi^2.	1925,1944, 1953-56, 1980-99	1-23-99	31.26	-	10- 5-95	36.19	-
Stringers Branch at Leawood Drive, at Red Bank, TN (03569168)	Lat 35°07'00", long 85°17'28", Hamilton County, Hydrologic Unit 06020001, at bridge on Leawood Drive at Red Bank. Drainage area is 1.54 mi^2.	1980-99	7-12-99	23.47	-	8-11-96	28.24	-
Little Sequatchie River at Sequatchie, TN (03571500)	Lat 35°07'47", long 85°35'10", Marion County, Hydrologic Unit 06020004, at Highway 27 bridge, 1.0 mi northeast of Sequatchie. Drainage area is 116 mi^2.	1925,1929, 1930, 1932-34†, 1944, 1951-54, 1965,1979-99	1-23-99	9.49	7,390	12-22-90	11.78	10,600
Standifer Branch at Jasper, TN (03571730)	Lat 35°04'22", long 85°36'56", Marion County, Hydrologic Unit 06020004, at bridge on U.S. Highways 41, 64, and 72, 0.6 mi east of courthouse, 0.8 mi above Town Creek, at Jasper. Drainage area is 15.3 mi^2.	1982-99	1-23-99	15.72	-	12-22-90	19.59	-
Battle Creek near Monteagle, TN (03571800)	Lat 35°08'03", long 85°46'15", Marion County, Hydrologic Unit 06030001, at bridge on former U.S. Highways 41 and 64, 9.2 mi southeast of Monteagle. Datum of gage is 621.51 ft above sea level. Drainage area is 50.4 mi^2.	1955-99	5- 6-99	8.56	4,140	3-12-63	12.20	10,200
Richland Creek near Cornersville, TN (03583300)	Lat 35°19'10", long 86°52'20", Marshall County, Hydrologic Unit 06030004, at bridge on U.S. Highway 31-A, 3.4 mi southwest of Cornersville. Datum of gage is 754.28 ft above sea level. Drainage area is 47.5 mi^2.	1962-68†, 1969-99	1-22-99	15.77	10,100	7-11-89	16.58	11,400

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Indian Creek near Olivehill, TN (03594153)	Lat 35°16'33", long 88°01'12", Hardin County, Hydrologic Unit 06040001, on State Highway 64, 14 mi east of Savannah. Datum of gage is 440.00 ft above sea level. Drainage area is 158 mi^2.	1997-99	1-22-99	17.06	-	1-22-99	17.06	-
Owl Creek at Lexington, TN (035944242)	Lat 35°38'26", long 88°22'13", Henderson County, Hydrologic Unit 06040001, on State Highway 20, 1.37 mi east of Lexington, and at mi 1.3. Datum of gage is 400.00 ft above sea level, prior to March 15, 1990 unknown. Drainage area is 2.50 mi^2.	1984-99	5- 6-99	25.43	-	3-2-97	26.64	-
Wartrace Creek above Bell Buckle, TN (03597300)	Lat 35°37'45", long 86°21'22", Bedford County, Hydrologic Unit 06040002, at culvert under county road, 2.7 mi north of Bell Buckle. Drainage area is 4.99 mi^2.	1966-99	1-23-99	4.86	393	3-15-73	12.64	3,220
Fountain Creek near Culleoka, TN (03599430)	Lat 35°28'18", long 86°57'23", Maury County, Hydrologic Unit 0604002, on upstream side of bridge on State Highway 50-A, 1.6 mi southeast of Culleoka. 2.7 mi upstream from Globe Creek, and 9.7 mi west of courthouse in Lewisburg. Drainage area is 26.9 mi^2.	1966-68†, 1997-99	1-23-99	12.75	7,170	5-13-67	14.16	9,280
West Piney River at Hwy 70 near Dickson, TN (03602170)	Lat 36°05'21", long 87°28'12", Dickson County, Hydrologic Unit 06040003, at U.S. Highway 70 bridge, 4.0 mi west of Dickson. Drainage area is 2.16 mi^2.	1984-99	1-23-99	24.67	491	5- 6-84	28.17	1,230
Piney River at Vernon, TN (03602500)	Lat 35°52'16", long 87°30'05", Hickman County, Hydrologic Unit 06040003, on right downstream side of bridge, 40 ft upstream from Pretty Creek, 0.2 mi northwest of Vernon, 2.3 mi downstream from Mill Creek, 6.5 mi north of Centerville, and at mile 8.3. Drainage area is 193 mi^2.	1925-93†, 1997-99	7- 2-99	17.46	20,100	5-27-91	24.42	49,400
Coon Creek above Chop Hollow, near Hohenwald, TN (03604090)	Lat 35°35'19", long 87°41'09", Perry County, Hydrologic Unit 06040004, at bridge on State Highway 20, 9.0 mi northwest of Hohenwald. Drainage area is 6.02 mi^2.	1967-99	1-22-99	6.09	2,110	12- 9-72	6.80	3,150
Blue Creek near New Hope, TN (03604580)	Lat 36°03'52", long 87°38'58", Humphreys County, Hydrologic Unit 06040003, at county road bridge, 1.8 mi northwest of New Hope, 3.1 mi southeast of McEwen, and at mi 3.9. Drainage area is 13.2 mi^2.	1984-99	7- 2-99	18.41	-	6-13-89	18.82	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Trace Creek above Denver, TN (03605555)	Lat 36°03'08", long 87°54'27", Humphreys County, Hydrologic Unit 06040005, on left bank at bridge on U.S. Highway 70, 1.0 mi northeast of New Johnsonville. Datum of gage is 377.05 ft above sea level. Drainage area is 31.9 mi^2.	1963-88†, 1989-99	1-22-99	8.71	3,360	5- 6-84	13.61	11,700
Cane Creek at Stewart, TN (03605880)	Lat 36°19'09", long 87°50'21", Houston County, Hydrologic Unit 06040005, at bridge on county road, 200 ft north of intersection of county road and State Highway 147, and at mi 7.0. Drainage area is 4.12 mi^2.	1984-99	7- 2-99	17.98	-	2- 4-97	19.62	-
			OBION RIVER BASIN					
Neil Ditch near Henry, TN (07024225)	Lat 36°10'19", long 88°23'33", Henry County, Hydrologic Unit 08010203, located on county road, 2.7 mi southeast of Henry, 1.6 mi north of Henry-Carroll county line. Drainage area is 4.07 mi^2.	1984-99	5- 6-99	11.55	-	12-21-90	14.48	-
Little Reedy Creek near Huntingdon, TN (07024370)	Lat 35°55'44", long 88°29'50", Carroll County, Hydrologic Unit 08010203, located on U.S. Highway 70, 0.6 mi southwest of Leach, 5.6 mi northeast of Cedar Grove. Drainage area is 0.91 mi^2.	1984-99	1-22-99	13.69	-	3- 2-97	16.88	-
South Fork Obion River near Greenfield, TN (07024500)	Lat 36°07'05", long 88°48'39", Weakley County, Hydrologic unit 08010203, located on U.S. Highway 45E, 2.5 mi south of Greenfield. Datum of gage is 300.36 ft above sea level. Drainage area is 383 mi^2.	1929-89†, 1990-93, 1997-99	1- 22-99	15.15	6,730	1-22-37	17.82	25,600
Spring Creek near Greenfield, TN (07024760)	Lat 36°11'24", long 88°45'53", Weakley County, Hydrologic Unit 08010203, on State Highway 54, 3.2 mi northeast of Greenfield. Datum of gage is 300.00 ft above sea level. Drainage area is 93.4 mi^2.	1997-99	5- 6-99	24.83	-	3- 2-97	28.03	-
North Fork Obion River near Martin, TN (07025400)	Lat 36°24'20", long 88°51'20", Weakley County, Hydrologic Unit 08010203, located on U.S. Highway 45E, 4.0 mi north of Martin. Datum of gage is 303.46 ft above sea level. Drainage area 372 mi^2.	1939-67f 1997-99	1-22-99	19.32	11,000	11-19-57	23.05	30,300
North Fork Obion River River near Union City, TN (07025500)	Lat 36°23'59", long 88°59'43", Obion County, Hydrologic Unit 08010202, at bridge on State Highway 22, 3.9 miles southeast of Union City. Datum of gage is 285.80 ft above sea level. Drainage area is 480 mi^2.	1929-66†, 1967-71†, 1989-93†, 1994-99	1-22-99	18.92	11,500	1-22-37	23.08	49,200

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			OBION RIVER BASIN--Continued					
North Fork Forked Deer River at U.S. Highway 45W Bypass at Trenton, TN (07028505)	Lat 35°58'58", long 88°55'49", Gibson County, Hydrologic Unit 08010204, at bridge on U.S. Highway 45W Bypass, 0.25 mi north of intersection of U.S. Highway 45W Bypass and State Highways 77 and 104 in Trenton. Datum of gage is 306.85 ft above sea level. Drainage area is 73.9 mi^2.	1987-99	5- 6-99	7.88	-	12-21-90	12.00	-
Lewis Creek near Dyersburg, TN (07029090)	Lat 36°03'14", long 89°21'42", Dyer County, Hydrologic Unit 08010204, at bridge on U.S. Highway 51 (Business Route), 2.1 mi northeast of square in Dyersburg. Datum of gage is 276.52 ft above sea level. Drainage area is 25.5 mi^2	1955-78, 1980-83, 1985-99	5- 6-99	16.26	1,680	3- 9-64	19.31	5,450
Hatchie River at Sunnyhill, TN (07029900)	Lat 35°31'23", long 89°15'12", Haywood County, Hydrologic Unit 08010208, at bridge on State Highway 76, 0.6 mi south of Sunnyhill, 4.9 mi south of Brownsville. Drainage area is 1,858 mi^2.	1997-99	2- 2-99	31.92	-	3-5-97	34.21	-
Cane Creek at Ripley, TN (07030100)	Lat 35°45'25", long 89°33'05", Lauderdale County, Hydrologic Unit 08010208, at bridge on State Highway 19, 1.3 mi upstream from Hyde Creek, 1.5 mi northwest of Ripley. Datum of gage is 295.93 ft above sea level. Drainage area is 33.9 mi^2.	1957-62†, 1963-70, 1986-88†, 1989-99	5- 6-99	17.29	2,860	7- 1-89	23.16	6,360

† Operated as a continuous-record gaging station.
a A gage height of 17.45 ft occurred on 3-23-29.
b Operated as a flood hydrograph station.
c Not previously published.
d A peak discharge of 11,000 ft^3/s occurred on 5-30-27, from reports of Tennessee Valley Authority.
e Datum of gage prior to 1995 water year unknown due to bridge replacement.
f Data provided by U.S. Army Corps of Engineers.

Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table. Measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger(†).

Discharge measurements made at miscellaneous sites during water year 1999

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN				
03497130 Silers Creek	Fish Camp Prong to Little River to Tennessee River	Lat 35°35'42", long 83°34'04" Sevier County, Hydrologic unit 06010201 0 .1 mi above confluence with Fish Camp Prong, 2.8 mi north of Silers Creek.		1999	5-13-99	3.34
03600085 Carters Creek	Duck River to Tennessee River	Lat 35°43'39", long 86°59'19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mi north of Carters Creek, and at mile 4.7.	16.6	1986-99	11-23-98 2-23-99 6- 2-99 8-10-99	1.03 18.0 4.39 .23
03600086 Carters Creek Tributary	Carters Creek to Duck River to Tennessee River	Lat 35°43'34", long 86°59'19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mi north of Carters Creek.	2.94	1986-99	11-23-98 2-23-99 6- 2-99 8-10-99	.71 3.86 2.37 .05
		OBION RIVER BASIN				
07024760 Spring Creek	Middle Fork Obion River to Obion River	Lat 36°11'24", long 88°45'53" Weakley County, Hydrologic Unit 08010203, on State Highway 54, 3.2 mi northeast of Greenfield, 2.2 mi from confluence with Middle Fork Obion River.	93.4		4-15-99	401
		LOOSAHATCHIE RIVER BASIN				
07030270 Clear Creek	Loosahatchie River	Lat 35°16'20", long 89°42'20" Shelby County, Hydrologic unit 08010209, on State Highway 70 and 79, 3 mi Southwest of Arlington, 1.25 mi from confluence with Loosahatchie River.	61.0	1954 1955 1962 1964 1965 1967	5-13-99 5-13-99 6- 2-99	11.3* 12.0* 8.52*

Springs

In 1931 a study of large springs in Tennessee was made and the results published in WSP 713. From 1950 to 1954 a more detailed study, including some of these springs, was made. Results of this study and all subsequent spring measurements were published annually in WSP'S from 1950 to 1960. Since 1960 results of measurements have been published in annual State reports. Measurements made in the 1999 water year are given in the following table.

Discharge measurement of springs during water year 1999

Site number and name	Location	Tributary to	Date	Discharge (gpm)	Discharge (ft^3/sec)
		COFFEE COUNTY			
03578400 Pond Spring	Lat 35°25'10", long 85°58'29", Hydrologic Unit 06030003, 0.5 mi northwest of Hillsboro.	Bradley Creek to Elk River to Tennessee River.	9- 8-99	992	2.21
03578448 Blue Spring	Lat 35°25'59", long 85°59'34", Hydrologic Unit 06030003, 2.0 mi northwest of Hillsboro.	Blue Spring Creek to Bradley Creek to Elk River to Tennessee River.	9- 8-99	323	0.72
03578490 Joe Marlow Spring	Lat 35°21'38", long 85°58'35", Hydrologic Unit 06030003, 0.9 mi northwest of Prairie Plains.	Bradley Creek to Elk River to Tennessee River.	9- 8-99	552	1.23
03578495 Unnamed Spring	Lat 35°21'23", long 85°58'43", Hydrologic Unit 06030003, 0.9 mi west of Prairie Plains.	Bradley Creek to Elk River to Tennessee River.	9- 8-99	763	1.70
035785004 Unnamed Spring	Lat 35°20'29", long 85°58'55", Hydrologic Unit 06030003, 1.1 mi west of Prairie Plains.	Bradley Creek to Elk River to Tennessee River.	9- 8-99	2040	4.55

Coffee County, TN special study

A series of low-flow discharge measurements were made September 8, and October 19, 1999, in the vicinity of Duncantown-Hillsboro, TN (Coffee county) to define the low-flow hydrology and quality of water. The measurements were made during a period of constant base flow.

Stream	Tributary to	Location	Date	Measured discharge (ft^3/s sec.)	Water temp. (C°)	Specific cond. (µs/ cm)
		TENNESSEE RIVER BASIN				
03578320 Bradley Creek	Elk River to Tennessee River	Lat 35°23'45", long 85°58'41", Coffee County, Hydrologic Unit 06030003, on State Route 127, 1.2 mi south of Hillsboro.	9-8-99	1.05	24.0	336
03578350 Collier Branch	Bradley Creek to Elk River to Tennessee River	Lat 35°23'42", long 85°58'11", Coffee County, Hydrologic Unit 06030003, on Prairie Plains Road, 1.2 mi south of Hillsboro.	9-8-99	0	---	---
03578395 Bradley Creek	Elk River to Tennessee River	Lat 35°24'50", long 85°58'31", Coffee County, Hydrologic Unit 06030003, on State Route 41, 0.2 mi northwest of Hillsboro.	9-8-99	0.04	22.5	297
03578400 Pond Spring	Elk River to Tennessee River	Lat 35°24'10", long 85°58'29", Coffee County, Hydrologic Unit 06030003, on State Route 41, 0.5 mi northwest of Hillsboro.	9-8-99	2.21	17.5	362
03578404 Bradley Creek Tributary	Bradley Creek to Elk River to Tennessee River	Lat 35°24'52", long 85°58'35", Coffee County, Hydrologic Unit 06030003, on State Route 41, 0.3 mi northwest of Hillsboro.	9-8-99	1.39	17.5	341
03578445 Blue Spring Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°26'03", long 85°59'38", Coffee County, Hydrologic Unit 06030003, 2.1 mi northeast of Hillsboro.	9-8-99	0	---	---
03578450 Bradley Creek	Elk River to Tennessee River	Lat 35°22'52", long 85°58'47", Coffee County, Hydrologic Unit 06030003, at Interstate 24, 2.2 mi south of Hillsboro.	9-8-99	0.26	19.8	155
03578452 Blue Spring Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°25'04", long 85°59'10", Coffee County, Hydrologic Unit 06030003, on old Hillsboro Highway, 0.9 mi northwest of Hillsboro.	9-8-99	0.72	19.5	432

Coffee county special study--Continued

Stream	Tributary to	Location	Date	Measured discharge (ft^3/s sec.)	Water temp. (C°)	Specific cond. (µs/ cm)
		TENNESSEE RIVER BASIN				
03478460 Bradley Creek	Elk River to Tennessee River	Lat 35°24'10", Long 86°01'10", Coffee County, Hydrologic Unit 06030003, 3.0 mi southwest of Hillsboro.	9-8-99	0	---	---
03578465 Unnamed Creek	Bradley Creek Elk River to Tennessee River	Lat 35°24'12", long 85°59'51", Coffee County, Hydrologic Unit 06030003, 1.6 mi southwest of Hillsboro.	9-8-99	0	---	---
03578470 Bradley Creek	Elk River to Tennessee River	Lat 35°22'16", long 85°58'23", Coffee County, Hydrologic Unit 06030003, 1.4 mi northwest of Prairie Plains.	9-8-99	0	20.0	330
03578500 Bradley Creek	Elk River to Tennessee River	Lat 35°21'21", long 85°58'45", Coffee County, Hydrologic Unit 06030003, on Miller Cross Road, 0.9 mi west of Prairie Plains.	9-8-99 10-19-99	3.53 3.02	16.9 14.0	381 353
035785002 Bradley Creek	Elk River to Tennessee River	Lat 35°20'32", long 85°59'01", Coffee County, Hydrologic Unit 06030003, 1.1 mi west of Prairie Plains.	9-8-99 10-19-99	10.6 6.15	17.1 14.0	307 377
03578502 Bradley Creek	Elk River to Tennessee River	Lat 35°20'07", long 85°59'46", Coffee County, Hydrologic Unit 06030003, on Dickerson Road, 1.5 mi southwest of Prairie Plains.	9-8-99 10-19-99	14.6 10.1	17.0 14.0	290 300
03578508 Possum Branch Tributary	Possum Branch to Elk River to Tennessee River	Lat 35°20'44", long 86°01'31" Coffee County, Hydrologic Unit 06030003, on State Route 127, 1.5 mi northeast of Duncantown.	9-8-99	0	---	---
035785015 Dry Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°22'47", long 86°01'06", Coffee County, Hydrologic Unit 06030003, on Banes Road, 0.1 mi north of junction with Miller Cross. Road.	9-8-99	0	---	---

Coffee county special study--Continued

Stream	Tributary to	Location	Date	Measured discharge (ft^3/s sec.)	Water temp. (C°)	Specific cond. (µs/ cm)
		TENNESSEE RIVER BASIN				
035785016 Dry Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°22'07", long 85°59'44", Coffee County, Hydrologic Unit 06030003, on State Route 127, 3.6 mi southwest of Hillsboro.	9-8-99	0	---	---
035785017 Dry Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°21'39", long 85°59'27", Coffee County, Hydrologic Unit 06030003, on Miller Cross Roads 1.6 mi northwest of Prairie Plains.	9-8-99	0	---	---
03578510 Possum Branch	Elk River to Tennessee River	Lat 35°20'02", long 86°01'01", Franklin County, Hydrologic Unit 06030003, on Calls Circle Road, 0.7 mi east of intersection with State Route 127, 1.4 mi northwest of Duncantown.	9-8-99	0.11	22.4	126
03578515 Possum Branch	Elk River to Tennessee River	Lat 35°19'32", long 86°01'08", Franklin County, Hydrologic Unit 06030003, on county road, 1.3 mi east of Duncantown.	9-8-99	0.06	21.0	138
03578610 Brumalow Creek	Elk River to Tennessee River	Lat 35°21'55", long 86°02'48", Coffee County, Hydrologic Unit 06030003, 0.8 northwest of Duncantown.	9-8-99	0.15	24.0	228
03578625 Brumalow Creek	Elk River to Tennessee River	Lat 35°21'23", long 86°02'37", Coffee County, Hydrologic Unit 06030003, on unimproved road, 1.5 mi north of Old Brick Church Road, 2.1 mi north of Duncantown.	9-8-99	0.05	20.5	137
03578630 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°21'44", long 86°01'41", Coffee County, Hydrologic Unit 06030003, on county road, 0.8 mi southeast of intersection with Arnold Center Road.	9-8-99	0	---	---
03578635 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°21'26", long 86°02'15", Coffee County, Hydrologic Unit 06030003, on county road, 1.5 mi north of Old Brick Church Road, 2.2 mi north of Duncantown.	9-8-99	0	---	---

Coffee county special study--Continued

Stream	Tributary to	Location	Date	Measured discharge (ft^3/s sec.)	Water temp. (C°)	Specific cond. ($\mu s/cm$)
		TENNESSEE RIVER BASIN				
03578640 Brumalow Creek Tributary	Brumalow Creek Elk River to Tennessee River	Lat 35°21'21", long 86°02'34", Coffee County, Hydrologic Unit 06030003, 1.5 mi north of Old Brick Church Road, 2.1 mi north of Duncantown.	9-8-99	0.04	20.0	145
03578670 Brumalow Creek Tributary	Brumalow Creek Elk River to Tennessee River	Lat 35°20'51", long 86°02'46", Coffee County, Hydrologic Unit 06030003, on unimproved county road, 0.4 mi north of Old Brick Church Road, 0.8 northwest of Duncantown.	9-8-99	0	---	---
03578680 Brumalow Creek	Elk River to Tennessee River	Lat 35°20'30", long 86°02'41" Franklin County, Hydrologic Unit 06030003, on unimproved road, 0.5 mi north of Old Brick Church Road, 1.2 mi northwest of Duncantown.	9-8-99	0.01	20.5	197
03578700 Brumalow Creek	Elk River to Tennessee River	Lat 35°20'11", long 86°02'39", Franklin County, Hydrologic Unit 036030003, on Old Brick Church Road, 0.8 mi east of T intersection with Pumping Station Road.	9-8-99	0	---	---

Miscellaneous synoptic sampling sites are short-term sites at which water-quality data are collected during a selected seasonal or hydrologic period. These data are used to assess the spatial distribution of water-quality conditions as a result of factors, such as land use, for the period and conditions sampled. The sites shown on the following pages are synoptic sampling sites for the National Water-Quality Assessment (NAWQA) Program.

