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Water Resources Data
Tennessee
Water Year 1982

U.S. GEOLOGICAL SURVEY
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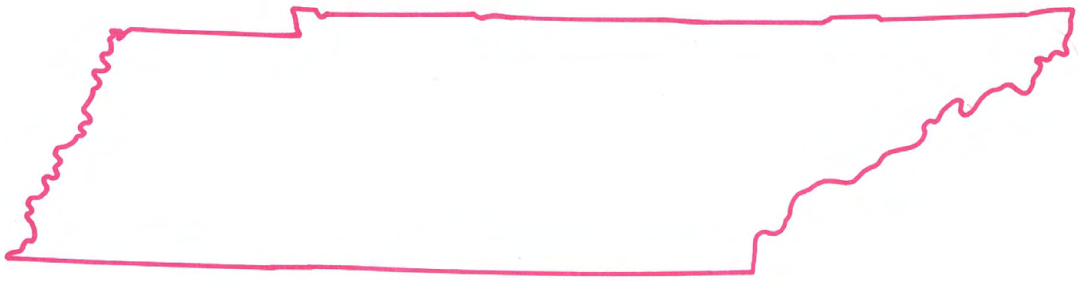

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-82-1
Prepared in cooperation with the Tennessee Department of Conservation, Division of Water Resources; the Tennessee Valley Authority; and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1982

1981

OCTOBER

S	M	T	W	T	F	S
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4	5	6	7	8	9	10
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NOVEMBER

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1982

JANUARY

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FEBRUARY

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JUNE

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JULY

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AUGUST

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22	23	24	25	26	27	28
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SEPTEMBER

S	M	T	W	T	F	S
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19	20	21	22	23	24	25
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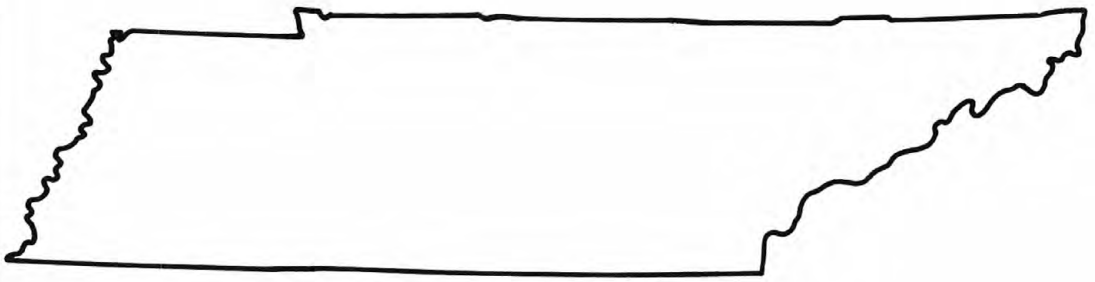
Water Resources Data Tennessee Water Year 1982

by J.F. Lowery, P.H. Counts, H.L. Edmiston, and F.D. Edwards



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-82-1
Prepared in cooperation with the Tennessee Department of Conservation, Division of Water Resources; the Tennessee Valley Authority; and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, SECRETARY

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Tennessee write to
District Chief, Water Resources Division
U.S. Geological Survey
A-413 Federal Building, U.S. Courthouse
Nashville, Tennessee 37203

1983

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. Hydrologic data for Tennessee are contained in this volume.

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, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Water resources data for the 1982 water year for Tennessee consist of records of stage, discharge, and water quality of streams and springs; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells. This report contains discharge records for 112 gaging stations; stage only records for one lake gaging station; elevation and contents for 28 lakes and reservoirs; water quality for 70 stations and 77 wells; and water levels for 30 observation wells. Also included are 126 crest-stage partial-record stations and 23 low-flow partial-record stations. Additional water data were collected at various stream and spring sites not involved in the systematic data collection program and are published as miscellaneous measurements and analyses, or as seepage investigations of discharge and water quality. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Tennessee.

17. Document Analysis a. Descriptors

*Tennessee, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment analyses, Water temperatures, Sampling sites, Water levels, Water analyses.

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(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment, (e) elevation or contents, (p) pesticides.)

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Well 350503084505000 Local number Br:E-1 317
CANNON COUNTY
Well 354823086104400 Local number Cn:D-1 317
CARTER COUNTY
Well 361738082132900 Local number Ct:H-1 318
DICKSON COUNTY
Well 360429087233602 Local number Di:F-19 318
DYER COUNTY
Well 360200089280100 Local number Dy:H-1 319
Well 360147089230700 Local number Dy:H-7 319
FAYETTE COUNTY
Well 352226089330101 Local number Fa:R-1 320
Well 352226089330102 Local number Fa:R-2 320
HAMILTON COUNTY
Well 350234085181200 Local number Hm:G-36 321
Well 351428085003600 Local number Hm:O-15 321
HUMPHREYS COUNTY
Well 360020087573300 Local number Hs:H-1 322
LAUDERDALE COUNTY
Well 353839089493500 Local number Ld:F-4 322
Well 354158089384300 Local number Ld:G-12 323
Well 354357089271701 Local number Ld:J-5 323
Well 354552089455900 Local number Ld:L-2 324
Well 355251089350500 Local number Ld:S-2 324
LINCOLN COUNTY
Well 350033086422900 Local number Li:G-4 325
MADISON COUNTY
Well 354223088380200 Local number Md:N-1 325
PUTNAM COUNTY
Well 360521085432600 Local number Pm:C-1 326
SEVIER COUNTY
Well 353922083345600 Local number Sv:E-2 326
SHELBY COUNTY
Well 350514089553700 Local number Sh:K-75 327
Well 351435090005200 Local number Sh:O-1 327
Well 350735089593300 Local number Sh:P-76 328
Well 350900089482300 Local number Sh:Q-1 328
Well 350923090023500 Local number Sh:O-124 329
Well 351320089535800 Local number Sh:P-1 329
Well 352112089571200 Local number Sh:U-1 330
Well 352110089571300 Local number Sh:U-2 330
WILLIAMSON COUNTY
Well 355505086541100 Local number Wm:M-1 331
Well 355749086533300 Local number Wm:M-8 331

QUALITY OF GROUND WATER

Well 360441087594801 Local number Bn:J-1 332
Well 360905087070201 Local number Ch:D-2 332
Well 361649088091001 Local number Hy:K-3 333
Well 360145087570001 Local number Hs:H-12 333
Well 360146087565901 Local number Hs:H-11 334
Well 360210087570001 Local number Hs:H-10 334
Well 360247087545801 Local number Hs:H-14 334
Well 360450087553901 Local number Hs:H-13 335
Well 353945089443401 Local number Ld:G-6 335
Well 354031089342401 Local number Ld:H-26 336
Well 354031089342801 Local number Ld:H-23 336
Well 354225089461700 Local number Ld:F-8 337
Well 354308089331101 Local number Ld:H-28 337
Well 354444089314401 Local number Ld:H-21 338
Well 354645089304501 Local number Ld:N-7 338
Well 354727089364001 Local number Ld:N-5 338
Well 354731089314301 Local number Ld:N-4 339
Well 355022089244101 Local number Ld:O-11 340
Well 355045089315001 Local number Ld:N-6 340
Well 355126089241501 Local number Ld:O-12 340
Well 355303089321101 Local number Ld:S-4 341
Well 355336089382301 Local number Ld:R-2 341
Well 352956087071001 Local number My:C-5 342
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Well 353348087095301 Local number My:F-12 342

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Well 353410087065201 Local number My:G-11 343
Well 354035087005901 Local number My:M-10 343
Well 350114090071701 Local number Sh:J-146 344
Well 350218089511701 Local number Sh:L-36 344
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Well 350452090075901 Local number Sh:H-13 345
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Well 350917090012000 Local number Sh:O-231 346
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Well 351035089580500 Local number Sh:P-124 351
Well 351101089582001 Local number Sh:P-140 353
Well 351103089585300 Local number Sh:P-122 355
Well 351103089585301 Local number Sh:P-136 357
Well 351106089581500 Local number Sh:P-127 359
Well 351109089512901 Local number Sh:Q-40 361
Well 351111089582401 Local number Sh:P-138 362
Well 351111089585101 Local number Sh:P-135 364
Well 351112089585100 Local number Sh:P-121 366
Well 351115089583300 Local number Sh:P-123 368
Well 351116089583701 Local number Sh:P-137 370
Well 351440089572301 Local number Sh:P-134 372
Well 351703089575301 Local number Sh:U-20 372
Well 351942089412701 Local number Sh:W-15 373
Well 352045090024901 Local number Sh:T-16 373
Well 350008089545000

QUALITY OF GROUND WATER, MISCELLANEOUS SAMPLES

Local number Sh:K-120 374
Well 350024089582601 Local number Sh:K-87 374
Well 350152089582001 Local number Sh:K-131 374
Well 350514089553700 Local number Sh:K-75 374
Well 350711089560202 Local number Sh:K-94 374
Well 350858089591401 Local number Sh:P-99 374
Well 351017090001901 Local number Sh:O-214 374
Well 351040090025501 Local number Sh:O-215 374
Well 351124089520001 Local number Sh:Q-79 374
Well 351229089443801 Local number Sh:R-18 374
Well 351248090033001 Local number Sh:O-192 374
Well 351328089520801 Local number Sh:Q-80 374
Well 351340089433401 Local number Sh:R-17 374
Well 351424089572901 Local number Sh:P-125 374
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Well 351525089512101 Local number Sh:V-12 374
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Well 351956089593201 Local number Sh:U-43 374
Well 352012089503801 Local number Sh:V-10 374
Well 352036089534501 Local number Sh:U-41 374
Well 352051089550901 Local number Sh:U-42 374
Well 352113089570900 Local number Sh:U-2 374
Well 352212090005701 Local number Sh:T-20 374
Well 352653089483201 Local number Tp:E-22 374

WATER RESOURCES DATA FOR TENNESSEE, 1982

INTRODUCTION

Water resources data for the 1982 water year for Tennessee consist 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 wells. This volume contains records for water discharge at 112 gaging stations; stage only at one gaging station; stage and contents at 28 lakes and reservoirs; water quality for 70 stations and 77 wells; and water levels at 30 observation wells. Also included are data for 126 crest-stage partial-record stations, and 23 low-flow partial-record stations. Locations of these sites are shown on figures 5 and 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous stream and spring measurements and miscellaneous analyses or as seepage investigations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Tennessee.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Eastern Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Arlington, VA 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on the State-boundary basis. 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, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry 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 81-1." For archiving and general distribution, the reports for water years 1971-74 are also 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, 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) 251-5424.

COOPERATION

The U.S. Geological Survey and organizations of the State of Tennessee have had cooperative agreements for the systematic collection of stream flow 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:

Tennessee Department of Conservation, Charles A. Howell, III, Commissioner, through Division of Water Resources, Robert A. Hunt, Director.

Tennessee Department of Public Health, E. W. Fowinkle, Commissioner, through Water Quality Control Division, Elmo Lunn, Director.

Tennessee Department of Transportation, Robert E. Farris, Commissioner, through Lewis Evans, State Transportation Engineer and Ray Terrell, Executive Director Bureau of Planning and Development and Clellon L. Loveall, Engineer Director Structures Division.

City of Franklin, Jeff Bethurum, Mayor.

City of Lawrenceburg, Ivan Johnston, Mayor.

City of Memphis, Wyeth Chandler, Mayor.

Lincoln County Utility Board, John R. O'Neal, Chairman.

Shelby County, William Morris, Mayor.

Metropolitan Government of Nashville and Davidson County, Richard H. Fulton, Mayor, through Department of Public Works, W. D. Lamb, Director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, in collecting records for 19 gaging stations and 7 water-quality stations and by the Tennessee Valley Authority for 17 gaging stations and 2 thermograph stations. All data are published in this report.

The following organization also aided in collecting records for publication in this report:

Bowaters Southern Paper Corporation

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Floods

Major floods occurred in four areas of the State during the 1982 water year. On August 16, parts of Smith County in north-central Tennessee were hit by a thunderstorm moving north to south dropping as much as 12 inches of rain (from unofficial reports). Another thunderstorm cell formed along the same frontal system south of Smith County, and dumped 10 to 12 inches of rain on parts of Hamilton and Marion Counties, causing major flooding on August 17. Major flooding occurred on the Wolf River in Fentress and Pickett Counties, also in north-central Tennessee, on August 30, as a result of a relatively isolated thunderstorm over that area. Thunderstorms spawned from remnants of Hurricane "Chris" dumped 13.6 inches of rain at Milan in Gibson County, western Tennessee, on September 13. Other parts of Gibson and Carroll Counties may have received larger amounts of rainfall. Many roads in these counties were overtopped by flooded streams.

Peak discharges were determined at 14 sites in the four flooded areas; 13 by indirect methods. Unit runoff ranged from 131 cubic feet per second per square mile [$(ft^3/s)/mi^2$] from a drainage area of 55.5 square miles in Carroll County to 1,930 $(ft^3/s)/mi^2$ from a drainage area of 22.6 square miles on the Hamilton-Marion County line. Discharges at all but one of the sites was equal to or greater than the 100-year flood discharge. A summary of data for these sites is given in table 1.

Table 1.--Peak discharge for thunderstorm floods

Station or site	Date of flood	Drainage area (mi^2)	Gage height (ft)	Peak discharge (ft^3/s)	Unit discharge [$(ft^3/s)/mi^2$]	Recurrence interval
03424840 Hickman Creek at Hickman	8-16-82	33.3	--	17,400	523	1.2 x 100-year flood
03424900 Mulherrin Creek near Gordonsville	8-16-82	26.9	--	24,000	892	2.0 x 100-year flood
03425032 Peyton Creek below Pleasant Shade	8-16-82	27.4	--	21,600	788	1.8 x 100-year flood
03425050 Peyton Creek at Riddleton	8-16-82	49.8	--	31,500	633	1.7 x 100-year flood
03566400 Soddy Creek at Soddy	8-17-82	49.0	--	16,000	327	1.9 x 100-year flood
03566535 North Chickamauga Creek at Mile Straight	8-17-82	74.0	--	26,800	362	2.4 x 100-year flood
03569245 Suck Creek near Chattanooga	8-17-82	22.6	--	43,600	1,930	9.1 x 100-year flood
03570470 Running Water Creek at Whiteside	8-17-82	4.77	--	8,790	1,843	5.5 x 100-year flood
03416000 Wolf River near Byrdstown	8-30-82	106	17.14	23,500	222	1.3 x 100-year flood
07024300 Beaver Creek at Huntingdon	9-13-82	55.5	15.20	7,290	131	24 years
07024370 Little Reedy Creek near Huntingdon	9-13-82	0.91	--	971	1,070	1.0 x 100-year flood
07028600 Cain Creek tributary near Trenton	9-13-82	.95	12.80	1,330	1,400	1.4 x 100-year flood
07028700 Cain Creek near Trenton	9-13-82	14.4	15.00	15,600	1,080	2.9 x 100-year flood
07028950 Turkey Creek at Fairview	9-13-82	13.3	16.26	14,600	1,100	3.4 x 100-year flood

Mean flow

Mean annual streamflow was near the long-term average at most gaging stations. In the Cumberland River Basin, runoff ranged from a low of 79 percent of the long-term average at East Fork Stones River at Woodbury to a high of 122 percent at Clear Fork near Robbins. At Tennessee River Basin gages, runoff ranged from 77 percent (Sewee Creek near Decatur) to 121 percent (Sinking Creek at Afton) of the long-term average; whereas in the Lower Mississippi River Basin, runoff ranged from 65 percent (Nonconnah Creek near Germantown) to 102 percent (South Fork Obion River near Greenfield).

As the Cumberland and Tennessee Rivers are highly regulated, natural runoff conditions are best represented in these basins by Harpeth River near Kingston Springs (Cumberland Basin), Emory River at Oakdale, and Buffalo River near Lobelville (Tennessee Basin). Runoff at Kingston Springs for the 1982 water year was 903 ft^3/s compared to 401 ft^3/s for the 1981 WY and 950 ft^3/s for the base period 1951-80. At Oakdale, runoff was 1,506 ft^3/s for the 1982 WY compared to 670 ft^3/s in 1981 and 1,516 ft^3/s for the base period 1951-80. At Lobelville, runoff was 1,055 ft^3/s for the 1982 WY compared to 722 ft^3/s for 1981 and 1,136 ft^3/s for the base period 1951-80. Comparison between monthly and yearly runoff for the 1982 water year and the base period 1951-80 is shown in figure 2 for these three gaging stations.

Low flow

Base flows were above normal in all parts of the State during the summer of 1982. However, flows in most of the Cumberland and Tennessee River basins were below normal in the fall of 1981, resulting from a continuation of the dry conditions in the 1981 water year. At Sewee Creek near Decatur the annual minimum flow of 12 ft^3/s was less than the 20-year reccurrence interval low flow that occurred in October 1981. At Wolftever Creek near Ooltewah the low for the period of record (1964-82) of 1.5 ft^3/s occurred in both September and October 1981.

Surface-water quality

Because "water quality" is evaluated primarily according to the intended use, such as for public supply, industry, domestic, or agriculture, few meaningful generalizations of water quality can be made on a statewide basis. Water quality is affected by physical characteristics and concentrations of many dissolved constituents: for example, water temperature; pH; concentrations of dissolved oxygen, major chemical constituents, sediment, trace constituents, pesticides and other organics; and biological parameters. On a statewide basis, budget considerations permit only selected parameters to be deter- mined at a particular site and the determination of the suitability of water at that site is, therefore, limited.

Several water-quality data-collection sites located on major streams in Tennessee are downstream from impoundments. These impoundments can have a significant effect on water quality in at least two ways. First, the detention time in storage moderates the extreme constituent concentrations that would otherwise occur in a free-flowing stream. Some parameters such as suspended-sediment concentrations and turbidity values are drastically reduced as detention time increases. A second important factor involves the vertical position of the released water in the impoundment. Significant water-quality differences can occur between the surface, mid-depth and bottom of a lake or reservoir.

At main-stem stations on the Tennessee and Cumberland Rivers, observed dissolved-solids concentrations did not exceed 137 mg/L. Both streams contain calcium bicarbonate type water with most pH values ranging from 6.4 to 8.1 units and 6.8 to 8.2 units, respectively. Trace constituent concentrations were low in samples collected; none exceeded the public-supply standards established for water delivered to a consumer. When compared to data from previous years, no significant differences were observed.

Dissolved-oxygen concentrations are critical because of environmental considerations. Municipal and industrial development has caused concern regarding the proper treatment of wastes. Dissolved-oxygen monitors are operated on the Cumberland River at Old Hickory Dam and below Cordell Hull Dam to aid in the evaluation of water quality. Observed dissolved-oxygen concentrations during the year ranged from 4.5 to 15 mg/L at Old Hickory Dam and from 6.3 to 12.7 mg/L below Cordell Hull Dam.

Water-quality data for other major streams do not indicate any severe, widespread problems which would render the water unsuitable for use following minimum treatment. Trace constituent concentrations were generally within recommended or mandatory water-quality standards. Dissolved-solids concentrations are typically less than 200 mg/L and are less than 100 mg/L in some streams.

In some streams which are affected by coal-mining activities, large amounts of total recoverable iron and manganese and high concentrations of suspended sediment were determined. However, even in these streams the dissolved-solids concentrations in water were generally low. Dissolved-solids concentrations greater than 200 mg/L were uncommon.

Ground-water levels

The pattern of natural water-level fluctuations in various parts of the State are shown in the hydrographs of four widely scattered observation wells (fig. 3). The hydrographs for wells in Putnam and Hamilton Counties are indicative of conditions in the eastern half of the State, while those in Dickson and Lauderdale Counties reflect the conditions in the western half of the State.

At the beginning of the 1982 water year, ground-water levels throughout the State were slightly below the average seasonal levels. Tennessee received above normal precipitation from October to March, causing ground-water levels to rise throughout most of the State (fig. 3). In April, May, and June, ground-water levels rose in response to near or above normal rainfall over most of the State. During the remainder of the water year, rainfall was near or slightly below normal for all parts of the State. As a result, during the growing season, there was a normal decline in ground water levels across Tennessee. In most network observation wells, the highest water levels occurred during January through March and the lowest water levels occurred in August or September.

Ground-water levels in the network of observation wells in Shelby County are strongly affected by pumping large volumes of water in Memphis and surrounding areas. Hence, the fluctuations throughout the year reflect changes in the rates of pumpage and location of the principal pumping centers. As pumping rates increase and new pumping centers are developed to keep pace with growing water demands, water levels in both confined and unconfined aquifers are prone to decline. Figure 4 shows that the Memphis index well (Sh:Q-1) has been steadily declining since 1969. The occurrence of new low levels is not indicative of any long-term reduction in the available water supply. It is merely a reflection of the response of the aquifer system to the additional stress of increased pumpage.

Ground-water quality

During the year water samples were collected from 77 wells, 50 of which are in the Memphis area. Most of the Memphis wells were sampled as part of programs designed either to monitor or to define water quality in the Memphis Sand, an artesian aquifer used as the principal source of public and industrial water supplies. No significant water-quality changes from previous years were observed. Concentrations of all common constituents in the Memphis Sand were low; dissolved-solids concentrations ranged from 52 to 233 mg/L. Trace constituents did not exceed public-supply limits in water from any of the sampled wells. No detectable amounts of pesticides were determined in water from wells in the Memphis Sand.

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 of units (SI) on the inside of the back cover.

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 or about 326,000 gallons or 1,233 cubic meters.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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.

Fecal coliform bacteria are bacteria that are present in the intestines 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 which produce blue colonies within 24 hours when incubated at 44.5°C ± 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 also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Bottom material in tables of data, refers to the chemical analysis of unconsolidated matter described as bed material and specifically includes anthropogenic matter in addition to natural solid material.

Cfs-day 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, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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

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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, 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.

Cubic feet per second per square mile (CFSM) is 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.

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

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

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

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

Dissolved is that material in a representative water sample which 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.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

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 equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; 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 well.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

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

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both 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.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom withdrawal tube, visual-accumulation tube) 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 recommendations 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.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or 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 material 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 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.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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

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

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 only 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 to all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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.

Suspended sediment is the sediment that at any given time 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).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

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, as measured by dry weight or volume, that passes a section during a given time.

Sodium-adsorptin-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with 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 derived from the atmosphere, vegetation, soil, or rocks 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 micromhos 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 about 65 percent of the specific conductance (in micromhos). 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.

Stage-discharge relation is the relation between gage height and volume of water per unit of time, flowing in a channel.

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.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a reprsentative water-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 would be requred 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 water-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. A 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.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or digital mechanism that automatically records water temperatures on paper tape.

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

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-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 water-suspended mixture and that the analytical method determines all of the constituent in the sample.)

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 load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total recoverable is the amount of a given constituent that is in solution after a representative water-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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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 indivudual 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.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

DOWNSTREAM ORDER AND STATION NUMBER

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the 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.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in tne 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 compplete 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 U.S. Geological Survey is based on the grid system of lati- tude 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. See figure 1 below.

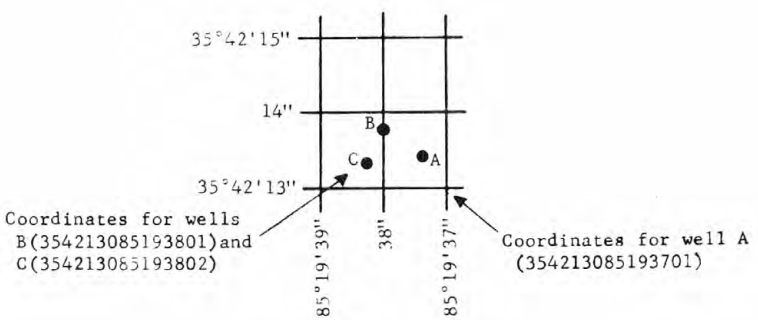


Figure 1.--System for numbering wells (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark 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 bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

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.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. 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 by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean dischage is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affeced by the 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.

At some stream-gaging stations, the stage-discharge relation is affected by ice in the winter, and it becomes necessary to compute the discharge considering the affects of ice in the channel and on gage heights. Discharge for periods of ice effect is computed on the basis of gage-height record and discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

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 on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging stations gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Geological Survey, Tennessee Valley Authority, or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

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 or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 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.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 5.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, the purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period cause the figure to have little significance. Under "EXTREMES" are given first the extremes for the period of record, second, information available outside the period of record, and last those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030; 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be 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 are omitted if there is extensive regulation or diversion. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given.

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 discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage 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. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole number between 10 and 1,000 ft^3/s; and 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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 mile 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.

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Tennessee for the period October 1960 to September 1965 are in Water-Supply Papers 1906, 1909, 1910, and 1920, and records for October 1965 to September 1970 are in Water-Supply Papers 2106, 2109, 2110, and 2120.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Tennessee are compiled in Water-Supply Papers 1304, 1306, and 1311 through September 1950, and in 1726 and 1731 for October 1950 through September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

The Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, National Center, Reston, Va., 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

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.

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.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each consituent 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 district office.

Water temperature

Water temperatures are measured at most of the water-quality 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 diel 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, either mean temperatures or maximum and minimum temperatures for each day are published.

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 sections.

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 discharge.

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 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.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

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.

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. See figure 1.

Measurements are made in many types of wells under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (LSD). See "DEFINITION OF TERMS" on page 5. If known, the altitude of the land-surface datum (NGVD) 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.

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing 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) is on 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. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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, Chapter 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, Chapter D2. 1976. 24 pages.

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, Chapter D1. 1974. 116 pages.

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

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter 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, Chapter A2. 1967. 12 pages.

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

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

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

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

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

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

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

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

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter 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, Chapter 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, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter 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, Chapter C2. 1970. 59 pages.

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

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

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

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

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

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

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 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, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 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, Chapter A5. 1977. 95 pages.

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

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, Chapter 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, Chapter 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, Chapter C3. 1981. 110 pages.

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

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

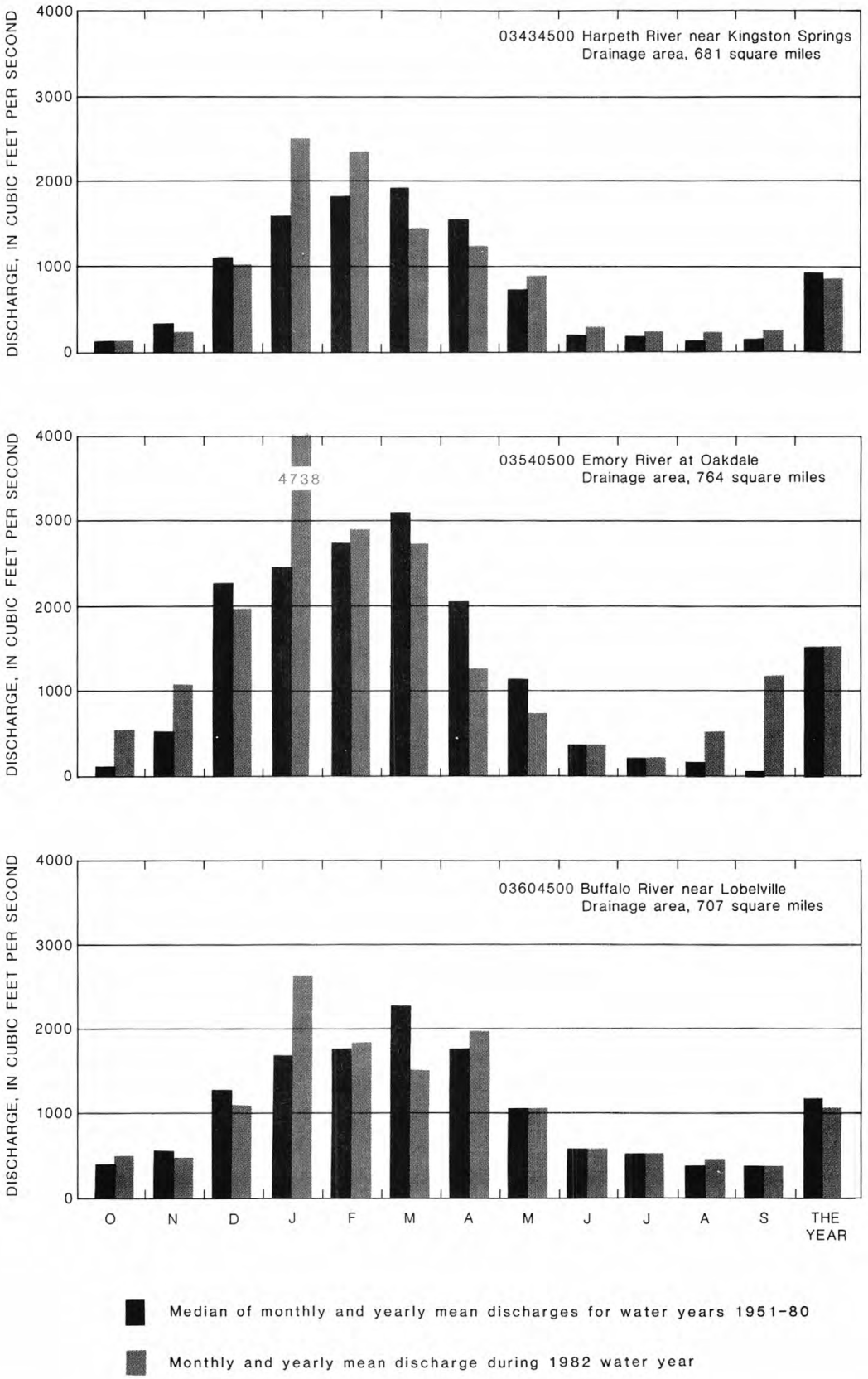


Figure 2.--Runoff during 1982 water year compared with median runoff for period 1951-80 for three representative gaging stations.

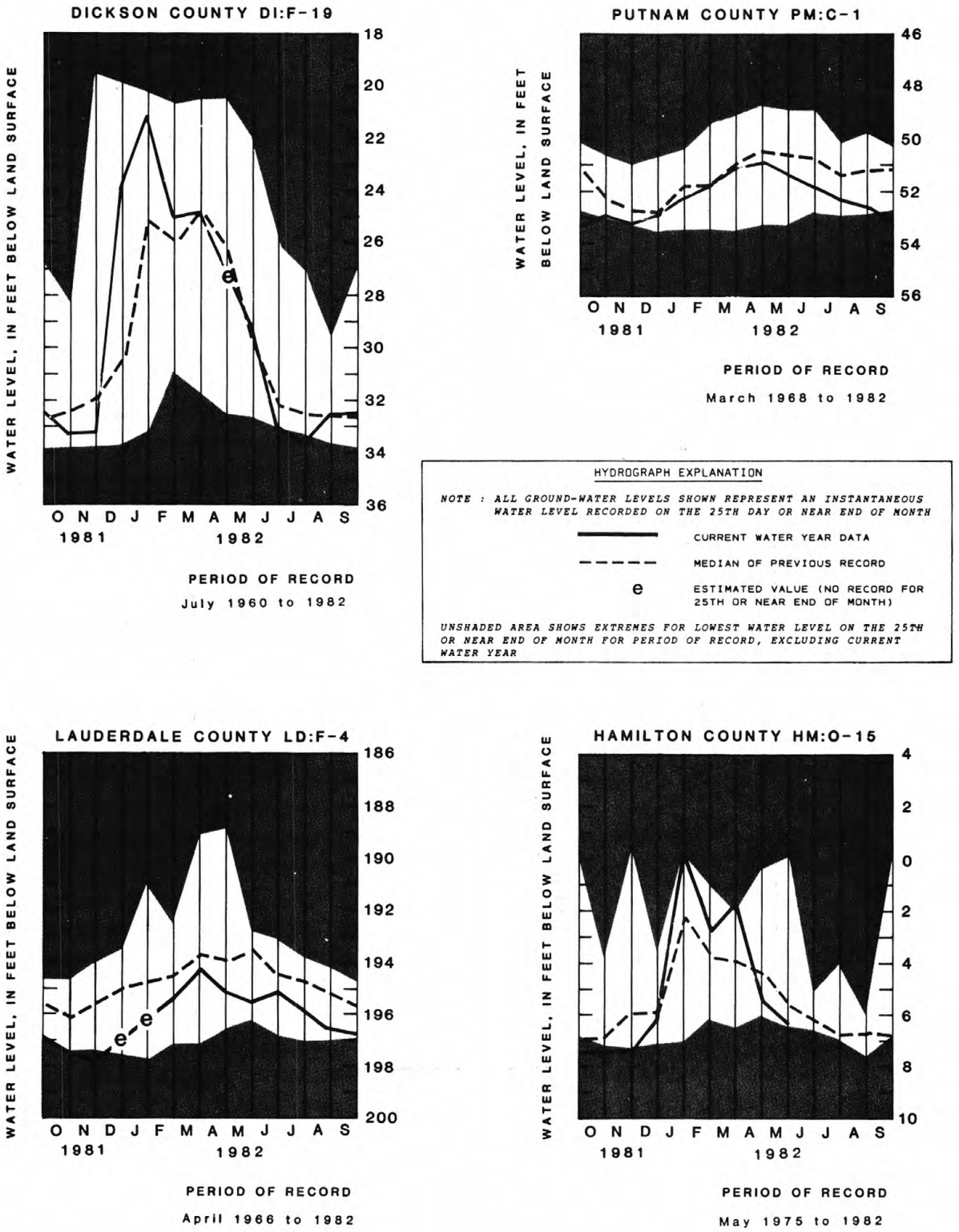


Figure 3.--Ground-water levels on the 25th of each month for the 1982 water year compared to the maximum, minimum, and median water levels on the 25th of each month for the previous years of record.

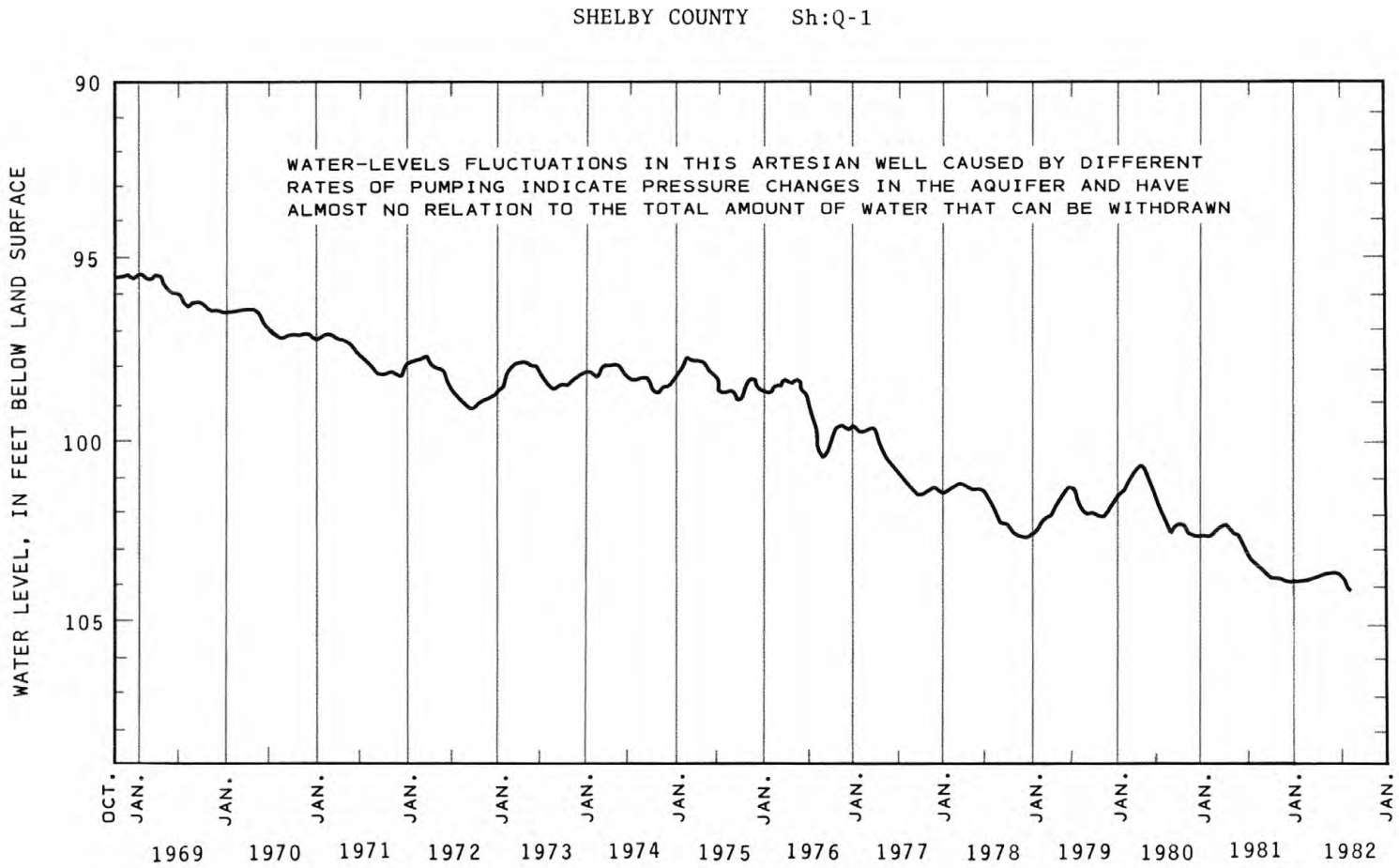
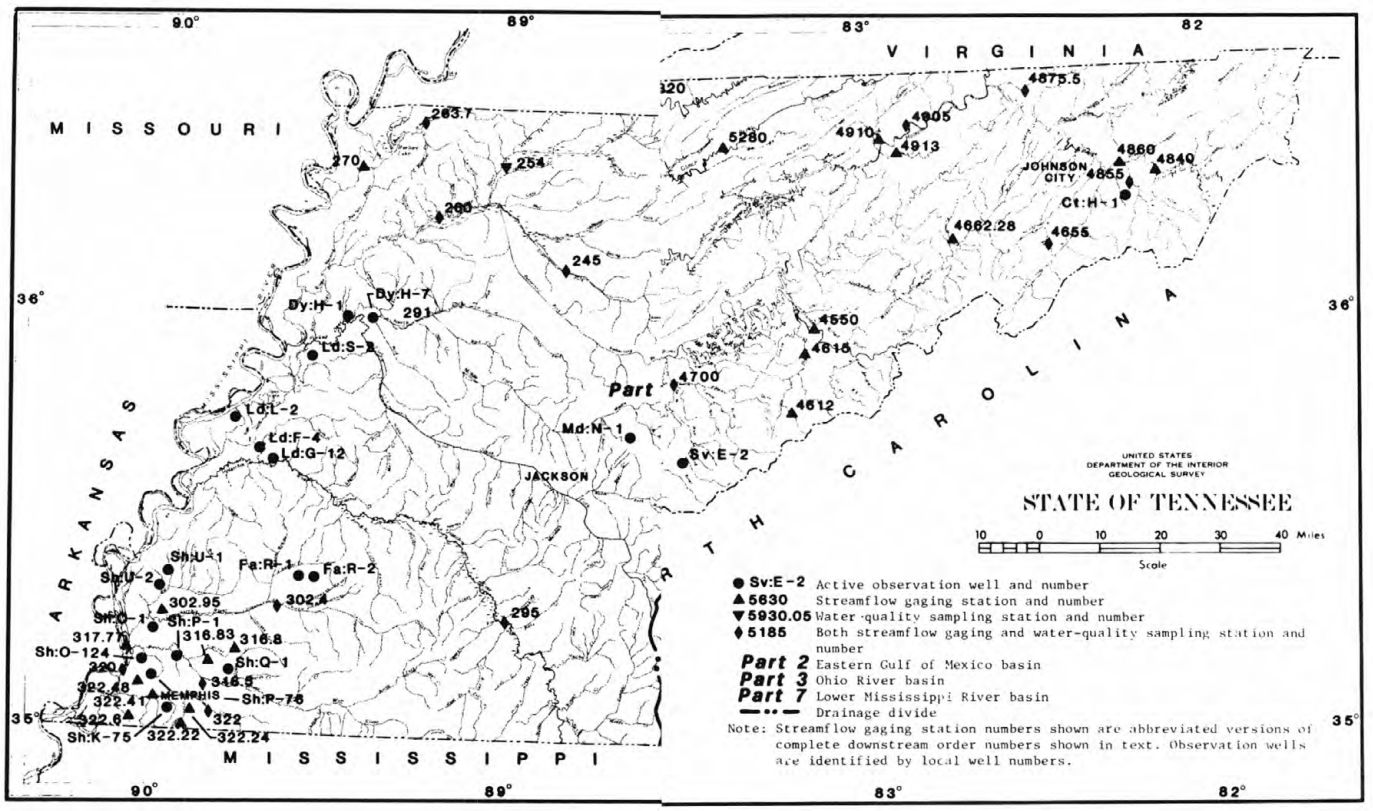
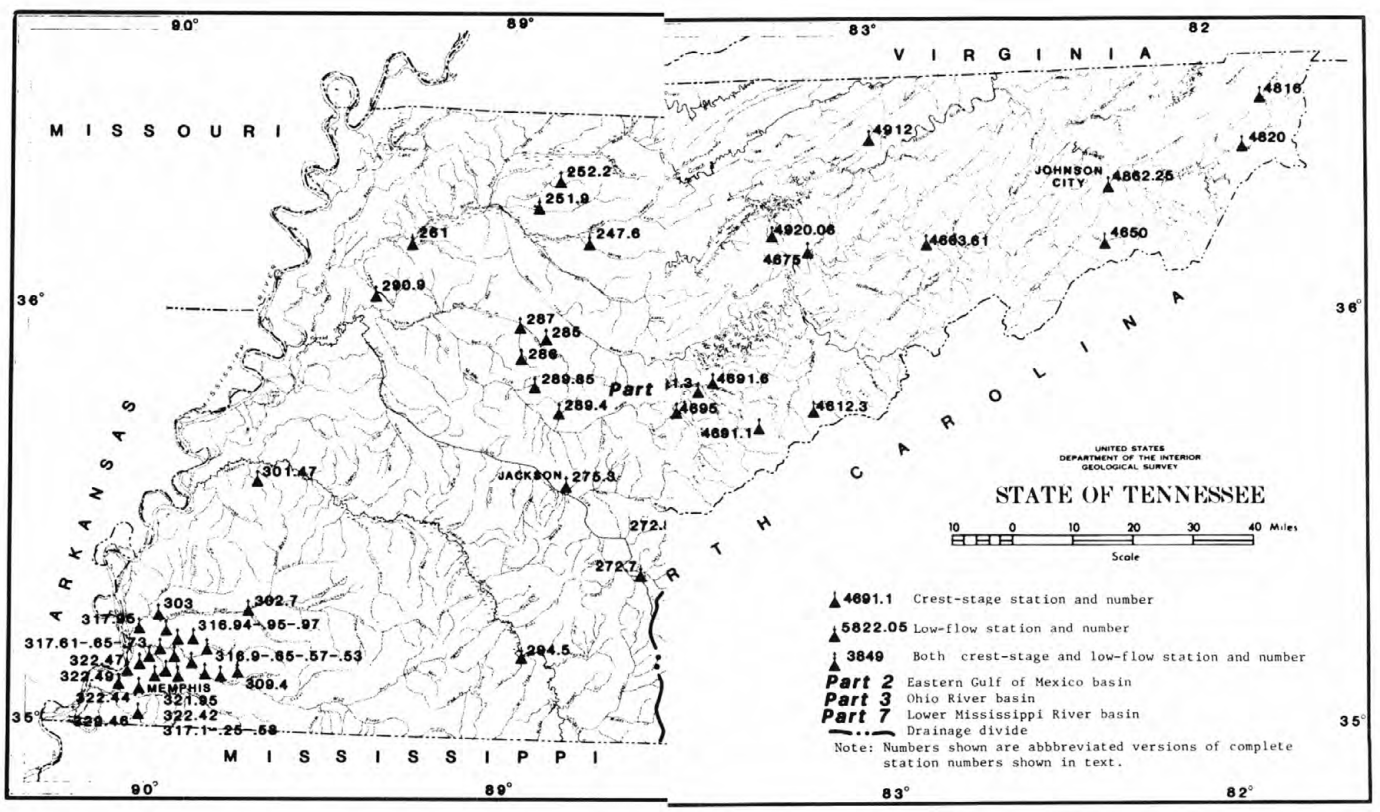


Figure 4.-- Hydrograph of well Sh:Q-1 showing long term decline in the water level.


MISSOURI
VIRGINIA
NORTH CAROLINA
ARKANSAS
MISSISSIPPI
JOHNSON CITY
MEMPHIS
JACKSON
Part
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF TENNESSEE
Scale
Sv:E-2 Active observation well and number
5630 Streamflow gaging station and number
5930.05 Water-quality sampling station and number
5185 Both streamflow gaging and water-quality sampling station and number
Part 2 Eastern Gulf of Mexico basin
Part 3 Ohio River basin
Part 7 Lower Mississippi River basin
Drainage divide
Note: Streamflow gaging station numbers shown are abbreviated versions of complete downstream order numbers shown in text. Observation wells are identified by local well numbers.


MISSOURI
VIRGINIA
NORTH CAROLINA
ARKANSAS
MISSISSIPPI
JOHNSON CITY
MEMPHIS
JACKSON
Part
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF TENNESSEE
Scale
4691.1 Crest-stage station and number
5822.05 Low-flow station and number
3849 Both crest-stage and low-flow station and number
Part 2 Eastern Gulf of Mexico basin
Part 3 Ohio River basin
Part 7 Lower Mississippi River basin
Drainage divide
Note: Numbers shown are abbbreviated versions of complete station numbers shown in text.

03403718 CRABAPPLE BRANCH NEAR LA FOLLETTE, TN

LOCATION.--Lat 36°27'25", long 84°09'30", Campbell County, Hydrologic Unit 05130104, on left bank 5.6 mi (9.0 km) west-southwest of Habersham, 4.6 mi (7.4 km) north-northwest of LaFollette, and at mile 0.04 (0.06 km).

DRAINAGE AREA.--1.07 mi^2 (2.77 km^2).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to current year.

GAGE.--Water-stage recorder and trapezoidal flume. Altitude of gage is 1,300 ft (396 m) from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34 ft^3/s (0.96 m^3/s) July 28, 1981, gage height, 1.89 ft (0.576 m); minimum, no flow June 30, July 1, Sept. 25-30, 1981.

NOTE.--Records for the 1982 water year were collected and are being analyzed. These records will be published in a subsequent report.

03403718 CRABAPPLE BRANCH NEAR LA FOLLETTE, TN--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--March 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1981 to current year.
WATER TEMPERATURE: June 1981 to current year.

INSTRUMENTATION.--Two parameter water quality monitor.

NOTE.--Daily records for the 1982 water-year were collected and are being analyzed. These records will be published in a subsequent report.

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR								
11...	1330	3.3	20	6.0	8.5	3.0	5.1	17

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR						
11...	.02	.15	160	10	10	<10

361240084245800 SMOKY CREEK ABOVE HEMBREE (034078745), TN

LOCATION.--Lat 36°12'40", long 84°24'58", Scott County, Hydrologic Unit 05130104, on left bank 0.9 mi (1.4 km) southeast of Hembree, and 8.4 mi (13.5 km) northeast of Petros.

DRAINAGE AREA.--8.07 mi^2 (20.90 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 1,380 ft (421 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during the period June to September 1982, 387 ft^3/s (11.0 m^3/s) Sept. 2, gage height, 5.85 ft (1.783 m); minimum, 0.79 ft^3/s (0.022 m^3/s) Aug. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	2.0	26	25
2									---	1.6	9.6	113
3									---	4.1	6.1	44
4									---	6.4	4.2	15
5									---	2.9	3.3	9.6
6									---	2.0	2.8	8.0
7									---	1.6	2.2	5.4
8									---	1.5	2.1	4.7
9									---	1.6	3.8	3.9
10									---	2.1	2.9	3.3
11									---	7.3	2.0	3.1
12									---	8.0	1.7	3.0
13									---	3.2	1.6	2.5
14									2.6	2.3	1.4	2.5
15									5.2	1.9	1.3	2.3
16									24	10	2.0	2.2
17									12	7.0	1.9	2.0
18									7.5	4.0	1.8	1.9
19									5.7	4.5	1.2	1.9
20									4.7	2.5	1.0	1.6
21									3.8	2.5	.89	1.6
22									4.2	5.5	.87	1.4
23									3.2	4.0	1.4	1.2
24									2.4	3.1	5.1	1.2
25									2.1	2.4	2.7	1.9
26									2.1	2.1	1.6	2.5
27									2.1	1.7	1.1	2.9
28									3.5	1.7	.98	1.7
29									4.8	1.6	.88	1.5
30									2.7	1.8	.88	1.3
31									---	79	24	---
TOTAL									---	181.9	119.30	272.1
MEAN									---	5.87	3.85	9.07
MAX									---	79	26	113
MIN									---	1.5	.87	1.2
CFSM									---	.73	.48	1.12
IN.									---	.84	.55	1.25

361240084245800 SMOKY CREEK ABOVE HEMBREE, TN (034078745)--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--March to September 1982.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June to September 1982.
WATER TEMPERATURE: June to September 1982.
SUSPENDED SEDIMENT DISCHARGE: June to September 1982.

INSTRUMENTATION.--Sediment pumping sampler and two parameter water-quality monitor since June 1982.

REMARKS.--Interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum, 554 micromhos Aug. 22; minimum, 143 micromhos July 31.
WATER TEMPERATURE: Maximum, 26.5°C July 7, 21; minimum, 11.0°C Sept. 23.

NOTE.--Suspended sediment discharge data for the period June to September 1982 were collected, and are being analyzed. These records will be published in a subsequent report.

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR								
10...	1545	26	260	7.4	10.0	32	77	167

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR						
10...	.23	12.0	410	10	50	30

361240084245800 SMOKY CREEK ABOVE HEMBREE, TN (034078745)--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	463	446	455	368	329	354	---	---	---
2	---	---	---	470	451	461	390	368	382	---	---	---
3	---	---	---	478	257	421	413	390	404	---	---	---
4	---	---	---	389	279	363	500	362	388	---	---	---
5	---	---	---	408	385	397	402	379	391	---	---	---
6	---	---	---	421	399	411	417	401	410	---	---	---
7	---	---	---	432	349	415	432	413	423	388	380	386
8	---	---	---	459	420	431	454	428	439	404	388	397
9	---	---	---	469	414	428	462	394	434	419	402	411
10	---	---	---	488	338	428	440	415	431	427	413	420
11	378	348	376	475	321	395	456	437	447	431	414	423
12	388	374	383	395	321	368	470	453	462	441	427	434
13	398	386	392	432	394	410	481	466	473	456	426	439
14	409	395	403	459	426	449	493	479	485	452	428	440
15	419	243	394	481	453	466	503	487	494	444	434	441
16	389	282	350	---	---	---	509	469	492	452	439	446
17	377	364	372	---	---	---	488	452	477	456	448	452
18	386	376	381	---	---	---	479	426	464	462	452	457
19	390	382	386	---	---	---	499	479	488	469	463	466
20	399	390	394	---	---	---	511	496	503	474	465	469
21	406	395	401	---	---	---	524	505	515	478	472	474
22	406	402	404	432	301	364	554	516	522	484	478	481
23	436	403	412	406	367	392	534	340	509	499	483	487
24	453	434	444	424	405	415	530	302	434	502	491	495
25	468	447	458	437	416	427	454	422	443	514	485	499
26	495	462	476	449	432	440	476	454	464	507	403	482
27	494	476	486	462	446	455	501	477	488	492	436	454
28	486	374	473	489	454	461	516	496	508	478	464	471
29	423	374	402	477	462	468	522	511	515	489	479	484
30	454	439	447	485	421	470	531	518	524	502	491	496
31	---	---	---	474	143	335	---	---	---	---	---	---
MONTH	---	---	---	489	143	421	554	302	459	514	380	454

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	24.5	18.5	21.0	22.5	18.5	20.0	21.0	19.0	20.0
2	---	---	---	24.0	17.0	20.5	22.0	17.0	19.5	19.0	18.5	18.5
3	---	---	---	25.0	19.0	21.0	23.0	17.5	20.0	20.5	17.5	18.5
4	---	---	---	24.0	19.5	21.0	24.5	19.5	21.5	19.5	15.0	17.0
5	---	---	---	25.5	19.5	22.0	21.5	20.0	20.5	19.5	14.0	16.5
6	---	---	---	25.5	19.5	22.5	25.0	19.5	22.0	20.0	15.5	17.5
7	---	---	---	26.5	20.5	23.0	24.5	20.0	22.0	20.5	15.5	17.5
8	---	---	---	23.0	20.5	21.5	23.0	20.5	21.5	21.0	16.0	18.0
9	---	---	---	23.5	19.5	21.5	22.5	20.5	21.0	20.5	16.5	18.5
10	---	---	---	25.0	20.5	22.5	24.0	20.0	21.5	20.5	16.5	18.5
11	23.0	18.0	21.0	22.5	21.0	21.5	24.0	19.5	21.5	19.0	17.0	18.0
12	20.0	16.0	18.0	24.0	20.0	22.0	23.5	19.0	21.0	21.0	17.5	19.0
13	20.5	17.5	19.0	23.5	18.5	20.5	20.5	17.0	18.5	20.5	19.0	19.5
14	22.5	16.0	19.0	24.5	18.5	21.0	24.0	17.5	20.0	23.5	18.5	20.5
15	22.5	15.5	19.0	25.0	19.5	22.0	24.0	18.0	20.5	23.5	19.0	20.5
16	21.5	18.0	19.0	25.0	20.0	21.0	21.0	20.0	20.5	23.5	19.0	20.5
17	20.0	17.5	18.5	24.5	20.0	21.5	23.0	19.5	21.0	23.0	18.0	20.0
18	21.5	17.0	19.0	22.5	20.0	21.5	24.5	19.0	21.5	21.0	17.0	19.0
19	20.0	16.5	18.5	23.0	20.5	21.5	24.5	18.0	20.5	20.5	17.0	18.5
20	21.5	17.0	19.0	24.5	20.0	22.0	23.5	18.0	20.5	18.0	15.5	16.5
21	20.5	15.5	18.0	26.5	20.5	23.0	24.0	19.0	21.0	16.0	14.0	15.0
22	20.5	17.5	19.0	23.5	20.5	22.0	22.5	16.0	19.0	14.5	11.5	13.0
23	21.5	17.5	19.0	24.5	19.5	21.5	22.0	16.5	19.0	16.5	11.0	13.0
24	23.0	15.5	19.0	26.0	20.0	22.5	21.5	18.5	20.0	14.5	11.5	13.0
25	23.0	16.0	19.5	26.0	21.0	23.0	23.5	19.5	21.0	15.0	13.5	14.0
26	23.0	18.5	20.5	24.0	21.0	22.5	23.5	17.5	19.5	16.0	13.5	14.5
27	22.0	19.0	20.5	25.5	20.5	23.0	23.0	18.5	20.5	17.0	13.0	14.5
28	22.5	19.0	20.5	25.0	21.0	23.0	23.0	19.5	21.0	18.5	13.5	15.5
29	22.0	19.0	20.0	24.5	21.0	22.5	22.0	18.0	20.0	19.0	13.5	16.0
30	24.5	19.0	21.0	24.5	21.5	22.5	21.5	19.0	20.0	19.0	14.5	16.5
31	---	---	---	22.0	19.5	20.5	20.0	19.5	19.5	---	---	---
MONTH	---	---	---	26.5	17.0	22.0	25.0	16.0	20.5	23.5	11.0	17.5

03407875 BILLS BRANCH NEAR HEMBREE, TN

LOCATION.--Lat 36°12'39", long 84°24'19", Scott County, Hydrologic Unit 05130104, on right bank 1.5 mi (2.4 km) southeast of Hembree, 5.1 mi (8.2 km) west of Stainville, 4.1 mi (6.6 km) northwest of Braytown, and at mile 0.7 (1.1 km).

DRAINAGE AREA.--0.67 mi^2 (1.74 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1975 to current year.

GAGE.--Water-stage recorder and trapezoidel flume. Altitude of gage is 1,560 ft (466 m) from topographic map. Feb. 1975 to Oct. 17, 1976, control was a 90° V-notch weir at present site at datum 0.19 ft (0.058 m) lower. Oct. 18, 1976 to Mar. 2, 1981, control was a broad crested weir 20 ft (6 m) downstream at datum 1.19 ft (0.363 m) lower.

AVERAGE DISCHARGE.--6 years, 1.76 ft^3/s (0.050 m^3/s), 35.67 in/yr (906 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft^3/s (17.8 m^3/s) Apr. 4, 1977, gage height, 5.12 ft (corrected) (1.561 m); minimum, no flow Oct. 17, 18, 1978, Sept. 18, Oct. 11-24, 1980.

NOTE.--Records for the 1982 water year were collected and are being analyzed. These records will be published in a subsequent report.

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1980 to current year.
WATER TEMPERATURE: August 1980 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1980 to current year.

INSTRUMENTATION.--Two parameter water-quality monitor and sediment pumping sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 307 micromhos May 13, 1981; minimum, 113 micromhos March 30, 1981.
WATER TEMPERATURE: Maximum, 24.0°C August 8, 9, 1980; minimum, 0.0°C many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,780 mg/L July 24, 1981; minimum daily mean, 2 mg/L October 6, 27, November 12, 1981.
SEDIMENT LOADS: Maximum daily, 95 tons (86.5 tonnes) July 24, 1981; minimum daily, 0 ton (0 tonne) many days each year.

NOTE.--Daily records for the 1982 water-year were collected and are being analyzed. These records will be published in a subsequent report.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR								
15...	1645	11	133	7.2	11.0	10.5	26	32
MAY								
28...	1445	10	162	6.6	16.5	9.4	10	58
28...	1545	14	151	6.6	16.5	9.4	11	51
28...	1805	11	142	7.0	16.0	9.2	13	35

DATE	SOLIDS, RESIDUE AT 105 DEG. C TOTAL (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR								
15...	150	84	.11	2.4	1600	30	70	30
MAY								
28...	605	121	.16	3.2	12000	110	510	40
28...	535	109	.15	4.1	15000	90	600	60
28...	205	91	.12	2.7	3300	100	140	20

361341084253900 - SHACK CREEK AT HEMBREE(034078755), TN

LOCATION.--Lat 36°13'41", long 84°25'39", Scott County, Hydrologic Unit 05130104, 0.4 mi (0.6 km) west of Hembree, 4.1 mi (6.6 km) southeast of Lone Mountain, and 5.8 mi (9.3 km) northwest of Brayton.

DRAINAGE AREA.--5.08 mi^2 (13.16 km^2).

PERIOD OF RECORD.--March 1982 to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 105 DEG. C TOTAL (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR										
10...	1200	18	203	7.2	9.0	--	25	61	--	140
MAY										
27...	1920	33	198	7.6	18.5	8.9	39	61	191	174
AUG										
24...	1015	24	237	7.6	19.0	8.6	58	64	3860	158
24...	1425	9.8	297	7.7	20.0	8.5	48	88	763	205
SEP										
02...	1445	292	170	6.9	19.0	9.0	28	43	2140	138
02...	1515	292	170	6.9	19.0	--	--	--	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR						
10...	.19	6.8	790	10	90	60
MAY						
27...	.24	15.9	--	6800	--	50
AUG						
24...	.21	10.5	59000	490	2500	150
24...	.28	5.4	13000	200	380	40
SEP						
02...	.19	109	36000	50	1300	20
02...	--	--	--	--	--	--

03407876 SMOKY CREEK AT HEMBREE, TN

LOCATION.--Lat 36°14'23", long 84°24'48", Scott County, Hydrologic Unit 05130104, on left bank 0.9 mi (1.4 km) northeast of Hembree, 12.4 mi (20.0 km) southeast of Huntsville, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--17.2 mi^2 (44.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,310 ft (399 m), from topographic map. Prior to July 13, 1982, at site 175 ft (53.3 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--5 years, 46.8 ft^3/s (1.325 m^3/s), 36.97 in/yr (939 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft^3/s (249 m^3/s) Apr. 4, 1977, gage height, 14.6 ft (4.45 m), from floodmarks; minimum, 0.02 ft^3/s (0.0006 m^3/s) Sept. 6-9, 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s (36.8 m^3/s) and maximums (*):

Date	Time	Discharge (ft /s)	Discharge (m /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft /s)	Discharge (m /s)	Gage height (ft)	Gage height (m)
Jan. 3	0415	*1600	45.3	6.48	1.975	Jan. 23	0745	1330	37.7	6.06	1.847

Minimum discharge, 0.57 ft^3/s (0.174 m^3/s) Jan. 27, caused by ice regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	20	152	65	138	59	23	33	42	4.7	48	54
2	3.7	16	99	54	87	47	20	29	24	3.9	23	332
3	2.1	15	58	594	120	43	23	25	18	9.2	13	106
4	1.8	13	40	680	88	37	19	21	25	15	9.2	40
5	3.2	14	29	137	66	49	19	18	29	6.6	7.2	23
6	3.7	13	24	64	57	54	18	16	19	5.0	6.4	14
7	3.1	11	22	35	42	170	17	15	15	4.3	4.8	11
8	2.8	9.7	19	21	36	100	20	17	12	5.8	5.2	8.8
9	2.5	8.7	16	15	273	82	22	13	11	5.5	7.0	7.5
10	2.2	8.3	14	7.9	124	65	20	12	11	9.1	5.6	6.4
11	2.0	7.6	13	9.7	79	54	19	10	9.2	16	4.1	6.2
12	1.8	7.1	12	9.0	63	44	18	9.3	7.7	16	3.1	5.9
13	1.7	7.0	12	9.9	75	46	18	8.6	8.4	7.4	2.2	6.4
14	1.6	6.5	20	7.2	64	44	17	8.0	6.9	5.3	2.3	6.6
15	1.5	6.4	19	4.8	63	273	17	7.4	14	4.3	1.6	5.1
16	1.6	9.7	16	3.5	212	155	23	7.9	61	35	3.7	4.6
17	1.5	15	26	3.2	232	84	149	23	29	18	3.9	4.1
18	36	11	29	3.0	130	57	120	19	17	9.1	3.3	3.8
19	13	11	25	58	85	48	72	12	12	12	1.7	3.7
20	7.6	22	26	55	63	41	51	15	9.7	8.8	1.2	3.3
21	5.9	17	26	423	51	48	39	16	7.2	6.0	1.1	3.3
22	4.9	15	190	180	43	41	32	26	11	14	.84	3.1
23	67	15	223	498	39	38	27	96	7.3	11	2.7	3.0
24	29	53	99	152	37	35	25	115	6.2	7.8	19	2.8
25	41	53	63	81	32	40	30	103	5.5	6.5	9.8	4.2
26	213	39	47	50	28	40	38	40	5.6	4.4	5.0	4.8
27	280	171	38	41	68	33	63	49	5.4	4.1	3.1	7.4
28	80	113	30	35	73	29	63	346	5.4	4.3	2.6	4.0
29	45	60	25	28	---	26	51	196	11	3.5	2.2	3.3
30	31	60	20	27	---	25	40	68	6.3	3.5	2.0	2.7
31	24	---	54	171	---	27	---	38	---	171	49	---
TOTAL	917.5	828.0	1486	3522.2	2468	1934	1113	1412.2	451.8	437.1	253.84	690.8
MEAN	29.6	27.6	47.9	114	88.1	62.4	37.1	45.6	15.1	14.1	8.19	23.0
MAX	280	171	223	680	273	273	149	346	61	171	49	332
MIN	1.5	6.4	12	3.0	28	25	17	7.4	5.4	3.5	.84	2.7
CFSM	1.72	1.61	2.79	6.63	5.12	3.63	2.16	2.65	.88	.82	.48	1.34
IN.	1.98	1.79	3.21	7.62	5.34	4.18	2.41	3.05	.98	.95	.55	1.49

CAL YR 1981 TOTAL 12712.80 MEAN 34.8 MAX 408 MIN 1.2 CFSM 2.02 IN 27.49
WTR YR 1982 TOTAL 15514.44 MEAN 42.5 MAX 680 MIN .84 CFSM 2.47 IN 33.55

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1979 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1980 to current year.
pH: May 1980 to March 1982.
WATER TEMPERATURE: May 1980 to current year.
DISSOLVED OXYGEN: May 1980 to March 1982.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to current year.

INSTRUMENTATION.--Sediment pumping sampler since October 1978. Four parameter water-quality monitor from May 1980 to March 1982. Two parameter water-quality monitor since March 1982.

REMARKS.--Interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 468 micromhos May 8, 1981; minimum, 111 micromhos May 28, 1982.
pH: Maximum, 9.3 units Oct. 3, 4, 1980; minimum, 6.2 units Oct. 19, 1980.
WATER TEMPERATURE: Maximum, 31.0°C July 16, 1980; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L Jan. 10, 11, 1981; minimum, 4.2 mg/L July 28, 1980.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,080 mg/L Aug. 7, 1981; minimum daily mean, 1 mg/L Nov. 20, 22, 1979, June 28, 29, 1980.
SEDIMENT LOADS: Maximum daily, 9,190 tons (8,340 tonnes) May 31, 1979; minimum daily, 0.00 ton (0.00 tonnes) many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 423 micromhos Oct. 9; minimum, 111 micromhos May 28.
pH: Maximum, not determined; minimum, not determined.
WATER TEMPERATURE: Maximum, 28.5°C July 21; minimum 0.0°C Feb. 7 and 8.
DISSOLVED OXYGEN: Maximum, not determined; minimum, not determined.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,620 mg/L July 31; minimum daily mean, 2 mg/L May 15.
SEDIMENT LOADS: Maximum daily, 2,870 tons (2,600 tonnes) July 31; minimum daily, 0.03 ton (0.03 tonnes) many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR								
09...	1530	77	187	7.5	11.5	21	55	117

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR						
09...	.16	24.5	630	20	70	50

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---						
2	---	---	---	295	233	251						
3	---	---	---	291	217	237						
4	---	---	---	286	222	239						
5	---	---	---	250	214	231						
6	---	---	---	291	219	238						
7	300	292	297	279	205	247						
8	302	280	291	268	244	263						
9	423	295	343	262	256	259						
10	419	294	368	253	210	242						
11	311	303	308	241	199	213						
12	310	294	302	238	228	234						
13	296	278	289	286	226	264						
14	286	274	278	279	271	275						
15	279	273	276	272	268	270						
16	279	271	274	278	244	260						
17	299	271	277	305	287	297						
18	322	208	269	---	---	---						
19	338	258	278	---	---	---						
20	---	---	---	---	---	---						
21	---	---	---	---	---	---						
22	---	---	---	---	---	---						
23	---	---	---	---	---	---						
24	270	258	265	---	---	---						
25	295	239	266	---	---	---						
26	---	---	---	---	---	---						
27	---	---	---	---	---	---						
28	---	---	---	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	---	---	---	---	---	---						

	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	241	233	238	200	193	196
2				205	203	204	239	235	238	207	200	203
3				210	204	207	252	233	241	216	209	212
4				215	189	211	240	235	237	222	215	218
5				215	191	207	240	235	238	229	221	225
6				210	194	202	244	237	240	235	228	231
7				197	163	172	242	238	240	238	233	235
8				182	164	171	259	236	247	257	235	250
9				174	164	169	256	245	251	255	249	252
10				178	174	176	245	239	242	261	253	257
11				186	178	182	239	234	237	268	259	262
12				194	186	190	236	231	234	275	265	269
13				---	---	---	243	230	235	277	268	272
14				---	---	---	245	241	243	280	272	275
15				---	---	---	245	218	241	284	275	278
16				173	165	169	281	242	262	291	234	277
17				188	175	183	251	166	207	291	158	259
18				199	190	195	169	165	167	224	185	213
19				206	194	202	176	167	171	243	224	234
20				279	208	220	185	175	180	256	213	238
21				256	209	224	193	184	190	259	179	247
22				214	207	211	199	192	196	233	203	225
23				210	207	209	205	198	202	235	192	211
24				214	209	212	210	204	207	197	126	186
25				218	194	212	239	199	214	197	134	171
26				213	199	205	232	200	222	210	196	203
27				203	199	201	222	197	211	210	176	195
28				210	203	206	198	183	188	198	111	150
29				231	210	216	186	182	184	157	114	134
30				224	219	221	193	186	190	201	157	176
31				240	217	230	---	---	---	225	202	216
MONTH				279	163	200	281	165	220	291	111	225

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	222	215	219	322	302	318	231	200	219	339	220	297
2	233	224	228	318	310	314	280	231	248	267	117	210
3	236	230	234	314	249	301	270	258	264	251	221	239
4	239	229	234	320	261	303	280	265	272	269	252	261
5	234	227	231	321	312	316	284	276	279	281	268	275
6	239	229	233	317	310	314	296	285	290	290	281	285
7	249	242	245	317	311	314	297	288	292	300	289	293
8	265	252	257	319	245	297	296	254	288	302	293	297
9	283	263	273	319	254	303	349	291	312	309	300	303
10	289	279	283	316	196	290	346	303	324	309	303	306
11	292	287	290	294	216	275	329	315	320	306	299	302
12	291	287	289	291	266	281	323	315	319	310	304	309
13	289	287	288	297	285	290	319	313	315	316	295	306
14	286	282	284	302	291	296	325	318	322	332	318	327
15	283	247	278	305	297	301	325	318	320	330	320	326
16	302	241	282	305	181	279	333	301	317	325	320	323
17	285	266	277	282	245	270	349	326	336	324	318	321
18	296	284	289	289	279	283	353	327	338	319	308	312
19	301	294	298	307	226	280	333	322	326	316	310	313
20	302	299	301	294	271	284	323	318	320	316	307	311
21	301	298	300	298	289	294	319	309	315	314	308	311
22	300	279	292	297	209	271	318	309	314	321	315	318
23	296	293	294	328	260	282	316	258	307	334	314	319
24	299	290	294	336	302	330	324	234	280	365	323	350
25	302	292	297	320	296	310	309	257	294	349	321	334
26	308	258	294	317	309	313	315	307	311	359	312	346
27	316	305	310	319	312	315	316	305	314	358	328	344
28	321	282	314	322	271	302	322	315	319	366	340	354
29	342	312	321	317	279	309	323	318	321	341	334	338
30	324	302	319	322	302	317	323	317	319	346	337	342
31	---	---	---	321	145	230	325	253	289	---	---	---
MONTH	342	215	278	336	145	296	353	200	303	366	117	309

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---			---	---	7.3	7.2
2	---	---	7.3	7.2	---	---			---	---	7.4	7.1
3	---	---	7.3	7.2	---	---			---	---	7.4	7.3
4	---	---	7.3	7.2	---	---			---	---	7.4	7.3
5	---	---	7.3	7.2	---	---			7.3	7.0	7.4	7.3
6	---	---	7.4	7.2	---	---			7.4	7.3	7.4	7.3
7	7.5	7.3	7.4	7.2	---	---			7.4	7.3	7.4	7.2
8	7.5	7.3	7.4	7.2	7.4	7.2			7.4	7.3	7.3	7.2
9	7.5	7.3	7.4	7.2	7.5	7.4			7.1	7.0	7.3	7.2
10	7.4	7.2	7.7	7.2	7.5	7.4			7.2	7.1	7.3	7.2
11	7.4	7.2	7.4	7.3	7.5	7.4			7.2	7.2	7.4	7.2
12	7.4	7.2	7.4	7.3	7.5	7.4			---	---	7.4	7.2
13	7.5	7.1	7.4	7.3	7.5	7.4			---	---	---	---
14	7.4	7.2	7.4	7.3	7.5	7.4			---	---	---	---
15	7.3	7.1	7.4	7.3	7.5	7.4			---	---	---	---
16	7.4	7.1	7.3	7.3	7.5	7.5			---	---	---	---
17	7.4	7.1	7.4	7.4	7.6	7.4			7.4	6.8	---	---
18	7.3	7.0	---	---	7.4	7.4			7.2	7.1	---	---
19	7.4	7.3	---	---	7.4	7.3			7.3	7.2	---	---
20	---	---	---	---	---	---			7.3	7.2	---	---
21	---	---	---	---	---	---			7.3	7.3	---	---
22	---	---	---	---	---	---			7.4	7.2	---	---
23	---	---	---	---	7.2	7.1			7.4	7.3	---	---
24	7.2	7.2	---	---	7.3	7.2			7.4	7.3	---	---
25	7.2	7.1	---	---	7.3	7.3			7.4	7.3	---	---
26	7.2	6.9	---	---	7.3	7.3			7.4	7.4	---	---
27	6.9	6.8	---	---	7.4	7.3			7.5	7.3	---	---
28	---	---	---	---	7.4	7.3			7.3	7.2	---	---
29	---	---	---	---	7.4	7.3			---	---	---	---
30	---	---	---	---	---	---			---	---	---	---
31	---	---	---	---	---	---			---	---	---	---
MONTH	---	---	---	---	---	---			---	---	---	---

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---			
2	---	---	---	16.0	13.0	15.0	---	---	---			
3	---	---	---	16.5	11.5	13.5	---	---	---			
4	---	---	---	15.5	11.0	13.0	---	---	---			
5	---	---	---	14.5	12.5	13.5	---	---	---			
6	---	---	---	15.0	10.0	12.5	---	---	---			
7	15.5	14.0	15.0	12.5	7.0	9.0	---	---	---			
8	16.0	11.0	13.0	12.5	5.0	8.0	9.5	5.5	7.0			
9	13.5	11.0	12.5	12.5	6.5	9.0	4.5	3.5	4.0			
10	15.0	13.5	14.5	14.0	9.0	10.5	3.0	2.0	2.5			
11	17.0	15.0	15.5	12.0	8.0	9.5	4.5	1.5	2.5			
12	17.0	14.5	16.0	11.0	5.0	7.5	4.5	.5	1.5			
13	17.5	14.5	15.5	10.5	5.0	7.5	4.0	.5	2.5			
14	16.0	11.5	14.0	11.0	5.0	7.5	5.5	4.5	5.0			
15	15.0	14.0	14.5	10.0	4.5	7.0	5.5	3.5	4.5			
16	16.5	14.5	15.5	8.0	6.5	7.5	5.0	1.5	3.0			
17	17.0	13.0	15.0	8.5	8.5	8.5	5.0	2.5	3.5			
18	16.5	12.5	15.5	---	---	---	3.0	.5	1.5			
19	14.0	9.5	11.0	---	---	---	2.5	.5	1.0			
20	---	---	---	---	---	---	---	---	---			
21	---	---	---	---	---	---	---	---	---			
22	---	---	---	---	---	---	---	---	---			
23	---	---	---	---	---	---	8.5	6.0	7.0			
24	12.0	6.5	9.0	---	---	---	5.5	5.0	5.5			
25	12.5	8.0	10.5	---	---	---	6.5	4.5	5.5			
26	---	---	---	---	---	---	7.0	5.0	6.0			
27	---	---	---	---	---	---	8.0	4.5	6.0			
28	---	---	---	---	---	---	7.5	4.5	6.0			
29	---	---	---	---	---	---	6.5	4.5	5.0			
30	---	---	---	---	---	---	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	---	---	---	---	---	---	---	---	---			

		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	10.5	6.0	7.5	17.5	8.0	12.5	16.0	10.0	13.0
2	---	---	---	11.5	4.5	7.5	12.0	7.5	10.0	17.0	11.0	13.5
3	---	---	---	10.0	7.5	8.5	18.0	10.0	13.5	20.0	10.0	14.5
4	---	---	---	11.0	8.0	9.5	16.0	7.0	11.0	20.5	10.0	15.0
5	8.0	6.5	7.5	10.5	6.0	8.0	11.0	8.5	10.0	21.0	10.5	15.5
6	6.0	1.0	3.5	8.5	5.5	6.5	10.0	5.0	7.5	20.0	12.5	16.0
7	4.0	.0	2.0	6.5	4.0	5.0	12.0	2.5	7.0	16.0	14.0	15.0
8	5.0	.0	3.0	8.5	3.0	5.0	8.0	6.0	7.0	17.5	13.0	14.5
9	6.5	3.5	5.0	11.0	5.0	7.5	8.5	6.0	7.5	19.5	10.5	14.5
10	5.0	2.5	3.5	10.5	5.0	7.5	14.5	4.0	8.5	22.0	11.5	16.0
11	7.0	2.5	4.0	12.0	7.0	9.0	14.5	4.5	9.0	22.5	12.5	17.0
12	---	---	---	14.5	8.5	11.0	17.0	6.5	11.0	23.0	12.5	17.5
13	---	---	---	---	---	---	14.5	10.5	12.0	22.5	14.0	18.0
14	---	---	---	---	---	---	17.5	10.5	13.5	23.0	15.0	18.5
15	---	---	---	---	---	---	20.0	10.0	14.5	24.0	16.0	19.5
16	---	---	---	13.0	11.0	12.0	18.0	13.0	15.5	21.5	16.0	19.0
17	10.5	8.5	9.5	16.0	11.0	13.0	15.5	10.5	14.0	23.5	16.0	18.5
18	11.0	8.5	9.5	17.0	10.5	13.0	16.0	8.5	11.5	20.5	15.0	17.5
19	10.0	6.0	8.0	16.5	11.5	13.5	12.5	10.0	11.0	22.0	15.5	18.5
20	10.5	4.5	7.0	16.5	13.0	14.5	17.5	11.0	13.5	19.5	16.0	18.0
21	10.5	6.0	8.0	14.5	11.0	13.0	16.5	10.5	13.0	23.5	16.0	19.0
22	9.5	4.5	6.5	14.5	7.5	10.5	16.0	8.5	11.5	22.0	15.5	18.5
23	11.5	3.5	7.0	14.0	6.0	9.5	17.0	6.0	11.0	21.0	15.5	17.5
24	13.5	8.0	10.0	15.0	7.0	10.0	17.5	6.5	11.5	19.5	15.0	17.0
25	9.0	4.5	6.5	13.0	8.5	10.5	11.5	9.5	10.5	20.0	14.5	17.0
26	6.5	4.0	5.0	10.0	5.5	7.5	17.0	10.5	13.0	21.0	15.5	17.5
27	7.0	5.0	6.0	11.0	3.5	6.5	13.5	11.5	12.0	21.5	16.0	18.0
28	7.5	6.0	7.0	12.0	2.5	6.5	17.0	9.0	12.5	18.0	15.5	16.5
29	---	---	---	11.0	3.5	7.5	16.5	9.0	12.0	20.0	15.5	17.5
30	---	---	---	14.5	7.5	11.0	17.0	11.0	13.5	22.5	17.0	19.0
31	---	---	---	17.5	11.5	13.5	---	---	---	23.0	17.0	19.5
MONTH	---	---	---	17.5	2.5	9.5	20.0	2.5	11.5	24.0	10.0	17.0

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	17.5	19.0	26.5	19.5	22.5	24.0	19.0	20.5	22.0	19.5	20.5
2	22.5	15.5	18.5	25.5	18.5	21.5	23.5	17.5	20.0	19.5	18.5	19.0
3	20.5	16.0	18.0	24.5	20.5	22.0	24.5	18.0	21.0	21.5	17.5	19.0
4	18.5	16.0	17.0	25.5	19.5	22.0	26.0	20.0	22.5	21.5	15.5	17.5
5	19.5	16.5	17.5	27.5	20.0	23.0	23.0	20.5	21.5	21.0	14.5	17.5
6	22.5	15.0	18.0	27.5	20.5	23.5	27.5	20.5	23.0	21.5	16.0	18.5
7	22.5	15.0	18.0	27.0	21.5	24.0	27.5	21.0	23.5	22.5	16.5	19.0
8	23.0	16.0	19.0	24.0	21.5	22.5	24.0	21.5	23.0	22.5	17.0	19.5
9	25.5	18.0	21.5	25.0	20.0	22.5	23.5	21.0	22.5	23.0	17.5	19.5
10	22.5	18.5	20.5	26.0	21.5	23.0	26.5	20.5	23.0	23.0	17.5	19.5
11	24.5	16.5	20.0	23.5	20.5	22.0	26.0	20.5	23.0	20.5	18.0	19.0
12	20.5	16.5	19.0	26.0	20.0	22.5	24.5	21.0	22.5	22.0	17.5	20.0
13	22.0	18.0	19.5	25.0	19.0	22.0	21.5	18.5	20.0	20.5	19.5	20.0
14	24.0	17.0	20.0	26.0	19.5	22.5	25.5	18.5	21.0	24.5	19.0	21.0
15	24.5	16.5	20.0	26.5	20.5	23.0	24.5	19.5	21.5	25.5	20.0	22.0
16	21.0	17.5	19.0	25.0	20.0	22.0	22.5	21.0	21.5	24.5	20.5	22.0
17	21.0	17.0	18.5	25.5	20.0	22.0	23.5	20.0	21.5	25.0	19.5	21.5
18	24.0	17.0	20.0	24.0	20.5	22.5	26.5	20.0	22.5	22.0	19.0	20.5
19	21.5	16.5	19.0	24.5	20.5	22.5	26.0	19.5	22.5	22.5	18.5	20.0
20	24.5	16.5	20.0	26.5	20.5	23.0	25.5	19.5	22.0	19.5	16.5	18.0
21	23.5	16.0	19.5	28.5	21.0	24.0	25.5	20.5	22.5	17.5	15.0	16.0
22	23.0	17.5	20.0	24.5	21.0	22.5	24.5	18.0	20.5	15.5	12.5	14.0
23	23.5	18.0	20.5	25.0	20.0	22.0	23.0	18.5	20.5	18.0	12.0	14.5
24	25.0	16.0	20.0	28.0	20.5	23.5	22.0	19.5	20.5	15.5	13.0	14.0
25	25.0	17.0	20.5	28.0	21.5	24.0	25.0	20.5	21.5	16.0	14.0	15.0
26	24.5	19.0	21.5	25.5	22.0	23.5	25.5	18.5	21.0	17.0	14.0	15.5
27	24.0	20.0	21.5	25.5	21.5	23.5	23.5	19.5	21.0	17.5	14.0	15.5
28	24.0	19.5	21.5	26.0	22.0	24.0	24.5	20.5	22.0	19.5	14.5	16.5
29	23.5	19.5	21.0	25.0	22.0	23.5	23.0	19.5	21.0	20.0	14.5	17.0
30	25.0	19.5	22.0	25.0	22.0	23.5	21.5	19.5	21.0	20.0	16.0	17.5
31	---	---	---	22.5	19.5	21.0	21.0	19.5	20.5	---	---	---
MONTH	25.5	15.0	19.5	28.5	18.5	23.0	27.5	17.5	21.5	25.5	12.0	18.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---			
2	---	---	---	12.3	11.4	11.7	---	---	---			
3	---	---	---	12.1	11.3	11.7	---	---	---			
4	---	---	---	11.9	11.1	11.5	---	---	---			
5	---	---	---	11.3	10.9	11.1	---	---	---			
6	---	---	---	11.4	11.0	11.2	---	---	---			
7	9.9	8.9	9.2	12.1	11.2	11.6	---	---	---			
8	10.2	8.8	9.4	12.2	11.0	11.6	11.3	10.7	11.0			
9	10.4	9.0	9.7	11.7	10.6	11.2	12.3	11.7	11.9			
10	9.9	8.9	9.3	11.1	10.1	10.6	12.6	12.2	12.3			
11	9.8	8.6	9.1	11.5	10.8	11.1	12.9	12.2	12.5			
12	9.9	8.5	9.0	12.2	11.2	11.7	13.1	12.3	12.7			
13	10.0	8.5	9.1	12.4	11.2	11.8	13.3	12.1	12.7			
14	10.4	8.6	9.3	12.3	11.1	11.7	12.1	11.7	11.9			
15	9.8	8.6	9.1	12.5	11.1	11.8	12.3	11.9	12.1			
16	9.7	8.5	9.0	12.1	11.6	11.8	13.1	12.3	12.6			
17	10.0	8.1	9.0	11.7	11.6	11.6	12.7	12.1	12.4			
18	9.6	7.8	8.8	---	---	---	13.2	12.6	12.9			
19	10.5	9.6	10.1	---	---	---	13.4	13.1	13.3			
20	---	---	---	---	---	---	---	---	---			
21	---	---	---	---	---	---	---	---	---			
22	---	---	---	---	---	---	---	---	---			
23	---	---	---	---	---	---	11.9	11.3	11.6			
24	11.2	10.1	10.6	---	---	---	12.1	11.9	12.0			
25	10.7	9.7	10.1	---	---	---	12.1	11.7	11.9			
26	---	---	---	---	---	---	12.0	11.6	11.8			
27	---	---	---	---	---	---	12.0	11.5	11.7			
28	---	---	---	---	---	---	12.1	11.5	11.8			
29	---	---	---	---	---	---	12.3	11.8	12.1			
30	---	---	---	---	---	---	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	---	---	---	---	---	---	---	---	---			

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	11.7	10.9	11.5						
2	---	---	---	12.2	10.6	11.7						
3	---	---	---	11.5	10.8	11.2						
4	---	---	---	11.3	10.6	10.9						
5	12.1	11.7	11.9	11.7	10.7	11.3						
6	13.0	12.0	12.5	12.0	11.2	11.7						
7	13.0	12.6	12.8	12.3	11.7	12.0						
8	12.9	12.0	12.5	12.8	11.5	12.2						
9	12.3	11.5	11.9	11.8	10.6	11.3						
10	12.7	12.1	12.4	11.7	10.6	11.2						
11	12.6	11.6	12.3	11.2	10.3	10.7						
12	---	---	---	11.0	9.7	10.3						
13	---	---	---	---	---	---						
14	---	---	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	10.9	10.4	10.7	---	---	---						
18	11.0	10.4	10.7	---	---	---						
19	11.6	10.8	11.2	---	---	---						
20	11.9	10.6	11.3	---	---	---						
21	11.5	10.6	11.1	---	---	---						
22	11.9	10.8	11.5	---	---	---						
23	12.3	10.6	11.5	---	---	---						
24	11.2	10.0	10.7	---	---	---						
25	12.1	10.9	11.6	---	---	---						
26	12.3	11.7	12.1	---	---	---						
27	12.1	11.7	11.9	---	---	---						
28	11.9	11.5	11.7	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	---	---	---	---	---	---						

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	3.3	30	.27	20	12	.65	152	118	63
2	3.7	25	.25	16	8	.35	99	30	8.0
3	2.1	16	.09	15	7	.28	58	18	2.8
4	1.8	16	.08	13	7	.25	40	13	1.4
5	3.2	26	.22	14	12	.45	29	14	1.1
6	3.7	30	.30	13	12	.42	24	10	.65
7	3.1	16	.13	11	12	.36	22	10	.59
8	2.8	9	.07	9.7	13	.34	19	6	.31
9	2.5	19	.13	8.7	18	.42	16	10	.43
10	2.2	8	.05	8.3	12	.27	14	9	.34
11	2.0	7	.04	7.6	12	.25	13	8	.28
12	1.8	7	.03	7.1	24	.46	12	7	.23
13	1.7	8	.04	7.0	17	.32	12	7	.23
14	1.6	8	.03	6.5	26	.46	20	28	1.5
15	1.5	6	.02	6.4	36	.62	19	16	.82
16	1.6	6	.03	9.7	30	.79	16	24	1.0
17	1.5	8	.03	15	42	1.7	26	25	1.8
18	36	350	54	11	16	.48	29	14	1.1
19	13	40	1.4	11	19	.56	25	14	.95
20	7.6	8	.16	22	58	3.4	26	25	1.8
21	5.9	7	.11	17	23	1.1	26	20	1.4
22	4.9	6	.08	15	10	.41	190	100	51
23	67	183	47	15	12	.49	223	60	36
24	29	28	2.2	53	72	10	99	50	13
25	41	75	8.3	53	36	5.2	63	50	8.5
26	213	433	376	39	18	1.9	47	57	7.2
27	280	265	271	171	216	136	38	28	2.9
28	80	41	8.9	113	40	12	30	40	3.2
29	45	22	2.7	60	25	4.1	25	31	2.1
30	31	13	1.1	60	50	8.1	20	14	.76
31	24	10	.65	---	---	---	54	83	18
TOTAL	917.5	---	775.41	828.0	---	192.13	1486	---	232.39

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	65	21	3.7	138	100	37	59	22	3.5
2	54	26	3.8	87	100	23	47	32	4.1
3	594	1540	4290	120	50	16	43	30	3.5
4	680	1430	4090	88	40	9.5	37	25	2.5
5	137	78	38	66	30	5.3	49	25	3.3
6	64	38	8.3	57	20	3.1	54	75	11
7	35	38	3.6	42	20	2.3	170	170	78
8	21	52	2.9	36	20	1.9	100	36	9.7
9	15	58	2.3	273	434	614	82	28	6.2
10	7.9	50	1.1	124	69	24	65	46	8.1
11	9.7	50	1.3	79	29	6.6	54	18	2.6
12	9.0	50	1.2	63	22	4.0	44	28	3.3
13	9.9	50	1.3	75	61	13	46	36	4.5
14	7.2	50	.97	64	128	24	44	51	6.1
15	4.8	50	.65	63	148	28	273	543	521
16	3.5	50	.47	212	805	680	155	95	40
17	3.2	50	.43	232	310	230	84	36	8.2
18	3.0	50	.41	130	94	40	57	24	3.7
19	58	100	16	85	51	15	48	25	3.2
20	55	75	11	63	92	20	41	55	6.1
21	423	1000	1500	51	76	14	48	74	9.6
22	180	200	97	43	42	5.9	41	91	10
23	498	1000	2000	39	28	2.9	38	70	7.2
24	152	100	41	37	20	2.0	55	24	2.3
25	81	50	11	32	24	2.1	40	180	19
26	50	40	5.4	28	12	.91	40	90	9.7
27	41	30	3.3	68	110	20	33	19	1.7
28	35	20	1.9	73	22	4.3	29	15	1.2
29	28	20	1.5	---	---	---	26	15	1.1
30	27	20	1.5	---	---	---	25	15	1.0
31	171	500	500	---	---	---	27	15	1.1
TOTAL	3522.2	---	12640.03	2468	---	1848.81	1934	---	792.5
		APRIL			MAY			JUNE	
1	23	15	.93	33	17	1.5	42	133	15
2	20	14	.76	29	21	1.6	24	40	2.6
3	23	42	2.6	25	20	1.4	18	13	.63
4	19	8	.41	21	12	.68	25	108	7.3
5	19	8	.41	18	24	1.2	29	105	8.2
6	18	6	.29	16	9	.39	19	24	1.2
7	17	12	.55	15	37	1.5	15	14	.57
8	20	8	.43	17	8	.37	12	13	.42
9	22	11	.65	13	8	.28	11	14	.42
10	20	9	.49	12	7	.23	11	39	1.2
11	19	10	.51	10	11	.30	9.2	23	.57
12	18	12	.58	9.3	4	.10	7.7	15	.31
13	18	9	.44	8.6	3	.07	8.4	16	.36
14	17	8	.37	8.0	3	.06	6.9	14	.26
15	17	20	.92	7.4	2	.04	14	744	109
16	23	108	6.7	7.9	70	1.5	61	1840	763
17	149	258	188	23	328	74	29	70	5.5
18	120	52	17	19	110	5.6	17	45	2.1
19	72	24	4.7	12	112	3.6	12	36	1.2
20	51	18	2.5	15	95	3.8	9.7	32	.84
21	39	16	1.7	16	138	13	7.2	23	.45
22	32	11	.95	26	440	44	11	84	2.5
23	27	9	.66	96	872	427	7.3	24	.47
24	25	16	1.1	115	389	279	6.2	24	.40
25	30	70	5.7	103	311	146	5.5	16	.24
26	38	85	8.7	40	65	7.0	5.6	17	.26
27	63	118	20	49	688	194	5.4	16	.23
28	63	42	7.1	346	1650	2550	5.4	25	.36
29	51	26	3.6	196	80	42	11	112	3.5
30	40	17	1.8	68	55	10	6.3	34	.58
31	---	---	---	38	40	4.1	---	---	---
TOTAL	1113	---	280.55	1412.2	---	3814.32	451.8	---	929.47

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	4.7	20	.25	48	98	13	54	950	318
2	3.9	24	.25	23	42	2.6	332	1610	2310
3	9.2	180	4.5	13	50	1.8	106	100	29
4	15	310	13	9.2	50	1.2	40	70	7.6
5	6.6	52	.93	7.2	73	1.4	23	50	3.1
6	5.0	30	.41	6.4	34	.59	14	50	1.9
7	4.3	19	.22	4.8	31	.40	11	89	2.6
8	5.8	160	2.5	5.2	29	.41	8.8	31	.74
9	5.5	100	1.5	7.0	40	.76	7.3	30	.59
10	9.1	505	38	5.6	27	.41	6.4	35	.60
11	16	762	42	4.1	41	.45	6.2	32	.54
12	16	410	18	3.1	20	.17	5.9	15	.24
13	7.4	56	1.1	2.2	14	.08	6.4	43	.74
14	5.3	42	.60	2.3	13	.08	6.6	24	.43
15	4.3	35	.41	1.6	13	.06	5.1	16	.22
16	35	1980	604	3.7	13	.13	4.6	15	.19
17	18	395	19	3.9	13	.14	4.1	14	.15
18	9.1	52	1.3	3.3	15	.13	3.8	19	.19
19	12	145	4.7	1.7	15	.07	3.7	14	.14
20	8.8	145	3.4	1.2	15	.05	3.3	12	.11
21	6.0	50	.81	1.1	15	.04	3.3	18	.16
22	14	787	75	.84	15	.03	3.1	12	.10
23	11	210	6.2	2.7	100	.73	3.0	22	.18
24	7.8	470	9.9	19	300	15	2.8	39	.29
25	6.5	345	6.1	9.8	150	4.0	4.2	38	.43
26	4.4	79	.94	5.0	40	.54	4.8	63	.82
27	4.1	74	.82	3.1	17	.14	7.4	41	.82
28	4.3	130	1.5	2.6	18	.13	4.0	49	.53
29	3.5	145	1.4	2.2	14	.08	3.3	41	.37
30	3.5	65	.61	2.0	8	.04	2.7	26	.19
31	171	2620	2870	49	811	191	---	---	---
TOTAL	437.1	---	3729.35	253.84	---	235.66	690.8	---	2680.97

TOTAL LOAD FOR YEAR: 28151.59

03407908 NEW RIVER AT CORDELL, TN

LOCATION.--Lat 36°20'10", long 84°27'06", Scott County, Hydrologic Unit 05130104, on right bank at Cordell Bridge, 3.4 mi (5.5 km) south of Winona, and at mile 24.9 (40.1 km).