TENNESSEE RIVER BASIN

03574702 FLINT RIVER AT LINCOLN, TN

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
12...	1330	83	7.0	20.0	739	8.2	93	--	--	34	12
SEP											
09...	1300	94	7.3	26.0	741	6.6	84	96	K150	45	10

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
MAY											
12...	10	1.9	1.3	8	.1	1.5	26	32	3.5	3.5	<.10
SEP											
09...	14	2.5	1.3	6	.1	1.5	43	35	2.1	3.1	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAY											
12...	5.6	64	45	.09	<.010	.952	.027	E.10	.17	1.1	.017
SEP											
09...	6.1	59	52	.08	<.010	<.050	<.020	.13	.21	--	.034

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
MAY											
12...	.027	.018	43	16	1.7	<.20	<.002	<.0020	.984	<.0020	<.0020
SEP											
09...	.019	.055	31	33	2.1	<.20	<.002	<.0020	.019	<.0020	<.0020

DATE	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
MAY											
12...	<.0040	<.0040	E.152	<.002	<.001	<.0030	<.004	<.005	<.004	.146	<.0060
SEP											
09...	<.0040	<.0040	E.0179	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060

K--Results based on non-ideal colony count.
E--Estimated

TENNESSEE RIVER BASIN

03574702 FLINT RIVER AT LINCOLN, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
MAY											
12...	<.004	<.0070	E.0068	E.0037	<.0020	<.0030	E.0086	<.0020	<.0030	<.0170	<.0040
SEP											
09...	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
MAY											
12...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020
SEP											
09...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040	<.0050	<.0020

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY											
12...	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	7	75
SEP											
09...	<.0030	<.0040	--	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	4	97

03578502 BRADLEY CREEK NEAR CALLS, TN

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
10...	1500	251	7.6	17.0	738	8.5	91	140	130	120	17
SEP											
09...	0800	302	7.7	17.0	731	5.9	64	460	240	160	37

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAY										
10...	38	5.3	1.8	3	.1	.93	122	100	7.0	5.8
SEP										
09...	50	8.8	1.6	2	.1	.77	151	124	15	4.4

E--Estimated

TENNESSEE RIVER BASIN

03578502 BRADLEY CREEK NEAR CALLS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY										
10...	<.10	6.3	146	137	.20	<.010	2.66	.050	.13	.12
SEP										
09...	<.10	7.2	164	169	.22	<.010	1.55	<.020	.11	.11

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
10...	2.8	.032	.019	.025	E8.4	8.0	1.3	.20	8	82
SEP										
09...	1.7	.020	.018	<.010	10	15	1.4	.20	--	--

03579680 ROCK CREEK NEAR TULLAHOMA, TN

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
11...	0800	156	7.0	16.5	739	8.1	86	97	120	55	11
SEP											
08...	1015	282	7.7	20.5	734	5.9	68	320	230	83	16

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY										
11...	18	2.3	6.5	20	.4	1.8	54	45	11	8.7
SEP										
08...	27	3.5	23	36	1	3.7	81	66	19	25

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY										
11...	<.10	5.5	109	90	.15	<.010	1.98	.074	.25	.27
SEP										
08...	.16	6.0	168	163	.23	<.010	2.77	<.020	.30	.35

E--Estimated

TENNESSEE RIVER BASIN

03579680 ROCK CREEK NEAR TULLAHOMA, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
11...	2.3	.167	.200	.184	48	6.3	1.9	.30	5	50
SEP										
08...	3.1	1.04	1.01	.930	12	12	2.4	.20	--	--

03580787 BEANS CREEK AT BROWN MILL, TN

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
11...	1045	289	7.9	16.5	743	10.1	106	330	380	140	18
SEP											
09...	1130	283	8.1	22.5	737	6.3	75	390	480	140	37

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAY										
11...	47	5.9	1.7	3	.1	1.0	151	124	4.5	6.0
SEP										
09...	43	8.5	2.0	3	.1	1.5	129	105	8.1	5.3

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY										
11...	<.10	6.9	178	164	.24	<.010	3.70	.068	.15	.15
SEP										
09...	<.10	6.8	159	145	.22	<.010	1.44	<.020	.22	.19

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
11...	3.8	.020	.020	.034	<10	5.2	.90	--	8	87
SEP										
09...	1.6	.027	.023	<.010	<10	16	1.6	.20	--	--

TENNESSEE RIVER BASIN

03595700 LITTLE DUCK RIVER AT GRINDSTONE HOLLOW AT MANCHESTER, TN

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
10...	1600	116	7.6	20.0	735	7.9	90	280	340	50	6
SEP											
08...	1515	195	8.2	24.0	728	9.7	121	>1200	660	100	14

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY										
10...	15	2.9	1.6	6	.1	.91	54	44	3.3	3.2
SEP										
08...	30	6.3	2.2	4	.1	.80	107	88	4.9	4.7

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY										
10...	<.10	4.9	75	62	.10	<.010	.797	.049	.29	.30
SEP										
08...	<.10	6.3	118	111	.16	<.010	.705	<.020	.10	.19

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
10...	1.1	.021	.016	.023	100	8.9	5.2	.30	29	22
SEP										
08...	.89	.025	.014	<.010	12	5.2	1.3	.20	--	--

TENNESSEE RIVER BASIN

03596100 CRUMPTON CREEK AT RUTLEDGE FALLS, TN

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
MAY											
10...	1215	90	7.4	17.5	740	9.3	100	240	300	35	6
SEP											
08...	1245	148	8.2	20.0	731	8.8	101	180	80	84	11

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY										
10...	11	1.9	.97	6	.1	.98	35	28	2.6	2.2
SEP										
08...	26	4.7	1.6	4	.1	.64	88	72	3.8	2.5

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY										
10...	<.10	5.1	52	45	.07	<.010	.714	.044	.20	.27
SEP										
08...	<.10	7.3	90	93	.12	<.010	.875	<.020	E.10	E.09

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY										
10...	.98	.023	.013	.021	73	8.8	3.5	.30	5	79
SEP										
08...	--	.014	.011	<.010	<10	3.9	.60	.20	--	--

E--Estimated

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN									
03408500 - NEW RIVER AT NEW RIVER, TN									
OCT					AUG				
02...	1104	21	334	21.9	03...	1120	100	220	26.6
NOV					SEP				
17...	1047	16	462	11.0	15...	1140	4.6	352	22.3
APR									
21...	1225	503	168	14.3					
03409500 - CLEAR FORK NEAR ROBBINS, TN									
OCT					APR				
02...	1335	24	72	22.8	19...	1120	290	47	10.9
NOV					AUG				
17...	1256	14	72	11.5	03...	1345	42	59	28.8
03410035 - PINE CREEK AT TOOMY, TN									
JUN					JUL				
23...	1245	1.8	305	21.5	20...	0935	5.7	206	23.5
30...	1014	35	133	21.0					
03410045 - PINE CREEK ABOVE MOUTH NEAR ONEIDA, TN									
JUN					JUL				
23...	1430	1.4	226	21.0	20...	1056	7.0	150	23.5
30...	1300	44	118	22.0					
03410180 - NORTH WHITEOAK CREEK NEAR SPECK, TN									
JUN					JUL				
22...	1525	14	32	24.5	20...	1245	45	37	24.0
03410210 - SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN									
FEB					AUG				
25...	1235	849	117	4.5	05...	1130	123	146	27.7
APR					SEP				
16...	1312	1940	139	13.7	15...	1445	21	149	24.0
JUN									
16...	1038	128	152	25.1					
03414500 - EAST FORK OBEY RIVER NEAR JAMESTOWN, TN									
NOV					AUG				
05...	1230	12	382	11.5	10...	1015	21	271	22.5
JUN									
30...	0730	2150	100	18.5					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				CUMBERLAND RIVER BASIN--Continued					
				0341600 - WOLF RIVER NEAR BYRDSTOWN, TN					
JUN					AUG				
29...	1410	231	165	22.0	10...	0750	12	261	24.0
				03421000 - COLLINS RIVER NEAR MCMINNVILLE, TN					
OCT					JUL				
06...	1100	133	301	22.0	21...	0955	552	203	22.5
JAN					AUG				
11...	1150	3590	125	6.9	10...	1455	151	302	27.5
MAR					SEP				
17...	1330	3310	139	11.1	14...	1045	89	325	23.0
MAY									
10...	1425	1800	150	16.5					
				03424730 - SMITH FORK AT TEMPERANCE HALL, TN					
OCT					APR				
13...	0925	24	276	17.5	30...	1030	194	321	16.0
JAN					AUG				
07...	1040	178	362	5.4	09...	1545	24	280	29.5
MAR									
17...	0945	818	311	11.4					
				03426020 - DRAKES CREEK NEAR AVONDALE, TN					
JAN					FEB				
08...	0935	78	311	7.8	12...	0145	68	285	10.1
08...	1005	134	299	8.3	12...	0545	158	267	9.5
08...	1020	134	299	8.5	12...	0655	185	210	9.1
08...	1105	366	273	7.0	12...	0905	160	222	9.3
08...	1420	902	192	7.5	MAR				
08...	1455	902	192	7.4	02...	1140	272	212	10.5
08...	1750	730	195	7.7	03...	0135	340	205	9.9
					03...	0235	272	197	9.7
				03426385 - MANSKER CREEK ABOVE GOODLETTSVILLE, TN					
OCT					JUN				
02...	1425	1.5	452	20.7	18...	1120	1.7	423	19.0
NOV					AUG				
13...	1150	3.3	499	10.4	09...	1010	.78	356	26.0
FEB					SEP				
11...	1425	23	270	16.5	07...	1105	.07	445	23.5
MAR					10...	1025	.07	447	20.0
22...	0845	36	170	7.7	30...	1150	.53	480	18.0
APR									
29...	0910	12	410	21.5					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				CUMBERLAND RIVER BASIN--Continued					
				03426470 - DRY CREEK NEAR EDENWOLD, TN					
JAN					JUN				
11...	1045	18	480	6.5	18...	0955	.27	481	19.0
FEB					AUG				
11...	1225	5.2	460	15.5	09...	1205	.20	448	25.8
MAR					SEP				
22...	1200	8.3	343	13.4	07...	0855	.07	565	21.5
APR					10...	0810	.08	563	17.8
29...	1050	2.0	515	16.2	30...	0945	.16	588	14.0
				03427500 - EAST FORK STONES RIVER NEAR LASCASSAS, TN					
NOV					JUN				
19...	1230	17	346	13.0	21...	1256	25	296	25.0
FEB									
08...	1330	373	360	13.0					
				03428500 - WEST FORK STONES RIVER NEAR SMYRNA, TN					
NOV					JUN				
20...	1029	27	586	14.0	21...	1001	37	493	22.5
FEB									
08...	0932	557	402	13.0					
				03430147 - STONERS CREEK NEAR HERMITAGE, TN					
OCT					JUN				
01...	1215	.32	--	23.0	15...	1250	4.9	415	22.5
JAN					AUG				
05...	1345	24	510	6.0	12...	1140	1.1	393	25.0
FEB					SEP				
17...	1510	58	370	11.4	10...	1125	.27	501	19.5
MAR					30...	1405	2.0	303	19.5
23...	1400	19	376	12.4					
APR									
26...	1640	68	186	19.3					
				03430550 - MILL CREEK NEAR NOLENSVILLE, TN					
OCT					MAY				
05...	1240	.88	640	25.5	05...	0840	173	260	16.9
JAN					JUN				
05...	1016	55	492	2.0	23...	0830	1.3	550	22.0
FEB					AUG				
09...	0830	44	460	11.2	10...	1345	.32	657	27.9
MAR					30...	0830	.54	660	22.5
18...	1015	116	334	11.5					
APR									
28...	0920	14	470	18.0					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				CUMBERLAND RIVER BASIN--Continued					
				03431000 - MILL CREEK NEAR ANTIOCH, TN					
FEB					JUN				
23...	0815	55	450	6.6	23...	1050	3.5	470	24.9
				03431060 - MILL CREEK AT THOMPSON LANE, NEAR WOODBINE, TN					
OCT					AUG				
05...	1045	6.3	450	25.5	11...	1300	3.4	425	28.7
MAR					23...	0840	2.0	438	23.5
18...	1230	255	432	14.5	SEP				
APR					09...	1400	1.6	440	24.0
28...	0730	37	465	17.8	17...	0920	1.7	428	19.0
JUN					30...	1130	7.4	428	17.0
28...	0955	32	525	25.0					
				03431300 - BROWNS CREEK AT STATE FAIRGROUNDS AT NASHVILLE, TN					
OCT					MAR				
02...	0850	1.2	447	18.9	15...	1300	86	475	13.1
NOV					APR				
09...	1030	1.1	408	15.6	28...	1245	6.2	510	20.2
DEC					JUN				
16...	0955	14	584	11.3	22...	1100	2.3	552	23.5
JAN					SEP				
04...	1105	16	587	7.4	20...	0820	85	134	20.5
				03431599 - WHITES CREEK NEAR BORDEAUX, TN					
OCT					JUN				
02...	1100	2.2	511	21.5	16...	1255	6.2	345	23.0
JAN					AUG				
05...	0945	55	471	2.2	09...	1345	2.1	463	28.0
FEB					SEP				
16...	1250	70	372	11.5	03...	1500	.49	519	28.5
MAR					22...	1150	2.4	458	21.0
23...	1300	50	345	12.3					
APR									
29...	1030	21	426	17.8					
				03431700 - RICHLAND CREEK AT CHARLOTTE AVE AT NASHVILLE, TN					
OCT					APR				
02...	1010	1.5	529	19.5	29...	1100	15	504	18.0
NOV					JUN				
20...	1015	10	391	12.7	22...	1300	.88	495	25.0
FEB					AUG				
16...	1135	35	526	12.0	12...	1105	2.8	300	25.5
MAR									
18...	1140	70	482	14.2					

CUMBERLAND RIVER BASIN--Continued

03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TN

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
NOV					JUN				
18...	0930	30	333	7.8	17...	1055	31	292	21.5
FEB									
09...	0830	125	236	10.9					

03432350 - HARPETH RIVER AT FRANKLIN, TN

OCT					APR				
01...	0748	1.3	429	23.0	27...	1110	58	393	18.3
20...	0915	5.9	464	16.0	JUN				
NOV					02...	1400	19	394	22.8
02...	0910	5.0	456	16.6	JUL				
06...	1200	2.2	470	10.8	09...	0900	2.4	366	26.0
16...	0945	2.3	467	12.0	AUG				
DEC					02...	1015	2.0	353	28.8
02...	1330	2.2	488	13.5	23...	0900	3.5	233	23.1
18...	0905	214	367	7.0	26...	1030	1.9	335	24.6
JAN					SEP				
19...	1010	624	299	8.5	02...	1200	1.3	348	25.4
FEB					09...	1130	1.1	408	24.1
17...	1224	528	344	10.5					
MAR									
25...	0812	195	342	10.5					

03432390 - SPENCER CREEK NEAR FRANKLIN, TN

APR					AUG				
27...	0910	12	501	17.0	03...	1215	2.0	673	24.5
MAY					SEP				
05...	0805	80	214	17.5	17...	0830	.67	700	16.5
JUN									
21...	1315	2.0	618	21.5					

03432400 - HARPETH RIVER BELOW FRANKLIN, TN

OCT					APR				
01...	1020	5.5	589	23.5	27...	1245	79	533	19.2
20...	1045	19	493	16.3	JUN				
NOV					02...	1520	37	468	23.8
02...	1015	8.7	451	18.5	JUL				
16...	1130	14	569	14.5	09...	1120	10	524	25.4
MAR					AUG				
25...	1105	237	378	11.5	02...	1145	10	572	27.5

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				CUMBERLAND RIVER BASIN--Continued					
				03433500 - HARPETH RIVER AT BELLEVUE, TN					
NOV					JUN				
19...	1355	33	432	13.0	14...	1445	180	353	24.5
JAN					JUL				
19...	1355	1130	314	9.5	30...	0925	22	480	29.0
FEB					AUG				
16...	1000	823	362	8.6	11...	0950	14	501	26.5
MAR					SEP				
24...	1430	605	392	12.5	09...	1310	9.3	366	26.0
APR									
28...	1300	215	400	19.5					
				03434500 - HARPETH RIVER NEAR KINGSTON SPRINGS, TN					
NOV					APR				
19...	0955	117	341	11.6	29...	0745	389	339	19.5
JAN					JUN				
04...	1240	1890	339	4.0	17...	0830	249	318	22.0
FEB					JUL				
03...	1055	2340	297	9.5	30...	1045	104	321	29.5
MAR									
24...	0930	1150	302	11.6					
				03435305 - RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAIN, TN					
OCT					MAR				
06...	0900	137	416	21.1	16...	1330	2960	288	10.8
NOV					APR				
17...	0930	70	357	10.0	28...	1250	420	402	18.0
JAN					JUN				
05...	1230	612	301	3.4	02...	1140	227	422	21.6
FEB					SEP				
08...	1215	1370	361	12.5	29...	1210	38	456	20.5
				03436100 - RED RIVER AT PORT ROYAL, TN					
OCT					MAR				
01...	1435	182	440	24.4	16...	1110	6070	266	9.6
NOV					APR				
17...	1320	132	452	11.0	28...	0930	628	366	19.0
JAN					JUN				
07...	1135	895	398	3.7	17...	1435	289	424	24.5
FEB					AUG				
09...	1200	2100	255	11.5	12...	1410	155	413	28.5

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN									
03455000 - FRENCH BROAD RIVER NEAR NEWPORT, TN									
OCT					APR				
06...	1253	637	131	23.4	27...	1430	1630	80	19.3
FEB					SEP				
22...	1140	4030	64	5.1	08...	1250	524	156	25.1
03461500 - PIGEON RIVER AT NEWPORT, TN									
APR					SEP				
27...	1120	322	184	15.9	09...	0900	197	356	23.0
03465500 - NOLICHUCKY RIVER AT EMBREEVILLE, TN									
DEC					JUN				
11...	1312	330	90	9.9	23...	1200	469	87	23.3
MAR					AUG				
04...	1020	2850	61	3.5	11...	1615	424	91	27.5
03466228 - SINKING CREEK AT AFTON, TN									
DEC					JUN				
10...	1515	4.1	438	11.2	18...	0905	6.1	453	15.9
JAN					AUG				
20...	1022	19	425	9.0	11...	1200	4.6	452	20.5
MAR									
02...	0955	18	429	8.5					
03469175 - LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN									
JAN					SEP				
13...	1028	216	78	5.4	09...	1155	22	154	22.0
JUN									
03...	1230	116	115	21.5					
03491000 - BIG CREEK NEAR ROGERSVILLE, TN									
DEC					MAR				
10...	1150	19	321	8.8	01...	1455	139	222	8.4
JAN					APR				
20...	1430	92	295	9.0	28...	1415	24	333	18.3