DRAINAGE AREA.--198 mi^2 (513 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to April 1977 (discharge measurements only); May 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,180 ft (360 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 464 ft^3/s (13.14 m^3/s), 31.82 in/yr (808 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft^3/s (592 m^3/s) Mar. 21, 1980, gage height, 24.58 ft (7.492 m); minimum, 1.8 ft^3/s (0.051 m^3/s) Oct. 17, 1980, gage height, 1.72 ft (0.524 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft^3/s (227 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1115	11300	320	15.46	4.712	May 28	1745	8660	245	12.65	3.856
Jan. 4	0915	*15800	447	19.78	6.029	Sept. 2	1945	14700	416	18.74	5.712

Minimum discharge, 16 ft^3/s (0.453 m^3/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	174	1320	886	2030	459	275	310	340	82	1280	273
2	21	148	1380	607	1200	369	236	274	245	57	373	7380
3	32	130	721	6050	1630	304	245	240	177	54	215	2990
4	25	116	419	8630	1470	255	217	203	182	186	148	768
5	22	110	314	2040	1070	355	196	175	452	123	111	354
6	31	130	267	1130	774	355	202	158	269	76	96	231
7	36	111	238	710	497	1960	170	142	191	57	80	169
8	32	100	213	433	423	1380	175	157	149	58	68	134
9	24	90	180	349	2670	1070	239	136	123	88	96	112
10	21	85	157	260	1920	777	234	115	138	86	438	96
11	20	80	141	291	1130	524	223	101	144	100	161	84
12	19	75	126	394	712	383	214	88	105	480	103	80
13	19	71	117	244	853	338	201	80	104	202	79	76
14	18	68	140	223	673	311	195	74	94	117	66	88
15	17	65	183	220	578	2050	179	66	76	85	58	78
16	16	68	163	183	1780	2180	223	62	350	67	49	63
17	16	135	176	214	2900	1250	777	86	643	166	52	55
18	84	124	295	303	1760	751	1460	101	253	106	49	48
19	164	114	264	437	1060	534	865	104	164	81	45	45
20	76	170	252	1010	648	428	515	110	124	140	35	43
21	52	175	310	4210	451	503	365	118	97	85	31	41
22	43	159	949	2650	319	507	298	129	86	64	29	38
23	253	149	2390	4910	251	425	254	417	84	101	27	35
24	289	250	1320	2410	218	368	223	712	66	77	88	32
25	204	351	738	1240	193	337	219	344	55	109	247	34
26	1470	331	461	695	154	355	337	205	47	93	92	71
27	2670	1170	366	424	355	298	493	228	47	156	57	220
28	928	1590	333	372	630	264	604	3250	54	118	46	96
29	393	749	274	309	---	241	457	2470	118	82	38	65
30	284	440	221	281	---	226	363	810	137	63	32	50
31	214	---	342	908	---	231	---	379	---	1710	113	---
TOTAL	7511	7528	14770	43023	28349	19788	10654	11844	5114	5069	4402	13849
MEAN	242	251	476	1388	1012	638	355	382	170	164	142	462
MAX	2670	1590	2390	8630	2900	2180	1460	3250	643	1710	1280	7380
MIN	16	65	117	183	154	226	170	62	47	54	27	32
CFSM	1.22	1.27	2.40	7.01	5.11	3.22	1.79	1.93	.86	.83	.72	2.33
IN.	1.41	1.41	2.77	8.08	5.33	3.72	2.00	2.23	.96	.95	.83	2.60

CAL YR 1981 TOTAL 115782.9 MEAN 317 MAX 4070 MIN 8.7 CFSM 1.60 IN 21.75
WTR YR 1982 TOTAL 171901.0 MEAN 471 MAX 8630 MIN 16 CFSM 2.38 IN 32.30

03407908 NEW RIVER AT CORDELL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-77, May 1979 to January 1982 (discontinued).

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
02...	1000	18	360	16.5	7	.34
22...	1100	40	455	12.5	--	--
DEC						
09...	1500	175	249	6.0	--	--
JAN						
27...	1155	387	182	1.0	--	--

DATE	TIME	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TON PER AC-FT)	SOLIDS, AT 180 SOLVED (TON PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
02...	1000	6.9	8.8	66	110	227	.31	11.0	300	<10	50	40

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 (210 m) downstream from Phillips Creek, 1,000 ft (300 m) downstream from bridge on U. S. Highway 27, 1.7 mi (2.7 km) downstream from Brimstone Creek, and at mile 8.6 (13.8 km).

DRAINAGE AREA.--382 mi^2 (989 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1934 to current year. Gage-height records collected in this vicinity 1908-52 are contained in reports of U. S. Weather Bureau.

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

GAGE.--Water-stage recorder. Datum of gage is 1,092.67 ft (333.046 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--48 years, 739 ft^3/s (20.93 m^3/s), 26.27 in/yr (667 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft^3/s (1,810 m^3/s) May 27, 1973, gage height, 37.91 ft (11.555 m), from high water mark in gage well, from rating curve extended above 27,000 ft^3/s (765 m^3/s) on basis of slope-area and contracted-opening measurements of peak flow; no flow part of each day Aug. 12-15, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 41.2 ft (12.56 m), discharge, 74,700 ft^3/s (2,120 m^3/s), estimated, based on field survey at old U. S. Weather Bureau gage, 1,200 ft (400 m) upstream at datum 3.41 ft (1.039 m) higher.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft^3/s (340 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1430	18700	530	19.69	6.002	May 28	2300	12500	354	15.89	4.843
Jan. 4	1400	20000	566	20.43	6.227	Sept. 2	2300	*25500	722	23.25	7.087

Minimum discharge, 25 ft^3/s (0.71 m^3/s) Oct. 17, 18, gage height 1.85 (0.564 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	300	1640	1170	2590	1010	450	659	864	157	2180	638
2	31	247	2110	1050	1530	885	393	552	586	106	665	11200
3	33	211	1260	11200	1850	781	392	473	380	98	364	9330
4	45	184	904	13700	1830	680	378	393	388	275	247	1430
5	44	166	666	3660	1420	834	330	333	1460	261	184	759
6	72	176	503	1840	1180	911	424	294	766	144	147	482
7	66	174	423	1340	912	3140	382	265	481	104	128	337
8	57	148	376	994	797	2380	367	268	340	90	105	258
9	47	135	319	812	2990	1840	503	260	266	188	142	208
10	39	124	271	614	2900	1470	510	209	337	184	429	175
11	34	115	239	439	1650	1210	475	183	352	147	258	151
12	32	108	213	487	1190	1000	440	162	228	462	159	158
13	30	102	195	448	1290	882	402	145	204	349	115	133
14	29	97	236	425	1160	852	380	130	184	188	96	140
15	28	93	340	375	1060	2660	348	119	149	132	85	141
16	27	96	318	344	1890	3630	362	110	221	102	83	114
17	25	162	309	288	4170	1930	1160	119	858	142	85	98
18	38	198	487	260	2620	1310	2140	143	432	169	82	88
19	230	162	481	494	1700	1080	1370	155	273	116	70	80
20	129	212	360	1360	1260	922	1030	161	204	156	62	76
21	83	276	445	6000	1050	877	800	186	163	160	58	73
22	65	242	1380	4320	840	930	618	197	137	109	57	68
23	392	221	3290	7210	685	802	500	552	135	132	52	65
24	649	349	2050	4030	599	723	427	945	112	148	141	61
25	337	633	1290	1870	554	641	394	566	93	127	779	62
26	1800	604	973	1230	450	678	562	350	81	148	278	94
27	4080	1260	793	867	613	555	1060	331	78	180	144	344
28	1570	2470	651	784	1160	474	1160	4010	83	174	103	200
29	832	1260	555	638	---	422	985	5110	221	123	84	123
30	549	895	412	553	---	393	810	1400	254	99	74	94
31	387	---	475	780	---	389	---	800	---	1460	231	---
TOTAL	11809	11420	23964	69582	41940	36291	19552	19580	10330	6430	7687	27160
MEAN	381	381	773	2245	1498	1171	652	632	344	207	248	905
MAX	4080	2470	3290	13700	4170	3630	2140	5110	1460	1460	2180	11200
MIN	25	93	195	260	450	389	330	110	78	90	52	61
CFSM	1.00	1.00	2.02	5.88	3.92	3.07	1.71	1.65	.90	.54	.65	2.37
IN.	1.15	1.11	2.33	6.78	4.08	3.53	1.90	1.91	1.01	.63	.75	2.64

CAL YR 1981 TOTAL 190146 MEAN 521 MAX 6930 MIN 20 CFSM 1.36 IN 18.52
WTR YR 1982 TOTAL 285745 MEAN 783 MAX 13700 MIN 25 CFSM 2.05 IN 27.83

03408500 NEW RIVER AT NEW RIVER, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
pH: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.
DISSOLVED OXYGEN: October 1976 to current year.
TURBIDITY: December 1976 to current year.
OXIDATION-REDUCTION POTENTIAL: December 1976 to September 1977.
SUSPENDED SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since Oct. 21, 1976.

REMARKS.--Interruptions in the record were due to malfunction of the instruments.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 694 micromhos June 30, 1978; minimum, 44 micromhos Apr. 4, 1977.
pH: 8.0 units May 28, 1977; minimum, 5.3 units Nov. 17, 1978.
WATER TEMPERATURE: Maximum, 32.5°C July 16, 1980, minimum, 0.0°C Jan. 1, 2, 13, 17, 19, Feb. 6, 1977, Dec. 20, 21, 1981.
DISSOLVED OXYGEN: Maximum, 14.4 mg/L Dec. 6, 1976; minimum, 5.6 mg/L July 26, 1977.
TURBIDITY: Maximum recorded, 3,000 JTU Sept. 2, 1982; minimum, 0 JTU several days in March and April 1982.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,190 mg/L Aug. 8, 1981; minimum daily mean, 1 mg/L many days in November 1976.
SEDIMENT LOADS: Maximum daily, 262,000 tons (238,000 tonnes) Apr. 5, 1977; minimum daily, 0.00 ton (0.00 tonne) Oct. 21-24, 27, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, not determined; minimum not determined.
pH: Maximum not determined; minimum not determined.
WATER TEMPERATURE: Maximum, 27.5°C July 21, 25, 26; minimum 0.0°C Dec. 20, 21.
DISSOLVED OXYGEN: Maximum not determined; minimum, 5.9 mg/L July 31.
TURBIDITY: Maximum recorded, 3,000 JTU Sept. 2, but may have been higher during period(s) of missing record; minimum, 0 JTU several days in March and April.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,060 mg/L Sept. 2; minimum daily mean, 5 mg/L Sept. 12, 13, 23.
SEDIMENT LOADS: Maximum daily, 88,000 tons (79,800 tonnes) Sept. 2; minimum daily, 0.74 ton (0.67 tonne) Oct. 17.

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	324	316	319	---	---	---	---	---	---	238	214	226
2	338	318	328	---	---	---	---	---	---	238	190	209
3	336	328	332	---	---	---	---	---	---	---	---	---
4	342	330	336	---	---	---	178	170	174	---	---	---
5	362	336	343	---	---	---	188	178	183	---	---	---
6	360	346	352	---	---	---	196	186	193	---	---	---
7	362	352	356	---	---	---	206	198	202	---	---	---
8	---	---	---	---	---	---	218	206	211	---	---	---
9	---	---	---	324	312	318	224	216	221	---	---	---
10	---	---	---	324	308	313	234	220	226	---	---	---
11	---	---	---	330	316	322	246	228	236	---	---	---
12	---	---	---	320	314	317	246	238	241	---	---	---
13	---	---	---	320	314	317	254	244	248	---	---	---
14	---	---	---	314	310	312	258	246	251	---	---	---
15	---	---	---	316	308	311	254	246	250	---	---	---
16	---	---	---	316	310	313	252	244	248	---	---	---
17	418	412	415	316	312	314	254	248	250	---	---	---
18	416	408	412	322	314	317	262	254	257	---	---	---
19	448	414	435	324	316	321	260	252	256	---	---	---
20	454	440	449	---	---	---	262	228	251	---	---	---
21	454	438	446	---	---	---	240	208	223	---	---	---
22	460	446	453	---	---	---	210	156	186	---	---	---
23	446	346	402	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	236	190	207	---	---	---	182	172	177
2	---	---	---	194	186	190	---	---	---	190	180	185
3	---	---	---	194	188	191	---	---	---	198	186	192
4	---	---	---	198	190	194	---	---	---	206	196	202
5	---	---	---	204	194	200	---	---	---	218	204	211
6	---	---	---	210	194	204	260	250	255	226	214	220
7	---	---	---	192	154	166	252	236	242	234	220	228
8	198	192	194	158	142	148	242	232	238	240	226	235
9	198	158	186	156	146	151	238	232	234	250	238	245
10	---	---	---	162	152	158	240	232	235	262	248	254
11	---	---	---	172	158	165	244	238	241	268	258	264
12	---	---	---	178	168	173	244	238	240	282	266	273
13	---	---	---	188	176	182	238	228	233	292	280	285
14	---	---	---	196	186	191	232	226	229	298	286	292
15	---	---	---	198	156	177	230	226	228	296	286	293
16	188	176	180	172	130	142	236	220	231	302	292	296
17	196	138	156	154	136	145	234	170	200	312	298	305
18	148	142	146	170	154	161	224	158	189	330	310	320
19	---	---	---	180	166	174	160	152	155	360	326	340
20	---	---	---	190	178	185	162	152	157	360	352	357
21	---	---	---	200	188	194	178	162	168	372	358	365
22	---	---	---	208	196	202	188	174	180	364	302	337
23	---	---	---	206	196	201	196	184	189	316	298	306
24	---	---	---	204	194	198	204	196	200	294	224	259
25	232	216	223	208	200	204	214	204	207	222	184	196
26	238	224	231	214	202	208	220	206	214	222	204	214
27	238	230	233	226	212	217	220	194	208	228	218	222
28	250	232	243	230	218	222	196	176	183	246	104	188
29	---	---	---	222	216	219	184	170	177	150	98	131
30	---	---	---	232	220	224	178	168	171	156	138	147
31	---	---	---	234	224	228	---	---	---	178	158	167
MONTH	---	---	---	236	130	188	260	152	208	372	98	249

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	186	176	182	344	328	338	264	168	185	332	274	295
2	208	186	195	350	342	346	200	176	189	314	98	182
3	222	206	213	360	344	352	220	200	209	144	102	126
4	228	218	224	364	350	359	238	216	226	176	148	164
5	234	160	189	378	358	367	248	232	239	196	176	186
6	200	178	191	358	326	338	262	244	253	216	194	205
7	214	200	206	336	324	329	276	258	267	232	212	222
8	220	212	218	340	326	335	284	272	278	248	226	237
9	230	220	225	354	326	340	292	276	283	258	244	251
10	234	212	229	366	344	353	338	290	313	270	256	263
11	240	210	224	338	292	304	398	340	372	280	268	273
12	258	238	249	408	290	321	410	370	393	290	278	284
13	270	256	263	414	340	359	368	280	319	298	290	294
14	270	262	266	344	310	333	280	264	270	310	296	304
15	274	264	269	306	288	295	280	266	274	324	308	315
16	286	268	277	298	290	293	292	278	284	332	318	324
17	318	214	280	298	290	294	304	290	297	338	326	334
18	234	202	220	316	296	305	316	302	309	342	334	338
19	236	220	229	324	314	319	328	314	320	348	340	345
20	234	226	231	344	326	333	360	326	340	356	344	351
21	242	232	236	378	322	348	396	358	380	360	352	358
22	248	234	241	386	356	374	396	380	389	366	358	361
23	258	246	250	360	312	329	382	370	376	378	364	372
24	272	258	265	352	314	333	376	332	359	384	374	380
25	280	268	276	378	350	367	360	280	316	386	376	381
26	---	---	---	364	336	349	290	278	283	390	260	355
27	---	---	---	364	328	344	298	292	295	394	324	369
28	---	---	---	396	366	383	306	294	299	418	388	403
29	---	---	---	400	384	393	324	304	314	388	380	384
30	---	---	---	382	356	365	330	320	326	---	---	---
31	---	---	---	358	208	294	332	316	324	---	---	---
MONTH	318	160	234	414	208	338	410	168	299	418	98	298

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.4	7.2	---	---	---	---	7.1	6.8	---	---	7.3	7.1
2	7.3	7.1	---	---	---	---	7.1	7.0	---	---	7.0	6.9
3	7.2	7.0	---	---	---	---	---	---	---	---	7.0	6.9
4	7.3	6.9	---	---	6.8	6.7	---	---	---	---	7.0	7.0
5	7.2	7.1	---	---	6.9	6.8	---	---	---	---	7.0	7.0
6	7.3	7.1	---	---	6.9	6.9	---	---	---	---	7.1	7.0
7	7.2	7.0	---	---	6.9	6.9	---	---	---	---	7.0	6.8
8	---	---	---	---	7.0	6.9	---	---	---	---	6.9	6.7
9	---	---	---	---	7.0	7.0	---	---	---	---	6.8	6.8
10	---	---	7.2	7.0	7.0	7.0	---	---	---	---	6.9	6.8
11	---	---	7.1	7.0	7.0	6.9	---	---	---	---	6.9	6.8
12	---	---	7.3	7.0	7.0	6.9	---	---	---	---	6.9	6.9
13	---	---	7.3	7.1	7.0	6.9	---	---	---	---	6.9	6.9
14	---	---	7.2	7.0	7.0	6.9	---	---	---	---	7.0	6.9
15	---	---	7.1	7.0	7.0	6.9	---	---	---	---	7.0	6.8
16	7.2	7.2	7.1	7.1	7.0	7.0	---	---	7.0	6.9	7.0	6.7
17	7.3	7.1	7.1	7.1	7.0	7.0	---	---	7.2	6.9	6.8	6.7
18	7.3	7.2	7.2	7.1	7.0	6.9	---	---	7.3	7.0	6.8	6.8
19	7.1	6.9	7.3	7.1	7.0	7.0	---	---	---	---	6.9	6.8
20	7.2	6.9	---	---	7.0	7.0	---	---	---	---	6.9	6.9
21	7.1	6.8	---	---	7.1	7.0	---	---	---	---	7.0	6.9
22	7.1	6.9	---	---	6.9	6.9	---	---	---	---	7.1	7.0
23	7.0	6.8	---	---	---	6.7	---	---	---	---	7.1	7.0
24	---	---	---	---	---	---	---	---	---	---	7.1	7.0
25	---	---	---	---	---	---	---	---	7.2	7.1	7.0	7.0
26	---	---	---	---	---	---	---	---	7.2	7.2	7.1	7.0
27	---	---	---	---	---	---	---	---	7.2	7.1	7.2	7.1
28	---	---	---	---	---	---	---	---	7.3	7.1	7.2	7.1
29	---	---	---	---	---	---	---	---	---	---	7.1	7.1
30	---	---	---	---	---	---	---	---	---	---	7.1	7.1
31	---	---	---	---	---	---	---	---	---	---	7.1	7.1
MONTH	---	---	---	---	---	---	---	---	---	---	7.3	6.7

03408500 NEW RIVER AT NEW RIVER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.1	7.0	7.0	6.9	7.5	7.3	7.2	7.1	7.4	7.1
2	---	---	7.1	7.0	7.0	7.0	7.5	7.3	7.2	7.1	7.3	6.6
3	---	---	7.1	7.1	7.1	7.0	7.4	7.2	7.2	7.2	6.8	6.6
4	---	---	7.2	7.1	7.1	7.1	7.3	7.2	7.3	7.2	6.9	6.7
5	---	---	7.2	7.1	7.1	6.8	7.3	7.2	7.3	7.2	7.0	6.9
6	7.4	7.3	7.2	7.1	7.1	6.9	7.4	7.2	7.3	7.2	7.0	7.0
7	7.3	7.3	7.2	7.1	7.1	7.1	7.4	7.1	7.4	7.2	7.0	7.0
8	7.3	7.2	7.2	7.1	7.1	7.1	7.4	7.2	7.4	7.2	7.1	7.0
9	7.3	7.2	7.3	7.2	7.1	7.1	7.4	7.2	7.3	7.2	7.0	7.0
10	7.3	7.2	7.3	7.2	7.2	7.1	7.5	7.3	7.4	7.2	7.0	7.0
11	7.3	7.3	7.4	7.2	7.1	7.0	7.3	7.2	7.5	7.4	7.1	7.0
12	7.3	7.2	7.4	7.2	7.2	7.1	7.5	7.2	7.5	7.4	7.1	7.0
13	7.3	7.2	7.5	7.2	7.2	7.1	7.5	7.4	7.4	7.3	7.1	7.0
14	7.2	7.2	7.4	7.2	7.3	7.1	7.5	7.4	7.4	7.3	7.1	7.0
15	7.2	7.2	7.4	7.2	7.4	7.1	7.4	7.3	7.4	7.3	7.1	7.0
16	7.3	7.2	7.4	7.2	7.2	7.1	7.4	7.3	7.3	7.3	7.2	7.1
17	7.4	7.0	7.4	7.2	7.3	7.1	7.3	7.2	7.3	7.3	7.2	7.1
18	7.4	7.0	7.4	7.2	7.3	7.1	7.4	7.2	7.4	7.2	7.2	7.1
19	7.0	7.0	7.3	7.3	7.2	7.2	7.5	7.3	7.4	7.3	7.2	7.1
20	7.0	7.0	7.4	7.2	7.2	7.2	7.5	7.4	7.4	7.4	7.2	7.1
21	7.0	7.0	7.4	7.3	7.3	7.2	7.5	7.4	7.4	7.3	7.2	7.1
22	7.1	7.0	7.3	7.2	7.3	7.2	7.5	7.4	7.4	7.3	7.3	7.2
23	7.1	7.1	7.2	7.1	7.3	7.1	7.3	7.3	7.4	7.3	7.5	7.1
24	7.1	7.1	7.1	6.5	7.5	7.2	7.4	7.2	7.4	7.3	7.6	7.1
25	7.1	7.1	7.1	7.0	7.5	7.2	7.5	7.3	7.3	7.1	7.3	7.2
26	7.2	7.1	7.1	7.1	---	---	7.4	7.3	7.1	7.1	7.2	7.1
27	7.3	7.1	7.1	7.1	---	---	7.4	7.3	7.2	7.2	7.4	7.1
28	7.1	7.1	7.1	6.4	---	---	7.4	7.4	7.2	7.1	7.2	7.1
29	7.2	7.1	7.0	6.5	---	---	7.5	7.4	7.2	7.1	7.2	7.2
30	7.1	7.0	6.8	6.7	---	---	7.4	7.3	7.4	7.2	---	---
31	---	---	6.9	6.8	---	---	7.3	6.7	7.3	7.2	---	---
MONTH	7.4	7.0	7.5	6.4	7.5	6.8	7.5	6.7	7.5	7.1	7.6	6.6

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.0	17.0	18.0	---	---	---	---	---	---	5.0	4.0	4.5
2	18.0	16.5	17.5	---	---	---	---	---	---	6.0	5.0	5.0
3	17.0	16.0	16.5	---	---	---	---	---	---	---	---	---
4	17.0	15.5	16.0	---	---	---	---	---	---	---	---	---
5	16.0	15.5	15.5	---	---	---	7.0	6.0	7.0	---	---	---
6	16.0	15.5	15.5	---	---	---	6.0	5.0	5.5	---	---	---
7	15.5	15.0	15.5	---	---	---	6.0	4.5	5.0	---	---	---
8	---	---	---	---	---	---	6.5	6.0	6.0	---	---	---
9	---	---	---	---	---	---	6.0	5.0	5.5	---	---	---
10	---	---	---	11.5	10.0	10.5	5.0	4.0	4.5	---	---	---
11	---	---	---	11.0	10.0	10.5	4.0	3.0	3.5	---	---	---
12	---	---	---	10.5	9.5	10.0	3.0	2.0	2.5	---	---	---
13	---	---	---	9.5	8.5	9.0	2.5	1.5	2.0	---	---	---
14	---	---	---	9.0	8.0	8.5	2.5	2.0	2.5	---	---	---
15	---	---	---	8.0	7.5	8.0	3.0	3.0	3.0	---	---	---
16	16.0	15.5	16.0	7.5	7.5	7.5	3.0	2.5	2.5	---	---	---
17	17.0	15.5	16.0	8.5	7.5	8.0	3.0	2.5	3.0	---	---	---
18	17.0	16.0	16.5	8.5	8.0	8.0	3.0	1.5	2.5	---	---	---
19	16.0	14.5	15.0	9.0	7.5	8.5	1.5	.5	1.0	---	---	---
20	14.5	13.0	14.0	---	---	---	1.0	.0	.5	---	---	---
21	13.5	12.0	12.5	---	---	---	.5	.0	.5	---	---	---
22	13.0	12.0	12.5	---	---	---	3.0	.5	1.0	---	---	---
23	12.5	12.0	12.5	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03408500 NEW RIVER AT NEW RIVER, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	6.5	7.0	---	---	---	15.5	14.5	15.0
2	---	---	---	8.5	7.5	8.0	---	---	---	16.0	15.0	15.5
3	---	---	---	9.0	8.5	8.5	---	---	---	16.5	15.0	15.5
4	---	---	---	10.0	8.5	9.5	---	---	---	17.0	15.0	16.5
5	---	---	---	10.0	9.0	9.5	---	---	---	18.0	16.0	17.0
6	---	---	---	9.0	7.5	8.0	11.0	10.0	10.5	18.0	17.0	18.0
7	---	---	---	7.5	5.5	6.5	9.5	8.5	9.0	18.0	17.5	18.0
8	2.5	2.5	2.5	6.0	5.0	5.5	9.0	8.5	8.5	18.0	17.0	17.5
9	6.0	2.5	4.5	7.5	5.5	6.5	9.0	8.0	8.5	18.5	16.5	17.5
10	7.0	4.0	5.0	8.0	7.0	8.0	9.0	7.5	8.5	19.0	17.0	18.0
11	---	---	---	9.0	8.0	8.5	10.0	8.0	9.0	20.0	18.0	19.0
12	---	---	---	11.0	9.0	10.0	12.0	9.0	10.5	20.5	18.5	19.5
13	---	---	---	12.0	11.5	11.5	12.5	11.5	12.0	21.5	19.0	20.5
14	---	---	---	11.5	10.0	10.5	14.5	12.5	13.5	22.0	19.5	21.0
15	---	---	---	11.0	9.5	10.0	16.0	13.5	15.0	23.0	20.0	21.5
16	8.5	5.5	6.5	12.5	11.0	11.5	16.5	15.5	16.0	23.0	21.0	22.0
17	9.5	8.5	9.0	13.5	12.5	13.0	16.5	15.0	15.5	23.5	21.5	22.5
18	---	---	---	14.5	13.0	13.5	15.0	13.5	14.0	23.5	22.0	22.5
19	---	---	---	15.0	14.0	14.5	13.5	12.5	13.0	23.0	22.0	22.5
20	---	---	---	15.5	15.0	15.0	13.5	12.5	13.0	22.5	21.5	22.0
21	---	---	---	15.5	15.0	15.5	14.0	13.0	13.5	23.0	21.0	22.0
22	---	---	---	15.0	13.0	13.5	14.5	13.0	14.0	23.0	21.5	22.0
23	---	---	---	13.0	11.5	12.0	14.0	12.5	13.5	22.0	21.0	22.0
24	---	---	---	12.0	10.5	11.5	14.0	12.5	13.5	21.5	20.0	20.5
25	9.5	8.0	9.0	12.0	11.5	11.5	14.0	13.0	13.5	20.5	19.0	19.5
26	8.0	7.0	7.5	11.5	10.0	11.0	14.0	12.5	13.5	21.5	20.5	21.0
27	7.0	6.5	7.0	9.5	8.0	9.0	14.0	13.5	13.5	22.0	21.0	21.5
28	6.5	6.0	6.5	8.5	7.0	8.0	14.0	12.5	13.5	21.5	17.5	20.0
29	---	---	---	8.5	7.0	8.0	14.0	13.0	13.5	18.0	17.0	17.5
30	---	---	---	11.0	8.0	9.5	15.0	13.5	14.5	20.5	18.5	19.5
31	---	---	---	13.5	11.0	12.0	---	---	---	21.5	20.5	21.0
MONTH	---	---	---	15.5	5.0	10.0	16.5	7.5	12.5	23.5	14.5	19.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	21.0	21.5	25.0	24.0	25.0	22.0	20.5	21.5	22.5	22.0	22.0
2	21.5	20.5	21.0	25.5	23.0	24.5	22.0	21.0	21.5	22.0	19.5	20.5
3	21.0	20.5	21.0	25.0	24.0	24.5	23.5	22.0	22.5	19.5	19.0	19.5
4	21.0	20.0	20.5	25.0	24.0	24.5	24.5	23.0	24.0	19.5	19.0	19.5
5	20.0	18.5	19.0	25.5	24.0	24.5	24.5	24.0	24.5	19.5	18.5	19.0
6	19.0	18.0	18.5	26.5	24.5	25.5	25.5	24.0	24.5	20.0	18.5	19.5
7	20.0	18.5	19.5	27.0	25.0	26.0	26.5	24.5	25.5	20.5	19.0	20.0
8	20.5	19.5	20.0	26.0	25.5	26.0	26.0	25.0	25.5	21.0	20.0	20.5
9	22.0	20.5	21.5	25.5	24.0	25.0	25.5	24.5	25.0	22.0	20.5	21.0
10	22.5	22.0	22.0	26.0	24.5	25.0	25.5	24.5	25.0	22.0	21.0	21.5
11	22.5	21.0	22.0	26.0	24.5	25.0	26.5	25.0	25.5	22.0	21.0	21.5
12	22.0	21.5	21.5	25.5	25.0	25.0	25.5	24.0	24.5	22.0	21.0	21.5
13	22.0	21.0	21.5	25.5	24.0	24.5	23.5	22.5	23.0	22.0	21.5	21.5
14	22.5	21.0	21.5	24.5	23.5	24.0	24.0	21.5	22.5	23.0	21.5	22.0
15	23.5	21.0	22.0	26.0	23.5	24.5	24.5	22.0	23.0	23.5	22.0	22.5
16	23.0	21.5	22.0	26.5	24.5	25.0	23.5	23.0	23.5	24.0	22.5	23.0
17	22.0	21.0	21.5	26.0	25.0	25.5	24.5	23.0	24.0	24.0	22.5	23.0
18	21.5	20.5	21.0	26.0	25.5	26.0	25.5	23.5	24.5	23.5	22.5	23.0
19	22.0	21.0	21.5	26.5	25.0	26.0	25.5	23.5	24.5	23.0	22.0	22.5
20	22.5	21.0	21.5	27.0	25.5	26.0	26.0	23.5	24.5	22.0	21.0	21.5
21	23.0	21.0	22.0	27.5	25.5	26.5	25.5	24.0	24.5	21.0	19.5	20.5
22	23.5	22.0	22.5	26.5	26.0	26.0	25.5	23.5	24.5	19.5	18.5	18.5
23	24.0	22.0	23.0	26.5	25.0	25.5	25.0	23.0	24.0	18.5	17.0	18.0
24	24.5	22.0	23.0	27.0	25.0	26.0	24.0	22.5	23.0	17.5	16.5	17.0
25	24.5	22.0	23.0	27.5	25.5	26.5	23.0	22.0	22.5	17.0	16.5	16.5
26	---	---	---	27.5	26.0	26.5	23.0	22.0	22.5	17.0	16.0	16.5
27	---	---	---	27.0	26.0	26.5	23.5	22.5	23.0	17.0	15.5	16.5
28	---	---	---	27.0	26.0	26.5	24.0	22.5	23.0	17.5	16.5	17.0
29	---	---	---	27.0	26.0	26.5	24.0	22.5	23.0	17.0	16.5	16.5
30	---	---	---	26.5	25.5	26.0	23.5	22.5	23.0	---	---	---
31	---	---	---	25.5	22.5	24.0	23.0	22.0	22.5	---	---	---
MONTH	24.5	18.0	21.5	27.5	22.5	25.5	26.5	20.5	23.5	24.0	15.5	20.0

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.1	8.3	---	---	---	---	---	---	12.3	11.9	12.1
2	8.3	8.0	8.1	---	---	---	---	---	---	11.9	11.8	11.9
3	8.6	8.0	8.3	---	---	---	---	---	---	---	---	---
4	8.3	8.1	8.2	---	---	---	---	---	---	---	---	---
5	8.5	7.9	8.2	---	---	---	11.7	11.3	11.5	---	---	---
6	8.5	8.1	8.4	---	---	---	12.1	11.8	12.0	---	---	---
7	8.6	8.2	8.4	---	---	---	12.2	12.0	12.1	---	---	---
8	---	---	---	---	---	---	12.0	11.7	11.8	---	---	---
9	---	---	---	---	---	---	12.0	11.8	11.9	---	---	---
10	---	---	---	10.6	10.4	10.5	12.3	12.0	12.2	---	---	---
11	---	---	---	10.4	10.3	10.4	12.6	12.3	12.4	---	---	---
12	---	---	---	10.6	10.3	10.8	12.8	12.6	12.7	---	---	---
13	---	---	---	10.9	10.5	10.9	13.2	12.9	13.1	---	---	---
14	---	---	---	11.1	10.8	11.0	13.2	12.9	13.0	---	---	---
15	---	---	---	11.3	11.1	11.2	12.9	12.6	12.7	---	---	---
16	---	---	---	11.2	11.1	11.1	12.8	12.7	12.8	---	---	---
17	7.8	7.6	7.8	11.1	10.9	11.0	12.9	12.8	12.8	---	---	---
18	7.7	7.2	7.6	11.1	10.9	11.0	13.0	12.8	12.9	---	---	---
19	8.1	6.6	7.5	11.2	10.8	11.0	13.5	13.1	13.3	---	---	---
20	8.4	8.1	8.3	---	---	---	13.7	13.4	13.6	---	---	---
21	8.8	8.4	8.6	---	---	---	13.7	13.2	13.6	---	---	---
22	8.7	8.6	8.7	---	---	---	13.4	12.5	13.1	---	---	---
23	8.8	8.5	8.7	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.6	11.3	11.5	---	---	---	9.5	9.3	9.4
2	---	---	---	11.3	11.1	11.2	---	---	---	9.3	9.2	9.3
3	---	---	---	11.1	10.8	10.9	---	---	---	9.3	9.2	9.2
4	---	---	---	10.8	10.5	10.7	---	---	---	9.2	9.1	9.1
5	---	---	---	10.5	10.3	10.4	---	---	---	9.1	8.9	9.0
6	---	---	---	11.0	10.6	10.8	10.2	9.9	10.0	9.0	8.7	8.8
7	---	---	---	11.6	11.1	11.3	10.7	10.2	10.5	8.7	8.5	8.6
8	13.3	13.1	13.2	11.9	11.7	11.8	10.8	10.7	10.7	8.7	8.6	8.6
9	13.1	11.6	12.4	11.7	11.2	11.6	10.8	10.6	10.7	8.9	8.7	8.8
10	12.8	11.5	12.1	11.2	11.0	11.1	11.1	10.9	11.0	9.0	8.7	8.9
11	---	---	---	11.0	10.7	10.9	11.0	10.7	10.8	9.0	8.6	8.8
12	---	---	---	10.7	10.2	10.5	10.7	10.3	10.5	9.1	8.5	8.8
13	---	---	---	10.2	9.9	9.9	10.2	9.7	9.9	9.0	8.4	8.7
14	---	---	---	10.3	9.9	10.1	9.8	9.6	9.7	8.8	8.3	8.5
15	---	---	---	10.5	10.1	10.4	9.6	9.3	9.4	8.6	8.1	8.4
16	12.2	11.1	11.7	10.1	9.7	10.0	9.3	9.0	9.1	8.6	8.0	8.2
17	11.0	10.8	10.9	9.7	9.5	9.6	9.0	8.7	8.9	8.4	7.9	8.1
18	---	---	---	9.6	9.3	9.5	9.7	9.0	9.4	8.3	7.8	8.0
19	---	---	---	9.3	9.1	9.2	9.8	9.6	9.7	8.2	7.7	7.9
20	---	---	---	9.1	9.0	9.0	9.8	9.7	9.8	8.0	7.8	7.9
21	---	---	---	9.1	8.9	9.0	9.7	9.5	9.6	8.1	7.6	7.8
22	---	---	---	9.6	9.1	9.4	9.6	9.5	9.6	7.8	7.5	7.7
23	---	---	---	10.0	9.6	9.8	9.8	9.6	9.7	7.8	7.4	7.6
24	---	---	---	10.1	10.0	10.0	9.8	9.7	9.8	8.2	7.7	8.0
25	11.0	10.7	10.8	10.0	9.9	9.9	9.7	9.5	9.6	8.3	8.2	8.3
26	11.3	11.0	11.2	10.3	9.9	10.1	9.7	9.5	9.6	8.2	7.9	8.0
27	11.5	11.3	11.4	10.9	10.4	10.7	9.5	9.3	9.4	7.9	7.7	7.8
28	11.7	11.5	11.6	11.3	10.9	11.1	9.7	9.5	9.6	8.3	7.6	7.9
29	---	---	---	11.3	11.1	11.2	9.8	9.6	9.7	8.6	8.0	8.5
30	---	---	---	11.1	10.5	10.9	9.6	9.4	9.5	8.5	8.1	8.3
31	---	---	---	10.5	9.7	10.1	---	---	---	8.1	7.9	8.0
MONTH	---	---	---	11.9	8.9	10.4	11.1	8.7	9.9	9.5	7.4	8.4

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.9	7.7	7.8	7.4	7.2	7.3	8.1	6.0	7.6	7.6	7.2	7.5
2	8.0	7.9	7.9	7.7	7.2	7.4	8.1	8.0	8.1	7.9	7.3	7.6
3	7.9	7.8	7.8	7.5	7.1	7.3	8.0	7.8	8.0	8.1	7.3	7.8
4	8.0	7.8	7.9	7.2	6.9	7.0	7.8	7.5	7.7	8.3	8.1	8.2
5	8.4	7.9	8.2	7.4	7.1	7.2	7.5	7.4	7.5	8.4	8.3	8.4
6	8.5	8.4	8.5	7.4	7.0	7.2	7.6	7.4	7.5	8.4	8.3	8.4
7	8.5	8.3	8.4	7.8	6.9	7.3	7.6	7.3	7.4	8.3	8.2	8.3
8	8.3	8.1	8.3	7.6	6.8	7.2	7.5	7.1	7.3	8.2	8.1	8.1
9	8.1	7.9	8.0	7.3	6.7	7.1	7.3	7.0	7.1	8.0	7.7	7.9
10	7.9	7.5	7.7	7.4	7.0	7.2	7.3	7.0	7.2	7.8	7.6	7.7
11	7.7	7.5	7.6	7.1	6.9	7.0	7.4	7.1	7.3	7.7	7.6	7.6
12	7.8	7.6	7.7	7.1	6.8	7.0	7.1	7.1	7.1	7.8	7.5	7.7
13	8.0	7.6	7.8	7.3	7.1	7.2	7.2	7.1	7.1	7.7	7.5	7.6
14	8.1	7.6	7.9	7.5	7.2	7.4	7.2	7.1	7.2	7.7	7.5	7.6
15	8.3	7.7	8.0	7.4	7.1	7.3	7.4	7.2	7.3	7.9	7.5	7.6
16	7.8	7.5	7.7	7.3	7.0	7.1	7.3	7.2	7.2	7.9	7.4	7.6
17	7.8	7.6	7.7	7.1	6.8	7.0	7.2	7.0	7.1	7.8	7.4	7.6
18	7.9	7.8	7.8	7.2	6.9	7.1	7.3	6.9	7.1	7.9	7.4	7.6
19	7.8	7.7	7.8	7.4	7.0	7.2	7.4	7.0	7.2	7.8	7.4	7.6
20	7.8	7.7	7.8	7.4	6.9	7.0	7.4	7.1	7.3	8.0	7.6	7.8
21	7.9	7.7	7.8	7.1	6.9	7.0	7.3	7.1	7.2	8.0	7.7	7.9
22	7.9	7.6	7.7	7.2	6.8	7.0	7.2	6.9	7.1	8.3	7.9	8.1
23	7.9	7.4	7.7	6.9	6.7	6.8	7.2	6.9	7.1	8.5	8.1	8.3
24	8.2	7.5	7.8	7.5	6.8	7.1	7.3	6.8	7.0	8.7	8.2	8.5
25	8.3	7.5	7.8	7.4	6.9	7.1	7.4	6.9	7.3	8.6	8.4	8.6
26	---	---	---	7.2	6.7	7.0	7.4	7.3	7.4	8.8	8.5	8.6
27	---	---	---	7.2	6.8	6.9	7.4	7.1	7.3	8.6	8.4	8.6
28	---	---	---	7.1	6.9	7.0	7.3	7.1	7.2	8.7	8.6	8.7
29	---	---	---	7.3	6.9	7.1	7.3	7.0	7.2	8.7	8.6	8.6
30	---	---	---	6.9	6.7	6.8	7.5	7.0	7.2	---	---	---
31	---	---	---	7.3	5.9	6.9	7.3	6.9	7.1	---	---	---
MONTH	8.5	7.4	7.9	7.8	5.9	7.1	8.1	6.0	7.3	8.8	7.2	8.0

TURBIDITY (JTU), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											---	---
11											---	---
12											---	---
13											---	---
14											---	---
15											---	---
16											---	---
17											---	---
18											---	---
19											---	---
20											---	---
21											---	---
22											---	---
23											40	25
24											25	10
25											10	3
26											30	3
27											75	20
28											55	3
29											9	0
30											3	0
31											9	0
MONTH											---	---

03408500 NEW RIVER AT NEW RIVER, TN--Continued

TURBIDITY (JTU), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9	0	---	---	600	70	85	50	---	---	330	130
2	---	---	---	---	190	90	50	30	---	---	3000	300
3	---	---	---	---	110	80	60	30	---	---	2400	280
4	---	---	---	---	170	50	110	60	---	---	260	120
5	---	---	---	---	2800	75	95	45	---	---	110	70
6	20	9	---	---	470	160	55	40	---	---	170	50
7	25	3	---	---	190	85	40	25	---	---	50	35
8	15	0	---	---	85	40	70	20	---	---	40	25
9	6	0	---	---	45	35	65	20	---	---	90	35
10	9	0	---	---	290	30	65	35	---	---	50	40
11	6	0	---	---	220	110	70	35	---	---	45	40
12	9	0	---	---	100	60	170	65	---	---	50	35
13	10	3	---	---	65	45	170	100	---	---	75	40
14	15	3	---	---	90	55	190	170	---	---	85	35
15	20	6	---	---	60	45	190	150	---	---	45	35
16	210	0	---	---	250	50	150	80	---	---	50	35
17	700	9	---	---	1600	65	80	55	---	---	50	35
18	700	75	---	---	1700	850	50	20	---	---	50	30
19	65	9	---	---	850	190	25	6	---	---	50	35
20	35	0	15	3	180	100	55	6	---	---	40	30
21	---	---	45	3	110	65	170	40	---	---	35	25
22	---	---	190	15	150	50	35	20	---	---	30	20
23	---	---	290	50	60	40	70	25	---	---	35	15
24	---	---	1300	440	55	25	---	---	---	---	35	25
25	---	---	900	240	40	20	---	---	---	---	65	25
26	---	---	220	85	---	---	---	---	---	---	440	25
27	---	---	2000	95	---	---	---	---	---	---	490	40
28	---	---	2600	250	---	---	---	---	---	---	50	35
29	---	---	2600	210	---	---	---	---	---	---	40	35
30	---	---	350	100	---	---	---	---	80	65	---	---
31	---	---	410	55	---	---	---	---	130	80	---	---
MONTH	---	---	---	---	2800	20	---	---	---	---	3000	15

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	29	12	.94	300	20	16	1640	125	700
2	31	12	1.0	247	20	13	2110	100	700
3	33	13	1.2	211	20	11	1260	50	170
4	45	10	1.2	184	20	9.9	904	20	49
5	44	12	1.4	166	20	9.0	666	17	31
6	72	15	2.9	176	20	9.5	503	14	19
7	66	18	3.2	174	20	9.4	423	10	11
8	57	15	2.3	148	20	8.0	376	10	10
9	47	15	1.9	135	16	5.8	319	6	5.2
10	39	10	1.1	124	12	4.0	271	5	3.7
11	34	10	.92	115	12	3.7	259	5	3.2
12	32	10	.86	108	16	4.7	213	8	4.6
13	30	10	.81	102	10	2.8	195	4	2.1
14	29	10	.78	97	8	2.1	256	4	2.5
15	28	10	.76	93	10	2.5	340	9	8.3
16	27	26	1.9	96	10	2.6	318	10	8.6
17	25	11	.74	162	10	4.4	309	10	8.3
18	38	12	1.2	198	19	10	487	8	11
19	230	27	17	162	12	5.2	481	12	16
20	129	21	7.3	212	16	9.2	360	15	15
21	83	22	4.9	276	20	15	445	6	7.2
22	65	12	2.1	242	22	14	1380	86	452
23	392	64	99	221	19	11	3290	247	2220
24	649	78	137	349	12	11	2050	47	268
25	337	50	45	633	20	34	1290	40	139
26	1800	252	1750	604	23	38	973	35	92
27	4080	520	5990	1260	86	509	793	30	64
28	1570	50	212	2470	200	1700	651	25	44
29	832	20	45	1260	50	170	555	20	30
30	549	20	30	895	30	72	412	20	22
31	387	20	21	---	---	---	475	20	26
TOTAL	11809	---	8385.41	11420	---	2716.8	23964	---	5142.7

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	1170	199	657	2590	300	2300	1010	36	98
2	1050	150	425	1530	75	310	885	21	50
3	11200	1520	60800	1850	75	375	781	17	36
4	13700	1500	60000	1830	50	247	680	24	44
5	3660	150	1480	1420	20	77	834	45	97
6	1840	80	397	1180	20	64	911	50	125
7	1340	50	181	912	20	49	3140	231	2080
8	994	40	107	797	20	43	2380	97	657
9	812	30	66	2990	622	8590	1840	42	209
10	614	25	41	2900	430	3650	1470	33	131
11	439	20	24	1650	225	994	1210	24	78
12	487	20	26	1190	223	708	1000	27	73
13	448	20	24	1290	150	522	882	17	40
14	425	20	23	1160	100	313	852	21	48
15	375	15	15	1060	100	286	2660	223	2690
16	344	10	9.3	1890	200	1700	3630	275	3110
17	288	10	7.8	4170	600	7000	1930	50	261
18	260	10	7.0	2620	250	2000	1310	45	159
19	494	20	30	1700	100	459	1080	30	87
20	1360	80	294	1260	50	170	922	26	65
21	6000	500	10000	1050	40	113	877	21	50
22	4320	350	4500	840	30	68	930	51	128
23	7210	500	12000	685	20	37	802	33	71
24	4030	400	4500	599	20	32	723	16	31
25	1870	100	505	554	15	22	641	16	28
26	1230	50	166	450	18	22	678	14	26
27	867	20	47	613	19	31	555	43	64
28	784	20	42	1160	78	244	474	44	56
29	638	20	34	---	---	---	422	9	10
30	553	20	30	---	---	---	393	9	9.5
31	780	50	150	---	---	---	389	9	9.5
TOTAL	69582	---	156588.1	41940	---	30426	36291	---	10619.0
		APRIL			MAY			JUNE	
1	450	13	16	659	22	39	864	147	343
2	393	9	9.5	552	16	24	586	128	203
3	392	14	15	473	14	18	380	54	55
4	378	7	7.1	393	13	14	388	65	68
5	330	12	11	333	12	11	1460	668	2910
6	424	15	17	294	14	11	766	147	304
7	382	15	15	265	24	17	481	96	125
8	367	9	8.9	268	15	11	340	41	38
9	503	10	14	260	12	8.4	266	32	23
10	510	8	11	209	10	5.6	337	75	68
11	475	12	15	183	9	4.4	352	96	91
12	440	8	9.5	162	10	4.4	228	51	31
13	402	9	9.8	145	11	4.3	204	36	20
14	380	11	11	130	8	2.8	184	40	20
15	348	10	9.4	119	8	2.6	149	26	10
16	362	40	39	110	16	4.8	221	40	24
17	1160	223	806	119	36	12	858	452	971
18	2140	154	920	143	8	3.1	432	636	789
19	1370	46	170	155	7	2.9	273	240	177
20	1030	50	139	161	16	7.0	204	90	50
21	800	107	231	186	14	7.0	163	65	29
22	618	59	98	197	16	8.5	137	65	24
23	500	42	57	552	86	141	135	40	15
24	427	42	48	945	455	1180	112	38	11
25	394	32	34	566	364	563	93	25	6.3
26	562	24	36	350	91	86	81	23	5.0
27	1060	94	269	331	204	182	78	22	4.6
28	1160	76	238	4010	1970	38200	83	19	4.3
29	985	38	101	5110	1210	22700	221	37	22
30	810	26	57	1400	149	589	254	84	58
31	---	---	---	800	65	140	---	---	---
TOTAL	19552	---	3422.2	19580	---	64003.8	10330	---	6499.2

03408500 NEW RIVER AT NEW RIVER, TN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	157	51	22	2180	1420	12700	638	64	110
2	106	39	11	665	156	280	11200	2060	88000
3	98	35	9.3	364	52	51	9330	1280	49300
4	275	68	50	247	38	25	1430	123	513
5	261	54	38	184	35	17	759	39	80
6	144	40	16	147	32	13	482	23	30
7	104	33	9.3	128	21	7.3	337	15	14
8	90	30	7.3	105	18	5.1	258	32	22
9	188	36	18	142	18	6.9	208	10	5.6
10	184	50	25	429	37	43	175	8	3.8
11	147	48	19	258	18	13	151	12	4.9
12	462	80	100	159	62	27	138	5	1.9
13	349	110	104	115	140	43	133	5	1.8
14	188	106	54	96	107	28	140	6	2.3
15	132	108	38	85	60	14	141	6	2.3
16	102	82	23	83	34	7.6	114	11	3.4
17	142	57	22	85	24	5.5	98	8	2.1
18	169	48	22	82	19	4.2	88	9	2.1
19	116	34	11	70	17	3.2	80	7	1.5
20	156	38	16	62	15	2.5	76	12	2.5
21	160	79	34	58	15	2.3	73	9	1.8
22	109	40	12	57	20	3.1	68	5	.9
23	132	56	20	52	16	2.2	65	6	1.1
24	148	40	16	141	49	19	61	7	1.2
25	127	28	9.6	779	125	280	62	9	1.5
26	148	34	14	278	94	71	94	28	7.1
27	180	37	18	144	54	21	344	40	37
28	174	31	15	103	39	11	200	12	6.5
29	123	30	10	84	36	8.2	123	7	2.3
30	99	29	7.8	74	32	6.4	94	7	1.8
31	1460	779	9160	231	42	26	---	---	---
TOTAL	6430	---	9931.3	7687	---	13746.5	27160	---	138164.4

TOTAL LOAD FOR YEAR: 449645.41

03408600 LONG BRANCH NEAR GRIMSLEY, TN

LOCATION.--Lat 36°15'32", long 84°57'40", Fentress County, Hydrologic Unit 05130104, on right bank 1.4 mi (2.3 km) east of Grimsley, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--1.11 mi^2 (2.87 km^2).

PERIOD OF RECORD.--July 1976 to November 1981 (discontinued).

GAGE.--Water-stage recorder and concrete weir. Altitude of gage is 1,670 ft (509 m), from topographic map.

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

AVERAGE DISCHARGE.--5 years (water years 1977-81), 1.85 ft^3/s (0.052 m^3/s), 22.63 in/yr (575 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft^3/s (3.03 m^3/s) Mar. 21, 1980, gage height, 2.89 ft (0.881 m); no flow many days most years.

EXTREMES FOR CURRENT PERIOD.--October to November 1981: Maximum discharge, 24 ft^3/s (0.68 m^3/s) at 2045 hours Oct. 26, gage height, 1.91 ft (0.582 m), no other peak above base of 20 ft^3/s (0.57 m^3/s); minimum, 0.04 ft^3/s (0.001 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	2.0										
2	.10	1.8										
3	.10	1.6										
4	.10	1.4										
5	.16	1.3										
6	.16	1.3										
7	.16	1.3										
8	.15	1.1										
9	.11	1.0										
10	.10	.91										
11	.10	.91										
12	.10	.85										
13	.11	.77										
14	.11	.74										
15	.10	.69										
16	.12	1.0										
17	.47	1.7										
18	.46	1.3										
19	.56	1.4										
20	.20	1.5										
21	.19	1.4										
22	.13	1.3										
23	1.7	1.5										
24	.64	2.0										
25	.54	2.5										
26	4.7	5.0										
27	11	8.0										
28	6.6	8.0										
29	4.2	6.1										
30	3.0	6.8										
31	2.4	---										
TOTAL	38.72	67.17										
MEAN	1.25	2.24										
MAX	11	8.0										
MIN	.10	.69										
CFSM	1.13	2.02										
IN.	1.30	2.25										

03408815 CROOKED CREEK NEAR ALLARDT, TN

LOCATION.--Lat 36°22'59", long 84°54'50", Fentress County, Hydrologic Unit 05130104, on right bank 3.3 mi (5.3 km) southeast of Jamestown, 1.6 mi (2.6 km) west of Allardt, and at mile 15.5 (24.9 km).

DRAINAGE AREA.--3.62 mi^2 (9.38 km^2).

PERIOD OF RECORD.--June 1976 to November 1981 (discontinued).

GAGE.--Water-stage recorder and concrete weir. Altitude of gage is 1,600 ft (488 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 383 ft^3/s (10.8 m^3/s) Apr. 4, 1977, gage height, 3.44 ft (1.049 m); no flow June 11, 1977.

EXTREMES FOR CURRENT PERIOD.--October to November 1981: Maximum discharge, 124 ft^3/s (3.51 m^3/s) at 0200 hours, Oct. 27, gage height, 2.82 ft (0.860 m), no peak above base of 140 ft^3/s (3.96 m^3/s); minimum, 0.30 ft^3/s (0.008 m^3/s) Oct. 1, gage height, 1.16 ft (0.354 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	4.0										
2	.60	3.4										
3	.53	3.0										
4	.59	3.0										
5	3.6	2.6										
6	3.2	3.0										
7	2.0	2.3										
8	1.3	1.9										
9	.98	1.9										
10	.89	1.7										
11	.89	1.7										
12	.89	1.6										
13	.81	1.5										
14	.67	1.5										
15	.65	1.4										
16	.65	2.6										
17	.65	6.1										
18	2.3	3.2										
19	1.9	3.7										
20	1.0	4.0										
21	.98	3.5										
22	.89	4.0										
23	13	6.0										
24	5.1	6.4										
25	3.4	7.0										
26	19	10										
27	54	20										
28	15	25										
29	8.4	23										
30	6.1	20										
31	4.7	---										
TOTAL	155.08	179.0										
MEAN	5.00	5.97										
MAX	54	25										
MIN	.41	1.4										
CFSM	1.38	1.65										
IN.	1.59	1.84										

03409400 WHITE OAK CREEK AT RUGBY, TN

LOCATION--.Lat 36°21'21", long 84°41'27", Morgan County, Hydrologic Unit 05130104, on right bank 10 ft (3 m) downstream from bridge on State Highway 52, 50 ft (15 m) downstream from Little Creek, 1.5 mi (2.4 km) upstream from Gum Branch, 0.8 mi (1.3 km) southeast of Rugby, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--98.0 mi^2 (254 km^2).

PERIOD OF RECORD.--May to November 1979 (discharge measurements only), January 1980 to November 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,212.01 ft (369.421 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,600 ft^3/s (668 m^3/s) March 21, 1980, gage height, 24.70 ft (7.529 m) from floodmarks, from rating curve extended above 700 ft^3/s (19.8 m^3/s), on basis of a slope-area study of peak flow; minimum, 0.12 ft^3/s (0.003 m^3/s) Oct. 24, 1980.

EXTREMES FOR CURRENT PERIOD.--October to November 1981: Maximum discharge, 792 ft^3/s (22.4 m^3/s), at 0750 hours Oct. 27, gage height, 9.02 ft (2.749 m); minimum, 0.86 ft^3/s (0.024 m^3/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	29										
2	1.5	24										
3	1.1	20										
4	.94	17										
5	1.4	15										
6	2.4	14										
7	1.8	11										
8	2.0	10										
9	1.9	8.9										
10	1.7	7.7										
11	1.7	6.8										
12	1.7	6.1										
13	2.1	5.5										
14	2.0	5.0										
15	1.5	4.6										
16	1.2	4.9										
17	1.0	8.0										
18	1.4	13										
19	1.8	14										
20	7.4	12										
21	6.3	13										
22	3.8	11										
23	31	14										
24	54	19										
25	31	22										
26	144	21										
27	567	25										
28	183	90										
29	85	110										
30	53	90										
31	38	---										
TOTAL	1233.84	651.5										
MEAN	39.8	21.7										
MAX	567	110										
MIN	.94	4.6										
CFSM	.41	.22										
IN.	.47	.25										

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 (90 m) downstream from Burnt Mill Bridge, 3.3 mi (5.3 km) northwest of Robbins, and at mile 3.7 (6.0 km).

DRAINAGE AREA.--272 mi^2 (704 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1971, July 1975 to current year. 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.--Water-stage recorder. Datum of gage is 1,081.46 ft (329.629 m) Sandy Hook datum. Prior to Aug. 10, 1940, nonrecording gage at site 300 ft (90 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--48 years (water years 1931-71, 1976-82), 471 ft^3/s (13.34 m^3/s), 23.52 in/yr (597 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft^3/s (963 m^3/s) Feb. 3, 1939, gage height, 18.5 ft (5.64 m) from floodmarks, site and datum then in use, from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 0.2 ft^3/s (0.006 m^3/s) Sept. 19-21, 1952; minimum gage height observed, 0.28 ft (0.085 m) Oct. 1-3, 1936, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929 reached a stage of 22.1 ft (6.74 m), former site and datum, from information by local residents, and flood of May 27, 1973, reached a stage of 18.92 ft (5.767 m), present site and datum, from floodmark; discharge, 35,700 ft^3/s (1,010 m^3/s), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement at gage height 18.5 ft (5.64 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,500 ft^3/s (184 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1330	14100	399	12.59	3.837	Jan. 23	1700	6810	193	9.18	2.798
Jan. 4	0830	16100	456	13.30	4.054	Sept. 2	1430	*25300	716	16.10	4.907

Minimum discharge, 18 ft^3/s (0.51 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	246	1420	819	1520	680	227	481	454	21	2390	2350
2	21	202	1700	768	1110	600	203	388	338	24	698	13500
3	30	174	956	9280	1210	520	200	326	219	24	354	7010
4	34	153	649	11900	1170	450	212	271	214	33	206	1830
5	30	138	474	3470	942	550	186	229	859	110	136	951
6	73	137	368	1740	800	600	193	200	597	66	105	590
7	84	126	315	1220	647	2100	189	178	356	43	90	391
8	56	113	283	897	551	1700	178	179	232	41	81	279
9	45	102	242	705	1140	1250	246	181	166	39	226	210
10	38	95	207	541	1620	1000	271	150	132	56	232	166
11	34	88	186	380	1150	823	237	131	119	81	149	137
12	32	83	169	370	876	673	219	116	110	114	99	118
13	30	78	155	362	996	581	206	104	88	69	75	113
14	29	74	170	340	937	613	196	94	78	52	63	133
15	27	70	257	310	821	2080	183	85	70	38	54	137
16	26	74	246	270	1100	2860	172	96	74	29	71	106
17	24	127	229	240	2050	1680	624	115	105	24	325	89
18	28	174	267	240	1500	1140	985	135	87	23	816	77
19	32	142	249	260	1090	882	626	181	66	184	373	68
20	44	147	225	624	832	723	500	148	53	103	211	64
21	46	159	291	2640	693	603	413	108	45	110	141	59
22	43	147	622	2980	559	555	326	96	42	90	110	54
23	152	135	2110	5040	452	453	271	100	39	120	87	52
24	313	184	1660	3330	397	400	236	190	38	246	130	48
25	196	289	1040	1660	363	359	217	175	33	134	1070	47
26	349	280	763	1090	314	345	226	115	28	81	574	70
27	3250	734	613	747	362	306	814	88	25	62	317	250
28	1530	1720	522	628	770	260	1450	1360	22	72	215	164
29	746	914	426	519	---	234	910	2330	23	82	156	96
30	455	620	345	443	---	220	638	875	21	62	119	72
31	319	---	377	620	---	222	---	414	---	2290	812	---
TOTAL	8135	7725	17536	54433	25972	25462	11554	9639	4733	4523	10485	29231
MEAN	262	258	566	1756	928	821	385	311	158	146	338	974
MAX	3250	1720	2110	11900	2050	2860	1450	2330	859	2290	2390	13500
MIN	19	70	155	240	314	220	172	85	21	21	54	47
CFSM	.96	.95	2.08	6.46	3.41	3.02	1.42	1.14	.58	.54	1.24	3.58
IN.	1.11	1.06	2.40	7.44	3.55	3.48	1.58	1.32	.65	.62	1.43	4.00

CAL YR 1981 TOTAL 134020 MEAN 367 MAX 3510 MIN 11 CFSM 1.35 IN 18.33
WTR YR 1982 TOTAL 209428 MEAN 574 MAX 13500 MIN 19 CFSM 2.11 IN 28.64

03409500 CLEAR FORK NEAR ROBBINS, TN

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-64, 1976-77, 1979 to June 1982 (discontinued).

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR						
25...	1345	353	60	11.0	3	2.9
JUN						
18...	1030	87	75	22.5	7	1.6

03410500 SOUTH FORK CUMBERLAND NEAR STEARNS, KY

LOCATION.--Lat 36°37'37", long 84°32'00", McCreary County, Hydrologic Unit 05130104, on right bank 1,000 ft (304.8 m) below confluence of Bear Creek, 400 ft (122 m) upstream from Salt Branch, 5.5 mi (8.8 km) southwest of Stearns, and at mile 49.6 (79.8 km). Records include flow of Bear Creek.

DRAINAGE AREA.--954 mi^2 (2,471 km^2), includes that of Bear Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 763.83 ft (232.815 m) National Geodetic Vertical Datum of 1929; prior to Oct. 1, 1980 at site 1,000 ft (304.800 m) upstream at datum 0.98 ft (0.299 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--40 years, 1,783 ft^3/s (50.49 m^3/s), 25.38 in/yr (645 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,200 ft^3/s (2,640 m^3/s) May 28, 1973, gage height, 46.29 ft (14.109 m), present datum, from floodmarks; minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 4, 1948, Sept. 17, 18, 19, 20, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929, reached a stage of 52.9 ft (16.21 m) from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 22,000 ft^3/s (623 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1700	37200	1054	27.37	8.342	Sept. 2	2100	*67000	1897	37.81	11.524
Jan. 23	2400	22900	649	20.97	6.392						

Minimum discharge, 76 ft^3/s (2.15 m^3/s) Oct. 4, gage height, 1.46 ft (0.445 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	795	2210	2020	4520	2190	895	1800	2300	354	7220	3700
2	81	660	4710	2450	3900	1950	890	1490	1650	242	2240	29400
3	81	564	3040	22200	3620	1770	833	1270	1020	196	1130	34400
4	77	504	2060	35500	4060	1590	833	1080	1150	242	725	6240
5	99	451	1540	14200	3350	1550	803	919	3270	447	527	2970
6	162	422	1180	5660	2770	1870	1070	810	2500	422	412	1820
7	201	415	991	3800	2280	4920	1080	731	1450	281	337	1250
8	211	389	890	2860	1860	6180	994	716	981	247	306	929
9	163	345	785	2150	3190	4380	1150	693	729	218	308	731
10	141	318	679	1650	7150	3540	1320	625	594	281	522	607
11	124	300	607	1130	4250	2960	1220	555	721	429	737	514
12	110	279	548	1080	3080	2470	1110	473	595	456	456	449
13	100	257	506	1170	2930	2110	1010	420	462	722	327	412
14	92	247	552	1140	3000	2050	946	377	405	466	253	413
15	88	237	701	1020	2650	4550	869	344	337	314	215	426
16	85	233	804	958	2920	10100	791	318	378	253	203	395
17	81	266	761	751	7560	5750	2370	326	689	188	257	328
18	86	424	857	692	6240	3820	4960	367	885	210	773	285
19	95	459	995	894	4170	2940	3420	386	560	363	657	253
20	260	408	795	2000	3100	2520	2530	473	418	377	427	223
21	234	486	739	7260	2530	2140	2000	406	352	317	377	208
22	179	522	1740	11400	2060	2090	1570	398	308	351	298	196
23	325	475	6230	14800	1660	1840	1290	441	269	313	235	182
24	1100	527	5740	13300	1440	1610	1100	1000	230	380	323	176
25	867	899	3470	5610	1320	1440	991	1080	204	434	1970	180
26	936	1100	2500	3600	1170	1330	1000	742	173	309	1680	206
27	8110	1480	2010	2470	1170	1260	2170	550	152	280	848	1030
28	5140	5060	1690	2020	2060	1060	3940	1640	145	303	583	807
29	2330	3190	1420	1700	---	949	3010	10100	186	307	445	446
30	1440	2060	1170	1470	---	893	2290	3520	338	274	347	313
31	1030	---	1070	1540	---	894	---	2310	---	1550	493	---
TOTAL	24109	23772	52970	168495	90010	84716	48455	36338	23447	11486	25651	89489
MEAN	778	792	1709	5435	3215	2733	1615	1172	782	371	827	2983
MAX	8110	5060	6230	35500	7560	10100	4960	10100	3270	1550	7220	34400
MIN	77	233	506	692	1170	893	791	318	145	188	203	176
CFSM	.82	.83	1.79	5.70	3.37	2.87	1.69	1.23	.82	.39	.87	3.13
IN.	.94	.93	2.07	6.57	3.51	3.30	1.89	1.42	.91	.45	1.00	3.49

CAL YR 1981 TOTAL 450881 MEAN 1235 MAX 10100 MIN 69 CFSM 1.30 IN 17.58
WTR YR 1982 TOTAL 678918 MEAN 1860 MAX 35500 MIN 77 CFSM 1.95 IN 26.47

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-72, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1980 to current year.
pH: May 1980 to current year.
WATER TEMPERATURE: May 1980 to current year.
DISSOLVED OXYGEN: May 1980 to current year.
TURBIDITY: May 1980 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1980 to current year.

INSTRUMENTATION.--Five parameter water quality monitor and sediment pumping sampler since May 1980.

REMARKS.--Miscellaneous samples prior to 1979. Interruptions in daily record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 378 micromhos Nov. 28, 1980; minimum, 56 micromhos June 2, 1981.
pH: Maximum, 7.7 units many days; minimum, 5.2 units May 19, Nov. 24, 1980.
WATER TEMPERATURE: Maximum, 33.0°C July 17, 1980; minimum, 0.5°C many days in January and Dec. 20, 21, 22, 1981.
DISSOLVED OXYGEN: Maximum, 14.0 mg/L Jan. 28, 1982; minimum, 4.5 mg/L May 22, 1980.
TURBIDITY: Maximum, >1,000 JTU Aug. 1, 2, 1982; minimum, 0 JTU many days.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,980 mg/L Aug. 9, 1981; minimum daily mean, 4 mg/L Mar. 21, Nov. 14, 1981, May 9, 10, 1982.
SEDIMENT LOADS: Maximum daily, 200,000 tons (181,000 tonnes) Sept. 2, 1982; minimum daily, 0.48 tons (0.44 tonnes) Oct. 23, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, not determined; minimum, not determined.
pH: Maximum, not determined; minimum, not determined.
WATER TEMPERATURE: Maximum, 29.0°C July 26, 27; minimum, not determined.
DISSOLVED OXYGEN: Maximum, 14.0 mg/L Jan. 18, but may have been higher during period of missing record; minimum, 6.8 mg/L July 26, 27.
TURBIDITY: Maximum, >1,000 JTU Aug. 1, 2; minimum, 0 JTU several days in Sept.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,790 mg/L May 29; minimum daily mean, 4 mg/L Nov. 14, May 9, 10.
SEDIMENT LOADS: Maximum daily, 200,000 tons (181,000 tonnes) Sept. 2; minimum daily, 1.1 tons (1.00 tonnes) Oct. 3, 16, 17.

EXTREMES FOR 1981 WATER YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,980 mg/L Aug. 9; minimum daily mean, 4 mg/L Mar. 10, 21.
SEDIMENT LOAD: Maximum daily, 40,000 tons (36,300 tonnes) Apr. 5; minimum daily, 0.48 tons (0.44 tonnes) Oct. 23.

EXTREMES FOR MAY TO SEPT. 30, 1980.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,000 mg/L July 5; minimum daily, 6 mg/L May 7, 14, 15.
SEDIMENT LOAD: Maximum daily, 4,450 tons (4,040 tonnes) July 5; minimum daily, 0.92 tons (0.83 tonnes) Sept. 7.

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	202	198	201	---	---	---	115	115	115	---	---	---
2	202	200	201	---	---	---	123	115	117	---	---	---
3	200	196	198	132	130	131	---	---	---	---	---	---
4	196	190	193	138	134	136	---	---	---	---	---	---
5	190	182	186	141	139	140	---	---	---	---	---	---
6	190	176	183	145	143	145	---	---	---	---	---	---
7	176	168	172	149	145	148	122	120	122	---	---	---
8	168	160	163	156	152	154	122	122	122	---	---	---
9	162	162	162	156	144	146	127	121	125	---	---	---
10	162	160	161	146	144	146	129	127	129	---	---	---
11	160	158	159	151	147	148	129	129	129	---	---	---
12	160	160	160	157	153	154	133	129	131	---	---	---
13	164	160	161	159	157	159	134	132	133	---	---	---
14	168	164	165	164	162	162	134	134	134	---	---	---
15	168	168	168	164	164	164	134	134	134	---	---	---
16	168	166	167	168	166	168	139	133	137	---	---	---
17	166	164	165	174	170	171	143	137	138	---	---	---
18	164	162	163	179	175	178	143	141	142	---	---	---
19	166	164	165	180	178	179	141	139	141	---	---	---
20	168	166	168	185	181	183	150	138	143	---	---	---
21	170	168	168	183	177	179	160	152	157	---	---	---
22	172	170	170	183	177	179	150	134	140	---	---	---
23	198	168	183	183	179	182	---	---	---	---	---	---
24	296	166	205	197	179	187	---	---	---	---	---	---
25	296	242	261	203	195	199	---	---	---	---	---	---
26	280	242	271	197	177	187	---	---	---	---	---	---
27	---	---	---	179	157	173	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	102	100	101
29	---	---	---	---	---	---	---	---	---	106	100	103
30	---	---	---	---	---	---	---	---	---	110	108	108
31	---	---	---	---	---	---	---	---	---	114	110	112
MONTH	296	158	182	203	130	164	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	120	110	115	146	126	86	128	126	128	102	100	101
2	---	---	---	147	137	145	130	126	128	100	100	100
3	---	---	---	133	115	122	142	126	133	104	100	101
4	---	---	---	114	110	112	150	142	147	106	104	106
5	---	---	---	113	111	113	160	148	151	108	106	107
6	---	---	---	122	116	118	162	150	156	112	108	110
7	---	---	---	128	120	125	150	142	146	114	112	113
8	---	---	---	---	---	---	140	136	137	116	114	116
9	---	---	---	86	84	86	138	134	136	120	116	117
10	---	---	---	90	86	88	132	124	128	126	120	123
11	---	---	---	92	90	91	132	124	129	126	124	125
12	90	88	89	94	92	93	130	128	129	132	126	129
13	93	89	91	96	94	96	134	130	132	136	132	134
14	99	93	98	100	96	98	138	134	136	136	136	136
15	104	100	102	100	76	88	140	138	139	140	136	138
16	104	96	101	98	82	92	138	136	137	142	140	140
17	---	---	---	84	74	76	136	102	122	144	142	143
18	---	---	---	82	76	78	118	96	108	144	140	142
19	---	---	---	86	82	84	136	116	128	152	148	150
20	---	---	---	92	86	89	114	102	106	156	152	153
21	---	---	---	96	92	95	102	102	102	164	156	159
22	---	---	---	104	96	102	102	102	102	160	152	158
23	---	---	---	116	106	112	106	102	103	160	150	154
24	---	---	---	118	116	116	108	106	108	206	160	171
25	---	---	---	118	116	117	110	108	109	278	212	252
26	124	122	123	116	114	114	114	110	112	270	252	264
27	125	123	124	120	116	117	122	112	115	250	222	235
28	127	121	122	126	120	124	126	96	111	224	170	200
29	---	---	---	126	124	124	98	94	97	178	86	119
30	---	---	---	128	126	127	100	98	99	116	98	103
31	---	---	---	128	126	128	---	---	---	98	74	89
MONTH	---	---	---	147	74	105	162	94	124	278	74	142

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	98	84	90	186	178	182	172	118	149	128	82	114
2	106	98	103	188	180	184	146	116	123	---	---	---
3	120	108	115	190	184	187	118	114	116	---	---	---
4	120	118	119	194	188	191	122	116	119	---	---	---
5	---	---	---	228	194	206	126	122	123	---	---	---
6	---	---	---	262	230	248	132	126	129	---	---	---
7	---	---	---	276	262	270	138	132	134	---	---	---
8	---	---	---	274	254	266	140	136	138	---	---	---
9	---	---	---	252	244	247	140	136	139	---	---	---
10	---	---	---	---	---	---	144	136	140	---	---	---
11	---	---	---	---	---	---	160	144	153	---	---	---
12	---	---	---	---	---	---	160	150	156	---	---	---
13	---	---	---	238	228	233	150	140	143	---	---	---
14	---	---	---	252	240	246	166	140	149	---	---	---
15	---	---	---	242	232	236	200	166	183	124	124	124
16	---	---	---	240	228	232	210	200	206	129	125	127
17	152	150	151	256	240	247	214	210	212	139	131	135
18	182	154	172	258	244	250	226	212	216	142	140	141
19	220	176	195	288	250	264	232	204	225	146	142	144
20	252	222	240	306	288	298	200	150	174	149	145	147
21	264	250	257	294	276	284	146	96	119	151	147	149
22	262	244	255	274	252	265	94	82	85	154	146	151
23	244	210	228	250	232	241	82	78	80	158	150	154
24	208	188	197	232	210	227	106	80	86	156	154	155
25	188	180	184	206	186	191	110	82	95	156	154	156
26	186	180	183	222	194	209	168	98	141	158	154	155
27	---	---	---	228	222	224	168	158	162	172	154	159
28	---	---	---	224	218	220	160	150	156	182	160	176
29	---	---	---	222	218	220	150	138	143	156	104	120
30	188	180	186	218	200	210	136	130	133	116	102	108
31	---	---	---	240	192	205	138	128	131	---	---	---
MONTH	---	---	---	306	178	232	232	78	144	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.4	---	---	7.2	7.2	---	---	---	---	7.3	7.2
2	7.6	7.4	---	---	7.3	7.2	---	---	---	---	7.3	7.3
3	7.6	7.4	7.3	7.1	---	---	---	---	---	---	7.3	7.2
4	7.6	7.4	7.3	7.2	---	---	---	---	---	---	7.2	7.2
5	7.5	7.3	7.3	7.2	---	---	---	---	---	---	7.2	7.1
6	7.3	7.2	7.4	7.3	---	---	---	---	---	---	7.2	7.1
7	7.4	7.3	7.4	7.3	7.3	7.1	---	---	---	---	7.2	7.0
8	7.5	7.3	7.4	7.4	7.3	7.3	---	---	---	---	---	---
9	7.5	7.4	7.5	7.4	7.4	7.3	---	---	---	---	7.1	7.0
10	7.5	7.4	7.5	7.4	7.4	7.3	---	---	---	---	7.1	7.1
11	7.5	7.4	7.5	7.4	7.4	7.3	---	---	---	---	7.1	7.1
12	7.5	7.4	7.5	7.4	7.4	7.4	---	---	7.0	7.0	7.1	7.0
13	7.6	7.4	7.5	7.5	7.4	7.4	---	---	7.0	7.0	7.1	7.1
14	7.6	7.4	7.5	7.5	7.4	7.3	---	---	7.1	7.0	7.1	7.1
15	7.5	7.4	7.6	7.5	7.4	7.3	---	---	7.1	7.1	7.1	6.7
16	7.5	7.4	7.5	7.5	7.4	7.3	---	---	7.1	7.0	7.1	7.0
17	7.5	7.4	7.5	7.4	7.4	7.3	---	---	---	---	7.1	6.9
18	7.5	7.4	7.6	7.5	7.4	7.3	---	---	---	---	7.0	6.9
19	7.5	7.4	7.6	7.5	7.4	7.4	---	---	---	---	7.0	7.0
20	7.5	7.4	7.6	7.5	7.4	7.4	---	---	---	---	7.0	7.0
21	7.5	7.4	7.6	7.5	7.5	7.4	---	---	---	---	7.1	7.0
22	7.5	7.4	7.6	7.6	7.4	7.3	---	---	---	---	7.1	7.1
23	7.4	7.0	7.6	7.5	---	---	---	---	---	---	7.2	7.1
24	7.5	7.3	7.5	7.5	---	---	---	---	---	---	7.2	7.0
25	7.5	7.5	7.6	7.5	---	---	---	---	---	---	7.2	7.2
26	7.5	7.3	7.5	7.5	---	---	---	---	7.2	7.1	7.2	7.2
27	---	---	7.5	7.3	---	---	---	---	7.2	7.1	7.3	7.2
28	---	---	---	---	---	---	7.2	7.0	7.2	7.1	7.3	7.2
29	---	---	---	---	---	---	7.1	7.0	---	---	7.3	7.2
30	---	---	---	---	---	---	7.1	7.0	---	---	7.3	7.2
31	---	---	---	---	---	---	7.1	6.9	---	---	7.3	7.3
MONTH	7.7	7.0	7.6	7.1	---	---	---	---	---	---	7.3	6.7

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.3	7.2	7.2	7.1	6.9	6.2	7.4	7.2	7.2	7.0	7.1	6.5
2	7.3	7.2	7.2	7.1	7.0	6.9	7.4	7.3	7.2	7.1	---	---
3	7.3	7.2	7.2	7.1	7.1	7.0	7.4	7.3	7.1	7.1	---	---
4	7.3	7.3	7.2	7.1	7.1	7.1	7.3	7.1	7.1	7.1	---	---
5	7.3	7.0	7.2	7.1	---	---	7.4	7.2	7.1	7.1	---	---
6	7.3	6.9	7.2	7.1	---	---	7.4	7.3	7.2	7.1	---	---
7	7.3	7.0	7.2	7.1	---	---	7.4	7.3	7.3	7.2	---	---
8	7.2	7.2	7.2	7.1	---	---	7.4	7.2	7.3	7.2	---	---
9	7.2	7.2	7.3	7.2	---	---	7.3	7.2	7.3	7.2	---	---
10	7.2	7.2	7.3	7.2	---	---	---	---	7.4	7.2	---	---
11	7.2	7.2	7.3	7.2	---	---	---	---	7.5	7.3	---	---
12	7.2	7.2	7.3	7.2	---	---	---	---	7.5	7.3	---	---
13	7.2	7.2	7.4	7.2	---	---	7.4	7.3	7.5	7.3	---	---
14	7.2	7.2	7.4	7.2	---	---	7.5	7.3	7.6	7.3	---	---
15	7.2	7.2	7.4	7.2	---	---	7.5	7.4	7.7	7.4	7.2	7.2
16	7.2	7.2	7.3	7.2	---	---	7.5	7.4	7.6	7.4	7.2	7.1
17	7.2	6.7	7.4	7.2	7.3	7.2	7.5	7.4	7.6	7.4	7.3	7.2
18	7.1	7.0	7.3	7.2	7.4	7.3	7.5	7.3	7.5	7.4	7.3	7.2
19	7.3	7.1	7.4	7.2	7.5	7.3	7.5	7.3	7.6	7.4	7.3	7.2
20	7.2	7.1	7.3	7.2	7.5	7.4	7.5	7.4	7.6	7.4	7.4	7.2
21	7.1	7.1	7.4	7.2	7.5	7.4	7.5	7.4	7.5	7.2	7.3	7.3
22	7.1	7.1	7.4	7.2	7.4	7.3	7.5	7.4	7.3	7.1	7.4	7.3
23	7.2	7.1	7.3	7.2	7.4	7.3	7.4	7.3	7.2	7.0	7.4	7.3
24	7.1	7.1	7.3	7.2	7.3	7.3	7.5	7.3	7.1	6.8	7.4	7.3
25	7.2	7.1	7.5	7.3	7.3	7.3	7.5	7.3	7.1	6.7	7.4	7.3
26	7.2	7.1	7.4	7.3	7.3	7.3	7.5	7.3	7.3	7.1	7.4	7.3
27	7.2	7.0	7.3	7.1	---	---	7.5	7.4	7.3	7.2	7.4	7.3
28	7.2	7.1	7.1	6.8	---	---	7.5	7.3	7.3	7.2	7.4	7.4
29	7.1	7.1	7.2	6.8	---	---	7.5	7.4	7.3	7.2	7.3	7.1
30	7.2	7.1	7.1	7.0	7.3	7.2	7.4	7.3	7.3	7.2	7.1	7.1
31	---	---	7.0	6.3	---	---	7.3	7.1	7.2	6.9	---	---
MONTH	7.3	6.7	7.5	6.3	---	---	7.5	7.1	7.7	6.7	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.5	19.0	19.5	---	---	---	8.0	7.5	7.5	---	---	---
2	20.0	18.5	19.0	---	---	---	9.0	8.0	8.5	---	---	---
3	19.0	16.5	18.0	14.0	13.0	13.5	---	---	---	---	---	---
4	18.5	16.5	17.5	14.0	13.5	13.5	---	---	---	---	---	---
5	18.5	17.5	17.5	14.0	13.5	14.0	---	---	---	---	---	---
6	18.0	17.0	17.5	14.0	13.0	13.5	---	---	---	---	---	---
7	17.5	16.5	17.0	13.0	12.5	12.5	6.5	6.0	6.5	---	---	---
8	17.5	16.0	16.5	12.5	11.5	12.0	6.5	6.0	6.0	---	---	---
9	16.5	15.5	16.0	12.5	11.5	12.0	6.0	5.0	5.5	---	---	---
10	16.5	16.0	16.5	12.5	12.0	12.0	5.0	4.5	5.0	---	---	---
11	17.5	16.0	16.5	12.0	11.0	11.5	4.5	4.0	4.5	---	---	---
12	17.5	16.5	17.0	11.0	10.5	11.0	4.0	3.5	3.5	---	---	---
13	18.0	16.5	17.0	10.5	10.0	10.0	3.5	3.0	3.0	---	---	---
14	17.5	16.0	16.5	10.0	9.5	9.5	3.5	3.5	3.5	---	---	---
15	17.0	16.5	16.5	9.5	9.0	9.5	3.5	3.0	3.0	---	---	---
16	17.5	16.5	17.0	9.5	9.0	9.0	3.0	2.5	2.5	---	---	---
17	17.5	16.0	16.5	10.0	9.0	9.5	3.0	2.5	3.0	---	---	---
18	17.5	16.5	17.0	9.5	9.0	9.0	3.0	2.0	2.5	---	---	---
19	16.5	15.0	16.0	9.5	8.5	9.0	2.0	1.5	1.5	---	---	---
20	15.5	14.5	15.0	9.5	8.0	9.0	1.0	.5	1.0	---	---	---
21	15.0	14.0	14.5	8.0	7.0	7.5	.5	.5	.5	---	---	---
22	14.5	14.0	14.0	7.0	6.5	6.5	1.0	.5	1.0	---	---	---
23	14.5	13.5	14.0	6.0	6.0	6.0	---	---	---	---	---	---
24	13.0	12.0	12.5	6.0	6.0	6.0	---	---	---	---	---	---
25	12.0	11.5	11.5	6.0	5.5	6.0	---	---	---	---	---	---
26	11.5	11.0	11.5	6.0	5.5	5.5	---	---	---	---	---	---
27	---	---	---	6.5	6.0	6.5	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	2.5	2.0	2.0
29	---	---	---	---	---	---	---	---	---	4.5	1.5	2.0
30	---	---	---	---	---	---	---	---	---	6.0	2.5	3.0
31	---	---	---	---	---	---	---	---	---	5.0	3.5	4.5
MONTH	20.5	11.0	16.0	14.0	5.5	10.0	---	---	---	---	---	---

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.5	6.5	7.0	12.5	11.0	11.5	14.5	14.0	14.5
2	---	---	---	8.0	7.0	7.5	12.5	11.5	12.0	15.5	14.5	15.0
3	---	---	---	8.0	8.0	8.0	13.5	12.5	13.0	16.0	14.5	15.5
4	---	---	---	9.0	8.0	8.5	14.0	12.5	13.0	16.5	15.0	16.0
5	---	---	---	9.0	8.5	8.5	13.0	12.5	13.0	17.5	16.0	16.5
6	---	---	---	8.5	8.0	8.0	12.5	10.5	11.5	17.5	16.5	17.0
7	---	---	---	7.5	7.0	7.5	10.5	9.5	10.0	17.5	17.0	17.5
8	---	---	---	---	---	---	10.0	9.5	9.5	18.5	17.0	17.5
9	---	---	---	---	---	---	9.0	8.5	9.0	18.5	17.0	18.0
10	---	---	---	7.5	6.5	7.0	9.5	8.0	8.5	19.5	17.5	18.5
11	---	---	---	8.0	7.0	7.5	9.5	8.5	9.0	20.0	18.0	19.0
12	3.5	3.5	3.5	9.5	8.0	9.0	10.5	9.0	10.0	20.0	18.5	19.5
13	3.5	3.0	3.5	10.0	9.5	10.0	11.5	10.5	11.0	21.0	19.0	20.0
14	3.5	3.0	3.5	10.0	10.0	10.0	13.0	11.5	12.0	21.5	20.0	20.5
15	4.0	3.0	3.5	11.0	9.5	10.0	14.5	12.5	13.5	22.5	20.5	21.5
16	5.5	4.0	4.5	12.5	11.0	12.0	15.0	14.0	14.5	23.0	21.0	22.0
17	---	---	---	14.0	12.0	13.0	14.5	14.5	14.5	23.5	21.5	22.5
18	---	---	---	13.5	12.5	13.0	15.0	14.0	14.0	23.5	22.0	23.0
19	---	---	---	14.5	13.0	14.0	14.0	13.5	13.5	24.0	22.0	23.0
20	---	---	---	15.0	14.0	14.5	13.5	13.0	13.0	23.0	22.5	23.0
21	---	---	---	15.0	14.5	14.5	14.0	13.0	13.5	24.0	22.5	23.0
22	---	---	---	14.5	14.0	14.0	14.0	13.0	13.5	24.0	22.5	23.5
23	---	---	---	14.0	13.0	13.5	14.0	13.0	13.5	24.5	23.0	23.5
24	---	---	---	13.0	12.5	12.5	14.0	12.5	13.5	24.5	23.5	24.0
25	---	---	---	12.5	11.5	12.0	13.5	13.0	13.5	24.5	23.5	24.0
26	7.5	7.0	7.5	11.5	10.5	11.0	14.0	13.5	13.5	24.0	23.0	23.5
27	7.0	6.5	7.0	10.5	9.5	10.0	14.0	13.5	13.5	23.5	22.5	23.0
28	6.5	6.5	6.5	10.0	9.0	9.5	13.5	13.0	13.5	23.0	22.5	23.0
29	---	---	---	9.5	8.5	9.0	13.5	12.5	13.0	22.5	18.5	19.5
30	---	---	---	10.0	9.0	9.5	14.0	13.0	13.5	20.0	19.0	19.5
31	---	---	---	11.5	10.0	11.0	---	---	---	20.0	19.5	20.0
MONTH	---	---	---	15.0	6.5	10.5	15.0	8.0	12.5	24.5	14.0	20.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	20.0	20.5	27.0	25.0	26.0	25.0	22.0	22.5	23.0	21.0	22.0
2	21.5	20.5	21.0	27.0	25.0	26.0	23.0	22.0	22.5	---	---	---
3	22.0	21.0	21.5	26.5	25.5	26.0	23.5	22.5	23.0	---	---	---
4	21.5	21.0	21.0	27.0	25.0	26.0	24.5	23.0	23.5	---	---	---
5	---	---	---	27.5	26.0	26.5	24.5	24.0	24.5	---	---	---
6	---	---	---	27.5	26.5	27.0	26.0	24.0	25.0	---	---	---
7	---	---	---	28.0	26.5	27.0	26.5	25.0	25.5	---	---	---
8	---	---	---	27.0	26.5	27.0	26.5	25.5	26.0	---	---	---
9	---	---	---	26.5	26.0	26.0	26.0	25.5	26.0	---	---	---
10	---	---	---	---	---	---	27.0	25.5	26.0	---	---	---
11	---	---	---	---	---	---	27.0	25.5	26.5	---	---	---
12	---	---	---	---	---	---	26.5	25.5	26.0	---	---	---
13	---	---	---	27.0	26.5	27.0	25.5	24.5	25.0	---	---	---
14	---	---	---	27.5	25.5	26.5	26.0	24.0	25.0	---	---	---
15	---	---	---	27.5	26.0	26.5	26.5	24.5	25.5	23.5	23.5	23.5
16	---	---	---	27.5	26.0	27.0	26.0	25.0	25.5	24.0	23.0	23.5
17	24.0	22.5	23.5	28.5	26.5	27.5	25.5	24.5	25.0	24.0	22.5	23.5
18	24.5	23.0	23.5	27.5	27.0	27.0	25.0	24.5	25.0	23.5	23.0	23.0
19	24.0	23.0	23.5	27.5	26.5	27.0	25.5	24.0	24.5	23.5	22.5	23.0
20	24.0	22.5	23.0	28.0	26.5	27.5	25.5	24.0	25.0	23.0	22.0	22.5
21	24.5	22.5	23.5	28.5	27.0	27.5	25.5	24.5	25.0	22.0	21.0	21.5
22	24.5	23.0	24.0	28.0	27.5	27.5	25.5	23.5	24.5	20.5	19.5	20.0
23	25.0	23.0	24.0	28.0	26.5	27.5	24.5	23.5	24.5	20.5	19.0	19.5
24	25.0	22.5	24.0	28.0	26.5	27.5	24.5	23.5	24.0	19.5	19.0	19.5
25	25.0	23.0	24.0	28.5	27.0	27.5	23.5	23.0	23.5	19.0	18.5	19.0
26	25.5	24.0	24.5	29.0	27.5	28.0	23.0	22.0	22.5	19.0	18.5	18.5
27	---	---	---	29.0	27.5	28.0	23.0	22.5	22.5	18.5	18.0	18.5
28	---	---	---	28.5	27.5	28.0	23.5	22.5	23.0	18.5	17.5	18.0
29	---	---	---	28.5	27.5	27.5	23.5	22.5	23.0	17.5	16.5	17.0
30	26.5	26.0	26.5	28.0	27.5	27.5	23.5	23.0	23.0	17.5	16.5	17.0
31	---	---	---	27.5	26.0	27.0	23.5	22.5	23.0	---	---	---
MONTH	---	---	---	29.0	25.0	27.0	27.0	22.0	24.5	---	---	---

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.3	8.6	8.8	---	---	---	11.5	11.4	11.4	---	---	---
2	9.3	8.5	8.8	---	---	---	11.4	11.3	11.4	---	---	---
3	9.5	8.7	9.0	10.2	10.0	10.1	---	---	---	---	---	---
4	9.5	8.9	9.1	10.1	9.9	10.0	---	---	---	---	---	---
5	9.4	8.9	9.1	10.0	9.8	9.9	---	---	---	---	---	---
6	9.3	9.0	9.2	10.1	9.8	9.9	---	---	---	---	---	---
7	9.5	9.0	9.3	10.2	9.9	10.0	12.2	12.1	12.1	---	---	---
8	9.7	9.3	9.4	10.4	10.1	10.2	12.2	12.0	12.1	---	---	---
9	9.8	9.4	9.5	10.5	10.3	10.4	12.4	12.2	12.3	---	---	---
10	9.6	9.4	9.5	10.5	10.3	10.4	12.5	12.4	12.5	---	---	---
11	9.7	9.3	9.4	10.6	10.4	10.5	12.8	12.6	12.7	---	---	---
12	9.6	9.2	9.3	10.8	10.5	10.6	13.0	12.7	12.9	---	---	---
13	9.7	9.2	9.4	11.0	10.7	10.8	13.3	13.0	13.2	---	---	---
14	9.5	9.1	9.3	11.1	10.8	10.9	13.2	13.1	13.2	---	---	---
15	9.3	9.1	9.2	11.2	10.9	11.0	13.2	13.1	13.2	---	---	---
16	9.5	9.0	9.2	11.0	10.9	11.0	13.5	13.3	13.4	---	---	---
17	9.4	9.0	9.2	11.1	10.8	11.0	13.4	13.3	13.3	---	---	---
18	9.2	8.9	9.0	11.2	10.9	11.1	13.6	13.3	13.4	---	---	---
19	9.5	8.9	9.2	11.3	11.0	11.2	13.7	13.5	13.6	---	---	---
20	9.6	9.3	9.4	11.2	11.0	11.1	14.0	13.8	13.9	---	---	---
21	9.7	9.4	9.5	11.6	11.2	11.4	14.3	14.1	14.2	---	---	---
22	9.7	9.5	9.6	11.9	11.6	11.7	14.2	14.1	14.1	---	---	---
23	9.8	9.5	9.6	12.0	11.8	11.9	---	---	---	---	---	---
24	10.0	9.7	9.8	12.0	11.8	11.9	---	---	---	---	---	---
25	10.2	10.0	10.2	12.2	12.0	12.2	---	---	---	---	---	---
26	10.2	10.1	10.1	12.2	12.1	12.2	---	---	---	---	---	---
27	---	---	---	12.1	11.8	11.9	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	14.0	13.9	13.9
29	---	---	---	---	---	---	---	---	---	13.9	13.8	13.8
30	---	---	---	---	---	---	---	---	---	13.7	13.4	13.6
31	---	---	---	---	---	---	---	---	---	13.4	12.6	13.0
MONTH	10.2	8.5	9.4	12.2	9.8	10.9	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.8	11.6	11.8	10.7	10.4	10.6	9.8	9.6	9.7
2	---	---	---	11.7	11.4	11.6	10.4	9.5	10.3	9.6	9.5	9.6
3	---	---	---	11.4	11.2	11.3	10.2	9.9	10.0	9.6	9.5	9.5
4	---	---	---	11.2	10.9	11.0	10.0	9.9	10.0	9.5	9.3	9.5
5	---	---	---	10.9	10.8	10.9	10.0	9.9	10.0	9.5	9.2	9.3
6	---	---	---	10.9	10.8	10.9	10.6	10.0	10.3	9.2	9.0	9.2
7	---	---	---	10.9	10.7	10.8	10.8	10.8	10.8	9.1	8.9	9.0
8	---	---	---	---	---	---	11.0	10.8	10.9	9.1	8.9	9.0
9	---	---	---	---	---	---	11.2	11.0	11.1	9.1	8.9	9.0
10	---	---	---	12.2	11.7	11.9	11.3	11.1	11.2	9.1	8.8	9.0
11	---	---	---	11.7	11.4	11.6	11.2	11.0	11.2	9.1	8.8	8.9
12	12.7	12.6	12.7	11.4	11.0	11.3	11.1	10.8	11.0	9.0	8.6	8.8
13	12.7	12.6	12.7	11.0	10.5	10.9	10.7	10.4	10.6	9.0	8.6	8.8
14	12.7	12.6	12.7	10.8	10.7	10.8	10.4	10.1	10.3	8.9	8.4	8.7
15	12.7	12.4	12.6	11.0	9.8	10.6	10.1	9.8	10.0	8.8	8.3	8.5
16	12.4	11.8	12.2	9.5	8.6	9.1	9.8	9.6	9.7	8.6	8.2	8.4
17	---	---	---	9.3	8.1	8.9	9.6	9.3	9.5	8.5	8.1	8.3
18	---	---	---	10.2	8.6	9.8	9.9	9.3	9.7	8.3	7.9	8.1
19	---	---	---	10.1	9.7	9.9	9.8	9.7	9.8	8.4	7.8	8.1
20	---	---	---	9.8	9.6	9.7	9.9	9.7	9.9	8.3	7.9	8.1
21	---	---	---	9.7	9.5	9.6	10.0	9.8	9.9	8.3	7.9	8.1
22	---	---	---	9.9	9.6	9.8	10.0	9.9	10.0	8.2	7.9	8.0
23	---	---	---	10.1	9.8	10.0	10.1	10.0	10.0	8.2	7.8	8.0
24	---	---	---	10.3	10.1	10.2	10.1	9.9	10.0	8.1	7.7	7.9
25	---	---	---	10.4	10.2	10.3	10.0	9.8	9.9	8.0	7.7	7.8
26	11.5	11.4	11.5	10.7	10.4	10.5	9.9	9.7	9.8	7.8	7.7	7.7
27	11.6	11.5	11.6	11.0	10.7	10.9	9.8	9.6	9.7	7.7	7.6	7.7
28	11.8	11.6	11.8	11.2	11.0	11.1	10.0	9.7	9.9	7.8	7.6	7.7
29	---	---	---	11.3	11.1	11.3	10.1	9.8	9.9	8.3	7.9	7.1
30	---	---	---	11.3	11.1	11.2	10.0	9.7	9.9	8.5	8.0	8.3
31	---	---	---	11.1	10.7	10.9	---	---	---	8.4	8.2	8.3
MONTH	---	---	---	12.2	8.1	10.6	11.3	9.3	10.2	9.8	7.6	8.5

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	8.1	8.2	7.5	7.2	7.3	8.1	6.9	7.8	8.5	8.0	8.2
2	8.2	7.7	8.0	7.5	7.2	7.3	8.2	8.0	8.1	---	---	---
3	8.0	7.8	8.0	7.4	7.1	7.2	8.0	7.8	8.0	---	---	---
4	8.0	8.0	8.0	7.4	7.1	7.3	7.9	7.8	7.8	---	---	---
5	---	---	---	7.3	7.1	7.2	7.7	7.7	7.7	---	---	---
6	---	---	---	7.3	7.0	7.1	7.8	7.6	7.7	---	---	---
7	---	---	---	7.3	7.0	7.1	7.8	7.5	7.6	---	---	---
8	---	---	---	7.3	7.0	7.1	7.7	7.4	7.5	---	---	---
9	---	---	---	7.1	7.0	7.0	7.7	7.3	7.5	---	---	---
10	---	---	---	---	---	---	7.7	7.4	7.5	---	---	---
11	---	---	---	---	---	---	7.7	7.4	7.6	---	---	---
12	---	---	---	---	---	---	7.9	7.4	7.6	---	---	---
13	---	---	---	7.3	7.2	7.3	8.0	7.5	7.8	---	---	---
14	---	---	---	7.5	7.1	7.3	8.3	7.6	7.9	---	---	---
15	---	---	---	7.6	7.1	7.3	8.4	7.6	7.9	8.5	8.3	8.4
16	---	---	---	7.5	7.1	7.3	8.0	7.5	7.7	8.3	8.0	8.2
17	8.0	7.6	7.9	7.5	7.0	7.2	8.0	7.5	7.7	8.3	8.0	8.1
18	7.9	7.7	7.8	7.2	6.9	7.1	7.8	7.5	7.7	8.2	7.9	8.0
19	8.0	7.6	7.8	7.4	7.0	7.2	8.1	7.7	7.8	8.2	7.9	8.0
20	8.1	7.7	7.9	7.4	7.0	7.2	8.1	7.6	7.8	8.3	7.9	8.1
21	8.0	7.7	7.8	7.4	7.0	7.2	8.0	7.6	7.8	8.3	7.9	8.1
22	7.7	7.6	7.6	7.3	6.9	7.1	8.1	7.6	7.8	8.5	8.1	8.3
23	7.6	7.5	7.6	7.4	6.9	7.1	8.0	7.5	7.7	8.6	8.2	8.4
24	7.7	7.5	7.6	7.4	6.9	7.1	7.9	7.5	7.7	8.6	8.3	8.4
25	7.6	7.4	7.5	7.4	6.9	7.1	7.8	7.6	7.7	8.6	8.3	8.5
26	7.5	7.4	7.4	7.4	6.8	7.1	7.9	7.8	7.8	8.7	8.4	8.5
27	---	---	---	7.5	6.8	7.2	8.1	7.7	7.9	8.6	8.4	8.5
28	---	---	---	7.3	6.9	7.1	8.3	8.0	8.1	8.8	8.6	8.7
29	---	---	---	7.5	6.9	7.1	8.4	8.0	8.2	8.6	8.5	8.6
30	7.5	7.3	7.4	7.4	6.9	7.1	8.3	8.0	8.1	8.6	8.5	8.6
31	---	---	---	7.2	6.9	7.1	8.4	8.0	8.1	---	---	---
MONTH	---	---	---	7.6	6.8	7.2	8.4	6.9	7.8	---	---	---

TURBIDITY (JTU), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	20	15	>1000	250	---	15
2					---	---	15	15	>1000	370	---	---
3					50	30	15	10	360	130	---	---
4					45	30	15	10	120	70	---	---
5					---	---	20	10	75	45	---	---
6					---	---	15	8	---	---	---	---
7					---	---	10	8	---	---	---	---
8					---	---	10	9	---	---	---	---
9					---	---	10	8	---	---	---	---
10					---	---	---	---	---	---	---	---
11					---	---	---	---	20	15	---	---
12					---	---	---	---	20	9	---	---
13					---	---	15	8	10	9	---	---
14					---	---	10	7	10	8	---	---
15					---	---	10	7	9	8	10	5
16					---	---	10	7	9	7	8	4
17					35	15	10	7	10	7	5	2
18					25	15	8	3	15	6	3	2
19					15	10	9	3	15	10	3	2
20					15	10	6	6	15	10	3	2
21					35	15	10	5	15	10	3	3
22					110	40	8	5	15	10	3	0
23					210	110	7	5	15	10	0	0
24					230	200	---	---	25	10	1	0
25					220	180	---	---	85	20	1	0
26					180	130	---	---	85	45	2	0
27					---	---	10	6	45	25	5	0
28					---	---	10	8	25	20	80	2
29					---	---	8	6	20	20	230	95
30					25	20	7	5	20	15	200	65
31					---	---	150	6	25	15	---	---
MONTH					---	---	---	---	>1000	6	---	---

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1				1330	10	36	720	30	58
2				1160	18	56	553	25	37
3				1040	11	31	422	24	27
4				945	9	23	349	21	20
5				860	11	26	293	16	13
6				804	9	20	260	16	11
7				722	6	12	234	16	10
8				656	10	18	211	20	11
9				583	9	14	190	20	10
10				518	9	13	168	20	9.1
11				469	9	11	153	23	9.5
12				438	8	9.5	136	25	9.2
13				408	10	11	126	30	10
14				397	6	6.4	120	30	9.7
15				376	6	6.1	111	30	9.0
16				363	8	7.8	107	30	8.7
17				402	12	13	104	30	8.4
18				978	15	41	101	35	9.5
19				1750	686	4310	99	35	9.4
20				2310	82	477	98	35	9.3
21				2700	194	1410	96	35	9.1
22				1760	100	475	95	40	10
23				1370	50	185	90	40	9.7
24				2350	100	634	84	40	9.1
25				3160	150	1280	82	40	8.9
26				2290	100	618	83	43	9.6
27				1590	75	322	81	44	9.6
28				1100	54	160	80	45	9.7
29				853	47	108	89	46	11
30				776	37	78	90	46	11
31				853	38	88	---	---	---
TOTAL				35311	---	10499.8	5425	---	396.5
		JULY			AUGUST			SEPTEMBER	
1	83	53	12	75	21	4.3	44	23	2.7
2	75	54	11	64	20	3.5	38	16	1.6
3	101	275	75	54	16	2.3	53	20	2.9
4	701	500	946	47	16	2.0	54	10	1.5
5	1650	1000	4450	42	20	2.3	51	10	1.4
6	656	600	1060	40	18	1.9	40	10	1.1
7	628	500	848	35	17	1.6	34	10	.92
8	368	400	397	31	13	1.1	30	15	1.2
9	220	300	178	40	16	1.7	38	20	2.1
10	163	250	110	44	17	2.0	52	25	3.5
11	134	225	81	42	20	2.3	72	25	4.9
12	106	210	60	60	17	2.8	69	25	4.7
13	97	156	41	85	14	3.2	60	25	4.1
14	88	118	28	68	15	2.8	68	30	5.5
15	80	90	19	53	15	2.1	63	30	5.1
16	73	90	18	51	13	1.8	49	30	4.0
17	67	73	13	54	15	2.2	47	28	3.6
18	59	65	10	94	20	5.1	47	33	4.2
19	52	63	8.8	156	28	12	39	40	4.2
20	47	57	7.2	143	23	8.9	36	44	4.3
21	41	51	5.6	288	25	19	40	38	4.1
22	42	52	5.9	171	26	12	58	42	6.6
23	69	52	9.7	124	27	9.0	56	35	5.3
24	69	47	8.8	93	20	5.0	51	30	4.1
25	60	46	7.5	76	21	4.3	42	40	4.5
26	51	45	6.2	67	18	3.3	36	33	3.2
27	46	43	5.3	60	16	2.6	31	36	3.0
28	109	45	13	53	19	2.7	27	30	2.2
29	94	32	8.1	47	19	2.4	31	24	2.0
30	81	20	4.4	42	30	3.4	44	26	3.1
31	79	19	4.1	44	25	3.0	---	---	---
TOTAL	6189	---	8451.6	2343	---	132.6	1400	---	101.62

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	63	26	4.4	38	11	1.1	278	50	38
2	58	39	6.1	49	10	1.3	220	50	30
3	54	31	4.5	48	14	1.8	189	40	20
4	48	33	4.3	45	14	1.7	158	76	32
5	46	34	4.2	42	14	1.6	137	42	16
6	49	29	3.8	41	16	1.8	124	44	15
7	49	26	3.4	40	14	1.5	114	38	12
8	45	27	3.3	39	16	1.7	110	31	9.2
9	43	31	3.6	38	18	1.8	135	29	11
10	41	27	3.0	39	13	1.4	564	27	41
11	38	30	3.1	39	17	1.8	886	29	69
12	34	29	2.7	37	24	2.4	552	21	31
13	32	28	2.4	36	16	1.6	394	20	21
14	30	27	2.2	35	28	2.6	307	30	25
15	29	23	1.8	39	23	2.4	252	40	27
16	27	23	1.7	51	17	2.3	214	45	26
17	26	18	1.3	84	20	4.5	188	52	26
18	26	15	1.1	162	14	6.1	170	58	27
19	23	11	.68	135	26	9.5	152	49	20
20	24	12	.78	143	28	11	138	55	20
21	24	10	.65	158	16	6.8	118	48	15
22	23	8	.50	119	18	5.8	105	49	14
23	22	8	.48	102	5	1.4	104	52	15
24	23	12	.75	641	75	145	120	52	17
25	27	24	1.7	1110	80	240	160	20	8.6
26	39	14	1.5	590	50	80	149	18	7.2
27	37	17	1.7	446	50	60	209	56	32
28	38	11	1.1	512	50	69	200	52	28
29	39	18	1.9	553	60	90	186	25	13
30	39	409	43	376	50	51	180	24	12
31	36	11	1.1	---	---	---	169	16	7.3
TOTAL	1132	---	112.74	5787	---	808.9	6982	---	685.3
		JANUARY			FEBRUARY			MARCH	
1	163	34	15	269	16	18	912	20	49
2	154	12	5.0	5810	598	12200	828	20	45
3	143	12	4.6	4080	300	3300	727	20	39
4	130	8	2.8	1670	100	451	694	20	37
5	111	7	2.1	1020	80	220	1820	50	246
6	95	42	11	919	70	174	5140	200	2780
7	103	50	14	747	50	101	3600	100	972
8	105	51	14	692	40	75	2390	20	129
9	95	18	4.6	682	30	55	1750	10	47
10	96	16	4.1	768	30	62	1380	4	15
11	96	16	4.1	4030	400	5000	1150	10	31
12	111	14	4.2	3910	150	1580	980	14	37
13	70	15	2.8	2070	50	279	853	6	14
14	69	21	3.9	1630	20	88	773	13	27
15	74	20	4.0	1260	20	68	705	10	19
16	84	23	5.2	1040	15	42	690	10	19
17	85	14	3.2	1020	10	28	736	8	16
18	85	12	2.8	1090	13	38	724	6	12
19	78	9	1.9	1280	20	69	676	6	11
20	85	10	2.3	1730	40	187	634	6	10
21	158	14	6.0	2090	50	282	591	4	6.4
22	229	20	12	1770	40	191	656	7	12
23	244	20	13	2030	50	274	2210	50	298
24	262	17	12	3100	100	837	3470	100	937
25	242	24	16	2170	50	293	2860	50	386
26	224	100	60	1590	40	172	2270	20	123
27	221	16	9.5	1250	30	101	1810	10	49
28	229	11	6.8	1030	20	56	1470	10	40
29	220	10	5.9	---	---	---	1210	10	33
30	222	9	5.4	---	---	---	3700	85	849
31	200	20	11	---	---	---	7570	500	10000
TOTAL	4483	---	269.2	30747	---	26241	54979	---	17288.4

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3940	100	1060	830	15	34	1280	30	104
2	2680	60	434	708	15	29	4040	150	1640
3	1950	50	263	638	15	26	2940	100	794
4	1570	30	127	531	10	14	2780	100	751
5	8910	1000	40000	462	10	12	2210	77	459
6	8630	250	7500	418	10	11	7120	262	5660
7	4160	100	1120	382	10	10	10100	243	6560
8	2790	40	301	444	10	12	5230	200	2960
9	2220	20	120	386	10	10	3030	70	573
10	2750	30	223	337	10	9.1	2710	100	732
11	4230	50	571	402	10	11	6790	250	4580
12	3340	40	361	496	10	13	4410	200	2380
13	2500	22	148	426	10	12	2750	70	520
14	1970	24	128	360	10	9.7	2500	70	472
15	1600	16	69	406	10	11	1650	60	267
16	1410	17	65	486	10	13	1120	64	194
17	1790	33	159	406	10	11	834	46	104
18	8220	500	10000	379	10	10	672	32	58
19	6530	300	5290	3680	199	1620	533	30	43
20	9570	750	20000	4620	184	3050	450	30	36
21	9660	250	5000	3040	113	928	426	25	29
22	5030	50	679	1960	71	376	392	20	21
23	3370	34	309	1330	30	108	385	64	67
24	2790	27	203	974	23	60	486	18	24
25	2210	29	173	770	20	42	402	30	33
26	1730	17	79	930	30	75	330	8	7.1
27	1430	42	162	1300	40	140	347	15	14
28	1190	20	64	2470	50	333	352	10	9.5
29	1020	20	55	2300	40	248	247	13	8.7
30	939	15	38	1510	30	122	192	10	5.2
31	---	---	---	1270	20	69	---	---	---
TOTAL	110129	---	94701	34651	---	7428.8	66708	---	29105.5
		JULY			AUGUST			SEPTEMBER	
1	192	12	6.2	296	34	27	97	19	5.0
2	169	8	3.7	223	28	17	104	30	8.4
3	169	7	3.2	177	21	10	140	14	5.3
4	194	8	4.2	149	22	8.9	174	14	6.6
5	216	7	4.1	132	34	12	190	10	5.1
6	201	14	7.6	204	20	11	187	16	8.1
7	178	6	2.9	223	20	12	169	12	5.5
8	167	11	5.0	2670	252	3340	182	12	5.9
9	185	8	4.0	1820	1980	9310	148	18	7.2
10	180	6	2.9	725	1350	2640	121	14	4.6
11	159	6	2.6	444	950	1140	104	13	3.7
12	144	4	1.6	307	580	481	91	10	2.5
13	140	12	4.5	238	300	193	81	13	2.8
14	128	16	5.5	236	160	102	106	12	3.4
15	121	6	2.0	188	108	55	358	14	14
16	116	8	2.5	150	80	32	1740	68	411
17	462	12	15	126	60	20	1440	83	323
18	496	11	15	138	50	19	711	44	84
19	301	14	11	172	49	23	468	31	39
20	398	9	9.7	168	42	19	346	32	30
21	348	24	23	261	45	32	275	31	23
22	301	11	8.9	301	36	29	224	30	18
23	274	10	7.4	551	35	52	187	24	12
24	196	22	12	350	30	28	157	16	6.8
25	159	8	3.4	244	23	15	136	16	5.9
26	253	10	6.8	181	23	11	123	10	3.3
27	292	10	7.9	146	19	7.5	110	8	2.4
28	479	20	26	123	23	7.6	99	8	2.1
29	891	17	41	106	20	5.7	90	6	1.5
30	704	34	65	103	24	6.7	84	7	1.6
31	427	26	30	99	19	5.1	---	---	---
TOTAL	8640	---	344.6	11251	---	17671.5	8442	---	1051.7

TOTAL LOAD FOR YEAR: 195708.64

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	81	6	1.3	795	16	34	2210	25	149
2	81	7	1.5	660	12	21	4710	70	890
3	81	5	1.1	564	11	17	3040	68	558
4	77	6	1.2	504	8	11	2060	80	445
5	99	5	1.3	451	8	9.7	1540	27	112
6	162	6	2.6	422	9	10	1180	11	35
7	201	6	3.3	415	15	17	991	10	27
8	211	7	4.0	389	6	6.3	890	11	26
9	163	6	2.6	345	5	4.7	785	7	15
10	141	5	1.9	318	14	12	679	7	13
11	124	5	1.7	300	6	4.9	607	5	8.2
12	110	5	1.5	279	12	9.0	548	7	10
13	100	5	1.4	257	6	4.2	506	5	6.8
14	92	5	1.2	247	4	2.7	532	9	13
15	88	5	1.2	237	5	3.2	701	8	15
16	85	5	1.1	233	6	3.8	804	7	15
17	81	5	1.1	266	6	4.3	761	7	14
18	86	5	1.2	424	13	15	857	5	12
19	95	5	1.3	459	7	8.7	995	7	19
20	260	12	8.4	408	9	9.9	795	8	17
21	234	12	7.6	486	8	10	739	6	12
22	179	9	4.3	522	10	14	1740	16	75
23	325	9	7.9	475	6	7.7	6230	92	1710
24	1100	22	65	527	8	11	5740	151	2380
25	867	20	47	899	18	44	3470	123	1150
26	936	30	112	1100	8	24	2500	110	742
27	8110	590	13800	1480	16	64	2010	60	326
28	5140	377	5780	5060	125	1780	1690	40	183
29	2330	89	585	3190	75	646	1420	20	77
30	1440	38	148	2060	38	211	1170	20	63
31	1030	22	61	---	---	---	1070	20	58
TOTAL	24109	---	20658.7	23772	---	3020.1	52970	---	9176.0
		JANUARY			FEBRUARY			MARCH	
1	2020	30	164	4520	66	900	2190	30	177
2	2450	40	265	3900	204	2170	1950	20	105
3	22200	1000	80000	3620	40	391	1770	20	96
4	35500	1500	150000	4060	28	307	1590	20	86
5	14200	700	30000	3350	25	226	1550	20	84
6	5660	200	3060	2770	20	150	1870	30	151
7	3800	100	1030	2280	20	123	4920	200	3000
8	2860	50	386	1860	15	75	6180	100	2000
9	2150	20	116	3190	70	1000	4380	40	473
10	1650	20	89	7150	400	7500	3540	28	268
11	1130	20	61	4250	200	2300	2960	21	168
12	1080	20	58	3080	210	1750	2470	18	120
13	1170	20	63	2930	30	237	2110	15	85
14	1140	20	62	3000	20	162	2050	15	83
15	1020	20	55	2650	20	143	4550	70	860
16	958	20	52	2920	60	473	10100	400	10000
17	751	20	41	7560	300	6000	5750	200	3110
18	692	20	37	6240	150	2530	3820	120	1240
19	894	25	60	4170	60	676	2940	80	635
20	2000	150	810	3100	30	251	2520	60	408
21	7260	650	15000	2530	20	137	2140	50	289
22	11400	200	7000	2060	20	111	2090	50	282
23	14800	400	20000	1660	20	90	1840	40	199
24	13300	500	20000	1440	10	39	1610	39	170
25	5610	50	757	1320	10	36	1440	30	117
26	3600	25	243	1170	10	32	1330	30	108
27	2470	15	100	1170	20	63	1260	25	85
28	2020	12	65	2060	40	222	1060	20	57
29	1700	15	69	---	---	---	949	20	51
30	1470	10	40	---	---	---	893	20	48
31	1540	32	133	---	---	---	894	20	48
TOTAL	168495	---	329816	90010	---	28094	84716	---	24603

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	895	20	48	1800	20	97	2300	116	720
2	890	20	48	1490	27	109	1650	64	285
3	833	20	45	1270	22	75	1020	64	176
4	833	20	45	1080	9	26	1150	80	248
5	803	20	43	919	6	15	3270	150	1500
6	1070	30	87	810	13	28	2500	100	675
7	1080	34	99	731	5	9.9	1450	70	274
8	994	12	32	716	9	17	981	60	159
9	1150	28	87	693	4	7.5	729	50	98
10	1320	15	53	625	4	6.8	594	50	80
11	1220	14	46	533	9	13	721	60	117
12	1110	11	33	473	11	14	593	50	80
13	1010	11	30	420	20	23	462	40	50
14	946	16	41	377	11	11	405	40	44
15	869	7	16	344	8	7.4	357	40	39
16	791	12	26	318	8	6.9	378	40	41
17	2370	67	547	326	9	7.9	689	66	123
18	4960	118	1560	367	12	12	883	58	138
19	3420	150	1390	386	10	10	560	37	56
20	2530	53	362	473	11	14	418	42	47
21	2000	22	119	406	14	15	332	37	33
22	1570	16	68	398	8	8.6	308	90	75
23	1290	53	185	441	16	19	269	148	107
24	1100	35	104	1000	12	32	230	198	123
25	991	29	78	1080	14	41	204	174	96
26	1000	29	78	742	36	72	173	144	67
27	2170	25	146	550	72	107	152	100	41
28	3940	64	681	1640	97	636	145	60	23
29	3010	55	447	10100	1790	51900	186	40	20
30	2290	32	198	3520	590	6240	338	27	25
31	---	---	---	2310	183	1140	---	---	---
TOTAL	48455	---	6742	36338	---	60721.0	23447	---	5560
		JULY			AUGUST			SEPTEMBER	
1	354	29	28	7220	1420	26900	3700	223	2970
2	242	25	16	2240	795	5280	29400	1500	200000
3	196	48	25	1130	210	641	34400	700	80000
4	242	22	14	725	88	172	6240	250	4210
5	447	22	27	527	62	88	2970	100	802
6	422	20	23	412	44	49	1820	80	393
7	281	13	9.9	337	36	33	1250	50	169
8	247	27	18	306	28	23	929	40	100
9	218	33	19	308	30	25	731	30	59
10	281	30	23	522	31	44	607	30	49
11	429	30	35	737	26	52	514	25	35
12	436	30	35	456	23	28	449	25	30
13	722	27	53	327	21	19	412	20	22
14	466	14	18	253	20	14	413	20	22
15	314	12	10	215	21	12	426	21	24
16	233	12	7.5	203	17	9.3	395	29	31
17	188	19	9.6	257	22	15	328	23	20
18	210	10	5.7	773	33	80	285	18	14
19	363	23	23	657	22	39	253	28	19
20	377	20	20	427	17	20	223	12	7.2
21	317	19	16	377	17	17	208	13	7.3
22	351	30	28	298	16	13	196	8	4.2
23	313	42	35	235	16	10	182	8	3.9
24	380	19	19	323	21	18	176	9	4.3
25	434	24	28	1970	63	335	180	17	8.3
26	309	18	15	1680	75	340	206	16	8.9
27	280	20	15	848	46	105	1030	16	44
28	303	24	20	583	26	41	807	13	28
29	307	31	26	445	22	26	446	136	164
30	274	18	13	347	20	19	313	100	85
31	1550	56	502	493	19	25	---	---	---
TOTAL	11486	---	1136.7	25631	---	34492.3	89489	---	289334.1

TOTAL LOAD FOR YEAR: 813353.9

03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN

LOCATION.--Lat 36°24'58", long 85°01'35", Fentress County, Hydrologic Unit 05130105, on right bank 200 ft (61 m) upstream from bridge on State Highway 52, 0.5 mi (0.8 km) upstream from Poplar Cove Creek, 5.3 mi (8.5 km) west of Jamestown, and at mile 12.7 (20.4 km).

DRAINAGE AREA.--202 mi^2 (523 km^2), includes 6.0 mi^2 (16 km^2) without surface drainage.

PERIOD OF RECORD.--October 1942 to current year. Prior to February 1943 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1276: 1944, 1946(M). WSP 1506: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.30 ft (207.355 m) Sandy Hook datum. Feb. 24 to Apr. 7, 1943, nonrecording gage 200 ft (61 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--40 years, 422 ft^3/s (11.95 m^3/s), 28.37 in/yr (721 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,800 ft^3/s (1,270 m^3/s) May 27, 1973, gage height, 30.46 ft (9.284 m) from rating curve extended above 32,000 ft^3/s (906 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft^3/s (0.10 m^3/s) Sept. 26-28, 1948; minimum gage height, 0.55 ft (0.168 m) Sept. 12-17, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 30.7 ft (9.36 m) from flood profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft^3/s (227 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	0715	*18900	535	20.30	6.187	Aug. 31	1415	15700	445	18.52	5.645
Aug. 17	0630	14500	411	17.82	5.432	Sept. 2	1330	8060	228	12.95	3.947

Minimum discharge, 23 ft^3/s (0.65 m^3/s) Oct. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	255	1930	688	731	411	248	300	128	34	858	2720
2	27	216	1400	660	613	389	254	250	102	37	348	4680
3	27	188	898	9710	754	362	253	220	84	34	188	2430
4	24	168	635	9100	665	333	263	200	198	84	121	1130
5	44	155	442	2400	556	347	238	165	805	107	93	667
6	74	149	355	1370	489	419	256	150	444	84	83	440
7	57	139	305	967	420	1070	244	135	263	150	70	310
8	51	124	270	719	376	991	234	160	172	87	57	240
9	42	113	231	573	1390	822	291	120	128	66	63	189
10	37	104	202	444	1450	671	297	105	109	63	70	154
11	34	97	183	327	1000	579	279	95	112	105	59	134
12	32	91	166	290	776	482	264	89	90	109	47	120
13	30	86	154	265	858	458	247	82	76	95	38	114
14	28	81	185	240	746	492	226	76	67	67	34	142
15	27	78	242	220	645	2540	206	70	58	51	32	132
16	26	84	228	200	1000	2160	197	67	132	41	64	108
17	25	217	232	185	1530	1260	915	63	172	36	7410	92
18	31	252	278	183	1150	867	1040	60	112	37	1870	82
19	47	215	270	272	854	668	750	65	84	37	752	75
20	66	222	230	562	663	541	580	68	65	50	403	71
21	50	225	248	3100	544	456	500	54	54	48	263	63
22	44	203	676	2640	437	433	420	46	48	44	195	58
23	219	188	2010	4370	369	373	365	59	44	46	146	54
24	382	248	1460	2390	328	332	310	54	43	37	1290	49
25	249	344	953	1320	300	302	275	45	37	42	1320	53
26	696	336	705	878	267	296	450	41	32	45	589	72
27	3940	2460	573	628	314	264	580	55	30	40	330	78
28	1410	2070	478	507	428	233	490	236	27	37	234	68
29	750	1080	390	422	---	215	410	874	28	36	178	54
30	461	774	322	371	---	205	350	348	29	79	144	46
31	324	---	386	434	---	237	---	193	---	997	5040	---
TOTAL	9279	10962	17035	46435	19633	19208	11432	4545	3773	2825	22389	14625
MEAN	299	365	550	1498	701	620	381	147	126	91.1	722	488
MAX	3940	2460	2010	9710	1530	2540	1040	874	805	997	7410	4680
MIN	24	78	154	183	267	205	197	41	27	34	32	46
CFSM	1.48	1.81	2.72	7.42	3.47	3.07	1.89	.73	.62	.45	3.57	2.42
IN.	1.71	2.02	3.14	8.55	3.62	3.54	2.11	.84	.69	.52	4.12	2.69

CAL YR 1981 TOTAL 125239 MEAN 343 MAX 3940 MIN 18 CFSM 1.70 IN 23.06
WTR YR 1982 TOTAL 182141 MEAN 499 MAX 9710 MIN 24 CFSM 2.47 IN 33.54

Note.--No gage-height record Apr. 19 to May 18.

03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN.

LOCATION.--Lat 36°23'49", long 85°10'28", Overton County, Hydrologic Unit 05130105, on left bank 20 ft (6.1 m) upstream from bridge on State Highway 52, 0.3 mile (0.5 km) upstream from Nettlecarrier Creek, 2.4 miles (3.9 km) east of Alpine, and at mile 8.0 (12.9 km).

DRAINAGE AREA.--115 mi^2 (298 km^2), includes 34 mi^2 (88 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to September 1971, October 1979 to November 1981 (discontinued). Prior to December 1942 monthly discharges only, published in WSP 1306.

REVISIONS.--WSP 1386: 1943-45(P), 1946, 1948, 1952(P). WSP 1506: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 683.28 ft (208.264 m) National Geodetic Vertical Datum (unadjusted). Oct. 1942 to Sept. 1971 gage at same site at datum 1.0 ft (0.305 m) higher.

REMARKS.-- Records good.

AVERAGE DISCHARGE.--31 years (Water years 1942-71, 1980-81), 157 ft^3/s (4.446 m^3/s), 18.54 in/yr (471 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft^3/s (428 m^3/s) Mar. 21, 1955, gage height, 17.30 ft (5.273 m) present datum; minimum 2.6 ft^3/s (0.07 m^3/s) Sept. 13-19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 15.3 ft (4.663 m) (present datum), from flood profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October to November 1981, 1,990 ft^3/s (56.4 m^3/s) at 0115 hours Oct. 27, gage height, 6.41 ft (1.954 m), no peak above base of 3,400 ft^3/s (96.3 m^3/s); minimum, 9.5 ft^3/s (0.27 m^3/s) Oct. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO NOVEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	60										
2	12	50										
3	11	43										
4	11	38										
5	15	35										
6	22	32										
7	18	28										
8	14	25										
9	12	24										
10	12	22										
11	11	21										
12	11	20										
13	10	19										
14	9.6	19										
15	9.5	18										
16	9.6	21										
17	9.6	136										
18	13	96										
19	15	71										
20	15	78										
21	13	71										
22	13	60										
23	118	55										
24	104	103										
25	53	146										
26	145	124										
27	1040	988										
28	299	589										
29	158	274										
30	112	213										
31	81	---										
TOTAL	2387.3	3479										
MEAN	77.0	116										
MAX	1040	988										
MIN	9.5	18										
CFSM	.67	1.01										
IN.	.77	1.13										

03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to December 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
07...	1450	17	410	7.6	15.0	10.4	160
NOV							
03...	1545	42	278	--	15.0	--	--
DEC							
08...	1500	93	225	--	9.5	--	--

03416000 WOLF RIVER NEAR BYRDSTOWN, TN

LOCATION.--Lat 36°33'37", long 85°04'23", Pickett County, Hydrologic Unit 05130105; on right bank 0.3 mi (0.5 km) upstream from bridge on county road, 0.5 mi (0.8 km) upstream from Widow Creek, 3.2 mi (5.1 km) east of Byrdstown, 5.4 mi (8.7 km) upstream from Lick Creek, and at mile 26.2 (42.2 km).

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year. Prior to June 1943 monthly discharge only, published in WSP 1306.

REVISED RECORD.--WSP 1276: 1943. WSP 1910: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 707.54 ft (215.658 m) Sandy Hook datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--40 years, 191 ft^3/s (5.409 m^3/s), 24.47 in/yr (622 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,500 ft^3/s (666 m^3/s) Sept. 2, 1982, gage height, 17.14 ft (5.224 m), from rating curve extended above 7,300 ft^3/s (207 m^3/s) on basis of slope-area measurement at gage height 17.14 ft (5.224); minimum, 2.0 ft^3/s (0.057 m^3/s) Sept. 17, 1954, gage height, 0.50 ft (0.152 m), result of construction at mill dam upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 10.8 ft (3.29 m), discharge, about 12,400 ft^3/s (351 m^3/s) from information by local resident. From flood marks, flood of June 30, 1928, reached a stage 1.5 ft (0.46 m) higher than that in March 1929 at a point 12.5 mi (20.1 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft^3/s (102 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0315	7440	211	8.02	2.444	Sept. 1	2115	5500	156	7.05	2.149
Jan. 23	1245	3900	110	6.23	1.899	Sept. 2	1715	*23500	666	17.14	5.224
Apr. 17	1300	3620	103	6.07	1.850						

Minimum discharge, 12 ft^3/s (0.34 m^3/s) Oct. 22.

REVISIONS.--The annual maximum discharge (*), and some peaks above the base, for the period of record 1944-81 have been revised as shown in the following tables. They supersede figures published in water-supply papers (WSP) or annual water-data reports (WDR) as indicated.

Water years 1944-50

WSP	Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1003,1306,1676	1944	Feb. 17, 1944	2000	*8180	232	8.42	2.566
1033,1306,1676	1945	Jan. 1, 1945	0400	6300	178	7.45	2.271
		Feb. 22, 1945	0245	*8100	229	8.38	2.554
1053,1306,1676	1945	Jan. 7, 1946	1600	*9180	260	8.94	2.725
1083,1306,1676	1947	Jan. 15, 1947	1800	*4060	115	6.32	1.926
1113,1306,1676	1948	Feb. 13, 1948	1100	*7860	223	8.25	2.515
1143,1306,1676	1949	Jan. 5, 1949	1300	*6070	172	7.34	2.237
1173,1306,1676	1950	Jan. 31, 1950	1200	5890	167	7.25	2.210
		June 10, 1950	1800	*6300	178	7.45	2.271

Water years 1951-70

WSP	Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1206,1676,1726	1951	Feb. 1, 1951	0200	*5340	151	6.97	2.124
1236,1676,1726	1952	Dec. 14, 1951	2200	*7380	209	7.99	2.435
1276,1676,1726	1953	Feb. 21, 1953	0700	*4000	113	6.29	1.917
1336,1676,1726	1954	Jan. 21, 1954	0200	*4280	121	6.44	1.963
1386,1676,1726	1955	Mar. 22, 1955	0200	*9400	266	9.06	2.761
1436,1676,1726	1956	Feb. 18, 1956	0700	*6170	175	7.39	2.252
1506,1676,1726	1957	Jan. 29, 1957	1300	*12400	351	10.84	3.304
1556,1676,1726	1958	Nov. 18, 1957	2400	*7170	203	7.89	2.405
1626,1676,1726	1959	Jan. 22, 1959	0030	*2160	61.2	5.11	1.558
1676,1706,1726	1960	Dec. 19, 1959	0230	*5320	151	6.96	2.121
1910	1961	Mar. 8, 1961	0900	*5480	155	7.04	2.146
1910	1962	Feb. 27, 1962	1000	*10000	283	9.45	2.880
		Apr. 11, 1962	1100	7930	225	8.29	2.527
1910	1963	Mar. 12, 1963	0200	*9650	273	9.21	2.807
		Mar. 17, 1963	0700	8200	232	8.43	2.569
1910	1964	Sept. 29, 1964	1330	*1760	49.8	4.79	1.460
1910	1965	Mar. 26, 1965	1000	*6190	175	7.40	2.256
2110	1966	Apr. 30, 1966	2030	*3100	87.8	5.76	1.756
2110	1967	Mar. 6, 1967	2300	*8250	234	8.46	2.579
2110	1968	Mar. 12, 1968	0845	*4840	137	6.73	2.051
2110	1969	May 19, 1969	2200	*4880	138	6.75	2.057
2110	1970	Dec. 30, 1969	1045	*8790	249	8.74	2.664
		Apr. 2, 1970	0900	6210	176	7.41	2.259

03416000 WOLF RIVER NEAR BYRDSTOWN, TN--Continued

REVISIONS.--Continued

Water years 1971-81

WDR	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1971	Dec. 21, 1970	1715	3350	94.9	5.91	1.801
	Jan. 14, 1971	1245	4540	129	6.58	2.006
	Feb. 5, 1971	0715	3880	110	6.22	1.896
	May 7, 1971	1200	3530	100	6.02	1.835
	May 13, 1971	0630	5320	151	6.96	2.121
	July 30, 1971	1730	3640	103	6.08	1.853
	Aug. 4, 1971	0715	*10600	300	9.74	2.969
1972	Aug. 9, 1972	1715	*4130	117	6.36	1.939
1973	Dec. 10, 1972	0915	*11400	323	10.23	3.118
	Mar. 15, 1973	1045	7170	203	7.89	2.405
	May 28, 1973	0015	6520	185	7.56	2.304
1974	Nov. 27, 1973	1015	*10400	295	9.66	2.944
	Dec. 26, 1973	1515	5830	165	7.22	2.201
	Dec. 31, 1973	0845	3210	90.9	5.83	1.777
	Jan. 11, 1974	0200	9140	259	8.92	2.719
	Mar. 21, 1974	1030	3580	101	6.05	1.844
	Apr. 4, 1974	0700	5380	152	6.99	2.131
1975	Mar. 12, 1975	1715	*11900	337	10.59	3.228
	Mar. 29, 1975	1215	4600	130	6.61	2.015
1976	Oct. 17, 1975	1600	3640	103	6.08	1.853
	Nov. 12, 1975	1215	*7260	206	7.93	2.417
	Mar. 30, 1976	0645	4300	122	6.45	1.966
	June 2, 1976	1745	5380	152	6.99	2.131
1977	Oct. 25, 1976	1845	3300	93.5	5.88	1.792
	Apr. 4, 1977	1815	*11100	314	10.08	3.072
1978	Nov. 29, 1977	1700	3570	101	6.04	1.841
	Dec. 5, 1977	1430	3380	95.7	5.93	1.807
	Jan. 26, 1978	0230	*5750	163	7.18	2.188
1979	Dec. 4, 1978	0530	8180	232	8.42	2.566
	Dec. 9, 1978	0400	*10500	297	9.72	2.963
	Jan. 1, 1979	1745	3950	112	6.26	1.908
	Jan. 21, 1979	1130	3620	103	6.07	1.850
	Feb. 25, 1979	1530	4240	120	6.42	1.957
	Apr. 12, 1979	1400	5040	143	6.83	2.082
	May 4, 1979	0945	4840	137	6.73	2.051
1980	Mar. 21, 1980	0445	*6890	195	7.75	2.362
	Apr. 8, 1980	1900	3740	106	6.14	1.871
1981	June 6, 1981	1745	*6810	193	7.71	2.350
	June 10, 1981	2245	3550	101	6.03	1.838

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	63	238	212	394	242	91	214	103	25	103	2120
2	18	53	223	206	295	220	86	186	82	23	82	11900
3	17	46	172	3740	275	201	91	162	62	25	55	2520
4	16	42	142	3930	247	181	85	142	220	43	42	749
5	19	40	111	879	220	166	110	127	597	33	40	395
6	32	39	95	493	202	167	256	114	187	27	40	251
7	27	36	87	346	175	299	201	109	129	38	33	187
8	21	33	78	260	161	295	196	117	99	63	30	144
9	19	30	68	223	939	264	242	98	80	116	29	116
10	18	29	60	180	714	240	221	87	79	43	30	96
11	17	28	55	165	438	227	197	78	69	191	27	81
12	16	27	50	133	325	206	174	71	57	158	25	71
13	15	26	47	127	300	210	156	65	51	87	24	65
14	15	25	63	115	269	226	138	60	46	57	23	63
15	14	24	82	102	247	1120	123	55	41	42	23	58
16	14	28	69	94	299	794	133	51	38	36	65	52
17	13	32	92	77	711	536	1870	47	36	32	909	47
18	13	33	135	74	471	370	869	45	34	30	210	44
19	18	30	117	247	345	300	474	48	32	29	105	41
20	14	31	100	280	285	254	438	47	31	30	69	39
21	13	33	102	701	249	222	421	44	30	31	73	41
22	15	32	320	1020	207	190	332	44	32	75	65	37
23	92	32	760	2480	178	168	275	42	30	50	49	35
24	71	77	478	1060	165	153	241	38	27	35	62	33
25	40	121	309	525	159	142	212	36	25	30	294	36
26	100	99	235	344	141	134	194	34	24	26	171	37
27	833	483	203	262	210	118	382	78	24	25	114	36
28	241	366	175	225	274	107	375	137	29	25	86	33
29	148	223	146	187	---	100	299	150	40	24	66	30
30	106	170	125	167	---	96	249	88	29	24	55	29
31	78	---	146	268	---	97	---	151	---	217	703	---
TOTAL	2088	2331	5083	19122	8895	8045	9131	2765	2363	1690	3762	19386
MEAN	67.4	77.7	164	617	318	260	304	89.2	78.8	54.5	121	646
MAX	833	483	760	3930	939	1120	1870	214	597	217	909	11900
MIN	13	24	47	74	141	96	85	34	24	23	23	29
CFSM	.64	.75	1.55	5.82	3.00	2.45	2.87	.84	.74	.51	1.14	6.09
IN.	.73	.82	1.78	6.71	3.12	2.82	3.20	.97	.83	.59	1.32	6.80

CAL YR 1981 TOTAL 46693.9 MEAN 128 MAX 3590 MIN 9.0 CFSM 1.21 IN 16.39
WTR YR 1982 TOTAL 84661.0 MEAN 232 MAX 11900 MIN 13 CFSM 2.19 IN 29.71

03416000 WOLF RIVER NEAR BYRDSTOWN, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to December 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
07...	0930	25	350	8.1	15.0	10.0	120
21...	1230	13	350	--	13.5	--	--
NOV							
03...	1010	47	280	--	14.0	--	--
DEC							
09...	0945	68	250	--	5.0	--	--

03417500 CUMBERLAND RIVER AT CELINA, TN

LOCATION.--Lat 36°33'15", long 85°30'52", Clay County, Hydrologic Unit 05130106, on right bank at State Highway 52 bridge, 0.5 mi (0.8 km) northwest of courthouse in Celina, 600 ft (183 m) downstream from Obey River, and at mile 380.8 (612.7 km).

DRAINAGE AREA.--7,307 mi^2 (18,925 km^2).

PERIOD OF RECORD.--October 1922 to current year. Gage-height records collected at same site 1903-54 are in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 893: 1923-38. WSP 1276: 1924. WSP 1306: 1943 (monthly runoff). WSP 2110: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 489.00 ft (149.047 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1930, nonrecording gage at site 400 ft (122 m) downstream at same datum. Since Feb. 2, 1973, auxiliary water-stage recorder 15.8 (25.4 km) downstream from base gage at same datum.

REMARKS.--Records fair except Nov. 7 to Jan. 8 which are poor. Flow regulated by Lake Cumberland and Dale Hollow Lake (see page 124).

AVERAGE DISCHARGE.--59 years (water years 1922-1980, 1982), 11,800 ft^3/s (334.2 m^3/s), 21.93 in/yr (557 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft^3/s (4,110 m^3/s) Dec. 29, 1926, maximum gage height, 57.25 ft (17.450 m), Dec. 29, 1926, from graph based on gage readings; minimum daily, 69 ft^3/s (1.95 m^3/s) Sept. 2, 11-14, 1925; minimum gage height observed, 0.20 ft (0.061 m) Sept. 2, 11-14, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 59.2 ft (18.04 m) in March 1826, from Cumberland River profile.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,100 ft^3/s (881 m^3/s) Jan. 23, gage height 22.86 ft (6.968 m); minimum daily, 2,180 ft^3/s (61.7 m^3/s) Dec. 6; minimum recorded gage height, 10.81 ft (3.295 m) Dec. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10500	3370	6210	7570	14200	11900	13300	10300	5520	17400	15400	17700
2	11400	3930	5580	7480	14900	13500	13200	6570	8680	13600	9340	27300
3	10200	6910	4500	4990	15600	14300	12300	4660	8210	11900	18600	23000
4	7410	7350	4100	4320	21400	14300	7480	8510	8790	8320	20800	18800
5	7560	6090	2430	5270	21400	13700	7480	10600	8760	5650	21100	15100
6	9520	5440	2180	4580	18000	13600	14500	10100	6160	8110	20100	10400
7	10600	4800	3060	6330	18500	10400	19600	10400	6080	13200	13500	16800
8	10500	4450	3840	11300	18300	9990	19400	10500	12200	14200	12000	18600
9	10600	4860	7490	12300	17400	10900	14900	6040	14800	14600	14100	18500
10	8900	5300	9620	12900	17900	12400	9650	4940	15600	14600	16700	19100
11	6270	5870	9730	18500	14900	12600	5200	7930	15400	10100	17400	17800
12	7120	6040	9190	24600	13900	12000	3780	9690	14600	8710	16300	13300
13	8680	4880	6590	24700	15600	12400	6900	9010	10900	15000	15900	11900
14	9510	4510	5820	21200	15500	10700	4880	9040	10100	15200	14900	17500
15	8720	4100	6390	19800	16000	11600	7630	7900	15400	16500	9070	18900
16	9040	3600	7830	18900	17200	20100	6360	4160	16600	17200	8610	18500
17	7420	4500	8860	18600	20500	19600	11700	3700	17100	15700	17600	18800
18	5220	5600	10800	25700	21600	19800	11100	7170	16100	10400	16300	18100
19	5230	6950	12400	21600	19100	20100	5130	6810	15700	6860	16200	13200
20	8260	4990	11200	15000	18500	18100	10900	6760	11100	13100	17100	9130
21	8350	4360	8670	15700	17600	17600	14100	6380	8210	15800	16100	14100
22	7880	3650	8860	18100	18900	15600	15600	6440	14500	17400	9150	17200
23	8100	3970	6800	27600	20300	17300	15700	4050	17700	13600	8450	18000
24	4840	5200	5480	18400	21900	18100	15400	3650	17300	14000	15700	17400
25	5350	5460	4710	9710	22100	16600	9430	4910	16700	8810	22100	17600
26	4280	5260	3190	15200	22700	16200	6070	8930	15900	7510	19000	10000
27	8130	4890	2250	19500	22200	14200	12400	5730	9260	12000	15700	9300
28	7840	4800	2440	16500	18100	9880	14400	5530	7280	15200	14200	14800
29	9170	4020	5460	13200	---	9140	12300	6750	14100	15400	7840	18000
30	7600	3450	7300	13900	---	14900	14000	4010	16600	16300	6360	17200
31	7230	---	8200	13500	---	15000	---	3480	---	18700	18000	---
TOTAL	251430	148600	200880	466950	514200	446510	334590	214650	375350	405070	463620	496030
MEAN	8111	4953	6480	15060	18360	14400	11150	6924	12510	13070	14960	16530
MAX	11400	7350	12400	27600	22700	20100	19600	10600	17700	18700	22100	27300
MIN	4280	3370	2180	4320	13900	9140	3780	3480	5520	5650	6360	9130

WTR YR 1982 TOTAL 4317880 MEAN 11830 MAX 27600 MIN 2180 MEAN‡ 12160 CFSM‡ 1.66 IN‡ 22.59

‡ Adjusted for change in contents in Lake Cumberland and Dale Hollow Lake.

03418070 ROARING RIVER ABOVE GAINESBORO, IN

LOCATION.--Lat 36°21'04", long 85°32'45", Jackson County, Hydrologic Unit 05130106, near left bank of downstream end of county road bridge, 1.1 mi (1.8 km) upstream from Blackburn Fork, 6.3 mi (10.1 km) east of Gainesboro, and at mile 9.1 (14.6 km).

DRAINAGE AREA.--210 mi^2 (544 km^2), includes 34 mi^2 (88 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 520.56 ft (corrected) (158.667 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those below 5.0 ft^3/s (0.14 m^3/s), which are poor.

AVERAGE DISCHARGE.--8 years, 283 ft^3/s (8.015 m^3/s), 18.30 in/yr (465 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft^3/s (634 m^3/s) Mar. 12, 1975, gage height, 21.83 ft (6.654 m) from high-water marks; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s (142 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0215	12500	354	16.67	5.081	July 31	1445	6710	190	12.52	3.816
Jan. 23	1030	7760	220	13.39	4.081	Aug. 31	1050	*13100	371	18.99	5.788
Mar. 15	1015	5220	148	11.16	3.402						

No flow Oct. 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	30	680	185	724	253	142	73	2.9	.26	726	2780
2	.95	20	525	179	533	225	125	60	1.8	.20	206	1840
3	.45	13	322	6490	494	209	120	50	1.3	.20	109	1320
4	.15	7.4	219	8090	423	193	106	43	92	20	53	655
5	11	7.3	150	1890	361	226	92	34	237	9.5	32	367
6	48	3.4	116	909	327	221	104	27	78	.72	24	228
7	8.0	1.4	96	634	284	345	80	24	27	.26	12	158
8	1.1	.85	81	465	266	354	80	81	5.6	.51	9.8	109
9	.46	.61	62	377	1990	316	98	39	1.8	17	8.1	73
10	.42	.51	50	297	1160	290	92	22	24	18	10	52
11	.42	.40	42	235	702	290	79	11	18	20	.98	38
12	.39	.29	36	208	546	262	71	5.2	3.4	135	.21	29
13	.27	.25	31	206	527	272	63	3.2	2.5	24	.06	32
14	.01	.24	57	175	471	352	56	2.5	1.8	2.3	.04	55
15	.00	.21	76	151	419	3100	46	2.1	1.1	.61	.04	29
16	.00	1.8	61	140	581	1760	72	1.6	1.0	.23	20	16
17	.00	37	72	135	837	846	1520	1.4	1.0	.20	152	6.1
18	2.9	36	102	130	662	594	948	1.1	.72	19	121	2.6
19	2.5	13	91	421	518	459	536	1.1	.57	31	27	1.8
20	.70	18	71	388	414	377	394	1.6	.57	34	5.6	1.1
21	.54	12	87	1860	367	323	293	1.9	.40	9.4	5.7	1.3
22	.52	5.4	650	1880	297	271	223	2.3	.32	1.6	1.5	.94
23	59	2.6	890	4970	254	225	178	1.6	.20	87	.24	.45
24	62	20	652	2110	223	198	150	1.3	.20	19	497	.25
25	26	37	407	913	193	179	133	.90	.20	2.8	253	5.0
26	49	39	307	604	161	182	121	.90	.20	.77	109	24
27	414	621	246	455	213	151	141	1.4	.20	.47	65	4.3
28	252	704	197	383	290	124	135	216	.26	.20	43	1.9
29	126	316	149	304	---	113	106	188	.40	.20	25	1.2
30	75	245	117	267	---	107	92	58	.45	359	16	.78
31	47	---	122	527	---	117	---	16	---	2500	7740	---
TOTAL	1188.95	2193.66	6764	35978	14237	12934	6396	972.10	504.89	3313.43	10272.27	7832.72
MEAN	38.4	73.1	218	1161	508	417	213	31.4	16.8	107	331	261
MAX	414	704	890	8090	1990	3100	1520	216	237	2500	7740	2780
MIN	.00	.21	31	130	161	107	46	.90	.20	.20	.04	.25
CFSM	.18	.35	1.04	5.53	2.42	1.99	1.01	.15	.08	.51	1.58	1.24
IN.	.21	.39	1.20	6.37	2.52	2.29	1.13	.17	.09	.59	1.82	1.39

CAL YR 1981 TOTAL 42382.91 MEAN 116 MAX 5680 MIN .00 CFSM .55 IN 7.51
WTR YR 1982 TOTAL 102587.02 MEAN 281 MAX 8090 MIN .00 CFSM 1.34 IN 18.17

03418070 ROARING RIVER ABOVE GAINESBORO, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1978 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
06...	1225	46	250	15.5	11	1.4	--
NOV							
02...	1345	20	260	15.5	5	.27	--
DEC							
08...	1045	82	255	9.5	4	.89	--
JAN							
19...	1410	453	355	.0	29	35	--
FEB							
26...	0900	159	210	6.0	4	1.7	--
MAR							
30...	1230	102	210	12.0	5	1.4	--
MAY							
17...	1500	1.2	260	25.5	5	.02	--
JUL							
13...	1100	25	330	22.0	128	8.6	--
AUG							
31...	1345	12200	120	16.0	469	15400	86

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN

LOCATION.--Lat 36°17'12", long 85°56'27", Smith County, Hydrologic Unit 05130108, on right bank in powerhouse at Cordell Hull Dam, 2.7 mi (4.3km) north of Carthage, and at mile 313.5 (504.4 km).

DRAINAGE AREA.--8,095 mi^2 (20,966 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year. Equivalent record prior to 1981 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by Lake Cumberland (station 03413500) and Dale Hollow Lake (station 03416500).

AVERAGE DISCHARGE.--10 years, 14,750 ft^3/s (417.7 m^3/s), unadjusted.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 116,000 ft^3/s (3,280 m^3/s) Mar. 13, 1975; no flow Nov. 2, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 39,800 ft^3/s (1,130 m^3/s) Jan. 23, minimum daily, 2,370 ft^3/s (67.1 m^3/s) Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10000	4210	12400	6360	24000	12500	13300	10100	3440	16400	23300	31900
2	10400	5700	10700	7520	18900	16400	13300	8810	8570	17200	8380	27200
3	10600	8610	9880	33900	20500	17700	17800	4600	9930	10100	13700	25500
4	6800	9300	9300	37100	23800	16900	8820	7500	9050	7250	17500	23400
5	8640	8200	5370	21300	23000	16300	15400	10400	9220	4190	19700	17200
6	8330	7480	5170	11000	22800	16300	12200	9450	6580	6230	19700	9290
7	10100	8950	3800	8140	17800	12300	19400	11200	4610	14600	13900	16300
8	10900	5800	3390	10300	20000	17400	26100	7950	12000	13700	12100	17400
9	10400	4280	8510	18200	36500	17400	17500	8530	15800	14800	9670	14900
10	10100	8650	8950	16900	38100	16000	8920	3750	15400	14800	13900	17800
11	7120	10200	11900	15300	22800	15900	5530	4280	15000	7940	16500	17900
12	6900	8650	9210	32700	19100	13400	4160	10400	12300	5550	16800	12500
13	8330	8400	4690	23700	16100	16000	11500	8620	9300	15700	15100	10200
14	9070	8510	7180	25800	15800	15800	7880	7470	11100	15700	14000	17300
15	10300	4770	5340	22900	20300	25400	7690	10000	12600	14600	7650	18400
16	7250	3980	7690	19100	24100	29200	8750	3930	16700	17200	23900	14900
17	8700	5920	9920	21100	22600	24600	20400	3920	16700	13500	25300	16400
18	5080	6890	8250	31600	29000	23800	17700	5850	17000	12300	17700	18600
19	6260	8340	16100	25600	24100	24000	10100	6520	14600	6870	17300	12300
20	8400	9810	11700	16700	22800	24800	12700	5740	10600	12100	14000	8330
21	9070	5780	9980	27600	22500	21400	14200	6220	6990	15000	14100	12900
22	8750	4080	15800	25100	23100	18800	13400	5470	12700	16000	9470	15000
23	8740	6890	21200	39800	23000	20500	14800	3430	15000	15800	8730	16100
24	7110	7620	15400	34900	25900	20900	17900	5540	17500	11800	16300	16100
25	6980	8630	13200	16900	22200	20600	10200	4800	17000	8240	21600	14200
26	8560	10200	6660	18700	26600	19100	5940	6500	15400	6980	24200	6790
27	12300	7370	3490	22500	26100	17200	10500	5510	4380	10700	16400	12400
28	12000	10500	2370	21300	22800	10500	11000	5200	9030	14200	13400	11600
29	11900	5160	5540	12600	---	12200	10500	10900	8270	13500	6990	15900
30	11000	9750	10800	17400	---	16300	11900	7770	17000	14400	7350	16700
31	10100	---	6860	13600	---	13600	---	3750	---	24300	31100	---
TOTAL	280190	222630	280750	655620	654300	563200	379490	214110	353770	391650	489740	485410
MEAN	9038	7421	9056	21150	23370	18170	12650	6907	11790	12630	15800	16180
MAX	12300	10500	21200	39800	38100	29200	26100	11200	17500	24300	31100	31900
MIN	5080	3980	2370	6360	15800	10500	4160	3430	3440	4190	6990	6790

CAL YR 1981 TOTAL 3120479 MEAN 8549 MAX 43300 MIN 344
WTR YR 1982 TOTAL 4970860 MEAN 13620 MAX 39800 MIN 2370

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
WATER TEMPERATURE: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Flow regulated by Cordell Hull Dam and other reservoirs above station. Period of missing specific-conductance record Oct. 1-30 due to probe cable connector problems; no dissolved-oxygen record Aug. 16-19, Sept. 1-13, due to equipment failure.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 255 micromhos Dec. 30, 31, 1981; minimum, 143 micromhos Aug. 18, 1982.
WATER TEMPERATURE: Maximum, 23.0°C Aug. 7, 1981; minimum, 2.0°C Jan. 12, 15-21, 1981.
DISSOLVED OXYGEN: Maximum, 13.3 mg/L Jan. 13, 19-21, 1981; minimum, 5.0 mg/L May 11, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 255 micromhos Dec. 30, 31; minimum, 143 micromhos Aug. 18.
WATER TEMPERATURE: Maximum, 21.5°C June 9; minimum, 3.5°C Jan. 13, 14, Feb. 10.
DISSOLVED OXYGEN: Maximum, 12.7 mg/L Feb. 10; minimum, 6.5 mg/L Aug. 21, Sept. 21.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	193	190	192	195	190	193	196	192	193
2	---	---	---	196	193	194	197	192	193	192	190	192
3	---	---	---	199	195	197	195	192	194	210	190	201
4	---	---	---	201	198	200	200	195	197	210	204	206
5	---	---	---	205	202	204	205	199	202	206	196	204
6	---	---	---	209	205	207	211	206	209	206	189	201
7	---	---	---	211	210	211	216	211	213	205	181	198
8	---	---	---	213	211	212	217	215	216	200	178	190
9	---	---	---	215	211	213	221	217	219	196	173	182
10	---	---	---	215	210	212	224	222	223	191	178	184
11	---	---	---	214	210	211	226	224	225	191	181	185
12	---	---	---	213	207	209	226	223	224	194	186	192
13	---	---	---	211	207	208	224	223	223	194	192	193
14	---	---	---	211	207	208	226	224	225	194	191	192
15	---	---	---	211	207	209	227	217	224	193	190	192
16	---	---	---	211	208	209	218	212	215	193	189	191
17	---	---	---	213	210	211	213	209	211	191	189	190
18	---	---	---	213	209	211	210	205	208	194	189	192
19	---	---	---	212	208	210	206	203	204	196	193	195
20	---	---	---	212	210	211	204	198	201	197	194	195
21	---	---	---	215	212	213	199	195	197	249	196	241
22	---	---	---	215	212	213	199	196	197	247	202	209
23	---	---	---	215	213	214	199	197	198	205	201	203
24	---	---	---	217	215	216	199	196	198	204	202	203
25	---	---	---	217	182	185	198	196	197	204	201	203
26	---	---	---	185	183	184	198	195	196	204	183	191
27	---	---	---	185	184	184	197	195	196	199	182	188
28	---	---	---	188	186	187	253	194	200	197	181	188
29	---	---	---	189	188	189	254	195	206	194	189	192
30	---	---	---	191	190	191	255	195	207	197	193	195
31	189	186	187	---	---	---	255	193	208	197	194	196
MONTH	---	---	---	217	182	204	255	190	207	249	173	196

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	198	195	196	182	175	180	176	175	175	190	186	188
2	200	195	198	184	182	183	176	174	175	190	187	188
3	199	197	198	188	186	187	176	175	175	189	187	187
4	202	198	200	193	190	191	175	172	173	189	187	187
5	205	202	203	196	155	164	174	173	173	191	188	189
6	205	202	204	161	160	161	178	176	177	191	188	189
7	206	203	204	168	164	166	180	177	179	190	187	188
8	207	203	205	173	170	171	181	177	179	189	187	188
9	206	201	202	176	174	175	187	179	184	189	187	188
10	203	196	202	180	179	180	184	179	181	191	188	189
11	197	188	195	180	178	180	182	179	181	191	188	189
12	197	189	194	181	179	180	182	180	181	190	188	189
13	198	174	184	179	175	178	181	180	181	191	188	189
14	196	177	182	179	175	177	182	179	180	190	189	190
15	195	188	193	178	174	176	182	179	180	235	189	212
16	200	194	198	177	174	176	181	179	180	234	191	202
17	201	197	200	176	172	174	183	179	181	192	187	189
18	200	198	199	177	173	175	183	181	182	190	187	189
19	200	196	197	175	172	173	189	182	186	190	188	189
20	197	194	196	177	175	176	190	188	189	191	188	189
21	197	193	195	175	171	173	190	189	189	192	189	191
22	196	189	193	176	175	175	190	188	189	194	191	193
23	195	190	192	175	172	174	190	187	189	194	192	193
24	194	188	190	174	173	174	237	189	193	193	191	192
25	192	185	189	175	173	174	240	193	196	194	191	192
26	189	184	186	175	173	174	242	197	237	194	190	191
27	189	179	185	175	173	174	198	194	195	191	190	190
28	186	177	181	174	172	173	194	191	192	189	188	189
29	---	---	---	171	169	170	193	190	191	191	188	190
30	---	---	---	173	169	171	192	188	189	191	189	190
31	---	---	---	176	173	175	---	---	---	191	189	190
MONTH	207	174	195	196	155	175	242	172	185	235	186	191
		JUNE			JULY			AUGUST			SEPTEMBER	
1	191	187	188	177	172	174	185	168	176	171	169	170
2	189	186	188	176	173	174	189	179	184	172	159	169
3	190	187	189	177	172	174	191	178	182	165	161	163
4	190	188	189	180	173	176	187	179	181	169	166	168
5	192	189	191	181	175	177	184	179	181	174	169	171
6	193	191	192	182	173	176	186	182	184	177	173	174
7	194	192	193	182	173	177	187	158	182	177	174	176
8	194	193	193	179	173	175	186	165	184	179	172	177
9	194	192	193	181	173	175	191	182	185	182	179	181
10	195	192	193	178	172	174	191	180	183	186	183	184
11	194	191	192	177	174	175	186	179	181	190	186	188
12	192	189	190	182	174	177	185	176	180	192	188	190
13	191	187	189	183	176	178	188	152	175	193	188	191
14	190	186	188	181	176	177	175	153	155	196	180	187
15	190	183	187	181	176	178	156	153	155	182	178	180
16	187	183	185	180	176	178	157	148	151	181	177	180
17	186	180	183	182	178	179	151	144	148	182	178	181
18	185	181	182	184	180	181	171	143	156	183	179	181
19	183	177	180	227	219	223	173	145	165	212	180	193
20	182	178	180	231	219	223	148	147	147	212	210	211
21	182	177	179	224	218	220	153	148	149	211	209	210
22	182	176	178	226	216	219	153	151	152	211	208	210
23	180	176	177	223	178	205	155	152	153	210	207	208
24	179	174	176	185	177	180	155	150	154	209	177	204
25	178	174	176	185	178	181	157	153	155	208	204	206
26	178	173	175	187	178	182	160	158	159	207	176	183
27	179	175	176	186	177	180	163	159	161	178	177	177
28	181	174	177	186	165	175	165	161	163	206	174	192
29	178	173	176	185	167	170	167	164	165	203	180	200
30	177	172	174	182	166	169	168	165	167	201	199	200
31	---	---	---	182	165	170	170	165	168	---	---	---
MONTH	195	172	184	231	165	183	191	143	167	212	159	187

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	17.5	18.0	14.0	14.0	14.0	10.5	10.0	10.0	6.5	6.5	6.5
2	17.5	17.0	17.5	14.5	14.0	14.0	10.0	9.5	10.0	6.5	6.0	6.5
3	17.5	17.0	17.0	14.5	14.0	14.0	10.0	9.5	10.0	7.0	6.5	7.0
4	17.5	17.0	17.0	14.5	14.0	14.5	10.0	9.5	10.0	7.5	7.0	7.5
5	17.5	17.0	17.5	14.5	14.5	14.5	10.0	9.5	9.5	8.0	7.5	7.5
6	17.5	17.0	17.0	14.5	14.5	14.5	9.5	9.0	9.0	8.5	8.0	8.0
7	17.0	16.5	17.0	14.5	14.0	14.5	9.5	9.0	9.0	8.5	8.0	8.5
8	17.0	16.5	16.5	14.5	14.0	14.5	9.5	9.0	9.0	8.0	8.0	8.0
9	17.0	17.0	17.0	14.5	14.0	14.5	9.0	9.0	9.0	8.0	7.0	7.5
10	16.5	16.5	16.5	14.5	14.0	14.0	9.0	8.0	8.5	7.0	5.5	6.5
11	16.5	16.5	16.5	14.5	14.0	14.0	8.0	8.0	8.0	5.5	4.5	5.0
12	16.5	16.0	16.5	14.0	14.0	14.0	8.0	7.5	8.0	4.5	4.0	4.0
13	16.5	16.0	16.5	14.0	13.5	13.5	8.0	7.5	7.5	4.0	3.5	3.5
14	16.5	16.0	16.5	13.5	13.5	13.5	7.5	7.5	7.5	4.5	3.5	4.0
15	16.5	16.0	16.0	13.5	13.5	13.5	7.5	7.0	7.5	5.0	4.5	4.5
16	16.0	16.0	16.0	13.5	13.0	13.5	7.0	7.0	7.0	5.0	4.5	4.5
17	16.5	16.0	16.0	13.0	13.0	13.0	7.0	7.0	7.0	4.5	4.0	4.5
18	16.5	16.0	16.0	13.0	12.5	13.0	7.0	6.5	6.5	4.5	4.0	4.0
19	16.0	15.5	15.5	13.0	12.5	13.0	6.5	6.0	6.0	4.5	4.5	4.5
20	16.0	15.0	15.5	13.0	12.0	12.5	6.0	6.0	6.0	4.5	4.5	4.5
21	16.0	15.5	15.5	12.0	11.5	11.5	6.0	5.5	6.0	5.0	4.5	5.0
22	16.0	15.5	15.5	11.5	11.0	11.0	6.5	6.0	6.0	5.5	5.0	5.0
23	15.5	15.0	15.5	11.0	11.0	11.0	6.5	6.5	6.5	6.0	5.0	5.5
24	15.0	14.0	14.5	11.0	10.5	11.0	6.5	6.5	6.5	6.5	6.0	6.0
25	14.5	14.0	14.5	10.5	10.5	10.5	6.5	6.5	6.5	6.5	6.0	6.0
26	14.5	14.5	14.5	10.5	10.5	10.5	6.5	6.5	6.5	6.0	6.0	6.0
27	14.5	14.0	14.5	10.5	10.5	10.5	7.0	6.5	6.5	6.0	5.5	5.5
28	14.0	14.0	14.0	10.5	10.5	10.5	6.5	6.5	6.5	5.5	5.0	5.0
29	14.0	13.5	14.0	10.5	10.5	10.5	6.5	6.5	6.5	5.0	4.5	4.5
30	14.0	13.5	14.0	10.5	10.0	10.0	6.5	6.0	6.5	5.0	4.5	5.0
31	14.0	13.5	14.0	---	---	---	6.5	6.0	6.5	5.5	5.0	5.5
MONTH	18.0	13.5	16.0	14.5	10.0	13.0	10.5	5.5	7.5	8.5	3.5	5.5
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.5	5.5	5.0	5.0	5.0	8.5	8.5	8.5	12.5	12.0	12.5
2	5.5	5.5	5.5	5.5	5.0	5.0	9.0	8.5	8.5	13.0	12.0	12.5
3	6.0	5.5	5.5	5.5	5.0	5.5	9.5	9.0	9.0	13.5	12.0	12.5
4	6.0	5.5	6.0	5.5	5.5	5.5	10.0	9.5	9.5	13.5	12.0	12.5
5	5.5	5.0	5.5	6.0	5.5	5.5	10.5	10.0	10.0	14.0	12.5	13.5
6	5.0	4.5	5.0	6.0	6.0	6.0	10.0	9.5	10.0	15.0	13.0	14.0
7	5.0	4.5	4.5	6.5	6.0	6.0	9.5	9.0	9.5	15.0	13.5	14.5
8	4.5	4.0	4.5	6.5	6.5	6.5	9.0	8.5	9.0	14.5	13.5	14.0
9	4.5	4.0	4.0	6.5	6.5	6.5	9.0	8.0	8.5	15.5	13.5	14.5
10	4.0	3.5	4.0	6.5	6.5	6.5	8.0	7.5	8.0	15.0	14.5	14.5
11	4.5	4.0	4.0	6.5	6.0	6.5	8.0	7.5	8.0	15.5	14.5	15.0
12	4.5	4.0	4.0	6.5	6.0	6.5	8.5	7.5	8.0	16.5	14.5	15.5
13	4.0	4.0	4.0	6.0	6.0	6.0	9.5	8.0	9.0	16.5	15.0	16.0
14	4.5	4.0	4.0	6.0	5.5	6.0	9.5	9.0	9.0	17.0	15.0	16.0
15	4.5	4.0	4.0	6.0	5.5	5.5	11.0	9.0	9.5	17.0	15.0	16.0
16	4.5	4.0	4.5	6.0	6.0	6.0	11.0	10.0	11.0	16.0	15.0	15.5
17	5.0	4.5	4.5	6.0	5.5	6.0	11.0	10.5	10.5	17.0	15.0	15.5
18	5.5	5.0	5.0	6.0	6.0	6.0	12.0	11.0	11.5	17.5	15.5	16.0
19	6.0	5.5	5.5	6.0	6.0	6.0	12.5	12.0	12.0	17.5	15.5	16.5
20	6.5	6.0	6.0	6.0	5.5	6.0	12.5	12.0	12.5	17.0	16.0	16.5
21	6.5	6.5	6.5	6.0	5.5	5.5	12.5	12.0	12.5	18.0	16.0	16.5
22	6.5	6.5	6.5	6.0	6.0	6.0	12.5	12.0	12.5	18.0	16.5	17.0
23	6.5	6.0	6.0	6.0	6.0	6.0	12.5	12.5	12.5	17.0	16.5	17.0
24	6.5	6.0	6.5	6.5	6.0	6.0	13.0	12.5	12.5	18.0	16.5	17.0
25	6.5	6.0	6.0	6.5	6.5	6.5	13.0	12.5	12.5	18.0	16.5	17.0
26	6.0	5.5	5.5	7.0	6.5	6.5	12.5	12.5	12.5	19.0	17.0	17.5
27	5.5	5.0	5.5	7.0	7.0	7.0	13.0	12.0	12.5	19.0	17.0	18.0
28	5.5	5.0	5.0	7.0	7.0	7.0	12.5	12.0	12.0	19.0	17.5	18.0
29	---	---	---	7.5	7.0	7.0	12.5	12.0	12.0	20.5	17.5	18.5
30	---	---	---	7.5	7.0	7.5	12.5	12.0	12.0	20.5	18.0	19.0
31	---	---	---	8.5	7.5	8.0	---	---	---	18.5	17.5	18.5
MONTH	6.5	3.5	5.0	8.5	5.0	6.0	13.0	7.5	10.5	20.5	12.0	15.5

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	17.5	18.0	18.0	15.5	17.0	18.5	17.5	17.5	18.5	18.0	18.0
2	19.5	17.5	18.5	17.5	16.0	17.0	18.0	17.0	17.5	19.0	18.0	18.5
3	20.5	18.0	19.0	17.5	16.0	17.0	18.0	17.0	17.5	19.0	16.0	18.5
4	21.0	18.0	19.5	17.0	16.5	17.0	18.0	17.0	18.0	19.5	18.5	19.0
5	21.0	18.5	19.5	17.5	16.0	16.5	18.0	17.5	17.5	19.0	18.5	19.0
6	20.0	18.5	19.0	18.0	16.0	17.0	18.0	17.0	17.5	19.5	19.0	19.0
7	20.5	19.0	19.0	19.0	16.0	17.5	18.0	17.0	17.5	19.5	19.0	19.5
8	21.0	18.5	20.0	19.5	16.5	18.0	18.0	17.0	17.5	19.5	19.0	19.5
9	21.5	19.0	20.5	19.5	16.5	18.0	17.5	16.5	17.0	19.5	19.0	19.5
10	20.5	18.5	20.0	19.5	17.0	18.5	17.5	15.5	17.0	19.0	18.5	19.0
11	21.0	18.0	19.5	19.0	17.5	18.5	17.5	16.0	17.0	18.5	18.0	18.5
12	20.0	18.0	19.0	18.5	17.5	18.0	17.0	16.0	16.5	18.0	18.0	18.0
13	18.5	17.0	18.0	19.5	17.0	18.5	17.0	16.5	16.5	18.0	17.5	18.0
14	19.0	16.5	17.5	19.5	17.5	19.0	17.0	16.0	16.5	18.0	17.5	17.5
15	19.5	16.0	17.5	20.0	17.5	18.5	17.0	16.0	16.5	18.0	17.5	18.0
16	18.0	16.0	17.5	20.0	17.5	18.5	17.5	15.0	16.0	18.0	17.5	18.0
17	17.5	15.5	16.5	19.0	17.5	18.5	17.0	16.0	16.5	18.5	17.5	18.0
18	17.5	16.0	16.5	18.5	17.5	18.0	17.5	17.0	17.0	18.5	18.0	18.0
19	16.5	15.5	16.0	18.5	17.5	18.0	18.0	16.5	17.5	18.0	16.5	18.0
20	16.5	15.5	16.0	19.0	17.0	18.5	18.0	17.0	17.5	18.0	18.0	18.0
21	16.0	15.5	16.0	19.5	17.0	18.5	18.5	17.5	18.0	18.0	16.5	17.5
22	17.0	15.5	16.0	19.5	17.0	18.5	19.0	16.0	18.0	17.0	16.0	16.5
23	17.5	15.5	16.5	18.0	17.0	17.5	19.5	18.5	19.0	17.5	16.5	17.0
24	17.5	15.5	16.5	18.5	17.0	18.0	19.5	18.5	19.0	17.5	17.0	17.0
25	16.5	16.0	16.5	18.0	17.5	18.0	19.5	18.5	19.0	17.0	16.5	16.5
26	17.0	16.0	16.5	18.0	17.0	17.5	19.0	18.5	19.0	16.5	15.5	16.5
27	16.5	16.0	16.0	19.0	16.5	17.5	19.0	18.5	18.5	16.5	16.0	16.5
28	16.5	16.0	16.0	19.0	16.5	18.0	19.0	18.5	18.5	16.5	15.0	16.0
29	16.0	15.5	16.0	20.0	17.0	18.5	18.5	16.0	18.5	17.0	15.5	16.0
30	18.0	15.5	16.5	20.0	17.5	19.0	19.0	17.5	18.5	17.0	16.0	16.5
31	---	---	---	19.0	18.5	18.5	19.0	18.5	18.5	---	---	---
MONTH	21.5	15.5	17.5	20.0	15.5	18.0	19.5	15.0	17.5	19.5	15.0	18.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.6	10.1	10.8	12.2	11.1	11.4	12.0	11.7	11.9	11.1	10.6	10.9
2	11.7	10.0	10.8	11.6	11.3	11.4	12.0	11.5	11.7	11.1	10.3	10.7
3	11.6	10.2	10.9	11.7	11.3	11.4	11.5	11.1	11.4	11.2	10.3	10.7
4	11.9	9.9	11.2	11.6	11.0	11.3	11.5	11.1	11.3	11.1	9.8	10.3
5	11.8	11.0	11.5	11.8	11.1	11.4	11.5	10.9	11.2	11.4	9.6	10.6
6	11.7	10.9	11.4	11.3	10.7	11.0	11.3	10.5	10.9	11.7	10.3	10.9
7	11.9	11.0	11.4	11.6	10.8	11.3	11.0	10.1	10.6	11.5	10.7	11.1
8	12.1	11.0	11.5	11.4	10.5	10.9	10.8	10.0	10.4	10.9	10.2	10.6
9	12.5	11.1	12.1	11.8	10.6	11.2	11.3	9.7	10.4	11.2	10.0	10.7
10	12.7	12.5	12.6	11.3	10.3	10.8	10.2	9.4	9.7	11.5	9.7	10.7
11	12.6	11.7	12.2	11.6	10.3	11.0	9.9	9.4	9.6	10.8	10.1	10.5
12	11.9	11.1	11.5	11.4	10.2	10.7	10.9	9.5	9.8	11.3	9.8	10.5
13	12.4	11.1	11.8	11.6	10.2	10.8	11.1	9.5	10.4	11.2	10.1	10.5
14	12.3	10.9	11.6	11.7	10.1	10.6	11.6	9.9	10.6	11.1	9.7	10.4
15	12.2	10.7	11.5	11.4	10.2	11.0	11.2	10.0	10.5	10.9	9.9	10.4
16	12.1	10.5	11.6	11.4	10.3	10.7	11.7	10.8	11.2	10.2	9.5	9.8
17	11.9	10.5	11.2	11.7	10.5	11.2	12.3	10.9	11.5	10.9	9.0	9.7
18	11.6	10.8	11.3	11.6	10.3	10.9	11.1	10.2	10.6	10.7	9.2	9.8
19	11.4	10.1	10.5	11.7	10.4	11.2	11.1	9.7	10.1	10.5	9.3	9.8
20	11.1	10.0	10.5	10.9	10.1	10.6	10.4	9.2	10.0	9.9	9.0	9.5
21	10.2	9.5	9.9	12.2	10.3	11.5	9.8	8.7	9.2	9.9	8.3	9.0
22	11.2	9.4	10.1	11.2	10.3	10.7	9.3	8.8	9.1	9.5	8.5	8.8
23	11.2	9.4	10.2	12.1	10.5	11.2	9.0	8.3	8.6	8.9	8.0	8.4
24	11.4	9.8	10.9	11.1	10.1	10.5	9.4	8.3	8.7	9.7	7.8	8.4
25	11.7	10.3	11.1	12.1	10.1	11.4	9.7	7.8	8.6	9.3	8.1	8.6
26	11.9	10.9	11.6	11.9	10.3	11.2	10.1	7.6	8.3	9.7	7.9	8.7
27	11.7	10.8	11.3	11.8	10.3	11.1	10.5	7.7	9.0	9.6	8.1	8.7
28	11.7	10.8	11.3	11.3	10.0	10.7	10.1	8.4	9.4	9.1	8.0	8.6
29	---	---	---	12.3	11.6	12.0	11.3	9.7	10.5	9.6	8.0	8.8
30	---	---	---	12.4	12.3	12.4	11.6	10.3	10.9	9.3	8.0	8.6
31	---	---	---	12.4	12.0	12.2	---	---	---	8.4	7.4	7.9
MONTH	12.7	9.4	11.2	12.4	10.0	11.2	12.3	7.6	10.2	11.7	7.4	9.8
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.5	7.9	9.6	8.6	9.2	9.5	8.1	8.9	---	---	---
2	9.6	7.6	8.5	9.6	8.7	9.2	10.6	8.6	9.4	---	---	---
3	10.3	8.4	9.2	9.4	8.5	8.9	10.7	9.2	10.0	---	---	---
4	9.9	8.2	9.0	8.8	7.8	8.3	10.9	9.4	10.2	---	---	---
5	9.2	8.0	8.6	8.6	7.2	7.7	10.9	9.2	10.1	---	---	---
6	8.4	7.2	7.8	9.2	7.1	7.9	10.8	8.9	10.0	---	---	---
7	8.7	6.7	7.5	9.8	7.4	8.6	11.5	8.9	9.8	---	---	---
8	9.4	6.8	8.2	9.6	8.4	9.0	10.6	9.5	10.0	---	---	---
9	9.8	7.5	8.7	9.4	8.4	9.0	10.0	9.3	9.7	---	---	---
10	9.5	7.9	8.7	9.6	8.3	8.9	9.6	8.9	9.2	---	---	---
11	10.1	7.9	9.1	8.7	7.9	8.4	9.3	8.7	9.0	---	---	---
12	10.4	8.4	9.4	8.2	7.2	7.8	9.0	8.7	8.9	---	---	---
13	10.7	8.4	9.4	9.0	7.0	8.0	9.0	8.0	8.7	---	---	---
14	10.7	8.3	9.4	9.1	7.8	8.6	9.7	8.7	9.2	8.5	6.7	7.7
15	10.7	8.5	9.5	9.8	8.0	9.1	10.6	9.0	9.9	8.7	7.2	8.0
16	10.7	9.0	9.8	9.9	8.7	9.5	---	---	---	8.4	6.8	7.6
17	10.6	8.6	9.7	9.6	8.4	9.0	---	---	---	8.1	6.6	7.5
18	10.2	8.6	9.5	9.2	7.8	8.6	---	---	---	8.5	6.5	7.3
19	10.3	8.5	9.3	9.5	7.1	8.0	---	---	---	8.2	6.5	7.2
20	9.9	8.2	8.9	9.1	7.3	8.2	8.0	6.6	7.4	7.6	6.5	7.0
21	9.8	7.8	8.6	9.3	7.6	8.6	9.8	6.3	7.7	8.0	6.3	7.0
22	10.4	7.4	9.0	9.4	8.2	9.0	9.3	6.5	7.7	8.2	6.6	7.5
23	10.1	8.1	9.3	9.5	8.4	9.0	10.1	7.0	8.1	8.4	7.2	7.8
24	10.1	8.6	9.6	9.2	8.1	8.6	10.0	7.4	8.2	8.3	7.3	7.8
25	9.9	9.0	9.5	9.3	7.5	8.3	8.8	7.3	7.9	8.5	7.1	7.7
26	9.7	8.7	9.1	8.8	7.3	8.0	7.8	6.5	7.2	8.2	6.9	7.4
27	8.7	8.1	8.3	9.4	7.4	8.4	8.4	6.5	7.3	8.2	6.7	7.6
28	9.8	7.7	8.5	9.9	7.8	8.9	8.0	6.5	7.0	8.7	6.9	7.7
29	9.1	7.8	8.4	10.3	9.0	9.6	7.4	6.5	7.0	8.7	7.8	8.3
30	9.5	7.7	8.9	10.5	9.0	9.8	7.6	6.7	7.1	8.5	7.4	8.0
31	---	---	---	10.2	9.0	9.7	7.6	7.0	7.3	---	---	---
MONTH	10.7	6.7	8.9	10.5	7.0	8.7	11.5	6.3	8.6	---	---	---

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 (2.9 km) downstream from Barren Fork River, 2.5 mi (4.0 km) northeast of McMinnville, and at mile 19.5 (31.4 km).