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				TENNESSEE RIVER BASIN--Continued					
				03491544 - CROCKETT CREEK BELOW ROGERSVILLE, TN					
DEC 10...	0940	2.4	502	8.4	MAR 01...	1212	6.9	432	9.3
JAN 20...	1045	7.7	455	10.5	APR 28...	1143	1.8	469	17.3
				03497300 - LITTLE RIVER ABOVE TOWNSEND, TN					
NOV 23...	1440	45	22	7.0	MAY 27...	0935	134	18	14.1
JAN 11...	1126	392	15	2.1	JUL 20...	1215	221	16	18.5
FEB 12...	1415	430	15	10.0	AUG 30...	1100	41	24	21.0
APR 08...	0905	217	17	13.7					
				03498500 - LITTLE RIVER NEAR MARYVILLE, TN					
NOV 24...	1017	83	145	10.6	JUN 04...	0920	264	105	21.0
JAN 12...	1447	524	89	6.0	JUL 19...	1405	467	103	21.5
FEB 22...	1225	731	87	5.5	SEP 09...	1510	54	184	22.8
APR 19...	1615	265	115	14.0					
				03498850 - LITTLE RIVER NEAR ALCOA, TN					
JAN 13...	1416	492	130	7.7	AUG 19...	1545	84	181	27.0
JUN 04...	1055	282	152	21.5	SEP 10...	1055	47	216	21.7
JUL 19...	1730	494	127	22.5					
				03528000 - CLINCH RIVER ABOVE TAZEWELL, TN					
MAR 05...	1147	8830	243	7.0	JUN 17...	1500	276	347	25.1
APR 28...	1300	996	295	19.5					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				TENNESSEE RIVER BASIN--Continued					
				03532000 - POWELL RIVER NEAR ARTHUR, TN					
OCT					JUN				
28...	1207	113	402	13.1	17...	1100	190	390	22.1
				035351830 - BEAVER CREEK NEAR WILLOW FORK AT HALLS CROSSROADS, TN					
MAY									
06...	1410	353	142	18.0					
				03535195 - BEAVER CREEK AT BRICKYARD ROAD NEAR POWELL, TN					
MAY									
06...	1115	506	170	17.0					
				03535400 - BEAVER CREEK AT SOLWAY, TN					
MAY					AUG				
27...	1345	67	359	17.8	10...	0942	42	395	21.0
				03538230 - EAST FORK POPLAR CREEK BELOW NS PIPE AT OAK RIDGE, TN					
JAN					JUN				
12...	1355	10	290	11.0	03...	1150	9.9	297	20.0
				03538235 - EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN					
JAN									
12...	1140	13	348	12.4					
				03538580 - EMORY RIVER NEAR LANCING, TN					
MAY					AUG				
04...	1208	96	53	15.5	03...	1045	8.3	62	25.7
28...	1015	22	--	--	SEP				
JUL					13...	0919	.15	98	20.5
15...	1040	238	51	19.5					
29...	1400	34	50	27.0					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				TENNESSEE RIVER BASIN--Continued					
				03538830 - OBED RIVER AT ADAMS BRIDGE NEAR CROSSVILLE, TN					
APR					SEP				
14...	1310	73	70	13.0	13...	1820	5.4	137	20.0
29...	1410	629	80	15.0	27...	1019	1.7	276	16.5
30...	1153	578	63	13.0					
JUL									
30...	1350	28	106	26.5					
				03538860 - OBED RIVER AT POTTER FORD NEAR CROSSVILLE, TN					
MAR					SEP				
23...	1730	173	--	--	13...	1635	1.6	94	20.5
JUN					27...	1313	1.8	190	18.0
01...	1351	10	97	20.5					
28...	1440	304	87	22.0					
				03538871 - OTTER CREEK NEAR HEBBERTSBURG, TN					
JUN					SEP				
01...	1228	.85	56	19.5	13...	1525	.02	69	20.0
JUL									
01...	1017	56	47	21.0					
30...	1214	3.1	59	24.0					
				03539600 - DADDYS CREEK NEAR HEBBERTSBURG, TN					
APR					SEP				
23...	1445	151	66	16.5	13...	1330	1.8	117	21.6
30...	1000	1330	57	12.9					
MAY									
06...	1445	8000	49	16.0					
				03539690 - DADDYS CREEK AT DEVILS BREAKFAST TABLE, TN					
JUN					AUG				
28...	1202	285	100	23.0	03...	1304	40	76	27.0
JUL					10...	1710	14	91	28.0
30...	1019	105	65	25.0	SEP				
					13...	1050	2.4	114	22.0

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03539700 - OBED RIVER NEAR FRANKFORT, TN									
JUN					AUG				
07...	1550	52	87	26.0	10...	1320	23	86	27.1
JUL					SEP				
09...	1323	294	24	24.8	13...	1440	2.9	157	22.0
03539717 - CLEAR CREEK AT NORRIS FORD NEAR JONES KNOB, TN									
APR					AUG				
14...	1050	62	41	12.5	10...	0957	3.8	51	23.5
JUN					SEP				
03...	1325	25	49	21.5	13...	1722	.77	68	21.0
JUL									
06...	1017	167	52	21.5					
03539731 - WHITE CREEK ABOVE MOUTH NEAR DEER LODGE, TN									
MAR					JUL				
12...	1143	115	28	5.5	13...	0924	276	31	18.5
JUN					29...	1142	24	33	23.5
03...	1130	5.3	39	21.0	SEP				
					13...	1515	.14	50	20.5
03539735 - CLEAR CREEK AT BARNETT BRIDGE NEAR DEER LODGE, TN									
MAY					AUG				
07...	1233	1350	31	15.5	10...	1144	7.1	45	25.2
JUN					SEP				
03...	1000	15	44	21.0	13...	1340	881	48	21.0
JUL									
29...	1018	71	41	23.9					
03539778 - CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN									
NOV					AUG				
03...	1130	1.9	97	14.9	04...	1100	21	44	26.0
JUN					SEP				
10...	1050	14	50	26.0	13...	1350	1.4	70	22.1

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
			TENNESSEE RIVER BASIN--Continued						
			03539800 - OBED RIVER NEAR LANCING, TN						
MAY									
25...	1545	374	56	22.0					
			03539818 - ROCK CREEK ABOVE MOUTH NEAR WARTBURG, TN						
MAR					SEP				
12...	0905	7.4	66	4.0	13...	1054	1.1	345	17.5
MAY									
06...	0959	176	31	14.0					
06...	1045	162	31	14.0					
06...	1615	75	35	15.0					
07...	0952	28	47	14.0					
			03539820 - EMORY RIVER NEAR NEMO, TN						
JUN					AUG				
01...	0956	97	63	22.4	10...	1610	37	68	30.3
01...	1051	97	63	22.4	SEP				
JUL					13...	0910	7.4	103	23.5
09...	1103	490	45	25.3					
			03540500 - EMORY RIVER AT OAKDALE, TN						
NOV					AUG				
03...	1250	9.2	110	16.7	04...	1340	113	81	28.9
JUN					SEP				
11...	1030	67	87	28.3	14...	1325	7.7	100	25.0
			035661285 - NORTH MOUSE CREEK NEAR ROCKY MT HOLLOW NEAR ATHENS, TN						
OCT					JUL				
28...	1130	18	343	13.0	22...	1130	80	290	19.6
APR					AUG				
22...	1200	45	302	16.6	31...	1045	26	316	19.0
JUN									
02...	1745	49	314	19.3					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
			TENNESSEE RIVER BASIN--Continued						
			03568000 - TENNESSEE RIVER AT CHATTANOOGA, TN						
FEB					AUG				
08...	1300	54600	169	11.5	09...	1515	43000	146	29.5
APR					SEP				
05...	1315	9940	167	15.0	29...	1130	22900	201	24.5
JUN									
03...	1145	12500	162	24.5					
			03593500 - TENNESSEE RIVER AT SAVANNAH, TN						
JAN					JUL				
08...	1000	56600	208	5.6	06...	1045	41500	158	29.0
MAR					AUG				
03...	1330	78600	162	11.0	13...	0800	7400	159	30.5
MAY									
06...	1530	118000	141	20.5					
			03597210 - GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN						
NOV					APR				
18...	0945	11	676	17.5	28...	0957	143	255	17.0
JAN					JUN				
05...	1320	146	302	4.5	17...	0920	15	256	22.0
FEB					AUG				
10...	1005	249	249	13.0	17...	1125	8.3	283	24.0
MAR					SEP				
26...	1145	84	245	11.0	09...	0818	2.5	292	23.5
			03597590 - WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN						
NOV					APR				
18...	0815	.45	413	8.5	28...	0841	50	242	17.5
JAN					JUN				
12...	1115	64	338	7.5	17...	0752	.81	326	21.0
FEB					AUG				
10...	0845	103	291	12.5	17...	1000	.06	280	23.0
			03597860 - DUCK RIVER AT SHELBYVILLE, TN						
APR					AUg				
07...	0945	189	205	19.9	10...	0945	164	140	27.0
JUN					SEP				
22...	0945	153	183	23.5	01...	1100	165	133	25.5

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				TENNESSEE RIVER BASIN--Continued					
				03598000 - DUCK RIVER NEAR SHELBYVILLE, TN					
OCT					MAR				
06...	1300	204	232	23.5	18...	1417	1990	167	12.0
NOV					APR				
19...	0845	395	134	14.5	28...	1556	754	184	19.5
JAN					JUN				
12...	0830	1560	199	7.0	22...	0850	165	175	23.5
FEB					AUG				
12...	0800	914	232	13.0	17...	1245	182	165	26.5
				03598250 - NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN					
JAN					MAY				
19...	0930	264	264	7.9	10...	1130	78	360	17.5
FEB					JUN				
17...	1415	278	301	10.5	07...	1345	.68	330	26.0
28...	1015	889	179	11.0	JUL				
MAR					12...	1430	43	286	24.0
09...	0945	240	325	8.0	SEP				
APR					10...	0845	.00	279	21.5
05...	1515	25	301	19.5					
15...	1030	16	299	16.0					
				03599000 - BIG ROCK CREEK AT LEWISBURG, TN					
OCT					MAR				
02...	1134	.59	384	19.0	19...	0759	56	320	10.0
NOV					APR				
17...	1400	1.8	455	15.5	29...	0750	53	388	17.0
JAN					JUN				
08...	0745	36	369	9.5	22...	1255	1.1	305	27.0
FEB									
11...	0744	58	353	14.0					
				03599500 - DUCK RIVER AT COLUMBIA, TN					
OCT					APR				
02...	0918	185	220	23.5	30...	1025	4000	315	17.5
NOV					JUN				
17...	0840	427	172	12.5	14...	1015	234	245	27.0
JAN					AUG				
11...	1300	7110	245	7.0	12...	1005	160	197	28.5
FEB					SEP				
12...	1401	3850	291	14.0	01...	1100	140	200	25.5

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
				TENNESSEE RIVER BASIN--Continued					
				03602219 - PINEY RIVER AT CEDAR HILL, TN					
OCT 05...	1435	22	278	21.5	MAR 19...	0830	166	187	10.9
NOV 19...	1205	16	285	13.4	APR 27...	0910	43	244	16.0
JAN 19...	1015	63	235	7.7	JUN 22...	1045	19	247	20.5
FEB 10...	1110	83	214	12.0	AUG 11...	1210	14	272	23.0
				03604000 - BUFFALO RIVER NEAR FLAT WOODS, TN					
OCT 05...	1000	414	99	22.0	APR 16...	1115	737	64	13.5
NOV 09...	1325	279	95	13.0	JUN 10...	1210	376	93	25.5
MAR 04...	1200	1440	74	9.0					
				03605078 - CYPRESS CREEK AT CAMDEN, TN					
OCT 22...	1120	3.1	133	15.5	APR 15...	1510	74	67	13.5
JAN 07...	1430	16	103	3.5	JUN 10...	1500	2.2	143	27.0
MAR 04...	0600	36	92	7.0	JUL 26...	1315	2.5	143	27.0
				07024760 - SPRING CREEK NEAR GREENFIELD, TN					
APR 15...	1100	401	66	13.0					

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OBION RIVER BASIN									
07028930 - TURKEY CREEK AT MEDINA, TN									
FEB 04...	1125	.15	147	9.0					
07028960 - MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW, TN									
JAN 07...	1045	325	54	2.5	JUN 18...	1045	123	45	19.5
FEB 12...	1245	339	57	11.0	SEP 03...	1125	52	35	19.5
07029035 - STOKES CREEK NEAR STOKES, TN									
JAN 22...	1345	285	85	13.5	APR 13...	1115	.88	23	17.0
FEB 24...	1340	11	304	6.5					
HATCHIE RIVER BASIN									
07029500 - HATCHIE RIVER AT BOLIVAR, TN									
OCT 02...	1525	347	58	22	APR 16...	0955	2220	86	14.0
JAN 06...	1030	3460	50	0.5	JUN 11...	1305	433	72	28.0
FEB 19...	0915	1750	85	9.0					
LOOSAHATCHIE RIVER BASIN									
07030240 - LOOSAHATCHIE RIVER NEAR ARLINGTON, TN									
OCT 05...	1210	90	53	21.5	APR 21...	1015	128	64	18.0
FEB 18...	0915	136	63	9.5					
07030270 - CLEAR CREEK NEAR ARLINGTON, TN									
MAY 13...	1415	11	114	22.0	JUN 02...	1015	8.5	113	23.0

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN-TANEOUS (FT3/S) (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM (00095)	TEMPER-ATURE WATER (DEG C) (00010)
WOLF RIVER BASIN									
07030392 - WOLF RIVER AT LAGRANGE, TN									
OCT					APR				
02...	1215	122	37	20.5	09...	1030	321	42	21.0
JAN					JUN				
06...	1350	251	37	2.0	11...	1040	129	41	22.5
FEB									
19...	1145	220	38	10.0					
07031650 - WOLF RIVER AT GERMANTOWN, TN									
OCT					JUN				
05...	1230	420	45	23.5	15...	1045	381	54	23.0
FEB					SEP				
18...	1345	619	50	10.5	17...	1100	266	45	18.5
07031692 - FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN									
OCT					FEB				
06...	1415	11	93	24.0	17...	1405	9.0	136	1.0
23...	1345	2.1	123	16.5					
NONCONNAH RIVER BASIN									
07032200 - NONCONNAH CREEK NEAR GERMANTOWN, TN									
OCT					JUN				
05...	1100	1.6	193	23.5	25...	0955	13	227	24.5
FEB					SEP				
18...	1145	12	216	8.0	02...	1345	1.9	564	27.3

In 1993, the U.S. Geological Survey (USGS), in cooperation with the Tennessee Department of Transportation (TDOT), began monitoring a degraded wetland area near Millington, Shelby County, Tennessee. The monitoring effort was designed to define land-surface inundation and saturation conditions prior to the implementation of a plan to restore the wetland area to a more natural condition. Restoring and preserving wetlands have become an important initiative in recent years as indicated by the no net loss of wetlands objective of Section 404 of the Clean Water Act (U.S. Congress, 1977). In certain instances, the construction of buildings, roads, and other manmade structures have disrupted natural wetlands and their functions. The Millington site is located along a channelized reach of Big Creek, east of State Route 240, and near the southeastern boundary of the Naval Support Activity Midsouth, Millington (fig. 7). As part of the monitoring effort, 13 wells were augered approximately 2 feet into poorly drained soils, which include the Calloway silt loam, Falaga silt loam, Waverly silt loam, and Henry silt loam.

Additional information on this study area may be obtained from the USGS at 640 Grassmere Park, Suite 100, Nashville, TN 37211 or by telephone (615) 837-4700.

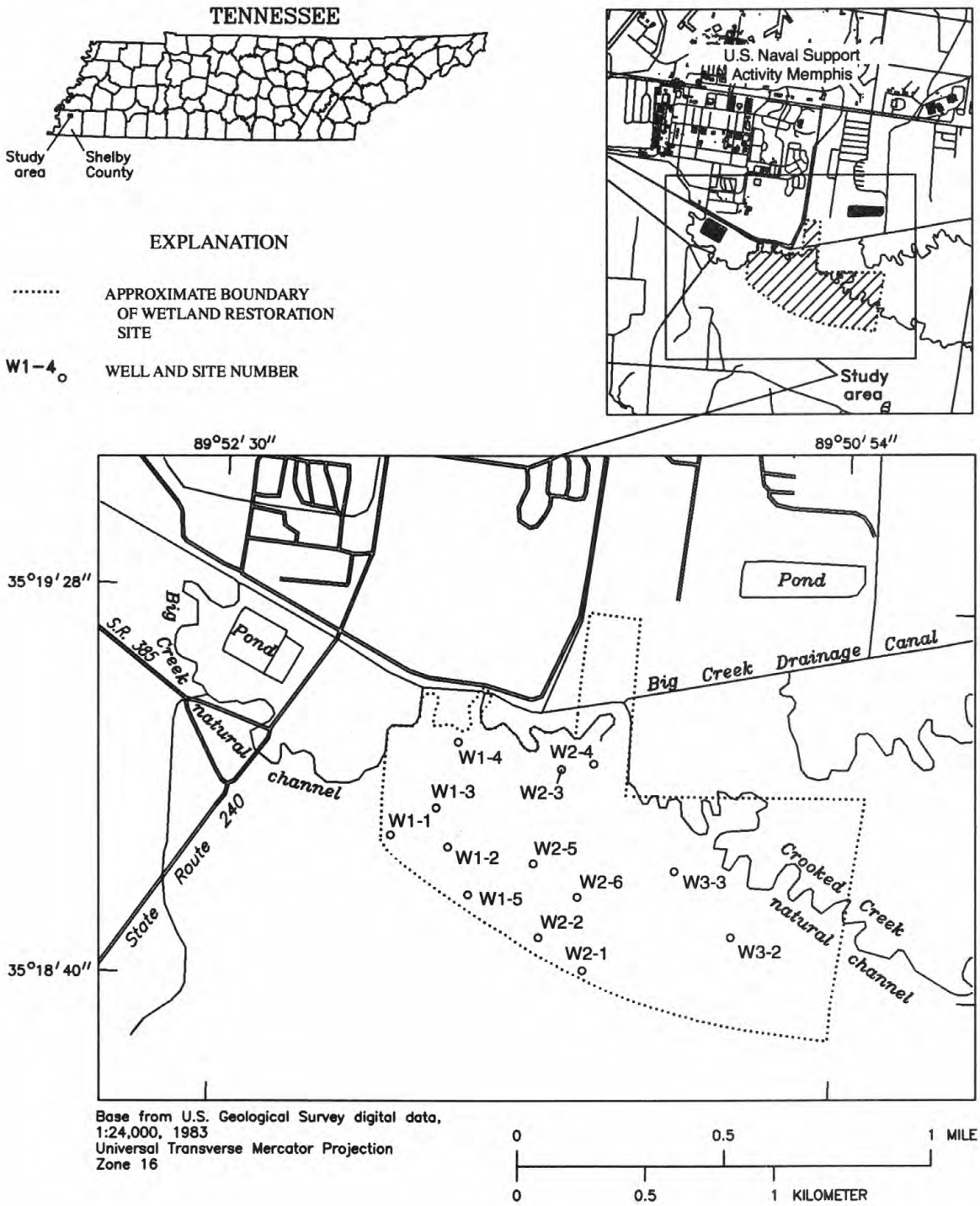


Figure 7. Location of study area and data-collection sites.

MILLINGTON WETLAND

351859089520101. Local number, Sh:V-60 (W1-1).

LOCATION.--Lat 35°18'59", long 89°52'01", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder--60-minute punch

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing approximately 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.22 ft below land surface.

PERIOD OF RECORD.--June 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.22	2.22	2.22	.77	.32	.44	.29	1.23	2.22	2.22	2.22	2.22
2	2.22	2.22	2.22	.25	.34	.42	.33	1.49	2.22	2.22	2.22	2.22
3	2.22	2.22	2.22	.44	.38	.43	.33	1.71	2.22	2.22	2.22	2.22
4	2.22	2.22	2.22	.70	.49	.58	.27	1.83	2.22	2.22	2.22	2.22
5	2.22	2.22	2.22	.97	.58	.54	.30	.37	2.22	2.22	2.22	2.22
6	2.22	2.22	2.22	.79	.53	.30	.31	.43	2.22	2.22	2.22	2.22
7	2.22	2.22	2.22	.63	.29	.43	.42	.69	2.22	2.22	2.22	2.22
8	2.22	2.22	1.95	.29	.35	.37	.43	1.10	2.22	2.22	2.22	2.22
9	2.22	2.22	2.21	.33	.38	.29	.52	1.43	2.22	2.22	2.22	2.22
10	2.22	2.22	1.86	.44	.39	.38	.73	1.68	2.22	2.22	2.22	2.22
11	2.22	2.22	1.44	.45	.34	.34	1.01	1.93	2.22	2.22	2.22	2.22
12	2.22	2.22	.66	.38	.30	.40	1.40	2.04	2.22	2.22	2.22	2.22
13	2.22	2.22	.56	.43	.41	.19	1.58	1.86	2.22	2.22	2.22	2.22
14	2.22	2.22	.80	.56	.48	.24	1.25	1.99	2.22	2.22	2.22	2.22
15	2.22	2.22	1.02	.58	.49	.32	.44	2.16	2.22	2.22	2.22	2.22
16	2.22	2.22	1.12	.58	.47	.37	.65	2.22	2.22	2.22	2.22	2.22
17	2.22	2.22	1.32	.43	.45	.41	.88	2.21	2.22	2.22	2.22	2.22
18	2.22	2.22	1.44	.34	.49	.51	1.13	1.57	2.22	2.22	2.22	2.22
19	2.22	2.22	1.44	.39	.56	.63	1.28	1.81	2.22	2.22	2.22	2.22
20	2.22	2.22	1.51	.40	.73	.41	1.48	2.02	2.22	2.22	2.22	2.22
21	2.22	2.22	1.41	.37	.63	.29	1.67	2.15	2.22	2.22	2.22	2.22
22	2.22	2.22	.90	.22	.69	.36	1.90	2.11	2.22	2.22	2.22	2.22
23	2.22	2.22	.92	.32	.67	.38	2.10	2.17	2.22	2.22	2.22	2.22
24	2.22	2.22	.88	.41	.83	.41	1.63	2.22	2.22	2.22	2.22	2.22
25	2.22	2.22	.84	.47	.87	.52	.51	2.22	2.22	2.22	2.22	2.22
26	2.22	2.22	.83	.49	.95	.70	.33	2.22	2.22	2.22	2.22	2.22
27	2.22	2.22	.81	.48	.49	.86	.34	2.22	2.22	2.22	2.22	2.22
28	2.22	2.22	.41	.45	.35	.98	.49	2.22	2.22	2.22	2.22	2.22
29	2.22	2.22	.44	.21	---	.53	.67	2.22	2.22	2.22	2.22	2.22
30	2.22	2.22	.62	.26	---	.41	.90	2.22	2.22	2.22	2.22	2.22
31	2.22	---	.75	.27	---	.29	---	2.22	---	2.22	2.22	---