DRAINAGE AREA.--640 mi^2 (1,658 km^2).

WATER-DISCHARGE RECORDS

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.--Water-stage recorder. Datum of gage is 825.78 ft (251.698 m) Sandy Hook datum. Prior to Oct. 16, 1926, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.-- 58 years, 1,163 ft^3/s (32.94 m^3/s), 24.68 in/yr (627 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,300 ft^3/s (2,130 m^3/s) Mar. 23, 1929, gage height, 39.1 ft (11.92 m) from rating curve extended above 42,000 ft^3/s (1,190 m^3/s) on basis of slope-area measurement of peak flow; minimum, 35 ft^3/s (0.991 m^3/s) Sept. 21, 1930.

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 above base of 11,000 ft^3/s (312 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1300	*26600	753	24.35	7.422	Jan. 24	0030	11900	337	14.94	4.554

Minimum discharge, 71 ft^3/s (2.01 m^3/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	394	4920	1430	1990	1970	1500	919	214	125	466	184
2	84	320	4540	1450	1820	1710	1240	804	197	129	676	531
3	82	269	2890	6440	2120	1520	1140	724	184	118	383	915
4	81	237	1850	22000	2500	1340	1080	660	182	123	263	618
5	82	276	1340	11500	2090	1270	975	603	182	143	189	478
6	84	504	1060	4940	1760	1370	1120	547	179	134	162	364
7	76	828	891	3090	1490	2140	1110	506	162	211	141	273
8	78	672	777	2240	1300	2340	1100	522	155	167	143	222
9	78	535	684	1760	2690	1980	1780	568	150	164	162	194
10	79	437	606	1460	3890	1690	1800	526	148	150	208	174
11	82	367	544	1170	2910	1490	1530	465	141	179	182	167
12	79	314	495	1000	2210	1320	1290	421	136	250	169	157
13	76	269	452	933	1920	1190	1120	385	141	179	157	157
14	74	237	468	880	1660	1090	988	354	138	143	160	150
15	74	216	627	805	1450	3580	935	327	131	129	143	225
16	73	208	842	743	1980	4270	1020	303	131	125	526	157
17	73	200	781	673	4090	3660	1550	292	131	118	3690	143
18	112	192	767	615	3570	3570	3810	491	131	216	2500	136
19	114	192	739	790	2700	2610	2910	356	125	367	1900	138
20	106	184	656	1130	2080	2090	2100	335	123	276	957	134
21	90	192	604	4500	1740	3150	1610	331	120	222	614	129
22	89	219	699	7760	1470	4050	1300	331	143	179	454	123
23	216	211	1350	8140	1250	2900	1090	324	136	219	364	120
24	200	214	1530	8600	1110	2260	942	353	125	179	358	116
25	174	231	1300	4530	990	1820	857	414	116	222	765	136
26	222	279	1120	2950	903	1590	918	483	114	237	543	200
27	813	580	992	2130	1500	1370	1440	375	125	162	398	164
28	1380	2450	892	1710	2270	1180	1440	310	125	141	314	153
29	936	1930	787	1450	---	1050	1200	307	129	157	250	150
30	649	1790	689	1270	---	960	1040	269	127	157	216	145
31	500	---	752	1250	---	1120	---	237	---	150	192	---
TOTAL	6940	14947	36644	109339	57453	63650	41935	13842	4341	5471	17625	6753
MEAN	224	498	1182	3527	2052	2053	1398	447	145	176	569	225
MAX	1380	2450	4920	22000	4090	4270	3810	919	214	367	3690	915
MIN	73	184	452	615	903	960	857	237	114	118	141	116
CFSM	.35	.78	1.85	5.51	3.21	3.21	2.18	.70	.23	.28	.89	.35
IN.	.40	.87	2.13	6.36	3.34	3.70	2.44	.80	.25	.32	1.02	.39

CAL YR 1981 TOTAL 209267 MEAN 573 MAX 4920 MIN 73 CFSM .90 IN 12.16
WTR YR 1982 TOTAL 378940 MEAN 1038 MAX 22000 MIN 73 CFSM 1.62 IN 22.03

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to January 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JANUARY 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
05...	1500	82	260	8.2	19.0	8.8	91
NOV							
04...	1050	235	200	--	16.0	--	--
DEC							
08...	1535	739	190	--	8.5	--	--
JAN							
22...	1300	8320	120	--	9.5	--	--

03422500 CANEY FORK NEAR ROCK ISLAND, TN

LOCATION.--Lat 35°48'26", long 85°37'44", White County, Hydrologic Unit 05130108, on right bank 180 ft (50 m) downstream from powerhouse of Tennessee Valley Authority, 0.8 mi (1.3 km) downstream from Great Falls Dam, 0.9 mi (1.4 km) downstream from Collins River, 1.5 mi (2.4 km) northwest of Rock Island, and at mile 90.3 (145.3 km).

DRAINAGE AREA.--1,678 mi^2 (4,346 km^2).

PERIOD OF RECORD.--November 1911 to April 1913, July 1913 to May 1914, August 1914 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1276: 1934, 1937. WSP 1910: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 647.09 ft (197.233 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 30, 1924, at sites from 80 ft (24 m) to 0.5 mi (0.8 km) upstream at different datums. Apr. 12, 1925, to Sept. 9, 1930, at present site at datum 5.00 ft (1.524 m) higher and Sept. 10, 1930, to Sept. 18, 1964, 3.00 ft (0.914 m) higher.

REMARKS.--Records good. Flow regulated since Dec. 8, 1916, by Great Falls Lake (station 03422000). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--68 years (1915-82), 3,178 ft^3/s (90.00 m^3/s), 25.72 in/yr (653 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft^3/s (5,950 m^3/s) Mar. 23, 1929, gage height, 43.6 ft (13.29 m), present datum, from floodmark, from rating curve extended above 110,000 ft^3/s (3,120 m^3/s); minimum daily, 25 ft^3/s (0.71 m^3/s) several days in August to October 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1902 reached a stage about 10 ft (3.0 m) lower than the flood of Mar. 23, 1929, at a point 8 mi (13 km) downstream, from profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,900 ft^3/s (1,950 m^3/s) Jan. 4, gage height, 25.88 ft (7.888 m); minimum, 35 ft^3/s (0.99 m^3/s) Nov. 16; minimum daily, 43 ft /s (1.21 m^3/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	1330	13200	2870	4420	5000	3060	3030	2450	65	1150	1080
2	234	1320	11100	2860	4320	4420	3070	3010	993	66	1020	291
3	70	1320	6610	12500	5150	3890	3050	2950	969	64	1740	2110
4	69	1310	4360	52500	5410	3530	3070	2930	928	63	1100	2910
5	181	1310	3440	23900	4920	3340	3040	2890	62	63	1330	1180
6	183	1310	3170	11200	4120	3310	3010	2870	61	64	1300	1930
7	175	1330	3080	7260	3540	5740	2990	2800	1130	65	72	2000
8	178	1340	3070	5300	3300	5820	2970	1880	1290	66	72	1420
9	171	1320	3080	4670	7300	4890	2960	955	1250	67	74	639
10	70	1320	3050	3690	10000	4340	2990	924	429	67	73	236
11	70	1320	3020	3390	6530	3820	2990	1000	61	70	74	77
12	232	1330	2970	3310	5160	3510	2980	1210	61	69	75	77
13	226	1310	2450	3220	4910	3270	2970	1350	60	296	75	711
14	217	1280	2820	2870	4200	3130	2970	878	440	456	74	784
15	210	1270	2510	3070	3930	12200	2960	59	328	219	74	1630
16	212	1020	1640	3060	5440	13700	2940	59	444	682	1190	1610
17	57	783	1940	3040	10900	11700	2950	1360	428	70	3060	1500
18	59	973	2160	2960	7950	10900	3000	540	433	77	3160	67
19	518	1220	1180	2870	6380	7420	3040	464	61	71	3210	67
20	628	1210	60	2950	4700	5750	3690	943	60	72	3180	374
21	649	1100	1590	4470	4330	9410	3590	948	61	652	3160	258
22	665	638	2570	17800	3590	10800	3170	517	63	278	1830	242
23	976	1110	2930	21900	3220	7120	3060	523	63	72	1700	186
24	1090	1070	2970	20200	2960	5730	2990	1470	64	76	834	181
25	43	1250	2940	10300	3020	4640	2950	820	65	73	1350	67
26	992	730	2910	6620	3010	4020	2950	811	65	73	1370	67
27	1170	1140	2920	4980	3000	3590	3050	1070	64	74	1430	68
28	1290	2060	2910	4160	4440	3150	3000	1160	66	74	1030	177
29	1340	2910	2890	3590	---	3010	3030	2680	65	75	80	1370
30	1340	3040	2890	3250	---	2950	3050	2890	65	76	653	66
31	1330	---	2840	3020	---	3030	---	2870	---	1650	993	---
TOTAL	14878	39974	105270	257780	140350	177150	91540	47861	12579	5905	36533	23455
MEAN	480	1332	3396	8315	5013	5715	3051	1544	419	190	1178	782
MAX	1340	3040	13200	52500	10900	13700	3690	3030	2450	1650	3210	2910
MIN	43	638	60	2860	2960	2950	2940	59	60	63	72	66
(†)	+4100	+1600	-11300	+13000	+400	-2500	-600	-8100	+100	+5100	-800	-3700
MEAN‡	612	1386	3031	8735	5027	5634	3031	1283	423	355	1153	658
CFSM‡	.36	.83	1.81	5.21	3.00	3.36	1.81	.76	.25	.21	.69	.39
IN.‡	.42	.92	2.08	6.00	3.12	3.87	2.02	.88	.28	.24	.79	.44

CAL YR 1981 TOTAL 538563 MEAN 1476 MAX 13200 MIN 43 MEAN‡ 1479 CFSM‡ .88 IN‡ 11.96
WTR YR 1982 TOTAL 953275 MEAN 2612 MAX 52500 MIN 43 MEAN‡ 2604 CFSM‡ 1.55 IN‡ 21.06

† Change in contents, in cfs-days, in Great Falls Lake.
‡ Adjusted for change in contents.
NOTE.--No gage height record Jan. 22 to Feb. 24.

03425000 CUMBERLAND RIVER AT CARTHAGE, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°14'53", long 85°57'19", Smith County, Hydrologic Unit 05130201, on left bank of Cordell Hull Bridge on State Highway 25, at Carthage, 1.0 mi (1.6 km) downstream from Caney Fork River, and at mile 308.2 (495.9 km).

DRAINAGE AREA.--10,690 mi^2 (27,687 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year. Gage-height records collected in this vicinity since 1885 are in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 893: 1923-39. WSP 1276: 1927, 1929(M), 1937(M). WSP 1306: 1943 (monthly runoff). WSP 2110: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 437.53 ft (133.359 m) National Geodetic Vertical Datum of 1929. Prior to May 12, 1936, nonrecording gage at site 1,000 ft (305 m) downstream at same datum. May 12 to July 17, 1936, nonrecording gage at present site and datum. Since Oct. 1, 1957, auxiliary water-stage recorder 15.8 mi (25.4 km) downstream from base gage at same datum.

REMARKS.--Records good. Flow regulated by five upstream lakes or reservoirs, (see p.124).

AVERAGE DISCHARGE.--60 years, 17,550 ft^3/s (497 m^3/s), 22.29 in/yr (566 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft^3/s (5,950 m^3/s) Dec. 30, 1926; maximum gage height, 59.8 ft (18.23 m) Dec. 30, 1926; minimum daily discharge, 366 ft^3/s (10.4 m^3/s) Oct. 29, 1940; minimum gage height since filling of Old Hickory Lake on Dec. 30, 1956, 4.3 ft (1.31 m) Oct. 28, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, that of Dec. 30, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67,500 ft^3/s (1,910 m^3/s) Aug. 16; maximum gage height, 28.73 ft (8.757 m) Aug. 16; minimum daily discharge, 4,460 ft^3/s (126 m^3/s), Dec. 27; minimum gage height, 4.86 ft (1.481 m) Oct. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	5930	18400	11900	38300	18200	19400	13500	5010	17500	25000	36000
2	12700	7700	15100	12000	31400	19600	19900	10900	9400	17500	11400	30000
3	12400	11000	13400	43700	35100	21700	22200	8560	11300	11900	15900	32400
4	7530	11400	10900	56400	38400	20800	13200	11000	10800	8010	22700	23200
5	8900	10900	9210	36000	37600	20900	19100	14600	11100	4940	26100	19900
6	9910	10600	6140	26400	36100	20500	19400	14400	7470	6940	25900	10200
7	12300	11800	5690	21700	29700	19300	25700	15500	6110	13900	19300	18200
8	12400	6850	7230	23700	29300	22200	32700	12300	15600	14600	13000	20700
9	12300	5260	12900	30700	45400	23000	24100	8530	19900	15100	12500	18900
10	11700	11100	15700	29500	52800	19500	12400	6350	19700	16300	14200	20700
11	8130	14600	17900	28100	36000	20800	7480	7180	18900	9330	17400	20900
12	7230	10300	12700	45500	30100	19000	6930	12500	13700	6510	17500	14600
13	10300	11300	6950	32500	25300	19200	13700	12300	10400	15800	15700	13300
14	10700	11300	10200	34100	24100	22600	12200	10400	13100	15800	14600	20400
15	12300	5600	9830	31400	27400	35700	10200	13000	13800	16200	8800	25000
16	10200	5460	13500	26100	29300	42000	10400	5270	17000	19700	37300	21000
17	11300	7570	15200	33700	33800	33700	22100	5600	19300	16100	43600	21300
18	6120	9730	16200	40600	36400	32500	17700	9190	21900	14600	22000	22100
19	8880	9470	21600	28300	35500	33700	15100	8530	15200	9410	18600	14000
20	11600	12900	16500	23300	31200	33500	17600	7890	13100	13400	16500	9770
21	11700	7960	15400	37100	29400	29800	21500	8050	8110	16400	15800	15000
22	11200	5490	21300	39700	29600	29600	19200	7880	13600	19000	10500	16900
23	10900	8830	27700	50900	30800	29800	22200	5350	16200	18100	10000	17800
24	10800	10300	20100	48900	33800	32400	23400	6670	17800	13000	18400	17500
25	7430	12900	15700	30200	29500	30000	15100	7170	18700	9960	24400	14400
26	8300	12200	7890	31700	36300	28400	10800	8030	16500	8160	29100	6790
27	16100	10900	4460	36500	32700	25300	17100	7490	5930	12000	20200	13700
28	17200	14700	4590	34500	29900	17700	16800	7940	9050	14500	16100	12500
29	14000	7470	10400	24400	---	19300	14400	12800	10000	15400	8810	20000
30	12300	11100	17200	27100	---	22400	14100	9580	18000	15100	8090	17800
31	11500	---	11500	25500	---	20200	---	5030	---	24400	31300	---
TOTAL	340330	292620	411490	1002100	935200	783300	516110	293290	406680	429560	590700	564960
MEAN	10980	9754	13270	32330	33400	25270	17200	9461	13560	13860	19050	18830
MAX	17200	14700	27700	56400	52800	42000	32700	15300	21900	24400	43600	36000
MIN	6120	5260	4460	11900	24100	17700	6930	5030	5010	4940	8090	6790

CAL YR 1981 TOTAL 3971230 MEAN 10880 MAX 49300 MIN 2080 MEAN‡ 12,050 CFSM‡ 1.13 IN‡ 15.30
WTR YR 1982 TOTAL 6566340 MEAN 17990 MAX 56400 MIN 4460 MEAN‡ 18,300 CFSM‡ 1.71 IN‡ 23.23

‡ Adjusted for change in contents in Lake Cumberland, Dale Hollow Lake, Cordell Hull Reservoir, Great Falls and Center Hill Lakes.

03425000 CUMBERLAND RIVER AT CARTHAGE, IN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1981.
WATER TEMPERATURE: October 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 338 micromhos Sept. 5, 1981; minimum, 89 micromhos July 2, 1980.
WATER TEMPERATURES: Maximum, 29.5°C Oct. 10, 1977; minimum, 2.0°C Jan 20, 22, 23, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH LAB (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
14...	1030	16400	164	6.8	16.5	5.5	7.6	--	61	79	26	23
DEC												
15...	0930	10800	174	7.8	8.0	3.0	9.4	--	--	96	20	30
FEB												
17...	1230	3860	178	8.2	5.5	95	--	30	140	96	31	29
APR												
14...	0915	9440	178	7.5	11.0	9.0	10.0	K15	32	76	23	22
JUN												
02...	0945	7960	165	7.8	17.0	4.4	8.1	K11	56	79	24	23
AUG												
24...	1015	13200	175	7.9	19.0	25	6.6	K960	K2700	80	20	24

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
14...	5.3	4.1	10	.2	1.3	53	25	3.3	<.1	2.9	105	89
DEC												
15...	5.2	2.9	6	.1	1.2	76	21	3.4	<.1	3.4	130	113
FEB												
17...	5.8	4.3	9	.2	1.3	65	26	3.2	<.1	4.1	132	113
APR												
14...	5.0	2.9	8	.2	1.0	53	23	2.6	.1	4.1	96	93
JUN												
02...	5.2	3.4	8	.2	1.2	55	26	3.3	<.1	3.3	108	99
AUG												
24...	4.8	3.3	8	.2	1.2	60	21	2.8	.3	5.1	116	99

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
14...	.14	4650	.29	.040	.060	<.010	14	620	55
DEC									
15...	.18	3790	.37	.020	.030	.010	5	146	82
FEB									
17...	.18	1020	.49	.020	--	.100	20	154	81
APR									
14...	.13	2450	.44	.040	.030	.010	11	280	92
JUN									
02...	.15	2320	.50	.020	--	.040	19	408	53
AUG									
24...	.16	4130	.52	.030	.140	.050	43	1530	77

K--Results based on non-ideal colony count.

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
15...	1	0	<100	20	7	4	20	10	<1	<1
FEB										
17...	1	1	<100	26	--	2	10	<10	<1	<1
JUN										
02...	1	<1	<100	26	4	3	20	10	1	<1
AUG										
24...	1	1	100	27	6	<1	10	10	4	1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
15...	5	1	240	29	3	2	60	7	.1
FEB									
17...	13	4	510	24	54	9	50	17	.1
JUN									
02...	16	<1	360	<3	3	<1	50	5	<.1
AUG									
24...	6	4	--	47	5	2	110	8	.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
15...	.1	2	<1	<1	<1	<1	<1	70	8
FEB									
17...	.1	3	<1	<1	<1	<1	<1	10	9
JUN									
02...	<.1	1	1	<1	<1	<1	<1	20	6
AUG									
24...	.1	3	1	<1	<1	<1	<1	30	6

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

WATER-QUALITY RECORDS

LOCATION.--Lat 36°17'47", long 86°39'28", Davidson County, Hydrologic Unit 05130202, at end of lock wall near left downstream bank, at Old Hickory Dam, 2.0 mi (3.2 km) west of Hendersonville, and at mile 216.2 (347.9 km).

DRAINAGE AREA.--11,673 mi^2 (30,233 km^2).

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.

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

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Continuous discharge records are published under station 03426500 Cumberland River below Old Hickory, Tn. Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 238 micromhos April 26, 1981; minimum, 146 micromhos May 6, 1979.
pH: Maximum, 8.8 units May 9, 1980, May 6, 1982; minimum, 6.8 units Sept. 15, 1980.
WATER TEMPERATURE: Maximum, 27.5°C July 5, 6, 1980, Sept. 7, 1980, Aug. 13, 1981; minimum, 2.5°C Jan. 12-14, 1981.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L April 18, 1982; minimum, 3.0 mg/L Sept. 15, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 235 micromhos Dec. 14, 15; minimum, 160 micromhos Aug. 19, 20.
pH: Maximum, 8.8 units May 6; minimum, 7.2 units Oct. 9.
WATER TEMPERATURE: Maximum, 26.5°C July 22, Aug. 1; minimum, 3.0°C Jan. 17, 18.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L Apr. 18; minimum, 4.5 mg/L Aug. 21.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	192	191	191	189	187	188	196	194	195	226	221	224
2	193	190	191	191	188	189	196	194	195	228	223	226
3	192	190	191	192	189	190	201	195	197	229	225	227
4	192	191	191	192	189	191	211	201	206	231	206	220
5	191	189	190	195	192	194	213	211	212	209	199	202
6	190	188	189	202	195	199	219	212	216	211	205	209
7	191	189	189	203	198	201	221	217	218	214	211	213
8	189	188	189	203	200	201	225	220	223	215	212	214
9	189	188	188	204	202	203	225	222	224	218	213	216
10	189	188	188	203	201	202	224	223	223	216	209	213
11	188	187	188	202	200	201	228	223	225	209	200	204
12	188	186	187	201	199	200	232	228	230	200	188	194
13	187	183	185	200	198	199	234	231	233	188	186	186
14	183	182	183	201	198	199	235	233	234	186	185	185
15	182	182	182	199	197	198	235	231	233	194	186	192
16	185	183	184	198	197	197	233	230	231	196	194	195
17	184	182	184	198	197	197	230	225	228	196	195	195
18	183	182	182	199	197	198	---	---	---	197	196	197
19	183	181	182	200	197	198	224	218	221	196	195	196
20	184	180	182	199	197	198	218	214	216	196	194	196
21	184	182	183	200	198	199	214	213	214	197	195	195
22	184	182	183	201	198	200	217	214	216	212	197	204
23	183	182	182	201	199	200	214	208	210	212	209	211
24	184	181	183	201	200	200	214	208	210	219	210	216
25	184	182	183	201	199	200	215	213	214	217	210	215
26	185	184	184	200	197	199	214	213	213	212	209	210
27	184	183	184	197	194	195	214	212	213	213	210	211
28	187	184	186	195	193	194	215	213	214	217	211	215
29	188	186	187	196	194	195	215	214	215	216	208	214
30	189	186	187	196	195	196	218	214	216	207	199	203
31	189	186	188	---	---	---	223	218	221	199	193	196
MONTH	193	180	186	204	187	197	235	194	217	231	185	206

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	195	192	194	184	180	182	172	169	171	189	188	189
2	199	192	195	182	180	181	171	168	170	189	188	189
3	201	199	200	184	182	183	170	166	168	192	188	190
4	205	201	204	186	183	185	169	165	167	195	191	192
5	209	205	207	189	186	188	167	165	166	194	192	193
6	208	205	207	190	189	189	165	162	164	194	189	192
7	207	205	206	191	190	191	169	165	166	194	192	193
8	207	204	205	192	189	191	174	169	172	197	193	196
9	205	200	202	189	187	187	177	166	174	200	196	198
10	211	202	207	188	186	187	177	176	177	202	199	200
11	202	190	194	189	187	188	177	176	176	201	198	199
12	200	191	197	189	187	188	177	175	176	200	197	198
13	202	200	201	189	187	188	176	174	175	197	196	197
14	206	201	204	187	185	186	176	174	175	195	193	194
15	206	203	205	186	184	185	176	174	175	194	191	193
16	203	193	199	200	185	191	177	175	176	196	191	194
17	193	186	190	204	200	202	182	175	178	198	194	196
18	190	184	187	200	197	199	192	182	189	199	196	198
19	200	191	196	203	200	201	194	192	193	201	198	200
20	207	200	204	206	201	204	194	189	192	201	200	201
21	208	204	206	203	197	200	188	186	187	204	201	202
22	205	202	204	196	192	194	187	185	186	204	201	203
23	202	199	201	192	186	189	194	187	190	202	199	201
24	199	192	195	186	184	185	202	193	198	200	197	198
25	191	189	189	185	181	183	208	201	204	199	196	197
26	189	187	188	181	177	179	210	208	209	197	195	196
27	187	185	186	178	174	177	208	199	204	196	194	195
28	185	183	184	178	175	176	199	195	198	197	193	195
29	---	---	---	174	172	173	195	191	193	196	193	195
30	---	---	---	174	172	173	191	189	190	196	192	194
31	---	---	---	173	171	172	---	---	---	195	191	193
MONTH	211	183	198	206	171	187	210	162	182	204	188	196
	JUNE			JULY			AUGUST			SEPTEMBER		
1	194	191	192	178	176	177	180	177	178	---	---	---
2	196	192	194	177	174	176	180	178	179	---	---	---
3	198	195	196	175	174	175	180	178	179	---	---	---
4	198	196	197	176	173	175	179	177	178	---	---	---
5	199	197	198	177	174	175	179	176	178	---	---	---
6	200	198	199	177	174	176	183	177	180	---	---	---
7	202	198	200	177	175	176	183	182	183	---	---	---
8	203	200	201	177	174	175	184	181	183	---	---	---
9	203	201	202	177	175	176	181	179	180	---	---	---
10	204	199	203	176	175	175	181	177	179	---	---	---
11	200	198	199	176	174	175	180	176	178	---	---	---
12	198	196	197	177	175	176	180	178	179	---	---	---
13	198	195	196	177	175	176	181	178	179	---	---	---
14	198	194	196	178	176	177	181	178	179	---	---	---
15	195	191	193	179	176	177	180	178	179	---	---	---
16	194	189	192	177	174	176	181	173	179	---	---	---
17	193	188	191	176	174	175	184	180	183	---	---	---
18	191	189	190	176	174	175	182	164	174	192	190	191
19	189	186	188	177	175	176	164	160	161	194	190	192
20	188	185	187	180	176	177	163	160	162	196	194	195
21	186	182	184	178	176	177	167	163	165	197	193	195
22	186	181	184	176	175	176	169	166	167	195	192	194
23	187	182	185	176	174	175	181	169	175	195	193	194
24	187	184	185	175	173	174	188	177	182	193	192	193
25	185	182	184	176	173	175	192	185	189	192	190	191
26	184	180	182	178	175	176	191	186	189	190	189	190
27	181	179	181	180	177	178	190	186	189	192	188	190
28	180	178	179	181	179	180	---	---	---	194	190	192
29	179	177	178	181	178	179	---	---	---	194	192	193
30	179	176	178	179	178	179	---	---	---	194	191	192
31	---	---	---	178	176	178	---	---	---	---	---	---
MONTH	204	176	191	181	173	176	192	160	178	---	---	---

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.4	7.6	7.5	7.7	7.7	7.9	7.8	7.9	7.8	7.7	7.7
2	7.7	7.5	7.6	7.5	7.8	7.7	7.9	7.9	7.9	7.8	7.6	7.6
3	7.6	7.5	7.8	7.5	7.8	7.8	7.9	7.9	7.9	7.8	7.8	7.7
4	7.5	7.5	8.0	7.5	7.8	7.8	7.9	7.8	7.9	7.9	7.8	7.8
5	7.5	7.4	7.7	7.6	7.9	7.8	7.8	7.7	7.9	7.9	7.8	7.8
6	7.5	7.4	7.7	7.4	7.9	7.8	7.7	7.7	7.9	7.9	7.9	7.8
7	7.5	7.4	7.8	7.6	7.9	7.8	7.8	7.7	8.0	7.9	7.9	7.8
8	7.4	7.3	7.8	7.6	7.9	7.8	7.8	7.8	8.0	7.9	7.9	7.9
9	7.3	7.2	7.8	7.6	7.9	7.8	7.8	7.8	8.0	7.9	7.9	7.8
10	7.5	7.3	7.7	7.6	7.9	7.8	7.9	7.8	8.0	8.0	7.8	7.8
11	7.7	7.4	7.8	7.6	7.9	7.9	7.9	7.9	8.0	7.8	7.8	7.8
12	7.7	7.5	7.7	7.6	7.9	7.9	7.9	7.8	7.9	7.9	7.8	7.8
13	7.8	7.5	7.7	7.6	7.9	7.9	7.8	7.8	7.9	7.9	7.8	7.8
14	7.8	7.6	7.6	7.6	7.9	7.9	7.8	7.8	7.9	7.9	7.8	7.8
15	7.6	7.4	7.6	7.6	7.9	7.9	7.8	7.7	7.9	7.9	7.8	7.8
16	7.5	7.4	7.6	7.6	8.0	7.9	7.8	7.8	7.8	7.8	7.9	7.8
17	7.6	7.4	7.6	7.5	8.0	8.0	7.9	7.8	7.8	7.8	7.8	7.8
18	7.5	7.5	7.6	7.5	---	---	7.8	7.8	7.8	7.7	7.8	7.8
19	7.6	7.5	7.6	7.5	8.1	8.0	7.8	7.7	7.8	7.7	7.8	7.8
20	7.7	7.6	7.6	7.5	8.0	8.0	7.7	7.7	7.8	7.8	7.8	7.7
21	7.7	7.6	7.6	7.5	8.0	8.0	7.7	7.7	7.8	7.8	7.8	7.8
22	7.6	7.5	7.6	7.6	8.0	8.0	7.7	7.7	7.8	7.8	7.9	7.8
23	7.6	7.5	7.6	7.6	8.0	7.7	7.7	7.7	7.8	7.7	7.9	7.8
24	7.7	7.6	7.8	7.5	7.9	7.9	7.8	7.7	7.7	7.7	7.8	7.8
25	7.7	7.6	7.8	7.7	7.9	7.9	7.7	7.7	7.7	7.7	7.8	7.8
26	7.6	7.5	7.8	7.8	7.9	7.9	7.8	7.7	7.8	7.7	7.9	7.8
27	7.5	7.5	7.8	7.8	7.9	7.8	7.8	7.7	7.7	7.7	7.9	7.8
28	7.6	7.5	7.8	7.8	7.8	7.8	7.8	7.7	7.7	7.7	8.0	7.9
29	7.5	7.5	7.8	7.7	7.8	7.8	7.8	7.8	---	---	8.0	7.9
30	7.6	7.5	7.8	7.7	7.9	7.8	7.8	7.8	---	---	8.0	7.9
31	7.6	7.5	---	---	7.8	7.8	7.8	7.8	---	---	8.0	7.8
MONTH	7.8	7.2	8.0	7.4	8.1	7.7	7.9	7.7	8.0	7.7	8.0	7.6
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.1	7.9	8.5	8.0	7.4	7.3	8.0	7.6	8.6	8.0	---	---
2	8.2	8.0	8.4	7.9	7.4	7.3	7.8	7.6	8.3	7.8	---	---
3	8.0	7.9	8.3	7.8	7.8	7.6	7.7	7.6	7.8	7.8	---	---
4	8.1	7.9	8.6	7.8	7.7	7.4	7.6	7.5	8.3	7.7	---	---
5	8.0	7.9	8.6	8.0	7.8	7.4	7.6	7.4	8.2	8.0	---	---
6	7.9	7.8	8.8	8.0	7.8	7.6	7.6	7.4	8.6	8.1	---	---
7	8.0	7.9	8.7	8.2	7.7	7.6	7.8	7.5	8.2	7.8	---	---
8	7.9	7.7	8.2	8.1	7.8	7.6	7.9	7.5	8.0	7.6	---	---
9	7.7	7.7	8.2	8.2	8.0	7.8	8.4	7.6	7.7	7.5	---	---
10	7.8	7.7	8.2	8.0	8.0	7.6	8.4	7.7	7.9	7.5	---	---
11	7.9	7.8	8.3	8.1	8.1	7.8	7.9	7.6	8.1	7.5	---	---
12	8.1	7.8	8.5	8.1	8.0	7.8	7.6	7.6	8.0	7.7	---	---
13	8.1	7.9	8.1	7.8	7.8	7.6	8.2	7.4	8.3	7.6	---	---
14	8.1	8.0	8.2	7.8	7.8	7.6	8.2	7.6	7.9	7.7	---	---
15	8.6	7.9	8.1	7.7	8.2	7.7	8.1	7.6	8.1	7.6	---	---
16	8.5	8.1	7.9	7.7	7.8	7.6	8.2	7.6	8.5	7.5	---	---
17	8.2	8.0	7.8	7.6	7.9	7.5	7.8	7.6	7.8	7.6	---	---
18	8.2	8.1	7.8	7.6	8.0	7.7	7.9	7.7	7.6	7.4	7.6	7.5
19	8.1	7.9	8.0	7.6	8.0	7.8	7.8	7.6	7.4	7.4	7.6	7.4
20	7.9	7.8	8.0	7.6	8.0	7.6	8.2	7.6	7.6	7.4	7.6	7.4
21	7.8	7.7	7.9	7.7	7.8	7.6	8.1	7.5	7.4	7.3	7.7	7.4
22	7.7	7.6	7.8	7.6	7.8	7.6	8.6	7.6	7.4	7.4	7.8	7.7
23	8.0	7.6	7.7	7.5	8.1	7.5	8.2	7.6	7.5	7.4	8.0	7.8
24	8.1	7.8	7.7	7.5	8.2	7.6	8.3	7.6	7.6	7.4	7.8	7.6
25	8.1	7.9	7.8	7.6	8.2	7.6	8.0	7.6	7.9	7.4	7.7	7.5
26	8.1	7.9	7.8	7.6	8.4	7.8	7.8	7.5	8.0	7.7	7.6	7.5
27	8.2	7.9	7.6	7.5	8.0	7.8	7.6	7.4	7.8	7.6	7.7	7.4
28	8.4	8.1	7.7	7.4	7.8	7.6	7.8	7.4	---	---	7.7	7.6
29	8.4	8.2	7.9	7.5	7.6	7.5	8.4	7.5	---	---	7.7	7.6
30	8.4	8.2	7.7	7.5	7.7	7.4	8.0	7.7	---	---	8.0	7.6
31	---	---	7.6	7.4	---	---	8.4	7.6	---	---	---	---
MONTH	8.6	7.6	8.8	7.4	8.4	7.3	8.6	7.4	8.6	7.3	---	---

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.5	21.0	21.0	17.0	16.0	16.5	12.5	11.5	12.0	7.5	7.0	7.5
2	21.0	20.5	21.0	17.0	16.5	16.5	12.0	11.5	11.5	8.0	7.0	7.5
3	21.0	20.5	20.5	17.0	16.0	16.5	12.0	11.5	11.5	8.5	8.0	8.0
4	21.0	20.5	20.5	17.0	16.5	17.0	11.5	11.0	11.5	8.5	8.5	8.5
5	20.5	20.0	20.5	17.0	16.5	16.5	11.0	10.5	11.0	9.0	8.5	8.5
6	20.5	20.0	20.0	16.5	16.0	16.5	10.5	10.0	10.5	9.0	8.5	9.0
7	20.0	19.5	20.0	16.5	16.0	16.0	11.0	10.5	10.5	9.5	8.5	9.0
8	19.5	19.5	19.5	16.5	16.0	16.0	11.0	10.5	10.5	8.5	8.0	8.5
9	19.5	19.0	19.0	16.5	16.0	16.0	10.0	9.5	10.0	8.0	7.0	8.0
10	19.5	19.0	19.0	16.0	15.5	16.0	9.5	9.0	9.5	7.0	5.5	6.0
11	19.5	19.0	19.5	16.0	15.5	15.5	9.0	8.5	9.0	5.5	5.0	5.5
12	19.5	19.0	19.5	16.0	15.0	15.5	9.0	8.5	9.0	5.0	5.0	5.0
13	20.0	19.0	19.5	15.5	15.0	15.5	9.0	8.5	8.5	5.5	5.0	5.0
14	19.5	19.5	19.5	15.5	15.0	15.0	8.5	8.5	8.5	5.0	5.0	5.0
15	19.5	19.0	19.0	15.5	15.0	15.0	9.0	8.5	8.5	5.0	5.0	5.0
16	19.5	19.5	19.5	15.0	15.0	15.0	8.5	8.0	8.0	5.0	3.5	4.0
17	19.5	19.5	19.5	15.0	14.5	15.0	8.0	7.5	8.0	3.5	3.0	3.0
18	19.5	19.0	19.5	15.0	14.5	14.5	---	---	---	4.0	3.0	3.5
19	19.0	18.0	18.5	15.0	14.5	15.0	7.0	6.5	7.0	5.0	4.0	4.5
20	18.5	18.0	18.0	14.5	13.5	14.0	7.0	6.5	6.5	5.5	5.0	5.0
21	18.5	18.0	18.0	13.5	13.0	13.5	6.5	6.0	6.5	6.0	5.5	6.0
22	18.0	17.5	17.5	13.0	12.5	12.5	7.5	6.5	7.0	6.0	6.0	6.0
23	17.5	16.5	17.0	12.5	12.5	12.5	7.5	7.0	7.5	7.0	6.0	6.5
24	16.5	16.0	16.0	12.5	12.5	12.5	7.5	7.0	7.5	7.5	6.5	7.0
25	16.0	16.0	16.0	12.5	12.0	12.5	7.0	7.0	7.0	8.0	7.0	7.5
26	16.0	16.0	16.0	12.5	12.5	12.5	7.0	7.0	7.0	7.0	6.5	7.0
27	16.0	15.5	15.5	12.5	12.0	12.5	7.5	7.0	7.0	7.0	6.5	7.0
28	16.0	15.5	15.5	12.5	12.0	12.0	7.5	7.0	7.0	7.5	7.0	7.0
29	16.0	15.5	15.5	12.0	12.0	12.0	7.0	7.0	7.0	7.5	7.0	7.5
30	16.5	15.5	16.0	12.0	12.0	12.0	7.0	6.5	7.0	8.5	7.5	8.0
31	16.5	16.0	16.5	---	---	---	7.5	7.0	7.0	8.5	8.0	8.0
MONTH	21.5	15.5	18.5	17.0	12.0	14.5	12.5	6.0	8.5	9.5	3.0	6.5
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	8.0	8.5	7.5	8.0	13.5	12.0	12.5	17.0	15.5	16.5
2	7.5	7.5	7.5	8.5	8.0	8.0	13.0	12.5	13.0	17.0	16.0	16.5
3	7.5	7.5	7.5	8.5	8.0	8.5	13.0	12.5	13.0	17.0	16.0	16.5
4	7.5	7.0	7.0	9.0	8.5	8.5	13.5	12.5	13.0	17.5	16.0	16.5
5	7.5	7.0	7.0	8.5	8.5	8.5	13.0	12.5	13.0	18.5	16.0	17.0
6	7.0	6.5	6.5	8.5	8.0	8.0	12.5	11.5	12.0	19.5	16.0	18.0
7	6.5	6.0	6.5	8.0	7.5	7.5	11.5	11.0	11.5	18.5	17.0	17.5
8	6.5	6.5	6.5	7.5	7.0	7.5	11.0	11.0	11.0	18.0	16.5	17.5
9	6.5	6.0	6.5	8.0	7.0	7.5	11.0	10.5	11.0	19.0	18.0	18.5
10	5.5	5.0	5.5	8.0	8.0	8.0	11.5	10.5	11.0	19.0	18.0	18.5
11	5.5	5.0	5.5	8.5	8.0	8.5	11.5	10.5	11.0	19.0	18.0	18.5
12	5.5	5.5	5.5	9.0	8.5	9.0	12.5	11.0	12.0	20.0	18.0	18.5
13	5.5	5.5	5.5	9.5	9.0	9.0	13.0	12.5	12.5	19.0	18.0	18.5
14	6.0	5.0	5.5	9.0	9.0	9.0	13.5	12.5	13.0	19.5	17.5	18.5
15	6.5	5.5	6.0	9.5	9.0	9.5	15.5	12.5	14.0	19.5	18.0	18.5
16	7.0	6.5	6.5	10.5	9.5	10.0	15.0	14.0	14.5	19.0	18.0	18.5
17	7.0	7.0	7.0	11.5	10.5	11.0	14.0	14.0	14.0	19.0	18.0	18.5
18	7.0	6.5	7.0	12.5	11.0	12.0	15.5	14.0	14.5	20.0	18.0	19.0
19	7.5	7.0	7.0	13.0	12.0	12.5	15.0	15.0	15.0	20.5	19.0	20.0
20	8.0	7.0	7.5	13.5	13.0	13.5	15.0	14.5	14.5	21.0	19.0	20.0
21	8.5	7.5	8.0	14.0	13.5	13.5	14.5	14.0	14.5	21.0	19.5	20.0
22	8.5	8.0	8.0	14.0	13.0	13.5	15.0	14.0	14.5	21.0	19.5	20.5
23	9.0	8.0	8.5	14.0	13.0	13.5	15.0	14.0	14.5	20.5	19.5	20.0
24	9.0	8.5	9.0	14.0	13.0	13.5	15.5	14.0	15.0	21.0	19.5	20.5
25	9.0	8.5	8.5	13.5	13.0	13.5	15.5	15.0	15.0	21.5	20.5	21.0
26	8.5	8.0	8.5	13.0	12.0	12.5	16.0	15.0	15.5	21.5	20.5	21.0
27	8.0	8.0	8.0	12.5	11.5	12.0	15.5	15.5	15.5	21.5	20.5	21.0
28	8.0	8.0	8.0	12.0	11.0	11.5	16.0	15.5	16.0	22.5	20.0	21.0
29	---	---	---	11.5	11.0	11.5	16.0	15.5	15.5	23.5	22.0	22.5
30	---	---	---	12.0	11.5	11.5	16.5	15.5	16.0	23.5	22.0	23.0
31	---	---	---	12.5	11.5	12.0	---	---	---	23.5	22.0	22.5
MONTH	9.0	5.0	7.0	14.0	7.0	10.5	16.5	10.5	13.5	23.5	15.5	19.0

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	21.5	22.0	24.5	22.0	23.5	26.5	25.0	26.0	---	---	---
2	23.0	21.5	22.5	24.5	22.0	23.5	26.0	25.0	25.5	---	---	---
3	24.0	22.5	23.0	23.5	22.5	23.0	25.0	24.0	24.5	---	---	---
4	23.5	22.0	23.0	23.5	22.5	23.0	25.5	23.5	25.0	---	---	---
5	23.5	22.5	23.0	23.5	22.5	22.5	25.5	24.5	24.5	---	---	---
6	24.5	23.0	23.5	24.5	22.0	23.0	26.0	24.5	25.0	---	---	---
7	23.5	22.5	23.0	24.5	22.5	23.5	25.0	24.0	24.5	---	---	---
8	24.0	23.0	24.0	24.0	22.0	23.0	24.5	23.5	24.0	---	---	---
9	25.0	24.0	24.5	24.5	22.5	23.5	23.5	22.0	22.5	---	---	---
10	24.5	23.5	24.0	25.5	23.0	24.0	23.5	21.5	22.5	---	---	---
11	25.0	23.5	24.0	24.5	23.0	23.5	24.0	22.0	23.5	---	---	---
12	24.5	24.0	24.0	24.0	22.5	23.5	24.0	23.0	23.5	---	---	---
13	24.0	23.5	23.5	25.5	23.0	24.0	24.0	22.0	23.0	---	---	---
14	24.0	23.0	23.5	25.5	23.0	24.5	23.5	23.0	23.5	---	---	---
15	24.5	22.5	23.5	26.0	24.0	24.5	24.0	23.0	23.5	---	---	---
16	24.0	22.5	23.0	26.0	24.0	25.0	24.5	22.5	23.5	---	---	---
17	24.0	22.0	23.0	26.0	24.0	25.0	22.5	22.0	22.0	---	---	---
18	24.0	23.0	23.5	26.0	24.5	25.0	23.5	21.5	22.5	23.5	23.0	23.0
19	24.0	23.0	23.5	25.5	24.0	25.0	24.5	23.0	23.5	23.0	22.5	23.0
20	23.5	22.5	23.0	26.0	24.0	25.0	25.0	23.5	24.0	22.5	22.0	22.5
21	23.0	22.0	22.5	25.5	24.5	25.0	23.5	23.0	23.0	22.0	21.5	21.5
22	22.5	21.5	22.5	26.5	24.0	25.0	24.5	23.0	23.5	22.0	21.5	22.0
23	23.5	21.5	22.5	25.5	24.0	25.0	24.5	23.5	24.0	22.0	21.0	21.5
24	24.0	22.0	23.0	26.0	24.0	25.0	25.0	23.0	24.0	21.0	20.5	21.0
25	24.0	21.5	23.0	25.5	24.0	25.0	25.0	23.5	24.0	21.0	20.0	20.5
26	24.0	22.0	23.0	25.5	24.0	25.0	25.0	24.5	24.5	20.5	20.0	20.0
27	23.5	22.0	23.0	25.0	24.0	24.5	25.0	24.5	24.5	20.5	20.0	20.0
28	23.0	22.0	22.5	25.5	23.5	24.5	---	---	---	21.0	19.5	20.5
29	22.5	21.5	22.5	26.0	23.0	25.0	---	---	---	21.0	20.0	20.5
30	23.0	21.5	22.5	25.0	24.0	24.5	---	---	---	21.5	20.0	20.5
31	---	---	---	26.0	24.0	25.0	---	---	---	---	---	---
MONTH	25.0	21.5	23.0	26.5	22.0	24.0	26.5	21.5	24.0	---	---	---

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.0	7.4	8.6	8.1	8.4	9.4	9.2	9.3	10.9	10.6	10.8
2	8.1	7.3	7.8	8.4	8.2	8.3	9.7	9.4	9.5	11.1	10.8	10.9
3	8.0	7.4	7.8	9.1	7.7	8.5	9.7	9.3	9.5	13.9	10.9	12.9
4	8.0	7.5	7.7	9.4	8.1	8.9	9.5	9.3	9.4	13.2	11.9	12.7
5	7.7	7.2	7.4	8.7	7.9	8.2	9.8	9.5	9.6	13.3	10.0	11.0
6	8.2	7.2	7.6	8.4	7.0	7.9	9.8	9.6	9.7	10.0	9.9	10.0
7	8.4	7.7	8.0	8.9	8.2	8.5	9.9	9.5	9.7	10.2	9.9	10.1
8	8.3	7.9	8.1	8.8	8.3	8.6	9.9	9.5	9.7	10.3	10.2	10.2
9	8.1	7.8	7.9	9.0	8.5	8.6	9.8	9.6	9.7	10.5	10.2	10.4
10	7.9	7.6	7.8	8.7	8.3	8.6	10.1	9.7	10.0	11.0	10.6	10.7
11	8.6	7.4	8.0	9.0	8.5	8.7	10.1	9.9	10.0	10.9	10.8	10.8
12	8.7	8.0	8.3	9.0	8.4	8.7	10.0	9.9	10.0	10.8	10.6	10.7
13	8.5	8.0	8.3	8.9	8.7	8.8	10.1	10.0	10.0	10.6	10.5	10.5
14	8.6	7.9	8.2	8.8	8.7	8.8	10.1	10.0	10.1	10.7	10.6	10.7
15	8.0	7.0	7.5	8.9	8.7	8.8	10.4	10.1	10.2	10.9	10.7	10.8
16	7.4	7.0	7.2	9.1	8.6	8.7	10.7	10.4	10.5	11.3	10.9	11.1
17	7.8	7.1	7.5	8.7	8.5	8.6	10.9	10.6	10.8	11.3	11.2	11.2
18	7.7	7.3	7.6	8.8	8.5	8.7	---	---	---	11.2	11.1	11.2
19	8.1	7.3	7.8	8.9	8.6	8.8	11.1	10.9	11.0	11.1	10.9	11.0
20	8.3	7.9	8.2	8.9	8.8	8.9	11.0	10.9	11.0	11.0	10.9	10.9
21	8.4	8.1	8.2	9.1	8.8	9.0	11.1	10.9	11.0	14.1	10.9	12.0
22	8.3	7.9	8.0	9.3	9.0	9.1	11.0	10.8	10.9	14.0	13.0	13.7
23	8.4	7.9	8.1	9.4	9.1	9.3	11.0	10.8	10.9	13.7	12.4	12.7
24	8.8	8.2	8.5	9.4	9.1	9.2	10.9	10.8	10.9	14.3	12.1	13.2
25	8.6	8.3	8.4	9.3	9.0	9.2	11.0	10.9	10.9	12.1	10.5	10.7
26	8.4	8.2	8.3	9.4	9.1	9.3	11.0	10.8	10.9	10.8	10.8	10.8
27	8.3	8.1	8.2	9.5	9.3	9.4	11.6	10.7	10.8	10.8	10.0	10.6
28	8.2	8.0	8.1	9.5	9.3	9.4	10.8	10.6	10.7	10.8	10.4	10.7
29	8.2	8.0	8.1	9.5	9.2	9.4	10.8	10.6	10.7	11.0	10.8	10.9
30	8.3	8.0	8.2	9.4	9.1	9.2	10.9	10.6	10.8	10.8	10.7	10.8
31	8.7	8.1	8.4	---	---	---	10.7	10.6	10.6	11.0	10.7	10.8
MONTH	8.8	7.0	8.0	9.5	7.0	8.8	11.6	9.2	10.3	14.3	9.9	11.2

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	10.9	10.9	10.9	10.7	10.8	11.1	10.4	10.7	11.4	9.6	10.4
2	11.0	10.9	10.9	10.9	10.7	10.8	11.3	10.8	11.1	10.8	9.3	10.1
3	11.1	10.9	11.0	10.8	10.8	10.8	10.7	10.3	10.4	10.7	9.0	10.1
4	11.1	11.0	11.1	10.9	10.7	10.8	10.7	10.2	10.4	12.2	9.6	11.1
5	11.2	11.1	11.1	10.9	10.8	10.9	10.6	10.2	10.4	12.6	9.9	11.2
6	11.3	11.2	11.3	10.8	10.8	10.8	10.3	10.0	10.2	13.4	9.9	11.6
7	11.3	11.2	11.3	10.9	10.8	10.8	10.5	10.2	10.3	11.0	10.0	10.5
8	11.3	11.2	11.3	11.0	10.9	10.9	10.3	10.0	10.1	11.0	9.7	10.1
9	14.0	11.2	13.3	10.9	10.8	10.9	14.6	10.0	10.7	9.8	9.3	9.6
10	14.3	13.1	13.5	10.9	10.8	10.8	10.4	10.1	10.2	9.7	8.7	9.3
11	14.6	11.4	12.8	10.8	10.6	10.7	10.4	10.2	10.3	9.8	8.6	9.4
12	11.5	11.5	11.5	10.7	9.8	10.4	10.8	10.1	10.5	10.9	9.3	9.9
13	11.7	11.5	11.6	10.0	9.6	9.8	10.8	10.3	10.5	9.5	8.5	8.8
14	11.7	11.5	11.7	10.1	10.0	10.0	11.1	10.5	10.7	9.4	8.3	8.7
15	11.7	11.4	11.5	10.8	9.9	10.0	12.6	10.5	11.5	9.0	8.1	8.4
16	11.3	11.1	11.2	14.2	12.1	13.1	11.7	10.6	11.1	8.4	7.8	8.2
17	11.2	10.9	11.0	12.7	9.9	10.8	14.2	10.1	12.5	8.2	7.3	7.8
18	11.0	10.9	11.0	10.2	9.8	9.9	15.0	10.5	12.5	8.0	7.6	7.8
19	11.1	10.9	11.0	12.6	9.6	10.0	10.5	10.1	10.3	8.0	7.3	7.7
20	11.1	10.8	10.9	9.9	9.7	9.8	10.2	9.8	10.0	8.1	7.2	7.7
21	11.0	10.8	10.9	10.0	9.7	9.8	10.0	9.6	9.8	7.9	7.0	7.4
22	11.1	10.9	11.0	10.0	9.7	9.9	9.7	9.4	9.5	7.3	6.5	7.0
23	11.1	10.7	10.9	9.9	9.7	9.8	9.8	9.3	9.5	7.0	6.5	6.7
24	10.8	10.6	10.7	9.9	9.6	9.7	10.0	9.1	9.5	6.8	6.5	6.7
25	10.8	10.8	10.8	10.0	9.8	9.9	10.2	9.5	9.8	7.0	6.2	6.8
26	10.9	10.8	10.9	10.0	9.7	9.9	10.3	9.4	9.9	6.8	6.2	6.6
27	10.9	10.9	10.9	10.2	9.9	10.0	10.3	9.3	9.8	6.5	5.8	6.2
28	10.9	10.9	10.9	10.3	10.1	10.2	10.8	9.9	10.5	6.2	5.7	5.9
29	---	---	---	10.5	10.3	10.4	10.6	10.0	10.4	6.7	5.9	6.3
30	---	---	---	10.5	10.2	10.3	10.6	9.8	10.1	6.5	6.0	6.2
31	---	---	---	10.6	10.1	10.3	---	---	---	6.5	5.7	6.1
MONTH	14.6	10.6	11.3	14.2	9.6	10.4	15.0	9.1	10.4	13.4	5.7	8.4
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.0	5.5	5.7	8.9	7.5	8.0	8.8	7.6	8.0	---	---	---
2	5.9	5.3	5.7	8.7	7.5	8.1	8.8	7.3	8.0	---	---	---
3	6.6	5.4	6.0	8.0	7.5	7.7	7.9	7.3	7.6	---	---	---
4	6.0	5.2	5.6	7.7	7.1	7.4	9.0	7.2	8.1	---	---	---
5	5.9	4.9	5.5	7.5	6.9	7.2	8.5	7.8	8.1	---	---	---
6	6.6	5.5	5.8	7.6	6.8	7.2	9.7	7.8	8.6	---	---	---
7	6.1	5.4	5.8	7.6	6.4	7.0	9.0	7.9	8.4	---	---	---
8	6.3	5.5	5.9	7.5	6.3	6.8	8.5	7.4	7.9	---	---	---
9	7.1	6.2	6.7	8.0	6.7	7.2	7.5	6.7	7.1	---	---	---
10	6.7	5.7	6.0	7.8	6.8	7.3	7.7	6.5	7.0	---	---	---
11	7.6	6.3	6.9	7.2	6.5	6.9	8.5	6.5	7.3	---	---	---
12	7.5	6.7	7.0	6.7	6.3	6.5	7.1	6.3	6.7	---	---	---
13	6.7	6.1	6.4	7.9	6.0	7.0	7.5	5.9	6.6	---	---	---
14	7.1	5.9	6.5	8.1	6.4	7.3	6.8	5.9	6.5	---	---	---
15	7.6	6.5	7.0	8.1	6.7	7.3	6.9	5.4	6.1	---	---	---
16	6.6	6.1	6.4	8.1	6.9	7.6	8.8	5.1	6.6	---	---	---
17	7.3	6.1	6.6	8.2	7.3	7.7	---	---	---	---	---	---
18	7.4	6.6	6.9	8.3	7.3	7.7	---	---	---	7.0	6.5	6.7
19	7.6	7.1	7.2	7.7	6.9	7.4	---	---	---	7.2	6.2	6.8
20	8.1	6.5	7.3	8.1	6.7	7.4	---	---	---	7.3	6.5	7.0
21	7.9	6.8	7.5	8.1	7.0	7.4	5.0	4.5	4.7	7.9	6.8	7.1
22	7.9	7.2	7.6	8.7	7.0	7.7	5.1	4.6	4.7	8.5	8.1	8.3
23	8.1	6.9	7.6	8.2	7.1	7.6	5.4	4.7	5.0	9.2	8.6	8.9
24	8.4	7.3	7.9	8.4	7.1	7.9	5.8	4.7	5.1	9.1	8.4	8.7
25	8.6	7.4	8.0	8.0	7.2	7.6	6.5	4.8	5.5	8.8	6.3	7.6
26	8.8	7.7	8.3	7.6	6.5	7.1	7.2	5.9	6.4	8.6	7.3	8.1
27	8.5	7.6	8.0	6.6	5.8	6.3	6.9	6.0	6.4	9.1	7.4	8.6
28	7.9	7.2	7.7	7.0	5.8	6.5	---	---	---	10.1	7.9	8.9
29	7.5	7.1	7.3	8.0	6.2	7.1	---	---	---	9.6	8.3	9.2
30	8.0	6.9	7.3	7.3	6.6	6.9	---	---	---	10.4	8.1	9.5
31	---	---	---	7.8	6.3	7.0	---	---	---	---	---	---
MONTH	8.8	4.9	6.8	8.9	5.8	7.3	---	---	---	---	---	---

03426500 CUMBERLAND RIVER BELOW OLD HICKORY, TN

LOCATION.--Lat 36°15'39", long 86°40'30", Davidson County, Hydrologic Unit 05130202, near left bank on downstream end of pier of bridge on State Highway 45, 1.5 mi (2.4 km) west of Old Hickory, 2.1 mi (3.4 km) east of Madison, 3.3 mi (5.3 km) downstream from Mansker Creek, 4.1 mi (6.6 km) downstream from Old Hickory Dam, and at mile 212.1 (341.3 km).

DRAINAGE AREA.--11,735 mi^2 (30,394 km^2).

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."

REVISED RECORDS.--WSP 923: 1932-39. WSP 1113: 1940(m). WSP 1910: Drainage area, at sites used prior to June 11, 1954. WSP 2110: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 380.00 ft (115.824 m) National Geodetic Vertical Datum of 1929. See WSP 1726 for history of changes prior to Oct. 1, 1956. Since Apr. 1, 1957, auxiliary gage at Old Hickory dam 4.1 mi (6.6 km) upstream from base gage at same datum.

REMARKS.--Records good. Flow regulated by six lakes or reservoirs (see p.124).

AVERAGE DISCHARGE.--46 years (water years 1932-42, 1948-82), 19,100 ft^3/s (540.9 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft^3/s (4,900 m^3/s) Jan. 29, 1937; maximum gage height, 48.13 ft (14.670 m) Mar. 14, 1975; minimum daily discharge, 86 ft^3/s (2.44 m^3/s) Aug. 15, 1936; minimum gage height since filling of Cheatham Lake on Oct. 1, 1956, 3.49 ft (1.064 m) Sept. 10, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 57.4 ft (17.50 m) Dec. 31, 1926, present site and datum, from profile by Corps of Engineers, discharge, 200,000 ft^3/s (5,660 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 79,200 ft^3/s (2,240 m^3/s) Jan. 4; maximum gage height, 31.43 ft (9.580 m) Jan. 4; minimum daily discharge, 1,890 ft^3/s (53.5 m^3/s) May 17; minimum gage height, 3.76 ft (1.146 m) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11800	4580	35100	14100	34000	22000	21100	17100	8410	19000	28600	43800
2	11800	8230	21400	10900	42400	23600	20800	13000	8080	17600	22400	28000
3	11800	9830	20200	52000	42400	25800	26300	10600	11800	13600	10400	35100
4	9120	12000	18000	77000	38900	23200	23500	12000	11600	7490	24800	32200
5	11300	11800	12600	53900	36600	22700	21000	11900	11300	6640	24200	23800
6	10800	12700	8710	36700	42000	22500	22500	15500	9470	8680	25100	14500
7	11900	9960	5090	24100	33800	18500	26100	19600	7060	11800	22800	13900
8	12700	8110	3720	26900	32500	23600	24400	27300	17500	15200	18400	21700
9	14100	7560	13300	35600	61400	27600	27700	22200	22700	15900	11300	21400
10	12200	11500	14600	33700	65100	24900	21700	7520	21700	18800	17000	20700
11	8620	11600	19900	33400	48800	23200	7120	6550	16500	9000	22000	20900
12	14700	11600	15200	41300	40500	19900	9970	13200	13700	6650	15700	20300
13	13000	12700	8230	37000	30400	25200	10900	9120	10100	16100	18400	12400
14	11300	12600	12200	39000	23600	25500	15000	13400	12200	18400	15500	26400
15	18100	6740	9890	36300	28200	38100	12600	14300	14900	16000	10900	27800
16	8830	5780	13100	20700	34500	54600	11400	10100	16800	14600	24800	24000
17	11900	7040	14900	38600	41700	45000	35300	1890	18200	17000	63200	23300
18	8720	9770	15700	41700	40000	37200	38600	9350	17900	12700	43200	16700
19	13400	11600	21300	37600	35800	32600	20700	10900	16900	12600	20700	13600
20	12000	12100	19600	34000	32700	32200	21400	11500	13400	17800	23100	10400
21	12800	11000	17300	46200	31800	31300	25700	8590	12800	13800	11300	11700
22	12400	5930	32200	58600	31500	31000	23700	6220	11900	18600	10300	18400
23	12400	7950	39600	66500	36100	32500	23200	6540	15200	18700	15800	15400
24	12000	12000	28200	65100	36700	37600	21800	7410	15900	15700	17200	19900
25	10400	13800	18500	42800	33100	30600	16700	6690	15500	12100	26300	20400
26	6720	15400	15100	37700	35300	29000	11100	7590	17500	8660	34000	13500
27	19500	15900	5330	33800	35900	24800	17000	7840	6460	11500	24700	15800
28	22600	20300	5540	32700	33800	17800	18200	11800	10100	12300	16600	17700
29	16600	13900	10400	38500	---	23400	19200	17400	10600	17600	10400	18300
30	10700	12100	17000	27900	---	24400	20100	17800	18400	14200	10900	19400
31	8170	---	13100	23700	---	20000	---	8140	---	21900	23300	---
TOTAL	382380	326080	505010	1198000	1059500	870300	614790	363050	414580	440620	663300	621400
MEAN	12330	10870	16290	38650	37840	28070	20490	11710	13820	14210	21400	20710
MAX	22600	20300	39600	77000	65100	54600	38600	27300	22700	21900	63200	43800
MIN	6720	4580	3720	10900	23600	17800	7120	1890	6460	6640	10300	10400

CAL YR 1981 TOTAL 4498980 MEAN 12330 MAX 56600 MIN 2670
WTR YR 1982 TOTAL 7459010 MEAN 20440 MAX 77000 MIN 1890

03426800 EAST FORK STONES RIVER AT WOODBURY, TN

LOCATION.--Lat 35°49'41", long 86°04'36", Cannon County, Hydrologic Unit 05130203, on center pier on downstream side of bridge on U. S. Highway 70S, at Woodbury, 0.4 mi (0.6 km) downstream from Doolittle Branch, and at mile 45.6 (73.4 km).

DRAINAGE AREA.--39.1 mi^2 (101.3 km^2).

PERIOD OF RECORD.--Water years 1932-33, 1950, 1954, 1962, occasional low-flow measurements. October 1962 to current year.

REVISED RECORDS.--WSP 1910; Drainage area. WSP 2110: 1963, 1964(M), 1965.

GAGE.--Water-stage recorder. Datum of gage is 676.23 ft (206.115 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--20 years, 67.8 ft^3/s (1.920 m^3/s), 23.55 in/yr (598 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s (374 m^3/s) Mar. 15, 1973, gage height, 16.75 ft (5.105 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of velocity-area study and contracted-opening measurement at gage height 16.52 ft (5.035 m) at bridge 4.6 mi (7.4 km) downstream; minimum, 2.1 ft^3/s (0.059 m^3/s) Nov. 13, 1980 (result of unnatural regulation upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902, that of Mar. 15, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	2100	*6290	178	14.01	4.270	Aug. 16	1445	5960	169	13.81	4.209

Minimum discharge, 3.8 ft^3/s (0.11 m^3/s) July 7 (result of unnatural regulation upstream).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	12	220	27	87	82	50	43	15	11	17	151
2	5.5	11	76	51	71	72	46	39	14	9.9	14	216
3	5.2	10	43	1800	91	62	48	36	13	9.9	12	128
4	5.1	10	31	550	74	56	41	33	14	14	11	69
5	4.9	11	25	300	64	52	42	31	13	12	11	46
6	4.9	10	22	120	55	68	39	29	13	11	13	35
7	4.8	9.4	20	65	48	93	36	34	12	11	18	29
8	4.8	9.1	18	48	89	77	42	44	12	21	24	25
9	5.1	8.7	17	38	234	69	44	32	12	21	140	23
10	5.2	8.6	15	31	127	61	40	29	11	17	57	22
11	5.5	8.4	14	28	89	56	38	27	11	15	28	21
12	5.5	8.2	14	25	74	51	37	24	11	24	21	20
13	5.5	8.1	13	23	68	48	36	22	12	14	18	20
14	5.8	7.9	22	22	60	44	35	21	11	11	16	19
15	6.0	8.0	23	20	57	644	33	20	11	10	15	19
16	6.1	9.1	20	19	129	226	71	19	11	9.9	1190	18
17	6.2	10	20	18	123	188	364	19	12	9.9	204	17
18	16	9.1	19	19	94	129	173	20	11	22	119	17
19	11	9.0	18	46	74	100	107	22	11	21	67	17
20	9.0	9.5	17	46	67	84	74	19	10	17	44	16
21	7.9	8.9	24	309	57	171	57	18	9.9	13	35	16
22	8.2	8.5	65	153	46	135	46	17	11	22	29	15
23	23	8.9	91	627	42	104	42	17	11	22	29	15
24	17	14	57	183	40	84	38	16	9.9	16	30	15
25	13	12	42	104	35	71	37	17	9.5	17	33	25
26	47	11	35	68	71	57	72	19	9.9	13	28	23
27	72	114	30	53	157	50	111	18	10	11	18	18
28	30	56	26	44	106	45	67	19	10	24	22	17
29	20	35	22	38	---	43	53	19	11	36	20	16
30	15	201	21	35	---	42	50	16	11	19	19	15
31	13	---	24	106	---	55	---	15	---	19	22	---
TOTAL	393.0	656.4	1104	5016	2329	3119	1969	754	343.2	503.6	2324	1103
MEAN	12.7	21.9	35.6	162	83.2	101	65.6	24.3	11.4	16.2	75.0	36.8
MAX	72	201	220	1800	234	644	364	44	15	36	1190	216
MIN	4.8	7.9	13	18	35	42	33	15	9.5	9.9	11	15
CFSM	.33	.56	.91	4.14	2.13	2.58	1.68	.62	.29	.41	1.92	.94
IN.	.37	.62	1.05	4.77	2.22	2.97	1.87	.72	.33	.48	2.21	1.05

CAL YR 1981 TOTAL 8435.0 MEAN 23.1 MAX 512 MIN 4.8 CFSM .59 IN 8.02
WTR YR 1982 TOTAL 19614.2 MEAN 53.7 MAX 1800 MIN 4.8 CFSM 1.37 IN 18.66

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN

LOCATION.--Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 100 ft (30 m) upstream from highway bridge, 2.5 mi (4.0 km) southwest of Lascassas, 3.7 mi (6.0 km) downstream from Bradley Creek, 6.0 mi (9.7 km) northeast of the courthouse in Murfreesboro, and at mile 15.4 (24.8 km).

DRAINAGE AREA.--262 mi^2 (679 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to November 1958, May 1963 to current year. Prior to February 1951 monthly discharge only, published in WSP 1726.

REVISED RECORDS.--WSP 1910: Drainage Area. WDR-TN-75-1: 1955(M), 1963(M), 1970(M), 1973 (M)(P).

GAGE.--Water-stage recorder. Datum of gage is 507.88 ft (154.802 m) Sandy Hook datum (levels by Corps of Engineers). Prior to Oct. 1, 1973, water-stage recorder 100 ft (30 m) downstream at same datum.

REMARKS.--Records good. Frequent diurnal fluctuation at low flow caused by small mills above station.

AVERAGE DISCHARGE.--27 years (water years 1950-57, 1964-82), 458 ft^3/s (12.97 m^3/s), 23.74 in/yr (603 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,200 ft^3/s (1,170 m^3/s) Mar. 13, 1975, gage height, 39.48 ft (12.034 m); minimum, 0.2 ft^3/s (0.006 m^3/s) Oct. 23, 1953, gage height, 2.22 ft (0.677 m); minimum daily, 0.4 ft^3/s (0.011 m^3/s) Aug. 31, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902, that of Mar. 13, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft^3/s (198 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0815	*12800	362	23.84	7.266	Mar. 15	1445	8920	253	19.24	5.864
Jan. 23	1115	9430	267	19.81	6.038	Apr. 17	1415	11300	320	20.97	6.392

Minimum discharge, 4.2 ft^3/s (0.12 m^3/s) Oct. 8-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	59	2710	188	1230	738	319	921	55	21	184	141
2	7.3	50	917	198	683	533	241	499	47	18	116	2630
3	6.6	44	456	7670	729	419	227	353	45	18	78	1490
4	6.2	38	280	8740	878	343	202	280	44	25	60	494
5	5.8	35	194	1720	630	320	180	228	43	25	48	258
6	5.8	32	148	903	505	337	177	191	46	30	44	155
7	5.1	31	124	585	411	680	154	164	45	22	42	113
8	4.3	29	107	397	354	614	153	150	40	38	52	89
9	4.2	27	92	303	3190	481	241	614	36	85	258	74
10	4.2	26	81	237	1600	395	222	363	33	95	974	64
11	4.2	25	73	173	899	345	191	242	31	67	192	58
12	4.2	23	67	160	644	307	171	185	30	104	100	53
13	4.2	22	62	148	666	296	154	152	29	56	70	52
14	4.2	20	110	134	576	353	144	136	27	42	55	50
15	4.2	18	212	119	474	5140	131	116	13	32	46	48
16	4.2	19	165	109	1060	2500	188	99	9.3	27	1960	44
17	4.3	21	140	94	1260	1510	5690	88	14	24	2250	39
18	10	21	139	86	856	1120	2320	79	23	958	655	36
19	13	22	124	339	629	735	1050	120	24	595	308	35
20	30	23	106	513	483	546	683	127	23	306	176	34
21	24	22	306	3640	403	1600	668	109	21	130	119	32
22	19	21	1100	1970	325	1350	473	97	21	478	90	30
23	22	21	1280	5700	267	750	352	90	20	588	74	30
24	51	22	779	2180	233	535	281	70	20	199	117	27
25	48	36	465	1020	202	408	237	59	18	249	323	47
26	167	40	326	636	177	326	211	109	16	110	253	116
27	935	1270	256	471	1400	260	196	110	17	72	135	70
28	358	791	213	350	1240	220	644	90	17	123	91	49
29	162	328	172	277	---	191	414	81	19	1300	72	40
30	101	1090	143	234	---	174	438	77	20	422	61	34
31	74	---	135	978	---	220	---	68	---	311	55	---
TOTAL	2102.3	4226	11482	40272	22004	23726	16752	6067	846.3	6570	9058	6432
MEAN	67.8	141	370	1299	786	765	558	196	28.2	212	292	214
MAX	935	1270	2710	8740	3190	5140	5690	921	55	1300	2250	2630
MIN	4.2	18	62	86	177	174	131	59	9.3	18	42	27
CFSM	.26	.54	1.41	4.96	3.00	2.92	2.13	.75	.11	.81	1.12	.82
IN.	.30	.60	1.63	5.72	3.12	3.37	2.38	.86	.12	.93	1.29	.91

CAL YR 1981 TOTAL 64102.7 MEAN 176 MAX 5510 MIN 4.2 CFSM .67 IN 9.10
WTR YR 1982 TOTAL 149537.6 MEAN 410 MAX 8740 MIN 4.2 CFSM 1.57 IN 21.23

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURE: October 1975 to current year.
DISSOLVED OXYGEN: January 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1975.

REMARKS.--No temperature record Oct. 20-25, Nov. 11,23, Dec. 5-21, 29-30, Jan. 8-20, 25-27, Feb. 6-9, 25-26, Mar. 6-9, 15, 26-29, April 6, July 1-6, July 19 to Sept. 10 due to equipment failure.
No specific conductance record, Oct. 20-31, Mar. 30 to April 2, July 1-5, Aug. 1-8, Aug. 28 to Sept. 10 due to equipment failure.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 697 micromhos Dec. 6, 1979, minimum, 72 micromhos Aug. 16, 1978.
WATER TEMPERATURES: Maximum, 31.5°C July 8, 14-16, 1977, July 16, 1980, July 17, 1982; minimum, 0.0°C Jan. 21, 1977.
DISSOLVED OXYGEN: Maximum recorded, 13.6 mg/L Feb. 14, 25, 26, 1981; minimum, 4.4 mg/L July 18, 19, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 570 micromhos Aug. 23; minimum, 76 micromhos July 18.
WATER TEMPERATURE: Maximum, 31.5 July 17, but may have been higher during period of missing record; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
08...	1015	4.4	540	15.0	5	.06
NOV						
03...	1500	45	440	16.0	4	.49
DEC						
01...	1315	2400	310	11.5	78	505
02...	1215	882	380	11.5	27	64
JAN						
05...	1435	1690	345	9.0	37	169
27...	1600	437	375	6.5	12	14
MAR						
01...	1400	780	380	11.0	22	46
APR						
15...	0945	129	325	16.0	6	2.1
MAY						
24...	1300	61	345	23.0	6	.99
JUL						
06...	1200	27	300	27.5	10	.73

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	327	316	324	435	359	384	360	217	295	448	404	435
2	325	321	330	439	376	415	401	345	377	438	361	419
3	371	324	361	445	370	432	423	400	413	287	90	169
4	328	323	325	439	364	405	434	419	427	279	77	176
5	334	329	331	437	428	433	442	432	437	340	283	316
6	336	332	334	430	358	401	446	437	442	365	342	354
7	339	334	338	428	416	423	449	440	445	379	366	374
8	491	191	375	422	413	418	449	440	444	388	379	384
9	399	353	359	418	410	414	442	439	441	397	389	392
10	379	359	364	415	410	413	472	436	442	400	397	398
11	370	364	368	455	408	420	445	419	441	413	401	407
12	371	367	368	452	447	450	474	436	443	417	411	414
13	374	372	372	447	442	444	446	436	441	419	414	416
14	423	376	390	444	437	440	443	419	430	421	416	419
15	388	379	383	438	430	434	433	403	424	416	414	415
16	393	388	390	442	432	435	443	422	431	414	406	410
17	403	394	398	434	425	429	431	424	428	414	406	409
18	400	389	394	427	421	424	444	432	438	415	410	412
19	403	394	398	438	404	422	452	442	448	414	358	394
20	---	---	---	421	411	415	452	449	450	372	354	365
21	---	---	---	425	416	421	459	246	422	336	154	241
22	---	---	---	416	409	413	384	251	350	341	291	324
23	---	---	---	416	412	414	381	327	366	343	126	213
24	---	---	---	412	398	403	403	372	388	326	254	298
25	---	---	---	404	389	398	422	406	416	351	327	341
26	---	---	---	406	389	396	450	398	427	366	354	362
27	---	---	---	396	251	335	447	404	430	378	366	373
28	---	---	---	421	359	388	460	429	438	384	376	380
29	---	---	---	457	423	442	462	420	438	389	381	384
30	---	---	---	466	249	428	460	416	439	391	385	388
31	---	---	---	---	---	---	468	421	442	390	282	353
MONTH	---	---	---	466	249	416	474	217	422	448	77	359
		FEBRUARY			MARCH			APRIL			MAY	
1	342	285	310	394	381	386	---	---	---	450	377	397
2	374	345	363	381	372	376	---	---	---	448	373	388
3	386	375	380	381	373	376	421	384	406	443	366	390
4	378	367	372	368	363	365	374	325	346	422	354	364
5	391	380	388	375	356	365	321	288	306	412	346	366
6	396	389	392	361	347	352	314	298	307	401	329	350
7	397	390	394	342	323	330	296	219	254	393	322	339
8	400	395	397	323	320	321	275	240	261	373	319	326
9	390	178	254	333	318	326	271	264	267	385	321	342
10	344	286	322	397	325	348	261	244	253	365	348	356
11	362	346	355	394	387	390	251	243	247	425	353	366
12	372	363	369	404	369	388	259	243	250	422	348	363
13	382	373	379	404	391	398	277	253	265	407	339	354
14	391	379	386	399	393	395	320	272	295	404	343	377
15	394	385	391	392	129	233	321	310	316	391	323	331
16	391	314	360	245	160	208	331	321	326	344	324	328
17	364	338	349	270	241	258	327	111	228	386	319	338
18	373	365	369	283	258	271	376	303	350	323	314	319
19	388	374	382	297	270	282	398	380	388	372	313	332
20	392	379	387	319	290	302	406	402	404	316	270	285
21	386	380	384	305	181	231	414	407	410	382	296	328
22	383	374	378	232	189	221	414	408	411	347	337	344
23	385	376	380	277	214	252	414	343	386	403	343	357
24	388	379	384	315	274	298	417	340	380	348	340	342
25	386	380	383	354	310	337	414	338	382	395	340	349
26	387	380	383	412	347	383	409	327	350	348	337	343
27	380	325	351	458	407	438	377	202	275	383	305	338
28	380	333	356	465	453	458	330	250	305	300	241	260
29	---	---	---	478	449	463	391	318	337	324	271	286
30	---	---	---	---	---	---	431	319	366	346	289	304
31	---	---	---	---	---	---	---	---	---	332	308	314
MONTH	400	178	368	478	129	336	431	111	324	450	241	341

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	327	311	323	---	---	---	---	---	---	---	---	---
2	377	323	333	---	---	---	---	---	---	---	---	---
3	388	335	343	---	---	---	---	---	---	---	---	---
4	353	336	341	---	---	---	---	---	---	---	---	---
5	386	342	349	---	---	---	---	---	---	---	---	---
6	352	331	344	291	286	288	---	---	---	---	---	---
7	367	331	344	292	280	288	---	---	---	---	---	---
8	407	331	345	286	145	257	---	---	---	---	---	---
9	384	321	347	342	185	273	408	356	394	---	---	---
10	353	317	326	298	195	275	350	327	339	---	---	---
11	380	316	330	315	278	295	406	351	368	400	393	396
12	373	311	322	330	211	265	406	377	383	395	381	391
13	337	307	325	309	244	280	412	383	386	390	382	385
14	330	319	325	326	310	320	391	378	384	385	381	383
15	378	324	337	332	327	329	395	385	390	384	375	379
16	345	324	328	336	329	333	391	282	355	378	367	372
17	383	318	336	332	320	327	363	311	342	371	365	368
18	383	326	333	319	76	211	381	363	373	368	362	366
19	368	320	327	326	259	296	391	380	385	364	358	362
20	367	319	327	349	273	313	398	386	392	362	357	359
21	414	324	355	394	350	374	550	398	424	360	353	357
22	375	370	372	397	208	339	462	417	441	357	352	355
23	384	311	365	232	186	203	570	448	473	355	349	353
24	323	302	307	294	235	270	544	457	506	353	349	351
25	319	300	305	307	285	297	545	410	498	352	343	349
26	388	304	314	297	278	287	524	447	490	339	276	297
27	311	297	308	366	298	328	473	387	413	330	324	327
28	311	301	307	433	230	354	---	---	---	330	321	324
29	308	303	305	257	150	175	---	---	---	347	332	344
30	361	304	309	270	187	234	---	---	---	352	348	350
31	---	---	---	314	245	277	---	---	---	---	---	---
MONTH	414	297	331	433	76	288	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	18.5	19.5	16.0	14.5	15.0	12.0	9.5	11.0	7.5	7.0	7.0
2	19.5	17.0	18.5	16.0	14.5	15.5	12.0	11.0	11.5	8.5	6.5	7.5
3	17.0	15.0	16.0	16.5	14.5	15.5	11.0	9.5	10.5	10.5	8.0	9.5
4	16.5	14.5	16.0	16.5	15.0	16.0	10.5	8.0	10.0	11.5	9.0	10.5
5	18.0	16.0	17.0	16.5	15.5	16.0	---	---	---	9.5	8.0	8.5
6	19.0	18.0	18.5	15.5	13.0	14.0	---	---	---	10.5	8.0	9.5
7	18.0	17.0	17.5	---	---	---	---	---	---	11.0	9.0	10.0
8	16.5	15.0	15.5	---	---	---	---	---	---	---	---	---
9	15.0	14.0	14.5	12.5	11.5	12.0	---	---	---	---	---	---
10	16.0	15.0	15.5	12.5	11.5	12.0	---	---	---	---	---	---
11	17.0	16.0	16.5	---	---	---	---	---	---	---	---	---
12	17.5	16.0	16.5	---	---	---	---	---	---	---	---	---
13	18.0	16.0	17.0	---	---	---	---	---	---	---	---	---
14	17.0	16.0	16.5	---	---	---	---	---	---	---	---	---
15	17.0	16.0	16.5	---	---	---	---	---	---	---	---	---
16	17.5	16.5	17.0	---	---	---	---	---	---	---	---	---
17	18.5	16.5	17.5	---	---	---	---	---	---	---	---	---
18	18.0	16.0	17.5	---	---	---	---	---	---	---	---	---
19	16.0	13.0	14.5	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	10.0	8.0	9.5
22	---	---	---	---	---	---	9.0	3.5	7.0	11.0	10.0	10.5
23	---	---	---	---	---	---	9.5	9.0	9.5	11.0	8.0	10.0
24	---	---	---	7.5	7.0	7.0	9.5	8.0	8.5	9.0	7.0	8.0
25	---	---	---	8.0	7.0	7.5	8.5	7.5	8.0	---	---	---
26	12.5	12.0	12.0	10.0	8.0	8.5	8.5	8.0	8.5	---	---	---
27	14.0	13.5	14.0	11.5	10.0	11.0	9.0	8.5	8.5	---	---	---
28	14.5	13.5	14.0	11.0	10.5	10.5	9.0	8.5	8.5	7.5	3.5	6.5
29	15.0	13.0	14.0	10.5	10.0	10.0	---	---	---	8.0	5.5	6.5
30	15.0	14.0	14.5	10.5	9.5	10.0	---	---	---	10.0	7.5	8.5
31	15.5	14.5	15.0	---	---	---	7.0	6.5	6.5	11.5	10.0	10.5
MONTH	20.5	12.0	16.0	---	---	---	---	---	---	---	---	---

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	7.5	8.5	10.5	8.0	9.5	17.0	15.0	15.5	16.5	14.5	15.5
2	8.5	7.5	8.0	11.5	10.0	11.0	16.5	14.5	15.0	17.0	15.5	16.5
3	9.0	8.5	9.0	11.5	10.5	11.5	16.5	14.5	15.5	18.5	15.0	16.5
4	9.0	7.5	8.0	12.5	11.5	12.5	15.5	12.5	14.5	19.0	15.0	17.0
5	8.5	7.5	8.0	11.5	10.0	11.0	14.5	13.0	14.0	20.0	16.0	18.0
6	---	---	---	---	---	---	---	---	---	20.0	17.5	19.0
7	---	---	---	---	---	---	11.5	9.0	10.5	19.5	18.0	18.5
8	---	---	---	---	---	---	10.5	9.5	10.0	18.0	16.5	17.0
9	---	---	---	---	---	---	11.0	9.5	10.0	18.0	16.0	17.0
10	6.5	6.0	6.0	10.5	10.0	10.0	12.0	8.5	11.0	20.0	16.5	18.5
11	7.5	6.0	6.5	11.5	10.5	11.0	14.0	9.5	12.0	21.0	17.0	19.0
12	7.0	6.0	6.5	13.5	11.0	12.5	15.0	11.0	13.5	21.5	18.0	20.0
13	7.0	6.0	6.5	14.0	12.5	13.5	15.5	13.5	14.5	22.0	19.0	21.0
14	7.5	5.5	6.5	12.5	11.5	12.0	17.5	14.5	16.0	22.5	20.0	21.5
15	9.0	6.5	8.0	---	---	---	18.5	15.5	17.0	22.0	20.5	21.5
16	11.0	9.0	10.0	15.0	13.5	14.5	18.5	17.0	17.5	23.0	20.5	22.0
17	11.5	11.0	11.0	16.0	14.5	15.0	17.5	13.5	15.0	23.0	21.5	22.0
18	11.5	11.0	11.0	16.5	15.0	15.5	13.5	12.0	12.5	21.5	21.0	21.5
19	11.0	10.0	10.5	17.5	15.0	16.0	14.5	13.0	14.0	22.5	20.5	21.5
20	10.5	9.0	10.0	17.0	15.0	16.5	14.0	13.5	13.5	21.5	20.5	21.0
21	11.0	10.0	10.5	17.0	14.0	15.5	14.0	13.0	13.5	22.5	20.5	21.5
22	11.0	10.0	7.5	14.0	12.5	13.5	15.0	12.5	14.0	23.0	21.0	22.0
23	11.5	10.0	8.5	13.5	11.0	12.5	15.5	12.5	14.0	23.0	21.5	22.0
24	12.5	10.0	11.5	14.5	11.5	12.5	16.5	12.5	14.5	24.0	21.5	24.0
25	---	---	---	14.5	12.5	14.0	15.5	14.0	15.0	23.5	22.0	23.0
26	---	---	---	---	---	---	16.5	14.5	15.5	24.0	22.0	23.0
27	8.0	6.5	7.5	---	---	---	16.0	14.5	15.5	23.5	22.5	23.0
28	9.5	8.0	9.0	---	---	---	15.5	13.5	14.5	23.0	22.5	23.0
29	---	---	---	---	---	---	14.5	13.5	14.0	24.5	22.5	23.5
30	---	---	---	13.5	10.5	12.0	15.5	13.0	14.0	26.0	23.5	24.5
31	---	---	---	16.5	11.5	14.0	---	---	---	26.0	24.5	25.0
MONTH	---	---	---	---	---	---	18.5	8.5	14.0	26.0	14.5	20.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	23.0	24.0	---	---	---				---	---	---
2	24.0	21.5	22.5	---	---	---				---	---	---
3	23.0	22.0	22.5	---	---	---				---	---	---
4	22.5	21.5	22.0	---	---	---				---	---	---
5	24.0	21.5	23.0	---	---	---				---	---	---
6	24.0	21.5	23.0	---	---	---				---	---	---
7	24.0	21.5	23.0	29.0	27.0	28.0				---	---	---
8	25.0	22.5	24.0	29.5	26.5	28.0				---	---	---
9	26.0	23.5	25.0	27.0	24.5	25.0				---	---	---
10	25.5	24.5	25.0	27.0	26.0	26.5				---	---	---
11	24.5	23.5	23.5	27.5	25.5	26.5				22.0	21.0	21.5
12	23.5	22.0	22.5	28.0	26.0	27.0				22.5	21.0	22.0
13	23.0	21.5	22.0	29.0	26.0	27.5				22.5	21.5	22.0
14	23.5	21.5	22.5	29.5	26.5	28.0				24.5	21.5	23.0
15	24.5	22.0	23.5	30.0	27.5	29.0				24.5	22.5	23.5
16	24.0	23.0	23.5	31.0	29.0	30.0				24.5	23.0	24.0
17	24.5	22.0	23.5	31.5	29.5	30.5				24.0	22.0	23.0
18	24.5	22.5	23.5	30.5	26.0	28.0				23.5	22.0	22.5
19	23.5	22.0	22.5	---	---	---				22.5	21.0	22.0
20	23.5	21.0	22.5	---	---	---				22.0	20.5	21.5
21	24.0	22.0	23.0	---	---	---				21.5	19.0	20.0
22	25.0	23.0	24.0	---	---	---				19.0	17.0	18.0
23	24.5	23.5	24.0	---	---	---				17.5	16.0	17.0
24	24.5	22.5	24.0	---	---	---				17.5	16.5	17.0
25	25.0	22.5	24.0	---	---	---				17.5	17.0	17.0
26	25.0	23.5	24.5	---	---	---				17.5	16.5	17.0
27	25.0	24.0	24.5	---	---	---				18.5	16.5	17.5
28	25.5	24.5	25.0	---	---	---				18.5	16.0	17.5
29	25.5	24.5	25.0	---	---	---				19.5	17.0	18.0
30	26.0	25.0	25.5	---	---	---				19.5	17.5	19.0
31	---	---	---	---	---	---				---	---	---
MONTH	26.0	21.0	23.5	---	---	---				---	---	---

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 waste treatment plant outfall, 3,000 ft (914 m) downstream from Sinking Creek, 4.5 mi (7.2 km) northwest of the courthouse in Murfreesboro, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--177 mi^2 (458 km^2), includes 17 mi^2 (44 km^2) without surface drainage.

PERIOD OF RECORD.--July 1972 to January 1982 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 514.95 ft (156.957 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow is effected by Murfreesboro sewage treatment plant outflow. An annual average of 7.7 ft^3/s (0.22 m^3/s) is discharged to the West Fork Stones River 25 ft (7.620 m) above the Control. Murfreesboro produces an average of 10 ft^3/s (0.28 m^3/s) of potable water of which 7.0 ft^3/s (0.20 m^3/s) is transbasin diversion from East Fork Stones River basin with the remainder being produced from a well and a spring located in the West Fork Stones River basin. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--9 years (water years 1973-81), 329 ft^3/s (9.317 m^3/s), 25.24 in/yr (641 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft^3/s (878 m^3/s) Mar. 13, 1975, gage height, 23.80 ft (7.254 m); minimum, 3.0 ft^3/s (0.085 m^3/s) Oct. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1981 to January 1982, 6,660 ft^3/s (189 m^3/s) at 0600 hours Jan. 4, gage height, 14.43 ft (4.398 m); minimum, 4.5 ft^3/s (0.13 m^3/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO JANUARY 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	58	1610	156								
2	11	46	589	160								
3	9.9	39	381	3500								
4	9.6	31	273	3730								
5	9.9	28	192	1000								
6	11	24	152	660								
7	9.6	22	128	502								
8	9.0	20	105	412								
9	8.7	19	88	354								
10	7.8	17	79	277								
11	7.8	17	69	210								
12	7.6	17	61	188								
13	8.7	15	54	175								
14	6.8	14	79	151								
15	7.6	13	107	132								
16	7.8	14	101	123								
17	6.8	15	94	105								
18	9.3	14	97	96								
19	20	14	91	183								
20	14	14	81	385								
21	13	13	108	1600								
22	13	12	635	1000								
23	26	12	664	3280								
24	22	15	472	1230								
25	17	15	350	715								
26	48	13	266	522								
27	365	97	230	434								
28	245	316	197	382								
29	140	173	160	316								
30	94	398	136	263								
31	70	---	132	587								
TOTAL	1246.9	1515	7781	22828								
MEAN	40.2	50.5	251	736								
MAX	365	398	1610	3730								
MIN	6.8	12	54	96								
CFSM	.23	.29	1.42	4.16								
IN.	.26	.32	1.64	4.80								

CAL YR 1981 TOTAL 36746.7 MEAN 101 MAX 2580 MIN 6.8 CFSM .57 IN 7.72

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN

LOCATION.--Lat 35°56'25", long 86°27'54", Rutherford County, Hydrologic Unit 05130203, near right bank at county bridge on Sulphur Springs Road, 400 ft (122 m) upstream from Nice's Mill dam, 1.6 mi (2.6 km) downstream from Overall Creek, 4.2 mi (6.8 km) southeast of Smyrna, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--237 mi^2 (614 km^2), includes 43 mi^2 (111 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft (152.400 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 436 ft^3/s (12.35 m^3/s), 24.98 in/yr (634 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,800 ft^3/s (1,810 m^3/s) Mar. 13, 1975, gage height, 19.18 ft (5.846 m) from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of area-velocity study at gage height 17.11 ft (5.215 m) and flood routing from Murfreesboro gage and Overall Creek at gage heights 16.65 ft (5.075 m) and 17.39 ft (5.300 m); minimum, 2.2 ft^3/s (0.062 m^3/s) Nov. 6-8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,140 ft^3/s (231 m^3/s) at 0645 hours Jan. 4, gage height, 9.28 ft (2.829 m), no peak above base of 10,000 ft^3/s (283m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	72	2210	217	1230	770	924	645	67	18	100	147
2	16	62	922	227	800	616	474	448	60	17	97	939
3	16	56	558	4620	775	511	391	352	57	17	73	1150
4	14	49	387	5270	923	431	330	291	57	19	61	409
5	14	45	290	1660	724	394	284	254	51	18	52	260
6	16	39	237	1120	658	398	261	227	49	19	52	195
7	16	35	207	855	554	542	232	223	44	20	47	158
8	15	32	181	677	488	487	233	810	44	25	47	131
9	15	28	156	569	2060	405	361	485	40	73	350	113
10	14	27	139	461	1360	349	307	319	39	43	430	94
11	13	26	127	416	944	319	258	254	38	43	207	86
12	12	24	115	350	760	292	231	216	36	52	144	78
13	14	23	105	293	741	275	209	192	35	45	113	78
14	15	22	127	253	657	263	195	170	35	41	94	68
15	19	21	161	228	575	3220	177	154	30	41	80	61
16	22	24	167	211	1050	1880	171	142	30	37	683	56
17	16	28	155	203	1350	1170	2790	127	27	32	1410	49
18	48	28	154	185	971	951	1590	139	24	54	650	47
19	62	28	150	247	773	730	912	192	23	265	395	49
20	43	26	139	571	640	597	674	155	22	128	275	45
21	28	28	171	2240	542	1760	527	148	22	94	216	41
22	28	27	929	1580	448	1330	419	133	26	80	176	39
23	52	26	991	4600	382	842	348	116	25	110	151	35
24	62	32	736	2040	333	648	301	105	20	125	416	32
25	45	37	517	1220	299	522	272	94	21	154	675	32
26	73	34	400	907	279	437	253	87	21	97	314	30
27	362	307	332	719	1060	370	283	82	20	80	201	28
28	249	455	292	608	1140	319	274	84	19	75	169	30
29	155	270	245	508	---	286	277	100	18	68	142	28
30	116	432	214	431	---	260	1170	92	18	63	122	24
31	88	---	203	856	---	380	---	75	---	80	111	---
TOTAL	1674	2343	11717	34342	22496	21754	15128	6909	1018	2033	8053	4532
MEAN	54.0	78.1	378	1108	803	702	504	223	33.9	65.6	260	151
MAX	362	455	2210	5270	2060	3220	2790	810	67	265	1410	1150
MIN	12	21	105	185	279	260	171	75	18	17	47	24
CFSM	.23	.33	1.60	4.68	3.39	2.96	2.13	.94	.14	.28	1.10	.64
IN.	.26	.37	1.84	5.39	3.53	3.41	2.37	1.08	.16	.32	1.26	.71

CAL YR 1981 TOTAL 58995 MEAN 162 MAX 3420 MIN 12 CFSM .68 IN 9.26
WTR YR 1982 TOTAL 131999 MEAN 362 MAX 5270 MIN 12 CFSM 1.53 IN 20.72

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURE: March 1974 to current year.

INSTRUMENTATION.--Water-temperature recorder March 1974 to September 1975, water-quality monitor October 1975 to current year.

REMARKS.--Missing record due to recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 631 micromhos Nov. 18, 1980; minimum, 124 micromhos Mar. 12, 1977.
WATER TEMPERATURES: Maximum, 30.0°C July 12, 1976; minimum, 2.5°C Dec. 20, 21, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 600 micromhos Oct. 20; minimum, 190 micromhos Aug. 17.
WATER TEMPERATURES: Maximum, 26.5°C July 20-22, 27, 28; minimum, 2.5°C Dec. 20, 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
13...	1650	14	500	---	7	.26
NOV						
02...	1230	63	500	15.5	8	1.4
DEC						
01...	1145	2470	290	11.0	161	1070
02...	1320	784	340	11.5	53	112
MAR						
01...	1740	730	375	11.0	25	49
APR						
08...	1315	212	400	10.5	9	5.2
MAY						
24...	1600	102	410	23.0	11	3.0
JUL						
09...	1100	81	440	24.5	33	7.2

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	502	493	499	496	482	491	350	268	292	461	459	460
2	499	477	483	505	484	495	319	272	298	459	438	453
3	483	474	476	497	482	493	361	319	343	444	256	331
4	495	475	481	498	490	493	403	362	384	280	223	251
5	516	484	502	493	487	490	427	399	414	325	276	305
6	525	516	521	511	488	501	449	426	441	365	336	349
7	524	518	523	510	501	507	446	443	444	386	362	377
8	526	517	523	507	500	504	451	446	449	399	380	388
9	524	505	514	502	499	501	456	452	454	403	399	402
10	506	501	503	499	496	497	459	454	457	404	399	403
11	523	505	514	497	489	494	480	461	477	406	399	405
12	528	519	524	495	486	489	496	472	482	406	397	400
13	525	519	522	511	483	497	501	492	496	422	405	417
14	529	526	527	507	503	505	517	496	512	427	419	423
15	530	527	529	519	506	517	517	493	511	444	424	435
16	553	530	539	514	498	501	502	493	497	447	438	441
17	551	532	537	499	494	497	499	495	498	---	---	---
18	540	531	534	493	489	491	502	493	497	---	---	---
19	599	533	557	493	484	490	502	493	497	---	---	---
20	600	538	566	490	481	486	503	494	496	---	---	---
21	544	476	497	487	478	481	502	480	494	---	---	---
22	485	460	468	499	495	497	482	416	451	---	---	---
23	481	459	465	495	475	487	421	374	395	---	---	---
24	546	481	505	478	469	475	395	374	382	---	---	---
25	548	506	527	475	466	468	403	395	398	---	---	---
26	513	484	503	472	463	467	424	401	415	---	---	---
27	493	387	432	469	362	420	438	415	425	---	---	---
28	437	428	433	364	337	347	444	439	441	---	---	---
29	458	435	448	363	339	352	444	435	438	---	---	---
30	480	452	464	372	352	361	455	440	443	395	392	394
31	482	473	477	---	---	---	458	436	454	397	377	391
MONTH	600	387	503	519	337	476	517	268	441	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	377	355	361	382	363	372	395	339	359	348	332	338
2	366	354	358	403	382	394	345	334	338	373	344	359
3	380	369	375	416	404	411	376	348	364	382	368	375
4	385	377	382	418	410	413	392	375	385	386	374	379
5	393	386	389	427	416	421	401	395	398	391	381	387
6	399	394	396	425	422	423	404	397	401	386	374	378
7	405	400	403	423	414	420	406	400	403	394	369	376
8	408	406	407	414	411	413	405	398	400	386	330	347
9	407	345	384	418	411	415	398	391	395	319	306	311
10	350	339	343	418	412	415	404	388	392	343	306	321
11	374	355	364	416	411	414	413	403	408	339	326	331
12	395	377	386	415	409	412	417	407	411	383	329	347
13	408	397	403	411	407	408	445	415	425	411	383	398
14	422	411	417	421	405	413	476	444	461	385	345	362
15	428	420	424	421	308	375	485	474	479	339	310	324
16	420	397	411	353	311	328	506	479	493	312	281	293
17	399	383	389	399	355	378	500	294	368	377	273	328
18	402	392	397	438	399	418	346	292	313	392	354	375
19	409	396	400	465	438	450	389	346	370	404	367	390
20	431	412	422	451	432	440	414	387	400	388	349	374
21	433	413	420	458	381	432	419	406	411	381	334	361
22	423	414	419	394	381	387	427	410	421	388	356	375
23	429	422	425	409	393	401	457	427	440	399	362	381
24	425	408	413	422	410	417	463	453	459	425	373	417
25	420	407	415	423	417	420	457	449	453	445	397	426
26	430	411	417	420	406	415	453	441	447	440	417	428
27	421	381	401	407	400	403	448	429	437	420	389	401
28	398	361	369	400	384	391	451	438	446	393	391	392
29	---	---	---	418	398	405	450	417	440	398	394	396
30	---	---	---	443	416	429	408	339	357	405	401	403
31	---	---	---	437	400	427	---	---	---	409	400	405
MONTH	433	339	396	465	308	408	506	292	409	445	273	370

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	403	398	401	471	457	462	412	398	404	432	400	424
2	411	403	409	472	468	470	398	386	391	394	305	340
3	417	410	413	467	461	466	405	394	400	278	208	240
4	421	405	415	469	457	463	413	402	405	353	282	321
5	421	416	417	460	451	457	420	413	416	396	357	379
6	420	417	418	450	445	447	422	416	419	419	399	411
7	429	419	422	448	443	445	434	420	426	437	420	429
8	433	427	431	449	445	447	435	430	433	448	438	441
9	427	422	424	444	439	442	439	222	371	449	446	447
10	433	427	430	411	372	389	311	264	276	456	450	453
11	437	431	433	375	365	370	342	285	305	455	449	453
12	441	439	440	393	375	384	364	344	357	---	---	---
13	441	439	440	392	383	389	379	362	371	---	---	---
14	446	440	442	384	378	380	401	378	386	---	---	---
15	446	443	444	398	384	388	405	398	400	---	---	---
16	446	440	444	415	402	410	415	209	337	---	---	---
17	448	436	439	416	411	413	259	190	226	---	---	---
18	457	445	448	440	414	422	329	262	300	---	---	---
19	458	454	456	443	278	326	376	332	355	---	---	---
20	456	450	453	314	284	304	404	377	395	---	---	---
21	453	449	451	322	310	315	420	404	415	---	---	---
22	454	450	452	336	318	324	427	417	421	---	---	---
23	453	439	450	342	326	336	425	419	421	---	---	---
24	439	426	435	353	343	347	425	399	411	---	---	---
25	432	424	427	352	340	346	396	288	325	---	---	---
26	430	394	426	361	340	347	306	292	297	---	---	---
27	433	420	428	402	362	381	325	308	317	480	477	479
28	441	426	434	405	386	399	383	348	367	482	473	478
29	454	442	446	411	378	391	403	382	392	476	472	474
30	459	450	454	423	414	419	414	407	411	477	473	475
31	---	---	---	428	406	418	423	415	419	---	---	---
MONTH	459	394	434	472	278	397	439	190	373	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	18.0	18.0	15.5	15.0	15.0	11.5	10.0	10.5	8.0	8.0	8.0
2	18.5	18.0	18.0	15.5	15.0	15.5	11.0	10.0	11.0	8.0	6.5	7.0
3	18.5	17.0	17.5	15.5	15.0	15.0	11.0	10.0	10.5	10.0	7.5	9.0
4	17.5	15.5	16.5	16.0	15.0	15.5	10.5	9.5	10.0	11.0	10.0	10.5
5	17.0	16.5	16.5	16.0	15.5	16.0	10.0	8.5	9.0	9.0	8.5	9.0
6	17.5	17.0	17.0	15.5	14.0	15.0	9.0	8.5	9.0	10.0	9.0	9.5
7	17.5	17.0	17.0	14.0	13.0	13.5	9.5	8.5	9.0	10.0	9.0	10.0
8	17.5	16.0	17.0	13.5	12.0	12.5	9.5	9.0	9.5	9.0	8.0	8.5
9	17.0	16.0	16.0	13.0	12.0	12.5	9.0	7.5	8.0	8.5	7.0	7.5
10	16.5	16.0	16.0	12.5	12.0	12.0	7.5	6.5	7.0	7.5	5.0	6.0
11	17.0	16.0	16.5	12.5	12.0	12.0	6.5	6.0	6.5	5.5	4.0	4.5
12	17.5	17.0	17.0	12.5	11.0	12.0	6.5	6.0	6.5	4.5	4.0	4.0
13	17.5	17.0	17.0	12.0	11.0	11.5	6.5	5.5	6.0	4.5	4.0	4.0
14	17.5	17.0	17.5	11.5	10.5	11.0	6.5	6.5	6.5	4.5	4.0	4.0
15	17.5	17.0	17.5	11.5	10.0	11.0	6.5	6.5	6.5	5.5	4.5	4.5
16	17.5	17.0	17.0	11.5	11.0	11.0	6.5	5.5	6.0	5.5	5.0	5.0
17	18.0	17.0	17.5	12.0	11.0	11.5	7.0	5.5	6.0	---	---	---
18	18.0	17.0	17.5	11.5	11.0	11.0	6.5	4.5	5.5	---	---	---
19	17.0	16.0	16.0	12.5	11.0	11.5	5.0	3.5	4.0	---	---	---
20	15.5	14.0	15.0	12.0	11.0	11.5	4.0	2.5	3.0	---	---	---
21	15.0	14.0	14.5	11.0	10.0	10.5	3.5	2.5	3.0	---	---	---
22	14.5	14.0	14.0	9.5	9.0	9.0	7.0	3.5	5.5	---	---	---
23	14.5	13.0	14.0	9.0	8.0	8.5	8.0	6.5	7.5	---	---	---
24	13.5	12.0	12.5	9.5	8.5	9.0	8.0	7.5	7.5	---	---	---
25	12.5	12.0	12.0	9.5	9.0	9.5	8.0	6.5	7.5	---	---	---
26	13.5	12.0	12.5	10.5	9.0	10.0	8.0	7.0	7.5	---	---	---
27	14.0	12.5	13.5	12.0	10.5	11.0	8.5	7.5	8.0	---	---	---
28	14.0	12.0	13.0	11.5	10.0	10.5	9.0	8.0	8.5	---	---	---
29	14.5	13.0	13.5	10.5	10.0	10.0	8.5	7.5	8.0	---	---	---
30	15.5	13.0	14.0	10.5	10.0	10.0	7.5	6.5	7.0	11.0	9.5	10.0
31	15.5	14.0	14.5	---	---	---	8.0	6.5	7.0	11.5	11.0	11.5
MONTH	18.5	12.0	15.5	16.0	8.0	12.0	11.5	2.5	7.5	---	---	---

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	9.5	10.0	11.0	9.5	10.0	15.5	14.0	15.0	16.5	15.5	15.5
2	9.5	9.0	9.0	12.0	10.5	11.0	15.0	14.0	14.5	16.5	16.0	16.0
3	10.0	9.5	9.5	12.0	11.5	11.5	14.5	14.0	14.0	17.0	16.0	16.5
4	9.5	8.5	9.0	12.5	12.0	12.0	14.5	13.0	13.5	17.0	16.5	17.0
5	9.5	8.5	9.0	12.5	11.0	12.0	14.0	13.0	13.5	18.0	17.0	17.0
6	9.0	7.5	8.5	11.0	9.5	10.0	13.0	12.0	12.5	18.5	17.5	18.0
7	7.5	6.5	7.0	9.5	8.5	9.0	11.5	10.5	11.0	18.5	17.5	18.0
8	7.5	6.5	7.0	8.5	7.5	8.0	12.0	10.5	10.5	18.0	17.5	18.0
9	8.0	7.0	7.5	9.5	8.0	8.5	10.5	10.0	10.5	17.5	17.0	17.5
10	7.0	6.0	6.5	10.0	9.0	9.5	11.0	9.5	10.0	18.0	17.0	17.5
11	8.0	6.5	7.0	11.0	10.0	10.5	11.5	10.5	11.0	18.5	17.5	18.0
12	8.0	7.5	7.5	12.5	11.0	11.5	12.5	11.5	12.0	19.0	18.5	18.5
13	8.0	7.5	7.5	13.0	12.5	12.5	13.5	13.0	13.0	19.5	18.5	19.0
14	8.5	7.5	8.0	12.5	11.5	12.0	14.5	13.5	14.0	20.0	19.5	19.5
15	9.5	8.5	8.5	14.0	11.5	12.5	15.5	14.5	15.0	20.0	20.0	20.0
16	11.5	9.5	10.5	15.5	14.0	14.5	16.0	15.5	15.5	20.5	20.0	20.5
17	12.0	11.5	11.5	16.0	15.0	15.5	16.5	14.5	15.5	21.0	20.5	21.0
18	12.0	12.0	82.0	16.5	15.0	16.0	14.5	13.5	14.0	21.0	21.0	21.0
19	12.0	11.5	11.5	17.0	16.0	16.5	14.5	14.0	14.5	22.0	21.0	21.5
20	12.0	10.5	11.5	17.0	16.5	16.5	14.5	14.0	14.0	22.0	21.5	22.0
21	12.0	11.0	11.5	16.5	14.5	16.0	14.5	13.5	14.0	22.5	22.0	22.0
22	12.0	10.5	11.5	14.0	13.0	13.5	14.5	13.5	14.0	23.0	22.5	22.5
23	12.5	10.5	11.5	13.5	12.0	13.0	14.5	13.5	14.0	23.0	22.5	23.0
24	13.0	12.0	12.5	14.0	12.5	13.0	15.0	14.0	14.5	23.0	23.0	23.0
25	12.5	11.0	11.5	14.0	13.5	13.5	15.0	15.0	15.0	22.5	22.5	22.5
26	11.0	9.5	10.0	13.5	12.0	12.5	16.0	15.0	15.0	21.5	21.5	21.5
27	9.5	8.5	9.0	12.5	11.0	11.5	16.0	15.5	15.5	22.5	21.0	21.5
28	9.5	8.5	9.0	11.5	10.0	11.0	16.0	15.0	15.5	22.5	21.5	22.0
29	---	---	---	11.5	10.5	11.0	16.0	15.0	15.0	23.0	22.0	22.0
30	---	---	---	13.0	11.0	11.5	15.5	14.5	15.0	23.5	22.0	22.5
31	---	---	---	15.0	12.5	13.5	---	---	---	23.5	22.5	23.0
MONTH	13.0	6.0	9.5	17.0	7.5	12.0	16.5	9.5	13.5	23.5	15.5	20.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.5	22.5	23.0	24.0	23.5	23.5	26.0	25.0	25.5	22.0	21.5	21.5
2	22.5	21.0	21.5	24.5	24.0	24.0	26.0	25.0	25.5	21.5	21.5	21.5
3	22.5	21.0	21.5	24.5	24.0	24.5	26.0	25.5	25.5	21.0	20.5	21.0
4	21.5	21.0	21.0	25.0	24.0	24.5	26.0	25.5	25.5	20.5	19.5	20.0
5	22.0	21.0	21.5	24.5	24.0	24.5	26.0	26.0	26.0	19.5	18.5	19.0
6	22.5	21.5	21.5	25.0	24.5	25.0	26.0	25.5	25.5	19.0	18.5	18.5
7	22.5	21.5	22.0	25.0	24.5	24.5	26.0	25.5	25.5	19.0	18.0	18.5
8	23.0	22.0	22.0	25.0	24.5	25.0	26.0	25.5	25.5	19.0	18.0	18.5
9	23.5	22.5	23.0	25.0	24.5	24.5	26.0	25.0	25.5	19.0	18.0	18.5
10	23.5	23.0	23.5	25.5	25.0	25.0	26.0	25.0	25.5	18.5	18.0	18.5
11	23.5	23.0	23.0	25.0	24.5	25.0	25.5	24.5	25.0	18.5	18.0	18.0
12	23.5	22.0	22.5	25.5	24.5	25.0	25.0	24.5	24.5	---	---	---
13	22.0	22.0	22.0	25.5	25.0	25.0	24.0	23.0	23.5	---	---	---
14	22.5	22.0	22.0	25.0	24.0	24.5	23.5	22.5	23.0	---	---	---
15	23.0	22.5	22.5	25.0	24.5	25.0	23.5	23.0	23.5	---	---	---
16	23.0	22.5	23.0	25.5	25.0	25.0	23.5	23.0	23.5	---	---	---
17	23.5	22.5	22.5	25.5	25.0	25.5	23.0	22.5	23.0	---	---	---
18	23.5	23.0	23.0	25.5	24.5	25.0	23.0	22.5	22.5	---	---	---
19	23.5	22.5	22.5	26.0	24.5	25.5	23.0	22.0	22.5	---	---	---
20	22.5	22.0	22.0	26.5	25.0	25.5	23.0	22.5	22.5	---	---	---
21	22.5	22.0	22.5	26.5	25.5	26.0	23.5	23.0	23.0	---	---	---
22	23.0	22.5	22.5	26.5	25.5	26.0	23.0	22.5	23.0	---	---	---
23	23.5	22.5	23.0	25.5	25.0	25.0	23.0	22.5	22.5	---	---	---
24	23.5	23.0	23.0	26.0	25.0	25.0	23.5	22.5	23.0	---	---	---
25	23.5	23.0	23.0	26.0	25.5	25.5	23.5	23.0	23.0	---	---	---
26	23.5	23.0	23.0	26.0	25.5	26.0	23.0	22.5	23.0	---	---	---
27	23.5	23.0	23.0	26.5	25.5	26.0	23.0	23.0	23.0	17.0	17.0	17.0
28	23.5	23.0	23.0	26.5	26.0	26.0	23.0	22.5	23.0	17.5	17.0	17.0
29	23.5	23.5	23.5	26.5	26.0	26.0	22.5	22.0	22.5	18.0	17.0	17.5
30	24.0	23.5	24.0	26.0	25.5	26.0	22.5	22.0	22.5	18.5	17.5	18.0
31	---	---	---	26.0	25.5	25.5	22.0	22.0	22.0	---	---	---
MONTH	24.0	21.0	22.5	26.5	23.5	25.0	26.0	22.0	24.0	---	---	---

03431517 CUMMINGS BRANCH AT LICKTON, TN

LOCATION.--Lat 36°18'25", long 86°48'00", Davidson County, Hydrologic Unit 05130202, on right downstream wing-wall of bridge, on Shaw Road, 900 ft (274 m) above confluence with Shaw Branch, 0.8 mi (1.3 km) northeast of Lickton, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--2.40 mi^2 (6.22 km^2).

PERIOD OF RECORD.--December 1975 to current year.

GAGE.--Water-stage recorder and V-notch wier. Datum of gage is 532.25 ft (162.230 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--6 years (water years 1977-82), 3.18 ft^3/s (0.090 m^3/s), 17.99 in/yr (457 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 881 ft^3/s (24.9 m^3/s) Sept. 13, 1979; gage height, 5.21 ft (1.588 m); minimum daily, 0.00 ft^3/s (0.000 m^3/s) Sept. 17-24, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	2225	*167	4.73	3.44	1.049	Apr. 26	1810	136	3.85	3.28	1.000
Feb. 8	2345	116	3.29	3.16	0.963	Aug. 5	2240	102	2.89	3.07	0.936
Apr. 17	0300	136	3.85	3.28	1.000						

Minimum discharge, 0.02 ft^3/s (0.001 m^3/s) Aug. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.78	16	2.3	12	3.7	2.0	8.1	5.0	.27	.05	.10
2	.18	.66	8.4	10	8.1	3.2	2.0	6.7	3.9	.22	.03	1.8
3	.16	.57	5.5	48	9.0	2.7	3.2	5.7	3.2	.20	.02	3.1
4	.14	.57	4.0	39	7.8	2.6	2.9	4.8	2.8	.25	.02	.64
5	.18	.72	3.2	16	6.9	2.5	3.1	4.2	2.5	.25	3.1	.28
6	.27	.61	2.4	11	6.4	2.4	2.8	3.7	2.0	.22	2.0	.19
7	.20	.48	1.8	8.1	5.7	2.3	2.5	5.9	1.6	.18	.52	.14
8	.18	.44	1.5	6.4	17	2.1	2.8	6.7	1.4	.16	.36	.11
9	.16	.40	1.2	5.5	73	2.1	3.4	5.2	1.1	.14	.25	.10
10	.14	.33	.97	4.6	15	4.3	3.2	4.2	1.4	.16	.18	.09
11	.14	.33	.84	25	10	4.0	3.1	3.7	.90	.20	.14	.08
12	.14	.30	.72	13	7.2	3.5	2.9	3.2	.84	.14	.11	.08
13	.14	.27	.61	8.5	6.8	5.0	2.8	2.8	.66	.10	.11	.07
14	.13	.25	.78	5.2	4.6	5.9	2.5	2.3	.47	.09	.10	2.6
15	.13	.25	.72	4.3	3.9	16	2.3	2.0	.35	.06	.09	1.1
16	.13	.72	.57	3.4	9.0	12	9.0	1.8	.40	.05	.10	.60
17	.30	1.4	.61	2.8	6.0	8.7	50	1.4	.31	.05	.13	.38
18	3.1	1.1	.52	3.2	4.3	6.9	20	1.1	.22	.06	.11	.30
19	1.8	.90	.44	17	3.8	5.9	12	1.1	.21	.33	.08	.26
20	.84	.78	.44	6.8	3.3	5.2	11	3.2	.20	.27	.04	.20
21	.52	.61	4.4	5.0	2.9	4.6	8.1	2.8	.19	.16	.04	.16
22	.44	.52	12	13	2.6	4.0	6.7	2.4	.17	.13	.03	.14
23	.84	.52	10	30	2.4	3.4	5.7	1.6	.16	.11	.03	.13
24	.72	.97	7.2	15	2.2	3.2	5.0	1.3	.14	.10	.06	.12
25	.57	.90	5.5	10	2.1	2.9	5.0	1.2	.15	.08	.11	.15
26	1.6	.84	4.6	7.5	2.4	2.7	11	1.4	.14	.06	.10	.22
27	4.0	7.0	4.0	6.0	8.8	2.4	14	2.0	.13	.05	.08	.18
28	3.2	3.9	3.4	5.4	4.8	2.1	11	7.8	.14	.04	.05	.13
29	2.2	2.7	2.8	4.6	---	1.8	9.7	7.5	.43	.04	.04	.10
30	1.5	7.8	2.3	4.2	---	1.8	9.7	5.2	.33	.05	.03	.09
31	1.0	---	2.3	10	---	2.1	---	4.6	---	.06	.06	---
TOTAL	25.25	37.62	109.72	350.8	248.0	132.0	229.4	115.6	31.44	4.28	8.17	13.64
MEAN	.81	1.25	3.54	11.3	8.86	4.26	7.65	3.73	1.05	.14	.26	.45
MAX	4.0	7.8	16	48	73	16	50	8.1	5.0	.33	3.1	3.1
MIN	.13	.25	.44	2.3	2.1	1.8	2.0	1.1	.13	.04	.02	.07
CFSM	.34	.52	1.48	4.71	3.69	1.78	3.19	1.55	.44	.06	.11	.19
IN.	.39	.58	1.70	5.44	3.84	2.05	3.55	1.79	.49	.07	.13	.21

CAL YR 1981 TOTAL 670.02 MEAN 1.84 MAX 38 MIN .06 CFSM .77 IN 10.38
WTR YR 1982 TOTAL 1305.92 MEAN 3.58 MAX 73 MIN .02 CFSM 1.49 IN 20.23

NOTE.--No gage-height record Jan. 11 to Feb. 2, Feb. 10 to Mar. 11.

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN

LOCATION.--Lat 36°09'04", long 86°51'16", Davidson County, Hydrologic Unit 05130202, near left bank on downstream end of pier of Charlotte Avenue bridge on U. S. Highway 70, 3.7 mi (6.0 km) upstream from mouth and 4.0 mi (6.4 km) southwest of the State Capitol in Nashville, and at mile 3.6 (5.8 km).

DRAINAGE AREA.--24.3 mi^2 (62.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 409.56 ft (124.834 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--18 years, 35.3 ft^3/s (1.000 m^3/s), 19.73 in/yr (501 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,470 ft^3/s (268 m^3/s) Sept. 13, 1979, gage height, 15.13 ft (4.612 m); minimum, 0.05 ft^3/s (0.001 m^3/s) Oct. 7-9, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 10	1950	1790	50.7	6.76	2.060	Feb. 9	0150	*2300	65.1	7.62	2.323
Jan. 23		Unknown		Unknown							

Minimum daily discharge, 0.25 ft^3/s (0.007 m^3/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	4.2	233	14	140	41	13	39	25	2.1	.50	12
2	2.2	4.2	59	88	38	35	13	34	18	1.8	.45	8.1
3	2.1	4.0	39	354	178	31	30	30	9.5	2.8	.28	5.5
4	2.0	5.5	28	187	91	28	16	24	7.4	11	.28	4.2
5	2.0	4.4	21	96	70	27	19	21	6.0	2.1	30	3.7
6	2.0	3.8	18	69	65	26	17	17	5.0	2.6	20	3.3
7	1.6	3.7	15	57	50	25	14	161	4.6	1.6	5.2	3.1
8	1.3	3.5	12	45	190	23	20	89	4.2	1.5	3.5	3.0
9	1.4	3.5	11	38	493	22	16	50	3.9	1.3	2.5	2.8
10	1.4	3.3	9.7	258	140	39	15	34	4.0	1.6	1.8	2.5
11	1.3	3.1	9.4	243	91	52	13	24	3.3	1.8	1.3	2.5
12	1.2	3.1	8.4	132	72	34	13	20	3.0	1.4	1.1	2.7
13	1.0	3.0	8.1	93	61	62	12	17	3.0	1.2	1.0	57
14	1.2	3.0	15	66	50	150	11	14	2.8	1.2	.95	12
15	1.2	2.7	10	54	42	251	10	13	2.2	.71	.90	9.7
16	1.2	6.2	9.0	45	96	136	21	11	4.2	.25	1.0	7.8
17	3.1	5.3	11	38	63	85	314	12	2.7	.87	1.2	7.0
18	25	4.6	9.0	44	48	63	80	14	2.4	2.2	1.1	7.0
19	3.1	6.7	8.1	178	41	49	53	9.0	2.2	1.6	1.6	6.5
20	2.4	8.1	7.5	70	36	41	40	13	2.1	2.2	1.5	6.0
21	2.1	6.0	144	50	33	43	31	10	1.9	12	1.5	5.5
22	4.2	5.3	110	150	29	33	26	7.8	1.9	4.2	1.3	5.0
23	7.5	7.8	69	450	26	28	21	6.7	1.6	2.2	3.5	4.6
24	4.0	9.4	41	200	25	25	18	6.2	1.5	1.4	10	4.4
25	3.3	7.0	31	115	23	21	22	6.2	1.5	1.0	4.8	25
26	26	7.3	25	70	26	20	82	7.1	1.4	.68	4.6	9.4
27	13	106	21	62	93	18	60	10	1.4	.54	3.9	7.5
28	7.3	29	18	54	52	17	43	40	14	.44	3.5	6.2
29	5.5	18	15	45	---	15	39	38	2.5	.44	3.3	5.5
30	5.0	152	13	40	---	14	56	26	3.2	.55	3.1	5.0
31	4.6	---	17	100	---	17	---	23	---	.60	12	---
TOTAL	141.6	433.7	1045.2	3505	2382	1471	1138	827.0	146.4	65.88	127.66	244.5
MEAN	4.57	14.5	33.7	113	85.1	47.5	37.9	26.7	4.88	2.13	4.12	8.15
MAX	26	152	233	450	493	251	314	161	25	12	30	57
MIN	1.0	2.7	7.5	14	23	14	10	6.2	1.4	.25	.28	2.5
CFSM	.19	.60	1.39	4.65	3.50	1.96	1.56	1.10	.20	.09	.17	.34
IN.	.22	.66	1.60	5.37	3.65	2.25	1.74	1.27	.22	.10	.20	.37

CAL YR 1981 TOTAL 7340.40 MEAN 20.1 MAX 283 MIN 1.0 CFSM .83 IN 11.24
WTR YR 1982 TOTAL 11527.94 MEAN 31.6 MAX 493 MIN .25 CFSM 1.30 IN 17.65

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	1030	2.0	500	17.0	33	.18
NOV						
02...	1250	4.2	600	19.0	60	.68
DEC						
08...	1045	12	540	11.0	20	.65
JAN						
07...	1130	60	500	10.0	68	11
FEB						
02...	1420	56	--	--	3	.45
MAR						
11...	1500	52	480	13.0	37	5.2
APR						
07...	1245	14	440	10.5	14	.53
MAY						
10...	1200	33	520	17.0	6	.53
JUN						
30...	0900	2.1	470	24.0	6	.03
AUG						
23...	1115	.90	535	23.0	11	.03

03431800 SYCAMORE CREEK NEAR ASHLAND CITY, TN

LOCATION.--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 (5.1 km) north of Ashland City, and 4.4 mi (7.1 km) upstream from Spring Creek, and at mile 8.6 (13.8 km).

DRAINAGE AREA.--97.2 mi^2 (251.7 km^2).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (122 m), from topographic map.

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

AVERAGE DISCHARGE.--21 years, 144 ft^3/s (4.078 m^3/s), 20.12 in/yr (511 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft^3/s (476 m^3/s) Mar. 12, 1975, gage height, 13.20 ft (4.023 m); minimum, 8.3 ft^3/s (0.24 m^3/s) Oct. 6, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0645	5150	146	9.82	2.993	Feb. 9	0800	*5890	167	10.25	3.124
Jan. 23	0845	3960	112	8.90	2.713	Apr. 17	1130	5830	165	10.22	3.115

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Aug. 22, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	47	829	87	354	146	89	171	108	35	34	34
2	26	44	267	94	238	134	81	143	90	32	29	63
3	24	40	160	963	267	132	199	122	79	32	27	64
4	23	39	118	2200	257	126	143	105	92	35	25	34
5	23	40	91	413	207	114	129	94	97	34	24	28
6	27	40	78	265	172	108	120	86	74	32	125	25
7	26	37	70	191	134	108	100	150	66	31	41	25
8	24	35	64	144	201	98	112	284	61	29	48	24
9	23	34	57	125	2840	93	144	150	58	29	42	23
10	23	32	52	100	523	95	124	117	66	30	37	22
11	24	31	50	93	323	108	110	97	60	34	29	22
12	24	30	47	88	237	128	102	85	55	30	26	24
13	24	30	44	83	193	171	95	77	54	27	25	386
14	24	29	51	78	171	203	86	71	49	26	25	127
15	24	29	51	75	160	593	80	68	47	26	24	131
16	25	36	45	71	239	379	323	65	54	25	25	75
17	30	58	47	69	286	249	3070	71	55	27	60	58
18	340	51	45	69	222	183	643	97	46	29	39	48
19	93	44	36	118	178	155	355	76	44	42	28	45
20	61	50	38	392	156	139	510	141	47	57	25	39
21	48	42	171	1220	145	125	353	147	42	62	24	36
22	43	38	642	789	126	107	239	147	41	62	22	32
23	64	39	449	1890	114	97	181	129	39	35	21	29
24	54	58	246	538	109	93	154	95	36	39	27	29
25	45	57	173	326	102	88	147	167	35	36	45	35
26	65	52	137	217	95	80	480	312	34	28	31	55
27	158	118	133	168	161	75	824	536	34	48	26	41
28	96	102	113	147	171	71	334	408	35	39	26	33
29	74	75	93	121	---	69	223	302	38	33	25	29
30	62	177	82	112	---	69	220	170	37	66	24	27
31	54	---	79	382	---	80	---	121	---	54	30	---
TOTAL	1676	1534	4558	11630	8381	4416	9770	4804	1673	1144	1039	1643
MEAN	54.1	51.1	147	375	299	142	326	155	55.8	36.9	33.5	54.8
MAX	340	177	829	2200	2840	593	3070	536	108	66	125	386
MIN	23	29	36	69	95	69	80	65	34	25	21	22
CFSM	.56	.53	1.51	3.86	3.08	1.46	3.35	1.60	.57	.38	.35	.56
IN.	.64	.59	1.74	4.45	3.21	1.69	3.74	1.84	.64	.44	.40	.63

CAL YR 1981 TOTAL 39834 MEAN 109 MAX 2700 MIN 20 CFSM 1.12 IN 15.24
WTR YR 1982 TOTAL 52268 MEAN 143 MAX 3070 MIN 21 CFSM 1.47 IN 20.00

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 (5 m) downstream from left downstream end of State Highway 96 bridge, 0.4 mi (0.6 km) southeast of the courthouse in Franklin, and at mile 88.1 (141.8 km).

DRAINAGE AREA.--191 mi^2 (495 km^2), includes 15 mi^2 (39 km^2) without surface drainage.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 604.42 ft (184.227 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for October and November, 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 below the gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--8 years, 312 ft^3/s (8.836 m^3/s), 22.18 in/yr (563 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft^3/s (572 m^3/s), Mar. 13, 1975, gage height, 33.65 ft (10.257 m); minimum daily, 0.30 ft^3/s (0.008 m^3/s) Oct. 14, 20, 22, 23, 26, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0445	3970	112	16.89	5.148	Feb. 9	0915	2940	83.3	14.23	4.337
Jan. 23	1400	*4270	121	17.59	5.361	Apr. 17	1400	3450	97.7	15.60	4.755

Minimum daily discharge, 0.50 ft^3/s (0.014 m^3/s) Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	27	1520	126	800	441	336	193	115	14	20	7.5
2	1.1	18	584	127	521	344	233	144	92	7.2	18	123
3	1.4	12	310	2830	743	287	381	119	74	6.0	15	83
4	1.4	10	223	2920	723	252	262	99	120	10	17	42
5	1.4	17	175	968	547	224	219	89	91	10	11	26
6	1.3	17	144	633	467	203	188	75	73	6.8	65	19
7	1.4	15	109	461	377	212	150	485	59	1.6	31	11
8	1.6	14	85	355	360	184	160	1460	47	30	22	4.0
9	1.8	9.3	66	305	2160	164	214	558	41	40	19	2.2
10	1.8	1.6	55	248	1030	157	180	361	41	77	10	1.9
11	1.8	.91	53	192	692	157	156	264	38	58	11	7.5
12	2.0	.81	51	175	546	155	135	206	36	38	13	7.1
13	2.2	1.6	46	160	526	150	120	162	34	28	9.0	11
14	5.7	8.7	63	137	438	174	114	136	28	20	4.4	5.1
15	5.7	12	87	115	373	1700	98	124	22	17	10	4.3
16	6.0	8.0	73	108	812	1140	101	107	21	11	75	7.2
17	6.0	.91	65	82	989	720	2020	396	22	13	227	1.1
18	11	.50	72	87	633	531	963	479	18	37	120	8.1
19	3.0	8.0	66	173	484	428	572	264	21	95	71	8.6
20	2.2	10	55	358	390	356	413	234	20	55	34	5.1
21	1.8	7.3	185	1640	324	659	303	234	14	26	26	1.0
22	3.0	6.9	917	1140	260	594	238	176	11	32	19	.92
23	8.0	5.0	789	3160	222	388	199	151	12	117	12	1.9
24	13	1.2	528	1450	199	308	178	120	8.7	66	5.9	1.1
25	21	1.0	368	798	174	244	162	102	11	49	11	4.8
26	23	10	276	548	165	208	153	92	7.2	36	16	14
27	121	291	230	433	568	179	204	322	11	27	11	7.9
28	113	401	185	372	648	157	188	504	8.0	37	4.6	1.0
29	55	177	148	312	---	139	140	233	9.0	212	9.0	.80
30	38	244	123	278	---	123	203	164	17	42	5.0	2.6
31	35	---	120	714	---	184	---	138	---	28	1.8	---
TOTAL	492.2	1336.73	7771	21405	16171	11162	8983	8191	1121.9	1246.6	923.7	420.72
MEAN	15.9	44.6	251	690	578	360	299	264	37.4	40.2	29.8	14.0
MAX	121	401	1520	3160	2160	1700	2020	1460	120	212	227	123
MIN	1.1	.50	46	82	165	123	98	75	7.2	1.6	1.8	.80
CFSM	.08	.23	1.31	3.61	3.03	1.89	1.57	1.38	.20	.21	.16	.07
IN.	.10	.26	1.51	4.17	3.15	2.17	1.75	1.60	.22	.24	.18	.08

CAL YR 1981 TOTAL 34037.13 MEAN 93.3 MAX 2600 MIN .50 CFSM .49 IN 6.63
WTR YR 1982 TOTAL 79224.85 MEAN 217 MAX 3160 MIN .50 CFSM 1.14 IN 15.43

03433500 HARPETH RIVER AT BELLEVUE, TN

LOCATION.--Lat 36°03'16", long 86°55'42", Davidson County, Hydrologic Unit 05130204, on right bank 45 ft (14 m) upstream from bridge on State Highway 100, 0.1 mi (0.2 km) downstream from Little Harpeth River, 0.9 mi (1.4 km) southeast of Bellevue, and at mile 62.1 (99.9 km).

DRAINAGE AREA.--408 mi^2 (1,057 km^2), includes 15 mi^2 (39 km^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.--Water-stage recorder. Datum of gage is 541.04 ft (164.909 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Apr. 11, 1920, to Oct. 31, 1929, Jan. 1, 1932, to Sept. 30, 1933, non-recording gage at site 2.8 mi (4.5 km) downstream at datum 7.85 ft (2.393 m) lower.

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

AVERAGE DISCHARGE.--62 years, 576 ft^3/s (16.31 m^3/s), 19.17 in/yr (487 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft^3/s (1,130 m^3/s) Feb. 13, 1948, gage height, 24.34 ft (7.419 m) from floodmark; no flow Oct. 5-10, 1922.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 13, 1948.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,500 ft^3/s (212 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 23	1930	*9040	256	13.68	4.170	Feb. 9	1500	7880	223	12.52	3.816

Minimum discharge, 19 ft^3/s (0.54 m^3/s) Oct. 6-12, 14-16, all or part of each day.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	75	3910	313	1970	1100	686	446	285	51	82	152
2	22	65	1670	323	1260	880	514	355	237	52	66	110
3	20	57	843	4950	1850	748	953	306	192	42	57	253
4	21	48	584	6610	1950	645	732	265	337	39	52	135
5	22	48	441	2780	1410	582	565	239	441	37	50	91
6	21	46	363	1620	1190	512	499	216	260	36	306	68
7	20	48	302	1200	990	500	400	610	203	35	151	55
8	19	45	248	911	1130	452	377	3570	169	34	94	46
9	19	45	205	763	6690	398	468	1490	146	274	76	35
10	20	43	173	622	3140	407	424	970	222	169	68	30
11	19	38	154	465	1870	422	370	718	147	162	56	27
12	21	34	146	425	1430	425	333	549	125	116	48	29
13	22	31	135	380	1330	423	298	435	114	90	47	86
14	19	31	160	340	1140	601	281	360	107	72	44	83
15	19	32	199	309	974	3430	256	325	99	58	36	58
16	20	40	190	283	1230	3090	250	290	141	52	103	46
17	21	43	171	250	2120	1760	3440	350	145	42	328	41
18	41	41	161	257	1420	1330	2860	1240	131	48	239	36
19	83	40	156	286	1130	1060	1420	608	76	200	168	34
20	46	41	139	802	953	878	1060	488	73	226	105	46
21	33	46	396	3870	802	951	814	575	69	118	71	38
22	29	45	2080	3090	666	1280	632	413	64	84	59	30
23	40	43	2130	7140	561	855	513	339	54	387	50	25
24	61	54	1400	4400	498	702	444	281	53	340	47	24
25	51	57	967	2090	439	575	403	243	47	178	48	31
26	61	50	739	1430	404	487	410	397	47	135	49	42
27	111	301	602	1110	966	417	459	360	44	109	49	47
28	211	756	497	953	1530	367	481	1440	43	90	42	46
29	147	391	403	780	---	331	380	658	46	219	32	34
30	99	579	337	674	---	301	386	424	43	162	31	28
31	78	---	313	1270	---	311	---	327	---	104	180	---
TOTAL	1441	3213	20214	50676	41003	26220	21108	19287	4160	3761	2834	1786
MEAN	46.5	107	652	1635	1464	846	704	622	139	121	91.4	59.5
MAX	211	756	3910	7140	6690	3430	3440	3570	441	387	328	253
MIN	19	31	133	250	404	301	250	216	43	34	31	24
CFSM	.11	.26	1.60	4.01	3.59	2.07	1.73	1.53	.34	.30	.22	.15
IN.	.13	.29	1.84	4.62	3.74	2.39	1.92	1.76	.38	.34	.26	.16

CAL YR 1981 TOTAL 91469 MEAN 251 MAX 3910 MIN 19 CFSM .62 IN 8.34
WTR YR 1982 TOTAL 195703 MEAN 536 MAX 7140 MIN 19 CFSM 1.31 IN 17.84

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 (122 m) upstream from bridge on U. S. Highway 70, 1.7 mi (2.7 km) northeast of Kingston Springs, 3.0 mi (4.8 km) downstream from Turnbull Creek, and at mile 32.4 (52.1 km).

DRAINAGE AREA.--681 mi^2 (1,764 km^2), includes 15 mi^2 (39 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

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.--Water-stage recorder. Datum of gage is 448.04 ft (136.563 m) National Geodetic Vertical Datum of 1929. July 8, 1925, to Jan. 22, 1939, nonrecording gage at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--58 years, 979 ft^3/s (27.73 m^3/s), 19.53 in/yr (496 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,000 ft^3/s (1,700 m^3/s) Jan. 7, 1946, gage height, 32.20 ft (9.815 m) from high-water mark in gage house; minimum, 12 ft^3/s (0.34 m^3/s) Sept. 18, 1939.

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 (0.91 m) lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft^3/s (283 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0400	13300	377	15.94	4.859	Feb. 9	1000	*17200	487	18.86	5.749
Jan. 23	1100	11400	323	14.27	4.349						

Minimum discharge, 82 ft^3/s (.32 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	197	5810	526	2810	1880	711	818	507	189	262	462
2	95	183	3150	578	1980	1450	772	740	447	172	200	401
3	94	171	1500	6470	2260	1200	1240	642	393	162	172	339
4	90	163	1020	10500	2950	1040	1310	579	473	168	157	357
5	90	170	761	4960	2150	938	981	524	911	164	146	238
6	102	162	616	2630	1760	848	866	487	558	148	428	193
7	91	147	538	1900	1440	794	715	622	434	139	394	166
8	90	145	472	1420	1420	727	691	3950	372	134	273	147
9	88	141	411	1160	12300	651	762	2410	328	131	237	135
10	88	140	359	957	6050	676	737	1430	334	353	208	124
11	90	136	326	728	3180	808	649	1060	380	273	181	117
12	88	130	304	670	2320	824	595	841	296	259	163	120
13	87	124	291	620	2050	867	553	686	275	202	150	2400
14	83	121	322	570	1770	1440	517	587	257	179	148	641
15	85	119	358	520	1510	5250	487	613	242	160	141	361
16	85	128	357	496	1870	5360	521	772	264	145	146	289
17	87	146	344	500	3030	3010	5300	544	296	143	328	226
18	251	138	321	681	2330	2130	5560	1620	274	139	439	213
19	202	134	294	588	1800	1640	2500	1040	237	175	296	209
20	184	139	277	1150	1450	1360	1750	781	197	335	253	171
21	150	146	809	6270	1240	1280	1320	811	189	262	194	166
22	132	136	3110	5000	1050	1680	1030	675	182	216	158	149
23	171	138	2980	9280	894	1270	873	554	174	316	150	136
24	180	172	2180	7170	801	1050	763	496	162	660	181	128
25	170	183	1510	3330	720	910	718	442	157	518	215	130
26	181	173	1170	2230	653	779	728	608	149	303	187	211
27	343	719	972	1650	1390	678	1040	600	153	246	154	172
28	309	1020	805	1350	2470	609	985	1870	219	215	146	156
29	351	786	661	1120	---	564	841	1160	192	262	135	146
30	273	1030	566	972	---	533	831	740	171	344	126	131
31	224	---	531	1650	---	546	---	573	---	363	751	---
TOTAL	4651	7437	33125	77646	65648	42792	36346	29275	9223	7475	7119	8834
MEAN	150	248	1069	2505	2345	1380	1212	944	307	241	230	294
MAX	351	1030	5810	10500	12300	5360	5560	3950	911	660	751	2400
MIN	83	119	277	496	653	533	487	442	149	131	126	117
CFSM	.22	.36	1.57	3.68	3.44	2.03	1.78	1.39	.45	.35	.34	.43
IN	.25	.41	1.81	4.24	3.59	2.34	1.99	1.60	.50	.41	.39	.48

CAL YR 1981 TOTAL 180554 MEAN 495 MAX 5810 MIN 83 CFSM .73 IN 9.86
WTR YR 1982 TOTAL 329571 MEAN 903 MAX 12300 MIN 83 CFSM 1.33 IN 18.00

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
02...	1215	94	320	16.0	13	3.3	--
NOV							
24...	1000	174	330	7.0	54	25	--
JAN							
26...	1100	3450	260	6.0	107	997	--
FEB							
17...	1200	3440	250	10.0	137	1270	84
MAR							
19...	1100	1730	275	16.0	67	313	--
MAY							
04...	1000	592	295	16.0	8	13	--
JUN							
11...	1315	350	330	23.5	42	40	--
JUL							
26...	1115	308	280	25.5	116	96	--
SEP							
08...	1430	145	320	24.0	28	11	--

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

LOCATION.--Lat 36°19'26", long 87°13'32", Cheatham County, Hydrologic Unit 05130205, on downstream end of lower lock wall at Cheatham Dam, 2.0 mi (3.2 km) southwest of Neptune, 3.0 mi (4.8 km) upstream from Half Pone Creek, 9.7 mi (15.6 km) west of Ashland City, and at mile 148.4 (238.8 km).

DRAINAGE AREA.--14,163 mi^2 (36,682 km^2).

PERIOD OF RECORD.--October 1954 to current year.

REVISED RECORDS.--WSP 1726: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 350.00 ft (106.680 m) National Geodetic Vertical Datum of 1929. Prior to May 5, 1966, at National Geodetic Vertical Datum. Auxiliary water-stage recorder 15.3 mi (24.6 km) downstream from base gage at same datum. Prior to June 3, 1966, auxiliary water-stage recorder and non-recording gage on upper lock wall at former dam B, at site 8.1 mi (13.0 km) downstream from base gage at datum 1.76 ft (0.536 m) lower.

REMARKS.--Records good. Flow regulated by eight lakes or reservoirs above station (see p.124). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--28 years, 23,610 ft^3/s (668.6 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204,000 ft^3/s (5,780 m^3/s) Mar. 15, 1975; maximum gage height, 48.39 ft (14.749 m) Mar. 1, 1962; minimum daily discharge, 700 ft^3/s (19.8 m^3/s) Oct. 29, 1969; minimum gage height, 1.55 ft (0.472 m) Nov. 26, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 53.5 ft (16.31 m); Jan. 25, 1937, from profile by Corps of Engineers, discharge, about 200,000 ft^3/s (5,660 m^3/s) on Jan. 24, 1937. Flood of Jan. 1, 1927, reached a stage of 51.7 ft (15.76 m), from profile, discharge about 205,000 ft^3/s (5,810 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 93,800 ft^3/s (2,660 m^3/s) Jan. 4; maximum recorded gage height, 30.92 ft (9.424 m) Jan. 23; minimum daily discharge, 3,780 ft^3/s (107 m^3/s) Nov. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12600	4820	43000	15800	40700	30400	23000	23000	8440	17700	24300	41600
2	11600	8330	39200	11700	52000	27400	23000	14700	7870	18000	24100	35700
3	12300	12000	25100	53100	53400	32900	23300	14200	13000	14600	19800	32900
4	8200	13800	26900	93800	52500	30500	24200	16200	11300	5960	18300	38300
5	10700	12900	23200	89100	45600	28300	25900	16000	8950	5350	23600	33000
6	10300	12200	15900	55000	43900	26500	24900	18000	15700	8440	24000	19500
7	10700	12800	9350	38400	42800	25200	26700	18200	7600	9000	26500	18000
8	13600	6860	4270	35200	37800	23000	30000	40100	20200	16000	20500	19400
9	14300	9180	17000	38200	73400	29100	28300	31800	24700	15900	10900	20500
10	12800	11700	19400	44100	88200	33900	23600	14700	18800	16600	15900	24200
11	9590	12200	22500	37700	65200	29100	12500	9810	15700	7330	21800	24400
12	15500	12300	19100	42200	52500	25100	8780	13500	11300	8890	19600	21900
13	15000	10900	8080	47100	42600	27500	14400	12800	9680	13200	15400	19500
14	11800	12600	11300	40500	30400	33700	11700	15000	11400	17800	16500	31700
15	18200	5550	12500	42700	33800	48000	12300	15000	16600	16100	11900	28700
16	9960	7580	15200	33200	38400	63500	12000	13400	18000	17000	13600	26500
17	12600	5970	18800	28500	49300	61500	52000	4490	19600	15500	56800	26000
18	8760	11300	15900	45500	52600	50900	60300	8810	18000	17200	53900	24400
19	12200	11100	17200	45300	48800	43400	35800	13400	16800	11300	35100	17100
20	18800	12900	20400	42200	39900	40800	25600	13600	15500	15900	20500	13600
21	13400	11400	19200	61800	36300	37500	26900	12000	13500	19400	20500	12300
22	13900	6500	36600	70700	37800	35400	28100	12000	13400	20100	12300	18900
23	11100	3780	45000	88700	39100	36200	25100	6290	14500	21400	12300	18200
24	13400	13300	41500	87500	41400	39200	23600	7420	15500	18700	19800	18300
25	11500	17100	29800	57700	40100	39500	16600	5810	17400	13900	24800	18600
26	7830	15900	22500	50500	37800	31400	15800	9200	16100	8390	36500	19100
27	14700	14000	11200	42600	42200	27400	21000	7120	10200	12100	32900	18400
28	26600	23800	9180	39600	41200	25200	22200	15600	12700	15100	23600	18700
29	20800	21000	10900	42900	---	23800	25900	25100	9450	14600	13900	18800
30	15000	17200	16000	42700	---	23300	23900	16700	14400	15100	9610	20000
31	10100	---	20400	31800	---	24600	---	12400	---	18000	16100	---
TOTAL	407840	350970	646580	1495800	1299700	1054200	727380	456350	426290	444560	695310	698200
MEAN	13160	11700	20860	48250	46420	34010	24250	14720	14210	14340	22430	23270
MAX	26600	23800	45000	93800	88200	63500	60300	40100	24700	21400	56800	41600
MIN	7830	3780	4270	11700	30400	23000	8780	4490	7600	5350	9610	12300

CAL YR 1981 TOTAL 5069170 MEAN 13890 MAX 78200 MIN 1930
WTR YR 1982 TOTAL 8703180 MEAN 23840 MAX 93800 MIN 3780

03435770 SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN

LOCATION.--Lat 36°30'47", long 86°51'44", Robertson County, Hydrologic Unit 05130206, on left bank 150 ft (46 m) downstream from new bridge on State Highway 49, 1.2 mi (1.9 km) downstream from Beaver Dam Creek, 1.3 mi (2.1 km) northeast of Springfield, and at mile 30.8 (49.6 km).

DRAINAGE AREA.--65.6 mi^2 (169.9 km^2), includes 9.0 mi^2 (23.3 km^2) without surface drainage.

PERIOD OF RECORD.--August 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 538.17 ft (164.034 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair.

AVERAGE DISCHARGE:--7 years, 105 ft^3/s (2.974 m^3/s), 21.74 in/yr (552 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s (306 m^3/s), Dec. 8, 1978, gage height, 14.14 ft (4.310 m); minimum, 3.1 ft^3/s (0.088 m^3/s) Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0430	2910	82.4	10.27	3.130	Feb. 9	0530	*3660	104	11.02	3.359
Jan. 23	0800	2470	70.0	9.66	2.944	Apr. 17	0900	2140	60.6	9.06	2.761

Minimum daily discharge, 7.1 ft^3/s (0.20 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	30	515	58	319	86	63	99	45	14	12	16
2	15	28	201	53	202	84	58	89	39	13	12	26
3	13	27	128	604	233	83	164	80	34	14	11	25
4	13	26	90	1210	187	83	94	73	35	17	11	15
5	18	30	65	355	149	75	87	67	54	16	12	13
6	26	26	54	232	115	71	84	59	34	15	46	12
7	17	24	50	166	84	70	74	85	29	14	17	13
8	12	22	44	113	132	62	77	156	28	14	18	13
9	12	22	37	98	1690	58	90	87	26	19	17	12
10	12	20	32	57	470	60	80	73	26	16	14	12
11	12	19	29	48	291	68	76	64	24	17	12	12
12	12	19	28	45	206	74	72	55	22	16	11	13
13	11	18	26	43	162	100	69	48	22	15	11	186
14	11	18	28	44	137	108	61	44	21	14	11	62
15	11	17	28	40	122	461	56	40	20	14	11	41
16	11	21	25	36	210	278	242	36	24	13	11	23
17	14	27	25	36	236	185	1080	33	23	13	21	17
18	272	24	24	40	173	134	419	32	19	19	15	14
19	61	22	21	98	131	116	241	75	18	29	13	13
20	38	22	23	198	116	114	324	49	19	26	12	12
21	31	20	90	499	111	108	187	61	19	18	11	10
22	26	19	506	612	97	92	133	65	23	28	12	9.1
23	33	19	299	1260	90	85	109	64	20	18	12	8.7
24	28	25	174	465	87	82	98	45	17	16	12	7.9
25	27	24	127	278	79	77	94	57	16	15	16	8.3
26	31	24	102	169	73	70	174	82	15	14	15	8.7
27	108	77	98	123	94	62	337	70	15	19	13	8.3
28	60	56	80	100	94	57	151	88	15	16	13	7.9
29	46	43	62	75	---	53	114	89	15	14	13	7.5
30	39	101	52	69	---	53	116	66	15	14	13	7.1
31	33	---	56	475	---	60	---	52	---	14	13	---
TOTAL	1069	870	3119	7699	6090	3169	5024	2083	732	514	441	633.5
MEAN	34.5	29.0	101	248	218	102	167	67.2	24.4	16.6	14.2	21.1
MAX	272	101	515	1260	1690	461	1080	156	54	29	46	186
MIN	11	17	21	36	73	53	56	32	15	13	11	7.1
CFSM	.53	.44	1.54	3.78	3.32	1.56	2.55	1.02	.37	.25	.22	.32
IN.	.61	.49	1.77	4.37	3.45	1.80	2.85	1.18	.42	.29	.25	.36

CAL YR 1981 TOTAL 30719.5 MEAN 84.2 MAX 2020 MIN 5.4 CFSM 1.28 IN 17.42
WTR YR 1982 TOTAL 31443.5 MEAN 86.1 MAX 1690 MIN 7.1 CFSM 1.31 IN 17.83

03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TN

LOCATION.--Lat 36°30'55", long 85°03'32", Robertson County, Hydrologic Unit 05130206, on left bank 600 ft (183 m) downstream from county highway bridge, 2.8 mi (4.5 km) downstream from Millers Creek, 4.1 mi (6.6 km) southwest of Cedar Hill, 4.6 mi (7.4 km) south of Adams, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--186 mi^2 (482 km^2) includes 21 mi^2 (54 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1910: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 424.36 ft (129.345 m) Sandy Hook datum. Jan. 20, 1939, to Nov. 25, 1940, nonrecording gage at site 600 ft (183 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--44 years, 250 ft^3/s (7.080 m^3/s), 18.25 in/yr (464 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,400 ft^3/s (1,000 m^3/s) Mar. 12, 1975, gage height, 30.86 ft (9.406 m), from floodmarks; minimum, 1.8 ft^3/s (0.051 m^3/s) Sept. 27, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1934 reached a stage of 25.1 ft (7.65 m), from floodmarks, discharge not determined. Flood in January 1937 reached a stage of about 22.6 ft (6.89 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0830	4020	114	11.52	3.511	Apr. 17	1130	4580	130	12.36	3.767
Feb. 9	----	*6240	177	a14.70	4.481						

a From high water mark.
Minimum discharge, 22 ft^3/s (0.62 m^3/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	116	1210	200	760	279	160	287	147	40	50	123
2	44	103	646	185	470	268	149	251	133	37	40	90
3	43	96	429	936	580	268	334	217	119	36	36	116
4	40	90	322	2330	410	261	268	195	121	38	35	67
5	42	85	251	850	360	240	224	178	157	42	34	48
6	71	86	211	641	260	211	230	169	127	38	139	40
7	54	77	187	495	225	208	192	187	109	35	72	36
8	43	71	171	378	450	185	192	469	98	53	42	34
9	40	67	149	326	4020	173	247	283	93	64	77	33
10	39	63	133	272	1800	173	217	221	95	49	43	31
11	38	61	123	224	900	190	197	190	91	41	35	29
12	36	59	114	195	720	205	185	171	78	38	32	29
13	35	56	105	175	604	272	175	155	72	34	28	528
14	33	55	109	160	517	373	162	143	68	32	27	314
15	32	54	107	145	464	1010	149	135	64	28	25	334
16	32	62	96	132	534	700	283	127	69	26	42	171
17	90	78	93	127	673	440	2900	182	81	33	173	121
18	816	72	90	129	574	335	1200	200	62	43	77	96
19	298	67	80	195	474	300	773	205	58	88	46	81
20	178	68	74	501	424	285	789	195	59	62	36	71
21	133	62	240	1150	396	280	632	211	55	80	38	61
22	110	58	1000	2000	338	260	474	287	69	75	40	54
23	129	58	720	2900	294	245	378	208	59	157	29	49
24	118	74	501	1300	276	234	322	162	49	107	28	47
25	102	77	382	650	251	217	294	147	47	63	47	47
26	119	71	322	390	221	192	291	224	45	51	41	59
27	291	221	310	290	276	173	641	202	43	44	33	47
28	234	224	272	255	318	160	410	221	43	55	31	44
29	182	169	230	195	---	149	322	272	44	45	27	40
30	155	251	197	175	---	145	347	197	43	90	24	38
31	133	---	195	1100	---	149	---	162	---	75	314	---
TOTAL	3753	2751	9069	19001	17589	8580	13137	6453	2398	1699	1741	2878
MEAN	121	91.7	293	613	628	277	438	208	79.9	54.8	56.2	95.9
MAX	816	251	1210	2900	4020	1010	2900	469	157	157	314	528
MIN	32	54	74	127	221	145	149	127	43	26	24	29
CFSM	.65	.49	1.58	3.30	3.38	1.49	2.36	1.12	.43	.30	.30	.52
IN.	.75	.55	1.81	3.80	3.52	1.72	2.63	1.29	.48	.34	.35	.58

CAL YR 1981 TOTAL 84210 MEAN 231 MAX 4960 MIN 15 CFSM 1.24 IN 16.84
WTR YR 1982 TOTAL 89049 MEAN 244 MAX 4020 MIN 24 CFSM 1.31 IN 17.81

NOTE.--No gage-height record Jan. 22 to Feb. 11.

03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1964, October 1975 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
06...	1815	71	400	17.5	16	3.1
NOV						
16...	1145	58	340	10.0	13	2.0
JAN						
05...	1315	840	260	8.5	89	202
MAR						
23...	1515	245	280	13.5	8	5.3
MAY						
04...	1315	193	--	--	18	9.4
JUN						
14...	1530	64	370	25.0	27	4.7
AUG						
06...	1310	195	395	25.0	55	29
SEP						
15...	1400	281	280	23.0	206	156

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 (76 m) downstream from Sulphur Fork, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--935 mi^2 (2,422 km^2), includes 437 mi^2 (1,132 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 376.25 ft (114.681 m) National Geodetic Vertical Datum of 1929. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--21 years, 1,328 ft^3/s (37.61 m^3/s), 19.29 in/yr (490 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft^3/s (1,710 m^3/s) Mar. 13, 1975, gage height, 48.26 ft (14.710 m); minimum, 54 ft^3/s (1.53 m^3/s) Sept. 17, 18, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft (13.53 m), from flood profile of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 11,000 ft^3/s (312 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 24	0215	*15100	428	27.99	8.531	Feb. 10	0045	12400	351	25.29	7.708

Minimum discharge, 91 ft^3/s (2.58 m^3/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	450	3370	1040	4740	1520	970	1690	2390	511	527	710
2	142	398	3590	1010	3350	1440	947	1500	1970	447	355	731
3	135	361	2070	2090	3050	1390	1310	1360	1560	401	305	904
4	128	351	1570	6040	3420	1350	1990	1250	1370	403	260	666
5	131	313	1260	5040	2930	1300	1370	1160	1440	384	230	423
6	158	294	1060	3140	2550	1230	1860	1080	1380	369	333	326
7	149	271	948	2490	2230	1160	1570	1020	1150	450	596	266
8	131	249	847	2010	2020	1100	1310	1590	1030	366	332	236
9	127	231	763	1720	8360	1060	1370	1530	952	625	393	213
10	119	216	682	1530	8200	1010	1440	1210	871	612	313	191
11	115	240	611	1300	4360	1030	1240	1070	839	688	235	167
12	110	235	565	1210	3420	1070	1150	989	775	770	196	172
13	105	223	517	1160	2900	1140	1080	912	746	591	174	1400
14	101	216	524	1050	2490	1440	996	856	699	448	173	6060
15	97	214	470	962	2320	3130	921	801	667	382	157	2960
16	94	233	429	919	2400	3950	929	773	618	353	168	2110
17	200	267	400	825	3720	3020	4440	736	633	330	442	1650
18	2550	271	355	789	3800	2440	5060	918	603	308	472	1420
19	1510	251	308	807	2980	2110	2980	832	523	651	273	1270
20	1030	230	281	1520	2530	1970	2690	1060	523	1200	192	1070
21	752	222	539	3540	2320	1970	3120	1350	487	1110	154	938
22	610	205	3980	4040	2090	1820	2290	1370	473	801	158	857
23	578	195	4700	10900	1890	1580	1910	1360	547	815	137	801
24	529	257	3220	11800	1750	1460	1680	1170	487	726	141	743
25	461	239	2260	5310	1620	1370	1550	968	451	569	443	696
26	457	249	1890	3750	1480	1290	1510	1010	411	461	534	712
27	711	601	1690	2950	1470	1200	2380	1160	397	370	318	678
28	816	797	1560	2540	1600	1090	2590	1800	529	327	438	607
29	726	736	1340	2230	---	1030	1980	3500	749	599	305	542
30	626	736	1170	2040	---	1000	1850	2730	593	697	221	512
31	540	---	1080	2670	---	972	---	1970	---	577	1130	---
TOTAL	14086	9751	44049	88422	85990	48642	56483	40725	25863	17341	10105	30031
MEAN	454	325	1421	2852	3071	1569	1883	1314	862	559	326	1001
MAX	2550	797	4700	11800	8360	3950	5060	3500	2390	1200	1130	6060
MIN	94	195	281	789	1470	972	921	736	397	308	137	167
CFSM	.49	.35	1.52	3.05	3.28	1.68	2.01	1.41	.92	.60	.35	1.07
IN.	.56	.39	1.75	3.52	3.42	1.94	2.25	1.62	1.03	.69	.40	1.19

CAL YR 1981 TOTAL 377182 MEAN 1033 MAX 26700 MIN 76 CFSM 1.11 IN 15.01
WTR YR 1982 TOTAL 471488 MEAN 1292 MAX 11800 MIN 94 CFSM 1.38 IN 18.76

03436100 RED RIVER AT PORT ROYAL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
07...	1750	148	400	16.5	10	4.0
NOV						
18...	1245	244	350	9.5	22	14
25...	1300	234	350	9.5	--	--
DEC						
10...	1600	742	370	6.5	32	64
13...	1520	524	410	6.0	28	40
FEB						
11...	1245	4730	290	7.5	144	1840
MAR						
23...	1130	1590	335	13.0	53	228
MAY						
04...	1100	1310	--	--	58	205
JUN						
23...	1100	436	345	30.5	65	77
AUG						
19...	1030	277	340	24.0	36	27
SEP						
15...	1530	2760	280	19.5	109	812

DATE	TIME	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV											
25...	1300	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01
FEB											
11...	1245	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01
MAY											
04...	1100	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01
AUG											
19...	1030	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
25...	<.01	<.01	<.01	<.01	<.01	<.01	<1	<.01	<.01	<.01	<.01
FEB											
11...	<.01	<.01	<.01	<.01	<.01	<.10	<1	<.01	<.01	<.01	<.01
MAY											
04...	<.01	<.01	<.01	<.01	<.01	<.10	<1	<.01	<.01	<.01	<.01
AUG											
19...	<.01	<.01	<.01	<.01	<.01	<.10	<1	--	--	--	--

03436690 YELLOW CREEK AT ELLIS MILLS, TN

LOCATION.--Lat 36°18'39", long 87°33'15", Houston County, Hydrologic Unit 05130205, on right bank at downstream end of bridge on county road, 0.3 mi (0.5 km) northeast of Ellis Mills, 1.0 mi (1.6 km) upstream from Leatherwood Creek, 1.0 mi (1.6 km) downstream from Williamson Branch.

DRAINAGE AREA.--103 mi^2 (267 km^2).

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 417 ft (127 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s (303 m^3/s) June 6, 1981, gage height 16.30 ft (4.968 m); minimum, 16 ft^3/s (0.45 m^3/s) Aug. 23, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 21	0545	1930	54.7	8.81	2.685	Apr. 17	0645	*3500	99.1	10.89	3.319
Jan. 23	0830	2100	59.5	9.15	2.789	Apr. 26	1645	3280	92.9	10.64	3.243
Feb. 9	0515	3410	96.6	10.82	3.298						

Minimum discharge, 16 ft^3/s (0.45 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	45	233	112	314	194	94	288	79	39	35	210
2	24	42	201	112	261	189	94	247	74	38	34	100
3	22	39	148	1090	242	187	129	217	72	37	30	118
4	22	38	113	920	204	182	131	199	71	42	28	92
5	25	36	100	530	182	161	134	184	73	37	30	76
6	30	35	87	347	156	147	128	154	66	34	55	67
7	28	32	79	250	138	136	119	154	63	32	44	60
8	28	32	70	184	147	126	129	170	62	30	39	53
9	27	32	63	154	1770	122	136	170	59	40	43	48
10	28	30	58	128	843	124	138	158	61	77	36	43
11	28	28	53	101	525	126	136	130	57	54	34	39
12	27	28	50	92	390	145	137	115	54	42	34	38
13	27	27	46	84	312	189	133	109	55	40	31	108
14	25	26	49	68	267	320	122	103	53	38	32	127
15	25	27	44	67	242	735	113	117	52	34	29	116
16	28	30	41	54	232	546	211	137	57	27	29	130
17	45	28	40	45	234	418	2260	114	56	68	31	105
18	97	26	36	42	219	338	966	105	51	43	29	97
19	67	27	32	43	199	286	587	96	49	40	27	99
20	51	26	32	121	184	253	445	115	51	41	23	82
21	43	26	59	1360	175	224	334	129	49	36	27	72
22	43	25	264	931	159	194	274	116	47	38	21	66
23	46	26	303	1600	145	172	234	115	44	75	21	62
24	40	31	286	811	136	161	209	110	41	68	83	57
25	39	28	239	494	124	148	193	102	39	67	120	59
26	51	28	202	329	117	134	658	106	38	50	70	66
27	63	39	184	245	138	122	878	101	37	42	51	59
28	62	40	163	199	184	112	513	99	38	59	44	55
29	55	38	139	159	---	106	379	104	37	44	39	49
30	51	51	125	141	---	101	337	94	35	43	36	47
31	48	---	123	219	---	100	---	86	---	43	218	---
TOTAL	1216	966	3668	11032	8239	6498	10351	4244	1620	1398	1403	2460
MEAN	39.2	32.2	118	356	294	210	345	137	54.0	45.1	45.3	82.0
MAX	97	51	303	1600	1770	735	2260	288	79	77	218	210
MIN	21	25	32	42	117	100	94	86	35	27	21	38
CFSM	.38	.31	1.14	3.45	2.85	2.04	3.35	1.33	.52	.44	.44	.80
IN.	.44	.35	1.32	3.98	2.97	2.34	3.73	1.53	.58	.50	.51	.89

CAL YR 1981 TOTAL 40032 MEAN 110 MAX 3250 MIN 19 CFSM 1.07 IN 14.44
WTR YR 1982 TOTAL 53095 MEAN 145 MAX 2260 MIN 21 CFSM 1.41 IN 19.15

RESERVOIRS IN CUMBERLAND RIVER BASIN, IN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russel County, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi (16 km) southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi^2 (14,994 km^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 (166.12 m) higher.

Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 tainter gates 37 ft (11 m) high by 50 ft (15 m) wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft (231.648 m) top of gates, is 3,070,000 cfs-days (7,512 hm^3), of which 1,056,000 cfs-days (2,584 hm^2) above elevation 723.00 ft (220.370 m), crest of spillway, are reserved for flood control and 1,080,000 cfs-days (2,643 hm^3) between elevation 673.00 ft (205.130 m), minimum power pool, and 723.00 ft (220.370 m) are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days (2,285 hm^3) below elevation 673.00 ft (205.130 m) is dead storage. Reservoir is used for flood control, power, navigation, and recreation. Records furnished by Corps of Engineers. Revisions.--WSP 1556: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 2,673,800 cfs-days (6,543 hm^3) Apr. 15, 1962, elevation, 747.12 ft (227.722 m); minimum, after first filling, 934,400 cfs-days (2,286 hm^3) Jan. 1, 1956, elevation, 673.01 ft (205.133 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 2,025,000 cfs-days (4,955 hm^3) June 7, elevation, 723.44 ft (220.505 m); minimum, 1,150,800 cfs-days (2,816 hm^3) Nov. 26, elevation, 684.50 ft (208.636 m).

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 mi (5 km) east of Celina, and 7.3 mi (11.7 km) upstream from mouth. DRAINAGE AREA, 936 mi^2 (2,424 km^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.

Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft (4 m) high by 60 ft (18 m) 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 (202.08 m), top of gates, is 859,800 cfs-days (2,104 hm^3) of which 177,500 cfs-days (434.3 hm^3) between elevations 663.00 ft (202.082 m) and 651.00 ft (198.425 m), crest of spillway, are reserved for flood control, and 250,200 cfs-days (612.2 hm^3) between elevations 651.00 ft (198.425 m) and 631.00 ft (192.329 m), ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days (1,057 hm^3) below elevation 631.00 ft (192.329 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1306: 1944. WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 828,600 cfs-days (2,028 hm^3) Mar. 15, 1975, elevation, 660.98 ft (201.467 m); minimum, after first filling, 428,000 cfs-days (1,047 hm^3) Sept. 11, 1944, elevation, 630.63 ft (192.216 m).

EXTREMES FOR CURRENT YEAR Maximum contents, 677,300 cfs-days (1,657 hm^3) April 27, elevation, 650.64 ft (198.315 m); minimum, 487,200 cfs-days (1,192 hm^3) Nov. 26, elevation, 635.83 ft (193.801 m).

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 051301086 at Cordell Hull Dam on Cumberland River, 2.7 mi (4.3 km) north of Carthage, and at mile 313.5 (504.4 km). DRAINAGE AREA, 8,095 mi^2 (20,966 km^2). PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five taintor gates, each 41 ft (12 m) high and 45 ft (14 m) 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 (154.84 m), maximum surcharge pool, is 156,700 cfs-days (383.4 hm^3), of which 53,400 cfs-days (130.7 hm^3) is controlled storage between elevations 508.0 ft (154.84 m) and 499.0 ft (152.10 m), ordinary minimum pool. Contents of 5,000 cfs-days (12.24 hm^3) between elevation of 499.0 ft (152.10 m) and 500.0 ft (152.40 m) full winter pool, is available for power production. Contents of 48,400 cfs-days (118.4 hm^3) above 500.0 ft (152.40 m) is available for flood control during the winter, and 26,100 cfs-days (63.87 hm^3) above 504.0 ft (153.62 m), full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days (252.8 hm^3) below elevation 499.0 ft (152.10 m) is dead storage. Reservoir is used for navigation, power, and flood control. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 156,700 cfs-days (383.4 hm^3) Mar. 13, 1975, elevation, 508.00 ft (154.838 m); minimum, after first filling to ordinary minimum pool, 96,700 cfs-days (236.6 hm^3) Apr. 18, 1974, elevation, 497.65 ft (151.684 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 139,700 cfs-days (341.8 hm^3) Aug. 16, elevation, 505.45 ft (154.061 m); minimum, 103,200 cfs-days (252.5 hm^3) Jan. 26, elevation, 498.98 ft (152.089 m).

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at penstock inlet on Collins River, 700 ft (213 m) southwest of powerhouse of Tennessee Valley Authority, 1.5 mi (2.4 km) northwest of Rock Island, 1.8 mi (2.9 km) upstream from mouth of Collins River, and 2.0 mi (3.2 km) upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi^2 (4,343 km^2). PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft (4 m) high by 25 ft (8 m) wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft (11 m) in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft (245.46 m) top of gates, is 25,900 cfs-days (63.38 hm^3), of which 18,700 cfs-days (45.76 hm^3) are controlled storage above elevation 780.0 ft (237.74 m), normal minimum pool. Contents of 1,500 cfs-days (3.671 hm^3) below elevation 762.0 ft (232.26 m) is dead storage. Reservoir is used primarily for power. Records furnished by Tennessee Valley Authority. Revisions.--WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight elevation, 817.48 ft (249.168 m) Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days (4.160 hm^3) Aug. 19, 1918, elevation, 756.3 ft (230.52 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 27,000 cfs-days (66.07 hm^3) Jan. 23, elevation, 806.28 ft (245.754 m); minimum, 12,400 cfs-days (30.34 hm^3) June 10, elevation, 789.23 ft (240.557 m).

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

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 (16 km) north of Smithville, 14 mi (23 km) southeast of Carthage, and at mile 26.6 (42.8 km). DRAINAGE AREA, 2,174 mi^2 (5,631 km^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 (402 m) upstream at same datum.

Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft (11 m) high by 50 ft (15 m) 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 (208.79 m), top of gates, is 1,054,800 cfs-days (2,581 hm^3), of which 384,500 cfs-days (940.9 hm^3) between 685.0 ft (208.79 m) and 648.0 ft (197.51 m), crest of spillway, are reserved for flood control, and 248,000 cfs-days (606.9 hm^3) between elevations 648.0 ft (197.51 m) and 618.0 ft (188.37 m), ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days (1,033 hm^3) below 618.0 ft (188.37 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1910: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,004,400 cfs-days (2,458 hm^3) Feb. 10, 1950, elevation, 680.6 ft (207.45 m); minimum, after first filling, 171,000 cfs-days (418.4 hm^3) Dec. 1, 2, 1949, elevation 576.1 ft (175.60 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 678,300 cfs-days (1,660 hm^3), Jan. 6, elevation, 648.87 ft (197.776 m); minimum, 521,800 cfs-days (1,277 hm^3) Nov. 27, elevation, 630.84 ft (192.280 m).

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 (3.2 km) west of Hendersonville, 10 mi (16 km) northeast of the State capitol in Nashville, and at mile 216.2 (347.9 km). DRAINAGE AREA, 11,673 mi^2 (30,233 km^2). PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is 408.5 ft (124.51 m) National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft (12 m) high and 45 ft (14 m) 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 (137.16 m), maximum surcharge pool, 274,600 cfs-days (671.9 hm^3) of which 63,000 cfs-days (154.2 hm^3) between elevations 450.0 ft (137.16 m) and 445.0 ft (135.64 m), 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 (77.82 hm^3) between elevations 445.0 ft (135.64 m) and 442.0 ft (134.72 m), ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days (440.0 hm^3) below elevation 442.0 ft (1[illegible].72 m), is dead storage. Reservoir is used for navigation and power. Records furnished by Corps of Engine[illegible]rs. Revisions.--WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 276,200 cfs-days (675.9 hm^3) Mar. 13, 1975, elevation, 450.11 ft (137.194 m); minimum, after first filling to ordinary minimum pool, 179,400 cfs-days (439.0 hm^3) Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft (134.709 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 228,700 cfs-days (559.6 hm^3), Aug. 17, elevation, 446.46 ft (136.081 m); minimum, 184,900 cfs-days (452.5 hm^3) Oct. 20, elevation, 442.51 ft (134.877 m).

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 (4.2 km) east of Donelson, and 6.8 mi (10.9 km) above mouth. DRAINAGE AREA, 892 mi^2 (2,310 km^2). PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft (12 m) high by 45 ft (14 m) 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 (153.77 m), maximum controlled pool, is 328,700 cfs-days (804.3 hm^3) of which 193,600 cfs-days (473.7 hm^3) is controlled storage between elevations 504.5 ft (153.77 m) and 480.0 ft (146.30 m), ordinary minimum pool. Contents of 17,200 cfs-days (42.09 hm^3) between elevations 480.0 ft (146.30 m) and 483.0 ft (147.22 m), full winter pool, is available for power production. Contents of 176,400 cfs-days (431.7 hm^3) above 483.0 ft (147.22 m) is available for flood control during the winter, and 131,100 cfs-days (320.8 hm^3) above 490.0 ft (149.35 m), full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days (330.6 hm^3) below elevation 480.0 ft (146.30 m) is dead storage. Reservoir is used for flood control, power, recreation, and wildlife. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 316,400 cfs-days (774.2 hm^3) Mar. 15, 1975, elevation, 503.41 ft (153.439 m); minimum, after first filling to ordinary minimum pool, 109,500 cfs-days (267.9 hm^3) Dec. 5, 1968, elevation, 474.75 ft (144.704 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 217,600 cfs-days (532.5 hm^3) Aug. 18, elevation, 492.69 ft (150.172 m); minimum, 138,700 cfs-days (339.4 hm^3) Feb. 26, elevation, 480.65 ft (146.502 m).

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 (15 km) west of Ashland City, 16 mi (26 km) southeast of the courthouse in Clarksville, and at mile 148.7 (239.3 km). DRAINAGE AREA, 14,159 mi^2 (36,672 km^2).

Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft (8 m) high by 60 ft (18 m) wide. Total capacity at elevation 385.0 ft (117.35 m), normal pool, is 52,200 cfs-days (127.7 hm^3), of which 9,800 cfs-days (23.98 hm^3) are controlled storage. Records of contents not published herein.

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi (2.3 km) northeast of Grand Rivers, Ky., and at mile 30.6 (49.2 km). DRAINAGE AREA, 17,598 mi^2 (45,579 km^2). PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft (370 m) upstream from Barkley Dam at same datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates each 50 ft (15 m) high by 55 ft (17 m) wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft (107.90 m) Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft (114.30 m), top of gates, is 1,049,600 cfs-days (2,568 hm^3), of which 742,000 cfs-days (1,816 hm^3) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Contents of 130,500 cfs-days (319.3 hm^3) between ordinary minimum pool elevation, 354.0 ft (107.90 m), and full pool elevation, 359.0 ft (109.42 m), is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft (105.46 m), contents 171,000 cfs-days (418.4 hm^3). 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 (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 369.10 ft (112.502 m) Mar. 28, 1973; minimum after reaching permanent pool elevation, 353.20 ft (107.655 m) Dec. 20, 1976. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum contents, 471,000 cfs-days (1,153 hm^3) Apr. 18; maximum elevation, 359.72 ft (109.643 m) Apr. 19; minimum contents, 308,500 cfs-days (754.9 hm^3) Dec. 18; minimum elevation, 353.20 ft (107.655 m) Jan. 16.

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	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.....	692.34	1308800	-	641.39	554800	-	503.98	130500	-
Oct. 31.....	688.35	1227300	-81500	638.49	519000	-35800	501.83	118100	-12400
Nov. 30.....	685.45	1169400	-57900	636.90	499800	-19200	500.74	112200	-5900
Dec. 31.....	691.10	1283200	+113800	637.97	512700	+12900	499.77	107100	-5100
CAL YR 1981			+270100			+57800			-700
Jan. 31.....	711.85	1741100	+457900	646.04	614800	+102100	500.97	113400	+6300
Feb. 28.....	715.75	1834300	+93200	647.24	630800	+16000	499.63	106400	-7000
Mar. 31.....	719.11	1916500	+82200	648.47	647400	+16600	500.60	111400	+5000
Apr. 30.....	721.05	1964800	+48300	650.35	673400	+26000	504.30	132500	+21100
May 31.....	721.30	1971000	+6200	649.24	657900	-15500	503.25	126200	-6300
June 30.....	715.30	1823500	-147500	646.78	624600	-33300	504.08	131100	+4900
July 31.....	705.35	1590900	-232600	643.90	586800	-37800	504.23	132000	+900
Aug. 31.....	696.34	1392800	-198100	644.92	600100	+13300	505.25	138400	+6400
Sept. 30.....	696.12	1388200	-4600	644.60	595900	-4200	503.46	127400	-11000
WTR YR 1982			+79400			+41100			-3100
	03422000 GREAT FALLS LAKE			03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30.....	797.41	18500	-	637.49	577100	-	444.20	202700	-
Oct. 31.....	802.03	22600	+4100	633.22	541300	-35800	443.97	200200	-2500
Nov. 30.....	803.69	24200	+1600	632.54	535700	-5600	445.05	212200	+12000
Dec. 31.....	789.95	12900	-11300	635.15	557400	+21700	444.44	205300	-6900
CAL YR 1981			+1400			+98300			-500
Jan. 31.....	805.35	25900	+13000	644.20	635800	+78400	444.58	206900	+1600
Feb. 28.....	805.70	26300	+400	639.85	597500	-38300	444.51	206100	-800
Mar. 31.....	803.25	23800	-2500	645.00	643000	+45500	444.64	207600	+1500
Apr. 30.....	802.68	23200	-600	645.60	648400	+5400	444.63	207400	-200
May 31.....	793.02	15100	-8100	645.59	648300	-100	444.25	203200	-4200
June 30.....	793.22	15200	+100	640.97	607200	-41100	444.24	203100	-100
July 31.....	799.46	20300	+5100	639.54	594800	-12400	444.65	207700	+4600
Aug. 31.....	798.60	19500	-800	640.27	601100	+6300	444.72	208400	+700
Sept. 30.....	794.04	15800	-3700	637.09	573800	-27300	444.23	203000	-5400
WTR YR 1982			-2700			-3300			+300
	03430050 J. PERCY PRIEST LAKE			03438210 LAKE BARKLEY‡					
Sept. 30.....	491.18	206200	-	355.38	343200	-			
Oct. 31.....	487.80	182300	-23900	354.90	330100	-13100			
Nov. 30.....	485.11	165000	-17300	354.48	327200	-2900			
Dec. 31.....	481.23	142000	-23000	354.13	317100	-10100			
CAL YR 1981			-2200			+1700			
Jan. 31.....	482.75	150800	+8800	354.23	333100	+16000			
Feb. 28.....	482.12	147100	-3700	354.84	344200	+11100			
Mar. 31.....	484.24	159700	+12600	355.82	359600	+15400			
Apr. 30.....	490.31	199900	+40200	359.66	464600	+105000			
May 31.....	490.22	199200	-700	359.28	448900	-15700			
June 30.....	489.98	197500	-1700	359.03	439300	-9600			
July 31.....	490.26	199500	+2000	358.03	416600	-22700			
Aug. 31.....	489.71	195500	-4000	357.07	396400	-20200			
Sept. 30.....	489.59	194700	-800	355.28	343200	-53200			
WTR YR 1982			-11500			0			

‡ Contents based on backwater profile.

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 (60 m) upstream from bridge on U. S. Highway 411, 1.0 mi (1.6 km) northeast of Newport city limits, 3.7 mi (6.0 km) upstream from Pigeon River, and at mile 77.5 (124.7 km).