WTR YR 1999 HIGHEST 0.12 MAR 13, 1999 LOWEST 2.22 MANY DAYS

MILLINGTON WETLAND

351859089515501. Local number, Sh:V-61 (W1-2).

LOCATION.--Lat 35°18'59", long 89°51'55", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.24 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	2.24	2.24	2.24	-.08	-.05	-.10	.21	2.24	2.24	2.24	2.24
2	2.24	2.24	2.24	.67	-.07	-.05	-.08	.62	2.24	2.24	2.24	2.24
3	2.24	2.24	2.24	-.01	-.05	-.05	-.09	1.21	2.24	2.24	2.24	2.24
4	2.24	2.24	2.24	.04	-.03	-.03	-.15	1.71	2.24	2.24	2.24	2.24
5	2.24	2.24	2.24	.07	-.01	-.04	-.11	.02	2.24	2.24	2.24	2.24
6	2.24	2.24	2.24	.08	.00	-.09	-.14	-.08	2.24	2.24	2.24	2.24
7	2.24	2.24	2.18	.06	-.07	-.07	-.10	.01	2.24	2.24	2.24	2.24
8	2.24	2.24	2.24	.00	-.06	-.07	-.09	.13	2.24	2.24	2.24	2.24
9	2.24	2.24	2.24	-.07	-.04	-.09	-.07	.45	2.24	2.24	2.24	2.24
10	2.24	2.24	2.24	.00	-.03	-.07	-.05	1.11	2.24	2.24	2.24	2.24
11	2.24	2.24	2.24	.02	-.05	-.07	.00	1.80	2.24	2.24	2.24	2.24
12	2.24	2.24	2.24	.03	-.11	-.06	.08	2.09	2.24	2.24	2.24	2.24
13	2.24	2.24	2.24	.05	-.07	-.23	.16	2.21	2.24	2.24	2.24	2.24
14	2.24	2.24	2.24	.08	-.06	-.17	.06	2.24	2.24	2.24	2.24	2.24
15	2.24	2.24	2.24	.10	-.05	-.10	-.07	2.24	2.24	2.24	2.24	2.24
16	2.24	2.24	2.24	.11	-.04	-.08	-.04	2.24	2.24	2.24	2.24	2.24
17	2.24	2.24	2.24	.07	-.04	-.06	.00	2.24	2.24	2.24	2.24	2.24
18	2.24	2.24	2.24	.01	-.03	-.05	.06	2.24	2.24	2.24	2.24	2.24
19	2.24	2.24	2.24	.03	-.02	-.04	.13	2.24	2.24	2.24	2.24	2.24
20	2.24	2.24	2.24	.05	.00	-.08	.32	2.24	2.24	2.24	2.24	2.24
21	2.24	2.24	2.24	.06	-.02	-.10	.70	2.24	2.24	2.24	2.24	2.24
22	2.24	2.24	2.24	-.13	.00	-.07	1.25	2.24	2.24	2.24	2.24	2.24
23	2.24	2.24	2.24	-.12	.00	-.07	1.70	2.24	2.24	2.24	2.24	2.24
24	2.24	2.24	2.24	-.06	.02	-.06	1.18	2.24	2.24	2.24	2.24	2.24
25	2.24	2.24	2.24	-.04	.03	-.05	-.06	2.24	2.24	2.24	2.24	2.24
26	2.24	2.24	2.24	-.02	.05	-.03	-.18	2.24	2.24	2.24	2.24	2.24
27	2.24	2.24	2.24	-.01	-.03	-.01	-.16	2.24	2.24	2.24	2.24	2.24
28	2.24	2.24	2.24	.00	-.07	.01	-.04	2.24	2.24	2.24	2.24	2.24
29	2.24	2.24	2.24	-.20	---	-.06	.01	2.24	2.24	2.24	2.24	2.24
30	2.24	2.24	2.24	-.13	---	-.07	.07	2.24	2.24	2.24	2.24	2.24
31	2.24	---	2.24	-.15	---	-.10	---	2.24	---	2.24	2.24	---

WTR YR 1999 HIGHEST -.45 MAY 5, 1999 LOWEST 2.24 MANY DAYS

MILLINGTON WETLAND

351906089515601. Local number, Sh:V-62 (W1-3).

LOCATION.--Lat 35°19'06", long 89°51'56", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.10 ft below land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.10	2.10	2.10	1.59	.17	.30	.15	1.37	2.10	2.10	2.10	2.10
2	2.10	2.10	2.10	.63	.19	.32	.20	1.60	2.10	2.10	2.10	2.10
3	2.10	2.10	2.10	.19	.24	.23	.22	1.74	2.10	2.10	2.10	2.10
4	2.10	2.10	2.10	.34	.34	.40	.13	1.83	2.10	2.10	2.10	2.10
5	2.10	2.10	2.10	.55	.47	.37	.17	.62	2.10	2.10	2.10	2.10
6	2.10	2.10	2.10	.64	.53	.14	.16	.25	2.10	2.10	2.10	2.10
7	1.97	2.10	1.29	.55	.18	.24	.29	.56	2.10	2.10	2.10	2.10
8	2.00	2.10	.91	.24	.20	.23	.39	1.01	2.10	2.10	2.10	2.10
9	2.06	2.10	1.14	.13	.24	.14	.50	1.32	2.10	2.10	2.10	2.10
10	2.09	2.10	1.23	.18	.27	.22	.77	1.55	2.10	2.10	2.10	2.10
11	2.10	2.10	1.18	.21	.23	.18	.94	1.71	2.10	2.10	2.10	2.10
12	2.10	2.10	1.11	.23	.14	.26	1.13	1.83	2.10	2.10	2.10	2.10
13	2.10	2.10	1.03	.26	.24	.08	1.27	1.89	2.10	2.10	2.10	2.10
14	2.10	2.10	1.12	.35	.35	.10	1.36	1.96	2.10	2.10	2.10	2.10
15	2.10	2.10	1.23	.44	.41	.16	.48	2.03	2.10	2.10	2.10	2.10
16	2.10	2.10	1.32	.51	.44	.24	.37	2.09	2.10	2.10	2.10	2.10
17	2.10	2.10	1.39	.38	.39	.33	.68	2.10	2.10	2.10	2.10	2.10
18	2.10	2.10	1.48	.15	.46	.44	.99	2.10	2.10	2.10	2.10	2.10
19	2.10	2.10	1.55	.22	.55	.62	1.21	2.10	2.10	2.10	2.10	2.10
20	2.10	2.10	1.61	.25	.73	.40	1.37	2.10	2.10	2.10	2.10	2.10
21	2.10	2.10	1.67	.25	.65	.15	1.48	2.10	2.10	2.10	2.10	2.10
22	2.10	2.10	1.64	.10	.65	.24	1.56	2.10	2.10	2.10	2.10	2.10
23	2.10	2.10	1.66	.15	.70	.31	1.63	2.10	2.10	2.10	2.10	2.10
24	2.10	2.10	1.70	.21	.82	.32	1.45	2.10	2.10	2.10	2.10	2.10
25	2.10	2.10	1.71	.29	.91	.46	.28	2.10	2.10	2.10	2.10	2.10
26	2.10	2.10	1.73	.37	.99	.71	.24	2.10	2.08	2.10	2.10	2.10
27	2.10	2.10	1.73	.41	.53	.88	.17	2.10	2.05	2.10	2.10	2.10
28	2.10	2.10	1.69	.41	.18	1.00	.33	2.10	2.09	2.10	2.10	2.10
29	2.10	2.10	1.60	.08	---	.58	.65	2.10	2.10	2.10	2.10	2.10
30	2.10	2.10	1.57	.11	---	.30	1.00	2.10	2.10	2.10	2.10	2.10
31	2.10	---	1.57	.12	---	.16	---	2.10	---	2.10	2.10	---

WTR YR 1999 HIGHEST 0.05 JAN 29, FEB 11, MAR 13, APR 3, 1999 LOWEST 2.10 MANY DAYS

MILLINGTON WETLAND

351912089515301. Local number, Sh:V-63 (W1-4).

LOCATION.--Lat 35°19'12", long 89°51'53", Hydrologic Unit 08010209, 0.5 mi east of interestion of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.27 below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.27	2.27	2.27	2.27	.08	.17	.04	.81	2.27	2.27	2.27	2.27
2	2.27	2.27	2.27	2.10	.10	.16	.08	1.14	2.27	2.27	2.27	2.27
3	2.27	2.27	2.27	2.16	.14	.12	.08	1.39	2.27	2.27	2.27	2.27
4	2.27	2.27	2.27	2.26	.19	.21	.02	1.52	2.27	2.27	2.27	2.27
5	2.27	2.27	2.27	2.27	.25	.16	.06	.70	2.27	2.27	2.27	2.27
6	2.27	2.27	2.27	2.27	.24	.04	.05	.22	2.27	2.27	2.27	2.27
7	2.27	2.27	2.13	2.27	.07	.11	.15	.43	2.27	2.27	2.27	2.27
8	2.27	2.27	2.20	2.25	.11	.09	.16	.73	2.27	2.27	2.27	2.27
9	2.27	2.27	2.27	2.06	.14	.04	.20	1.10	2.27	2.27	2.27	2.27
10	2.27	2.27	2.27	2.13	.15	.09	.31	1.38	2.27	2.27	2.27	2.27
11	2.27	2.27	2.27	2.20	.12	.07	.41	1.55	2.27	2.27	2.27	2.27
12	2.27	2.27	2.27	2.25	.04	.10	.68	1.67	2.27	2.27	2.27	2.27
13	2.27	2.27	2.27	2.27	.12	-.03	.95	1.76	2.27	2.27	2.27	2.27
14	2.27	2.27	2.27	2.27	.16	-.01	.95	1.83	2.27	2.27	2.27	2.27
15	2.27	2.27	2.27	2.27	.17	.05	.37	1.91	2.27	2.27	2.27	2.27
16	2.27	2.27	2.27	2.27	.16	.09	.31	1.99	2.27	2.27	2.27	2.27
17	2.27	2.27	2.27	2.27	.13	.11	.42	2.06	2.27	2.27	2.27	2.27
18	2.27	2.27	2.27	2.27	.16	.15	.58	2.11	2.27	2.27	2.27	2.27
19	2.27	2.27	2.27	2.27	.19	.20	.76	2.14	2.27	2.27	2.27	2.27
20	2.27	2.27	2.27	2.27	.27	.09	1.00	2.17	2.27	2.27	2.27	2.27
21	2.27	2.27	2.27	2.27	.16	.04	1.20	2.21	2.27	2.27	2.27	2.27
22	2.27	2.27	2.27	1.76	.20	.09	1.35	2.25	2.27	2.27	2.27	2.27
23	2.27	2.27	2.27	.83	.22	.10	1.49	2.26	2.27	2.27	2.27	2.27
24	2.27	2.27	2.27	.72	.29	.09	1.19	2.27	2.27	2.27	2.27	2.27
25	2.27	2.27	2.27	.70	.32	.15	.26	2.27	2.27	2.27	2.27	2.27
26	2.27	2.27	2.27	.70	.36	.23	.13	2.27	2.23	2.27	2.27	2.27
27	2.27	2.27	2.27	.68	.15	.30	.14	2.27	2.22	2.27	2.27	2.27
28	2.27	2.27	2.27	.66	.08	.37	.29	2.27	2.27	2.27	2.27	2.27
29	2.27	2.27	2.27	.09	---	.15	.40	2.27	2.27	2.27	2.27	2.27
30	2.27	2.27	2.27	.03	---	.12	.53	2.27	2.27	2.27	2.27	2.27
31	2.27	---	2.27	.03	---	.03	---	2.27	---	2.27	2.27	---

WTR YR 1999 HIGHEST -.07 MAR 13, 1999 LOWEST 2.27 MANY DAYS

MILLINGTON WETLAND

351853089515101. Local number, Sh:V-64 (W1-5).

LOCATION.--Lat 35°18'53", long 89°51'51", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.25 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.25	2.25	2.25	.33	.10	.14	.09	1.27	2.25	2.25	2.25	2.25
2	2.25	2.25	2.25	.02	.12	.15	.11	1.85	2.25	2.25	2.25	2.25
3	2.25	2.25	2.25	.09	.13	.16	.09	2.19	2.25	2.25	2.25	2.25
4	2.25	2.25	2.25	.18	.15	.20	.04	2.25	2.25	2.25	2.25	2.25
5	2.25	2.25	1.86	.35	.18	.20	.08	.78	2.25	2.25	2.25	2.25
6	2.25	2.25	2.25	.30	.19	.07	.05	.62	2.25	2.25	2.25	2.25
7	.80	2.25	.46	.20	.09	.13	.09	.71	2.25	2.25	2.25	2.25
8	1.96	2.25	.10	.09	.12	.13	.10	1.00	2.25	2.25	2.25	2.25
9	2.25	2.25	.28	.01	.14	.08	.12	1.67	2.25	2.25	2.25	2.25
10	2.25	2.25	.29	.11	.14	.12	.18	2.16	2.25	2.25	2.25	2.25
11	2.25	2.25	.14	.13	.13	.12	.35	2.25	2.25	2.25	2.25	2.25
12	2.25	2.25	.07	.14	.03	.14	.73	2.25	2.25	2.25	2.25	2.25
13	2.25	2.25	.12	.15	.12	-.04	1.05	2.25	2.25	2.25	2.25	2.25
14	2.25	2.25	.17	.17	.14	.02	.82	2.25	2.25	2.25	2.25	2.25
15	2.25	2.25	.23	.19	.15	.09	.13	2.25	2.25	2.25	2.25	2.25
16	2.25	2.25	.29	.21	.15	.11	.25	2.25	2.25	2.25	2.25	2.25
17	2.25	2.25	.39	.14	.15	.12	.42	2.25	2.25	2.25	2.25	2.25
18	2.25	2.25	.54	.08	.16	.14	.68	2.25	2.25	2.25	2.25	2.25
19	2.25	2.25	.59	.13	.19	.16	.98	2.25	2.25	2.25	2.25	2.25
20	2.25	2.25	.61	.15	.24	.11	1.40	2.25	2.25	2.25	2.25	2.25
21	2.25	2.25	.68	.15	.20	.09	1.84	2.25	2.25	2.25	2.25	2.25
22	2.25	2.25	.35	.01	.25	.12	2.20	2.25	2.25	2.25	2.25	2.25
23	2.25	2.25	.18	.06	.27	.12	2.25	2.25	2.25	2.25	2.25	2.25
24	2.25	2.25	.24	.12	.34	.12	1.77	2.25	2.25	2.25	2.25	2.25
25	2.25	2.25	.28	.15	.37	.14	.67	2.25	2.25	2.25	2.25	2.25
26	2.25	2.25	.28	.17	.41	.19	.55	2.25	1.95	2.25	2.25	2.25
27	2.25	2.25	.26	.17	.21	.27	.57	2.25	2.05	2.25	2.25	2.25
28	2.25	2.25	.18	.18	.10	.35	.68	2.25	2.25	2.25	2.25	2.25
29	2.25	2.25	.14	-.04	---	.16	.71	2.25	2.25	2.25	2.25	2.25
30	2.25	2.25	.18	.02	---	.12	.83	2.25	2.25	2.25	2.25	2.25
31	2.25	---	.24	.01	---	.08	---	2.25	---	2.25	2.25	---

WTR YR 1999 HIGHEST -.21 MAR 13, 1999 LOWEST 2.25 MANY DAYS

MILLINGTON WETLAND

351841089513101. Local number, Sh:V-65 (W2-1).

LOCATION.--Lat 35°18'41", long 89°51'31", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Bottom of well, 2.02 ft below land surface. Negative values indicate water level above land surface.

PERIOD OF RECORD.--October 1993 to June 1999 (discontinued).

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.02	2.02	2.02	2.02	1.41	2.02	1.98	2.02	2.02	---	---	---
2	2.02	2.02	2.02	1.82	1.56	2.02	1.97	2.02	2.02	---	---	---
3	2.02	2.02	2.02	2.01	1.73	2.02	1.90	2.02	2.02	---	---	---
4	2.02	2.02	2.02	2.02	1.91	2.02	.97	2.02	2.02	---	---	---
5	2.02	2.02	2.02	2.02	2.02	2.02	1.41	1.89	2.02	---	---	---
6	2.02	2.02	2.02	2.02	2.02	2.02	1.18	1.24	2.02	---	---	---
7	2.02	2.02	2.02	2.02	2.02	2.02	1.52	1.78	2.02	---	---	---
8	2.02	2.02	2.02	1.99	2.01	2.02	1.61	1.97	2.02	---	---	---
9	2.02	2.02	2.02	1.99	2.02	2.02	1.68	2.02	2.02	---	---	---
10	2.02	2.02	2.02	2.02	2.02	2.02	1.86	2.02	2.02	---	---	---
11	2.02	2.02	2.02	2.02	1.97	2.02	1.95	2.02	2.02	---	---	---
12	2.02	2.02	2.02	2.02	1.78	2.02	2.01	2.02	2.02	---	---	---
13	2.02	2.02	2.02	2.02	1.88	1.63	2.02	2.02	2.02	---	---	---
14	2.02	2.02	2.02	2.02	1.98	1.25	2.02	2.02	---	---	---	---
15	2.02	2.02	2.02	2.02	2.01	1.67	2.02	2.02	---	---	---	---
16	2.02	2.02	2.02	2.02	2.02	1.81	2.02	2.02	---	---	---	---
17	2.02	2.02	2.02	2.02	2.02	1.89	2.02	2.02	---	---	---	---
18	2.02	2.02	2.02	2.02	2.02	2.01	2.02	2.02	---	---	---	---
19	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	---	---	---	---
20	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	---	---	---	---
21	2.02	2.02	2.02	2.02	2.02	1.92	2.02	2.02	---	---	---	---
22	2.02	2.02	2.02	1.73	2.02	1.90	2.02	2.02	---	---	---	---
23	2.02	2.02	2.02	1.77	2.02	1.93	2.02	2.02	---	---	---	---
24	2.02	2.02	2.02	2.00	2.02	2.01	1.99	2.02	---	---	---	---
25	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	---	---	---	---
26	2.02	2.02	2.02	2.02	2.02	2.02	1.66	2.02	---	---	---	---
27	2.02	2.02	2.02	2.02	2.02	2.02	.94	2.02	---	---	---	---
28	2.02	2.02	2.02	2.02	2.02	2.02	1.48	2.02	---	---	---	---
29	2.02	2.02	2.02	1.33	---	2.02	1.83	2.02	---	---	---	---
30	2.02	2.02	2.02	1.34	---	2.02	2.01	2.02	---	---	---	---
31	2.02	---	2.02	1.13	---	2.02	---	2.02	---	---	---	---

WTR YR 1999 HIGHEST .22 APR 4, 1999 LOWEST 2.02 MANY DAYS

MILLINGTON WETLAND

351843089514001. Local number, Sh:V-66 (W2-2).

LOCATION.--Lat 35°18'43", long 89°51'40", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Bottom of well, 2.08 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to June 1999 (discontinued).

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.08	2.08	2.08	1.58	.53	1.59	.74	1.48	2.02	---	---	---
2	2.08	2.08	2.08	-.21	.74	1.62	.96	1.52	2.04	---	---	---
3	2.08	2.08	2.08	.73	.92	1.64	.82	1.55	2.06	---	---	---
4	2.08	2.08	2.08	1.42	1.11	1.72	.08	1.57	2.07	---	---	---
5	2.08	2.08	2.08	1.67	1.28	1.74	.60	.19	2.07	---	---	---
6	2.06	2.08	2.08	1.77	1.24	1.07	.32	.61	2.08	---	---	---
7	2.00	2.08	1.34	1.82	.74	1.42	.94	1.13	2.08	---	---	---
8	2.08	2.08	1.01	1.35	.91	1.38	1.01	1.28	2.08	---	---	---
9	2.08	2.08	1.27	.14	1.08	1.05	1.04	1.38	2.08	---	---	---
10	2.08	2.08	1.40	.80	1.13	1.22	1.22	1.43	2.08	---	---	---
11	2.08	2.08	1.39	1.01	.76	1.28	1.34	1.47	2.08	---	---	---
12	2.08	2.08	1.35	1.04	.35	1.30	1.53	1.52	2.08	---	---	---
13	2.08	2.08	1.31	1.04	1.00	-.20	1.63	1.53	2.08	---	---	---
14	2.08	2.08	1.43	1.13	1.23	-.29	1.64	1.56	---	---	---	---
15	2.08	2.08	1.59	1.21	1.33	.35	1.48	1.59	---	---	---	---
16	2.08	2.08	---	1.23	1.41	.73	1.48	1.63	---	---	---	---
17	2.08	2.08	1.76	.97	1.41	.90	1.53	1.60	---	---	---	---
18	2.08	2.08	1.80	.28	1.41	1.10	1.58	1.33	---	---	---	---
19	2.08	2.08	1.82	.91	1.49	1.21	1.60	1.51	---	---	---	---
20	2.08	2.08	1.83	1.05	1.69	.66	1.62	1.59	---	---	---	---
21	2.08	2.08	1.83	1.06	1.75	.47	1.64	1.65	---	---	---	---
22	2.08	2.08	1.76	.01	1.77	.92	1.67	1.70	---	---	---	---
23	2.08	2.08	1.76	.30	1.78	1.02	1.71	1.73	---	---	---	---
24	2.08	2.08	1.76	.94	1.81	1.11	1.22	1.77	---	---	---	---
25	2.08	2.08	1.78	1.11	1.84	1.23	1.44	1.80	---	---	---	---
26	2.08	2.08	1.82	1.17	1.85	1.38	.39	1.84	---	---	---	---
27	2.08	2.08	1.83	1.14	1.80	1.48	.22	1.87	---	---	---	---
28	2.08	2.08	1.76	1.15	1.61	1.56	1.13	1.90	---	---	---	---
29	2.08	2.08	1.58	-.16	---	1.53	1.32	1.93	---	---	---	---
30	2.08	2.08	1.54	-.06	---	1.30	1.42	1.97	---	---	---	---
31	2.08	---	1.56	-.05	---	.88	---	2.00	---	---	---	---

WTR YR 1999 HIGHEST -.45 MAR 13, 1999 LOWEST 2.08 MANY DAYS

MILLINGTON WETLAND

351907089514101. Local number, Sh:V-67 (W2-3).

LOCATION.--Lat 35°19'07", long 89°51'41", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Bottom of well, 2.36 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to June 1999 (discontinued).