DRAINAGE AREA.--1,858 mi^2 (4,812 km^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 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 (308.339 m) National Geodetic Vertical Datum of 1929. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--Records good. Diurnal fluctuation during low flow caused by powerplants above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--64 years (water years 1904-05, 1921-82), 2,979 ft^3/s (84.37 m^3/s), 21.77 in/yr (553 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,300 ft^3/s (2,160 m^3/s) Aug. 30, 1940, gage height, 19.25 ft (5.867 m); minimum, 208 ft^3/s (5.89 m^3/s) Oct. 23, 1952, gage height, 0.97 ft (0.296 m); minimum daily, 240 ft^3/s (6.80 m^3/s) Sept. 9, 1925; minimum gage height, 0.91 ft (0.277 m) Sept. 20, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft (7.3 m), present datum, discharge, estimated, 110,000 ft^3/s (3,120 m^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 (7.01 m) present datum, discharge, estimated, 101,000 ft^3/s (2,860 m^3/s); and July 17, 1916, gage height, 22.5 ft (6.86 m), present datum, discharge, estimated, 97,000 ft^3/s (2,750 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 16,000 ft^3/s (453 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Jan. 4	1530	20400	578	9.42	2.871	Feb. 3	1530	*38100	1080	13.69	4.173

Minimum discharge, 322 ft^3/s (9.12 m^3/s) Dec. 12, result of freezeup; minimum daily, 450 ft^3/s (12.7 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	470	878	983	4110	3420	3480	2300	3500	4510	1550	7400	1350
2	585	800	1240	4870	4510	3440	2200	3100	3610	1280	4960	2960
3	613	774	1930	4010	22300	3350	2110	2880	2780	1270	3460	2200
4	543	763	1660	14900	18300	3210	2130	2540	2430	1290	2570	1710
5	490	733	1330	10900	12400	3140	2280	2490	2560	1330	2170	1450
6	464	758	1130	7440	9530	2980	2140	2350	2280	1280	1970	1290
7	496	746	1030	5440	6740	5700	2100	2280	2210	1190	1760	1210
8	493	707	950	3590	4510	7660	2050	2290	1940	1270	1660	1130
9	472	663	904	2930	4170	5700	2240	2340	1660	1550	1890	1090
10	453	628	860	2440	4850	4470	2480	2190	1730	1490	2010	1040
11	450	623	774	1970	4430	3930	2380	2040	2200	1620	1990	995
12	495	628	614	1710	3800	3550	2180	1910	2160	1940	2440	995
13	565	623	732	1910	3530	3350	2090	1850	2820	1900	2490	1050
14	581	623	795	1940	3260	3420	2070	1770	4160	3740	1840	1150
15	552	613	893	1860	3030	3760	2040	1750	2950	2670	1680	1090
16	537	617	1490	1870	3280	5020	2110	1830	2330	2200	1650	1090
17	528	672	1700	1660	5910	4500	2200	1960	1960	2320	1490	1020
18	539	707	1460	1260	7030	4180	2690	1790	1900	2140	1650	961
19	539	692	1260	1790	5770	3730	2690	1860	1840	2220	1500	934
20	527	699	950	2000	4700	3460	2540	2040	1770	2400	1800	936
21	511	686	672	4470	4110	3610	2400	2180	1700	1930	1550	964
22	512	872	893	5840	3610	4120	2260	2020	1550	1660	1240	954
23	577	914	1270	5040	3220	3520	2140	2020	1540	2760	1340	935
24	637	814	1380	5410	2980	3140	2040	2230	1260	2550	1380	993
25	667	890	1600	4370	2830	2900	1990	2460	1370	2570	1420	903
26	690	891	2580	3440	2650	2850	2670	2440	1390	2120	1420	821
27	1120	882	2730	2700	2680	2500	5460	4510	1740	1790	1260	921
28	2240	1050	2190	2500	3240	2460	7070	4410	1950	1690	1280	841
29	1630	1020	1880	2310	---	2340	5490	5100	1750	2230	1210	822
30	1190	950	1690	2190	---	2270	4180	4080	1680	3570	1130	811
31	971	---	1560	2130	---	2280	---	3230	---	3310	1080	---
TOTAL	21137	22916	41130	119000	160790	114020	80720	79440	65730	62830	62490	34616
MEAN	682	764	1327	3839	5743	3678	2691	2563	2191	2027	2016	1154
MAX	2240	1050	2730	14900	22300	7660	7070	5100	4510	3740	7400	2960
MIN	450	613	614	1260	2650	2270	1990	1750	1260	1190	1080	811
CFSM	.37	.41	.71	2.07	3.09	1.98	1.45	1.38	1.18	1.09	1.09	.62
IN.	.42	.46	.82	2.38	3.22	2.28	1.62	1.59	1.32	1.26	1.25	.69

CAL YR 1981 TOTAL 587399 MEAN 1609 MAX 7510 MIN 450 CFSM .87 IN 11.76
WTR YR 1982 TOTAL 864819 MEAN 2369 MAX 22300 MIN 450 CFSM 1.28 IN 17.31

03461200 COSBY CREEK ABOVE COSBY, TN

LOCATION.--Lat 35°46'58", long 83°13'03", Cocke County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park on left retaining wall of creek, 400 ft (120 m) downstream from Crying Creek, 600 ft (180 m) upstream from bridge on State Highway 32, 3,600 ft (1,100 m) upstream from Stillhouse Branch, 2.4 mi (3.9 km) southeast of Cosby, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--10.1 mi^2 (26.2 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1959-66 (1959-65 published as "near Cosby"); October 1966 to current year.

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 1,644.07 ft (501.113 m) National Geodetic Vertical Datum of 1929. Oct. 15, 1958, to Sept. 30, 1966, crest-stage gage at site 600 ft (180 m) downstream, at datum 1.08 ft (0.329 m) lower (gage heights adjusted to present datum in WSP 2110). Oct. 1, 1966 to June 13, 1977, water-stage recorder at site 600 ft (180 m) downstream at present datum.

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

AVERAGE DISCHARGE.--16 years, 28.1 ft^3/s (0.796 m^3/s), 37.41 in/yr (950 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft^3/s (48.7 m^3/s), Mar. 16, 1973, gage height, 4.11 ft (1.253 m) former site, about 17.1 ft (5.21 m) present site; minimum, 1.4 ft^3/s (0.040 m^3/s), Sept. 30, Oct. 1, 2, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0600	735	20.8	15.49	4.721	Feb. 3	0715	*767	21.7	15.55	4.740

Minimum discharge, 3.9 ft^3/s (0.110 m^3/s) Oct. 18.

REVISIONS.--Revised maximum discharges and revised peak discharges above base of 300 ft^3/s (8.50 m^3/s) for water years 1977-81 and revised daily discharges, in cubic feet per second, for high water period in 1979, are given below. These figures supercede those published in the reports for WRD, TN 1977-81.

Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1977	June 24, 1977	2100	629	17.8	15.28	4.657
	Aug. 17, 1977	1630	418	11.8	14.78	4.505
	Sept. 7, 1977	2315	*724	20.5	15.47	4.715
1978	Jan. 8, 1978	2030	529	15.0	15.06	4.590
	Jan. 25, 1978	1245	*719	20.4	15.46	4.712
	Mar. 14, 1978	0900	528	16.5	15.18	4.627
	May 23, 1978	1945	392	11.1	14.71	4.484
1979	Dec. 9, 1978	1030	386	10.9	14.69	4.478
	Jan. 20, 1979	2315	773	21.9	15.56	4.743
	Mar. 4, 1979	1030	*1300	36.8	16.36	4.987
	Apr. 3, 1979	1145	410	11.6	14.76	4.499
	May 24, 1979	2330	375	10.6	14.66	4.468
	Sept. 21, 1979	2145	389	11.0	14.70	4.481
1980	Mar. 21, 1980	0415	*392	11.1	14.71	4.484
1981	Feb. 2, 1981	0600	327	9.26	14.52	4.426
	Feb. 11, 1981	0230	348	9.86	14.58	4.444
	Mar. 30, 1981	1115	302	8.55	14.45	4.404
	Apr. 20, 1981	2100	*421	11.9	14.79	4.508
	June 7, 1981	0215	323	9.15	14.51	4.423

Mar. 4, 1979 ---- 614 Mar. 5, 1979 ---- 285 Mar. 6, 1979 ---- 135

Month	cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1979	2,371	614	29	76.5	7.57	8.73
Water year 1978-79	11,854.2	614	3.3	32.5	3.22	43.67
Calendar year 1979	12,799.6	614	7.0	35.1	3.48	47.15

03461200 COSBY CREEK ABOVE COSBY, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	8.8	35	87	61	48	24	28	27	24	117	83
2	8.1	8.3	34	64	63	44	22	24	23	21	52	122
3	5.4	7.8	25	157	386	40	22	21	22	19	33	67
4	4.9	7.3	21	375	135	37	20	19	21	21	25	44
5	4.9	7.0	17	129	82	40	19	17	20	17	21	32
6	5.0	6.8	15	78	60	36	18	17	17	15	19	25
7	4.9	6.1	13	56	47	70	17	16	16	15	17	21
8	4.8	5.9	13	44	40	56	18	17	15	14	16	18
9	4.6	5.5	11	37	51	47	17	15	14	24	17	16
10	4.4	5.5	11	33	54	42	16	14	61	20	14	14
11	4.4	5.1	10	33	47	38	15	13	50	17	22	13
12	4.4	4.9	9.7	33	41	34	15	12	33	15	29	12
13	4.4	4.8	9.2	25	38	43	14	12	120	14	22	12
14	4.4	4.8	11	21	33	49	14	11	78	12	18	12
15	4.4	4.6	12	19	30	58	14	11	47	11	16	11
16	4.4	4.9	11	18	44	58	13	11	35	12	17	10
17	4.4	10	12	17	69	57	14	10	29	13	17	9.7
18	4.4	7.5	11	17	58	49	18	9.7	26	13	17	9.7
19	4.6	6.8	10	17	54	44	15	16	22	12	14	10
20	4.6	7.3	11	17	47	38	14	17	19	10	13	9.4
21	4.6	6.8	10	112	42	48	15	19	17	9.7	12	9.7
22	4.4	6.1	12	75	36	46	14	22	16	10	11	11
23	8.0	5.9	20	94	33	41	14	26	15	10	11	9.1
24	8.0	9.7	25	80	29	36	13	23	14	9.1	17	8.6
25	6.6	8.0	26	54	31	33	18	20	13	8.6	13	8.6
26	21	7.5	23	42	28	33	34	20	19	10	12	8.8
27	29	41	23	35	44	28	38	21	21	29	14	9.1
28	19	40	23	31	51	26	78	55	40	66	19	8.3
29	15	25	28	27	---	24	47	80	46	78	15	8.0
30	12	21	27	25	---	23	34	42	29	39	13	7.8
31	9.7	---	64	57	---	24	---	30	---	96	13	---
TOTAL	233.1	300.7	582.9	1909	1734	1290	644	668.7	925	684.4	666	639.8
MEAN	7.52	10.0	18.8	61.6	61.9	41.6	21.5	21.6	30.8	22.1	21.5	21.3
MAX	29	41	64	375	386	70	78	80	120	96	117	122
MIN	4.4	4.6	9.2	17	28	23	13	9.7	13	8.6	11	7.8
CFSM	.75	.99	1.86	6.10	6.13	4.12	2.13	2.14	3.05	2.19	2.13	2.11
IN.	.86	1.11	2.15	7.03	6.39	4.75	2.37	2.46	3.41	2.52	2.45	2.36

CAL YR 1981 TOTAL 8457.8 MEAN 23.2 MAX 175 MIN 4.1 CFSM 2.30 IN 31.15
WTR YR 1982 TOTAL 10277.6 MEAN 28.2 MAX 386 MIN 4.4 CFSM 2.79 IN 37.85

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 (30 m) upstream from bridge on U. S. Highway 25 and 70 at Newport, 0.6 mi (1.0 km) downstream from Morell Branch, and at mile 6.8 (10.9 km).

DRAINAGE AREA.--666 mi^2 (1,725 km^2).

PERIOD OF RECORD.--September 1900 to September 1929, October 1944 to September 1946, August 1948 to February 1982 (discontinued). Monthly discharge only for some periods, 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 (316.614 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft (0.610 m) higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi (7.7 km) downstream at datum 35.85 ft (10.927 m) lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days (30.59 hm). The largest of these, Lake Walters, usable capacity, 10,400 cfs-days (25.45 hm), was completed in 1929. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--64 years (water years 1901-29, 1945-46, 1949-81), 1,250 ft^3/s (35.40 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft^3/s (1,420 m^3/s) Feb. 28, 1902, gage height, 23.4 ft (7.13 m), present datum, but due to removal of dam 1.3 mi (2.1 km) downstream in 1945, stage for this flood would be about 1.9 ft (0.58 m) lower under present conditions, from reports of Tennessee Valley Authority; minimum, 38 ft^3/s (1.08 m^3/s) Oct. 5, 1952, Sept. 13, 1954; minimum daily, 48 ft^3/s (1.36 m^3/s) Sept. 21, 28, 1953; minimum gage height, 1.68 ft (0.512 m), present datum, Sept. 13, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft (7.0 m), present datum, about 21.1 ft (6.43 m), present conditions, due to removal of mill dam in 1945, discharge, 48,000 ft^3/s (1,360 m^3/s), and flood of August 30, 1940, reached a stage of 19.3 ft (5.88 m), present datum, about 17.4 ft (5.30 m) present conditions, due to removal of mill dam in 1945, discharge, 36,000 ft^3/s (1,020 m^3/s), from reports f Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to February 1982: Peak discharges above base of 7,500 ft^3/s (212 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0930	8840	250	8.32	2.536	Feb. 3	2115	*13700	388	10.23	3.118

Minimum discharge, 65 ft^3/s (1.84 m^3/s) Oct. 18; minimum daily, 66 ft^3/s (1.87 m^3/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	101	1530	2560	2230							
2	372	183	1230	2440	2570							
3	97	542	1080	2760	8000							
4	98	541	1290	6400	6940							
5	73	322	624	3570	4070							
6	230	167	389	2920	3080							
7	390	103	530	2710	2700							
8	458	261	432	2390	2580							
9	464	218	499	2480	2840							
10	247	102	923	1630	2930							
11	71	82	718	1930	2760							
12	274	174	195	1510	2640							
13	275	182	167	1270	2590							
14	173	261	419	1170	2420							
15	142	197	941	876	2030							
16	259	388	765	301	2410							
17	98	988	802	863	3200							
18	66	1140	491	874	3040							
19	184	471	578	613	2760							
20	168	140	516	1100	2040							
21	186	284	444	2970	1620							
22	146	199	194	3190	1500							
23	118	339	478	3080	1700							
24	204	395	1230	3000	1700							
25	134	593	1450	2400	1650							
26	524	214	607	1530	1800							
27	1550	141	575	1490	1800							
28	632	364	1250	1120	750							
29	223	264	815	1130	---							
30	691	1160	1020	1020	---							
31	294	---	1420	636	---							
TOTAL	8930	10516	23602	61933	76350							
MEAN	288	351	761	1998	2727							
MAX	1550	1160	1530	6400	8000							
MIN	66	82	167	301	750							

AL YR 1981 TOTAL 281521 MEAN 771 MAX 4540 MIN 66

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 (300 m) upstream from bridge on State Highway 81, 3 mi (5 km) northwest of Erwin, 5.2 mi (8.4 km) downstream from North Indian Creek, and at mile 89.0 (143.2 km).

DRAINAGE AREA.--805 mi^2 (2,085 km^2).

WATER-DISCHARGE RECORDS

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.--Water-stage recorder. Datum of gage is 1,519.30 ft (463.083 m) National Geodetic Vertical Datum of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi (5 km) 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 (600 m) downstream at datum 6.33 ft (1.929 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--63 years (water years 1920-82), 1,363 ft^3/s (38.60 m^3/s), 22.99 in/yr (584 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft^3/s (3,120 m^3/s) Nov. 6, 1977, gage height, 21.52 ft (6.559 m), from rating curve extended above 48,000 ft^3/s (1,360 m^3/s) on basis of contracted-opening and slope-area measurements of peak flow; minimum, 85 ft^3/s (2.41 m^3/s) Sept. 8, 9, 1925; minimum gage height, 1.06 ft (0.323 m) Sept. 16, 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft (7.3 m), discharge, 120,000 ft^3/s (3,400 m^3/s), present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,500 ft^3/s (269 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1130	16,100	456	6.59	2.009	Feb. 3	1300	*22200	629	7.89	2.405

Minimum discharge, 197 ft^3/s (5.58 m^3/s) Oct. 1, Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	347	483	2750	2430	1500	1050	1630	1240	549	4900	1340
2	298	334	581	2190	1790	1480	970	1440	1050	466	2090	2250
3	316	319	648	2040	13700	1510	961	1320	877	433	1320	1310
4	286	307	522	10500	7980	1510	948	1180	827	467	1040	906
5	255	317	491	5440	4200	1550	884	1090	1130	500	885	703
6	254	373	454	2830	2990	1580	922	1020	1020	438	834	598
7	248	354	415	2420	2310	3770	905	979	824	448	733	536
8	241	321	404	2170	1910	4300	859	1030	733	534	728	491
9	233	302	401	1690	1920	2840	958	998	679	751	973	455
10	232	294	382	1170	2180	2280	959	891	706	676	1050	430
11	242	288	287	626	1800	1970	895	826	858	1230	798	414
12	256	284	245	842	1600	1760	853	782	722	1570	762	409
13	252	281	302	1040	1560	1680	831	752	1160	1060	688	405
14	241	276	473	1000	1400	1780	846	726	1210	936	616	885
15	235	273	803	896	1320	1780	845	713	883	775	581	1400
16	241	284	1210	784	1860	2120	815	730	748	742	580	1140
17	244	327	871	773	3560	2170	914	832	687	722	646	804
18	243	324	725	773	3390	2320	1110	815	677	819	701	645
19	246	306	562	792	2760	1930	1050	937	631	1660	640	570
20	239	319	369	1180	2310	1790	944	992	586	1180	582	535
21	230	326	317	3370	2000	1770	938	953	538	830	506	524
22	231	312	536	4050	1740	1890	886	834	509	697	475	491
23	261	290	925	2810	1520	1630	835	1040	506	982	453	487
24	337	336	1120	2910	1400	1500	799	1250	494	1010	536	446
25	324	411	1150	2020	1310	1410	801	1050	474	992	538	424
26	415	388	1150	1610	1190	1440	1240	989	493	746	504	422
27	911	427	1060	1200	1270	1310	2390	1340	656	630	441	433
28	863	587	950	1140	1500	1200	4570	1410	713	585	491	442
29	545	598	924	1120	---	1130	2740	1460	670	665	458	405
30	423	496	913	1000	---	1080	1980	1430	634	826	403	380
31	373	---	950	1020	---	1060	---	1210	---	3310	435	---
TOTAL	9916	10401	20623	64156	74900	57040	35698	32649	22935	27229	26387	20680
MEAN	320	347	665	2070	2675	1840	1190	1053	765	878	851	689
MAX	911	598	1210	10500	13700	4300	4570	1630	1240	3310	4900	2250
	201	273	245	626	1190	1060	799	713	474	433	403	380
	.40	.43	.83	2.57	3.32	2.29	1.48	1.31	.95	1.09	1.06	.86
IN.	.46	.48	.95	2.96	3.46	2.64	1.65	1.51	1.06	1.26	1.22	.96

CAL YR 1981 TOTAL 335822 MEAN 920 MAX 8180 MIN 194 CFSM 1.14 IN 15.52
WTR YR 1982 TOTAL 402614 MEAN 1103 MAX 13700 MIN 201 CFSM 1.37 IN 18.61

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
20...	1215	241	98	8.5	1	.65
NOV						
23...	1230	299	71	5.0	1	.81
DEC						
30...	1015	901	55	2.0	4	9.7
FEB						
09...	1150	1830	60	6.0	17	84
MAR						
17...	1045	2240	50	11.0	70	423
MAY						
05...	1430	1030	50	17.5	11	31
JUN						
23...	1030	508	67	20.0	21	29
JUL						
28...	1200	554	58	26.5	18	27
AUG						
25...	1000	496	76	21.0	10	13

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 (90 m) upstream from bridge on county road, 0.4 mi (0.6 km) northwest of Afton, and at mile 3.1 (5.0 km).

DRAINAGE AREA.--13.7 mi^2 (35.5 km^2).

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,459.36 ft (444.813 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--5 years, 13.6 ft^3/s (0.385 m^3/s), 13.48 in/yr (342 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft^3/s (42.8 m^3/s) July 21, 1979, gage height, 7.79 ft (2.374 m), from rating curve extended above 100 ft^3/s (2.83 m^3/s) on basis of area-velocity study; minimum, 1.7 ft^3/s (0.048 m^3/s) several days in December 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s (5.10 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0600	265	7.50	3.75	1.143	July 31	1800	519	14.7	4.91	1.497
Feb. 3	1000	327	9.26	4.07	1.241	Sept. 1	1315	*831	23.5	5.99	1.826

Minimum discharge, 3.1 ft^3/s (0.088 m^3/s) Nov. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	4.7	7.9	29	24	35	19	15	8.3	6.8	67	231
2	5.3	4.5	7.9	21	25	32	18	14	8.7	6.4	17	71
3	5.3	4.2	7.3	86	184	29	18	13	7.8	6.5	13	21
4	5.3	4.2	6.7	149	52	27	17	13	7.6	6.6	12	16
5	5.4	4.2	6.4	42	38	25	17	12	8.3	6.8	10	14
6	5.8	4.2	5.8	33	35	25	17	12	7.7	6.3	9.9	12
7	5.8	4.2	5.5	30	30	64	17	12	7.5	6.1	9.2	11
8	5.5	4.0	5.5	27	30	49	17	12	7.2	6.5	8.8	10
9	5.3	3.8	5.0	21	58	36	17	12	7.1	9.8	10	9.9
10	5.3	3.8	4.7	18	54	32	17	11	19	6.7	8.9	9.6
11	5.2	3.8	4.5	15	39	29	16	11	10	6.7	8.4	9.4
12	5.0	3.6	4.2	15	33	27	15	11	18	6.6	9.5	8.9
13	4.7	3.6	4.2	15	33	26	15	10	24	6.4	7.8	8.9
14	4.7	3.4	4.2	15	33	26	15	10	13	6.3	7.6	8.9
15	4.7	3.4	5.0	14	30	31	14	9.8	10	6.1	7.0	9.7
16	4.7	3.4	7.3	14	38	31	14	9.4	9.1	6.1	7.0	8.6
17	4.5	3.4	7.6	12	55	50	14	9.6	8.6	9.9	7.0	7.9
18	4.3	3.4	7.9	12	55	32	14	9.6	8.4	7.3	6.9	7.5
19	4.2	3.1	7.6	11	48	29	14	9.2	7.8	6.6	6.4	7.3
20	4.2	3.8	7.6	27	39	27	14	8.9	7.5	6.3	6.1	7.3
21	4.2	4.0	7.0	59	35	32	13	8.9	7.3	6.1	6.1	7.3
22	4.2	4.0	10	31	31	30	13	9.0	7.3	5.8	6.1	7.2
23	6.1	3.4	22	37	29	26	12	8.9	7.0	5.9	6.2	6.9
24	7.6	6.4	20	30	27	24	12	8.9	6.9	5.8	6.8	6.7
25	6.1	6.7	16	24	25	23	13	8.9	6.7	6.0	6.9	6.4
26	10	5.5	16	21	23	22	28	8.8	6.8	5.7	5.8	6.4
27	8.9	33	16	19	63	21	49	13	6.8	5.8	5.5	6.1
28	7.2	18	16	18	52	20	23	9.3	7.0	6.7	5.5	5.9
29	6.4	10	15	17	---	20	18	9.2	7.4	9.4	5.5	5.8
30	5.3	8.2	14	16	---	19	16	8.4	8.4	8.8	5.4	5.8
31	5.0	---	22	17	---	19	---	8.2	---	173	7.2	---
TOTAL	171.5	175.9	296.8	895	1218	918	516	326.0	277.2	375.8	306.5	554.4
MEAN	5.53	5.86	9.57	28.9	43.5	29.6	17.2	10.5	9.24	12.1	9.89	18.5
MAX	10	33	22	149	184	64	49	15	24	173	67	231
MIN	4.2	3.1	4.2	11	23	19	12	8.2	6.7	5.7	5.4	5.8
CFSM	.40	.43	.70	2.11	3.18	2.16	1.26	.77	.67	.88	.72	1.35
IN.	.47	.48	.81	2.43	3.31	2.49	1.40	.89	.75	1.02	.83	1.51

CAL YR 1981 TOTAL 2904.1 MEAN 7.96 MAX 102 MIN 2.3 CFSM .58 IN 7.89
WTR YR 1982 TOTAL 6031.1 MEAN 16.5 MAX 231 MIN 3.1 CFSM 1.20 IN 16.38

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TN

LOCATION.--Lat 35°52'42", long 83°34'40", Sevier County, Hydrologic Unit 06010107, on left bank, 0.2 mi (0.3 km) downstream from West Prong Little Pigeon River, 0.6 mi (1.0 km) north of intersection of U. S. Highway 441 and State Highway 66 in Sevierville, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--353 mi^2 (914 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to February 1982 (discontinued). Prior to November 1920 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1921-34. WSP 1336: 1921(M), 1922, 1923(m), WRD TN 1972: 1969(M), 1970(M), 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 879.45 ft (268.056 m) National Geodetic Vertical Datum of 1929. Nov. 23, 1920, to June 13, 1928, nonrecording gage, and June 14, 1928, to June 1, 1966; water-stage recorder, at site 0.1 mi (0.2 km) upstream at datum 1.99 ft (0.607 m) higher. June 2, 1966, to June 5, 1967, at site 1.5 mi (2.4 km) downstream at datum 7.31 ft (2.228 m) lower.

REMARKS.--Records good. Some regulation at low flow caused by small mills above station prior to 1967. During the period April 1966 to July 1967, Tennessee Valley Authority constructed a flood-control project for town of Sevierville, widening and deepening Little Pigeon River through the town and 1.8 mi (2.9 km) downstream, and relocating the lower portion of West Prong Little Pigeon River. The present gage is located on the new dredged channel.

AVERAGE DISCHARGE.--61 years (1921-81), 570 ft^3/s (16.14 m^3/s), 21.93 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft^3/s (1,160 m^3/s) Mar. 26, 1965, gage height, 16.09 ft (4.904 m), site and datum then in use; minimum, 2.8 ft^3/s (0.079 m^3/s) Sept. 21, 1925; minimum gage height, 0.08 ft (0.024 m) Dec. 23, 1965, site and datum then in use; minimum daily discharge, 8.4 ft^3/s (0.24 m^3/s) Sept. 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 18 ft (5.5 m), discharge, 55,000 ft^3/s (1,560 m^3/s); that of Apr. 1, 1896, 16.8 ft (5.12 m), discharge, 46,000 ft^3/s (1,300 m^3/s); and that of Mar. 7, 1867, 16.5 ft (5.03 m), discharge, 43,000 ft^3/s (1,220 m^3/s) all at site 0.1 mi (0.2 km) upstream, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.- October 1981 to February 1982: Maximum discharge, 15,000 ft^3/s (425 m^3/s) at 0955 hours Jan. 4, gage height, 8.59 ft (2.618 m); minimum, 86 ft^3/s (2.44 m^3/s) Oct. 17, gage height, 1.18 ft (0.360 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	197	1400	1310	1260							
2	166	178	1190	975	905							
3	161	165	735	3290	7290							
4	125	157	532	8630	2630							
5	123	155	406	2310	1580							
6	133	167	392	1400	1240							
7	121	143	340	1070	940							
8	114	131	320	850	809							
9	106	126	295	668	1660							
10	106	123	255	619	1770							
11	106	118	234	411	1260							
12	104	115	209	633	1020							
13	99	110	205	396	1020							
14	97	107	260	349	883							
15	94	104	400	333	736							
16	92	114	457	305	1150							
17	90	271	410	253	2050							
18	96	257	440	286	1620							
19	107	199	340	325	1260							
20	101	320	254	427	1040							
21	91	284	291	3460	902							
22	90	213	392	1890	718							
23	268	185	682	2060	625							
24	373	264	861	1660	550							
25	204	269	1150	1170	571							
26	1020	222	1080	905	493							
27	1040	686	850	659	1020							
28	558	1160	659	581	1120							
29	359	637	571	502	---							
30	276	513	484	466	---							
31	227	---	758	571	---							
TOTAL	6756	7690	16852	38764	38122							
MEAN	218	256	544	1250	1362							
MAX	1040	1160	1400	8630	7290							
MIN	90	104	205	253	493							
CFSM	.62	.73	1.54	3.54	3.86							
IN.	.71	.81	1.78	4.09	4.02							

CAL YR 1981 TOTAL 170230 MEAN 466 MAX 4150 MIN 76 CFSM 1.32 IN 17.94

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1970, 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
23...	1030	175	155	12.0	23	11	--
NOV							
25...	1200	264	125	8.5	6	4.3	--
JAN							
04...	1130	13100	54	9.5	446	15800	74
08...	1630	1350	85	9.0	18	66	--
MAR							
18...	1300	1600	67	11.0	28	121	--
APR							
26...	1155	1660	90	15.0	84	376	--
JUN							
10...	1015	261	110	23.0	15	11	--
JUL							
14...	1500	224	150	28.5	20	12	--
AUG							
18...	1255	392	125	25.0	21	22	--
SEP							
15...	1030	250	125	23.0	8	5.4	--

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°57'30", long 83°46'26", Knox County, Hydrologic Unit 06010107, on left bank, 0.7 mi (1.1 km) downstream from Johnson Hollow, 7.5 mi (12.1 km) upstream from confluence with Holston River, and 8 mi (13 km) east of Knoxville.

DRAINAGE AREA.--5,101 mi^2 (13,212 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to December 1945 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Dec. 10, 1945, to Sept. 30, 1957, at site 200 ft (60 m) upstream on right bank at same datum.

REMARKS.--Records good. Flow regulated by Douglas Lake (station 03468500), 24.6 mi (39.6 km) upstream.

AVERAGE DISCHARGE.--37 years, 7,839 ft^3/s (222.0 m^3/s), 20.87 in/yr (530 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,300 ft^3/s (1,820 m^3/s) Mar. 12, 1963, elevation, 832.20 ft (253.655 m), from rating curve extended above 36,000 ft^3/s (1,020 m^3/s); minimum, 67 ft^3/s (1.90 m^3/s) Oct. 25, 1953, elevation, 813.38 ft (247.918 m); minimum daily, 68 ft^3/s (1.93 m^3/s) Oct. 23-26, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of 855.0 ft (260.60 m), from floodmarks, estimated discharge, 160,000 ft^3/s (4,530 m^3/s), from investigations by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,400 ft^3/s (719 m^3/s) Feb. 3, elevation, 823.79 ft (251.091 m); minimum, 363 ft^3/s (10.3 m^3/s) Nov. 9; elevation, 814.82 ft (248.357 m); minimum daily, 658 ft^3/s (18.6 m^3/s) May 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5480	1220	2900	13000	15100	8450	5750	921	3010	6020	6110	9250
2	5830	1820	1950	9630	13700	8950	4770	776	2170	4810	6330	8090
3	6140	1000	2360	8900	18500	8770	4140	658	2510	5430	11400	5260
4	5770	2410	1360	14900	18200	8680	3940	1050	1860	4420	9980	3610
5	3360	2540	3260	4580	19900	8770	8200	979	2040	5670	11600	5250
6	2770	2780	1330	9000	19300	7220	11000	961	1830	7990	11700	4990
7	3030	2470	4070	18700	19000	9170	6920	994	4910	7310	7670	6280
8	3230	1490	8280	18300	18700	10500	6630	1150	6990	7980	4580	4050
9	3560	1550	8580	18000	20500	12600	5300	1130	6840	7710	10500	7640
10	2420	3450	10100	17600	20900	11400	2300	1320	7430	7290	10100	9720
11	2790	5070	8770	17200	19500	11500	2880	1560	8490	5000	12100	9760
12	3000	2620	6890	17100	18900	8950	3430	1430	6420	7130	12500	9390
13	4480	2500	4710	13700	18800	8120	2590	1530	4060	5880	11800	11600
14	3320	1220	6130	6210	18500	9840	1040	1640	5890	6520	6540	8660
15	3300	1120	6540	6790	18300	10800	1140	1580	5720	7090	4840	11500
16	3040	1160	9070	5300	18300	9610	1400	1650	6390	6870	5920	12000
17	3650	1060	9020	15000	12900	8720	1350	1990	6440	5390	5640	12100
18	2540	1680	11300	15000	17900	9230	1500	2990	5830	4670	2900	11900
19	4510	661	8260	6800	18100	11000	1700	3020	4100	6500	1550	7830
20	4200	1330	3970	5820	17600	5790	1370	2770	2250	6510	4530	10200
21	2700	1590	5210	8780	15500	5380	1200	3080	3110	7120	4210	11100
22	1610	1420	3430	5290	16700	7630	1300	2610	5560	6290	4270	11400
23	1870	1630	3600	3900	15100	6250	1300	4050	4340	5050	6860	10700
24	5180	1140	4210	8760	12400	4130	1130	3670	7580	5870	11400	10000
25	3460	2090	3730	12900	9650	5980	1800	3210	9260	3940	10600	8990
26	1800	1150	2220	12600	10000	5160	1880	3770	5770	5610	10000	5480
27	2330	1620	2410	13100	7700	5420	2260	3910	2710	6360	11100	9820
28	3020	3730	4530	12000	8690	5610	2330	4200	6160	5890	8910	10100
29	1350	2500	9290	12100	---	8780	1650	3750	6680	9450	5270	10600
30	1280	2910	11800	15000	---	4940	1170	1480	5700	7380	6610	9670
31	1150	---	10300	12700	---	5430	---	1690	---	7880	9360	---
TOTAL	102170	58931	179560	358660	458340	252780	91370	65519	152050	197030	246880	266940
MEAN	3296	1964	5792	11570	16370	8154	3046	2114	5068	6356	7964	8898
MAX	6140	5070	11800	18700	20900	12600	11000	4200	9260	9450	12500	12100
MIN	1150	661	1330	3900	7700	4130	1040	658	1830	3940	1550	3610
(†)	-41300	+5900	-51900	+36700	+25100	+99000	+115900	+123400	-14600	-49500	-69200	-134000
MEAN‡	1964	2161	4118	12750	17270	11350	6909	6094	4582	4759	5732	4431
CFSM‡	.39	.42	.81	2.50	3.39	2.23	1.35	1.19	.90	.93	1.12	.87
IN‡	.44	.47	.92	2.88	3.52	2.56	1.51	1.36	.99	1.06	1.28	.96

CAL YR 1981 TOTAL 1662018 MEAN 4553 MAX 11800 MIN 441 MEAN‡ 4562 CFSM‡ .89 IN‡ 12.14
WTR YR 1982 TOTAL 2430230 MEAN 6658 MAX 20900 MIN 658 MEAN‡ 6783 CFSM‡ 1.33 IN‡ 18.05

† Change in contents, in cfs-days, in Douglas Lake, furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in Douglas Lake.

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1975 to September 1981.
WATER TEMPERATURE: June 1975 to September 1981.

REMARKS.--Flow regulated by Douglas Lake (station 03468500), 24.6 mi (39.6 km) upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 303 micromhos June 25, 1978; minimum, 34 micromhos Oct. 23, 1978.
WATER TEMPERATURE: Maximum, 33.0°C Aug. 11, 12, 1977; minimum, 0.0°C Jan. 19, 1977, Feb. 11, 12, 20, 1979.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 310 micromhos was observed on Dec. 18, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
28...	1245	1520	193	7.3	16.0	5.3	9.4	80	225	67	9	21
DEC												
18...	1030	2850	310	7.7	6.5	7.0	10.9	--	--	81	17	26
FEB												
23...	1230	13770	155	7.3	7.0	30	12.9	K13	43	55	9	16
APR												
22...	1145	1330	180	8.4	15.0	1.7	11.8	--	--	72	9	21
JUN												
15...	1100	1740	160	7.4	15.5	4.7	8.4	55	78	65	9	20
AUG												
10...	1200	2000	175	6.9	24.0	16	5.7	>600	>1000	58	8	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
28...	3.6	17	35	.9	1.9	58	22	12	.1	5.9	116	118
DEC												
18...	3.9	25	39	1.3	2.4	64	39	31	.1	5.4	185	171
FEB												
23...	3.6	6.0	19	.4	1.7	46	13	7.2	<.1	7.0	--	82
APR												
22...	4.7	6.4	16	.3	1.1	63	13	5.7	<.1	3.3	115	93
JUN												
15...	3.6	8.3	21	.5	1.6	56	18	8.9	<.1	6.5	107	101
AUG												
10...	3.1	10	27	.6	2.0	50	15	9.7	.2	7.8	116	96

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
28...	.16	476	.45	<.010	.040	.030	9	37	82
DEC									
18...	.25	1420	.49	.120	.040	.030	7	54	94
FEB									
23...	.11	3050	.76	.060	.070	<.010	54	2010	79
APR									
22...	.16	413	.35	.010	.020	<.010	4	14	70
JUN									
15...	.15	503	.55	<.010	.040	.020	15	70	79
AUG									
10...	.16	626	.36	.100	.090	.030	17	92	100

K--Results based on non-ideal colony count.

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
18...	1	0	100	34	1	3	20	10	3	4
FEB										
23...	2	1	<100	25	<1	1	40	10	<1	<1
JUN										
15...	3	1	<100	32	<1	<1	20	10	4	1
AUG										
10...	5	2	100	33	1	1	10	10	3	3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
18...	--	8	330	43	<1	1	60	17	.1
FEB									
23...	10	2	1800	52	3	<1	90	23	.2
JUN									
15...	27	3	320	10	4	4	40	19	.2
AUG									
10...	110	5	460	43	4	1	100	54	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
18...	<.1	2	<1	<1	<1	<1	<1	40	6
FEB									
23...	.1	11	<1	<1	<1	<1	<1	30	<4
JUN									
15...	<.1	48	2	<1	<1	<1	<1	10	<4
AUG									
10...	<.1	2	2	<1	<1	<1	<1	20	4

03484000 WATAUGA RIVER BELOW WILBUR DAM, TN

LOCATION.--Lat 36°20'39", long 82°07'46", Carter County, Hydrologic Unit 06010103, 1,800 ft (500 m) downstream from Wilbur Dam, 0.7 mi (1.1 km) downstream from Big Laurel Branch, 2.7 mi (4.3 km) downstream from Watauga Dam, 5 mi (8 km) east of Elizabethton, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--471 mi^2 (1,220 km^2).

PERIOD OF RECORD.--October 1902 to December 1908 (published as "near Elizabethton"), January 1948 to February 1982 (discontinued). Prior to May 1903 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1276: 1906(M). WSP 1306: 1905(M), Drainage area at "near Elizabethton" site. WSP 1386: 1950.

GAGE.--Water-stage recorder. Datum of gage is 1,550.00 ft (472.440 m) National Geodetic Vertical Datum of 1929. May 11, 1903 to Dec. 31, 1908, nonrecording gage at railroad bridge 2 mi (3 km) downstream at different datum.

REMARKS.--Records good. Flow completely regulated by Watauga Lake since Dec. 1, 1948 (station 03483500). Low-flow regulated by Wilbur Lake during period of record.

AVERAGE DISCHARGE.--39 years 1902-1908, 1948-81, 749 ft^3/s (21.21 m^3/s), 21.60 in/yr (549 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft^3/s (609 m^3/s) Jan. 22, 1906, gage height, 13.6 ft (4.15 m), site and datum then in use, from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); minimum, 2.3 ft^3/s (0.065 m^3/s) July 11, 1953; minimum daily, 2.4 ft^3/s (0.068 m^3/s) Aug. 14, 1949; minimum gage height, at present site, 30.73 ft (9.367 m) July 11, 1953. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 6,750 ft^3/s (191 m^3/s) Jan. 19, 1960, gage height, 38.10 ft (11.613 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Aug. 14, 1940, and May 21, 1901, reached stages of about 61 ft (18.6 m) and 58 ft (17.7 m), respectively, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to February 1982: Maximum discharge, 3,070 ft^3/s (86.9 m^3/s) Oct. 20, Feb. 26, gage height, 35.53 ft (10.830 m); minimum, 30 ft^3/s (0.85 m^3/s), Dec. 1, gage height, 31.35 ft (9.555 m); minimum daily, 34 ft^3/s (0.96 m^3/s) Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	653	40	135	35	173							
2	564	364	95	35	334							
3	102	358	125	34	323							
4	140	376	129	120	293							
5	746	349	178	46	234							
6	646	337	167	45	258							
7	746	173	45	45	56							
8	646	47	222	573	258							
9	535	46	424	522	270							
10	159	317	209	1810	329							
11	113	235	1050	2520	250							
12	610	339	131	2370	313							
13	631	116	166	1610	56							
14	685	159	233	1350	56							
15	513	42	162	856	217							
16	444	282	281	837	56							
17	156	212	787	2410	288							
18	163	223	1570	1310	263							
19	697	314	438	56	336							
20	783	473	185	133	45							
21	659	187	225	56	45							
22	644	111	152	56	241							
23	682	255	229	56	343							
24	168	203	226	56	285							
25	47	215	48	249	754							
26	609	105	47	601	1210							
27	637	41	47	385	234							
28	724	255	46	249	53							
29	548	35	54	286	---							
30	432	130	43	56	---							
31	171	---	36	56	---							
TOTAL	15053	6339	7885	18823	7573							
MEAN	486	211	254	607	270							
MAX	783	473	1570	2520	1210							
MIN	47	35	36	34	45							
(†)	-9400	-100	+4900	+17000	+34700							
MEAN‡	182	208	412	1156	1510							
CFSM‡	.39	.44	.87	2.45	3.21							
IN‡	.45	.49	1.01	2.83	3.34							

WTR YR 1981 TOTAL 194581 MEAN 533 MAX 2020 MIN 35 MEAN‡ 555 CFSM‡ 1.18 IN‡ 15.99

† Change in contents, in cfs-days, in Watauga Lake, furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in lake listed above.

03485500 DOE RIVER AT ELIZABETHTON, TN

LOCATION.--Lat 36°20'40", long 82°12'37", Carter County, Hydrologic Unit 06010103, on left bank 1,500 ft (500 m) upstream from bridge on State Highway 91 at Elizabethton, and at mile 1.0 (1.6 km).

DRAINAGE AREA.--137 mi^2 (355 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1907 to June 1908 (gage heights only), October 1911 to September 1916, October 1920 to March 1982 (discontinued). Published as "at Valley Forge" 1911-16, 1920-31. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1913(M), 1915(M), 1929(M), 1931(M), Drainage area at "at Valley Forge" site. WSP 1336: 1933(M), 1938. WSP 1910: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,524.73 ft (464.738 m) National Geodetic Vertical Datum of 1929. See WSP 1910 for history of changes prior to Feb. 1, 1934.

REMARKS.--Records good.

AVERAGE DISCHARGE.--66 years (water years 1912-16, 1921-81), 224 ft^3/s (6.344 m^3/s), 22.20 in/yr (564 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) Nov. 6, 1977, gage height, 9.18 ft (2.798 m) in gage well; 9.34 ft (2.847 m) from floodmarks; minimum discharge, 17 ft^3/s (0.48 m^3/s) Aug. 31, Sept. 7, 1925; minimum gage height, 0.18 ft (0.055 m) June 22, 1970 (result of construction upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901 reached a stage of 10.5 ft (3.20 m), discharge, 25,000 ft^3/s (708 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to March 1982: Peak discharges above base of 1,700 ft^3/s (48.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1030	2710	76.7	4.35	1.326	Feb. 3	1145	*3620	103	5.05	1.539

Minimum discharge, 54 ft^3/s (1.53 m^3/s) Oct. 22, gage height, 0.45 ft (0.137 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	71	124	602	404	323						
2	91	70	122	403	336	311						
3	72	68	108	511	2210	300						
4	61	67	100	1670	1230	290						
5	60	69	101	946	711	310						
6	63	87	90	559	514	292						
7	62	76	87	507	414	700						
8	60	71	92	422	358	680						
9	58	68	87	352	395	550						
10	57	67	76	242	367	450						
11	58	65	73	182	332	400						
12	58	64	69	240	306	350						
13	57	64	76	240	314	300						
14	56	63	118	221	272	350						
15	56	62	211	187	268	350						
16	57	63	202	177	409	350						
17	58	80	165	118	552	850						
18	59	74	153	148	599	661						
19	58	67	115	232	576	493						
20	56	77	85	310	479	409						
21	56	77	94	696	424	367						
22	56	69	248	736	366	332						
23	74	67	288	614	317	288						
24	107	85	272	514	310	268						
25	76	89	272	414	301	252						
26	95	81	236	340	251	301						
27	165	114	232	260	301	248						
28	120	181	218	252	328	221						
29	92	134	233	229	---	221						
30	81	115	214	210	---	210						
31	75	---	355	256	---	203						
TOTAL	2210	2405	4916	12790	13644	11630						
MEAN	71.3	80.2	159	413	487	375						
MAX	165	181	355	1670	2210	850						
MIN	56	62	69	118	251	203						
CFSM	.52	.59	1.16	3.02	3.56	2.74						
IN.	.60	.65	1.33	3.47	3.70	3.16						

CAL YR 1981 TOTAL 66283 MEAN 182 MAX 1570 MIN 41 CFSM 1.33 IN 18.00

03485500 DOE RIVER AT ELIZABETHTON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
21...	1430	53	120	11.5	2	.29
NOV						
25...	1345	88	85	7.0	2	.48
DEC						
29...	1645	241	75	5.5	4	2.6
FEB						
18...	1100	642	68	8.0	24	42
MAR						
16...	1115	315	71	9.5	8	6.8
MAY						
05...	1030	200	78	12.5	8	4.3
JUN						
23...	0820	100	108	18.0	17	4.6
JUL						
28...	1550	98	110	24.0	16	4.2
AUG						
25...	1415	128	125	22.0	6	2.1

03486000 WATAUGA RIVER AT ELIZABETHTON, TN

LOCATION.--Lat 36°21'21", long 82°12'26", Carter County, Hydrologic Unit 06010103, on left bank 25 ft (8 m) upstream from bridge on U. S. Highway 19E at Elizabethton, 0.6 mi (1.0 km) downstream from Doe River, and at mile 25.9 (41.7 km).

DRAINAGE AREA.--692 mi^2 (1,792 km^2).

PERIOD OF RECORD.--October 1925 to July 1949, July 1953 to February 1982 (discontinued). Monthly discharge only prior to February 1926, published in WSP 1306. Gage-height records collected in this vicinity December 1909 to July 1949 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 758: 1932(M). WSP 823: Drainage area. WSP 1336: 1927-28(M), 1930, 1931-32(M).

GAGE.--Water-stage recorder. Datum of gage is 1,486.23 ft (453.003 m) National Geodetic Vertical Datum of 1929. Feb. 21 to Oct. 4, 1926, nonrecording gage on former Southern Railway bridge 10 ft (3 m) upstream at same datum.

REMARKS.--Records good. Flow partly regulated by Watauga Lake 10.8 mi (17.4 km) upstream since Dec. 1, 1948 (station 03483500). Low-flow regulated by Wilbur Lake 8.1 mi (13.0 km) upstream during period of record. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--51 years (water years 1926-48, 1954-81), 1,095 ft^3/s (31.01 m^3/s), 21.49 in/yr (546 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,100 ft^3/s (2,130 m^3/s) Aug. 14, 1940, gage height, 20.87 ft (6.361 m), from rating curve extended above 29,000 ft^3/s (821 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 42 ft^3/s (1.19 m^3/s) Sept 20, 1932; minimum daily, 85 ft^3/s (2.41 m^3/s) Dec. 3, 1953; minimum gage height, 1.54 ft (0.469 m) Sept. 20, 1932. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 14,500 ft^3/s (411 m^3/s) Mar. 12, 1963; gage height, 10.70 ft (3.261 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of about 21 ft (6.4 m), discharge, 76,000 ft^3/s (2,150 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to February 1982: Maximum discharge, 7,600 ft^3/s (215 m^3/s) Feb. 3, gage height, 8.44 ft (2.572 m); minimum, 121 ft^3/s (3.43 m^3/s) Nov. 15, gage height, 1.99 ft (0.588 m); minimum daily, 124 ft^3/s (51 m^3/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	716	210	347	833	622							
2	604	419	287	611	734							
3	454	415	277	995	3650							
4	215	487	205	2760	2160							
5	644	284	391	1560	1270							
6	729	535	296	898	998							
7	822	306	173	775	614							
8	758	143	320	1180	725							
9	589	138	537	977	836							
10	241	332	331	1770	903							
11	217	342	927	3230	774							
12	625	342	444	3230	756							
13	604	315	269	3230	495							
14	762	240	366	3230	434							
15	556	124	438	3230	585							
16	593	349	586	3230	605							
17	221	305	826	3230	1130							
18	162	309	1780	3230	1220							
19	695	285	840	3230	1240							
20	971	455	333	3210	787							
21	704	434	383	3200	683							
22	629	233	416	1910	781							
23	610	333	725	969	796							
24	450	208	799	826	694							
25	212	445	517	874	925							
26	501	211	427	1020	1720							
27	812	194	413	830	688							
28	972	505	391	604	551							
29	609	238	408	601	---							
30	548	228	384	331	---							
31	276	---	525	359	---							
TOTAL	17501	9364	15361	56163	27376							
MEAN	565	312	496	1812	978							
MAX	972	535	1780	3230	3650							
MIN	162	124	173	331	434							
(†)	-9400	-100	+4900	+17000	+34700							
MEAN‡	261	309	654	2360	2217							
CFSM‡	.38	.45	.95	3.41	3.20							
IN‡	.44	.50	1.09	3.93	3.34							

CAL YR 1981 TOTAL 297799 MEAN 816 MAX 3610 MIN 124 MEAN‡ 838 CFSM‡ 1.21 IN‡ 16.43

† Change in contents, in cfs-days, in Watauga Lake, furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in lakes or reservoirs listed above.

03487550 REEDY CREEK AT OREBANK, TN

LOCATION.--Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, on left bank, 50 ft (15 m) upstream from Anderson Bridge, 0.1 mi (0.2 km) south of U. S. Highway 11W, 0.3 mi (0.5 km) north of Orebank, 1.0 mi (1.6 km) upstream from Gaines Branch, and at mile 9.8 (15.8 km).

DRAINAGE AREA.--36.3 mi^2 (94.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD TN 1973: 1971(P), 1972(M), 1979(M), 1980 (M).

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 1,232.61 ft (375.700 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 4, 1975, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records good. The Bloomingdale Utility District diverts an average of about 0.6 ft^3/s (0.017 m^3/s) for water supply, 0.8 mi (1.3 km) upstream from the gage.

AVERAGE DISCHARGE.--19 years, 45.6 ft^3/s (1.291 m^3/s), 17.06 in/yr (433 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,940 ft^3/s (140 m^3/s) Oct. 2, 1977, gage height, 11.61 ft (3.539 m) from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.2 ft^3/s (0.062 m^3/s) July 27, 1982, gage height, 0.93 ft (0.283 m), caused by unknown regulation upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1927, reached a stage of 11.4 ft (3.47 m), discharge, about 11,000 ft^3/s (312 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 3	Unknown	1240	35.1	6.77	2.063	Sept. 1	Unknown	*2340	66.3	8.67	2.643
Mar. 17	Unknown	813	23.0	5.73	1.747						

Minimum discharge, 2.2 ft^3/s (0.062 m^3/s) July 27, gage height, 0.93 ft (0.283 m), caused by unknown regulation upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	8.0	10	92	84	110	41	30	49	33	63	650
2	11	7.5	11	53	80	89	41	28	32	23	57	80
3	8.9	7.0	9.4	158	500	77	41	27	18	20	38	44
4	8.7	7.3	9.3	250	188	67	37	25	36	23	29	31
5	9.0	7.1	9.0	127	120	70	39	23	60	18	25	26
6	10	7.5	7.9	82	93	62	49	21	56	16	23	23
7	8.4	6.8	7.9	69	74	146	41	21	40	15	21	20
8	8.1	7.0	7.9	58	65	127	41	24	32	30	20	19
9	8.1	6.9	7.1	49	180	99	55	20	30	82	48	19
10	8.1	6.9	6.6	37	183	85	51	19	32	30	35	19
11	7.5	6.7	6.3	34	113	75	46	18	29	24	25	15
12	7.5	5.9	6.5	34	91	66	42	17	30	29	21	14
13	7.5	6.1	6.2	32	92	60	40	16	53	22	20	14
14	7.5	6.2	12	31	78	53	38	15	55	19	18	200
15	7.4	6.4	24	28	72	64	34	14	59	17	16	70
16	7.6	6.7	25	27	118	74	31	14	54	16	14	62
17	7.3	7.8	20	22	220	325	29	14	46	15	14	63
18	8.0	7.5	22	22	211	127	29	14	46	15	13	53
19	8.0	6.9	16	30	165	95	26	18	39	14	13	45
20	6.9	7.8	11	64	126	105	28	14	33	14	12	41
21	6.9	8.0	11	174	104	131	26	15	26	14	12	36
22	7.1	7.3	30	131	85	111	24	13	24	14	12	33
23	19	6.9	71	138	72	88	22	13	23	16	12	30
24	14	12	59	112	65	77	21	12	21	14	14	28
25	8.4	9.0	43	79	59	68	26	12	20	13	21	26
26	21	7.8	40	61	51	62	94	12	18	12	13	25
27	20	9.6	34	48	214	53	61	12	22	9.3	12	23
28	14	11	27	45	178	48	46	20	25	13	11	21
29	10	8.8	22	39	---	46	38	17	57	19	11	20
30	8.6	8.5	18	37	---	45	33	13	42	21	10	19
31	7.9	---	61	58	---	43	---	21	---	57	70	---
TOTAL	300.5	228.9	651.1	2221	3681	2746	1170	552	1107	677.3	721	1769
MEAN	9.69	7.63	21.0	71.6	131	88.6	39.0	17.8	36.9	21.8	23.3	59.0
MAX	21	12	71	250	500	325	94	30	60	82	70	650
MIN	6.9	5.9	6.2	22	51	43	21	12	18	9.3	10	14
CFSM	.27	.21	.58	1.97	3.61	2.44	1.07	.49	1.02	.60	.64	1.63
IN.	.31	.23	.67	2.28	3.77	2.81	1.20	.57	1.13	.69	.74	1.81

CAL YR 1981 TOTAL 11181.6 MEAN 30.6 MAX 405 MIN 5.9 CFSM .84 IN 11.46
WTR YR 1982 TOTAL 15824.8 MEAN 43.4 MAX 650 MIN 5.9 CFSM 1.20 IN 16.22

03487550 REEDY CREEK AT OREBANK, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
22...	1200	6.6	440	10.0	5	.09	--
NOV							
24...	1210	14	410	5.5	11	.42	--
DEC							
29...	1300	22	440	5.5	3	.18	--
FEB							
17...	0900	344	--	--	353	328	87
MAR							
15...	1515	76	380	10.0	30	6.2	--
MAY							
06...	0945	24	380	15.0	5	.32	--
JUN							
22...	1530	26	350	19.0	28	2.0	--
JUL							
27...	1215	2.5	380	23.0	17	.11	--
AUG							
24...	1620	13	345	21.0	16	.56	--

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN

LOCATION.--Lat 36°28'19", long 82°50'50", Hawkins County, Hydrologic Unit 06010104, on right bank 1,500 ft (500 m) upstream from Surgoinsville Creek and county bridge at Surgoinsville, 9.8 mi (15.8 km) upstream from Big Creek, and at mile 118.7 (191.0 km). Records include flow of Surgoinsville Creek.

DRAINAGE AREA.--2,874 mi^2 (7,444 km^2), includes that of Surgoinsville Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to April 1941 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,088.46 ft (331.763 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for growing season, which are fair. Flow partly regulated by four reservoirs (see p.232).

AVERAGE DISCHARGE.--42 years, 3,793 ft^3/s (107.4 m^3/s), 17.92 in/yr (455 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,600 ft^3/s (1,690 m^3/s) Feb. 18, 1944, gage height, 17.48 ft (5.328 m); minimum, 470 ft^3/s (13.3 m^3/s), Oct. 21, 1941; minimum daily, 528 ft^3/s (15.0 m^3/s) Oct. 21, 1941. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 59,300 ft^3/s (1,680 m^3/s) Mar. 13, 1963, gage height, 17.13 ft (5.221 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,100 ft^3/s (626 m^3/s) Feb. 4, gage height, 9.18 ft (2.798 m); minimum, 787 ft^3/s (22.3 m^3/s) Nov. 19; minimum daily, 808 ft^3/s (22.9 m^3/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3230	1130	1400	3390	4790	5790	4500	1870	1450	4260	12800	9840
2	3280	1310	1290	3120	4640	5420	3890	1730	1880	3030	10200	14000
3	3370	1460	1900	5060	12100	4290	2770	1870	2060	3210	7340	8390
4	1310	1510	1340	12400	20000	5610	1650	2130	2810	1890	6620	5380
5	1200	1330	2[illegible]0	16200	12900	5990	1950	2330	3940	1390	5320	2630
6	2410	1490	1060	8690	8250	4980	6010	3000	6090	2060	4920	2320
7	2890	1150	1230	4240	8940	5790	6060	2730	3570	4130	4250	4170
8	3270	1080	1190	6330	5030	8740	2390	1440	4020	4820	3460	5440
9	2750	978	1490	4090	7260	8020	3240	1400	3670	5180	3400	5680
10	2600	1680	1330	5530	11200	6860	1790	1350	3800	5110	6200	5800
11	1490	1680	2450	8360	8210	5760	1760	1820	3760	4220	6110	4200
12	1410	1130	1290	6420	6960	5690	1690	2930	4080	2700	5890	3160
13	3220	1260	1130	6240	6420	3740	1640	3240	5640	4490	4650	3000
14	2500	905	1020	3290	4200	3230	1600	3160	11300	4590	4130	8070
15	2970	808	1550	4900	4160	3650	1570	2960	7670	3840	3700	11500
16	2760	1130	2420	1900	4220	4450	1510	1180	6630	4280	2550	8390
17	2110	1090	2370	4650	8410	6680	1460	1160	5490	3820	3780	7970
18	1080	1320	4280	5360	13800	6710	1430	2190	4610	3780	5220	6830
19	1640	910	3510	3600	12200	5870	1410	1270	3810	2800	4550	4590
20	2240	1280	1290	1840	10200	6470	1400	1830	3370	4210	4250	3730
21	2080	1310	1710	5400	7690	9410	2180	2450	1740	4910	4080	3700
22	1450	990	1620	11100	6550	9670	2520	1810	3720	4730	3310	4050
23	1890	1020	2480	7300	6390	7260	1570	1470	3380	4080	2270	3580
24	2340	992	5040	6790	4820	5540	1260	1300	3410	3560	3140	3410
25	1110	1680	4820	6090	5200	4770	1300	1890	3450	3080	3900	3040
26	1270	1070	3310	5510	6650	4970	2010	2510	3050	1720	4060	2040
27	2210	1070	3260	5490	5610	4800	3210	2270	1640	2480	4240	2660
28	3240	1310	2010	4690	6960	2400	2940	2350	1810	2210	3880	3010
29	2880	957	2700	4650	---	3590	2420	2640	3620	2800	3090	2940
30	2160	1050	2380	3710	---	3950	2130	1930	4670	3220	2000	2910
31	1640	---	2260	2800	---	3550	---	1360	---	6150	3720	---
TOTAL	70000	36080	67360	179140	223760	173650	71260	63570	120140	112750	147030	156430
MEAN	2258	1203	2173	5779	7991	5602	2375	2051	4005	3637	4743	5214
MAX	3370	1680	5040	16200	20000	9670	6060	3240	11300	6150	12800	14000
MIN	1080	808	1020	1840	4160	2400	1260	1160	1450	1390	2000	2040

CAL YR 1981	TOTAL	951740	MEAN	2608	MAX	10100	MIN	808	MEAN‡	2706	CFSM‡	.94	IN‡	12.78
WTR YR 1982	TOTAL	1421170	MEAN	3894	MAX	20000	MIN	808	MEAN‡	3999	CFSM‡	1.39	IN‡	18.89

‡ Adjusted for change in contents in South Holston, Watauga, Boone and Fort Patrick Henry Lakes.

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1974 to current year.

INSTRUMENTATION.--Temperature recorder since November 1974.

REMARKS.--Flow partly regulated by four reservoirs (see p. 232).

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.5°C July 6, 1982; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.5°C July 6; minimum, 0.0°C Jan 10, 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	19.0	17.0	14.5	12.0	9.0	8.0	5.5	7.0	5.5	9.5	7.0
2	20.5	16.5	18.0	15.0	11.5	10.0	8.0	5.0	6.5	4.5	10.5	7.0
3	19.0	16.0	18.5	15.5	12.0	10.5	7.0	6.0	6.5	5.0	10.5	9.0
4	19.5	15.0	18.0	16.0	11.5	8.5	8.0	6.0	7.0	5.5	11.5	9.0
5	19.0	16.5	17.0	15.5	11.0	8.0	6.5	5.5	8.0	5.5	11.5	10.0
6	20.0	18.0	16.5	15.0	9.0	5.5	6.5	5.5	6.0	4.0	11.5	9.5
7	19.5	17.0	15.0	12.0	9.0	6.5	8.0	5.5	6.0	3.5	11.0	8.5
8	19.5	16.5	14.5	11.0	11.0	8.0	6.5	4.5	6.0	3.5	9.0	6.5
9	18.0	16.0	15.0	11.5	9.0	6.5	4.5	3.0	6.0	5.0	9.5	6.5
10	17.0	16.0	15.0	13.0	6.5	4.5	6.5	.0	6.5	4.5	10.0	7.0
11	19.5	15.5	16.5	12.0	8.0	4.0	6.5	.5	7.0	5.0	11.0	8.5
12	18.5	17.0	15.0	11.5	8.0	5.0	3.0	1.0	6.5	5.0	13.5	9.5
13	19.0	16.0	15.0	11.0	8.0	4.5	3.5	3.0	6.0	5.5	12.0	11.0
14	19.0	15.5	14.5	11.0	8.0	6.5	3.0	1.0	8.5	4.0	13.0	11.0
15	17.0	16.0	13.5	9.5	8.5	8.0	3.5	1.0	8.0	5.5	13.0	10.5
16	18.5	15.5	12.0	10.5	8.5	5.5	3.0	.0	9.5	7.0	13.0	10.0
17	19.0	16.0	13.5	11.0	6.0	4.5	10.0	.0	10.0	8.0	13.5	11.0
18	18.0	15.5	15.0	11.0	6.0	4.0	3.0	1.0	9.0	8.0	14.5	11.0
19	17.0	14.5	13.5	11.0	5.5	2.0	3.5	3.0	9.0	6.5	15.0	11.0
20	16.5	13.0	13.5	10.0	4.5	1.0	5.5	3.0	9.0	6.5	15.5	11.5
21	16.5	13.5	10.0	8.0	4.0	.5	5.5	1.0	9.5	8.0	14.0	11.5
22	16.5	14.5	9.0	6.5	5.5	4.0	4.0	1.0	9.0	6.5	13.5	10.0
23	17.0	13.5	9.5	6.5	7.0	5.0	5.5	4.0	9.5	6.5	13.5	10.5
24	15.5	13.0	11.0	9.5	5.5	3.0	5.5	4.0	11.5	8.0	13.0	10.0
25	14.0	12.0	13.5	10.0	5.5	3.0	5.0	3.5	10.0	7.0	14.0	10.5
26	16.0	13.5	12.0	9.0	6.0	5.0	4.0	1.0	8.0	6.5	13.0	9.0
27	18.0	15.5	13.0	11.5	8.5	5.0	4.0	1.0	8.0	6.5	11.5	8.5
28	17.0	15.0	14.0	11.0	6.5	5.0	4.0	2.0	8.5	6.0	12.0	7.0
29	17.0	14.5	12.0	9.5	8.0	5.0	5.0	1.5	---	---	14.0	9.0
30	18.0	14.5	9.5	9.0	6.5	4.5	6.5	3.5	---	---	14.0	8.0
31	18.5	14.5	---	---	6.0	5.0	8.0	5.5	---	---	15.5	12.0
MONTH	20.5	12.0	18.5	6.5	12.0	.5	10.0	.0	11.5	3.5	15.5	6.5

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	11.5	21.0	18.0	28.0	25.5	25.0	20.5	---	---	21.5	19.0
2	14.5	12.0	21.0	19.0	28.5	25.0	25.0	23.5	---	---	19.5	18.5
3	16.5	13.5	23.0	18.5	28.0	24.5	24.0	21.5	---	---	21.5	17.0
4	16.0	12.0	23.0	19.0	26.5	21.5	28.0	23.0	---	---	21.0	17.0
5	15.5	13.5	24.0	18.5	25.0	20.5	29.5	24.5	---	---	22.0	20.0
6	14.0	9.5	20.5	18.0	23.0	20.0	30.5	23.5	25.0	19.5	25.5	21.0
7	12.0	8.5	20.5	18.0	24.0	19.5	25.0	21.0	25.0	20.0	23.0	19.5
8	10.5	9.5	21.5	17.0	23.0	20.0	25.0	20.0	25.5	21.5	22.0	19.0
9	11.0	9.0	23.0	18.5	23.5	20.0	24.0	20.0	25.5	22.0	23.0	18.5
10	14.0	8.5	24.5	19.0	23.5	20.5	25.5	19.5	25.0	20.0	23.0	19.0
11	14.5	10.5	26.0	20.5	23.5	20.0	24.0	20.5	24.5	19.5	23.0	19.0
12	16.5	11.5	21.5	18.0	23.5	20.5	27.0	20.0	24.5	19.5	24.0	20.0
13	15.5	14.5	22.0	18.0	23.5	20.0	25.0	20.0	24.0	19.0	24.5	21.0
14	19.0	14.5	22.0	17.0	20.5	18.5	---	---	24.5	19.5	24.0	21.0
15	21.5	16.5	22.0	18.5	21.0	18.0	---	---	23.5	20.0	23.5	20.0
16	21.0	18.5	23.0	18.0	22.0	18.5	---	---	24.5	21.0	23.0	19.5
17	19.5	16.0	27.0	21.5	22.0	18.5	---	---	24.5	19.5	21.5	18.5
18	21.0	16.0	24.5	20.5	24.0	19.0	---	---	24.0	19.0	21.5	18.5
19	18.0	16.5	24.0	19.5	24.0	20.0	---	---	24.5	19.0	21.0	18.5
20	20.0	16.5	25.0	20.5	23.5	19.5	---	---	24.0	19.5	23.5	19.0
21	21.5	16.0	23.5	20.0	25.5	21.0	---	---	23.0	19.5	20.5	18.5
22	18.0	13.5	27.0	20.0	25.0	20.0	---	---	23.0	19.5	20.5	18.0
23	18.0	13.0	26.0	22.0	24.0	20.0	---	---	25.0	21.5	20.0	16.5
24	20.0	14.5	25.5	24.0	24.5	20.5	---	---	23.5	20.0	19.5	17.0
25	18.5	16.5	27.0	23.0	25.0	20.5	---	---	23.5	19.5	19.5	18.0
26	20.5	16.5	23.5	20.5	25.0	21.5	---	---	24.0	19.5	20.0	18.5
27	19.5	16.0	24.5	20.5	27.0	22.0	---	---	23.0	19.0	20.5	18.5
28	20.0	16.0	24.5	20.0	27.0	24.5	---	---	23.5	19.0	20.5	18.5
29	20.0	16.5	24.0	20.0	25.0	22.0	---	---	23.0	21.0	20.5	18.5
30	21.0	16.5	28.5	21.5	25.0	21.0	---	---	26.0	21.0	21.0	19.0
31	---	---	28.5	24.0	---	---	---	---	22.0	19.5	---	---
MONTH	21.5	8.5	28.5	17.0	28.5	18.0	---	---	26.0	19.0	25.5	16.5

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 (90 m) upstream from county road bridge, 3 mi (5 km) northeast of Rogersville, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--47.3 mi^2 (122.5 km^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.--Water-stage recorder. Datum of gage is 1,128.9 ft (344.09 m) National Geodetic Vertical Datum of 1929 (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.--Records good. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--32 years (water years 1942-48, 1958-82), 59.9 ft^3/s (1.696 m^3/s), 17.20 in/yr (437 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft^3/s (163 m^3/s) Mar. 12, 1963, gage height, 9.40 ft (2.865 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of contracted-opening measurement of peak flow; maximum gage height, 10.68 ft (3.255 m) Dec. 30, 1969, backwater from log jam; minimum discharge observed, 1.3 ft^3/s (0.037 m^3/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 12, Oct. 2, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1115	1520	43.0	5.02	1.530	Feb. 3	0845	*2000	56.6	5.57	1.698

Minimum discharge, 4.3 ft^3/s (0.122 m^3/s) Aug. 22, 23, gage height, 1.42 ft (0.433 m).

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	7.5	22	159	153	146	42	34	25	15	56	574
2	7.1	7.5	29	92	120	114	36	31	22	11	22	190
3	7.6	7.5	25	466	1100	96	35	30	18	9.6	14	84
4	7.4	7.5	21	782	304	82	32	26	17	12	10	51
5	7.9	7.5	19	261	188	89	31	24	94	15	8.8	36
6	10	9.0	16	159	148	85	44	22	43	13	8.1	28
7	8.6	8.5	15	121	115	514	37	21	27	9.5	7.6	24
8	7.3	7.5	14	92	96	283	38	24	21	9.9	7.0	20
9	6.7	7.5	13	75	496	182	77	22	18	11	9.0	18
10	6.6	7.5	12	61	287	143	73	19	28	10	8.0	16
11	6.0	7.0	12	57	176	118	57	18	28	8.8	7.3	15
12	6.0	7.0	11	46	135	100	49	16	18	10	6.4	14
13	5.7	7.0	10	44	140	88	44	15	214	16	5.8	13
14	5.7	7.0	12	41	123	76	41	14	71	9.5	5.3	64
15	5.5	7.0	25	36	108	88	37	14	40	7.7	5.2	47
16	5.5	9.0	36	33	222	103	33	14	30	7.1	5.0	25
17	5.4	11	32	29	552	94	32	13	38	6.8	5.0	19
18	5.7	10	39	29	500	80	35	12	28	6.9	9.1	15
19	6.2	9.0	34	33	329	71	30	12	22	6.8	7.2	14
20	7.1	10	31	79	225	93	29	13	19	6.4	5.6	13
21	8.8	11	24	461	175	429	27	15	16	5.8	4.9	13
22	11	10	55	271	137	196	25	14	15	5.5	4.5	13
23	13	8.0	217	368	111	122	23	12	14	5.3	4.6	12
24	14	14	170	233	96	93	22	89	13	5.4	7.8	11
25	11	24	97	145	83	76	24	33	12	5.1	20	11
26	16	18	85	105	70	66	63	21	11	4.7	14	11
27	18	22	70	80	231	56	66	17	11	4.6	8.1	11
28	16	29	55	70	240	49	58	68	11	5.5	6.3	10
29	13	24	45	59	---	45	46	105	14	5.8	5.7	9.3
30	10	20	38	53	---	42	39	44	20	7.8	5.3	9.0
31	8.0	---	59	79	---	41	---	30	---	59	45	---
TOTAL	273.8	341.5	1343	4619	6660	3860	1225	842	958	316.5	338.6	1390.3
MEAN	8.83	11.4	43.3	149	238	125	40.8	27.2	31.9	10.2	10.9	46.3
MAX	18	29	217	782	1100	514	77	105	214	59	56	574
MIN	5.4	7.0	10	29	70	41	22	12	11	4.6	4.5	9.0
CFSM	.19	.24	.92	3.15	5.03	2.64	.86	.58	.67	.22	.23	.98
IN.	.22	.27	1.06	3.63	5.24	3.04	.96	.66	.75	.25	.27	1.09

CAL 1981 TOTAL 12942.5 MEAN 35.5 MAX 543 MIN 5.2 CFSM .75 IN 10.18
WTR 1982 TOTAL 22167.7 MEAN 60.7 MAX 1100 MIN 4.5 CFSM 1.28 IN 17.43

03491300 BEECH CREEK AT KEPLER, TN

LOCATION.--Lat 36°24'06", long 82°53'09", Hawkins County, Hydrologic Unit 06010104, on upstream right wingwall of county road bridge, at Kepler, 5.9 mi (9.5 km) east of intersection of U. S. Highway 11W and Burem Road, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--47.0 mi^2 (121.7 km^2).

PERIOD OF RECORD.--October 1965 to current year. Occasional low-flow measurements, water years 1961-62, 1964-65.

GAGE.--Water-stage recorder. Datum of gage is 1,107.83 ft (337.667 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--17 years, 51.2 ft^3/s (1.450 m^3/s), 14.79 in/yr (376 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,480 ft^3/s (98.6 m^3/s); Mar. 30, 1975, gage height, 13.38 ft (4.078 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s); minimum observed, 0.97 ft^3/s (0.027 m^3/s) Sept. 17, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 12, 1963, reached a stage of 14.6 ft (4.45 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 3	1030	2340	66.3	11.38	3.469	Sept. 1	1545	*2870	81.3	12.44	3.792

Minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Oct 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.1	3	106	139	98	29	41	19	9.7	84	1570
2	2.7	2.8	4	41	128	78	29	36	29	7.5	17	282
3	2.8	2.8	10	487	1510	66	27	33	15	6.9	9.8	68
4	2.5	2.8	8.9	770	240	57	27	28	25	9.2	7.7	34
5	3.1	2.8	8.5	148	124	59	25	25	68	8.7	6.8	21
6	3.9	3.9	7.4	78	94	53	36	23	23	7.4	6.3	15
7	3.4	3.6	6.8	60	72	360	34	22	15	6.4	6.0	12
8	3.0	3.1	7.0	48	59	184	33	22	12	6.8	7.3	10
9	2.7	3.1	6.3	39	478	115	49	22	11	9.4	22	9.0
10	2.7	2.9	5.9	35	212	91	43	20	21	6.9	17	7.9
11	2.7	2.8	5.8	32	115	78	37	17	20	5.9	8.9	7.2
12	2.9	2.9	7.0	30	87	67	35	16	46	5.8	6.9	6.8
13	3.1	2.8	6.4	29	107	60	34	15	271	5.5	5.7	6.8
14	3.2	2.8	7.3	27	85	53	34	14	61	5.1	5.1	14
15	3.4	2.8	14	26	74	62	32	14	28	4.8	4.9	13
16	3.7	3.2	26	25	180	64	30	13	20	4.5	5.7	8.2
17	3.7	4.6	19	24	521	61	28	13	163	6.5	18	7.0
18	4.9	4.3	25	23	475	53	29	12	49	12	7.8	6.4
19	5.5	4.0	19	22	214	50	28	12	23	5.1	5.7	6.2
20	5.3	5.0	44	35	133	47	27	13	17	4.6	4.6	6.2
21	5.6	5.3	49	253	102	48	25	26	14	4.2	4.1	6.2
22	5.6	4.9	50	196	78	44	24	15	12	3.6	3.8	6.3
23	9.7	4.4	120	333	63	39	22	13	11	4.3	4.1	6.1
24	10	13	61	161	56	37	21	45	9.9	4.4	7.9	5.6
25	4.9	13	46	87	49	36	25	20	9.0	4.3	15	5.6
26	14	8.5	55	60	42	36	261	15	8.0	3.7	9.0	5.6
27	14	58	33	48	273	33	144	14	7.7	3.0	5.7	5.6
28	8.7	35	24	38	171	30	98	15	8.0	6.8	5.0	5.3
29	5.5	13	20	32	---	28	66	17	9.2	9.6	4.3	5.0
30	4.1	9.8	16	30	---	27	49	13	16	14	4.0	4.7
31	3.5	---	82	95	---	27	---	11	---	219	47	---
TOTAL	152.6	231.0	817.3	3418	5881	2141	1381	615	1040.8	415.6	367.1	2166.7
MEAN	4.92	7.70	26.4	110	210	69.1	46.0	19.8	34.7	13.4	11.8	72.2
MAX	14	58	120	770	1510	360	261	45	271	219	84	1570
MIN	1.8	2.8	5.8	22	42	27	21	11	7.7	3.0	3.8	4.7
CFSM	.11	.16	.56	2.34	4.47	1.47	.98	.42	.74	.29	.25	1.54
IN.	.12	.18	.65	2.71	4.65	1.69	1.09	.49	.82	.33	.29	1.71

CAL YR 1981 TOTAL 9136.5 MEAN 25.0 MAX 664 MIN 1.6 CFSM .53 IN 7.23
WTR YR 1982 TOTAL 18627.1 MEAN 51.0 MAX 1570 MIN 1.8 CFSM 1.09 IN 14.74

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°00'56", 83°49'54", Knox County, Hydrologic Unit 06010104, on right bank at bridge on U. S. Highway 70, at Knoxville city limits, and 5.5 mi (8.8 km) upstream from confluence with French Broad River.

DRAINAGE AREA.--3,747 mi^2 (9,705 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1976, January 1978 to current year. Published as "at Strawberry Plains" 1930-48. Records published for both sites June 1945 to September 1948. Gage-height records collected at Strawberry Plains from December to March 1885-97 are contained in reports of the U. S. Weather Bureau.

REVISED RECORDS.--WSP 893: 1935(M). WSP 1336: 1939.

GAGE.--Water-stage recorder. Datum of gage is 815.84 ft (248.668 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1930, to June 8, 1931, nonrecording gage, and June 9, 1931, to Sept. 30, 1948, water-stage recorder, at site 12 mi (19 km) upstream at datum 22.55 ft (6.873 m) higher. June 19, 1945, to Oct. 4, 1960, 300 ft (90 m) upstream at present datum.

REMARKS.--Records fair. Flow regulated by five reservoirs (see p. 232).

AVERAGE DISCHARGE.--49 years (water years 1931-75, 1979-82), 4,742 ft^3/s (134.3 m^3/s), 17.19 in/yr (437 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge 62,900 ft^3/s (1,780 m^3/s) Mar. 28, 1935, gage height, 20.20 ft (6.157 m), site and datum then in use; minimum, 44 ft^3/s (1.25 m^3/s) Dec. 12, 21, 22, 1941, gage height, -0.58 ft (-0.77 m), site and datum then in use; minimum daily, 44 ft^3/s (1.25 m^3/s) Dec. 21, 22, 1941. Maximum discharge since closure of Cherokee Dam on Dec. 5, 1941, 31,400 ft^3/s (899 m^3/s) Mar. 22, 1963, gage height, 11.20 ft (3.414 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, about 41 ft (12.5 m) in March 1867, from profile by Tennessee Valley Authority. Flood in 1901 reached a stage of about 32 ft (9.8 m), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,700 ft^3/s (530 m^3/s) Aug. 25, 28, gage height, 8.10 ft (2.469 m); minimum, 158 ft^3/s (4.47 m^3/s) Jun. 8, minimum daily, 181 ft^3/s (5.13 m^3/s) Jun. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6450	1200	3650	6300	7760	5930	5600	1170	240	4870	4140	8050
2	6750	1460	1100	2920	7810	6050	5170	1540	271	3070	904	6170
3	7580	1490	537	4380	7530	5860	3400	1760	228	4120	6920	2090
4	6490	1290	381	5450	2380	5740	2990	1290	197	2840	9350	1640
5	5710	2670	291	2740	12000	7720	3940	1500	205	2770	9820	4580
6	5190	1760	260	1660	14100	6610	9560	1280	205	5340	9960	2900
7	6180	1790	399	1490	14000	8120	7460	1220	181	7190	9620	3040
8	5960	1960	1860	8520	14200	9070	5810	1490	2460	7820	6110	3060
9	4660	1480	4190	6100	14000	6450	4870	1220	3030	8570	4040	2900
10	5680	3560	4740	7500	16100	2990	2160	1280	3730	6920	5880	8070
11	5840	5030	4710	16800	14100	3200	2120	1380	3910	6370	9710	(1n0
12	5290	2620	4920	17400	15300	6400	2170	889	4650	6900	9350	7940
13	5960	2980	3970	14300	14700	7240	2060	1140	2480	7110	9730	8490
14	5690	1770	2260	9110	14300	6240	1530	907	575	7560	9710	7200
15	5810	1380	3730	11000	12500	10600	1590	867	5020	8090	5820	8290
16	4720	1480	4540	4600	10200	7500	1490	900	4070	8150	5800	8140
17	4060	1190	3980	14300	8260	7100	1690	620	3840	7940	10300	7850
18	3950	1720	7080	16600	8480	8700	1850	1820	4040	4580	7140	7390
19	4640	1850	8060	7300	10800	11100	1560	1830	4470	5070	1280	6680
20	4960	1550	2780	5530	10100	6800	1370	2100	2290	8110	1120	5180
21	4160	1580	3090	6600	10100	2700	1690	2020	2300	8470	7780	8240
22	3850	1590	2760	2210	10400	4300	1570	1970	4170	7980	4650	8280
23	3970	1490	2890	2240	11700	4000	1360	2380	5130	7370	4710	7670
24	5720	1740	1240	1930	10700	3700	1400	2120	4230	8050	9580	8040
25	5880	1780	990	3690	8120	5000	1370	2440	7630	2890	9740	7220
26	2840	1710	968	5030	9830	4600	1430	2310	6250	2990	9400	4830
27	2890	2320	858	7530	8460	4100	1450	1920	2530	8130	9910	6280
28	3330	2810	781	7540	6100	3400	524	2260	2260	8740	9260	8300
29	2050	3360	3270	7750	---	6300	1290	816	4100	8650	4110	7970
30	971	2280	8890	8760	---	6800	1330	351	4200	8690	3560	6900
31	1280	---	5470	6750	---	4700	---	275	---	14200	7980	---
TOTAL	148511	60890	94645	224030	304030	189020	81804	45065	88892	209550	217384	191540
MEAN	4791	2030	3053	7227	10860	6097	2727	1454	2963	6760	7012	6385
MAX	7580	5030	8890	17400	16100	11100	9560	2440	7630	14200	10300	8490
MIN	971	1190	260	1490	2380	2700	524	275	181	2770	904	1640
CFSM	1.28	.54	.82	1.93	2.90	1.63	.73	.39	.79	1.80	1.87	1.70
IN.	1.47	.60	.94	2.22	3.02	1.88	.81	.45	.88	2.08	2.16	1.90

CAL YR 1981 TOTAL 1227912 MEAN 3364 MAX 11700 MIN 181 MEAN‡ 3620 CFSM‡ .97 IN‡ 13.11
WTR YR 1982 TOTAL 1855361 MEAN 5083 MAX 17400 MIN 181 MEAN‡ 5416 CFSM‡ 1.45 IN‡ 19.62

‡ Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1980 to current year.
WATER TEMPERATURE: February 1980 to current year.

INSTRUMENTATION.--Water quality monitor since Feb. 23, 1980.

REMARKS.--Flow regulated by five reservoirs (see p. 232). Interruptions in the record due to instrument malfunction.

EXTREMES FOR DAILY PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 365 micromhos Mar. 1, 1981; minimum, 121 micromhos July 31, 1982.
WATER TEMPERATURE: Maximum, 27.0°C Aug. 21, 1982; minimum, 1.5°C Feb. 3, 5, and 12, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 356 micromhos Dec. 15, 17; minimum, 121 micromhos July 31.
WATER TEMPERATURE: Maximum, 27.0°C Aug. 21; minimum, 2.5°C several days in January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
24...	1000	1790	295	7.4	10.0	2.5	11.0	--	--	120	15	32
DEC												
14...	1100	1640	308	7.3	8.5	2.5	11.0	--	--	120	23	34
FEB												
24...	0900	12100	270	7.2	6.5	12	12.7	K11	92	110	13	31
APR												
26...	1430	1380	295	8.0	14.0	1.6	9.0	--	--	130	6	35
JUN												
14...	1315	496	290	8.0	18.0	2.6	9.9	240	650	130	13	37
AUG												
09...	1400	4610	295	7.4	24.5	3.0	6.5	59	700	130	24	38

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV												
24...	8.6	15	22	.6	1.8	100	28	14	.1	1.9	177	162
DEC												
14...	9.3	16	22	.7	2.1	100	28	14	.2	2.4	174	166
FEB												
24...	7.3	8.7	15	.4	1.8	94	19	9.4	.1	4.7	162	139
APR												
26...	9.3	6.4	10	.3	1.5	120	18	9.6	.1	.4	171	153
JUN												
14...	8.8	7.9	12	.3	1.7	116	18	11	.1	3.4	167	158
AUG												
09...	8.3	12	17	.5	1.7	105	20	12	.1	3.3	171	159

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
24...	.24	855	.44	.020	.030	<.010	3	14	90
DEC									
14...	.24	770	.59	.030	.030	.050	7	31	73
FEB									
24...	.22	5290	.88	.050	.050	<.010	16	523	89
APR									
26...	.23	637	.57	.040	.020	.020	5	19	77
JUN									
14...	.23	224	.74	<.010	.310	.030	10	13	71
AUG									
09...	.23	2130	.37	.060	.040	.020	12	149	81

K--Results based on non-ideal colony count.

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
14...	1	0	<100	33	1	1	20	10	5	<1
FEB										
24...	1	1	<100	30	<1	2	20	<10	<1	<1
JUN										
14...	1	1	<100	35	<1	<1	10	<10	2	<1
AUG										
09...	6	2	100	35	1	<1	10	<10	<1	<1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
14...	7	2	140	<3	<1	<1	20	8	<.1
FEB									
24...	7	4	380	28	<1	<1	40	4	.1
JUN									
14...	4	4	200	<3	4	2	40	22	.2
AUG									
09...	48	2	120	<3	7	<1	100	3	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
14...	<.1	2	<1	<1	<1	<1	<1	80	13
FEB									
24...	<.1	1	<1	<1	<1	<1	<1	30	9
JUN									
14...	<.1	5	5	<1	<1	<1	<1	10	<4
AUG									
09...	<.1	4	3	<1	<1	<1	<1	10	<4

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	331	315	324	311	292	302	337	328	332	300	280	289
2	324	309	317	318	307	312	337	332	335	304	295	300
3	311	295	305	328	313	320	338	333	335	298	214	244
4	299	287	295	335	322	328	341	333	337	210	192	197
5	290	283	287	341	330	335	342	336	339	227	199	215
6	284	277	281	346	335	341	344	339	341	249	221	234
7	281	271	277	348	340	345	341	338	340	272	244	259
8	280	271	276	347	302	305	338	336	337	282	265	273
9	282	270	279	307	303	304	332	329	330	297	276	287
10	281	271	275	303	288	293	327	323	324	309	290	301
11	275	267	271	287	279	285	324	318	321	305	299	301
12	270	264	267	290	276	283	315	312	314	310	301	306
13	262	259	260	300	286	293	316	311	314	318	305	311
14	292	275	282	301	229	267	352	311	328	330	313	321
15	296	286	290	271	230	261	356	351	353	328	312	318
16	298	288	292	275	267	271	355	350	352	342	321	332
17	295	291	293	278	272	275	356	352	354	337	313	321
18	289	283	285	281	274	277	352	326	347	305	302	303
19	279	273	275	286	278	281	321	285	291	315	298	306
20	269	264	267	293	281	287	288	281	284	319	310	314
21	264	245	257	299	290	295	290	282	286	313	275	286
22	251	242	246	302	295	298	287	285	286	296	273	285
23	249	245	246	300	298	299	305	281	285	297	277	290
24	244	233	242	297	295	296	310	304	308	311	292	301
25	233	222	227	325	307	316	303	301	302	314	294	308
26	233	223	228	338	317	326	299	297	298	321	300	314
27	238	223	229	342	321	329	300	294	297	323	314	317
28	245	232	241	327	319	325	310	296	305	325	317	321
29	248	237	242	342	327	335	326	301	313	323	319	321
30	278	239	259	341	327	332	308	295	301	320	313	316
31	296	274	286	---	---	---	308	284	302	321	315	317
MONTH	331	222	271	348	229	304	356	281	319	342	192	294
		FEBRUARY			MARCH			APRIL			MAY	
1	319	315	317	276	268	273	265	252	259	296	287	295
2	316	309	313	279	272	276	267	250	263	298	294	295
3	308	293	299	284	277	281	282	271	276	303	300	301
4	317	298	307	288	282	285	280	269	272	312	310	311
5	317	305	311	286	281	283	280	264	273	322	294	309
6	317	308	312	292	281	287	280	272	276	321	313	317
7	323	312	318	288	255	270	287	273	281	315	308	311
8	321	317	319	269	258	263	292	284	288	312	307	310
9	316	258	296	279	267	273	299	290	293	312	310	311
10	302	278	291	288	274	282	316	293	305	320	306	314
11	308	299	305	301	289	296	315	297	304	332	318	325
12	310	305	308	305	271	284	318	299	309	336	329	333
13	309	305	307	281	268	273	321	297	309	343	335	339
14	311	307	309	282	269	275	329	316	322	345	322	335
15	307	302	305	280	255	265	322	317	319	344	333	338
16	309	288	303	272	259	265	326	314	318	348	342	345
17	289	278	284	274	263	268	322	312	319	355	348	352
18	290	279	285	275	261	270	320	305	312	352	341	348
19	288	283	285	267	260	263	318	306	311	354	344	350
20	294	285	289	279	261	268	327	316	322	354	352	353
21	291	282	286	279	258	269	324	316	320	352	346	350
22	293	281	288	272	259	265	328	322	325	347	303	334
23	290	286	287	273	266	269	324	318	320	321	256	296
24	285	282	283	286	264	275	315	311	313	309	297	303
25	288	282	285	273	265	269	305	303	304	315	306	310
26	286	276	283	272	261	267	296	293	295	319	314	318
27	274	267	270	272	262	268	297	293	295	323	307	316
28	271	264	267	271	258	266	298	295	296	---	---	---
29	---	---	---	277	252	267	297	293	294	---	---	---
30	---	---	---	267	254	260	297	289	294	---	---	---
	---	---	---	268	253	262	---	---	---	---	---	---
MONTH	323	258	297	305	252	272	329	250	300	355	256	323

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	304	203	263	275	176	250	256	196	244
2	---	---	---	304	282	295	287	271	279	248	198	241
3	---	---	---	324	296	308	300	260	292	253	222	242
4	---	---	---	337	303	320	298	288	293	271	250	265
5	---	---	---	---	---	---	297	289	292	276	262	268
6	---	---	---	---	---	---	297	287	291	273	268	270
7	---	---	---	---	---	---	294	286	290	269	262	267
8	---	---	---	---	---	---	296	287	292	270	263	268
9	---	---	---	294	281	288	295	285	292	272	264	269
10	---	---	---	300	277	294	294	286	290	267	257	262
11	---	---	---	299	285	294	293	285	289	265	256	260
12	---	---	---	301	288	296	292	281	286	260	251	256
13	---	---	---	301	293	298	289	281	284	258	248	253
14	---	---	---	301	287	296	283	276	280	257	249	253
15	---	---	---	302	285	297	282	275	279	255	245	249
16	---	---	---	302	288	298	283	276	279	254	246	250
17	---	---	---	303	292	299	276	269	272	253	244	249
18	---	---	---	306	294	301	275	265	270	256	248	252
19	---	---	---	306	296	301	284	272	279	257	249	253
20	---	---	---	304	293	300	289	276	282	258	254	255
21	---	---	---	303	292	299	280	266	271	259	252	255
22	309	249	280	301	289	297	274	268	270	261	256	258
23	329	284	301	303	292	298	272	264	270	264	258	260
24	300	250	270	300	292	297	270	262	265	263	259	261
25	302	256	273	299	289	294	270	261	265	264	259	261
26	304	261	28[illegible]	305	293	302	269	260	265	263	254	261
27	303	245	272	300	288	297	267	261	264	265	257	261
28	333	292	312	298	291	294	267	259	263	267	261	263
29	304	264	282	297	290	294	268	265	267	268	261	264
30	302	254	277	294	286	291	268	259	263	268	262	265
31	---	---	---	290	121	206	260	249	253	---	---	---
MONTH	---	---	---	337	121	293	300	176	277	276	196	258

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	21.5	21.5	17.0	16.5	17.0	10.5	10.0	10.5	7.0	6.0	6.5
2	22.0	20.5	21.0	16.5	16.5	16.5	10.5	10.0	10.5	7.5	6.5	6.5
3	20.5	19.5	20.0	17.0	16.5	16.5	10.5	10.0	10.0	7.5	6.5	7.0
4	20.5	19.5	20.0	17.0	16.5	17.0	9.5	9.0	9.5	8.5	7.0	8.0
5	20.5	19.5	20.0	17.0	16.5	17.0	9.5	8.0	9.0	8.0	7.0	7.5
6	20.5	19.0	20.0	16.5	16.0	16.5	8.5	7.0	8.0	7.5	7.5	7.5
7	20.5	20.0	20.5	16.0	14.5	15.0	8.0	6.5	7.5	8.5	7.5	8.0
8	20.5	19.0	19.5	15.0	13.5	14.0	8.0	7.5	8.0	8.5	6.0	7.0
9	20.0	19.0	19.5	14.5	13.5	14.0	9.0	7.5	8.5	6.0	4.5	5.5
10	19.5	18.5	19.5	15.0	13.5	14.0	8.5	8.0	8.0	5.0	3.0	4.0
11	20.0	19.5	19.5	15.5	14.5	15.0	8.5	7.5	8.0	4.0	2.5	4.0
12	20.0	19.5	20.0	15.5	14.0	14.5	8.5	8.0	8.5	4.0	4.0	4.0
13	20.0	19.5	19.5	14.5	13.5	14.0	8.5	7.5	8.0	4.0	4.0	4.0
14	20.0	19.0	19.5	14.5	13.0	14.0	8.5	8.0	8.0	4.0	4.0	4.0
15	19.5	19.0	19.5	13.5	12.5	13.0	8.5	8.0	8.5	4.0	3.5	4.0
16	19.5	19.0	19.5	13.5	12.5	13.0	8.0	7.5	8.0	4.0	3.5	3.5
17	20.0	19.0	19.5	12.5	12.0	12.5	8.0	7.5	7.5	3.0	2.5	2.5
18	20.0	19.5	19.5	12.0	12.0	12.0	7.5	7.0	7.5	3.0	2.5	3.0
19	19.5	18.0	18.0	13.0	12.0	12.5	7.0	6.5	7.0	3.0	3.0	3.0
20	18.0	17.0	17.5	13.0	12.0	12.5	6.5	5.5	6.0	3.5	3.0	3.5
21	18.0	16.5	17.5	12.0	10.0	11.0	5.5	4.0	4.5	4.5	3.0	3.5
22	18.0	17.0	17.5	10.0	9.5	10.0	6.0	4.5	5.5	6.0	4.5	5.5
23	18.0	17.0	17.5	10.0	9.5	9.5	6.5	6.0	6.5	6.5	6.0	6.5
24	17.0	15.5	16.0	10.0	9.5	10.0	7.0	6.5	6.5	6.5	5.5	6.0
25	17.0	16.0	16.5	10.0	9.5	9.5	7.0	6.5	7.0	5.5	5.0	5.5
26	16.5	16.0	16.5	---	---	---	7.0	6.5	6.5	5.0	3.0	3.5
27	17.0	16.5	17.0	---	---	---	7.5	6.5	7.0	3.5	2.5	3.0
28	17.5	16.5	17.0	---	---	---	7.5	7.0	7.5	3.5	2.5	3.0
29	17.5	16.5	17.0	11.5	10.5	11.0	7.5	6.5	7.0	4.0	2.5	3.5
30	17.5	16.5	17.0	10.5	10.0	10.0	6.5	6.0	6.5	4.5	3.0	3.5
31	17.5	16.5	17.0	---	---	---	6.0	6.0	6.0	5.0	3.5	4.5
MONTH	22.0	15.5	18.5	17.0	9.5	13.5	10.5	4.0	7.5	8.5	2.5	5.0

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.5	8.0	7.0	7.5	13.5	11.0	11.5	18.0	16.5	17.0
2	4.0	3.5	4.0	8.5	6.5	7.5	13.0	10.5	10.5	18.0	17.5	17.5
3	5.5	4.0	4.5	8.5	7.0	7.5	12.0	10.5	11.0	17.5	16.5	17.0
4	6.5	5.5	6.0	9.0	7.0	7.5	12.5	11.0	12.0	18.0	17.0	17.5
5	6.5	4.0	5.0	8.0	7.5	8.0	12.5	11.5	12.0	17.5	17.0	17.5
6	4.5	3.5	4.0	7.5	7.0	7.0	11.0	9.5	10.5	19.0	17.5	18.5
7	4.0	3.0	3.5	7.0	6.5	7.0	11.5	9.5	10.0	19.0	18.0	18.5
8	4.0	3.5	3.5	8.0	6.0	7.0	10.5	10.0	10.5	17.5	16.0	17.0
9	4.5	4.0	4.0	9.0	7.0	8.0	11.0	10.0	10.5	17.5	16.0	17.0
10	4.5	3.5	4.0	10.5	8.5	9.0	11.0	10.0	10.5	18.5	16.5	17.5
11	4.5	4.0	4.5	11.0	10.5	10.5	12.5	11.5	12.0	19.5	17.0	18.5
12	4.5	3.5	4.0	10.5	9.0	10.0	13.0	12.0	12.5	20.0	17.5	18.5
13	4.5	4.0	4.0	10.5	8.5	9.5	14.0	13.0	13.5	20.5	19.0	20.0
14	5.0	3.5	4.0	9.0	8.0	8.5	14.5	13.0	14.0	22.0	19.5	21.0
15	5.0	4.0	4.5	9.0	8.0	8.5	16.0	14.5	15.5	23.0	21.0	22.0
16	6.5	5.0	5.5	11.0	9.0	10.0	17.0	16.0	16.5	23.5	21.5	22.5
17	7.5	6.0	6.5	12.0	9.5	10.5	17.0	16.0	16.5	24.5	22.0	23.0
18	7.5	6.5	7.0	12.5	10.5	11.5	16.0	14.5	15.0	23.5	21.0	22.0
19	7.5	6.0	6.5	11.0	9.0	10.0	15.5	14.5	15.0	21.0	18.5	20.0
20	7.5	5.5	6.0	11.0	9.0	10.0	15.5	14.0	14.5	18.5	17.5	18.0
21	7.5	5.5	6.5	12.5	11.0	12.0	16.0	15.5	15.5	18.5	17.5	17.5
22	6.5	5.5	6.0	12.5	11.0	11.5	16.0	14.5	15.5	19.0	17.5	18.5
23	7.5	5.5	6.0	11.5	9.5	10.0	15.5	14.0	14.5	19.5	18.0	18.5
24	8.0	6.0	7.0	11.5	10.5	11.0	16.0	14.0	15.0	18.5	17.0	17.5
25	7.5	6.0	6.5	12.0	10.0	11.0	15.0	14.0	15.0	17.5	16.0	16.5
26	6.5	6.0	6.0	11.5	9.5	10.5	15.0	13.5	14.0	18.0	17.0	17.5
27	6.5	6.0	6.5	9.5	8.5	9.0	15.5	14.5	15.0	19.0	18.0	18.5
28	7.5	6.5	7.0	10.5	8.5	9.0	17.0	14.0	15.5	19.0	17.5	18.0
29	---	---	---	11.5	9.0	9.5	17.5	15.0	16.5	19.5	17.5	18.5
30	---	---	---	12.5	10.0	10.5	18.0	16.5	17.0	22.0	19.5	21.0
31	---	---	---	13.5	11.0	12.0	---	---	---	24.5	22.0	23.5
MONTH	8.0	3.0	5.5	13.5	6.0	9.5	18.0	9.5	13.5	24.5	16.0	19.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	24.0	24.5	17.0	15.0	16.0	23.0	21.5	22.0	25.0	23.0	24.0
2	26.5	24.0	25.0	15.5	15.0	15.5	24.5	23.0	15.0	23.5	23.0	23.5
3	25.5	24.5	25.0	16.0	14.0	15.0	24.5	22.0	23.0	23.5	22.0	23.0
4	25.0	24.0	24.5	17.0	15.5	16.5	24.0	22.5	23.0	23.5	22.5	23.0
5	25.5	24.0	24.5	18.0	16.5	17.5	24.5	22.5	23.0	24.5	23.0	24.0
6	26.0	23.0	24.5	18.5	16.5	17.5	25.0	22.5	23.0	24.5	23.5	24.0
7	26.0	23.5	24.5	19.0	16.0	16.5	25.0	23.0	24.0	24.5	23.5	24.5
8	24.5	21.0	23.5	19.5	16.0	17.0	25.0	23.5	24.5	25.0	24.0	24.5
9	20.5	17.0	18.5	19.0	16.0	17.0	25.0	23.5	24.5	25.5	24.0	24.5
10	19.0	16.5	17.5	18.5	16.0	17.0	25.0	23.0	23.5	25.5	24.0	24.0
11	16.5	15.0	15.5	18.5	16.0	17.0	25.0	23.5	24.0	24.5	23.5	24.0
12	17.0	15.0	15.5	18.5	16.0	17.5	24.5	23.5	24.0	24.0	23.5	23.5
13	16.5	15.0	15.5	18.5	16.0	17.0	24.5	23.5	23.5	24.5	23.5	23.5
14	19.0	16.5	18.0	19.0	16.5	17.5	25.0	23.5	24.0	24.0	23.0	23.5
15	20.5	14.5	16.0	20.0	16.5	18.0	25.0	24.0	24.5	24.5	23.5	24.0
16	17.5	16.0	16.5	19.5	17.0	18.0	25.5	24.0	25.0	24.5	23.5	23.5
17	18.0	16.5	17.0	19.5	17.0	18.0	24.5	23.5	24.0	24.5	23.0	23.5
18	16.0	14.0	15.0	20.0	18.5	19.0	25.0	24.0	24.5	24.0	23.0	23.5
19	18.5	15.5	16.5	20.0	18.5	19.0	25.0	24.5	25.0	23.5	23.0	23.0
20	18.5	16.5	17.5	20.0	18.0	19.0	26.5	25.0	25.5	23.5	22.5	23.0
21	19.5	17.0	18.0	21.0	18.0	19.5	27.0	24.0	24.5	22.5	21.5	22.0
22	19.5	15.0	16.5	21.5	19.0	20.0	24.5	24.0	24.0	22.0	21.5	22.0
23	16.5	14.0	15.0	21.0	19.0	20.0	24.5	23.5	24.0	22.5	21.5	22.0
24	17.0	15.5	16.0	21.5	19.5	20.5	25.0	24.0	24.0	22.5	21.5	22.0
25	17.5	13.5	15.0	24.5	21.5	23.0	25.0	24.5	24.5	22.0	21.0	21.5
26	17.0	14.0	15.0	24.5	21.0	22.0	25.5	24.0	24.5	22.0	21.0	21.5
27	18.0	15.5	16.5	24.0	20.5	21.5	25.5	24.0	24.5	22.0	21.5	21.5
28	18.0	17.0	18.0	22.5	20.5	21.5	25.0	24.5	25.0	23.0	21.5	22.0
29	19.0	16.0	17.0	22.5	21.0	21.5	25.0	24.5	25.0	23.0	22.0	22.5
30	17.0	15.5	16.0	23.0	21.5	22.0	25.0	24.5	25.0	23.0	22.0	22.5
31	---	---	---	23.0	22.0	22.0	25.0	24.5	24.5	---	---	---
MONTH	26.5	13.5	18.5	24.5	14.0	18.5	27.0	21.5	24.0	25.5	21.0	23.0

03497000 TENNESSEE RIVER AT KNOXVILLE, TN

LOCATION.--Lat 35°57'17", long 83°51'42", Knox County, Hydrologic Unit 06010201, on left bank 0.7 mi (1.1 km) downstream from confluence of French Broad and Holston Rivers, 3.5 mi (5.6 km) upstream from First Creek, 3.6 mi (5.8 km) upstream from Gay Street Bridge at Knoxville, and at mile 651.4 (1,048.1 km). Records include flow of First Creek.

DRAINAGE AREA.--8,934 mi^2 (23,139 km^2), includes that of First Creek.

PERIOD OF RECORD.--October 1899 to January 1982 (discontinued). Prior to October 1918 monthly discharge only, published in WSP 1306 (daily discharges contained in Tennessee Division of Geology, Bulletin 34). Gage-height records collected in this vicinity since 1883 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 583: 1902(M), 1904(m). WSP 853: Drainage area. WSP 1306: 1899-1918. WSP 1706: Maximum stage and discharge since at least 1791.

GAGE.--Water-stage recorder. Datum of gage is 797.38 ft (243.041 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1943, nonrecording gages or water-stage recorder at several sites within 4 mi (6 km) of present site at various datums. Since Sept. 1, 1943, auxiliary water-stage recorder 6.3 mi (10.0 km) downstream from base gage at same datum.

REMARKS.--Records good except those below 5,000 ft^3/s (141.6 m^3/s), which are fair. Flow regulated by six reservoirs (see p. 232).

AVERAGE DISCHARGE.--82 years (water years 1900-81), 13,080 ft^3/s (370.4 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 195,000 ft^3/s (5,520 m^3/s) Mar. 1, 1902, gage height, 36.4 ft (11.09 m) site and datum then in use, from rating curve extended above 130,000 ft^3/s (3,680 m^3/s); minimum daily, 1,010 ft^3/s (28.6 m^3/s) Mar. 28, 1954; minimum gage height, -1.7 ft (-0.52 m) Sept. 11, 1925, site and datum then in use. Maximum discharge since completion of several upstream dams in Dec. 1941, 89,200 ft^3/s (2,530 m^3/s) Mar. 12, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 45.0 ft (13.72 m) Mar. 8, 1967, site and datum of gage at old city pumping plant, 3.2 mi (5.1 km) downstream from base gage, discharge, 290,000 ft^3/s (8,210 m^3/s), from rating curve extended above 130,000 ft^3/s (3,680 m^3/s), from high-water profile by Corps of Engineers and Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to January 1982: Maximum discharge, 35,300 ft^3/s (1000 m^3/s) Jan. 11; maximum gage height, 16.45 ft (5.008 m) Oct. 3; minimum daily discharge, 1,700 ft^3/s (48.1 m^3/s) Dec. 6; minimum gage height, 10.11 ft (3.082 m) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12400	2840	8610	20600								
2	13100	3300	5750	14400								
3	13900	2500	5220	13800								
4	12800	3700	2490	21100								
5	9380	5200	3550	10100								
6	8460	4600	1700	13300								
7	9180	4300	4260	20400								
8	9610	3500	10100	26500								
9	8820	3000	12500	24900								
10	8100	7000	14400	25900								
11	8870	10100	13700	33900								
12	8330	5300	12300	34900								
13	10800	5500	8960	30000								
14	9110	3000	8290	15900								
15	9320	2500	10800	19500								
16	8470	2700	14600	10700								
17	8090	2300	12800	29600								
18	7420	3400	13400	34000								
19	9660	2500	17800	16500								
20	9410	2900	8910	13300								
21	6690	3200	10700	17800								
22	5290	3000	8390	8680								
23	6170	3100	8100	10400								
24	11100	2900	5960	12900								
25	9550	3900	6700	18500								
26	4670	2900	2520	18300								
27	5620	4000	4400	21700								
28	6190	6600	6190	20900								
29	3630	5900	13100	20700								
30	2490	5200	21100	24900								
31	2680	---	17200	21300								
TOTAL	259310	120840	294500	625380								
MEAN	8365	4028	9500	20170								
MAX	13900	10100	21100	34900								
MIN	2490	2300	1700	8680								

CAL YR 1981 TOTAL 2952980 MEAN 8090 MAX 22000 MIN 1220

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 State Highway 73, 0.3 mi (0.5 km) upstream from Rush Branch, 0.4 mi (0.6 km) southeast of Park entrance, 2.2 mi (3.5 km) southeast of Townsend, and at mile 35.3 (56.8 km).

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,106.92 ft (337.389 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--19 years, 289 ft^3/s (8.184 m^3/s), 37.02 in/yr (940 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) Mar. 16, 1973, gage height, 12.30 ft (3.749 m); minimum, 21 ft^3/s (0.595 m^3/s) Jan. 18, 1981, gage height, 1.13 ft (0.344 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft^3/s (87.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0615	*7050	200	8.25	2.515	July 31	1915	4710	133	6.84	2.085
Feb. 3	0745	4150	118	6.46	1.969						

Minimum discharge, 48 ft^3/s (1.36 m^3/s) Oct. 18, gage height, 1.38 ft (0.421 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	145	60	547	406	425	274	321	629	88	1320	593
2	119	131	583	465	472	387	240	285	366	78	615	1440
3	74	119	437	1480	2660	357	240	260	283	74	409	920
4	65	112	357	3700	1240	333	222	235	243	125	318	507
5	60	119	294	1300	762	349	213	215	230	103	266	365
6	59	124	255	769	576	331	205	201	197	80	234	296
7	59	104	235	567	449	776	189	192	177	117	203	250
8	56	98	219	434	383	596	190	270	163	170	188	221
9	55	93	196	366	588	486	225	201	148	310	342	199
10	55	89	180	284	564	422	197	186	205	257	254	183
11	55	87	167	242	474	378	192	174	208	302	213	171
12	55	84	157	261	414	344	188	166	162	230	205	162
13	54	81	151	260	383	350	187	159	321	182	180	150
14	52	78	193	231	334	335	186	149	250	154	165	142
15	50	77	198	210	317	390	181	142	190	129	149	132
16	49	81	183	200	495	422	175	173	180	117	138	123
17	49	201	206	172	807	972	221	158	175	221	144	115
18	62	149	221	250	671	922	268	142	150	260	176	108
19	82	128	192	239	562	649	222	155	141	231	134	104
20	59	274	176	255	462	512	211	150	128	184	121	102
21	55	215	216	1500	405	584	211	146	118	158	114	107
22	55	184	248	906	350	553	192	145	115	193	110	124
23	167	168	568	959	312	474	182	207	109	197	104	94
24	166	208	506	793	289	412	174	172	101	169	164	88
25	111	194	477	587	290	367	233	145	99	153	134	88
26	437	185	423	447	261	347	583	138	104	140	110	101
27	398	478	376	370	404	297	454	155	124	157	100	126
28	285	547	339	330	451	272	531	536	113	209	112	92
29	226	380	321	292	---	255	443	525	98	308	96	82
30	190	364	290	270	---	242	370	314	97	408	89	77
31	164	---	418	414	---	264	---	387	---	1230	86	---
TOTAL	3483	5297	9442	19100	15781	13803	7599	6804	5624	6734	6993	7262
MEAN	112	177	305	616	564	445	253	219	187	217	226	242
MAX	437	547	660	3700	2660	972	583	536	629	1230	1320	1440
MIN	49	77	151	172	261	242	174	138	97	74	86	77
CFSM	1.06	1.67	2.88	5.81	5.32	4.20	2.39	2.07	1.76	2.05	2.13	2.28
IN.	1.22	1.86	3.31	6.70	5.54	4.84	2.67	2.39	1.97	2.36	2.45	2.55

CAL YR 1981 TOTAL 83129 MEAN 228 MAX 2300 MIN 43 CFSM 2.15 IN 29.17
WTR YR 1982 TOTAL 107922 MEAN 296 MAX 3700 MIN 49 CFSM 2.79 IN 37.87

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C June 23, 1964, July 3, 1970; minimum, 0.0°C on several days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
27...	1430	383	21	13.1	5	5.2
DEC						
02...	1345	579	16	8.0	4	6.3
JAN						
04...	1630	3200	18	8.5	80	691
FEB						
02...	1445	390	18	5.0	3	3.2
MAR						
24...	1300	431	17	9.5	3	3.5
MAY						
17...	1315	141	20	17.0	3	1.1
JUN						
18...	1345	158	18	19.0	8	3.4
JUL						
15...	1400	138	30	20.5	4	1.5
AUG						
20...	1045	121	20	19.0	3	.98
SEP						
16...	1300	116	22	19.5	3	.94

03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on right bank on downstream side of bridge on U. S. Highway 411, 0.8 mi (1.3 km) downstream from Crooked Creek, 5.0 mi (8.0 km) east of Maryville, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--269 mi^2 (697 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft (259.080 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverted an average of about 2.5 ft^3/s (0.071 m^3/s) for municipal supply 300 ft (90 m) upstream from gage.

AVERAGE DISCHARGE.--31 years, 536 ft^3/s (15.18 m^3/s), 27.06 in/yr (687 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft^3/s (912 m^3/s) Mar. 12, 1963, gage height, 24.20 ft (7.376 m), from rating curve extended above 20,000 ft^3/s (566 m^3/s) on basis of area-velocity study and road overflow computations; minimum, 32 ft^3/s (0.91 m^3/s) Aug. 27, 1956; minimum gage height, 6.16 ft (1.878 m) Aug. 11, 1980; minimum daily, 44 ft^3/s (1.25 m^3/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft (9.4 m), discharge, 50,000 ft^3/s (1,420 m^3/s), and flood of April 1, 1896, reached a stage of 26 ft (7.9 m), discharge, 36,000 ft^3/s (1,020 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft^3/s (170 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1100	*12400	351	17.37	5.294	Feb. 3	1130	8260	234	14.59	4.447

Minimum discharge, 106 ft^3/s (3.00 m^3/s), Oct. 17, 18, gage height, 6.43 ft (1.960 m); minimum daily, 108 ft^3/s (3.06 m^3/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	260	1380	1030	835	937	777	599	1000	220	2580	862
2	162	238	1200	795	742	818	602	539	618	196	957	3220
3	165	223	795	3100	5510	739	580	493	469	183	620	1880
4	130	204	618	8630	2610	674	534	447	399	248	476	886
5	125	212	502	2910	1520	676	501	413	379	248	394	602
6	125	240	430	1580	1160	665	487	389	327	192	349	474
7	125	200	390	1120	929	2430	449	375	290	196	312	399
8	120	185	362	853	802	1660	516	491	267	316	285	347
9	114	178	326	600	1640	1150	570	399	245	560	801	312
10	120	168	295	550	1680	956	492	357	301	453	794	281
11	122	163	269	450	1170	840	467	331	378	533	447	264
12	119	157	251	430	955	753	448	312	279	430	386	251
13	115	152	239	430	922	752	436	299	2530	325	321	233
14	112	148	305	400	781	787	428	281	938	269	289	223
15	109	140	392	350	722	1460	414	268	497	235	258	209
16	108	147	403	330	925	1360	419	286	402	212	235	194
17	110	310	386	320	1480	2030	462	280	463	275	233	180
18	122	263	461	420	1280	2130	589	256	415	526	288	174
19	168	225	391	403	1060	1370	507	270	341	452	223	169
20	142	448	360	544	901	1080	478	257	304	316	203	163
21	122	382	380	2980	811	1450	465	270	275	262	189	163
22	119	312	538	2080	709	1410	433	232	266	258	182	197
23	282	276	1000	2100	634	1080	403	356	256	364	174	161
24	378	357	982	1790	589	923	388	395	237	282	262	151
25	230	345	1120	1180	583	810	418	267	225	245	214	153
26	685	312	987	884	534	754	1050	242	236	219	182	183
27	821	664	776	705	1080	652	896	308	370	223	161	245
28	531	1100	639	624	1160	594	976	1660	278	284	183	178
29	409	675	562	551	---	565	819	1760	244	368	159	153
30	337	622	494	505	---	535	695	678	240	593	147	147
31	292	---	750	594	---	712	---	499	---	1350	138	---
TOTAL	6740	9306	17983	39238	33724	32752	16699	14009	13469	10833	12442	13054
MEAN	217	310	580	1266	1204	1057	557	452	449	349	401	435
MAX	821	1100	1380	8630	5510	2430	1050	1760	2530	1350	2580	3220
MIN	108	140	239	320	534	535	388	232	225	183	138	147
CFSM	.81	1.15	2.16	4.71	4.48	3.93	2.07	1.68	1.67	1.30	1.49	1.62
IN	.93	1.29	2.49	5.43	4.66	4.53	2.31	1.94	1.86	1.50	1.72	1.81

CAL YR 1981 TOTAL 157465 MEAN 431 MAX 4050 MIN 70 CFSM 1.60 IN 21.78
WTR YR 1982 TOTAL 220249 MEAN 603 MAX 8630 MIN 108 CFSM 2.24 IN 30.46

03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN						
18...	1500	296	135	1.0	2	1.6
FEB						
02...	1130	603	92	5.5	8	13
JUN						
10...	1600	301	105	21.5	19	15

03518500 TELLICO RIVER AT TELLICO PLAINS, TN

LOCATION.--Lat 35°21'42", long 84°16'44", Monroe County, Hydrologic Unit 06010204, on right bank 1,300 ft (400 m) upstream from bridge on Tellico Plains-Bailplay Road, 0.4 mi (0.6 km) downstream from Laurel Creek, 0.8 mi (1.3 km) east of Tellico Plains, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--118 mi^2 (306 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to February 1982 (discontinued). Published as "near Tellico Plains" October 1927 to September 1930.

REVISED RECORDS.--WSP 1336: 1927-28(M), 1936, 1940, 1944.

GAGE.--Water-stage recorder. Datum of gage is 846.64 ft (258.056 m) National Geodetic Vertical Datum of 1929. July 20, 1925, to Sept. 30, 1927, nonrecording gage at same site and datum. Oct. 1, 1927, to Sept. 30, 1930, nonrecording gage at site 0.5 mi (0.8 km) upstream at datum 8.29 ft (2.527 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--56 years (water years 1926-81), 284 ft^3/s (8.043 m^3/s), 32.68 in/yr (830 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s (564 m^3/s) Mar. 16, 1973, gage height, 14.18 ft (4.322 m) from dross line in well, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement of peak flow; minimum, 13 ft^3/s (0.37 m^3/s) Sept. 7, 1925, gage height, 0.25 ft (0.076 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1840 reached a stage of 15 ft (4.6 m), discharge, about 21,500 ft^3/s (609 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--October 1981 to February 1982: Peak discharges above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0545	*10600	300	11.38	3.469	Feb. 3	0615	5020	142	8.72	2.658
Jan. 21	0900	7390	209	10.04	3.060						

Minimum discharge, 47 ft^3/s (1.33 m^3/s) Oct. 9, 15, 16, 17, gage height, 0.90 ft (0.274 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	109	743	470	507							
2	69	102	562	382	581							
3	60	97	384	2390	2870							
4	52	93	310	4740	1140							
5	51	128	251	1230	756							
6	50	156	221	751	608							
7	55	120	202	572	506							
8	50	109	191	462	456							
9	49	103	174	407	836							
10	54	98	163	338	786							
11	60	94	152	300	591							
12	54	91	147	300	504							
13	51	88	145	310	474							
14	49	85	208	290	419							
15	48	83	205	260	396							
16	48	93	188	230	570							
17	47	472	196	200	894							
18	69	247	218	280	712							
19	94	191	182	300	568							
20	60	275	157	320	491							
21	55	221	193	2770	450							
22	54	176	281	1020	401							
23	162	155	590	979	365							
24	139	231	498	810	342							
25	95	205	662	594	321							
26	443	179	582	481	317							
27	449	571	438	414	633							
28	238	627	355	379	577							
29	166	358	309	344	---							
30	138	384	270	324	---							
31	119	---	407	538	---							
TOTAL	3180	5941	9584	23185	18071							
MEAN	103	198	309	748	645							
MAX	449	627	743	4740	2870							
MIN	47	83	145	200	317							
CFS	.87	1.68	2.62	6.34	5.47							
IN.	1.00	1.87	3.02	7.31	5.70							

CAL YR 1981 TOTAL 72434 MEAN 198 MAX 1690 MIN 47 CFSM 1.68 IN 22.83

03518500 TELLICO RIVER AT TELLICO PLAINS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1964 to September 1970, October 1972 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
09...	1140	48	35	12.0	2	.26
NOV						
18...	1245	238	27	8.5	3	1.9
DEC						
21...	1345	181	20	.5	3	1.5
MAR						
04...	1200	372	18	13.5	2	2.0
APR						
29...	1000	330	24	13.0	8	7.1
JUN						
01...	1500	215	26	17.5	14	8.1
JUL						
06...	1300	110	26	25.0	4	1.2
AUG						
03...	1120	205	18	19.5	5	2.8
SEP						
07...	1445	85	22	20.5	5	1.1

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 (0.6 km) upstream from Grissom Island, 4.6 mi (7.4 km) downstream from Big War Creek, 10 mi (16 km) east of Tazewell, and at mile 159.8 (257.1 km).

DRAINAGE AREA.--1,474 mi^2 (3,818 km^2).

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.--Water-stage recorder. Datum of gage is 1,060.7 ft (323.30 m) National Geodetic Vertical Datum of 1929. Apr. 1, 1919 to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi (37.5 km) downstream of datum 102.7 ft (31.30 m) lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi (12.9 km) downstream at datum 47.2 ft (14.39 m) lower. Water-stage recorder at present site and datum since July 29, 1935.

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

AVERAGE DISCHARGE.--64 years, 2,102 ft^3/s (59.53 m^3/s), 19.37 in/yr (492 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 98,100 ft^3/s (2,780 m^3/s) Apr. 5, 1977, gage height, 29.32 ft (8.937 m), from floodmarks; minimum, 108 ft^3/s (3.06 m^3/s) Sept. 11, 1925; minimum gage height, at present site and datum, 0.33 ft (0.101 m) Sept. 20, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft (7.3 m), present site and datum, from information by local resident; discharge, about 66,000 ft^3/s (1,870 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 14,000 ft^3/s (396 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0730	*19400	549	11.85	3.612	Feb. 4	1500	16900	479	10.91	3.325

Minimum discharge, 221 ft^3/s (6.26 m^3/s) Oct. 17, 18, gage height, 0.74 ft (0.226 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	644	719	2870	3270	5860	1820	1790	2310	1430	1790	4630
2	294	542	741	3550	4460	4710	1700	1560	3890	1080	1360	5550
3	303	479	688	6120	7950	4120	1580	1410	3120	936	1020	3750
4	284	435	630	16400	16000	3750	1530	1330	2200	834	825	2240
5	321	402	587	18200	13500	3450	1460	1240	1910	753	677	1470
6	329	373	557	10700	7240	3170	1480	1120	4040	688	591	1050
7	309	352	527	5590	4920	5330	1540	1010	3580	651	523	815
8	296	342	510	3990	3710	7900	1500	962	2320	652	477	680
9	277	335	488	3550	4740	6950	1620	935	1900	619	457	591
10	265	327	459	3000	8310	5520	1770	903	4800	616	626	527
11	257	315	437	2230	7740	4610	1710	854	4720	947	785	480
12	252	305	414	1650	5540	3980	1580	783	4530	883	667	442
13	246	291	393	1550	4470	3480	1450	730	3350	863	586	416
14	241	284	426	1700	3890	3120	1360	696	6520	739	496	515
15	234	275	598	1620	3360	3130	1270	659	6840	647	446	8420
16	226	274	865	1370	3900	4180	1200	638	3930	889	407	5590
17	224	287	1060	953	7850	5450	1150	617	2880	958	399	2300
18	239	289	1220	857	12400	5270	1130	601	2270	730	724	1490
19	257	287	1230	1030	12000	4360	1070	618	1790	665	748	1090
20	255	300	1140	1400	8780	3860	1040	774	1470	571	538	887
21	247	313	811	7130	6210	6740	991	967	1240	607	431	839
22	248	324	1100	11500	4900	8100	943	1080	1080	1160	385	732
23	292	327	3080	10400	3910	6690	885	994	952	1200	365	649
24	397	392	5850	8880	3230	5100	832	908	918	836	374	602
25	410	472	5220	6560	2820	4030	806	1280	872	702	454	566
26	754	461	3510	4580	2430	3400	994	1150	781	672	873	548
27	1220	520	2600	3380	2740	2950	1420	1140	716	748	1040	512
28	1290	678	2070	2650	5450	2570	2180	1140	922	630	827	482
29	1070	822	1680	2280	---	2240	2280	1380	1110	615	636	465
30	921	747	1380	2000	---	2030	2120	1160	1600	646	510	454
31	802	---	1480	1970	---	1880	---	983	---	1210	572	---
TOTAL	13054	12194	42470	149660	175720	137930	42411	31412	78561	25177	20609	48782
MEAN	421	406	1370	4828	6276	4449	1414	1013	2619	812	665	1626
MAX	1290	822	5850	18200	16000	8100	2280	1790	6840	1430	1790	8420
MIN	224	274	393	857	2430	1880	806	601	716	571	365	416
CFSM	.29	.28	.93	3.28	4.26	3.02	.96	.69	1.78	.55	.45	1.10
IN.	.33	.31	1.07	3.78	4.43	3.48	1.07	.79	1.98	.64	.52	1.23

CAL YR 1981 TOTAL 473934 MEAN 1298 MAX 9200 MIN 214 CFSM .88 IN 11.96
WTR YR 1982 TOTAL 777980 MEAN 2131 MAX 18200 MIN 224 CFSM 1.45 IN 19.63

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 (150 m) upstream from bridge on U. S. Highway 25E, 2.3 mi (3.7 km) east of Arthur, 2.4 mi (3.9 km) downstream from Indian Creek, and at mile 65.4 (105.2 km).

DRAINAGE AREA.--685 mi^2 (1,774 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1919 to February 1982 (discontinued). 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 (318.162 m) 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 (0.610 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--62 years (water years 1920-81), 1,145 ft^3/s (32.43 m^3/s), 22.70 in/yr (577 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,500 ft^3/s (1,690 m^3/s) Apr. 6, 1977, gage height, 38.96 ft (11.875 m), from floodmark; minimum, 47 ft^3/s (1.33 m^3/s) Jan. 6, 1940, result of freezeup; minimum daily, 60 ft^3/s (1.70 m^3/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 6, 1975, result of dredging.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1826 reached a stage of 29.5 ft (8.99 m) present datum, discharge, 34,000 ft^3/s (963 m^3/s), and flood of Jan. 29, 1918, reached a stage of 29.2 ft (8.90 m) present datum, discharge, 33,000 ft^3/s (935 m^3/s).

EXTREMES FOR CURRENT PERIOD.--October 1981 to February 1982: Maximum discharge, 13,300 ft^3/s (377 m^3/s) at 1730 hours, Jan. 4, gage height, 17.23 ft (5.252 m), no other peak above base of 9,000 ft^3/s (255 m^3/s); minimum, 136 ft^3/s (3.85 m^3/s) Oct. 18, gage height, 1.73 ft (0.527 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	452	511	1410	1540							
2	169	382	662	1720	2000							
3	161	338	586	4620	2650							
4	161	306	517	11100	4910							
5	176	284	449	11200	4760							
6	203	275	404	6140	3170							
7	187	254	381	3220	2360							
8	173	236	363	2340	1880							
9	166	230	333	2050	2350							
10	171	220	309	1700	3520							
11	162	207	293	1430	3660							
12	155	197	274	1100	2730							
13	148	190	256	1070	2370							
14	146	184	265	1040	2200							
15	143	179	338	962	1900							
16	141	176	441	870	2520							
17	139	181	578	781	5390							
18	163	179	616	633	7480							
19	191	171	623	722	7100							
20	193	170	631	846	5400							
21	196	170	538	3590	3600							
22	231	165	877	6480	2800							
23	238	161	2050	6690	2200							
24	305	190	3660	5950	1800							
25	304	229	3270	4500	1600							
26	833	243	2030	2980	1400							
27	1220	285	1500	2150	1200							
28	1280	424	1220	1670	1500							
29	1010	446	1030	1450	---							
30	747	455	866	1270	---							
31	573	---	861	1190	---							
TOTAL	10253	7579	26732	92874	85990							
MEAN	331	253	862	2996	3071							
MAX	1280	455	3660	11200	7480							
MIN	139	161	256	633	1200							
CFSM	.48	.37	1.26	4.37	4.48							
IN.	.56	.41	1.45	5.04	4.67							

CAL YR 1981 TOTAL 245026 MEAN 671 MAX 6720 MIN 107 CFSM .98 IN 13.30

03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-65, 1971 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
05...	1030	177	330	15.0	5	2.4	--
NOV							
09...	1130	229	315	11.5	2	1.2	--
DEC							
09...	1415	328	315	5.0	2	1.8	--
JAN							
28...	1530	1680	245	5.0	20	91	--
FEB							
19...	1410	5660	200	9.5	186	2840	--
MAY							
04...	1000	682	250	16.5	5	9.2	--
JUN							
23...	1215	411	305	23.0	18	20	--
JUL							
28...	0930	250	355	26.0	15	10	--
SEP							
02...	1030	3960	280	18.5	264	2820	95

03535000 BULLRUN CREEK NEAR HALLS CROSSROADS, TN

LOCATION.--Lat 36°06'52", long 83°59'16", Knox County, Hydrologic Unit 06010207, on left bank on downstream side of bridge on U. S. Highway 441, 2.1 mi (3.4 km) downstream from Smith Branch, 4 mi (6 km) northwest of Halls Crossroads, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--68.5 mi^2 (177.4 km^2).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 854.91 ft (260.577 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--25 years, 100 ft^3/s (2.832 m^3/s), 19.82 in/yr (503 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft^3/s (518 m^3/s) Apr. 4, 1977, gage height, 13.28 ft (4.048 m), from rating curve extended above 5,000 ft^3/s (142 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.5 ft^3/s (0.071 m^3/s) Aug. 12, 1974, caused by regulation upstream of unknown origin.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) at 1230 hours Jan. 4, gage height, 8.63 ft (2.630 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum, 7.4 ft^3/s (0.21 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	34	416	265	171	135	64	48	89	17	102	558
2	15	31	235	156	147	120	59	45	69	15	39	561
3	16	28	128	765	571	110	60	43	43	14	27	225
4	14	26	96	1230	328	100	55	39	44	42	21	83
5	14	25	74	452	216	102	53	37	42	29	18	50
6	23	25	61	252	174	98	53	35	32	19	18	36
7	16	22	55	186	139	690	48	34	27	16	15	29
8	14	21	50	138	121	383	50	38	25	16	14	24
9	12	20	44	116	583	261	52	33	24	34	27	21
10	12	20	40	99	387	203	46	31	22	22	30	19
11	12	19	38	97	241	167	44	30	22	19	16	18
12	12	18	35	97	185	141	42	28	37	18	14	19
13	12	18	33	97	216	126	42	27	64	15	13	17
14	12	18	47	97	172	113	42	26	34	14	11	19
15	12	17	56	97	155	336	40	25	26	13	10	17
16	12	19	59	95	565	293	43	25	27	12	10	15
17	13	33	65	93	741	215	84	24	54	12	10	14
18	18	26	70	94	401	164	99	25	32	11	12	13
19	23	22	60	95	296	145	73	26	25	12	13	12
20	18	21	58	117	225	129	64	23	22	13	9.1	12
21	16	20	58	919	186	165	56	23	20	12	8.4	12
22	15	19	117	601	149	147	49	23	21	14	8.0	12
23	51	19	303	826	126	125	46	51	20	25	7.7	11
24	45	32	229	489	113	114	44	31	18	15	23	11
25	28	38	159	267	98	105	47	52	17	27	25	13
26	289	33	132	185	86	106	90	27	16	15	16	17
27	308	244	112	141	184	85	75	41	16	13	11	17
28	122	205	92	122	163	77	65	136	17	13	9.9	15
29	71	122	76	104	---	72	57	102	25	14	9.1	12
30	50	102	65	93	---	69	52	55	21	15	8.2	11
31	40	---	220	138	---	71	---	54	---	261	14	---
TOTAL	1328	1297	3283	8523	7139	5167	1694	1237	951	787	569.4	1893
MEAN	42.8	43.2	106	275	255	167	56.5	39.9	31.7	25.4	18.4	63.1
MAX	308	244	416	1230	741	690	99	136	89	261	102	561
MIN	12	17	33	93	86	69	40	23	16	11	7.7	11
CFSM	.63	.63	1.55	4.02	3.72	2.44	.83	.58	.46	.37	.27	.92
IN.	.72	.70	1.78	4.63	3.88	2.81	.92	.67	.52	.43	.31	1.03

CAL YR 1981 TOTAL 19675.8 MEAN 53.9 MAX 613 MIN 6.2 CFSM .79 IN 10.69
WTR YR 1982 TOTAL 33868.4 MEAN 92.8 MAX 1230 MIN 7.7 CFSM 1.36 IN 18.39

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°53'07", long 84°18'03", Loudon County, Hydrologic Unit 06010201, at downstream side of Melton Hill Dam, 1.4 mi (2.2 km) downstream from Hope Creek, and at mile 23.1 (37.2 km).

DRAINAGE AREA.--3,343 mi^2 (8,658 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1936 to January 1941 (published as "near Wheat"), February 1941 to September 1960 (published as "near Scarboro"), October 1960 to September 1964 (published as "at Melton Hill Dam"), October 1967 to September 1968 (published as "near Oak Ridge"), October 1978 to current year. Equivalent record for the period October 1964 to December 1978 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 1941, at site 8.7 miles (14.0 km) downstream at datum 717.36 ft (218.651 m) higher. February 1941 to September 1962 at site 15.9 miles (25.6 km) upstream at datum 753.35 ft (229.621 m) higher. October 1962 to September 1964, headwater gage at upstream side of dam at present datum. October 1967 to September 1968, at site 8.6 miles (13.8 km) downstream at datum 731.62 ft (222.998 m) higher.

REMARKS.--Records good. Flow regulated by Melton Hill Lake (station 03535900) and Norris Lake (station 03532500) above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--33 years, (1936-64, 1967-68, 1978-82), 4,651 ft^3/s (132 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 39,600 ft^3/s (1,120 m^3/s) Feb. 18, 1937; minimum daily, no flow, many days since closure of Melton Hill Dam in August 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 19,900 ft^3/s (459 m^3/s) Feb. 24; minimum daily, no flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5740	883	1500	6020	10900	11300	7070	21	438	5190	7970	9500
2	5830	3680	3120	5430	10600	10400	7380	21	4170	5690	8270	6790
3	6430	3420	3780	5110	11700	10700	6290	546	88	4920	8000	0
4	3730	5370	4120	9090	11900	11400	4100	804	4990	4540	6270	6780
5	4270	3490	2250	4840	10800	15400	6700	1020	5220	4050	6630	2370
6	6520	2320	866	4170	11300	14000	10700	688	2000	6820	6350	4020
7	4080	21	0	7320	9820	12700	7340	71	1650	5820	7500	4530
8	1990	21	21	10500	12800	12800	8480	21	4960	5690	6400	2300
9	1250	3750	221	10500	17500	10100	6630	21	4620	6120	6510	4100
10	21	3030	1470	11200	16200	10000	3170	2330	4070	5800	8270	5030
11	21	3910	1620	11700	16100	10700	3880	1290	3470	5480	7620	4850
12	2170	3450	821	10700	16200	10200	3250	21	1850	5620	7770	4850
13	1820	2780	517	9400	16200	10700	2850	21	2300	6100	8430	4630
14	2520	1340	6750	10600	16300	10500	3280	21	6220	8150	6430	4240
15	2000	800	2800	10400	18100	10100	2880	21	4770	6070	3930	7230
16	2290	3230	6020	10200	18100	9050	2520	42	4570	7200	6330	7040
17	2750	3780	4900	12300	16100	9590	2420	2300	4750	5890	5050	5770
18	3160	5200	2970	10500	14100	8970	2440	1820	5450	2820	2800	3860
19	5060	883	1920	5530	17200	8790	2600	1720	2070	6350	1790	3520
20	4570	433	21	6180	19000	5770	2120	1570	4100	6510	4900	6190
21	4770	0	3500	12500	18600	5970	2960	521	5200	6120	3310	5820
22	2320	21	4350	8880	17700	9810	1900	521	4230	5390	2810	6500
23	1670	21	3470	3270	17000	7290	583	575	4420	6560	6310	6280
24	0	0	2350	5320	19900	6530	21	1790	3700	5740	6230	7290
25	0	0	1680	9440	15800	7390	0	1310	4090	4790	7900	3570
26	1840	1280	1830	11700	12400	5800	2640	1840	3920	6420	7350	3200
27	2450	1230	1020	12300	10400	6450	817	1340	2120	6220	7140	6170
28	3080	2390	1800	9750	7690	4470	1190	2900	4820	6370	5490	6140
29	1800	3540	6100	10300	---	6670	1270	938	4880	7070	3190	6850
30	1720	6150	5450	9940	---	6520	1140	21	5070	6000	6150	7650
31	1780	---	4800	10500	---	7450	---	446	---	10500	6320	---
TOTAL	87652	66423	82037	275590	410410	287520	108621	26571	114206	186010	189420	157090
MEAN	2827	2214	2646	8890	14660	9275	3621	857	3807	6000	6110	5236
MAX	6520	6150	6750	12500	19900	15400	10700	2900	6220	10500	8430	9500
MIN	0	0	0	3270	7690	4470	0	21	88	2820	1790	0

CAL YR 1981	TOTAL	959898	MEAN	2630	MAX	10800	MIN	0	MEAN‡	3175	CFSM‡	.95	IN‡	12.89
WTR YR 1982	TOTAL	1991550	MEAN	5456	MAX	19900	MIN	0	MEAN‡	5692	CFSM‡	1.70	IN‡	23.11

‡ Adjusted for change in contents in Norris and Melton Hill Lakes.

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1981 to current year.
WATER TEMPERATURES: March 1981 to current year.

INSTRUMENTATION.--Water-quality monitor since March 21, 1981.

REMARKS.--Flow regulated by Melton Hill and Norris Lakes.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 449 micromhos Oct. 28, 1981; minimum, 186 micromhos May 29, 1982.
WATER TEMPERATURES: Maximum, 23.5°C May 17, 1982; minimum, 4.5°C Jan. 14-18, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 449 micromhos Oct. 28; minimum, 186 micromhos May 29.
WATER TEMPERATURES: Maximum, 23.5°C May 17; minimum, 4.5°C Jan. 14-18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
25...	1300	100	260	7.3	12.0	2.2	8.7	--	--	120	11	33
DEC												
17...	1100	50	280	7.8	9.0	3.5	9.8	--	--	130	19	35
FEB												
26...	1030	21800	235	7.3	7.0	5.3	12.3	51	K17	120	26	32
MAY												
03...	1245	300	--	8.5	15.5	2.1	11.5	--	--	120	16	31
JUN												
16...	1230	10000	210	7.6	19.5	7.2	7.0	--	620	120	17	32
AUG												
11...	1230	100	240	7.4	19.0	5.4	7.8	24	190	120	18	33

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV												
25...	9.3	4.7	8	.2	1.6	110	22	4.2	.1	4.1	178	145
DEC												
17...	10	5.4	8	.2	1.7	110	24	4.1	.1	2.1	161	149
FEB												
26...	9.2	3.7	6	.2	1.8	92	18	3.4	.1	4.2	145	128
MAY												
03...	9.4	3.9	7	.2	1.2	100	18	3.6	<.1	4.0	--	131
JUN												
16...	9.1	3.8	6	.2	1.4	100	23	3.5	<.1	4.0	146	137
AUG												
11...	8.5	3.3	6	.1	1.3	99	17	3.1	<.1	5.3	131	131

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
25...	.24	48.1	.31	.050	<.010	.010	2	.54	78
DEC									
17...	.22	21.7	.33	.020	.030	.010	3	.41	96
FEB									
26...	.20	8530	.52	.020	.030	<.010	8	471	88
MAY									
03...	.18	98.8	.54	.030	.100	.030	5	4.1	52
JUN									
16...	.20	3940	.50	<.010	.040	<.010	7	189	52
AUG									
11...	.18	35.4	.53	.030	.020	<.010	9	2.4	74

K--Results based on non-ideal colony count.

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
17...	1	0	100	34	<1	2	20	10	<1	<1
FEB										
26...	1	1	100	38	<1	<1	30	10	3	1
JUN										
16...	4	1	<100	36	<1	<1	10	<10	3	2
AUG										
11...	5	2	100	36	1	<1	10	10	1	<1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
17...	8	2	210	6	4	<1	50	<1	<.1
FEB									
26...	10	<1	230	17	<1	<1	20	6	.2
JUN									
16...	7	3	260	<3	2	2	80	1	<.1
AUG									
11...	12	6	150	4	7	1	40	2	<.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TO AL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
17...	<.1	1	1	1	2	<1	3	40	<4
FEB									
26...	.2	1	<1	<1	<1	<1	<1	10	12
JUN									
16...	<.1	1	1	<1	<1	<1	<1	10	<4
AUG									
11...	<.1	9	4	<1	<1	<1	<1	20	<4

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	252	248	250	257	256	256	261	259	260	260	256	259
2	252	251	252	257	254	255	261	260	260	266	255	258
3	253	251	252	257	255	256	262	260	261	256	252	255
4	253	252	252	257	255	255	266	262	263	256	254	255
5	253	252	252	258	255	256	269	265	267	254	252	253
6	254	252	253	257	255	256	271	267	270	253	250	252
7	253	251	252	258	253	257	271	267	270	252	250	251
8	253	251	252	258	256	257	271	267	270	266	247	250
9	254	247	252	258	256	257	273	271	272	247	233	242
10	253	252	253	258	256	257	275	272	273	234	225	230
11	254	252	253	259	254	257	277	274	275	224	207	217
12	253	250	252	259	255	258	276	274	275	236	209	221
13	252	251	251	259	255	257	277	275	276	248	231	240
14	252	250	251	259	255	257	281	276	278	254	247	250
15	252	251	251	259	256	258	282	278	281	257	254	255
16	253	251	252	259	256	257	283	280	281	257	253	256
17	253	250	251	259	257	258	282	277	280	258	256	257
18	251	249	250	259	256	257	278	275	277	258	257	258
19	251	249	250	258	257	258	276	273	275	257	256	257
20	251	249	250	258	257	258	283	274	275	257	256	257
21	252	250	251	259	257	258	275	271	273	---	---	---
22	253	250	252	260	258	260	271	268	269	---	---	---
23	253	251	252	261	259	259	269	267	268	---	---	---
24	254	253	254	261	259	260	267	264	266	---	---	---
25	254	253	253	261	258	260	265	259	263	---	---	---
26	254	253	254	262	258	260	264	258	262	---	---	---
27	255	253	254	261	259	260	291	257	263	241	230	235
28	449	254	304	260	259	259	262	257	260	230	224	227
29	402	255	296	261	259	260	262	260	261	227	217	223
30	256	255	256	261	258	260	265	259	260	238	218	226
31	257	256	257	---	---	---	260	256	259	248	238	242
MONTH	449	247	255	262	253	258	291	256	269	266	207	245
	FEBRUARY			MARCH			APRIL			MAY		
1	252	248	249	242	236	238	235	233	234	261	248	258
2	254	252	253	240	237	238	240	233	237	268	258	261
3	255	252	254	240	236	238	242	231	241	264	258	262
4	256	253	255	239	236	238	243	240	242	260	257	259
5	256	253	256	238	235	237	244	242	243	259	254	258
6	256	251	254	239	236	237	244	242	243	258	256	257
7	256	250	254	237	236	236	244	243	243	258	256	257
8	254	249	251	236	235	236	245	243	244	262	256	258
9	251	246	250	245	235	243	246	244	245	263	211	233
10	253	250	251	245	235	241	247	244	246	212	201	208
11	254	250	252	244	234	239	249	247	248	205	196	204
12	254	245	250	235	233	234	249	245	247	205	196	203
13	247	245	246	237	232	234	249	247	249	205	196	204
14	251	247	249	240	236	237	249	246	248	204	195	201
15	251	249	250	239	231	236	250	247	249	218	195	206
16	251	249	250	239	231	235	251	249	250	257	205	250
17	249	246	248	238	234	235	251	249	250	259	198	246
18	249	246	247	235	234	234	252	249	250	204	196	199
19	247	241	245	237	229	234	251	249	250	244	196	201
20	240	229	233	234	229	233	252	240	249	246	241	244
21	238	226	234	236	232	233	254	242	251	247	241	244
22	240	238	239	233	232	233	253	242	249	245	194	222
23	242	239	240	232	231	232	254	242	251	249	190	223
24	241	239	240	232	231	231	253	242	249	244	190	236
25	240	238	239	234	230	231	255	244	253	243	193	225
26	239	238	239	235	231	233	256	244	251	198	189	195
27	241	238	239	234	229	231	257	245	255	197	191	194
28	259	238	240	234	229	232	258	245	254	196	191	193
29	---	---	---	235	224	231	259	247	257	197	186	194
30	---	---	---	235	225	232	259	256	258	256	196	205
31	---	---	---	234	223	232	---	---	---	254	195	216
MONTH	259	226	247	245	223	235	259	231	248	268	186	226

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	210	194	201	238	233	236	268	220	233	255	244	250
2	250	199	237	240	235	238	269	231	245	245	244	244
3	255	244	249	246	238	242	269	211	223	248	244	245
4	253	198	232	248	240	243	228	210	220	248	244	245
5	254	203	248	248	247	248	260	210	222	246	244	245
6	251	203	245	255	249	254	219	210	215	246	244	245
7	253	202	213	255	254	255	250	211	216	246	244	245
8	261	201	223	254	249	253	220	210	215	246	244	245
9	286	202	228	254	250	253	225	210	219	246	240	244
10	285	211	241	256	248	253	228	224	225	244	230	240
11	250	208	213	253	248	250	243	221	234	238	230	233
12	249	203	216	256	248	249	243	238	240	235	221	230
13	250	199	222	257	247	251	277	237	242	231	228	229
14	213	199	209	255	247	252	245	237	239	231	221	229
15	228	199	208	254	246	251	240	231	237	235	230	232
16	248	207	213	255	246	251	238	237	237	245	231	240
17	253	239	248	250	245	249	237	235	236	248	244	246
18	253	246	250	250	245	248	236	235	235	251	244	249
19	254	248	250	255	245	247	236	232	234	289	249	268
20	257	251	254	254	244	247	270	231	238	290	248	273
21	258	209	238	289	254	268	272	232	235	251	249	250
22	255	211	217	288	243	272	266	230	235	291	249	256
23	259	214	227	291	243	267	265	228	233	291	250	259
24	257	211	224	288	233	254	233	227	231	291	251	266
25	262	219	225	---	---	---	264	227	246	294	254	283
26	265	222	229	---	---	---	265	261	262	255	251	253
27	268	223	236	---	---	---	265	255	260	294	250	269
28	271	226	237	---	---	---	264	253	258	295	251	281
29	273	228	259	---	---	---	263	252	258	291	250	257
30	236	235	235	---	---	---	260	258	259	294	250	258
31	---	---	---	268	230	236	257	247	254	---	---	---
MONTH	286	194	231	291	230	251	277	210	237	295	221	250

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	19.0	19.5	17.0	16.5	17.0	13.0	12.5	13.0	8.0	7.5	7.5
2	19.5	19.0	19.0	17.0	16.5	17.0	13.0	12.5	12.5	8.0	7.0	7.5
3	19.5	19.0	19.5	17.0	16.5	17.0	12.5	12.0	12.5	8.0	7.5	8.0
4	19.5	19.0	19.0	17.0	16.5	17.0	12.0	12.0	12.0	8.5	8.0	8.0
5	19.0	19.0	19.0	17.0	16.5	17.0	12.0	11.0	11.5	8.5	8.0	8.5
6	19.0	18.5	19.0	17.0	16.5	17.0	12.0	11.0	11.0	8.5	8.5	8.5
7	19.0	18.5	19.0	17.0	16.0	16.5	11.5	11.0	11.0	9.0	8.5	8.5
8	19.0	18.5	18.5	16.5	15.5	16.0	11.5	10.5	11.0	9.0	8.5	8.5
9	19.0	18.5	18.5	17.0	15.5	16.0	10.5	10.0	10.5	8.5	8.0	8.5
10	18.5	18.5	18.5	17.0	16.0	16.5	11.0	9.5	10.5	8.0	7.0	7.5
11	18.5	18.5	18.5	17.0	16.0	16.5	11.0	9.5	10.5	8.0	7.0	7.5
12	18.5	18.0	18.5	16.5	16.0	16.0	10.5	9.5	10.0	7.0	6.0	6.5
13	19.0	18.0	18.5	16.5	15.5	16.0	10.0	9.5	10.0	6.0	5.5	6.0
14	18.5	18.0	18.0	16.5	15.5	16.0	10.0	10.0	10.0	6.0	4.5	5.0
15	18.5	18.0	18.0	16.5	15.5	16.0	10.0	9.5	10.0	5.0	4.5	4.5
16	18.5	18.0	18.5	16.0	15.5	15.5	10.0	9.0	9.5	5.0	4.5	5.0
17	18.5	18.0	18.5	16.0	15.5	15.5	9.0	9.0	9.0	5.5	4.5	5.0
18	18.5	18.0	18.5	16.0	15.0	15.5	8.5	8.0	8.5	5.5	4.5	5.0
19	18.5	17.5	18.0	15.5	15.0	15.0	8.5	7.5	8.0	5.5	5.0	5.0
20	18.5	17.5	18.0	15.5	14.5	15.0	8.0	6.5	7.0	5.5	5.5	5.5
21	18.0	17.5	18.0	14.5	13.0	13.5	8.0	6.5	7.5	---	---	---
22	18.0	17.5	18.0	13.5	12.5	12.5	8.0	7.0	7.5	---	---	---
23	18.0	17.5	17.5	12.5	11.5	12.0	8.0	7.5	8.0	---	---	---
24	17.5	16.5	17.0	12.0	12.0	12.0	8.5	7.5	7.5	---	---	---
25	16.5	16.5	16.5	12.5	11.5	12.0	8.5	7.5	7.5	---	---	---
26	17.5	16.0	17.0	14.0	11.5	13.0	8.0	7.5	7.5	---	---	---
27	17.0	17.0	17.0	13.5	13.5	13.5	8.5	7.5	8.0	6.5	6.0	6.0
28	17.5	16.5	17.0	13.5	13.0	13.0	8.0	7.5	7.5	6.5	6.0	6.5
29	17.5	17.0	17.0	13.0	12.5	13.0	8.0	7.0	7.5	7.0	6.0	6.5
30	17.5	16.5	17.0	13.0	12.5	13.0	8.0	7.0	7.5	7.0	6.5	6.5
31	17.5	16.5	17.0	---	---	---	8.0	7.5	7.5	7.0	6.0	6.5
MONTH	19.5	16.0	18.0	17.0	11.5	15.0	13.0	6.5	9.5	9.0	4.5	6.5

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.5	6.5	8.0	6.5	7.0	10.5	10.0	10.0	14.5	13.5	14.0
2	7.0	6.5	7.0	7.5	6.5	7.0	10.5	10.0	10.5	15.5	14.0	15.0
3	8.5	7.0	7.5	8.0	7.0	7.5	11.0	10.0	10.5	17.5	14.0	16.0
4	8.0	7.0	7.5	8.5	7.5	8.0	11.5	10.0	10.5	15.0	13.5	14.5
5	7.5	7.0	7.0	8.5	8.0	8.0	11.0	10.5	10.5	15.0	14.0	14.5
6	7.5	7.0	7.0	8.5	8.0	8.5	11.5	10.5	10.5	14.5	14.0	14.0
7	7.0	6.0	6.5	8.5	8.0	8.0	11.0	10.5	10.5	14.5	14.0	14.5
8	7.0	6.0	6.5	8.0	8.0	8.0	10.5	10.5	10.5	16.5	14.0	15.0
9	7.0	6.5	7.0	9.0	7.5	8.0	10.5	10.0	10.5	17.5	15.5	16.5
10	6.5	6.5	6.5	8.0	7.5	7.5	11.5	10.0	10.5	17.5	14.5	15.5
11	6.5	6.5	6.5	8.0	7.5	7.5	10.5	9.5	10.0	16.0	14.5	15.0
12	6.5	6.0	6.5	8.5	8.0	8.0	10.5	9.5	10.5	16.0	15.0	15.5
13	6.5	6.5	6.5	9.0	8.5	8.5	10.5	9.5	10.0	17.0	15.5	16.5
14	6.5	6.0	6.0	9.0	8.5	9.0	11.0	9.5	10.0	18.5	16.0	17.0
15	6.0	6.0	6.0	9.0	8.0	8.5	11.0	10.0	10.5	21.0	18.5	20.0
16	6.5	6.0	6.0	9.0	8.0	8.5	11.0	10.0	10.5	23.0	20.5	21.5
17	6.5	6.0	6.5	9.0	8.5	8.5	10.5	9.5	10.0	23.5	16.0	21.0
18	6.5	6.5	6.5	9.5	8.5	8.5	11.5	9.5	10.5	16.5	16.0	16.0
19	7.5	7.0	7.0	9.0	8.0	8.5	11.5	11.0	11.5	16.5	15.5	16.0
20	8.5	7.5	8.0	10.0	8.5	9.0	12.0	11.0	11.5	16.0	15.0	16.0
21	8.5	7.5	8.0	9.5	9.0	9.5	12.5	11.0	11.5	17.0	16.0	16.5
22	7.5	7.5	7.5	11.0	9.5	10.0	13.0	11.5	12.0	18.0	16.5	17.0
23	7.5	7.0	7.5	10.5	10.0	10.0	13.0	12.0	12.5	18.5	17.0	18.0
24	7.5	7.0	7.5	11.0	10.0	10.5	13.5	12.5	13.0	18.0	16.5	17.5
25	7.5	7.0	7.5	11.0	10.5	10.5	13.5	13.0	13.5	18.0	16.5	17.0
26	7.5	7.0	7.5	11.5	10.0	10.5	14.0	12.0	13.0	18.0	17.0	17.5
27	7.5	7.0	7.0	11.0	10.0	10.5	13.0	12.0	12.5	17.5	17.0	17.5
28	8.0	7.0	7.5	11.5	10.0	10.5	14.5	12.5	13.5	18.0	17.0	17.5
29	---	---	---	10.5	10.5	10.5	14.0	13.0	13.5	18.5	17.5	18.0
30	---	---	---	11.0	10.0	10.5	14.0	13.0	13.5	19.0	17.5	18.0
31	---	---	---	10.5	10.0	10.0	---	---	---	20.5	19.0	19.5
MONTH	8.5	6.0	7.0	11.5	6.5	9.0	14.5	9.5	11.5	23.5	13.5	16.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	19.0	20.0	19.0	17.5	18.5	18.5	18.0	18.0	19.5	19.0	19.5
2	20.0	18.0	19.0	19.0	18.0	18.5	18.5	18.0	18.0	19.5	19.0	19.5
3	19.0	18.5	18.5	18.5	17.5	18.0	18.5	18.0	18.0	21.0	19.5	20.0
4	19.0	18.0	18.5	18.5	17.5	18.0	18.5	18.0	18.5	21.0	19.0	20.0
5	20.0	18.0	19.0	19.0	18.0	18.5	18.5	18.0	18.5	20.0	19.0	19.0
6	20.0	19.0	19.5	19.0	17.5	18.0	19.0	18.5	18.5	19.5	19.0	19.0
7	20.0	19.0	19.5	19.0	18.0	18.5	19.0	18.5	18.5	19.5	19.0	19.5
8	20.5	19.5	20.0	19.0	18.0	18.5	19.0	18.0	18.5	20.0	19.5	19.5
9	20.5	19.5	20.0	19.0	18.0	19.0	18.5	18.0	18.5	20.0	19.5	20.0
10	20.0	19.5	19.5	18.5	18.0	18.5	18.5	18.0	18.5	20.5	20.0	20.0
11	20.5	19.5	20.0	18.5	17.5	18.0	18.5	18.0	18.5	20.5	20.0	20.5
12	20.0	19.0	19.5	18.5	17.5	18.0	19.0	18.0	18.5	20.5	20.0	20.5
13	21.5	19.0	20.0	18.5	17.5	18.0	19.0	18.5	18.5	20.5	20.0	20.5
14	20.5	19.0	19.5	19.0	18.0	18.5	19.0	18.5	19.0	20.5	20.5	20.5
15	20.0	19.5	19.5	18.5	17.5	18.0	19.5	18.5	18.5	20.5	20.0	20.5
16	20.0	18.5	19.5	18.5	17.5	18.0	18.5	18.5	18.5	21.0	20.5	20.5
17	19.0	18.5	19.0	18.5	17.5	18.0	18.5	18.5	18.5	21.0	20.5	21.0
18	19.5	19.0	19.0	19.0	17.5	18.0	18.5	18.5	18.5	20.5	20.0	20.5
19	21.0	18.5	19.5	18.0	17.5	18.0	19.0	18.0	18.5	20.5	20.0	20.5
20	18.5	18.5	18.5	18.0	17.5	18.0	18.5	18.0	18.5	20.0	20.0	20.0
21	19.0	18.5	18.5	19.0	17.5	18.0	18.5	18.0	18.5	20.0	19.5	20.0
22	19.0	18.5	19.0	19.0	17.0	18.5	19.0	18.0	18.5	20.0	19.5	20.0
23	19.5	18.5	19.0	18.5	17.5	18.0	18.5	18.0	18.5	19.5	19.5	19.5
24	20.0	18.5	19.0	19.0	18.0	18.5	19.5	18.5	19.0	19.5	19.0	19.5
25	19.5	18.0	19.0	---	---	---	19.5	19.0	19.5	19.0	19.0	19.0
26	19.0	18.0	18.5	---	---	---	20.5	19.5	20.0	19.0	18.5	18.5
27	18.5	17.5	18.5	---	---	---	20.5	19.5	20.0	18.5	18.0	18.5
28	18.0	17.5	18.0	---	---	---	20.5	20.0	20.0	18.5	18.0	18.0
29	18.5	17.0	17.5	---	---	---	21.0	19.5	20.0	18.0	18.0	18.0
30	18.0	17.5	17.5	---	---	---	19.5	19.0	19.5	18.0	18.0	18.0
31	---	---	---	18.0	17.5	18.0	19.5	19.0	19.5	---	---	---
MONTH	21.5	17.0	19.0	19.0	17.0	18.0	21.0	18.0	19.0	21.0	18.0	19.5

03538225 POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°59'55", long 84°20'23", Roane County, Hydrologic Unit 06010207, on right bank, 1,000 ft (300 m) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Indian Creek, 8.2 mi (13.2 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 13.8 (22.2 km).

DRAINAGE AREA.--82.5 mi^2 (213.7 km^2).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 743.50 ft (226.619 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--22 years, 175 ft^3/s (4.956 m^3/s), 28.81 in/yr (732 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) Apr. 5, 1977, gage height, 27.93 ft (8.513 m) from floodmarks, from rating curve extended above 8,000 ft^3/s (227 m^3/s); minimum, 4.0 ft^3/s (0.11 m^3/s) Oct. 14, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1928, at site about 5.0 mi (8.0 km) upstream, drainage area, 55.9 mi^2 (144.8 km^2), discharge, about 14,000 ft^3/s (396 m^3/s) was the greatest known since at least 1900, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1600	*3210	90.9	17.29	5.270	Sept. 3	0400	2260	64.0	15.09	4.599
Jan. 21	1730	2920	82.7	16.70	5.090						

Minimum discharge, 6.7 ft^3/s (0.190 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	37	397	362	334	192	325	103	133	17	435	368
2	12	32	355	231	272	173	242	94	100	13	78	1120
3	10	28	173	1030	607	157	231	86	62	12	44	1510
4	9.7	25	120	2570	507	140	182	76	59	35	31	285
5	12	24	90	1210	353	160	159	67	111	24	23	172
6	15	28	72	416	296	144	150	63	64	15	20	119
7	14	25	63	292	230	689	120	59	45	12	16	92
8	12	21	57	201	201	520	143	82	38	11	13	72
9	11	19	48	163	800	339	164	61	32	13	368	56
10	9.7	17	42	129	650	258	143	52	29	12	549	47
11	11	16	37	127	377	215	136	46	27	55	184	42
12	11	14	34	103	283	185	128	42	24	62	105	40
13	12	14	32	100	305	171	120	39	26	27	69	39
14	13	13	50	92	245	151	116	36	25	17	52	53
15	13	13	62	81	233	619	126	33	20	14	39	40
16	14	14	51	75	782	668	115	31	21	12	32	28
17	15	32	52	69	1230	451	228	30	47	15	33	24
18	29	27	70	65	552	331	308	28	28	12	29	23
19	51	20	61	103	372	281	238	26	22	13	26	21
20	31	19	58	238	283	236	199	25	19	16	19	19
21	26	18	63	2070	238	376	164	25	16	12	17	18
22	25	16	381	1440	195	344	133	29	22	11	14	17
23	56	15	602	1600	164	269	114	31	21	13	20	15
24	63	28	336	1110	146	223	104	29	16	12	35	13
25	34	38	211	471	128	194	112	28	14	11	23	27
26	202	31	152	315	109	187	164	26	13	11	17	41
27	363	375	125	235	203	143	143	59	13	10	13	33
28	138	368	101	203	219	124	148	158	17	9.4	11	21
29	82	143	83	173	---	113	128	178	22	11	9.9	16
30	58	122	69	156	---	107	116	74	21	17	9.4	13
31	45	---	179	238	---	218	---	88	---	503	19	---
TOTAL	1404.6	1592	4226	15668	10314	8378	4899	1804	1107	1027.4	2353.3	4384
MEAN	45.3	53.1	136	505	368	270	163	58.2	36.9	33.1	75.9	146
MAX	363	375	602	2570	1230	689	325	178	133	503	549	1510
MIN	7.2	13	32	65	109	107	104	25	13	9.4	9.4	13
CFSM	.55	.64	1.65	6.12	4.46	3.27	1.98	.71	.45	.40	.92	1.77
IN.	.63	.72	1.91	7.06	4.65	3.78	2.21	.81	.50	.46	1.06	1.98

CAL YR 1981 TOTAL 27803.9 MEAN 76.2 MAX 774 MIN 6.9 CFSM .92 IN 12.54
WTR YR 1982 TOTAL 57157.3 MEAN 157 MAX 2570 MIN 7.2 CFSM 1.90 IN 25.77

03538250 EAST FORK POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°57'58", long 84°21'30", Roane County, Hydrologic Unit 06010207, near left bank, on upstream side of county road bridge, 0.3 mi (0.5 km) north of State Highway 95, 1.7 mi (2.7 km) upstream from Bear Creek, 5.8 mi (9.3 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 3.3 (5.3 km).

DRAINAGE AREA.--19.5 mi^2 (50.5 km^2).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 754.16 ft (229.868 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow includes effect of operations of the Department of Energy's Y-12 Plant, which may add up to 20 ft^3/s (0.57 m^3/s), and the west end sewage treatment plant of the City of Oak Ridge, which may add up to 10 ft^3/s (0.28 m^3/s). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--22 years, 51.7 ft^3/s (1.464 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s (116 m^3/s) Nov. 28, 1973, gage height, 16.0 ft (4.88 m) from floodmarks, backwater from low steel on bridge, on basis of runoff comparison with nearby stations; minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 8, 1978, Aug. 7, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1944, the greatest known since 1900, reached a discharge of about 4,600 ft^3/s (130 m^3/s) at site 5.1 mi (8.2 km) upstream, from report of the Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0945	966	27.4	7.58	2.310	Sept. 2	0215	*1253	35.5	8.81	2.685

Minimum daily discharge, 12 ft^3/s (0.340 m^3/s) July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	109	68	70	52	70	29	28	12	57	118
2	26	17	50	46	65	48	55	29	24	17	32	387
3	16	18	35	214	100	45	56	28	22	18	28	93
4	16	17	30	434	90	42	44	27	28	41	24	53
5	25	18	25	113	69	50	42	26	34	19	24	40
6	21	20	23	77	66	45	40	24	22	22	23	33
7	20	17	22	61	54	239	38	21	21	21	22	30
8	17	15	21	50	49	116	50	39	21	20	21	27
9	17	16	19	44	173	82	46	30	21	42	207	25
10	17	16	19	38	102	67	40	24	21	24	120	24
11	16	16	19	46	76	57	38	24	21	47	49	23
12	18	16	18	46	64	51	36	23	19	35	40	22
13	17	16	17	38	74	52	35	23	20	21	32	24
14	17	15	34	32	57	47	34	22	18	19	28	27
15	18	15	27	30	55	250	34	22	18	19	25	24
16	18	21	25	30	239	270	33	21	22	26	25	21
17	18	33	28	30	169	230	65	21	22	26	25	21
18	40	19	25	29	105	200	47	21	19	20	29	20
19	20	17	21	34	81	160	41	21	18	19	23	20
20	17	18	20	50	66	140	39	21	16	19	22	20
21	17	17	20	400	57	180	37	20	16	18	21	23
22	17	16	95	300	50	150	34	28	30	20	19	26
23	53	16	77	350	45	130	32	38	20	22	24	24
24	22	31	50	200	42	110	31	22	19	19	59	24
25	19	20	44	150	40	90	38	22	19	21	26	34
26	82	18	37	130	38	80	49	24	18	21	24	27
27	89	95	33	100	81	70	46	29	23	20	23	28
28	33	48	30	70	61	60	39	84	18	21	21	24
29	26	29	27	55	---	50	34	47	23	22	20	24
30	21	34	25	45	---	40	32	30	22	44	20	24
31	18	---	82	60	---	84	---	27	---	242	27	---
TOTAL	788	680	1107	3370	2238	3287	1255	867	643	957	1140	1310
MEAN	25.4	22.7	35.7	109	79.9	106	41.8	28.0	21.4	30.9	36.8	43.7
MAX	89	95	109	434	239	270	70	84	34	242	207	387
MIN	16	15	17	29	38	40	31	20	16	12	19	20

CAL YR 1981 TOTAL 12380 MEAN 33.9 MAX 250 MIN 15
WTR YR 1982 TOTAL 17642 MEAN 48.3 MAX 434 MIN 12

NOTE.--No gage-height record Jan. 21 to Feb. 4, Mar. 15-30.

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 (4.7 km) southwest of Lancing, 3.0 mi (4.8 km) downstream from Clear Creek, and at mile 1.5 (2.4 km).

DRAINAGE AREA.--518 mi^2 (1,342 km^2).

PERIOD OF RECORD.--October 1956 to September 1968, March 1973 to current year. Prior to May 1957, monthly discharge only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 891.91 ft (271.854 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--21 years (water years 1957-68, 1974-82), 1,059 ft^3/s (29.99 m^3/s), 27.76 in/yr (705 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s (2,970 m^3/s), May 27, 1973, gage height, 29.51 ft (8.995 m), dross line in gage well, 30.5 ft (9.30 m), from floodmarks, from rating curve extended above 33,000 ft^3/s (935 m^3/s) on basis of slope conveyance study at gage height 22.40 ft (6.828 m), and slope-area measurement of peak flow; minimum, 0.4 ft^3/s (0.011 m^3/s) Oct. 31, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 33.9 ft (10.33 m), 35 ft (11 m) downstream from gage, from high water marks by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 13,000 ft^3/s (368 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1215	21000	595	14.03	4.276	Jan. 23	1615	14500	411	11.75	3.581
Jan. 4	0715	*31100	881	17.10	5.212	Sept. 2	1630	13400	379	11.28	3.438

Minimum discharge, 15 ft^3/s (0.42 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	427	8260	1760	2880	1710	1020	821	593	54	1810	2580
2	20	349	6090	1640	2230	1440	958	675	472	49	727	7860
3	18	302	2990	11500	2600	1200	862	556	332	49	392	6400
4	16	274	1930	21000	2440	1020	846	466	274	54	252	2580
5	20	255	1410	7150	1880	1040	697	392	994	55	203	1390
6	26	315	1080	3660	1590	1110	697	338	805	57	167	862
7	24	361	860	2600	1320	2950	661	298	486	64	139	585
8	41	336	720	2110	1110	3040	608	298	327	62	119	422
9	45	292	587	1680	2500	2340	967	307	252	66	114	327
10	57	279	486	1000	3670	1830	994	270	199	171	114	265
11	57	252	419	800	2460	1510	854	226	174	284	167	222
12	52	219	368	720	1860	1250	727	199	154	235	128	195
13	46	203	328	700	2020	1100	683	177	136	188	98	181
14	45	190	339	640	1870	1120	541	157	122	139	80	174
15	42	179	529	550	1630	4410	479	142	108	103	72	192
16	41	179	524	500	2440	6520	416	128	103	86	66	171
17	39	297	481	370	4870	4180	513	151	154	74	86	139
18	49	459	595	400	3280	3650	1290	184	119	70	2090	119
19	74	357	600	650	2320	2520	1070	231	103	93	994	108
20	130	363	480	1500	1800	1940	896	218	89	128	548	98
21	116	404	500	5870	1480	2390	757	188	78	116	354	91
22	96	391	1100	6510	1180	3070	624	231	74	98	265	84
23	116	359	2940	9420	937	2130	513	293	72	108	210	80
24	518	413	2570	6860	790	1650	441	472	76	222	188	76
25	414	635	1850	3520	688	1330	404	327	76	231	632	76
26	1250	606	1470	2310	586	1120	499	231	72	151	534	76
27	5190	2880	1210	1690	914	896	958	181	64	114	332	84
28	2590	5400	1030	1350	1920	734	1570	2340	60	98	243	89
29	1300	2680	835	1160	---	616	1260	3850	57	86	192	86
30	805	1830	689	1050	---	527	1010	1690	54	101	157	80
31	564	---	742	1260	---	541	---	862	---	1140	1100	---
TOTAL	13821	21486	44012	101930	55265	60884	23815	16899	6679	4546	12573	25692
MEAN	446	716	1420	3288	1974	1964	794	545	223	147	406	856
MAX	5190	5400	8260	21000	4870	6520	1570	3850	994	1140	2090	7860
MIN	16	179	328	370	586	527	404	128	54	49	66	76
CFSM	.86	1.38	2.74	6.35	3.81	3.79	1.53	1.05	.43	.28	.78	1.65
IN.	.99	1.54	3.16	7.32	3.97	4.37	1.71	1.21	.48	.33	.90	1.85

CAL YR 1981 TOTAL 250753 MEAN 687 MAX 8260 MIN 14 CFSM 1.33 IN 18.01
WTR YR 1982 TOTAL 387602 MEAN 1062 MAX 21000 MIN 16 CFSM 2.05 IN 27.84

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 (300 m) downstream from highway bridge, 1,100 ft (340 m) downstream from Mud Lick Creek, and at mile 18.3 (29.4 km).

DRAINAGE AREA.--764 mi^2 (1,979 km^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.--Water-stage recorder. Datum of gage is 761.38 ft (232.069 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi (9.3 km) downstream at datum 43.60 ft (13.289 m) lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

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

AVERAGE DISCHARGE.--55 years, 1,461 ft^3/s (41.38 m^3/s), 25.96 in/yr (659 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft^3/s (5,520 m^3/s) Mar. 23, 1929, gage height, 41.2 ft (12.56 m), present site and datum, and 61.1 ft (18.62 m), site and datum then in use, from floodmarks and flood profile, from rating curve extended above 85,000 ft^3/s (2,410 m^3/s), confirmed by slope-area measurement of May 28, 1973, flood at gage height 38.68 ft (11.790 m); no flow at times in 1944, 1952-53.

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 above base of 19,000 ft^3/s (538 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1330	28800	816	19.50	5.944	Jan. 23	1630	22100	626	17.49	5.311
Jan. 4	0830	*50000	1420	24.23	7.385	Sept. 2	1800	23100	654	17.82	5.432

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	737	10100	2530	4510	2350	1320	1250	972	80	2800	2850
2	34	614	8230	2430	3350	2000	1320	1070	803	64	1100	11200
3	27	555	3890	15100	3930	1710	1210	915	597	52	645	7610
4	22	505	2500	32300	3760	1480	1180	785	476	55	412	3000
5	21	475	1810	10200	2860	1480	1030	676	1210	98	295	1600
6	22	538	1430	4930	2330	1530	993	590	1190	84	237	1000
7	31	606	1210	3390	1900	4170	949	519	808	75	183	800
8	31	590	1040	2700	1610	4460	892	506	584	72	161	700
9	53	537	898	2150	3440	3400	1210	513	437	96	173	500
10	60	509	775	1700	5200	2670	1310	458	348	177	193	400
11	72	469	692	1170	3450	2170	1200	388	291	344	216	350
12	72	421	620	1080	2570	1810	1080	337	256	339	195	300
13	65	384	538	1050	2690	1580	1030	295	224	302	142	260
14	59	360	554	956	2540	1570	883	261	195	220	106	260
15	54	340	765	828	2220	6190	808	226	166	166	84	270
16	51	331	812	763	3760	9260	731	203	155	128	69	250
17	48	450	767	552	7890	5710	889	231	244	132	123	200
18	56	766	840	588	5170	4900	1970	299	232	130	1690	180
19	70	662	883	826	3450	3400	1700	302	177	126	1170	160
20	169	667	743	2010	2590	2610	1450	343	142	159	704	140
21	181	725	750	9350	2110	2940	1240	290	113	177	456	125
22	153	724	1440	9040	1700	4000	1050	279	97	179	332	110
23	167	672	4760	14700	1410	2850	883	468	93	195	262	100
24	567	722	3910	9740	1220	2210	782	1200	91	249	247	90
25	636	1010	2700	4800	1100	1770	728	759	91	310	548	95
26	1490	1040	2080	3100	960	1570	877	514	83	221	705	100
27	6040	3630	1710	2250	1250	1320	1270	431	71	164	454	220
28	3230	6970	1470	1820	2430	1130	2110	2360	63	146	326	185
29	1690	3470	1240	1550	---	994	1810	5330	58	121	250	150
30	1180	2450	1050	1410	---	885	1480	2400	71	100	201	125
31	906	---	1160	1880	---	919	---	1310	---	1410	446	---
TOTAL	17286	31929	61367	146893	81400	85038	35385	25508	10338	6171	14925	33330
MEAN	558	1064	1980	4738	2907	2743	1180	823	345	199	481	1111
MAX	6040	6970	10100	32300	7890	9260	2110	5330	1210	1410	2800	11200
MIN	21	331	538	552	960	885	728	203	58	52	69	90
CFSM	.73	1.39	2.59	6.20	3.81	3.59	1.55	1.08	.45	.26	.63	1.45
IN.	.84	1.55	2.99	7.15	3.96	4.14	1.72	1.24	.50	.30	.73	1.62

CAL YR 1981 TOTAL 347416 MEAN 952 MAX 10100 MIN 21 CFSM 1.25 IN 16.92
WTR YR 1982 TOTAL 549570 MEAN 1506 MAX 32300 MIN 21 CFSM 1.97 IN 26.76

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06020001, on right bank in powerhouse at Watts Bar Dam, 6.5 mi (10.4 km) southeast of Spring City, and at mile 529.9 (852.6 km).

DRAINAGE AREA.--17,310 mi^2 (44,830 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1934 to February 1940 (published as "at Breedenton"), October 1974 to current year. Equivalent record for period January 1942 to December 1974 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to March 1940 at site 6.7 mi (10.8 km) downstream at datum 666.22 ft (203.064 m) higher.

REMARKS.--Flow regulated since 1936 by many reservoirs above station (see p. 232 and Water Resources Data for North Carolina, 1981).

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--13 years (water years 1935-39, 1975-82), 28,740 ft^3/s (813.9 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 202,000 ft^3/s (5,720 m^3/s) Mar. 28, 1936; minimum daily, 4,200 ft^3/s (119 m^3/s) Jan. 29, 30, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 77,100 ft^3/s (2,180 m^3/s) Feb. 12; minimum daily, 4,310 ft^3/s (122 m^3/s) Apr. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21500	15400	28400	37200	43500	42500	33000	7910	14400	20700	35300	26100
2	20900	14900	20300	40400	52400	40700	29400	6180	11700	19200	37500	31900
3	21200	15900	22000	43600	61700	46900	24400	9760	11100	21600	38600	44600
4	21500	14100	23000	46200	69900	38700	15100	8150	14900	22100	36400	39800
5	18700	12500	23100	53000	71400	37200	17900	7680	16900	16600	37400	26400
6	19800	11600	13900	60200	68100	37400	23300	8330	14400	21700	32900	15500
7	20400	13800	17400	59900	67900	35100	25900	8400	11600	26200	27300	22300
8	21300	14900	20300	58500	69700	46600	24400	9290	14900	23900	25000	17100
9	23600	18300	17700	57100	71400	46700	17500	9380	17900	27800	27900	17400
10	14600	18400	19400	57100	74400	46700	11200	8800	22800	29800	34000	20500
11	15300	19900	20900	56800	77000	46700	11700	8040	20200	30100	35700	35300
12	18900	23100	16500	60500	77100	46700	11700	10400	22200	25500	39000	35800
13	17700	19600	15400	63600	77000	46600	11200	7720	22200	28700	33600	24800
14	16800	12000	21100	53300	76800	46700	11200	6830	15400	26500	33000	24400
15	17900	12500	24600	40500	76800	46700	11100	9600	24100	27000	34100	27600
16	16900	14000	27100	32400	76700	46900	8480	9640	20700	25900	22200	35300
17	16500	11800	25500	37500	73700	48000	7400	11200	21700	25300	15800	28800
18	18900	12100	31000	40400	70100	51900	9600	11300	22000	28600	22500	32700
19	16800	13500	23300	38200	68600	52200	8730	11000	19200	24200	12200	30100
20	14600	13500	10700	38200	67100	46900	8860	12400	21200	25100	22500	25400
21	15300	13000	19600	40300	67100	32000	6940	11600	19600	25100	20800	26600
22	19400	8400	17500	50500	67100	37300	5480	12000	15700	25200	20800	26600
23	17100	11100	19600	55000	61400	40200	4400	11400	17800	24600	31300	26400
24	18400	12400	20700	55200	50400	34700	4330	12200	25600	27100	26800	28400
25	16700	10800	21400	55400	46800	38100	4310	12600	22300	22900	29500	32300
26	15700	13600	14600	55300	46700	29000	4560	11600	22200	24200	32700	26900
27	16000	14200	13800	55000	44300	17900	4560	13300	26900	24200	32000	26300
28	16100	22500	23200	55200	42600	17800	5500	21600	18700	24900	28100	28000
29	16500	21800	28100	54700	---	22300	6520	26600	18200	24600	27100	27000
30	15400	20100	32500	49300	---	22400	7730	19800	18400	29900	24100	26600
31	15400	---	32800	43200	---	24500	---	12600	---	33700	24200	---
TOTAL	555800	449700	665400	1543700	1817700	1214000	376400	347310	564900	782900	900300	836900
MEAN	17930	14990	21460	49800	64920	39160	12550	11200	18830	25250	29040	27900
MAX	23600	23100	32800	63600	77100	52200	33000	26600	26900	33700	39000	44600
MIN	14600	8400	10700	32400	42600	17800	4310	6180	11100	16600	12200	15500

CAL YR 1981 TOTAL 6244400 MEAN 17110 MAX 41200 MIN 4600
WTR YR 1982 TOTAL 10055010 MEAN 27550 MAX 77100 MIN 4310

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1976 to September 1981.
WATER TEMPERATURE: February 1976 to September 1981.

REMARKS.--Flow regulated by many reservoirs above station (see p. 232 and Water Resources Data for North Carolina, 1982.)

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 270 micromnos July 27, 1978 and July 6, 1981; minimum, 88 micromhos June 14, 1979.
WATER TEMPERATURE: Maximum, 31.5°C Aug. 22, 1980; minimum, 2.0°C Jan. 23, 29, 1977, Feb. 7-10, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
25...	1030	25000	191	6.8	13.5	2.7	8.5	--	--	73	9	21
DEC												
15...	1215	41200	170	6.9	8.5	2.2	10.2	--	--	62	9	18
MAR												
01...	1230	42100	165	7.1	8.0	6.5	10.8	K11	K7	71	15	20
25...	1145	45300	150	--	12.0	5.5	10.0	75	22	63	8	18
JUN												
18...	1215	26400	165	7.4	23.5	2.1	5.7	K8	--	74	10	21
AUG												
13...	1115	38900	195	7.1	25.5	3.2	5.6	64	120	83	12	24

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV												
25...	5.0	9.1	21	.5	1.5	64	18	8.6	.1	4.5	137	106
DEC												
15...	4.1	6.5	18	.4	1.4	53	17	8.1	<.1	3.6	96	91
MAR												
01...	5.0	4.3	11	.2	1.7	56	13	4.8	<.1	5.2	107	88
25...	4.4	3.8	11	.2	1.1	55	12	4.1	<.1	5.4	87	82
JUN												
18...	5.3	4.7	12	.2	1.2	64	12	4.8	<.1	3.4	97	91
AUG												
13...	5.6	7.4	16	.4	1.2	71	14	7.1	.2	4.8	115	107

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
25...	.19	9250	.25	.060	.020	.010	4	270	87
DEC									
15...	.13	10700	.35	.070	.020	.020	2	222	95
MAR									
01...	.15	12200	.62	.060	.040	.030	9	1020	93
25...	.12	10600	.02	.080	.050	.030	7	856	92
JUN									
18...	.13	6910	.18	.020	.020	<.010	18	1280	58
AUG									
13...	.16	12100	.22	.050	.070	<.010	8	840	70

K--Results based on non-ideal colony count.