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.36	2.36	2.36	1.78	-.20	.23	-.06	.00	1.42	---	---	---
2	2.36	2.36	2.36	.67	-.16	.23	-.06	-.01	1.48	---	---	---
3	2.36	2.36	2.36	.03	-.10	.23	-.06	-.02	1.54	---	---	---
4	2.36	2.36	2.36	.17	-.05	.25	-.07	-.01	---	---	---	---
5	2.36	2.36	2.36	.35	.00	.28	-.09	-.01	---	---	---	---
6	2.36	2.36	2.36	.44	.03	.24	-.10	-.03	---	---	---	---
7	1.85	2.36	.56	.46	.02	.20	-.10	-.03	---	---	---	---
8	1.86	2.36	.16	.23	.01	.17	-.11	-.03	---	---	---	---
9	1.97	2.36	.43	.01	.03	.16	-.12	-.01	---	---	---	---
10	2.06	2.28	.51	.02	.04	.15	-.11	.00	---	---	---	---
11	2.14	2.28	.50	.04	.06	.14	-.10	.01	---	---	---	---
12	2.21	2.33	.32	.04	.01	.14	-.07	.02	---	---	---	---
13	2.27	2.36	.21	.05	-.01	.07	-.05	.04	---	---	---	---
14	2.33	2.36	.36	.08	.01	-.04	-.04	.06	---	---	---	---
15	2.36	2.36	.54	.16	.02	-.09	-.04	.08	---	---	---	---
16	2.36	2.36	.73	.23	.05	-.13	-.03	.11	---	---	---	---
17	2.36	2.36	.95	.26	.06	-.14	-.01	.15	---	---	---	---
18	2.36	2.36	1.10	.11	.09	-.15	.01	.18	---	---	---	---
19	2.36	2.36	1.21	.11	.13	-.15	.03	.20	---	---	---	---
20	2.36	2.36	1.34	.16	.18	-.15	.05	.23	---	---	---	---
21	2.36	2.36	1.45	.21	.20	-.15	.08	.27	---	---	---	---
22	2.36	2.36	1.46	.09	.24	-.15	.14	.29	---	---	---	---
23	2.36	2.36	1.53	-.12	.28	-.15	.27	.32	---	---	---	---
24	2.36	2.36	1.58	-.10	.33	-.14	.40	.39	---	---	---	---
25	2.36	2.36	1.63	-.05	.37	-.13	.34	.54	---	---	---	---
26	2.36	2.36	1.67	.00	.43	-.12	.28	.70	---	---	---	---
27	2.36	2.36	1.71	.05	.39	-.10	.19	.89	---	---	---	---
28	2.36	2.36	1.72	.11	.26	-.08	.12	1.08	---	---	---	---
29	2.36	2.36	1.72	-.03	---	-.07	.06	1.23	---	---	---	---
30	2.36	2.36	1.73	-.19	---	-.06	.03	1.34	---	---	---	---
31	2.36	---	1.75	-.22	---	-.06	---	1.37	---	---	---	---

WTR YR 1999 HIGHEST -.22 JAN 31, FEB 1, 1999 LOWEST 2.36 MANY DAYS

MILLINGTON WETLAND

351909089513301. Local number, Sh:V-68 (W2-4).

LOCATION.--Lat 35°19'09", long 89°51'33", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Missing record, June 4 to July 15. Bottom of well, 2.21 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.21	2.21	2.21	1.77	-.23	.20	.10	.25	1.26	---	2.21	2.21
2	2.21	2.21	2.21	.69	-.19	.20	.12	.36	1.60	---	2.21	2.21
3	2.21	2.21	2.21	.06	-.13	.20	.11	.49	1.89	---	2.21	2.21
4	2.21	2.21	2.21	.20	-.08	.22	.08	.62	---	---	2.21	2.21
5	2.21	2.21	2.21	.38	-.03	.25	.10	.09	---	---	2.21	2.21
6	2.21	2.21	2.21	.47	.00	.21	.09	-.25	---	---	2.21	2.21
7	2.21	2.21	.53	.49	-.01	.17	.13	.01	---	---	2.21	2.21
8	2.21	2.21	.12	.26	-.02	.14	.14	.14	---	---	2.21	2.21
9	2.21	2.21	.36	.04	.00	.13	.16	.24	---	---	2.21	2.21
10	2.21	2.21	.41	.05	.01	.17	.21	.35	---	---	2.21	2.21
11	2.21	2.21	.37	.07	.03	.15	.28	.50	---	---	2.21	2.21
12	2.21	2.21	.17	.07	-.02	.18	.39	.64	---	---	2.21	2.21
13	2.21	2.21	.03	.08	-.04	.08	.49	.32	---	---	2.21	2.21
14	2.21	2.21	.15	.11	-.02	.09	.39	.44	---	---	2.21	2.21
15	2.21	2.21	.29	.19	-.01	.13	.09	.61	---	---	2.21	2.21
16	2.21	2.21	.41	.26	.02	.16	.15	.83	---	2.21	2.21	2.21
17	2.21	2.21	.64	.29	.03	.19	.23	1.11	---	2.21	2.21	2.21
18	2.21	2.21	.81	.14	.06	.23	.31	.18	---	2.21	2.21	2.21
19	2.21	2.21	.94	.14	.10	.28	.36	.32	---	2.21	2.21	2.21
20	2.21	2.21	1.08	.18	.15	.18	.43	.55	---	2.21	2.21	2.21
21	2.21	2.21	1.22	.18	.17	.12	.50	.71	---	2.21	2.21	2.21
22	2.21	2.21	1.25	.02	.21	.15	.65	.38	---	2.21	2.21	2.21
23	2.21	2.21	1.33	-.15	.25	.15	.85	.51	---	2.21	2.21	2.21
24	2.21	2.21	1.41	-.13	.30	.15	.84	.85	---	2.21	2.21	2.21
25	2.21	2.21	1.48	-.08	.34	.20	.10	1.24	---	2.21	2.21	2.21
26	2.21	2.21	1.54	-.03	.40	.28	.05	1.25	---	2.21	2.21	2.21
27	2.21	2.21	1.59	.02	.36	.33	-.19	1.54	---	2.21	2.21	2.21
28	2.21	2.21	1.63	.08	.23	.37	-.06	1.82	---	2.21	2.21	2.21
29	2.21	2.21	1.64	-.06	---	.14	.10	2.00	---	2.21	2.21	2.21
30	2.21	2.21	1.67	-.22	---	.13	.15	2.07	---	2.21	2.21	2.21
31	2.21	---	1.72	-.25	---	.09	---	1.26	---	2.21	2.21	---

WTR YR 1999 HIGHEST -.35 MAY 6, 1999 LOWEST 2.21 MANY DAYS

MILLINGTON WETLAND

351848089511001. Local number, Sh:V-70 (W3-2).

LOCATION.--Lat 35°18'48", long 89°51'10", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.24 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	2.24	2.24	1.45	.86	1.19	.92	.99	1.44	2.22	2.24	2.24
2	2.24	2.24	2.24	.65	.93	1.20	1.04	1.04	1.65	2.24	2.24	2.24
3	2.24	2.24	2.24	1.04	1.01	1.27	.99	1.07	1.83	2.24	2.24	2.24
4	2.24	2.24	2.24	1.30	1.14	1.37	.61	1.07	1.96	2.24	2.24	2.24
5	2.24	2.24	2.24	1.42	1.18	1.33	.85	.37	2.10	2.24	2.24	2.24
6	2.24	2.24	2.24	1.29	1.12	1.01	.75	.35	2.23	2.24	2.24	2.24
7	2.24	2.24	1.03	1.18	.90	1.29	.96	.68	2.24	2.24	2.24	2.24
8	2.24	2.24	.75	.81	1.05	1.24	.97	.86	2.24	2.24	2.24	2.24
9	2.22	2.24	1.06	.88	1.13	1.09	1.02	.95	2.24	2.24	2.24	2.24
10	2.11	2.24	.93	1.12	1.14	1.24	1.12	1.01	2.24	2.24	2.24	2.24
11	2.06	2.24	.93	1.10	1.06	1.24	1.23	1.08	2.24	2.24	2.24	2.24
12	2.03	2.24	.79	1.00	.91	1.29	1.36	1.09	2.24	1.99	2.24	2.24
13	2.01	2.24	.94	1.07	1.20	.33	1.34	.99	2.24	1.82	2.24	2.24
14	2.03	2.24	1.13	1.20	1.27	.44	1.10	1.10	2.24	1.82	2.24	2.24
15	2.08	2.24	1.21	1.23	1.23	.77	.83	1.17	2.24	1.90	2.24	2.24
16	2.16	2.24	1.20	1.24	1.21	.87	1.12	1.22	2.24	2.02	2.24	2.24
17	2.22	2.24	1.24	1.11	1.21	.93	1.26	1.25	2.24	2.14	2.24	2.24
18	2.24	2.24	1.29	1.01	1.22	1.03	1.32	1.00	2.24	2.24	2.24	2.24
19	2.17	2.24	1.28	1.18	1.28	1.10	1.27	1.17	2.24	2.24	2.24	2.24
20	2.13	2.24	1.31	1.20	1.36	.92	1.28	1.26	2.24	2.24	2.24	2.24
21	2.14	2.24	1.23	1.14	1.30	.88	1.29	1.26	2.24	2.24	2.24	2.24
22	2.21	2.24	1.21	.69	1.34	1.03	1.38	1.12	2.24	2.24	2.24	2.24
23	2.24	2.24	1.42	.86	1.27	1.06	1.47	1.17	2.24	2.24	2.24	2.24
24	2.24	2.24	1.46	1.06	1.34	1.10	1.06	1.30	2.24	2.24	2.24	2.24
25	2.24	2.24	1.54	1.13	1.31	1.18	.68	1.37	2.24	2.24	2.24	2.24
26	2.24	2.24	1.52	1.14	1.31	1.27	.23	1.34	2.24	2.24	2.24	2.24
27	2.24	2.24	1.38	1.11	1.03	1.28	.16	1.42	2.24	2.24	2.24	2.24
28	2.24	2.24	1.11	1.12	.99	1.27	.60	1.49	2.20	2.24	2.24	2.24
29	2.24	2.24	1.12	.45	---	1.07	.78	1.56	2.13	2.24	2.24	2.24
30	2.24	2.24	1.35	.68	---	1.08	.91	1.63	2.15	2.24	2.24	2.24
31	2.24	---	1.39	.67	---	.91	---	1.46	---	2.24	2.24	---

WTR YR 1999 HIGHEST -.13 MAY 5, 1999 LOWEST 2.24 MANY DAYS

MILLINGTON WETLAND

351856089511901. Local number, Sh:V-71 (W3-3).

LOCATION.--Lat 35°18'56", long 89°51'19", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.37 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.37	-.23	-.32	-.71	-1.05	-.80	-.89	-1.05	-.66	1.45	2.37	2.37
2	2.37	-.22	-.31	-.91	-.99	-.81	-.88	-1.01	-.62	1.72	2.37	2.37
3	2.37	-.20	-.30	-.94	-.96	-.77	-.88	-.98	-.58	1.98	2.37	2.37
4	2.37	-.18	-.33	-.87	-.90	-.80	-1.00	-.97	-.54	2.16	2.37	2.37
5	2.37	-.15	-.55	-.79	-.88	-.82	-.99	-1.13	-.50	2.35	2.37	2.37
6	2.37	-.12	-.57	-.80	-.86	-.80	-1.02	-1.45	-.47	2.37	2.37	2.37
7	-.19	-.09	-.88	-.84	-.88	-.78	-.99	-1.26	-.42	2.37	2.37	2.37
8	-.81	-.18	-1.01	-.87	-.85	-.84	-.97	-1.16	-.38	2.37	2.37	2.37
9	-.78	-.18	-.97	-.97	-.83	-.82	-.95	-1.09	-.34	2.37	2.37	2.37
10	-.74	-.27	-.95	-.94	-.83	-.81	-.91	-1.04	-.27	2.37	2.37	2.37
11	-.68	-.31	-.95	-.92	-.86	-.80	-.88	-1.00	-.22	2.35	2.37	2.37
12	-.60	-.29	-.96	-.92	-.87	-.80	-.85	-.97	-.13	-.10	2.37	2.37
13	-.54	-.29	-.94	-.85	-.84	-1.10	-.85	-.96	-.05	-.46	2.37	2.37
14	-.49	-.32	-.90	-.79	-.84	-1.25	-.86	-.93	.00	-.39	2.37	2.37
15	-.45	-.32	-.87	-.81	-.84	-1.16	-.90	-.92	.21	-.34	2.37	2.37
16	-.43	-.31	-.84	-.79	-.82	-1.09	-.89	-.90	.45	-.29	2.37	2.37
17	-.40	-.29	-.80	-.80	-.80	-1.02	-.87	-.87	.76	-.26	2.37	2.37
18	-.40	-.28	-.81	-.79	-.81	-.95	-.86	-.88	1.08	-.18	2.37	2.37
19	-.50	-.27	-.79	-.80	-.79	-.92	-.86	-.87	1.40	-.05	2.37	2.37
20	-.47	-.36	-.75	-.77	-.79	-.93	-.83	-.85	1.70	.13	2.37	2.37
21	-.44	-.37	-.78	-.79	-.78	-.94	-.85	-.84	1.95	.42	2.37	2.37
22	-.41	-.36	-.74	-.90	-.80	-.92	-.83	-.85	2.16	.81	2.37	2.37
23	-.38	-.35	-.72	-1.00	-.81	-.90	-.80	-.83	2.31	1.16	2.37	2.37
24	-.37	-.34	-.72	-.95	-.79	-.88	-.84	-.81	2.33	1.46	2.37	2.37
25	-.36	-.34	-.70	-.91	-.78	-.85	-1.12	-.79	2.37	1.70	2.37	2.37
26	-.34	-.33	-.71	-.89	-.79	-.84	-1.30	-.78	2.04	1.94	2.37	2.37
27	-.32	-.31	-.73	-.88	-.83	-.84	-1.47	-.76	.33	2.16	2.37	2.37
28	-.31	-.30	-.76	-.84	-.80	-.82	-1.29	-.74	.59	2.34	2.37	2.37
29	-.29	-.30	-.76	-1.01	---	-.85	-1.18	-.72	.91	2.37	2.37	2.37
30	-.28	-.31	-.73	-1.10	---	-.85	-1.10	-.67	1.19	2.37	2.37	2.37
31	-.26	---	-.73	-1.12	---	-.87	---	-.68	---	2.37	2.37	---

WTR YR 1999 HIGHEST -1.64 MAY 5, 1999 LOWEST 2.37 MANY DAYS

MILLINGTON WETLAND

351855089515301. Local number, Sh:V-74 (W2-5).

LOCATION.--Lat 35°18'55", long 89°51'53", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.12 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.12	2.12	2.12	2.03	.21	.49	.16	1.17	2.12	2.12	2.12	2.12
2	2.12	2.12	2.12	.98	.25	.54	.27	1.42	2.12	2.12	2.12	2.12
3	2.12	2.12	2.12	.48	.33	.48	.27	1.63	2.12	2.12	2.12	2.12
4	2.12	2.12	2.12	.65	.42	.68	.12	1.80	2.12	2.12	2.12	2.12
5	2.12	2.12	2.12	.95	.66	.74	.19	.90	2.12	2.12	2.12	2.12
6	2.12	2.12	2.12	1.09	.85	.25	.17	.27	2.12	2.12	2.12	2.12
7	2.12	2.12	2.06	1.07	.64	.38	.33	.52	2.12	2.12	2.12	2.12
8	2.12	2.12	1.96	.67	.35	.39	.39	.91	2.12	2.12	2.12	2.12
9	2.12	2.12	2.11	.18	.39	.20	.45	1.27	2.12	2.12	2.12	2.12
10	2.12	2.12	2.09	.37	.48	.34	.67	1.53	2.12	2.12	2.12	2.12
11	2.12	2.12	2.02	.45	.55	.34	.95	1.75	2.12	2.12	2.12	2.12
12	2.12	2.12	1.91	.42	.26	.41	1.26	1.94	2.12	2.12	2.12	2.12
13	2.12	2.12	1.81	.46	.33	.02	1.47	2.05	2.12	2.12	2.12	2.12
14	2.12	2.12	1.93	.61	.47	.04	1.53	2.07	2.12	2.12	2.12	2.12
15	2.12	2.12	2.06	.79	.63	.20	.77	2.12	2.12	2.12	2.12	2.12
16	2.12	2.12	2.12	.93	.78	.32	.63	2.12	2.12	2.12	2.12	2.12
17	2.12	2.12	2.12	.85	.81	.40	.83	2.12	2.12	2.12	2.12	2.12
18	2.12	2.12	2.12	.42	.92	.55	1.11	2.02	2.12	2.12	2.12	2.12
19	2.12	2.12	2.12	.43	1.03	.82	1.32	1.94	2.12	2.12	2.12	2.12
20	2.12	2.12	2.12	.45	1.19	.66	1.48	2.00	2.12	2.12	2.12	2.12
21	2.12	2.12	2.12	.50	1.26	.24	1.62	2.10	2.12	2.12	2.12	2.12
22	2.12	2.12	2.12	.10	1.23	.33	1.75	2.12	2.12	2.12	2.12	2.12
23	2.12	2.12	2.12	.09	1.26	.40	1.88	2.12	2.12	2.12	2.12	2.12
24	2.12	2.12	2.12	.30	1.33	.46	1.84	2.12	2.12	2.12	2.12	2.12
25	2.12	2.12	2.12	.41	1.41	.66	.80	2.12	2.12	2.12	2.12	2.12
26	2.12	2.12	2.12	.56	1.47	.95	.38	2.12	2.12	2.12	2.12	2.12
27	2.12	2.12	2.12	.68	1.36	1.16	.10	2.12	2.12	2.12	2.12	2.12
28	2.12	2.12	2.12	.78	.58	1.31	.34	2.12	2.12	2.12	2.12	2.12
29	2.12	2.12	2.07	.37	---	1.07	.53	2.12	2.12	2.12	2.12	2.12
30	2.12	2.12	2.02	.09	---	.64	.84	2.12	2.12	2.12	2.12	2.12
31	2.12	---	2.01	.05	---	.31	---	2.12	---	2.12	2.12	---

WTR YR 1999 HIGHEST -.08 MAY 5, 1999 LOWEST 2.12 MANY DAYS

MILLINGTON WETLAND

351852089512501. Local number, Sh:V-75 (W2-6).

LOCATION.--Lat 35°18'52", long 89°51'25", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 265 ft above sea level, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.10 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.10	2.10	2.10	2.10	-.05	.36	-.08	1.20	2.10	2.10	2.10	2.10
2	2.10	2.10	2.10	1.16	.02	.41	.00	1.50	2.10	2.10	2.10	2.10
3	2.10	2.10	2.10	.66	.15	.51	.03	1.73	2.10	2.10	2.10	2.10
4	2.10	2.10	2.10	1.09	.43	.79	-.11	1.90	2.10	2.10	2.10	2.10
5	2.10	2.10	2.10	1.39	.66	.70	-.08	.68	2.10	2.10	2.10	2.10
6	2.10	2.10	2.10	1.37	.62	.10	-.06	-.07	2.10	2.10	2.10	2.10
7	2.10	2.10	2.10	1.23	.15	.26	.11	.16	2.10	2.10	2.10	2.10
8	2.10	2.10	2.10	.59	.11	.23	.20	.78	2.10	2.10	2.10	2.10
9	2.10	2.10	2.10	.19	.24	.02	.43	1.29	2.10	2.10	2.10	2.10
10	2.10	2.10	2.10	.49	.29	.20	.83	1.56	2.10	2.10	2.10	2.10
11	2.10	2.10	2.10	.59	.30	.19	1.17	1.80	2.10	2.10	2.10	2.10
12	2.10	2.10	2.10	.45	-.01	.32	1.52	1.99	2.10	2.10	2.10	2.10
13	2.10	2.10	2.10	.57	.17	-.12	1.69	2.04	2.10	2.10	2.10	2.10
14	2.10	2.10	2.10	.85	.40	-.13	1.57	2.03	2.10	2.10	2.10	2.10
15	2.10	2.10	2.10	.89	.50	-.02	.23	2.10	2.10	2.10	2.10	2.10
16	2.10	2.10	2.10	.94	.53	.09	.52	2.10	2.10	2.10	2.10	2.10
17	2.10	2.10	2.10	.67	.51	.23	.97	2.10	2.10	2.10	2.10	2.10
18	2.10	2.10	2.10	.28	.61	.48	1.29	2.10	2.10	2.10	2.10	2.10
19	2.10	2.10	2.10	.40	.79	.71	1.43	2.10	2.10	2.10	2.10	2.10
20	2.10	2.10	2.10	.49	1.06	.36	1.60	2.10	2.10	2.10	2.10	2.10
21	2.10	2.10	2.10	.42	.81	-.06	1.77	2.10	2.10	2.10	2.10	2.10
22	2.10	2.10	2.10	.11	.86	.09	1.92	2.10	2.10	2.10	2.10	2.10
23	2.10	2.10	2.10	-.06	.86	.19	2.06	2.10	2.10	2.10	2.10	2.10
24	2.10	2.10	2.10	.17	1.11	.26	1.97	2.10	2.10	2.10	2.10	2.10
25	2.10	2.10	2.10	.37	1.13	.52	.46	2.10	2.10	2.10	2.10	2.10
26	2.10	2.10	2.10	.51	1.21	.86	.13	2.10	2.10	2.10	2.10	2.10
27	2.10	2.10	2.10	.52	.49	1.07	-.12	2.10	2.10	2.10	2.10	2.10
28	2.10	2.10	2.10	.58	.13	1.20	.02	2.10	2.10	2.10	2.10	2.10
29	2.10	2.10	2.10	.00	---	.54	.32	2.10	2.10	2.10	2.10	2.10
30	2.10	2.10	2.10	-.14	---	.21	.73	2.10	2.10	2.10	2.10	2.10
31	2.10	---	2.10	-.13	---	.00	---	2.10	---	2.10	2.10	---

WTR YEAR 1999 HIGHEST -0.22 MAR 13, 1999 LOWEST 2.10 MANY DAYS

HAMILTON COUNTY

351428085003600. Local number, Hm:O-15.

LOCATION.--Lat 35°14'28", long 85°00'36", Hydrologic Unit 06020001, at Smith Road and State Highway 58, near Snow Hill.

Owner: Savannah Valley Utility District.

AQUIFER.--Knox Dolomite of Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 10 in., depth 262 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 735 ft above sea level, from topographic map. Measuring point: Instrument shelf, 5.66 ft above land-surface datum.

REMARKS.--Records good. Well previously published as "at Savannah Valley". Water level affected by pumping from municipal supply well 300 ft south. Negative values indicate water levels above land-surface.

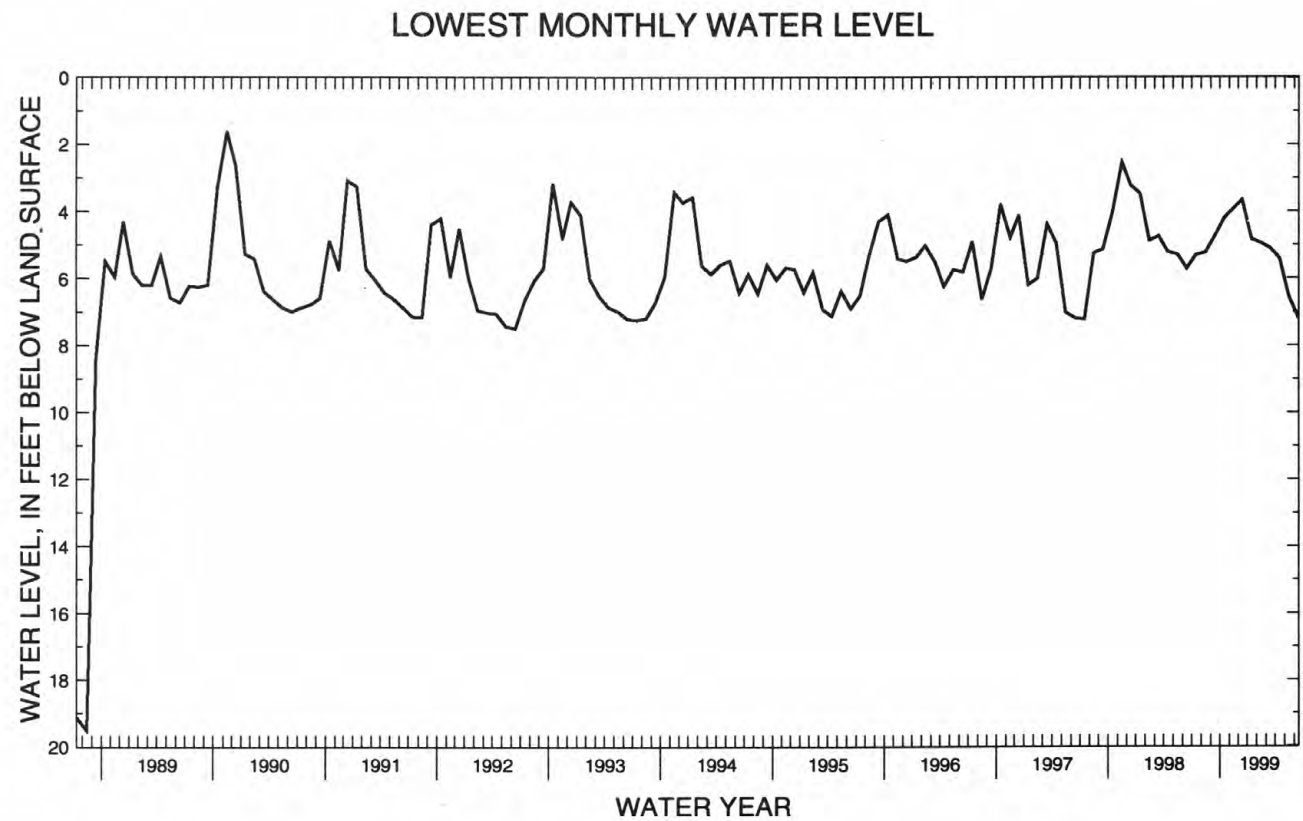
PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.33 ft above land-surface datum, Feb. 11, 1994; lowest, 22.45 ft below land-surface datum, Sept. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.06	5.12	---	3.94	-.76	-.35	3.96	2.11	4.65	4.93	5.38	6.25
10	---	5.23	---	1.71	.18	.48	3.58	-.27	5.02	4.91	5.26	6.59
15	---	---	---	.00	2.35	-.38	4.13	1.99	4.98	5.07	5.82	6.62
20	---	---	---	.11	2.87	.86	4.60	3.79	4.96	5.38	6.20	6.80
25	---	---	2.15	-.81	3.72	2.46	4.83	4.27	4.97	5.02	6.12	6.58
EOM	5.16	---	3.42	.24	2.85	3.66	1.15	4.94	4.86	4.99	6.55	6.83

WTR YR 1999 HIGHEST -2.97 FEB 1, 1999 LOWEST 7.21 SEPT 28, 1999



LAUDERDALE COUNTY

353839089493500. Local number, Ld:F-4.

LOCATION.--Lat 35°38'39", long 89°49'35", Hydrologic Unit 08010208, 1.1 mi north of State Highway 87 off Crutcher Lake Rd, at Fort Pillow State Park.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 to 6 to 3 in., depth 879 ft, cased to 869 ft, screened 869 to 879 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 437.05 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--No missing records.

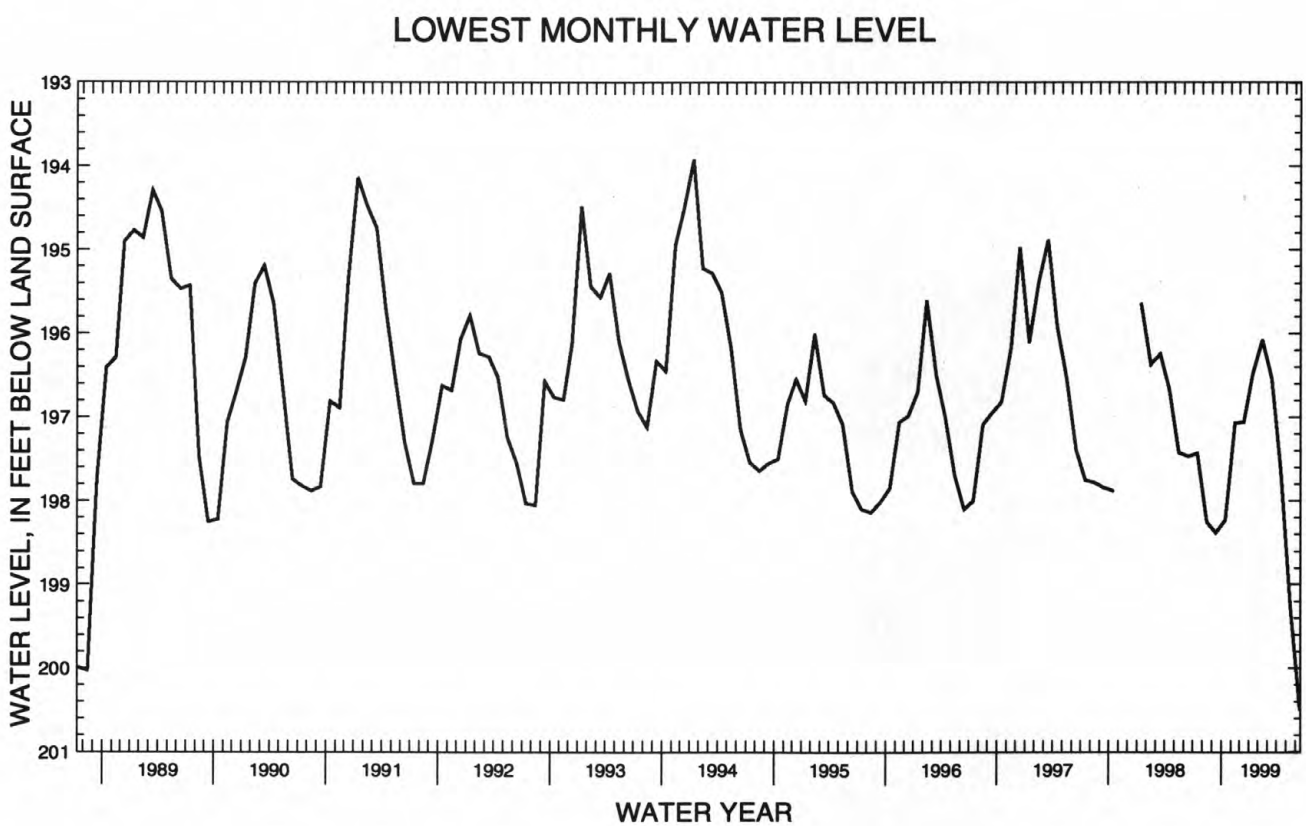
PERIOD OF RECORD.--April 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 187.76 ft below land-surface datum, Apr. 7, 1975; lowest, 200.50 ft below land-surface datum, Sept. 30, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	196.29	197.87	198.34	198.23	194.61	197.04	196.42	195.31	196.15	196.66	197.89	199.45
10	196.47	197.91	198.37	198.06	194.84	196.54	196.29	195.26	196.21	196.62	198.05	199.69
15	196.38	197.94	198.24	197.91	196.08	195.77	196.15	195.33	196.27	196.85	198.36	199.96
20	196.83	197.96	198.09	197.45	196.76	195.76	196.13	195.89	196.44	197.11	198.63	200.10
25	197.19	198.09	198.18	196.83	197.06	195.85	195.85	195.99	196.53	197.34	198.91	200.30
EOM	197.43	198.25	198.12	195.02	196.95	196.33	195.63	196.05	196.51	197.64	199.26	200.50

WTR YR 1999 HIGHEST 194.30 FEB 7, 1999 LOWEST 200.50 SEPT 30, 1999



LINCOLN COUNTY

350034086422800. Local number, Li:G-1.

LOCATION.--Lat 35°00'34", long 86°42'28", Hydrologic Unit 06030002, on west side of Pepper Road at Taft well field, 0.8 mi south of State Highway 110, at Taft.
Owner: Lincoln Count Board of Public Utilities.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 106.5 ft, cased to 106.5 ft, slotted from 53 to 87 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Altitude of land-surface datum is 904.00. Measuring point: Top of casing 2.10 ft above land-surface datum.

REMARKS.--Records good. Missing record Oct. 27-29. Water levels affected by pumpage from Taft Well field for municipal water supply.

PERIOD OF RECORD.--April 1992 to Sept. 1992, Oct. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.56 ft below land-surface datum, Mar. 11, 1999; lowest, 56.53 ft below land-surface datum, Sept. 7, 8, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.75	33.48	31.79	28.89	21.08	15.74	20.02	19.37	18.48	21.68	24.34	28.52
10	34.14	31.93	32.03	27.33	20.17	14.64	19.62	18.95	18.98	21.90	25.66	27.46
15	34.73	31.39	31.47	25.15	20.20	17.90	19.68	19.82	18.25	22.04	25.95	26.03
20	34.83	31.89	30.99	23.36	19.71	18.59	20.30	20.87	19.81	22.18	26.40	27.74
25	33.28	31.64	30.42	22.14	18.52	19.37	20.01	20.51	19.70	22.48	26.80	28.53
EOM	32.47	31.80	31.82	21.70	16.67	20.05	19.72	18.40	20.06	23.03	28.31	28.34

WTR YR 1999 HIGHEST 13.56 MAR 11, 1999 LOWEST 35.13 OCT 19, 1998

353922083345600. Local number, Sv:E-2.

LOCATION.--Lat 35°39'22", long 83°34'56", Hydrologic Unit 06010201, 3.3 mi southwest of Great Smoky Mountains National Park Headquarters, near Gatlinburg.

AQUIFER.--Elkmont Sandstone of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water-table well in phyllite, sandstone, diameter 6 in., depth 220 ft, cased to 27 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface is 2,150 ft above sea level, from topographic map. Measuring point: Floor of recorder shelter 1.5 ft above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface inflow. Records good.

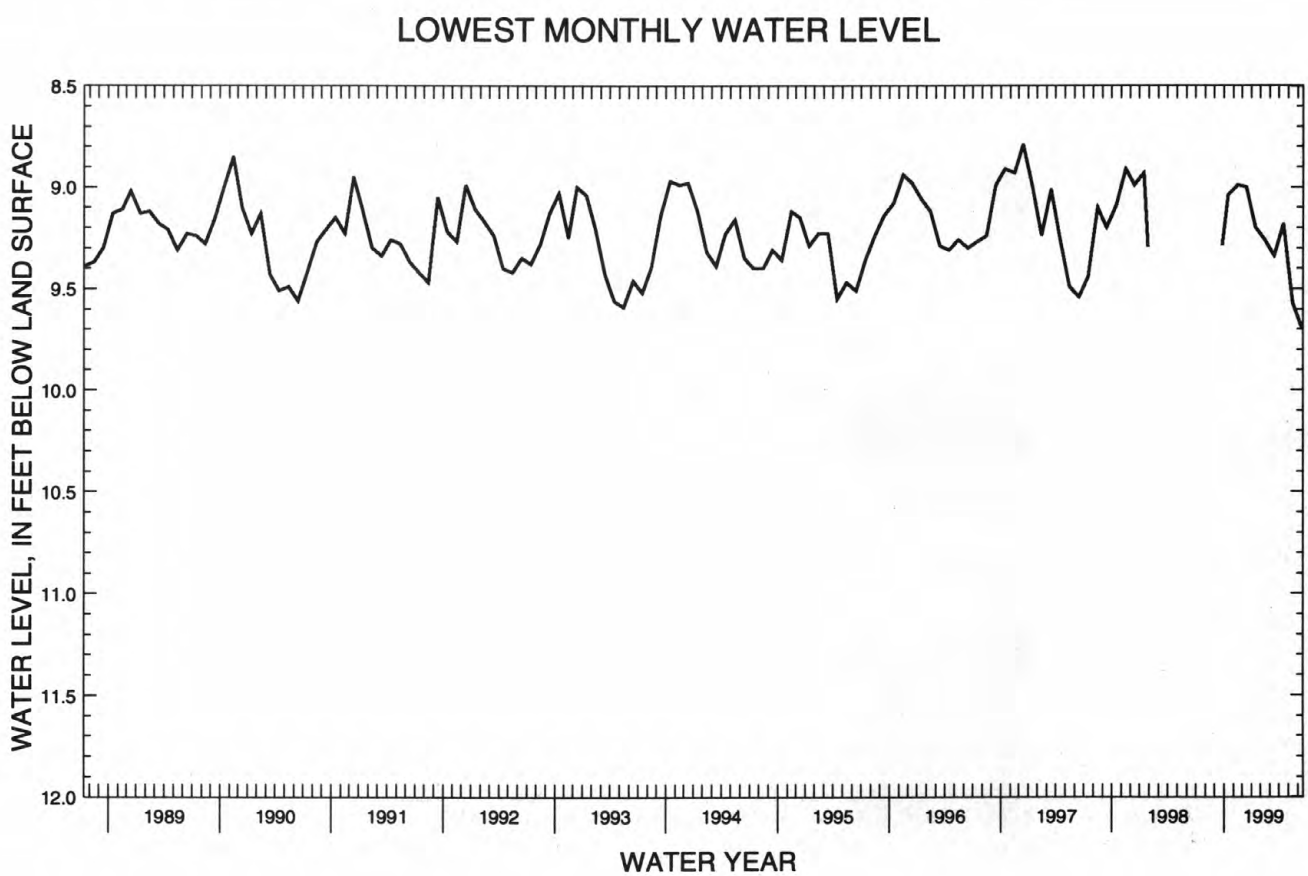
PERIOD OF RECORD.--May 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 27, 1994; lowest, 11.66 ft below land-surface datum, Oct. 18, 19, 20, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.63	---	9.44	8.78	8.70	8.42	8.87	9.20	9.30	8.94	9.29	9.62
10	9.19	---	9.03	8.57	8.56	8.76	8.99	8.54	9.28	9.15	9.37	9.62
15	---	---	8.80	8.04	8.85	8.49	9.10	8.89	9.34	8.65	9.45	9.66
20	---	---	9.07	8.68	8.48	8.77	9.13	9.07	9.04	8.95	9.51	9.70
25	---	9.40	8.33	8.37	8.92	8.91	9.20	9.17	9.11	8.87	9.50	9.62
EOM	---	9.40	8.98	8.88	8.98	9.00	9.10	9.26	9.28	9.18	9.57	8.91

WTR YR 1999 HIGHEST 7.13 MAY 6, 1999 LOWEST 11.66 OCT 18, 19, 20, 1998



SHELBY COUNTY

350857089591401. Local number, Sh: P-99.

LOCATION.--Lat 35°08'57", long 89°59'14", Hydrologic Unit 08010210, access road off North Parkway, 0.2 mi south of North Parkway, in Overton Park.
Owner: USGS and Memphis Park Commission.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in., depth 59 ft, cased to 53 ft, screened 53 to 59 ft.

INSTRUMENTATION.--Water level recorder--60 minute punch.

DATUM.--Elevation of land-surface datum is 271.06 ft above sea level. Measuring point: Top of casing, 2.50 ft above land-surface datum.

REMARKS.--No missing record.

PERIOD OF RECORD.--July 1968 to current year.

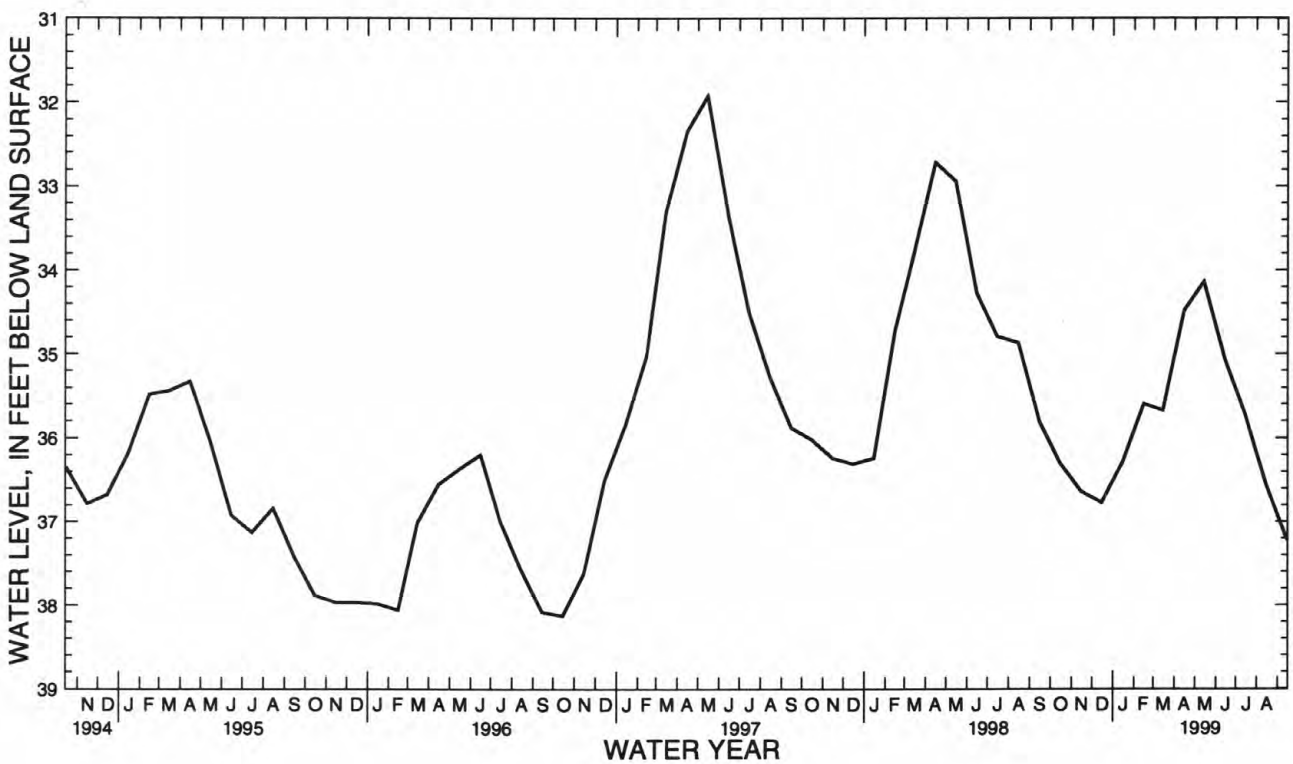
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.27 ft below land-surface datum, April 30, 1991; lowest 42.58 ft below land-surface datum, November 15, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.91	36.41	36.51	36.28	35.49	35.44	34.25	33.29	34.35	35.32	35.90	36.66
10	35.91	36.42	36.63	36.06	35.29	35.31	33.92	33.09	34.53	35.38	36.00	36.84
15	35.97	36.35	36.31	35.95	35.31	34.77	34.12	33.48	34.77	35.33	36.29	36.92
20	36.16	36.60	36.26	35.87	35.41	34.53	34.22	33.75	34.96	35.42	36.31	36.96
25	36.12	36.45	36.31	35.96	35.38	34.50	34.44	33.87	35.04	35.54	36.33	37.07
EOM	36.29	36.64	36.21	35.44	35.35	34.44	33.55	34.09	35.07	35.73	36.56	37.22

WTR YR 1999 HIGHEST 33.02 MAY 7, 1999 LOWEST 37.22 SEPT 30, 1999

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

350900089482300. Local number, Sh:Q-1.

LOCATION.--Lat 35°09'00", long 89°48'23", Hydrologic Unit 08010210, south of Macon Road, 0.6 mi west of Germantown Road, near Memphis.

Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 384 ft, cased to 375 ft, screened 375 to 384 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 330.40 ft above sea level. Measuring point: Top of casing, 2.40 ft above land- surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area. Missing record from July 5 to July 28, records good.

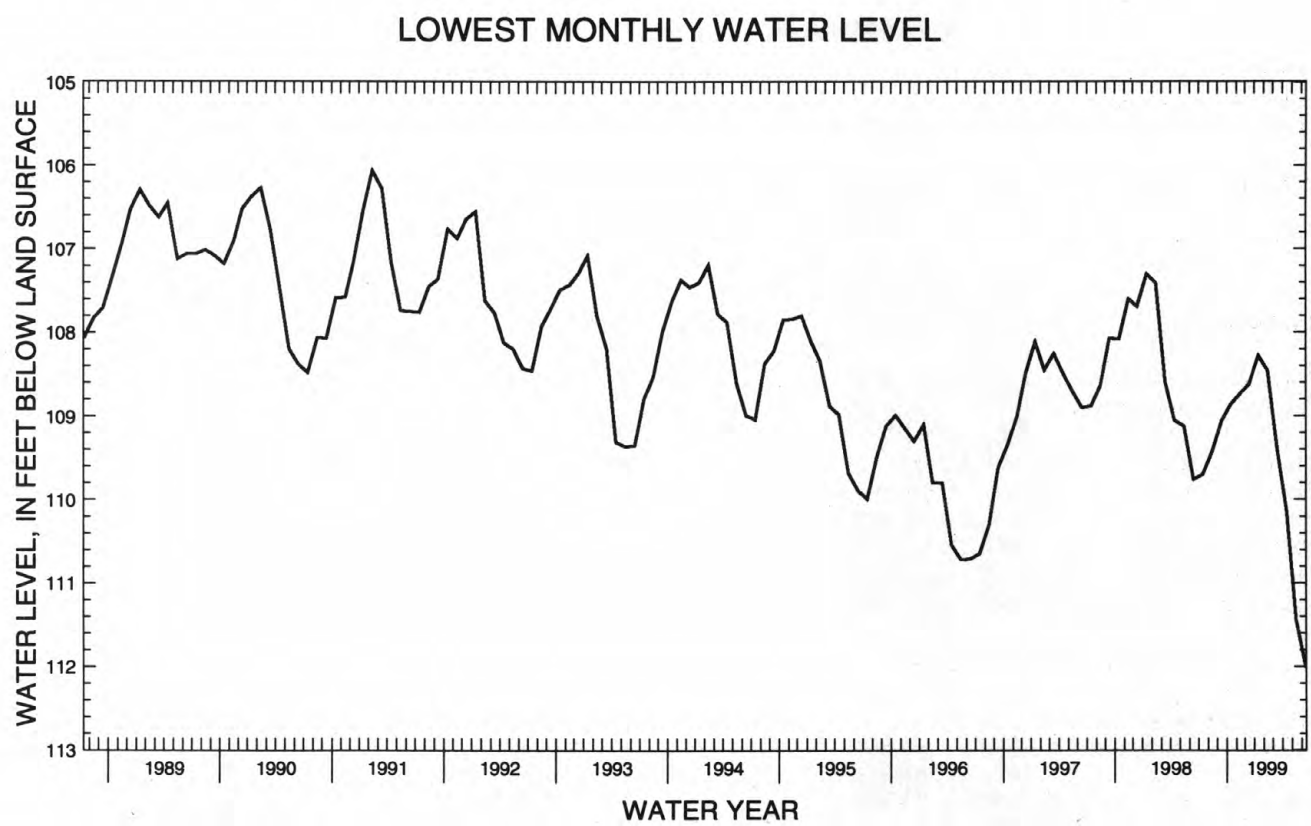
PERIOD OF RECORD.--October 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft below land-surface datum, Dec. 27, 1940; lowest 112.01 ft below land-surface datum, Sept. 10, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	109.55	109.30	108.97	108.86	108.67	108.44	108.03	107.95	108.71	---	110.38	111.40
10	109.41	109.06	108.97	108.67	108.46	108.29	107.90	108.08	109.05	---	110.58	112.01
15	109.38	109.03	108.80	108.65	108.61	108.22	107.88	108.20	109.18	---	111.04	111.92
20	109.38	109.10	108.69	108.59	108.38	108.32	108.08	108.34	109.36	---	111.26	111.74
25	109.27	109.02	108.79	108.83	108.40	108.21	108.28	108.32	109.40	---	111.22	111.75
EOM	109.24	109.02	108.67	108.49	108.23	108.20	108.18	108.43	109.38	110.14	111.45	111.93

WTR YR 1999 HIGHEST 107.73 APR 15, 1999 LOWEST 112.01 SEPT 10, 1999



FAYETTE COUNTY

352226089330101. Local number, Fa:R-1.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.2 mi southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in., depth 1,025 ft, cased to 1,008 ft, screened 1,008 to 1,025 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 317.50 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1949 to current year. Analog record August 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 64.89 ft below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft below land-surface datum, Apr. 28, 1976; lowest measured, 91.97 ft below land-surface datum, Sep. 30, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	91.14	DEC 01	91.59	JAN 06	91.11	FEB 05	90.78	MAR 01	90.52	MAR 30	90.30
APR 29	89.97	MAY 27	89.98	JUN 30	90.01	JUL 30	90.54	SEP 03	91.31	SEP 30	91.97

352226089330102. Local number, Fa:R-2.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.1 mi southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in., depth 365 ft, cased to 345 ft, screened 345 to 365 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 317.20 ft above sea level. Measuring point: Top of casing, 4.20 ft above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year. Analog record October 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 37.25 ft below land-surface datum, Mar. 10, 1952; lowest recorded, 42.12 ft below land-surface datum, Nov. 30, 1967; highest water level measured, 39.00 ft below land-surface datum, March 03, 1998; lowest measured, 41.75 ft below land-surface datum, Oct. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	39.36	DEC 01	39.69	JAN 06	39.64	FEB 05	39.43	MAR 01	39.13	MAR 30	39.12
APR 29	38.84	MAY 27	38.91	JUN 30	39.08	JUL 30	39.44	SEP 03	39.84	SEP 30	40.13

SHELBY COUNTY

350514089553700. Local number, Sh:K-75.

LOCATION.--Lat 35°05'14", long 89°55'37", Hydrologic Unit 08010211, at Willowview Avenue and Getwell Road, at Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Fluvial sand and gravel of Pleistocene age and possibly sand of Eocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in., depth 91 ft, cased to 81 ft, screened 81 to 91 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 260 ft above sea level, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--August 1948 to September 1994 water-level recorder, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.28 ft below land-surface datum, Apr. 2, 1950; lowest recorded, 52.03 ft below land-surface datum, Jan. 13, 1988; highest water level measured, 45.73 ft below land surface-datum, Jul 06, 1998; lowest measured, 49.08 ft below land-surface datum, Jan. 02, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	46.15	DEC 03	46.25	JAN 08	46.33	FEB 04	46.63	MAR 04	46.57	APR 05	46.62
MAY 04	46.57	MAY 27	46.70	JUN 29	46.70	JUL 29	46.80	SEP 03	46.98	SEP 30	47.09

351435090005200. Local number, Sh:O-1.

LOCATION.--Lat 35°14'35", long 90°00'52", Hydrologic Unit 08010209, west side of O.K. Robertson Road, 0.4 mi north of U.S. Highway 51, at Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 434 ft, cased to 424 ft, screened 424 to 434 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 228.70 ft above sea level. Measuring point: Top of casing, 4.30 ft above land- surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--September 1940 to current year. Analog record September 1940 to January 1992, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.65 ft below land-surface datum, Sept. 3, 1940; lowest recorded, 68.82 ft below land-surface datum, Aug. 24, 1988; highest water level measured, 50.16 ft below land-surface datum, Mar. 29, 1994; lowest measured, 63.03 ft below land-surface datum, Sept. 25, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	57.90	DEC 02	57.09	JAN 06	55.91	FEB 05	53.40	MAR 02	53.99	APR 01	52.96
MAY 03	52.92	JUN 02	53.33	JUN 30	56.38	JUL 28	58.41	SEP 02	61.75	SEP 30	62.85

SHELBY COUNTY--Continued

50735089593300. Local number, Sh: P-76.

LOCATION.--Lat. 35°07'35",long 89°59'33", Hydrologic Unit 08010210, at Central Avenue and Tanglewood Street, at Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

INSTRUMENTATION.--Peridoic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 286.70 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--October 1928 to current year. Analog record October 1928 to September 1997, periodic measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft below land-surface datum, Apr. 3, 1933: lowest, 147.31 ft below land-surface datum, June 30, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL	WATER DATE	LEVEL	WATER DATE	LEVEL	WATER DATE	LEVEL	WATER DATE	LEVEL	WATER DATE	LEVEL
NOV 04	108.70	DEC 02	111.92	JAN 07	111.64	FEB 04	101.70	MAR 03	111.98	APR 05	108.76
MAY 03	109.54	MAY 27	110.75	JUL 01	114.92	JUL 29	117.42	SEP 03	106.90	SEP 30	106.41

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake. Rag Road, Sloanville. Owner: Mrs. T.S. Welch

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 16 in., depth 1,558 ft, cased to 1,497 ft, screened 1,497 to 1,558 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 264.20 ft above sea level. Measuring point: Top of casing, 0.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--August 1946 to current year. Analog record March 1948 to January 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.5 ft below land-surface datum, Apr. 11, 1948; lowest recorded, 60.42 ft below land-surface datum, Dec. 20, 1970; highest water level measured, 33.20 ft, Apr. 21, 1947; lowest measured, 88.94 ft below land-surface datum, Sept. 30, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	86.75	DEC 02	86.55	JAN 06	85.95	FEB 05	85.65	MAR 02	84.67	APR 01	84.37
MAY 03	83.84	JUN 02	84.27	JUN 30	85.30	JUL 28	86.36	SEP 02	88.29	SEP 30	88.94

SHELBY COUNTY--Continued

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville. Owner: Mrs. F.E. Byrd

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in., depth 440 ft, cased to 360 ft, screened 360 to 440 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 268.76 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--June 1953 to current year. Analog record June 1953 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.59 ft below land-surface datum, June 29, 1953; lowest, 63.74 ft below land-surface datum, Sept. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	58.48	DEC 02	58.21	JAN 06	57.92	FEB 05	56.84	MAR 02	56.26	APR 01	55.96
MAY 03	55.69	JUN 02	55.79	JUN 30	56.71	JUL 28	57.94	SEP 02	59.68	SEP 30	61.03

CRITTENDEN COUNTY, AR

350344090130000. Local number, Ar:H-2.

LOCATION.--Lat 35°03'44", long 90°13'00", Hydrologic Unit 08020203, 0.7 mi east of Millers. Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 502 ft, cased to 482 ft, screened 482 to 502 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 211 ft above sea level, from topographic map. Measuring point: Inside top of shelter base plate, 3.30 ft above land-surface datum.

REMARKS.--Well affected by pumpage in the Memphis, Tennessee area. Records good.

PERIOD OF RECORD.--May 1983 to current year. Analog record from May 1983 to October 1995, periodic measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.28 ft below land-surface datum, May 30, 31, 1983; lowest, 31.71 ft below land-surface datum, September 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	28.15	DEC 02	27.68	JAN 07	27.16	FEB 04	24.41	MAR 02	25.12	APR 05	24.31
MAY 04	22.58	MAY 26	22.91	JUL 01	24.51	JUL 29	26.56	SEP 03	26.89	SEP 30	30.42

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM

The following wells located in the Upper Tennessee River basin were sampled as part of the U.S. Geological Survey's National Water-Quality Assessment Program to characterize water quality of major aquifers and to assess the occurrence and distribution of nutrients, pesticides, and volatile organic compounds in ground water.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

ANDERSON COUNTY

361255083592301 - UTEN98-7

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
JAN 20...	1300	90.0	100.00	563	7.0	11.0	736	.27	.2	2	<1	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JAN 20...	290	27	53	39	6.7	5	.2	3.6	0	325	266

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JAN 20...	56	30	12	<.10	.11	13	330	320	.45	<.010	<.050

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
JAN 20...	.108	.11	.015	<.010	1700	276	689	26	.70	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
JAN 20...	<.130	<.100	<.180	<.052	E.023	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
JAN 20...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

ANDERSON COUNTY

361255083592301 - UTEN98-7

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 20...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JAN 20...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN 20...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JAN 20...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JAN 20...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

BRADLEY COUNTY

351517084420501 - UTEN98-3

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
JAN 27...	1100	155	165.00	276	7.5	17.0	753	.14	7.9	83	<1	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JAN 27...	140	5	37	12	1.3	2	.0	1.1	0	166	136

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JAN 27...	8.9	.40	1.9	<.10	.039	8.1	152	156	.21	<.010	2.80

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
JAN 27...	<.020	<.10	<.004	<.010	<10	<3.0	85	17	<.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
JAN 27...	<.130	<.100	<.180	<.052	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
JAN 27...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

BRADLEY COUNTY

351517084420501 - UTEN98-3

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 27...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	.047

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JAN 27...	<.0020	<.0020	<.0040	<.0040	E.0667	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN 27...	.016	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JAN 27...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JAN 27...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CAMPBELL COUNTY

362009084033401 - UTEN98-6

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
OCT 22...	1200	330	350.00	274	7.3	15.0	740	1.7	7.6	78	<1	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 22...	150	7	29	17	.90	1	.0	.69	0	168	138

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 22...	14	3.1	1.8	.15	.021	7.8	161	149	.22	<.010	1.11

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
OCT 22...	<.020	<.10	.010	<.010	<10	<3.0	359	21	.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
OCT 22...	<.130	<.100	<.180	<.052	<.050	E.020	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
OCT 22...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CAMPBELL COUNTY

362009084033401 - UTEN98-6

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 22...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	E.010	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT 22...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT 22...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 22...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 22...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CARTER COUNTY

361726082181801 - UTEN98-24

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
DEC 01...	1400	84.0	141.00	382	7.3	14.0	731	1.2	5.4	54	2	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 01...	200	13	64	8.6	2.3	2	.1	2.0	0	222	182

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
DEC 01...	20	4.1	3.9	.14	.025	8.8	216	208	.29	<.010	1.14

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
DEC 01...	.027	<.10	<.050	<.010	34	E3.9	262	19	.20	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
DEC 01...	<.130	<.100	<.180	E.031	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
DEC 01...	<.380	E.005	<.090	<.066	<.044	E.010	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CARTER COUNTY

361726082181801 - UTEN98-24

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC 01...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	.006

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
DEC 01...	<.0020	<.0020	<.0040	<.0040	E.0142	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
DEC 01...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
DEC 01...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
DEC 01...	<.0050	<.0020	<.0030	<.0040	<.0130	E.0046	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CLAIBORNE COUNTY

362426083344301 - UTEN98-15

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
NOV 24...	1400	470	492.00	363	7.4	15.0	735	1.7	7.7	79	<1	22

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLVFLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 24...	190	18	40	23	.62	1	.0	1.3	0	214	175

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
NOV 24...	15	8.5	1.5	.13	.024	7.9	207	194	.28	<.010	1.41

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
NOV 24...	.025	<.10	<.050	<.010	<10	<3.0	649	25	.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
NOV 24...	<.130	<.100	<.180	<.052	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
NOV 24...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	E.070	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CLAIBORNE COUNTY

362426083344301 - UTEN98-15

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV 24...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
NOV 24...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
NOV 24...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 24...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV 24...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CLAIBORNE COUNTY

362828083345001 - UTEN98-16

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
OCT 29...	1200	415	435.00	349	7.2	17.0	724	.64	4.2	46	<1	1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 29...	180	14	36	21	1.2	1	.0	.83	0	198	162

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 29...	21	5.7	3.9	<.10	.029	8.1	191	182	.26	<.010	1.68

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
OCT 29...	.041	<.10	<.050	<.010	<10	<4.0	1381	35	.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
OCT 29...	<.130	<.100	<.180	E.082	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
OCT 29...	<.380	E.072	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

CLAIBORNE COUNTY

362828083345001 - UTEN98-16

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 29...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	.007

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT 29...	<.0020	<.0020	<.0040	<.0040	E.0074	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT 29...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 29...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 29...	<.0050	<.0020	<.0030	<.0040	<.0130	.0890	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

GRAINGER COUNTY

361750083211101 - UTEN98-20

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
FEB 04...	1200	220	345.00	529	6.8	18.0	732	.16	7.2	80	<1	K5

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
FEB 04...	290	13	59	35	2.3	2	.1	1.6	0	337	276

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
FEB 04...	86	3.3	3.1	<.10	.028	11	292	284	.40	<.010	.914

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
FEB 04...	<.020	<.10	<.004	.011	<10	<3.0	752	28	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
FEB 04...	<.130	<.100	<.180	<.052	E.014	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
FEB 04...	<.380	<.100	<.090	<.066	<.044	E.010	<.064	<.130	<.048	<.068	<.032

E--Estimated
K--Results based on non-ideal colony count.

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

GRAINGER COUNTY

361750083211101 - UTEN98-20

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
FEB 04...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
FEB 04...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
FEB 04...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
FEB 04...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
FEB 04...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

HAMBLEN COUNTY

361019083133601 - UTEN98-21

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
NOV 03...	1400	90.0	500.00	627	6.5	17.0	729	.46	5.1	55	<1	1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 03...	320	26	72	34	3.4	2	.1	7.8	0	356	292

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
NOV 03...	182	16	7.5	<.10	.052	9.7	359	357	.49	<.010	7.34

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
NOV 03...	<.020	<.10	<.050	<.010	<10	<4.0	818	28	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
NOV 03...	<.130	<.100	<.180	E.086	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
NOV 03...	<.380	<.100	E.014	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

HAMBLEN COUNTY

361019083133601 - UTEN98-21

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV 03...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	.008

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
NOV 03...	<.0020	<.0020	<.0040	<.0040	E.0079	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
NOV 03...	<.002	<.0060	<.004	<.0070	.0242	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 03...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV 03...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

HAWKINS COUNTY

362834082590701 - UTEN98-19

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
DEC 15...	1400	110	130.00	622	6.8	16.0	740	10	1.9	20	<1

DATE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 15...	<1	310	97	17	13	8	.3	3.0	0	398	326

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
DEC 15...	96	21	5.6	.20	.063	24	391	378	.53	<.010	<.050

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
DEC 15...	.535	.52	<.050	.010	170	29	268	23	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
DEC 15...	<.130	<.100	<.180	.454	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
DEC 15...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

HAWKINS COUNTY

362834082590701 - UTEN98-19

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC 15...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
DEC 15...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
DEC 15...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
DEC 15...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
DEC 15...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

MCMINN COUNTY

352856084295001 - UTEN98-11

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
JAN 11...	1300	385	405.00	369	7.0	12.5	743	.97	4.9	47	<1	K2

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JAN 11...	200	6	41	23	1.2	1	.0	1.6	0	232	190

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JAN 11...	38	13	5.4	.21	.047	8.3	219	207	.30	.017	<.050

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
JAN 11...	.029	<.10	<.004	<.010	<10	5.0	1439	35	.20	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
JAN 11...	<.130	<.100	<.180	<.052	E.020	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
JAN 11...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

MCMINN COUNTY

352856084295001 - UTEN98-11

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 11...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JAN 11...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN 11...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JAN 11...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JAN 11...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

MONROE COUNTY

353446084125701 - UTEN98-10

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
NOV 12...	1400	80.0	128.00	255	6.6	18.0	752	320	6.1	65	<1	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)
NOV 12...	130	0	27	16	1.6	3	.1	1.5	0	163	134	70

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
NOV 12...	.56	1.3	<.10	.025	8.7	148	142	.20	1.07	.018	1.09

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
NOV 12...	.050	<.10	<.050	.014	62	184	865	28	<.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
NOV 12...	<.130	<.100	<.180	<.052	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
NOV 12...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

MONROE COUNTY

353446084125701 - UTEN98-10

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV 12...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
NOV 12...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
NOV 12...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 12...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV 12...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

RHEA COUNTY

352550085024701 - UTEN98-04

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
JAN 25...	1400	190	200.00	131	6.6	19.5	752	1.9	6.6	73	<1	44

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLVFLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)
JAN 25...	69	2	14	8.4	.56	2	.0	.28	0	82	67	34

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JAN 25...	1.1	1.3	<.10	.019	7.0	75	75	.10	.409	.019	.428

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
JAN 25...	<.020	<.10	<.004	<.010	64	4.6	1191	33	.20	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
JAN 25...	<.130	<.100	<.180	<.052	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
JAN 25...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

RHEA COUNTY

352550085024701 - UTEN98-04

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 25...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JAN 25...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN 25...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JAN 25...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JAN 25...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

RHEA COUNTY

353921084532001 - UTEN98-5

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
JAN 19...	1300	165	175.00	143	7.0	15.5	748	3.5	2.8	29	87

DATE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JAN 19...	110	74	25	2.8	2.4	6	.1	.69	0	98	80

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JAN 19...	15	2.2	1.3	<.10	.021	9.0	97	94	.13	<.010	.442

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
JAN 19...	.020	<.10	<.004	<.010	42	8.0	916	29	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
JAN 19...	<.130	<.100	<.180	<.052	E.034	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
JAN 19...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

RHEA COUNTY

353921084532001 - UTEN98-5

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JAN 19...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JAN 19...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN 19...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JAN 19...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JAN 19...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

ROANE COUNTY

355038084304501 - UTEN98-9

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
OCT 26...	1200	139	159.00	699	7.1	18.0	752	.35	.1	1	<1

DATE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 26...	<1	160	51	8.8	101	57	3	3.1	0	445	365

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 26...	55	22	6.8	.66	.031	11	427	424	.58	<.010	.090

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
OCT 26...	.360	.38	<.050	.012	130	8.9	172	18	1.0	<.192	<.352

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
OCT 26...	<.520	<.400	<.720	E.043	<.200	<.400	<.112	<.480	<.120	<.600	<1.00

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
OCT 26...	<1.52	<.400	<.360	<.264	<.176	<.128	<.256	<.520	<.192	<.272	<.128

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

ROANE COUNTY

355038084304501 - UTEN98-9

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 26...	<.216	<.200	<.560	<.520	<.360	<.440	<.152	<.168	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT 26...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT 26...	<.002	<.0060	<.004	<.0070	E.0054	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 26...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 26...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SEVIER COUNTY

355505083412401 - UTEN98-12

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
DEC 09...	1500	370	390.00	484	7.1	12.5	746	2.2	2.0	19	<1	K18

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 09...	250	1	58	25	1.7	1	.0	2.1	0	300	246

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
DEC 09...	33	13	2.9	.23	.031	10	282	267	.38	<.010	1.45

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
DEC 09...	<.020	<.10	<.050	.011	<10	<3.0	223	19	.10	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
DEC 09...	<.130	<.100	<.180	E.012	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
DEC 09...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated
K--Results based on non-ideal colony count.

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SEVIER COUNTY

355505083412401 - UTEN98-12

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC 09...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
DEC 09...	<.0020	<.0020	<.0040	<.0040	E.0038	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
DEC 09...	<.002	<.0060	<.004	<.0070	E.0016	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
DEC 09...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
DEC 09...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SEVIER COUNTY

355021083305101 - UTEN98-22

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
OCT 21...	1200	200	225.00	408	6.8	15.5	742	2.4	4.5	46	<1	1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 21...	220	4	48	24	.78	1	.0	1.7	0	260	213

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 21...	73	2.5	1.8	<.10	.026	9.5	208	218	.28	<.010	.544

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
OCT 21...	<.020	<.10	<.050	.010	<10	E2.2	865	29	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
OCT 21...	<.130	<.100	<.180	E.008	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLOROWAT UNF REC (UG/L) (34516)	BENZENE O-DICHLOROWATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
OCT 21...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SEVIER COUNTY

355021083305101 - UTEN98-22

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 21...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	E.014	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT 21...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT 21...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 21...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 21...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SULLIVAN COUNTY

363335082044301 - UTEN98-26

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
NOV 05...	1200	200	225.00	470	6.9	15.0	717	1.6	4.3	46	1200	1600

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 05...	240	14	56	25	1.0	1	.0	1.6	0	279	232

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
NOV 05...	58	23	.96	.54	.024	11	278	258	.38	<.010	.246

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
NOV 05...	.021	<.10	<.050	<.010	E8.1	<3.0	344	21	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
NOV 05...	<.130	<.100	<.180	E.029	E.035	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
NOV 05...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SULLIVAN COUNTY

363335082044301 - UTEN98-26

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV 05...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
NOV 05...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
NOV 05...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 05...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV 05...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

UNICOI COUNTY

361045082225501 - UTEN98-23

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
DEC 03...	1100	109	305.00	222	7.6	12.5	722	.09	5.1	50	3	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 03...	110	8	32	7.7	1.8	3	.1	1.3	0	126	103

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
DEC 03...	4.9	4.5	3.6	.16	.014	7.6	130	126	.18	<.010	1.10

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
DEC 03...	<.020	<.10	<.050	.012	<10	<3.0	267	22	.20	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
DEC 03...	<.130	<.100	<.180	E.018	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
DEC 03...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

UNICOI COUNTY

361045082225501 - UTEN98-23

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC 03...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	E.004

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
DEC 03...	<.0020	<.0020	<.0040	<.0040	E.0106	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
DEC 03...	<.002	<.0060	<.004	<.0070	E.0035	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
DEC 03...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
DEC 03...	<.0050	<.0020	<.0030	<.0040	<.0130	.0127	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

UNION COUNTY

361610083581801 - UTEN98-14

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
OCT 06...	1200	198	208.00	329	6.7	16.0	742	.74	9.0	94	<1	3

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 06...	180	9	46	15	.47	1	.0	.68	0	206	169

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 06...	69	4.4	.68	<.10	.018	7.4	191	177	.26	<.010	.161

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
OCT 06...	<.020	<.10	<.050	<.010	<10	<3.0	203	21	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
OCT 06...	<.130	<.100	<.180	<.052	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
OCT 06...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

UNION COUNTY

361610083581801 - UTEN98-14

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT 06...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT 06...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT 06...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
OCT 06...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 06...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

WASHINGTON COUNTY

362315082233601 - UTEN98-25

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)
DEC 02...	1200	530	555.00	514	7.0	17.5	735	.23	.1	1	<1	<1

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 02...	280	30	61	31	.92	1	.0	1.8	0	304	249

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
DEC 02...	49	22	.91	.33	.026	9.4	301	277	.41	<.010	<.050

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)
DEC 02...	<.020	<.10	.011	.011	150	<4.0	174	19	.30	<.048	<.088

DATE	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)
DEC 02...	<.130	<.100	<.180	E.013	<.050	<.100	<.028	<.120	<.030	<.150	<.250

DATE	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)
DEC 02...	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068	<.032

E--Estimated

WATER-QUALITY DATA, UPPER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

WASHINGTON COUNTY

362315082233601 - UTEN98-25

DATE	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC 02...	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.042	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
DEC 02...	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
DEC 02...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
DEC 02...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
DEC 02...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM

The following wells located in the Lower Tennessee River basin were sampled as part of the U.S. Geological Survey's National Water-Quality Assessment Program to characterize water quality of major aquifers and to assess the occurrence and distribution of nutrients, pesticides, and volatile organic compounds in ground water.

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

351928085594501 - Cf:D-10

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 24...	1530	85.00	238	6.8	16.0	738	4.0	42	<1	120	5	31

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUN 24...	9.9	1.0	2	.0	.30	137	112	5.0	1.9	<.10	.016	8.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JUN 24...	144	130	.20	<.010	1.13	<.020	<.10	.041	.034	2.2	<1.0	<1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
JUN 24...	4.1	<1.0	<1.0	<1.0	<1.0	1.1	<10	<1.0	2.0	<1.0	1.1	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
JUN 24...	<1.0	4.5	324	22	-31.5	-5.77	.30	<.048	<.088	<.130	<.100	<.180

DATE	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
JUN 24...	<.052	<.100	<.028	<.120	<.030	<.150	<.250	<.380	<.100	<.090	<.066	<.044

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

351928085594501 - Cf:D-10

DATE	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)
JUN 24...	<.032	<.064	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110

DATE	TRICHLOROETHYLENE TOTAL (UG/L) (39180)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)
JUN 24...	<.038	<.002	<.0020	.037	<.0020	<.0020	<.0040	<.0040	E.0719	<.002	<.001	<.0030

DATE	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
JUN 24...	<.004	<.005	<.004	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030

DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
JUN 24...	<.0020	<.0030	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040

DATE	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 24...	<.0040	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

352402086063201 - Cf:G-106

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 22...	1100	107.00	138	6.3	14.5	738	2.7	27	<1	68	5	19

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUN 22...	5.0	.83	3	.0	.22	77	63	.93	1.8	<.10	.019	7.4

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JUN 22...	80	76	.11	<.010	.629	<.020	E.10	.015	.025	<1.0	<1.0	<1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
JUN 22...	5.8	<1.0	<1.0	<1.0	<1.0	1.4	<10	<1.0	<1.0	<1.0	1.1	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
JUN 22...	<1.0	2.2	432	23	-31.8	-5.70	1.4	.112	<.088	<.130	<.100	E.027

DATE	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
JUN 22...	.216	E.005	<.028	<.120	<.030	<.150	<.250	<.380	2.30	1.57	E.069	.849

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

352402086063201 - Cf:G-106

DATE	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)
JUN 22...	.588	<.064	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110

DATE	TRICHLOROETHYLENE TOTAL (UG/L) (39180)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)
JUN 22...	7.48	<.002	<.0020	<.001	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030

DATE	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
JUN 22...	<.004	<.005	<.004	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030

DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
JUN 22...	<.0020	<.0030	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040

DATE	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 22...	<.0040	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

353223086032101 - Cf:K-55

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 21...	1315	87.00	325	6.9	16.0	741	6.2	65	<1	170	9	42

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUN 21...	15	1.7	2	.1	.22	190	156	4.1	6.1	<.10	.045	7.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JUN 21...	177	176	.24	<.010	1.27	<.020	<.10	<.004	.011	1.1	<1.0	<1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
JUN 21...	7.1	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	1.3	1.7	1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)
JUN 21...	<1.0	1.1	576	24	.50	<.048	<.088	<.130	<.100	<.180	<.052	<.100

DATE	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)
JUN 21...	<.028	<.120	<.030	<.150	<.250	<.380	<.100	<.090	<.066	<.044	<.032	<.064

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

COFFEE COUNTY

353223086032101 - Cf:K-55

DATE	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)
JUN 21...	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.002

DATE	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)
JUN 21...	<.0020	<.001	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 21...	<.004	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 21...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 21...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

FRANKLIN COUNTY

350715086032101 - Fr:H-01

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JUN 22...	1545	105.00	343	7.3	17.0	736	4.9	52	<1	170	51	11

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUN 22...	2.4	3	.1	.62	213	175	6.1	6.1	.42	.034	8.7	203

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
JUN 22...	202	.28	<.010	2.44	<.020	<.10	.007	.012	5.2	<1.0	<1	40

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
JUN 22...	<1.0	<1.0	1.6	<1.0	<1.0	<10	<1.0	<1.0	<1.0	1.1	<1	<1.0

DATE	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)
JUN 22...	6.4	424	23	.40	<.048	<.088	<.130	<.100	<.180	<.052	<.100	<.028

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)
JUN 22...	<.120	<.030	<.150	<.250	<.380	<.100	<.090	<.066	<.044	E.019	<.064	<.130

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

FRANKLIN COUNTY

350715086032101 - Fr:H-01

DATE	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
JUN 22...	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.002	<.0020

DATE	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JUN 22...	.038	<.0020	<.0020	<.0040	<.0040	E.0318	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 22...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 22...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 22...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

FRANKLIN COUNTY

351733086035701 - Fr:S-20

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JUN 22...	1115	64.0	84.00	380	7.0	16.5	737	3.2	34	<1	220	15

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)
JUN 22...	66	14	2.8	3	.1	.72	253	208	5.5	5.9	.13	.019

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)
JUN 22...	8.3	241	236	.33	<.010	1.73	<.020	E.10	.012	.025	<1.0	<1.0

DATE	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
JUN 22...	<1	19	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	5.9	1.3

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)
JUN 22...	<1	<1.0	14	2600	47	.50	E.032	<.088	<.130	<.100	<.180	.274

DATE	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)
JUN 22...	<.100	<.028	<.120	<.030	<.150	<.250	<.380	.914	.481	<.066	<.044	<.032

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

FRANKLIN COUNTY

351733086035701 - Fr:S-20

DATE	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)	TRICHLOROETHYLENE TOTAL (UG/L) (39180)
JUN 22...	<.064	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110	E.012

DATE	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)
JUN 22...	<.002	<.0020	.100	<.0020	<.0020	<.0040	<.0040	E.0240	<.002	<.001	<.0030	<.004

DATE	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
JUN 22...	<.005	<.004	E.004	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020

DATE	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 22...	<.0030	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 22...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350102086284001 - Li:J-18

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUL 15...	0900	46.00	110	5.9	17.5	743	5.2	55	K8	53	6	16

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUL 15...	2.9	1.2	5	.1	.20	57	47	5.0	.95	<.10	.016	8.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JUL 15...	75	65	.10	<.010	.261	<.020	<.10	.014	.010	<1.0	<1.0	<1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
JUL 15...	1.5	<1.0	<1.0	<1.0	<1.0	1.1	E7.7	<1.0	<1.0	<1.0	<1.0	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
JUL 15...	<1.0	1.8	896	41	-30.0	-5.70	.30	<.048	<.088	<.130	<.100	<.180

DATE	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
JUL 15...	<.052	E.015	<.028	<.120	<.030	<.150	<.250	<.380	<.100	<.090	<.066	<.044

K--Results based on non-ideal colony count.
E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350102086284001 - Li:J-18

DATE	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)
JUL 15...	<.032	<.064	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110

DATE	TRICHLOROETHYLENE TOTAL (UG/L) (39180)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)
JUL 15...	<.038	<.002	<.0020	<.001	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030

DATE	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
JUL 15...	<.004	<.005	<.004	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030

DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
JUL 15...	<.0020	<.0030	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040

DATE	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUL 15...	<.0040	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350019086264201 - Li:J-19

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JUN 22...	1545	20.0	74.00	70	5.9	16	738	8.4	88	<1	33	10

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)
JUN 22...	9.5	2.2	.87	5	.1	.11	28	23	.19	1.5	<.10	.014

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)
JUN 22...	8.3	72	48	.10	<.010	2.57	<.020	<.10	.015	.015	<.10	<1.0

DATE	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
JUN 22...	<1	7.5	<1.0	<1.0	<1.0	<1.0	1.0	<10	<1.0	<1.0	<1.0	<1.0

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	BROMODICHLOROMETHANE TOTAL (UG/L) (32101)	CARBON TETRACHLORIDE TOTAL (UG/L) (32102)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)	CHLOROFORM TOTAL (UG/L) (32106)
JUN 22...	<1	<1.0	1.5	1016	31	.20	<.048	<.088	<.130	<.100	<.180	E.022

DATE	BENZENE TOTAL (UG/L) (34030)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)	METHYLENE CHLORIDE TOTAL (UG/L) (34423)	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)
JUN 22...	<.100	<.028	<.120	<.030	<.150	<.250	<.380	<.100	<.090	<.066	<.044	<.032

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350019086264201 - Li:J-19

DATE	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)	TRICHLOROETHYLENE TOTAL (UG/L) (39180)
JUN 22...	<.064	<.130	<.048	<.068	<.032	<.054	<.050	<.140	<.130	<.090	<.110	<.038

DATE	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISSOLVED (UG/L) (34253)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)
JUN 22...	<.002	<.0020	<.001	<.0020	<.0020	<.0040	<.0040	<.0020	<.002	<.001	<.0030	<.004

DATE	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
JUN 22...	<.005	<.004	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020

DATE	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 22...	<.0030	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 22...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350331086253301 - Li:J-20

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML) (31613)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 28...	1115	115.00	31	5.4	17.5	736	7.9	86	<1	13	4	3.5

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JUN 28...	1.1	.76	.1	<.10	11	9	.11	1.3	<.10	.018	8.1	31

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
JUN 28...	<.010	1.34	.046	E.10	<.004	<.010	1.0	<1.0	<1	3.3	<1.0	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)
JUN 28...	<1.0	<1.0	<1.0	53	1.2	7.7	<1.0	<1.0	<1	<1.0	94	748

DATE	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)
JUN 28...	27	.20	<.048	<.088	<.130	<.100	<.180	E.009	<.100	<.028	<.120	<.030

DATE	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
JUN 28...	<.150	<.250	<.380	<.100	<.090	<.066	<.044	<.032	<.064	<.130	<.048	<.068

E--Estimated

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

350331086253301 - Li:J-20

DATE	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
JUN 28...	<.032	<.054	<.050	<.140	<.130	<.090	<.110	<.038	<.002	<.0020	<.001

DATE	ALPHA BHC DIS-SOLVED (UG/L) (34253)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JUN 28...	<.0020	<.0020	<.0040	<.0040	E.0274	<.002	<.001	<.0030	<.004	<.005	<.004

DATE	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 28...	<.002	<.0060	<.004	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
JUN 28...	<.0170	<.0040	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0040

DATE	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
JUN 28...	<.0050	<.0020	<.0030	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020

E--Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

350100090070301 - Sh:J-139

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
AUG 26...	1245	466.00	156	6.2	17.5	58	13	6.1	8.6	24	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
AUG 26...	1.1	70	92	2.6	3.2	<.10	13	89	94	.12	<15

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 26...	68	<13	520	<4	18	<34	1.0	<1	<1.0	62	<10

350446090013500 - Sh:J-154

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
AUG 26...	1145	370.00	140	6.3	17.5	51	12	5.0	9.1	27	.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
AUG 26...	.97	59	66	1.9	3.5	<.10	13	79	88	.11	<15

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 26...	68	<13	790	<4	13	<34	1.3	<1	<1.0	53	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

350642089555000 - Sh:K-142

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
AUG 25...	1215	116	6.1	18.0	35	8.1	3.6	9.9	37	.7	.60

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	BARIUM, DISSOLVED (UG/L AS BA) (01005)
AUG 25...	42	69	5.4	5.0	<.10	15	71	74	.10	<15	24

DATE	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, DISSOLVED (UG/L AS FE) (01046)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)
AUG 25...	<13	150	<4	15	<34	1.0	<1	<1.0	22	<10

350230089512301 - Sh:L-37

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)
AUG 25...	0945	382.00	96	6.0	17.5	25	6.0	2.3	9.8	46	.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2) (00405)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)
AUG 25...	.50	31	69	3.1	5.5	<.10	13	59	63	.08	<15

DATE	BARIUM, DISSOLVED (UG/L AS BA) (01005)	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, DISSOLVED (UG/L AS FE) (01046)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)
AUG 25...	16	<13	120	<4	E1.5	<34	1.1	<1	<1.0	16	<10

E--Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

350507089482401 - Sh:L-90

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
AUG 24...	1045	304.00	87	6.0	17.0	24	5.8	2.3	8.3	42	.7	.55

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
AUG 24...	28	61	2.4	5.7	<.10	13	54	58	.07	<.010	.140	<.020

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
AUG 24...	<.10	<.004	<.010	<15	20	<13	<10	<4	<2.2	<34	<1.0	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)
AUG 24...	<1.0	17	<10	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)
AUG 24...	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200

DATE	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	XYLENE WATER UNFLTRD REC (UG/L) (81551)
AUG 24...	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

350449089480501 - Sh:L-92

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
AUG 24...	1145	309.00	65	6.1	17.0	17	4.1	1.6	6.5	45	.7	.46

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
AUG 24...	25	47	1.5	3.4	<.10	13	44	47	.06	<.010	.109	<.020

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
AUG 24...	<.10	.004	<.010	E9.8	14	<13	86	<4	E1.3	<34	<1.0	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO-BENZENE TOTAL (UG/L) (34301)
AUG 24...	<1.0	12	<10	<.200	<.200	<.200	<.200	<.200	.149	<.200	<.200	<.200

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)
AUG 24...	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200

DATE	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)	XYLENE WATER UNFLTRD REC (UG/L) (81551)
AUG 24...	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200	<.200

E--Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

350917090012000 - Sh:O-231

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
AUG 25...	1325	518.00	140	6.3	17.5	54	12	5.7	8.2	25	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
AUG 25...	.68	62	66	2.4	2.5	<.10	14	81	88	.11	<15

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 25...	58	<13	810	<4	12	<34	<1.0	<1	<1.0	48	<10

351420089570900 - Sh:P-131

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
AUG 24...	1530	125	6.3	18.0	43	11	4.0	8.1	28	.5	1.1

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
AUG 24...	52	49	3.3	2.7	<.10	11	71	75	.10	<15	58

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 24...	<13	1400	<4	24	<34	<1.0	<1	<1.0	53	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

SHELBY COUNTY

351054089515301 - Sh:Q-33

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
AUG 24...	1430	275.00	118	6.2	17.5	34	8.1	3.3	10	38	.7

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
AUG 24...	.77	40	53	6.4	5.5	<.10	12	69	72	.09	<15

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 24...	36	<13	820	<4	11	<34	<1.0	<1	<1.0	32	<10

350835089434100 - Sh:R-29

DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
AUG 24...	1325	589.00	50	6.1	18.5	15	3.8	1.4	4.1	36	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
AUG 24...	.40	20	36	1.4	2.1	<.10	10	34	37	.05	<15

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
AUG 24...	7.0	<13	33	<4	E1.5	<34	<1.0	<1	<1.0	8.6	<10

E--Estimated

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN

(NATIONAL TRENDS NETWORK)

LOCATION.--Lat 35°28'08", long 89°10'14", Haywood County, Hydrologic Unit 08010208, 0.9 mi north of Hillville, 12 mi southeast of Brownsville.

PERIOD OF RECORD.--October 1984 to current year.

INSTRUMENTATION.--An automatic wet-dry precipitation collector is used to collect 7-day accumulations. The collector is equipped with a precipitation sensor which activates a motor to operate the sample bucket cover. The sample bucket remains uncovered for the duration of each precipitation event and covered during dry periods. Dryfall samples are not collected. A standard 8.0-inch recording rain gage is used to obtain on-site precipitation records.

REMARKS.--These data are part of the data for this site verified by the National Atmospheric Deposition Program/ National Trends Network (NADP/NTN) Coordinator. Additional data are available from the NADP/NTN Coordinator, Natural Resource Ecology Laboratory, Fort Collins, Co. 80523. Finalized, quality assured data from all 200 NADP/ NTN sites are available on-line via the internet at http://btdqs.usgs.gov/acidrain

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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