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
15...	1	0	<100	23	<1	<1	20	10	<1	<1
MAR										
01...	1	1	<100	27	1	<1	10	<10	<1	<1
JUN										
18...	3	1	<100	30	1	<1	10	<10	1	2
AUG										
13...	5	3	100	34	<1	<1	30	20	<1	<1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
15...	1	1	150	12	3	<1	40	1	<.1
MAR									
01...	1	<1	230	36	<1	<1	40	21	.3
JUN									
18...	9	4	130	<3	3	2	150	12	<.1
AUG									
13...	12	2	200	4	6	<1	90	6	.3

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
15...	<.1	2	1	<1	<1	<1	<1	40	<4
MAR									
01...	.1	3	1	<1	<1	<1	<1	10	<4
JUN									
18...	<.1	3	<1	<1	<1	2	<1	10	<4
AUG									
13...	.1	5	3	<1	<1	<1	<1	20	<4

03543500 SEWEE CREEK NEAR DECATUR, TN

LOCATION.--Lat 35°34'53", long 84°44'53", Meigs County, Hydrologic Unit 06020001, on right bank, 0.3 mi (0.5 km) downstream from bridge on State Highway 58, 0.5 mi (0.8 km) downstream from Dry Fork, 5.0 mi (8.0 km) north of Decatur, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--117 mi^2 (303 km^2).

PERIOD OF RECORD.--May 1934 to current year. Prior to October 1935, published as Suee Creek near Decatur.

REVISED RECORDS.--WSP 1910: 1936(M), 1939(M), 1943(M), 1946, 1948(M), 1949, 1951, 1957, 1958(P). WSP 2110: 1951 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 694.32 ft (211.629 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--48 years, 193 ft^3/s (5.466 m^3/s), 22.40 in/yr (569 mm/yr).

EXTREMES FOR PERIOD RECORD.--Maximum discharge, 23,900 ft^3/s (677 m^3/s) Jan. 7, 1946, gage height, 23.97 ft (7.306 m), from floodmarks, from rating curve extended above 11,300 ft^3/s (320 m^3/s) on basis of slope-area measurement at gage height 22.81 ft (6.952 m); minimum, 8.0 ft^3/s (0.23 m^3/s) Jan. 12, 1981, result of freezeup; minimum gage height, 0.15 ft (0.046 m) Sept. 2, 3, 7-9, 13, 20, 1954, Jan. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,050 ft^3/s (86.4 m^3/s) at 1300 hours, Jan. 4, gage height, 7.89 ft (2.405 m), no other peak above base of 2,300 ft^3/s (65.1 m^3/s); minimum, 12.0 ft^3/s (0.34 m^3/s) Oct. 1, gage height, 0.20 ft (0.061 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	559	331	351	419	179	82	90	35	114	30
2	14	17	219	204	286	326	149	77	80	32	43	43
3	15	16	114	1470	1010	276	147	72	74	28	34	121
4	16	16	81	2730	595	232	126	68	62	28	29	51
5	16	19	64	889	417	225	127	64	69	31	26	38
6	17	28	54	496	348	218	125	63	58	28	26	32
7	20	24	48	363	270	956	105	67	53	26	24	29
8	24	20	44	271	233	613	157	75	51	30	72	27
9	24	19	39	220	512	427	245	61	48	60	143	25
10	28	18	35	176	436	338	191	57	47	37	506	24
11	28	18	32	140	330	287	165	54	47	35	103	32
12	28	16	30	121	270	247	146	51	44	60	73	38
13	28	16	28	113	257	220	130	49	49	35	57	29
14	28	18	58	101	215	204	118	47	45	29	49	28
15	30	17	73	88	195	588	107	45	42	27	45	28
16	31	17	59	82	806	547	96	44	44	28	40	25
17	35	23	53	71	1090	679	130	42	70	27	64	24
18	40	23	53	64	587	651	138	42	55	28	56	24
19	41	20	46	68	416	416	108	40	45	29	44	23
20	39	20	41	99	330	332	104	40	42	29	37	22
21	33	20	40	1410	280	456	94	41	37	28	34	22
22	39	18	224	722	231	425	85	44	37	24	31	22
23	53	17	295	1310	197	320	78	84	36	26	30	20
24	60	24	207	896	175	273	75	66	34	25	38	21
25	51	27	202	492	153	242	92	57	32	22	32	24
26	76	24	187	351	138	219	179	53	56	22	28	27
27	120	40	152	265	639	180	140	50	64	20	26	29
28	45	66	124	223	622	158	118	986	43	21	25	26
29	29	42	97	185	---	143	100	220	39	36	24	23
30	23	80	80	162	---	131	87	150	40	31	24	22
31	19	---	241	235	---	199	---	111	---	111	26	---
TOTAL	1063	741	3579	14348	11389	10947	3841	3002	1533	1028	1903	929
MEAN	34.3	24.7	115	463	407	353	128	96.8	51.1	33.2	61.4	31.0
MAX	120	80	559	2730	1090	956	245	986	90	111	506	121
MIN	13	16	28	64	138	131	75	40	32	20	24	20
CFSM	.29	.21	.98	3.96	3.48	3.02	1.09	.83	.44	.28	.53	.27
IN.	.34	.24	1.14	4.56	3.62	3.48	1.22	.95	.49	.33	.61	.30

CAL YR 1981 TOTAL 26804 MEAN 73.4 MAX 771 MIN 13 CFSM .63 IN 8.52
WTR YR 1982 TOTAL 54303 MEAN 149 MAX 2730 MIN 13 CFSM 1.27 IN 17.27

03544500 RICHLAND CREEK NEAR DAYTON, TN

LOCATION.--Lat 35°30'17", long 85°01'20", Rhea County, Hydrologic Unit 06020001, on left bank at Morgantown, 0.4 mi (0.6 km) upstream from bridge on State Highway 30, 1.0 mi (1.6 km) northwest of Dayton, 1.8 mi (2.9 km) downstream from Payne Creek, and at mile 5.2 (8.4 km).

DRAINAGE AREA.--50.2 mi^2 (130.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1927 to September 1931, June 1934 to September 1955, October 1955 to June 1979 (annual maximums only), July 1979 to November 1981 (discontinued). Published as "at Dayton" June 1927 to September 1931.

REVISED RECORDS.--WSP 823: 1935-36 (M), 1937, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 727.59 ft (221.769 m) National Geodetic Vertical Datum of 1929. June 1927 to September 1931 nonrecording gage at bridge 1.0 mi (1.6 km) downstream at datum 43.61 ft (13.292 m) lower. October 1955 to June 1979 at present site and at datum 1.00 ft (0.305 m) higher. July 1979 to November 1981 at present site and datum.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s) and above 2,000 ft^3/s (56.6 m^3/s) which are poor due to measuring conditions and indefinite stage-discharge relation.

AVERAGE DISCHARGE.--27 years (water years 1928-31, 1935-55, 1980-81), 106 ft^3/s (3.002 m^3/s), 28.68 in/yr (728 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 11,000 ft^3/s (312 m^3/s) Nov. 18, 1957, gage height 11.2 ft (3.41 m) present datum, from rating curve extended above 4,600 ft^3/s (130 m^3/s) based on logarithmic plotting and contracted-opening measurement of peak flow; no flow many days during 1929, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period October to November 1981, 81 ft^3/s (2.29 m^3/s) Nov. 30; minimum daily .09 ft^3/s (0.003 m^3/s) Oct. 1, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO NOVEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	3.8										
2	.11	3.4										
3	.11	3.1										
4	.11	3.0										
5	.11	3.2										
6	.10	4.5										
7	.10	6.9										
8	.09	6.1										
9	.09	5.2										
10	.14	4.6										
11	.14	4.1										
12	.14	3.8										
13	.13	3.5										
14	.12	3.3										
15	.11	3.1										
16	.11	3.1										
17	.11	3.8										
18	.30	7.5										
19	.39	7.2										
20	.45	6.3										
21	.46	5.7										
22	.47	5.0										
23	.90	4.7										
24	.98	6.0										
25	1.3	11										
26	2.4	10										
27	6.8	19										
28	9.0	41										
29	6.6	28										
30	5.1	81										
31	4.3	---										
TOTAL	41.36	300.9										
MEAN	1.33	10.0										
MAX	9.0	81										
MIN	.09	3.0										
CFSM	.03	.20										
IN.	.03	.22										

03544500 RICHLAND CREEK NEAR DAYTON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OR RECORD.--May 1979 to December 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO DECEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
07...	1030	.09	160	7.2	14.0	8.8	43
NOV							
02...	1730	3.4	85	--	17.0	--	--
DEC							
09...	1110	39	55	--	5.0	--	--

03563000 OCOEE RIVER AT EMF, TN

LOCATION.--Lat 35°05'48", long 84°32'07", Polk County, Hydrologic Unit 06020203, on left bank 700 ft (210 m) downstream from Tennessee Valley Authority powerplant, 0.8 mi (1.3 km) upstream from former village of Emf, 2.0 mi (3.2 km) downstream from Goforth Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--524 mi^2 (1,357 km^2).

PERIOD OF RECORD.--October 1912 to current year. Prior to January 1913, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1913-34. WSP 853: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 837.88 ft (255.386 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Oct. 1 to June 15, which are fair. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1982), Ocoee No. 3 Lake (station 03562500), and by powerplant above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--70 years, 1,245 ft^3/s (35.26 m^3/s), 32.27 in/yr (820 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s (833 m^3/s) July 10, 1916, gage height, 13.7 ft (4.18 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, 3.4 ft^3/s (0.096 m^3/s) Sept. 20, 1962, gage height, 2.12 ft (0.646 m); minimum daily, 4.6 ft^3/s (0.13 m^3/s) Sept. 14, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 62,000 ft^3/s (1,760 m^3/s) was the greatest known since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,200 ft^3/s (317 m^3/s) Jan. 4, gage height, 9.20 ft (2.804 m); minimum, 7.5 ft^3/s (0.21 m^3/s) Oct. 21, gage height, 2.18 ft (0.664 m); minimum daily, 7.8 ft^3/s (0.22 m^3/s) Oct. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	250	1600	900	1300	1400	1350	1350	1300	1130	908	1250
2	450	250	1400	550	900	1400	1350	1350	1100	1130	1060	1160
3	350	250	1350	3100	5600	1400	1350	1150	1000	899	1080	1150
4	350	600	1350	7100	2000	1400	900	1000	800	763	1140	1070
5	550	750	1200	1650	1450	1400	1000	1000	650	770	1270	936
6	700	850	500	1550	1400	1400	1000	1000	650	961	551	943
7	400	850	500	1050	1100	2000	1100	1000	850	1320	947	1060
8	450	350	20	800	700	1600	1100	900	900	1130	712	1130
9	450	450	300	700	1150	1400	1200	1200	1000	1130	949	1120
10	450	250	20	750	1200	1300	850	1050	1000	781	1150	574
11	550	250	500	1350	1200	1900	850	1000	950	1130	1230	1070
12	550	250	100	1350	1100	1250	1000	1000	500	1040	1200	1070
13	600	250	20	1000	1400	1350	950	1000	1150	1120	1170	1040
14	600	250	450	1050	1400	1450	950	850	1000	1120	1010	1120
15	500	250	250	1050	1350	2350	950	650	650	1140	858	635
16	350	100	300	1050	1450	1750	1200	550	1140	1140	969	1360
17	300	10	300	1350	2000	1600	850	950	1140	936	1130	1110
18	450	150	450	1350	1450	1400	850	900	1290	749	1120	1050
19	400	100	200	1050	1400	1400	1050	900	1140	1150	1130	940
20	10	100	200	1150	1400	1400	1350	700	892	926	849	1000
21	7.8	200	150	2650	1400	1500	1350	850	1050	867	1050	1150
22	7.8	200	650	1550	1350	1450	1350	650	966	902	859	1140
23	350	30	550	1300	1350	1400	1350	650	1010	1110	930	1140
24	450	10	450	1250	900	1400	850	1350	1150	931	1130	1140
25	1450	10	450	1200	900	1400	900	1300	1140	671	1120	1080
26	700	10	800	900	1350	1050	2000	1300	926	923	1120	953
27	650	200	500	1050	1650	1350	1400	1100	547	1050	1150	1020
28	350	350	700	1100	1500	1350	1400	1100	967	1050	1070	580
29	350	500	350	1150	---	1350	1350	1300	1170	1230	885	157
30	250	650	300	1050	---	1350	1350	1300	1270	1170	937	151
31	250	---	1050	1100	---	700	---	1300	---	933	1130	---
TOTAL	13725.6	9220	16960	44200	41350	44850	34500	31700	29298	31302	31814	29299
MEAN	443	307	547	1426	1477	1447	1150	1023	977	1010	1026	977
MAX	1450	850	1600	7100	5600	2350	2000	1350	1300	1320	1270	1360
MIN	7.8	10	20	550	700	700	850	550	500	671	551	151
(†)	-1400	+3600	+7100	+19500	+29600	+9200	+4600	+900	-6500	-4700	-8700	-12500
MEAN‡	398	427	776	2055	2534	1744	1303	1052	760	858	746	560
CFSM‡	.76	.81	1.48	3.92	4.84	3.33	2.49	2.01	1.45	1.64	1.42	1.07
IN.‡	.87	.91	1.71	4.52	5.04	3.84	2.78	2.31	1.62	1.89	1.64	1.19

CAL YR 1981 TOTAL 269335.6 MEAN 738 MAX 2390 MIN 7.8 MEAN‡ 701 CFSM‡ 1.34 IN.‡ 18.17
WTR YR 1982 TOTAL 358218.6 MEAN 981 MAX 7100 MIN 7.8 MEAN‡ 1093 CFSM‡ 2.09 IN.‡ 28.31

† Change in contents, in cfs-days, in Blue Ridge Lake (Georgia), furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in lakes or reservoirs listed above.

NOTE.--No gage-height record Dec. 21 to Jan. 28.

03564500 OCOEE RIVER AT PARKSVILLE, TN

LOCATION.--Lat 35°05'48", long 84°39'15", Polk County, Hydrologic Unit 06020203, on right bank 0.4 mi (0.6 km) downstream from Lake Ocoee Dam and Ocoee No. 1 powerplant of Tennessee Valley Authority at Parksville, and at mile 11.5 (18.5 km).

DRAINAGE AREA.--595 mi^2 (1,541 km^2).

PERIOD OF RECORD.--January 1911 to September 1916, March 1921 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1916, 1921-36 (adjusted runoff). WSP 1386: 1926.

GAGE.--Water-stage recorder. Datum of gage is 716.96 ft (218.529 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1980), Ocoee No. 3 Lake (station 03562500), and Lake Ocoee (station 03564000).

AVERAGE DISCHARGE.--66 years, 1,331 ft^3/s (37.69 m^3/s), 30.38 in/yr (772 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft^3/s (615 m^3/s), Mar. 29, 1951, gage height, 20.22 ft (6.163 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Oct. 28, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood of Nov. 19, 1906, discharge, 65,000 ft^3/s (1,840 m^3/s) was the greatest known flood since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,630 ft^3/s (188 m^3/s) Jan. 4, gage height, 9.27 ft (2.825 m); minimum, 60 ft^3/s (1.70 m^3/s) Mar. 20, gage height, 2.78 ft (0.847 m); minimum daily, 67 ft^3/s (1.90 m^3/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483	342	1610	1690	749	1460	1470	1510	1290	1190	927	1150
2	495	425	1500	1210	1300	2140	1400	1490	1390	1200	1040	1030
3	471	420	1580	1820	2570	1420	1400	1220	1100	898	1270	1890
4	470	312	1330	5390	2680	1620	650	1220	1030	800	1040	1010
5	481	696	1560	4020	2660	1720	1130	1120	1050	800	1690	781
6	614	1040	1280	2600	2690	1610	1190	1060	1060	900	1220	761
7	423	695	999	2680	2710	1900	1050	1170	1050	1000	666	984
8	498	834	546	2480	2650	2020	1000	1050	979	1100	672	931
9	622	978	479	1840	2720	2040	945	1290	975	1110	1040	1110
10	587	548	448	2200	1590	1850	1080	1320	1030	1030	991	1340
11	491	346	663	2230	2260	1710	897	1180	1030	485	927	1090
12	617	336	217	1260	1500	1820	1120	1200	989	1040	1030	654
13	721	349	96	1320	1810	1850	993	1260	483	1230	1210	950
14	563	275	195	1170	1230	1850	1100	1080	1470	1130	832	1080
15	527	274	536	646	1760	1970	1090	683	954	1140	830	641
16	539	206	655	586	1740	2090	1040	743	1110	1240	926	1110
17	265	186	637	1770	1920	1880	1040	1150	1080	1140	1110	1150
18	275	168	629	1770	2710	2610	1030	855	970	698	1240	942
19	579	174	292	1170	2100	1830	1220	890	1110	868	1200	949
20	67	203	294	1180	1730	1220	1400	988	985	1100	1230	972
21	258	293	530	1570	1090	1560	1450	1210	1130	884	1040	1020
22	278	103	651	2640	1510	1820	1470	860	868	888	624	1150
23	289	193	612	2720	1700	1520	1510	768	1020	1030	930	1170
24	523	267	774	2060	1360	1410	1100	1410	933	895	1110	1300
25	282	279	417	1490	1440	1400	1420	1630	916	631	1090	1110
26	1050	274	745	1360	1620	1410	2610	1720	836	922	1100	998
27	993	307	633	1380	1610	1500	1630	1340	595	999	1060	1010
28	659	703	1080	1390	2130	1280	1510	1400	889	1100	964	472
29	556	1140	808	1500	---	1340	1510	1690	1200	1130	609	401
30	452	1200	713	1490	---	1460	1510	1410	1160	1120	886	351
31	341	---	836	1200	---	897	---	1310	---	917	1020	---
TOTAL	15469	13506	23345	57832	53539	52207	37965	37227	30682	30615	31524	29487
MEAN	499	452	753	1866	1912	1684	1266	1201	1023	988	1017	983
MAX	1050	1200	1610	5390	2720	2610	2610	1720	1470	1240	1690	1890
MIN	67	103	96	586	749	897	650	683	483	485	609	351

CAL YR 1981 TOTAL 282833 MEAN 775 MAX 2600 MIN 67 MEAN‡ 740 CFSM‡ 1.24 IN‡ 16.89
WTR YR 1982 TOTAL 413458 MEAN 1133 MAX 5390 MIN 67 MEAN‡ 1243 CFSM‡ 2.09 IN‡ 28.37

‡ Adjusted for change in contents in Blue Ridge Lake (Georgia) and Lake Ocoee.

03565300 SOUTH CHESTUEE CREEK NEAR BENTON, TN

LOCATION.--Lat 35°10'02", long 84°42'59", Bradley County, Hydrologic Unit 06020002, on right bank 50 ft (15 m) downstream from county highway bridge, 0.2 mi (0.3 km) downstream from Climer Branch, 2.4 mi (3.9 km) southwest of Benton Station, 2.8 mi (4.5 km) north of Ocoee, 3.6 mi (5.8 km) west of Benton, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--31.8 mi^2 (82.4 km^2).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 712.14 ft (217.060 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--25 years, 52.8 ft^3/s (1.495 m^3/s), 22.55 in/yr (573 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Mar. 16, 1973, gage height, 12.11 ft (3.691 m), from rating curve extended above 3,200 ft^3/s (90.6 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.7 ft^3/s (0.048 m^3/s) Oct. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1800	*2060	58.3	7.96	2.426	Feb. 3	0815	1080	30.6	7.19	2.192
Jan. 21	1145	1080	30.6	7.19	2.192	Mar. 15	1700	1190	33.7	7.30	2.225

Minimum discharge, 4.0 ft^3/s (1.113 m^3/s) Aug. 23, 27, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.4	309	137	112	102	34	32	8.3	5.7	13	5.5
2	5.0	6.2	80	56	160	81	31	29	7.9	5.3	5.7	21
3	5.1	6.2	41	1040	802	69	31	27	7.5	5.3	5.0	25
4	5.1	6.2	31	1130	205	60	27	24	7.5	6.1	4.7	7.0
5	5.5	8.6	26	219	123	58	30	22	7.6	5.7	4.5	5.8
6	5.7	10	23	127	102	62	28	20	7.1	5.1	4.6	5.3
7	6.0	7.6	21	94	81	474	25	20	6.8	6.2	4.5	5.0
8	6.0	6.8	19	75	71	161	49	35	6.7	6.1	5.5	4.9
9	7.0	6.2	17	65	282	99	70	22	6.5	5.0	6.4	4.7
10	6.6	6.2	16	54	165	79	42	18	7.4	5.1	10	4.6
11	6.4	6.4	16	52	103	68	34	17	6.5	5.8	5.8	5.4
12	6.6	6.0	15	49	83	60	30	15	6.6	5.9	5.7	5.6
13	6.6	6.0	15	46	84	54	27	15	24	4.9	5.0	5.0
14	6.8	6.0	54	43	67	118	26	14	9.0	4.5	4.7	4.9
15	7.4	5.7	41	41	62	636	24	13	7.2	4.5	4.4	4.8
16	7.4	5.7	30	39	163	295	22	13	9.3	4.4	4.5	4.8
17	7.4	6.0	26	37	321	132	66	12	14	4.4	10	4.7
18	7.9	5.5	24	37	153	95	69	12	8.8	4.8	7.3	4.6
19	8.1	5.7	21	50	99	77	44	11	7.3	7.7	5.3	4.5
20	7.9	20	20	87	78	66	37	12	6.8	6.1	4.6	4.5
21	8.3	7.6	20	760	67	203	36	12	6.3	5.1	4.4	4.5
22	8.8	6.6	27	224	57	126	30	11	6.3	4.7	4.3	4.4
23	9.9	6.4	40	295	51	82	25	12	6.1	5.1	4.2	4.4
24	9.4	7.9	37	168	47	68	23	13	5.7	4.7	4.9	4.3
25	8.8	7.2	201	105	42	58	48	11	5.6	4.9	4.4	4.9
26	21	6.4	78	80	43	56	109	10	5.6	4.5	4.3	5.2
27	43	100	50	66	364	46	104	13	6.0	4.4	4.9	5.4
28	8.8	56	39	60	165	41	71	17	5.8	4.3	4.7	4.7
29	7.4	12	32	53	---	38	51	11	6.7	5.1	4.4	4.4
30	6.8	49	27	50	---	36	39	9.5	6.4	5.3	4.2	4.5
31	6.6	---	213	118	---	34	---	8.7	---	10	4.3	---
TOTAL	268.1	402.5	1609	5457	4152	5634	1282	511.2	233.3	166.7	170.2	184.3
MEAN	8.65	13.4	51.9	176	148	117	42.7	16.5	7.78	5.38	5.49	6.14
MAX	43	100	309	1130	802	636	109	35	24	10	13	25
MIN	4.8	5.5	15	37	42	34	22	8.7	5.6	4.3	4.2	4.3
CFSM	.27	.42	1.63	5.54	4.65	3.68	1.34	.52	.25	.17	.17	.19
IN.	.31	.47	1.88	6.38	4.86	4.25	1.50	.60	.27	.20	.20	.22

CAL YR 1981 TOTAL 9541.9 MEAN 26.1 MAX 364 MIN 4.0 CFSM .82 IN 11.16
WTR YR 1982 TOTAL 18070.3 MEAN 49.5 MAX 1130 MIN 4.2 CFSM 1.56 IN 21.14

03565500 OOSTANAULA CREEK NEAR SANFORD, TN

LOCATION.--Lat 35°19'39", long 84°42'19", McMinn County, Hydrologic Unit 06020002, on right bank 20 ft (6 m) downstream from highway bridge, 1.3 mi (2.1 km) southeast of Sanford, 3.5 mi (5.6 km) northeast of Calhoun, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--57.0 mi^2 (147.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 716.51 ft (218.392 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--28 years, 94.8 ft^3/s (2.685 m^3/s), 22.59 in/yr (574 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s (227 m^3/s) Mar. 16, 1973, gage height, 13.43 ft (4.093 m); minimum, 15 ft^3/s (0.42 m^3/s) Jan. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1045	*1620	45.9	8.11	2.472	Jan. 22	0715	925	26.2	5.90	1.798

Minimum discharge, 16 ft^3/s (0.45 m^3/s) Oct. 10, gage height, 2.10 ft (0.640 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	285	146	165	167	100	72	50	41	65	50
2	18	23	358	99	146	146	92	70	48	38	48	85
3	19	22	117	511	350	135	90	69	47	36	34	100
4	19	21	82	1420	418	126	90	66	46	37	32	50
5	20	22	70	1110	240	120	89	64	44	42	32	40
6	20	27	63	397	204	115	90	63	50	38	31	35
7	19	25	58	237	188	217	83	62	47	35	31	30
8	18	22	54	194	167	257	83	80	44	33	36	27
9	18	22	50	166	195	184	111	70	42	34	34	21
10	19	22	46	148	281	164	93	64	41	35	39	20
11	19	20	44	129	206	149	85	61	39	36	36	21
12	20	20	42	115	179	140	82	58	39	43	34	25
13	19	20	40	109	167	130	78	58	76	38	32	24
14	19	20	46	103	155	130	76	57	110	33	30	23
15	18	20	62	96	143	147	74	57	52	32	31	23
16	19	21	51	89	155	255	72	56	48	32	40	22
17	19	22	46	86	281	191	79	55	92	32	54	21
18	19	26	46	82	285	179	102	55	79	32	45	21
19	20	21	43	80	206	163	83	54	56	49	38	21
20	21	24	41	88	181	149	75	58	52	44	34	22
21	19	31	41	446	166	163	73	56	50	35	33	21
22	19	24	51	783	153	182	71	54	46	31	32	20
23	20	23	85	353	137	149	67	56	44	32	32	20
24	26	24	77	499	128	136	65	60	43	34	35	20
25	22	25	86	288	120	128	70	56	42	32	33	21
26	25	24	106	210	113	125	110	54	41	30	32	22
27	53	31	85	178	168	114	96	60	48	29	34	23
28	47	66	76	161	210	108	90	68	47	30	33	22
29	30	44	68	146	---	104	81	62	42	37	32	20
30	26	41	62	133	---	98	76	56	41	34	30	19
31	24	---	80	133	---	97	---	54	---	37	31	---
TOTAL	693	776	2461	8735	5507	4668	2526	1885	1546	1101	1113	889
MEAN	22.4	25.9	79.4	282	197	151	84.2	60.8	51.5	35.5	35.9	29.6
MAX	53	66	358	1420	418	257	111	80	110	49	65	100
MIN	18	20	40	80	113	97	65	54	39	29	30	19
CFSM	.39	.45	1.39	4.95	3.46	2.65	1.48	1.07	.90	.62	.63	.52
IN.	.45	.51	1.61	5.70	3.59	3.05	1.65	1.23	1.01	.72	.73	.58

CAL YR 1981 TOTAL 14435 MEAN 39.5 MAX 358 MIN 18 CFSM .69 IN 9.42
WTR YR 1982 TOTAL 31900 MEAN 87.4 MAX 1420 MIN 18 CFSM 1.53 IN 20.82

03565500 OOSTANAULA CREEK NEAR SANFORD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1978 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
06...	1445	18	370	15.5	340	17
NOV						
20...	1415	21	330	16.0	16	.91
DEC						
22...	1330	45	330	4.0	6	.73
JAN						
28...	1040	154	260	6.5	48	20
MAR						
03...	0900	133	260	11.0	44	16
APR						
27...	1230	90	260	16.0	61	15
JUN						
03...	1030	46	305	16.5	94	12
JUL						
08...	1230	34	305	22.0	60	5.5
AUG						
04...	1245	34	285	21.5	52	4.8
SEP						
09...	1400	26	22	20.5	30	2.1

03566000 HIWASSEE RIVER AT CHARLESTON, TN

LOCATION.--Lat 35°17'16", long 84°45'07", Bradley County, Hydrologic Unit 06020002, on left bank 250 ft (80 m) upstream from Southern Railway bridge, 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.9 (30.4 km).

DRAINAGE AREA.--2,298 mi^2 (5,952 km^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). Gage-height records collected at this station during the period December 1884 to December 1889 are contained in 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.--Water-stage recorder and deflection recorder. Datum of gage is 665.56 ft (202.863 m) National Geodetic Vertical Datum of 1929. Prior to July 18, 1925, nonrecording gages, and July 18, 1925, to Sept. 6, 1926, water-stage recorder, at Southern Railway bridge, 250 ft (80 m) downstream at datum 1.50 ft (0.457 m) higher. Auxiliary nonrecording gages at several sites and datums used periodically.

REMARKS.--Records poor. Some diversions above gage for industrial and municipal water supplies. Flow regulated by seven reservoirs (see p. 232 and Water Resources Data for Georgia and North Carolina, 1979-82). Daily discharge figures computed using areas as determined from a stage-area curve and velocities as determined from a deflection-velocity curve.

AVERAGE DISCHARGE.--37 years, (water years 1901-02, 1920-39, 1964-76, 1980-81), 4,795 ft^3/s (135.8 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft^3/s (1,610 m^3/s) Mar. 17, 1973, gage height, 29.39 ft (8.958 m); minimum daily, 275 ft^3/s (7.79 m^3/s) Sept. 8, 1925; reverse flow has occured for short periods each year since closure of Chickamauga Dam on Tennessee River in 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1886, reached a stage of 34.0 ft (10.36 m), present datum, discharge about 70,000 ft^3/s (1,980 m^3/s).

EXTREMES FOR CURRENT PERIOD.--September 1979: Maximum discharge during period, 10,000 ft^3/s (283 m^3/s) Sept. 29; gage height, 17.15 ft (5.227 m); minimum daily discharge, 3,860 ft^3/s (109 m^3/s) Sept. 22; minimum gage height, 15.04 ft (4.584 m) Sept. 1.

Water year 1980: Maximum daily discharge, 40,000 ft^3/s (1,130 m^3/s) Mar. 21, estimated (deflection gage not operating); maximum gage height, 25.21 ft (7.684 m) Mar. 21; minimum daily discharge, 1,900 ft^3/s (53.8 m^3/s) Sept. 1; minimum gage height, 10.02 ft (3.054 m) Feb. 27.

Water year 1981: Maximum discharge, 10,600 ft^3/s (300 m^3/s) Apr. 24; maximum gage height, 18.45 ft (5.624 m), June 8; minimum daily discharge, 524 ft^3/s (14.8 m^3/s) May 24; minimum gage height, 9.71 ft (2.960 m) Mar. 6.

October to December 1981: Maximum discharge during period, 9,270 ft^3/s (263 m^3/s) Dec. 1; maximum gage height, 15.50 ft (4.724 m) Oct. 1; minimum daily discharge, 830 ft^3/s (23.5 m^3/s) Oct. 18; minimum gage height, 9.85 ft (3.002 m) Dec. 13.

03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												5280
2												5100
3												5110
4												4830
5												5000
6												4990
7												4710
8												4930
9												4630
10												4920
11												4760
12												4920
13												5450
14												5750
15												4530
16												4550
17												4420
18												5070
19												4540
20												4430
21												5030
22												3860
23												6220
24												5270
25												5040
26												4850
27												4960
28												7580
29												6710
30												5520
31												---
TOTAL												152760
MEAN												5092
MAX												7580
MIN												3860

03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5210	4700	7900	4820	6620	3490	11000	6200	5400	3880	4000	1900
2	5270	6370	7940	4500	5400	3490	10500	6000	5400	4530	3760	3010
3	5270	7210	7350	4370	3940	4250	10500	6000	4800	4410	3990	2980
4	5160	5420	8230	4430	2790	3890	9500	6000	5400	3160	3620	3200
5	5280	5880	8530	5360	2970	3080	9500	6000	5000	3130	3720	3160
6	5160	5480	8500	5670	3100	4660	9000	5600	5600	2320	3410	3140
7	5180	5200	8450	4230	3730	4710	8500	5000	5000	3080	3920	3020
8	5210	4980	8460	5520	4000	10200	7500	5800	4000	3920	3710	3220
9	4950	5890	7990	4480	4200	10000	7500	4200	4000	4380	4010	3230
10	5210	11200	8200	4460	4200	8840	7000	3000	4400	4590	3770	3430
11	4930	11500	8170	4510	4000	8290	6800	3600	4200	4520	3800	2930
12	4800	9910	7760	5920	4200	8130	6800	3400	3600	4280	3740	3000
13	5520	8940	8010	5270	4800	8450	6800	3600	3400	3780	3910	2860
14	4930	6600	8260	4870	5000	8070	14000	4400	3600	3360	3900	2320
15	4630	6900	8050	4420	4800	7140	16000	4800	3400	4150	3770	2850
16	3430	6630	8170	3650	4800	5420	10500	4000	3200	3990	3790	2970
17	2990	5590	8370	3610	5400	6780	9000	5000	3800	3960	2550	3090
18	2780	5060	8230	4330	5000	10400	8000	5400	3800	4150	3730	2780
19	2730	4990	8120	6440	4800	9420	7500	5000	3800	3180	3850	2860
20	4470	5640	8020	4710	5000	20000	7000	5200	3800	2470	3630	2180
21	5440	5990	6550	4570	3910	40000	6800	5800	3800	2970	3700	2110
22	5440	5810	6150	4830	3320	26000	6800	5000	3400	3860	3830	2010
23	4820	5580	5810	8980	2540	13000	6600	6000	3000	3460	3620	2730
24	4610	7870	5980	8140	2610	11000	6600	6400	3800	3890	2320	2020
25	4770	9360	6570	8040	2800	11000	6400	5600	4480	3850	3160	2520
26	4650	9780	6890	6590	3520	10000	6600	5000	4730	4070	2920	2330
27	4640	8670	7020	5420	3520	10500	6000	5600	4870	3820	3060	2670
28	4660	8160	7260	4850	3390	13000	6000	6000	4500	4010	3020	2430
29	4740	8280	5360	4450	2840	16000	6200	5600	4100	3760	3020	2340
30	5090	8170	4060	4080	---	14000	5600	6200	3810	3730	2810	2790
31	5170	---	4320	4920	---	12000	---	4200	---	3960	2170	---
TOTAL	147140	211760	228680	160440	117200	325210	246500	159600	126090	116620	108270	82080
MEAN	4746	7059	7377	5175	4041	10490	8217	5148	4203	3762	3493	2736
MAX	5520	11500	8530	8980	6620	40000	16000	6400	5600	4590	4010	3430
MIN	2730	4700	4060	3610	2540	3080	5600	3000	3000	2320	2170	1900

WTR YR 1980 TOTAL 2029590 MEAN 5545 MAX 40000 MIN 1900

03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2790	1640	2600	2840	4220	1550	2750	1740	1520	2390	2010	2270
2	2570	2350	1800	2860	5900	1960	2330	1450	3190	1970	1670	2210
3	2120	2170	2800	2290	5980	2210	2080	1340	3360	2180	2220	2220
4	2140	1900	2900	2410	5310	2040	1790	1280	4540	1820	3700	2200
5	1730	2050	2590	2680	4390	2390	2540	1450	4880	1740	3510	2240
6	1600	1690	2430	2520	3990	2600	2860	1280	4400	1960	3660	762
7	2040	1720	2170	1890	3240	3600	1990	1110	4050	2480	3080	1490
8	2070	1750	1870	2360	3320	2200	1740	1330	2340	2000	3090	2260
9	2200	1960	1660	2430	3410	2100	1790	1250	2410	1740	1720	2830
10	2270	1860	2600	2660	3580	2300	2120	697	2630	1730	2070	2770
11	2440	2020	3010	2750	9800	2100	1660	1010	3230	1850	3670	2460
12	2440	1760	2800	2400	9360	1900	1620	2000	3150	1340	3800	1930
13	2520	1710	2750	2500	7070	1800	1610	1920	2610	2170	3460	1390
14	2400	1750	2850	2070	4520	1700	1090	1730	1960	2620	3190	1490
15	2230	2060	2310	1650	3420	1800	1350	2440	1700	2700	2840	2480
16	2450	2300	1700	2020	3490	1800	1230	1500	3190	2760	1810	2660
17	2290	2000	2380	2510	3070	2200	1010	1560	2900	3060	2110	3250
18	1360	2900	2850	2510	3580	1700	1510	1650	1870	2510	3720	2390
19	1360	2700	2560	2320	4760	1900	1520	2380	2340	2050	3260	1740
20	1600	2600	3780	2500	5300	1700	1390	2390	2320	2180	1920	1450
21	1380	2000	4880	2520	5330	1700	1630	1900	1490	3190	2720	1780
22	1330	2300	4770	2620	4950	1700	1660	1780	2510	3200	2470	2410
23	1100	2200	3720	2620	4890	1400	1400	678	3020	3210	1240	2280
24	1310	2500	2510	2580	3900	1800	6320	524	2360	2340	2000	2330
25	1850	2500	2990	2220	3740	1700	3900	828	2270	2050	2820	2410
26	1610	2300	2870	2390	3390	1700	3000	1060	2480	1750	1930	1770
27	1110	2500	2380	2510	3050	1350	1830	1830	2090	1940	2140	1260
28	1130	2900	2170	2710	2200	1400	1050	3560	1670	3530	2050	1750
29	1970	2700	2200	3610	---	1150	1590	2330	1630	3380	2010	2140
30	1840	2600	2770	4530	---	3000	1870	2630	2230	2640	1150	2140
31	1630	---	2710	4150	---	3600	---	2230	---	2270	1590	---
TOTAL	58880	65390	84380	80630	129160	62050	60230	50857	80340	72750	78630	62762
MEAN	1899	2180	2722	2601	4613	2002	2008	1641	2678	2347	2536	2092
MAX	2790	2900	4880	4530	9800	3600	6320	3560	4880	3530	3800	3250
MIN	1100	1640	1660	1650	2200	1150	1010	524	1490	1340	1150	762

CAL YR 1980 TOTAL 1650660 MEAN 4510 MAX 40000 MIN 1100
WTR YR 1981 TOTAL 886059 MEAN 2428 MAX 9800 MIN 524

03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2150	1500	4960									
2	2100	1610	6140									
3	1910	1620	4130									
4	1180	1230	3180									
5	1190	1330	3560									
6	2590	1700	2290									
7	2540	2010	2620									
8	2360	2100	2520									
9	2260	1500	2150									
10	2020	2200	2670									
11	1840	2300	2760									
12	1860	2400	1990									
13	2950	1700	1100									
14	2190	1300	1380									
15	1930	1350	2580									
16	1790	1050	3100									
17	1570	1500	2780									
18	830	1400	3570									
19	1850	1350	3060									
20	1640	1600	2670									
21	1850	1720	2600									
22	1840	1260	2700									
23	1790	1340	3000									
24	2220	1180	3200									
25	1460	1610	3600									
26	2230	1270	3200									
27	3000	1500	2800									
28	2830	2850	2700									
29	2090	2530	3000									
30	1780	2430	3800									
31	1370	---	4000									
TOTAL	61210	50440	93810									
MEAN	1975	1681	3026									
MAX	3000	2850	6140									
MIN	830	1050	1100									

CAL YR 1981 TOTAL 882869 MEAN 2419 MAX 9800 MIN 524

03566420 WOLFTEVER CREEK NEAR OOLTEWAH, TN

LOCATION.--Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi (1.0 km) downstream from Southern Railway bridge, 0.9 mi (1.4 km) south of Ooltewah, 1.6 mi (2.6 km) upstream from Little Wolftever Creek, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--18.8 mi^2 (48.7 km^2).

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.08 ft (230.148 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--18 years, 33.6 ft^3/s (0.952 m^3/s), 24.27 in/yr (616 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s (207 m^3/s) Mar. 16, 1973, gage height, 9.75 ft (2.972 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Sept. 28, 29, Oct. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	1715	*1380	39.1	6.80	2.073	Mar. 15	1430	826	23.4	5.31	1.618

Minimum discharge, 1.5 ft^3/s (0.042 m^3/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.9	207	77	60	73	22	23	7.1	8.6	53	6.8
2	1.6	3.1	51	44	137	56	20	20	6.5	5.8	23	17
3	1.8	2.8	26	764	349	42	22	17	6.5	5.2	15	13
4	1.8	2.7	17	512	115	28	19	15	6.8	4.9	13	7.1
5	1.7	22	13	118	79	25	27	14	7.1	5.2	11	6.1
6	1.7	9.6	11	77	65	23	21	13	6.8	5.5	10	5.5
7	1.7	5.5	9.8	56	48	220	18	15	6.5	4.4	9.0	4.6
8	1.7	4.3	8.9	41	41	140	41	35	6.5	4.1	8.2	4.6
9	2.1	3.8	7.5	34	178	80	52	15	6.1	3.8	21	4.4
10	3.7	3.5	6.9	27	97	45	33	13	5.8	4.9	22	3.8
11	2.3	3.3	6.4	24	66	37	28	12	5.5	13	12	4.4
12	2.2	3.2	6.0	23	53	30	23	11	5.5	6.5	11	4.6
13	2.2	2.9	5.6	21	47	25	22	9.8	13	4.6	9.4	4.4
14	2.2	2.9	62	18	37	44	21	9.4	6.1	4.1	8.6	3.8
15	2.2	2.9	31	15	36	378	18	8.6	5.5	3.8	7.9	3.8
16	2.2	2.9	18	14	132	148	16	8.2	17	3.6	8.2	3.3
17	2.6	2.9	17	13	178	97	94	8.2	15	9.4	48	3.1
18	4.6	2.7	14	12	97	70	72	7.9	8.2	5.8	26	2.9
19	2.9	4.5	11	24	66	56	46	7.5	6.5	14	15	2.9
20	2.5	12	9.6	43	52	47	35	7.9	5.8	19	12	2.9
21	2.3	4.9	9.6	362	43	60	33	7.5	5.5	8.6	10	2.7
22	2.6	3.9	24	117	34	48	24	7.1	5.5	51	9.0	2.9
23	5.2	3.8	43	229	29	40	19	7.1	5.5	26	16	2.9
24	3.6	9.5	31	111	25	37	17	7.9	4.9	22	33	2.9
25	5.4	5.8	129	73	22	47	61	7.1	4.6	19	13	3.8
26	13	4.7	60	52	27	53	90	29	7.1	10	10	3.1
27	14	54	39	41	175	39	59	55	9.4	8.6	9.8	2.9
28	5.4	24	28	35	106	32	47	20	11	29	12	2.5
29	4.1	11	21	30	---	29	34	11	7.9	37	8.2	2.5
30	3.6	75	17	27	---	27	28	8.6	11	15	7.1	2.3
31	3.1	---	126	78	---	24	---	7.9	---	122	7.1	---
TOTAL	107.8	297.0	1066.3	3112	2394	2100	1062	438.7	226.2	484.4	478.5	137.5
MEAN	3.48	9.90	34.4	100	85.5	67.7	35.4	14.2	7.54	15.6	15.4	4.58
MAX	14	75	207	764	349	378	94	55	17	122	53	17
MIN	1.6	2.7	5.6	12	22	23	16	7.1	4.6	3.6	7.1	2.3
CFSM	.19	.53	1.83	5.32	4.55	3.60	1.88	.76	.40	.83	.82	.24
IN.	.21	.59	2.11	6.16	4.74	4.16	2.10	.87	.45	.96	.95	.27

CAL YR 1981 TOTAL 5957.7 MEAN 16.3 MAX 283 MIN 1.6 CFSM .87 IN 11.79
WTR YR 1982 TOTAL 11904.4 MEAN 32.6 MAX 764 MIN 1.6 CFSM 1.73 IN 23.55

03567500 SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TN

LOCATION.--Lat 35°00'51", long 85°12'35", Hamilton County Hydrologic Unit 06020001, on left bank 0.1 mi (0.2 km) upstream from bridge on U.S. Highway 11, 1.5 mi (2.4 km) south of Chickamauga, 6.0 mi (9.7 km) east of the city hall in Chattanooga, and at mile 12.2 (19.6 km).

DRAINAGE AREA.--428 mi^2 (1,109 km^2).

PERIOD OF RECORD.--October 1928 to September 1978, October 1980 to current year. Monthly discharge only for December 1930, published in WSP 1306. Gage-height record collected October 1978 to September 1980 (fragmentary). Prior to October 1937, published as Chickamauga Creek near Chickamauga.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1937. WSP 1386: 1932.

GAGE.--Water-stage recorder. Datum of gage is 644.12 ft (196.328 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1930, nonrecording gage. Oct. 7, 1930, to Oct. 29, 1980, water-stage recorder at site 1,000 ft (305 m) upstream at datum 7.00 ft (2.134 m) higher.

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

AVERAGE DISCHARGE.--52 years (water years 1929-78, 1981-82), 696 ft^3/s (19.71 m^3/s), 22.08 in/yr (561 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) Mar. 17, 1973, gage height, 28.70 ft (8.748 m); maximum gage height, 30.75 ft (9.373 m), Mar. 17, 1973, present datum from floodmarks (backwater from Tennessee River); minimum discharge, 61 ft^3/s (1.73 m^3/s) Oct. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (156 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0830	*13600	385	21.03	6.410	Feb. 4	0200	6190	175	15.62	4.761
Jan. 22	0100	5650	160	15.05	4.587						

Minimum discharge, 102 ft^3/s (2.89 m^3/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	129	2900	2960	1590	3100	352	518	190	206	491	167
2	129	128	1880	1690	1420	1720	326	457	193	180	266	180
3	120	127	1220	3620	5140	1250	326	416	180	170	215	251
4	116	127	562	9820	5420	1020	320	379	177	162	196	206
5	112	249	405	12000	3440	869	346	346	177	155	175	175
6	108	189	336	5490	1710	811	349	326	190	149	172	165
7	104	178	297	2230	1220	2680	308	311	185	147	167	157
8	106	157	272	1220	963	2700	359	590	172	147	157	152
9	107	145	246	931	1980	1510	457	526	167	142	215	149
10	118	140	226	768	2790	1110	385	362	165	177	263	144
11	120	134	214	605	1630	924	336	317	157	172	326	147
12	120	131	205	522	1180	808	317	292	155	155	302	152
13	120	129	196	501	1020	716	302	272	162	152	212	149
14	115	126	551	480	865	752	296	257	170	142	183	144
15	114	123	883	447	752	2390	292	246	165	136	175	144
16	114	122	542	413	1660	3470	289	237	167	139	170	139
17	113	122	402	392	3290	1760	654	229	254	142	947	134
18	118	121	353	355	2680	1360	877	223	257	160	413	134
19	115	122	304	355	1600	1050	643	220	226	217	277	129
20	114	141	267	554	1170	877	518	215	183	266	220	127
21	113	135	244	3730	963	796	518	220	167	243	196	127
22	112	128	312	4770	823	689	543	217	162	201	180	127
23	122	125	521	4190	685	594	447	260	160	269	193	122
24	125	154	672	3740	613	547	395	248	157	283	477	122
25	128	147	1610	2490	550	522	620	237	152	395	257	142
26	179	140	2100	1370	526	480	2170	226	155	234	201	149
27	239	348	1090	991	2330	430	1770	275	167	188	185	139
28	207	788	742	827	4430	399	1080	248	196	180	237	139
29	160	558	565	724	---	379	752	220	190	375	302	134
30	144	760	463	624	---	365	609	201	212	460	193	142
31	136	---	1140	850	---	359	---	201	---	800	175	---
TOTAL	3981	6123	21720	69659	52440	36437	16956	9292	5410	6944	8138	4488
MEAN	128	204	701	2247	1873	1175	565	300	180	224	263	150
MAX	239	788	2900	12000	5420	3470	2170	590	257	800	947	251
MIN	104	121	196	355	526	359	289	201	152	136	157	122
CFSM	.30	.48	1.64	5.25	4.38	2.75	1.32	.70	.42	.52	.61	.35
IN.	.35	.53	1.89	6.05	4.56	3.17	1.47	.81	.47	.60	.71	.39

CAL YR 1981 TOTAL 144328 MEAN 395 MAX 4670 MIN 104 CFSM .92 IN 12.54
WTR YR 1982 TOTAL 241588 MEAN 662 MAX 12000 MIN 104 CFSM 1.55 IN 21.00

03568000 TENNESSEE RIVER AT CHATTANOOGA, TN

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, Hydrologic Unit 06020001, on right bank at Rivermont Golf and Country Club, 0.5 mi (0.8 km) downstream from South Chickamauga Creek, 3.0 mi (4.8 km) downstream from Chickamauga Dam, 3.5 mi (5.6 km) upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6 (752.4 km).

DRAINAGE AREA.--21,400 mi^2 (55,430 km^2), approximately.

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 (189.317 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi (11.3 km) upstream from Chattanooga to Hales Bar Dam 33 mi (53 km) downstream at or within 0.2 ft (0.06 m) of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi (80.3 km) 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 (3.5 km) downstream from base gage at same datum.

REMARKS.--Records good. Flow regulated since 1936 by increasing number of upstream reservoirs (see p. 232 and Water Resources Data for adjoining states, 1981).

AVERAGE DISCHARGE.--108 years, 37,090 ft^3/s (1,050 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft^3/s (11,600 m^3/s) Mar. 1, 1875, gage height, 53.8 ft (16.40 m), present datum, at Walnut Street, from rating curve extended above 250,000 ft^3/s (7,080 m^3/s); minimum daily, 1,200 ft^3/s (34.0 m^3/s) Nov. 1, 1953; minimum gage height, 0.0 ft (0.00 m) Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft (17.65 m) Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft^3/s (13,000 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 133,000 ft^3/s (3,770 m^3/s) Jan. 4; maximum gage height, 22.54 ft (6.870 m) Jan. 5; maximum gage height at Walnut Street, 20.80 ft (6.340 m) Jan. 5; minimum daily discharge, 9,690 ft^3/s (274 m^3/s) Apr. 23; minimum gage height, 11.42 ft (3.481 m) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25400	23700	32400	49800	51300	58200	32500	10300	20700	27300	29500	30900
2	23600	17200	38400	47000	61400	52000	30300	10600	16000	22100	37500	32400
3	24000	17100	30700	70900	73100	53100	31700	11200	17000	18200	44900	45200
4	24000	12500	33100	106000	92100	50400	22000	11800	19600	16800	44400	41800
5	21900	14600	26700	103000	96400	45500	22000	11600	13600	17900	42500	28800
6	24100	15800	22100	83800	86600	45500	24200	12900	15500	27600	38600	22600
7	22600	14300	22700	84400	85900	47500	26000	13600	17200	29700	28200	26500
8	23400	19400	24800	72400	85100	54400	22200	12500	20800	34100	26300	25200
9	24800	20700	22800	67800	86500	61900	19200	12300	23100	34600	36100	24500
10	18500	20000	23600	69400	90700	60800	12900	15000	27400	24100	43900	23400
11	18700	23500	25400	73200	93600	60100	12500	12300	25200	24400	45600	32800
12	22200	26700	20700	77100	90100	57900	16100	12000	15100	28600	40700	28000
13	21100	25400	17700	77300	88800	55100	15100	12500	17700	34200	37500	28900
14	20600	16700	21800	57200	88000	55100	14900	13100	21700	29200	27700	28900
15	22100	15600	26800	30600	87000	60700	15600	14300	26300	33700	30500	29900
16	22900	17200	26800	38200	88200	66100	11800	14900	26000	37000	32000	31200
17	20700	15000	32300	43000	92500	64200	11400	16800	27900	21200	35300	36100
18	23700	14000	35600	48500	91500	66500	11900	16200	29700	23300	49900	34100
19	19800	17200	23300	43300	85200	67500	12100	14500	15000	28400	29800	28600
20	18800	18800	17100	32800	78500	56700	14000	16300	16200	30400	31000	30600
21	21100	15200	20300	58800	77700	45100	12200	13600	23700	31000	24200	31500
22	20500	10000	20200	76200	76900	45100	10600	15700	23600	30700	22000	29000
23	20100	15000	24800	76200	72300	45700	9690	14500	24500	31000	37100	33500
24	21400	15700	32400	76900	61200	45900	10100	16000	27000	24800	34800	32400
25	21100	15400	28800	75100	53900	42400	10200	16100	29700	20200	35000	32400
26	15900	17800	18300	72700	53200	38500	11200	15100	18400	28000	32800	21700
27	20000	15700	20900	71800	55300	25800	10400	13500	21300	28400	32400	29800
28	21000	25800	34700	68700	62400	24700	10500	19200	23500	29900	25300	30000
29	22300	28100	26100	65700	---	26700	11200	26100	23900	33200	27800	30100
30	20800	26900	36400	65000	---	34500	10400	26400	24900	35300	27200	31600
31	22200	---	37200	50700	---	34500	---	20600	---	28900	29500	---
TOTAL	669300	551000	824900	2033500	2207400	1548100	484890	461500	652200	864200	1060000	912400
MEAN	21590	18370	26610	65600	78840	49940	16160	14890	21740	27880	34190	30410
MAX	25400	28100	38400	106000	96400	67500	32500	26400	29700	37000	49900	45200
MIN	15900	10000	17100	30600	51300	24700	9690	10300	13600	16800	22000	21700

CAL YR 1981 TOTAL 7723240 MEAN 21160 MAX 38900 MIN 9070
WTR YR 1982 TOTAL 12269390 MEAN 33610 MAX 106000 MIN 9690

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, Hydrologic Unit 06020004, on right bank 15 ft (5 m) downstream from county road bridge, 1.5 mi (2.4 km) east of Whitwell, 3.0 mi (4.8 km) upstream from bridge on State Highway 27, 4.5 mi (7.2 km) downstream from Griffith Creek, and at mile 25.1 (40.4 km).

DRAINAGE AREA.--402 mi^2 (1,041 km^2), includes 18 mi^2 (47 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Prior to December 1920 monthly discharges only, published in WSP 1306.

REVISED RECORDS.--WSP 603: 1922(M). WSP 758: 1929(M). WSP 1033: 1943(M). WSP 1386: 1921-22, 1923-25(M), 1927-28(M), 1930(M), 1933(M). WSP 1910: Drainage area. WDR TN-76-1: 1973-75(P).

GAGE.--Water-stage recorder. Datum of gage is 632.73 ft (192.856 m) Tennessee Valley Authority datum. Prior to Sept. 18, 1927, nonrecording gage at same site at datum 0.03 ft (0.009 m) higher. Sept. 18, 1927, to Sept. 30, 1930, nonrecording gage at bridge 15 ft (5 m) upstream at present datum.

REMARKS.--Records good. Prior to 1950 some diurnal fluctuation caused by small mills above station.

AVERAGE DISCHARGE.--62 years, 742 ft^3/s (21.01 m^3/s), 25.07 in/yr, (637 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s (920 m^3/s) Mar. 16, 1973, gage height, 17.65 ft (5.380 m); minimum, 16 ft^3/s (0.45 m^3/s) Sept. 6-21, 27, 28, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of about 19 ft (5.8 m) from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (156 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	2000	*12000	340	14.50	4.420	Jan. 24	0800	6940	197	13.31	4.057

Minimum discharge, 34 ft^3/s (0.96 m^3/s) Oct. 4-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	103	1680	900	1990	1400	716	641	453	110	765	184
2	35	99	1880	1030	1560	1330	722	572	327	104	575	186
3	35	92	1420	2810	1960	1190	694	514	271	104	256	309
4	35	87	1030	10000	1960	1060	641	464	240	104	190	891
5	34	91	647	8930	1640	971	632	425	219	104	157	765
6	34	91	467	5620	1380	962	682	390	200	101	140	456
7	35	107	382	2900	1180	1280	652	367	190	95	131	312
8	35	107	327	1790	1040	1570	682	390	184	97	125	247
9	35	103	285	1350	1470	1470	1080	382	175	113	131	211
10	36	101	247	1110	2140	1280	1130	347	166	142	136	187
11	36	99	222	905	1850	1130	1030	320	159	217	139	175
12	36	94	202	806	1480	1010	894	296	155	166	154	162
13	35	89	190	744	1250	903	785	273	152	139	152	155
14	35	87	294	688	1110	818	701	256	147	122	147	148
15	35	84	481	626	998	1060	725	242	142	112	131	143
16	35	81	430	575	1880	1640	655	228	139	109	127	139
17	35	80	406	511	4060	1780	995	217	137	109	1840	134
18	38	77	380	450	3410	2010	1670	224	133	139	2610	130
19	39	78	342	428	2330	2280	1440	304	130	124	2200	127
20	38	88	307	570	1690	1650	1190	344	127	137	1610	124
21	38	92	289	1200	1400	1360	992	325	125	142	704	121
22	38	91	344	2720	1190	1580	836	294	122	125	493	116
23	41	98	679	4890	1020	1570	716	362	118	122	390	115
24	42	103	900	6260	906	1350	638	649	116	150	584	113
25	43	98	891	3980	803	1150	612	559	115	184	484	118
26	55	98	770	2510	725	998	707	409	116	152	393	121
27	76	109	670	1620	912	854	753	327	122	139	375	119
28	103	294	587	1280	1210	747	857	359	116	130	307	116
29	125	317	508	1090	---	667	839	447	112	119	247	110
30	131	409	439	950	---	617	734	866	112	115	215	106
31	112	---	484	1210	---	606	---	667	---	131	196	---
TOTAL	1515	3547	18198	70451	44544	38293	25400	12460	5020	3957	15904	6340
MEAN	48.9	118	587	2273	1591	1235	847	402	167	128	513	211
MAX	131	409	1880	10000	4060	2280	1670	866	453	217	2610	891
MIN	34	77	190	428	725	606	612	217	112	95	125	106
CFSM	.12	.29	1.46	5.65	3.96	3.07	2.11	1.00	.42	.32	1.28	.53
IN.	.14	.33	1.68	6.52	4.12	3.54	2.35	1.15	.46	.37	1.47	.59

CAL YR 1981 TOTAL 127388 MEAN 349 MAX 3480 MIN 34 CFSM .87 IN 11.79
WTR YR 1982 TOTAL 245629 MEAN 673 MAX 10000 MIN 34 CFSM 1.67 IN 22.73

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to January 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JANUARY 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
06...	1500	34	260	7.9	17.5	8.2	110
NOV							
02...	1410	98	230	--	16.0	--	--
DEC							
08...	1505	323	180	--	9.0	--	--
JAN							
18...	1450	418	170	--	3.0	--	--

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°00'41", long 85°41'51", Marion County, Hydrologic Unit 06030001, on right bank at South Pittsburg Ferry landing on Tennessee State Highway 156, 0.5 mi (0.8 km) downstream from Battle Creek, 0.5 mi (0.8 km) east of South Pittsburg, 4.6 mi (7.4 km) downstream from Sequatchie River, 6.5 mi (10.5 km) downstream from Nickajack Dam, and at mile 418.2 (672.9 km).

DRAINAGE AREA.--22,640 mi^2 (58,640 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1930 to current year. Published as "at Hales Bar, near Chattanooga, Tenn." July 1930 to July 1966.

REVISED RECORDS.--WSP 853: Drainage area. WSP 973: 1942. WSP 1306 (monthly runoff). WSP 1386: 1932-34.

GAGE.--Water-stage recorder. Datum of gage is 581.01 ft (177.092 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1932, at site 12.9 mi (20.8 km) upstream at datum 7.85 ft (2.393 m) higher. Feb. 13, 1932, to July 17, 1966, at site 11.5 mi (18.5 km) upstream at datum 7.50 ft (2.286 m) higher. Since Jan. 27, 1939, auxiliary water-stage recorder at site 10.6 mi (17.1 km) downstream.

REMARKS.--Records good. Flow regulated since 1936 by increasing number of reservoirs above station (see p.232 and Water Resources Data for adjoining states, 1981).

AVERAGE DISCHARGE.--52 years, 37,820 ft^3/s (1,071 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 315,000 ft^3/s (8,920 m^3/s) Mar. 18, 1973, gage height, 34.33 ft (10.464 m); minimum daily, 2,900 ft^3/s (82.1 m^3/s) Nov. 1, 15, 1953; minimum gage height, 1.21 ft (0.369 m) Oct. 27, 1931, site and datum used 1932-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 44.6 ft (13.59 m) March 1867, site and datum used 1932-65. Flood of Mar. 8, 1917, reached a stage of 37.4 ft (11.40 m), site and datum used 1932-65, discharge, 320,000 ft^3/s (9,060 m^3/s), from rating curve extended above 225,000 ft^3/s (6,370 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142,400 ft^3/s (4,030 m^3/s) Jan. 5; maximum gage height, 24.33 ft (7.416 m) Jan. 5; minimum daily discharge, 7,300 ft^3/s (207 m^3/s) Nov. 22; minimum gage height, 11.34 ft (3.456 m) Oct. 24, but may have been lower during period of missing record.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28500	24300	45000	49600	62500	70000	35000	13400	24300	24000	32000	32500
2	27800	21800	44300	60300	70400	63200	34300	15200	22000	21900	38900	36000
3	21200	19900	40900	86600	88200	61600	34500	16200	20600	14800	49800	44500
4	25800	17300	36500	120000	106000	56000	26500	16900	21100	17500	50400	46000
5	27500	19000	26700	130000	112000	50300	29900	17100	20200	18400	48500	32000
6	28500	21300	21400	109000	102000	51400	30200	17900	17800	30400	43600	24000
7	25100	20700	26000	98000	90000	56100	27400	18900	21600	29500	28600	30000
8	24400	20700	30700	93100	93700	66600	24000	14100	22300	31500	27600	27300
9	26000	22700	28400	85500	98600	71400	20600	16300	22900	38000	43400	25000
10	19200	23600	27800	82000	106000	70300	14500	21900	25300	35800	44500	24000
11	19200	27900	24300	88000	105000	70500	10800	18000	20300	28200	47700	31800
12	24800	27800	21400	75500	105000	65300	20300	17200	17000	30400	47400	32000
13	22700	26500	16700	80500	99500	64800	21300	17600	14900	31100	43600	42500
14	23800	18400	27800	82000	94100	66000	18100	16600	27200	34900	30900	37000
15	25400	17700	33200	68500	96500	76300	17600	16200	28500	36900	34600	29500
16	24100	20300	34900	47600	103000	78800	13700	17000	23100	40600	36200	32500
17	21400	15900	35500	51000	113000	79900	16100	21100	26700	21700	70100	39000
18	24300	16200	41000	44000	110000	78500	14100	19100	26400	27600	68200	35500
19	22000	16700	28800	46100	103000	80200	19900	20000	10700	29700	34000	27000
20	22900	17000	18200	37800	90900	63200	19600	18800	15500	33500	31000	33500
21	22400	14000	27400	74500	86600	52100	17500	17700	23800	34000	26800	34200
22	22200	7300	25500	102000	88600	55800	11800	18600	25500	35800	23000	33900
23	22900	20000	29700	96000	83300	55300	10000	17200	27600	30000	43000	32800
24	21500	21600	37400	101000	70500	52200	10700	21300	31000	28300	40300	33800
25	20600	12900	35800	94300	67700	50600	11200	20500	29100	25500	37000	34300
26	21100	16200	31100	95500	65300	47000	19200	20000	15900	31600	34800	25000
27	23200	13000	29500	84000	56200	32300	19900	20200	14500	33300	33200	33600
28	24800	32500	35800	76700	71700	28500	13600	22900	22500	34500	27100	33300
29	23300	30000	39700	74800	---	34100	14800	28100	22000	35400	28300	32500
30	21000	32700	45100	72200	---	37800	15600	28000	25300	35000	29700	34600
31	20200	---	49000	61400	---	36000	---	24300	---	37600	33000	---
TOTAL	727800	615900	995500	2467500	2539300	1822100	592700	588300	665600	937400	1207200	989600
MEAN	23480	20530	32110	79600	90690	58780	19760	18980	22190	30240	38940	32990
MAX	28500	32700	49000	130000	113000	80200	35000	28100	31000	40600	70100	46000
MIN	19200	7300	16700	37800	56200	28500	10000	13400	10700	14800	23000	24000

CAL YR 1981 TOTAL 9190740 MEAN 25180 MAX 49000 MIN 7300
WTR YR 1982 TOTAL 14148900 MEAN 38760 MAX 130000 MIN 7300

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1975 to September 1981.
WATER TEMPERATURES: July 1975 to September 1981.

REMARKS.--Flow regulated by many reservoirs (see p. 232 and Water Resources Data for adjoining states, 1982).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 211 micromhos Sept. 27-28, 1981; minimum, 94 micromhos Dec. 31, 1975,
WATER TEMPERATURES: Maximum, 31.0°C Aug. 26-28, 30, 1975, June 15, 1978; minimum recorded, 2.0°C Jan. 22, 1977, Feb. 7, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
30...	1015	21000	200	7.4	17.0	1.9	7.4	26	K1600	83	15	24
NOV												
30...	1115	20000	198	7.2	13.0	--	8.5	--	--	--	--	--
DEC												
16...	1115	45300	185	7.6	9.0	4.6	10.2	--	--	73	14	22
FEB												
25...	1115	78900	165	6.9	9.0	16	11.5	160	51	70	16	20
APR												
21...	1200	25200	165	8.1	14.5	3.5	9.0	--	--	65	10	19
JUN												
17...	1130	35700	165	7.5	25.0	6.7	7.3	--	99	72	11	21
AUG												
12...	1045	47400	190	7.2	27.5	5.3	5.0	78	390	80	13	23

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
30...	5.6	12	24	.6	1.5	68	19	8.0	<.1	5.0	119	116
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
16...	4.4	8.2	19	.4	1.4	59	18	8.8	<.1	4.2	113	103
FEB												
25...	4.8	5.8	15	.3	1.5	54	13	5.3	.1	5.4	101	88
APR												
21...	4.2	4.9	14	.3	.9	55	13	5.1	<.1	4.8	107	85
JUN												
17...	4.8	6.1	15	.3	1.2	61	18	7.4	.1	4.4	110	100
AUG												
12...	5.4	7.1	16	.4	1.5	67	15	8.2	.2	4.9	117	105

K--Results based on non-ideal colony count.

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
30...	.16	6750	.27	.040	.040	.030	6	340	69
DEC									
16...	.15	13800	.40	.060	.040	.030	6	734	98
FEB									
25...	.14	21500	.50	.060	.050	.040	15	3200	93
APR									
21...	.15	7280	.40	.050	.030	.020	8	544	95
JUN									
17...	.15	10600	.43	.070	.080	.040	30	2890	62
AUG									
12...	.16	15000	.24	.030	.040	.030	6	768	100

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
16...	1	0	100	24	1	1	20	10	<1	<1
FEB										
25...	2	1	<100	31	<1	<1	20	10	3	<1
JUN										
17...	4	2	<100	30	<1	<1	10	<10	3	2
AUG										
12...	10	2	100	34	<1	<1	10	<10	<1	<1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
16...	33	2	220	37	4	<1	50	24	.1
FEB									
25...	15	<1	490	38	1	1	60	23	.1
JUN									
17...	7	3	430	<3	3	2	120	6	.2
AUG									
12...	37	6	270	<3	12	3	70	3	.8

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
16...	<.1	1	1	<1	<1	<1	<1	50	10
FEB									
25...	<.1	3	<1	<1	<1	<1	<1	10	8
JUN									
17...	<.1	7	2	<1	<1	<1	<1	20	<4
AUG									
12...	<.1	2	2	<1	<1	<1	<1	10	<4

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
30...	--	1	--	<.1	--	13	--	<.1	--	<.1	--	<.1
FEB												
25...	<.10	--	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--
AUG												
12...	--	<1	--	<.1	--	9.0	--	<.1	--	2.3	--	<.1

DATE	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
30...	--	--	.2	--	--	--	--	3.1	--	.7	--	<.1
FEB												
25...	<.01	<.01	--	<.01	<.01	<.01	<.01	--	<.01	--	<.01	--
AUG												
12...	--	--	<.1	--	--	--	--	<.1	--	<.1	--	<.1

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
30...	--	--	<.1	--	--	--	--	--	--	--	--
FEB											
25...	<.01	<.01	--	<.01	<.01	<.01	<0	<.01	<.01	<.01	<.01
AUG											
12...	--	--	<.1	--	--	--	--	--	--	--	--

03578000 ELK RIVER NEAR PELHAM, TN

LOCATION.--Lat 35°17'48", long 85°52'12", Grundy County, Hydrologic Unit 06030003, on right bank at downstream side of bridge on U. S. Highway 41, 1.1 mi (1.8 km) southeast of Pelham, 1.8 mi (2.9 km) upstream from Caldwell Creek, and at mile 194.2 (312.5 km).

DRAINAGE AREA.--65.6 mi^2 (169.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year. Prior to November 1951 monthly discharges only, published in WSP 1726.

REVISED RECORDS.--WRD TN 1973: 1963(P), 1965 (M), 1966(P), 1969(M), 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 981.62 ft (299.198 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--31 years, 140 ft^3/s (3.965 m^3/s), 28.98 in/yr (736 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s (447 m^3/s) Mar. 16, 1973, gage height, 14.08 ft (4.292 m); minimum, 1.0 ft^3/s (0.028 m^3/s) Sept. 27, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0630	*4080	116	11.48	3.499	Jan. 23	1700	1970	55.8	10.07	3.069
Jan. 21	1400	2920	82.7	10.82	3.298						

Minimum discharge, 2.1 ft^3/s (0.059 m^3/s) Oct. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	41	784	198	244	195	149	103	17	4.6	47	8.9
2	2.8	35	647	163	198	164	124	91	15	4.0	28	8.8
3	2.7	31	272	1030	386	143	119	83	13	3.9	18	10
4	2.6	28	174	2950	319	126	103	74	13	4.1	13	15
5	2.6	91	126	1060	233	160	110	66	12	3.9	9.9	13
6	2.5	210	101	461	190	173	151	60	10	3.9	8.5	9.9
7	2.5	138	86	270	153	317	127	55	9.4	4.9	6.9	7.7
8	2.5	91	76	191	136	257	159	71	8.6	3.8	9.3	6.6
9	2.4	68	65	154	491	204	298	71	8.1	3.7	82	5.9
10	2.5	53	55	123	503	169	221	57	7.5	5.1	119	5.4
11	2.5	45	49	95	291	146	170	51	7.0	12	55	4.9
12	2.4	39	44	88	210	129	139	46	6.7	10	37	4.6
13	2.3	34	41	87	188	116	120	41	6.6	8.4	29	4.5
14	2.2	30	87	84	157	112	108	37	6.1	7.9	22	4.4
15	2.6	27	130	75	141	262	97	34	5.8	6.1	17	4.1
16	2.8	25	101	71	481	349	87	32	6.0	5.5	17	4.0
17	2.6	25	88	61	921	275	463	40	5.8	5.0	40	4.1
18	3.3	24	88	58	558	279	824	38	5.4	4.7	91	3.8
19	3.0	22	75	108	328	200	380	35	5.1	7.8	63	3.8
20	3.0	25	64	167	234	165	240	42	4.9	8.7	37	3.7
21	3.4	30	61	1710	187	419	175	57	4.7	6.7	27	3.6
22	4.2	25	98	1140	149	497	139	52	4.7	6.1	22	3.6
23	3.3	22	164	1320	126	293	118	202	4.7	5.4	18	3.6
24	2.9	27	135	1050	113	208	105	88	4.3	5.0	40	3.6
25	5.7	42	113	466	99	164	102	58	4.2	17	42	11
26	45	36	101	266	92	163	141	44	4.1	15	31	20
27	283	183	90	188	239	140	192	36	4.2	11	22	8.5
28	212	453	82	155	249	120	169	32	4.2	8.3	16	6.6
29	106	222	71	132	---	107	136	27	4.2	6.5	13	5.5
30	70	248	61	117	---	96	118	22	4.9	5.7	11	4.7
31	51	---	92	170	---	123	---	19	---	34	10	---
TOTAL	839.4	2370	4221	14208	7616	6271	5584	1764	217.2	238.7	1001.6	203.8
MEAN	27.1	79.0	136	458	272	202	186	56.9	7.24	7.70	32.3	6.79
MAX	283	453	784	2950	921	497	824	202	17	34	119	20
MIN	2.2	22	41	58	92	96	87	19	4.1	3.7	6.9	3.6
CFSM	.41	1.20	2.07	6.98	4.15	3.08	2.84	.87	.11	.12	.49	.10
IN.	.48	1.34	2.39	8.06	4.32	3.56	3.17	1.00	.12	.14	.57	.12

CAL YR 1981 TOTAL 28117.1 MEAN 77.0 MAX 810 MIN 2.2 CFSM 1.17 IN 15.94
WTR YR 1982 TOTAL 44534.7 MEAN 122 MAX 2950 MIN 2.2 CFSM 1.86 IN 25.25

03578000 ELK RIVER NEAR PELHAM, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to January 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JANUARY 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
09...	1315	2.4	260	7.5	14.0	5.4	110
NOV							
04...	1005	27	170	--	14.5	--	--
DEC							
11...	1345	48	160	--	7.5	--	--
JAN							
04...	1155	3550	130	--	10.0	--	--
27...	1330	183	138	--	6.5	--	--

03582000 ELK RIVER ABOVE FAYETTEVILLE, TN

LOCATION.--Lat 35°08'04", long 86°32'23", Lincoln County, Hydrologic Unit 06030003, on right bank 100 ft (30 m) downstream from highway bridge, 1.8 mi (2.9 km) southeast of Fayetteville, 4.0 mi (6.4 km) upstream from Norris Creek, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--827 mi^2 (2,142 km^2).

PERIOD OF RECORD.--August 1934 to December 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 650.58 ft (198.297 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Prior to August 1949, diurnal fluctuation at low flow caused by powerplants upstream. Flow regulated by Woods Reservoir since 1952 (see station 03579000), and Tims Ford Lake since December 1970 (see station 03580740). Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--47 years (water years 1935-81), 1,442 ft^3/s (40.84 m^3/s), 23.68 in/yr (601 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,600 ft^3/s (1,180 m^3/s) Mar. 16, 1973, gage height, 28.63 ft (8.726 m); minimum, 67 ft^3/s (1.90 m^3/s) Dec. 9, 10, 11, 1970, gage height, 0.75 ft (0.229 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1842 reached a stage of 27.5 ft (8.38 m), discharge, 37,000 ft^3/s (1,050 m^3/s), and flood of Mar. 23, 1929, reached a stage of 27.2 ft (8.29 m), discharge, 36,000 ft^3/s (1,020 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October to December 1981, 3,750 ft^3/s (106 m^3/s) at 0400 hours Dec. 16, gage height, 8.12 ft (2.475 m); minimum, 73 ft^3/s (2.07 m^3/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379	102	2910									
2	390	76	2110									
3	396	375	1990									
4	239	416	1520									
5	366	552	1710									
6	388	672	769									
7	393	521	319									
8	386	320	1980									
9	394	275	2340									
10	393	428	2380									
11	402	439	2060									
12	392	430	2320									
13	395	419	734									
14	394	418	1020									
15	398	424	2630									
16	390	423	2660									
17	405	442	3040									
18	441	406	780									
19	457	415	518									
20	408	418	514									
21	580	755	535									
22	252	430	1290									
23	411	412	1490									
24	448	433	1100									
25	275	419	1060									
26	365	405	734									
27	710	1090	790									
28	441	845	749									
29	327	700	1680									
30	285	800	2100									
31	268	---	2120									
TOTAL	12168	14260	47952									
MEAN	393	475	1547									
MAX	710	1090	3040									
MIN	239	76	319									

CAL YR 1981 TOTAL 201267 MEAN 551 MAX 3040 MIN 76 MEAN‡ 584 CFSM‡ .71 IN‡ 9.59

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03584500 ELK RIVER NEAR PROSPECT, TN

LOCATION.--Lat 35°01'39", long 86°56'52", Giles County, Hydrologic Unit 06030004, on right bank 50 ft (15 m) upstream from county road bridge, 1.1 mi (1.8 km) downstream from Richland Creek, 3.2 mi (5.1 km) east of Prospect, 5.4 mi (8.7 km) upstream from Ford Creek, 7.9 mi (12.7 km) upstream from Tennessee - Alabama State line, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--1,784 mi^2 (4,621 km^2).

PERIOD OF RECORD.--July 1904 to February 1908, January 1919 to current year. Published as "near Elkmont, Ala." 1904-8, 1919-34. Record for both sites published January to March 1934.

REVISED RECORDS.--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. WSP 1436: 1920-22, 1923(M), 1924, 1927, 1929, 1931-32(M).

GAGE.--Water-stage recorder. Datum of gage is 563.29 ft (171.691 m) National Geodetic Vertical Datum of 1929. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934, nonrecording gage 11.9 mi (19.1 km) downstream at datum 13.52 ft (4.121 m) lower.

REMARKS.--Records good. Flow regulated by Woods Reservoir (station 03579000) since May 1952, and Tims Ford Lake (station 03580740) since December 1970. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--66 years (water years 1905-7, 1920-82), 3,062 ft^3/s (86.72 m^3/s), 23.31 in/yr (592 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft^3/s (3,310 m^3/s) Mar. 17, 1973, gage height, 40.12 ft (12.229 m), from rating curve extended above 63,000 ft^3/s (1,780 m^3/s) on basis of slope-area measurement at gage height 38.17 ft (11.634 m) and contracted-opening measurement at gage height 38.96 ft (11.875 m); minimum, 78 ft^3/s (2.21 m^3/s) Sept. 29, 1961 (caused by highway construction upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage of 40.9 ft (12.47 m), discharge, 130,000 ft^3/s (3,680 m^3/s), and may have been equaled by a flood in March 1897, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) at 1430 hours Jan. 5, gage height, 26.63 ft (8.117 m); minimum, 196 ft^3/s (5.55 m^3/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	456	470	7810	3150	4420	4090	2180	3610	559	658	1190	915
2	446	366	5890	2850	6440	3810	1800	2300	548	676	1120	1160
3	451	289	3700	13500	6610	3700	1850	1720	520	565	599	1350
4	456	400	3140	24400	5780	4090	1870	1640	725	520	883	1140
5	376	596	2390	26900	6780	3810	1780	1910	845	395	1300	801
6	390	678	1970	15600	6440	3840	1990	1390	664	245	2010	467
7	446	797	1210	6430	4790	4210	1840	1060	488	245	2130	347
8	446	643	1610	6360	4290	3260	2120	3580	366	315	1530	319
9	446	503	2360	5820	6380	3320	3730	2710	832	762	1470	451
10	461	437	2650	5470	8030	3660	3340	1780	1070	622	1280	504
11	456	511	2650	5120	6210	3540	2690	1470	928	915	1430	498
12	475	547	2750	4990	5300	3380	2260	1560	788	762	1240	488
13	493	539	2430	4930	5020	3250	1950	1480	719	498	1110	324
14	461	527	1040	4320	4610	2840	2360	1390	415	515	832	240
15	461	528	1950	2550	3760	4870	2360	1300	284	525	719	634
16	467	535	3270	2260	4560	5680	2180	1220	456	504	488	1320
17	454	533	3210	1610	9250	4540	5680	807	537	788	1390	2110
18	631	530	3470	3190	7500	5750	8110	1160	525	1010	1550	2350
19	643	522	3470	4310	5510	4610	4950	1820	531	794	1130	1780
20	610	529	2620	3510	5080	3540	3770	1480	531	845	909	395
21	532	526	1220	11000	4520	8080	2930	2040	371	1030	794	249
22	635	787	1870	15900	3920	11700	2720	1720	258	1340	1230	436
23	471	550	3090	17700	3380	6460	2920	1470	386	2540	472	461
24	533	542	3040	21000	3880	4360	2370	896	565	1950	400	451
25	592	555	2480	10600	3920	3400	1860	826	559	1700	1110	456
26	547	541	2090	7730	3390	2900	1600	1090	410	719	1010	565
27	1060	1790	1680	6760	5330	2340	2850	1240	488	472	1110	515
28	1250	3250	1410	6190	6200	1970	2470	1260	456	559	1080	386
29	824	1750	1650	5750	---	1740	2640	1110	306	694	688	405
30	601	2300	2370	5180	---	1570	4730	1090	430	622	467	461
31	522	---	2760	2870	---	1650	---	870	---	737	305	---
TOTAL	17092	23071	83250	257950	151300	125960	85900	48999	16560	24522	32976	21978
MEAN	551	769	2685	8321	5404	4063	2863	1581	552	791	1064	733
MAX	1250	3250	7810	26900	9250	11700	8110	3610	1070	2540	2130	2350
MIN	376	289	1040	1610	3380	1570	1600	807	258	245	305	240

CAL YR 1981 TOTAL 400487 MEAN 1097 MAX 8360 MIN 265 MEAN‡ 1130 CFSM‡ .63 IN‡ 8.60
WTR YR 1982 TOTAL 889558 MEAN 2437 MAX 26900 MIN 240 MEAN‡ 2479 CFSM‡ 1.39 IN‡ 18.86

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03588000 SHOAL CREEK AT LAWRENCEBURG, TN

LOCATION.--Lat 35°14'40", long 87°21'02", Lawrence County, Hydrologic Unit 06030005, on left bank at Lawrenceburg municipal water-supply intake, 500 ft (152 m) downstream from Little Shoal Creek, 0.5 mi (0.8 km) upstream from Crowson Creek, 0.9 mi (1.4 km) west of courthouse in Lawrenceburg, and at mile 55.9 (89.9 km).

DRAINAGE AREA.--55.4 mi^2 (143.5 km^2).

PERIOD OF RECORD.--June 1932 to March 1934, March 1967 to current year.

REVISED RECORDS.--WSP 1306: Drainage area. WSP 2110: 1933.

GAGE.--Water-stage recorder. Datum of gage is 784.41 ft (239.088 m) National Geodetic Vertical Datum of 1929. June 7, 1932, to Mar. 31, 1934, nonrecording gage at site 500 ft (152 m) downstream at datum 4.01 ft (1.222 m) lower. Mar. 22, 1967, to Sept. 30, 1970, at site 1,300 ft (396 m) downstream at datum 7.71 ft (2.350 m) lower.

REMARKS.--Records good. About 6 ft^3/s (0.17 m^3/s) were diverted by Lawrenceburg water plant, some of which was returned to the stream through sewage treatment plant 0.6 mi (1.0 km) downstream. Records of periodic water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--16 years (water years 1933, 1968-82), 108 ft^3/s (3.059 m^3/s), 26.47 in/yr (672 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Mar. 15, 1973, gage height, 18.71 ft (5.703 m), from rating curve extended above 6,700 ft^3/s (190 m^3/s) on basis of computation of peak flow over dam; minimum daily, 19 ft^3/s (0.54 m^3/s) Nov. 2, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1846, 20.0 ft (6.10 m) present site and datum, Mar. 28, 1902, discharge, 23,000 ft^3/s (651 m^3/s); flood of Mar. 21, 1955, reached a stage of 17.2 ft (5.24 m), present site and datum, discharge 18,000 ft^3/s (510 m^3/s), from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (60.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	0215	4210	119	7.75	2.362	Jan. 23	0515	*4340	123	7.89	2.405
Jan. 21	0500	1850	52.4	5.26	1.603	Apr. 17	0830	1810	51.3	5.21	1.588

Minimum discharge, 22 ft^3/s (0.62 m^3/s) Oct. 6, 13, 14, Nov. 2, 3, 4, 12, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	23	404	42	156	92	98	73	86	41	31	29
2	24	23	89	216	121	84	92	70	57	37	27	28
3	24	22	68	1870	220	80	138	66	55	36	30	28
4	25	23	57	479	134	78	92	63	70	44	30	28
5	24	24	51	193	114	76	143	62	57	36	27	28
6	23	24	48	138	111	86	107	61	52	35	27	28
7	23	23	44	102	86	88	101	365	51	34	27	27
8	24	25	42	91	88	75	99	190	50	33	28	27
9	24	24	40	84	313	70	97	85	47	36	49	27
10	24	23	36	70	126	68	92	75	46	34	34	27
11	24	23	36	61	106	67	84	69	46	44	30	27
12	24	23	37	56	101	65	81	64	46	35	89	27
13	23	22	36	65	102	65	81	62	46	32	40	35
14	23	23	44	62	92	72	97	61	44	32	30	30
15	25	24	37	61	88	184	168	60	43	35	30	30
16	26	25	35	57	246	111	226	63	48	32	30	60
17	27	23	35	50	152	253	712	216	46	71	30	45
18	74	23	32	47	121	130	174	104	42	36	28	30
19	28	24	29	114	103	105	131	64	42	37	28	29
20	26	24	29	97	88	94	117	261	42	33	28	28
21	26	23	34	652	90	626	102	101	40	32	28	28
22	29	24	53	161	81	173	92	74	39	42	28	27
23	42	28	75	1540	78	128	86	68	39	39	28	27
24	36	25	61	226	76	111	83	64	38	67	100	27
25	25	24	52	166	70	99	80	61	38	39	50	27
26	38	24	48	124	78	88	95	60	38	32	30	28
27	28	159	48	88	168	86	98	64	39	31	30	35
28	25	45	47	82	111	88	80	69	43	31	30	30
29	25	38	41	75	---	86	76	59	41	30	30	29
30	24	254	40	71	---	73	76	57	40	48	30	28
31	24	---	43	470	---	242	---	71	---	63	30	---
TOTAL	862	1112	1771	7590	3420	3741	3798	2882	1411	1207	1087	904
MEAN	27.8	37.1	57.1	245	122	121	127	93.0	47.0	38.9	35.1	30.1
MAX	74	254	404	1870	313	626	712	365	86	71	100	60
MIN	23	22	29	42	70	65	76	57	38	30	27	27
CFSM	.50	.67	1.03	4.42	2.20	2.18	2.29	1.68	.85	.70	.63	.54
IN.	.58	.75	1.19	5.10	2.30	2.51	2.55	1.94	.95	.81	.73	.61

CAL YR 1981 TOTAL 15911 MEAN 43.6 MAX 818 MIN 21 CFSM .79 IN 10.68
WTR YR 1982 TOTAL 29785 MEAN 81.6 MAX 1870 MIN 22 CFSM 1.47 IN 20.00

Note.--No gage-height record Aug. 12 to Sept. 30.

03588400 CHISHOLM CREEK AT WESTPOINT, TN

LOCATION.--Lat 35°08'04", long 87°31'45", Lawrence County, Hydrologic Unit 06030005, on left bank at downstream side of pier of county road bridge, 0.3 mi (0.5 km) northeast of Westpoint, and at mile 1.2 (1.9 km).

DRAINAGE AREA.--43.0 mi^2 (111 km^2).

PERIOD OF RECORD.--July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft (182.947 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--20 years, 85.8 ft^3/s (2.430 m^3/s), 27.10 in/yr (688 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft^3/s (507 m^3/s) Mar. 15, 1973, gage height, 14.74 ft (4.493 m), from rating curve extended above 4,100 ft^3/s (116 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 8.4 ft^3/s (0.24 m^3/s) July 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3		Unknown		Unknown		Jan. 23	0945	*3700	105	9.53	2.905

Minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	21	500	37	170	66	63	69	62	59	31	19
2	12	20	199	170	142	63	66	63	45	38	27	21
3	13	20	126	1400	156	60	102	57	41	34	25	22
4	13	22	94	350	140	57	93	52	47	33	23	17
5	14	26	71	230	121	53	125	47	85	31	23	16
6	14	23	52	180	110	53	127	49	54	29	23	16
7	13	21	43	113	91	51	114	195	44	28	23	17
8	13	20	36	91	84	45	167	269	44	27	24	17
9	14	19	29	76	176	42	200	164	46	29	37	17
10	15	18	26	59	154	41	159	128	44	31	64	18
11	16	18	24	44	130	40	130	106	42	40	32	20
12	16	18	21	41	111	39	110	89	41	41	29	23
13	16	18	20	37	96	37	94	76	41	32	26	26
14	17	18	29	34	82	47	82	66	38	29	25	24
15	18	17	25	32	75	103	72	59	36	27	24	25
16	20	20	21	28	87	112	86	55	41	27	24	32
17	19	21	22	25	94	176	558	49	42	37	25	22
18	84	21	20	26	89	145	291	45	37	64	23	20
19	31	18	18	35	82	126	187	43	35	140	21	22
20	21	20	16	52	75	107	144	83	35	46	20	20
21	20	19	23	271	68	267	117	76	34	36	19	20
22	18	18	60	209	60	234	97	53	34	56	19	19
23	27	19	110	1610	53	166	83	46	33	106	19	19
24	23	32	105	349	49	131	74	42	31	74	20	19
25	22	26	84	187	43	108	67	46	29	92	33	20
26	32	23	69	133	45	88	78	55	29	47	23	24
27	47	168	57	107	75	74	103	51	31	36	21	21
28	31	109	46	90	69	62	84	61	35	31	21	21
29	25	68	37	75	---	55	78	47	59	38	20	18
30	23	156	34	65	---	50	81	41	50	36	19	17
31	22	---	35	172	---	78	---	45	---	39	19	---
TOTAL	680	1037	2052	6328	2727	2776	3832	2327	1263	1413	782	612
MEAN	21.9	34.6	66.2	204	97.4	89.5	128	75.1	42.1	45.6	25.2	20.4
MAX	84	168	500	1610	176	267	558	269	85	140	64	32
MIN	11	17	16	25	43	37	63	41	29	27	19	16
CFSM	.51	.81	1.54	4.74	2.27	2.08	2.98	1.75	.98	1.06	.59	.47
IN.	.59	.90	1.78	5.47	2.36	2.40	3.32	2.01	1.09	1.22	.68	.53

CAL YR 1981 TOTAL 14936 MEAN 40.9 MAX 500 MIN 11 CFSM .95 IN 12.92
WTR YR 1982 TOTAL 25829 MEAN 70.8 MAX 1610 MIN 11 CFSM 1.65 IN 22.34

03588500 SHOAL CREEK AT IRON CITY, TN

LOCATION.--Lat 35°01'27", long 87°34'44", Lawrence County, Hydrologic Unit 06030005, near center of span on downstream side of bridge on county road, 400 ft (122 m) downstream from Holly Creek, 1,350 ft (411 m) upstream from Louisville and Nashville Railroad bridge, 1,350 ft (411 m) northeast of Iron City Post Office, and at mile 22.3 (35.9 km).

DRAINAGE AREA.--348 mi^2 (901 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1113: 1927(M). WSP 1436: 1926(M), 1927-29, 1930(M), 1932, 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 534.22 ft (162.830 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 25, 1931, nonrecording gage at railroad bridge, 1,350 ft (411 m) downstream at datum 0.85 ft (0.259 m) lower. Feb. 25, 1931, to Sept. 30, 1933, nonrecording gage at site 825 ft (251 m) downstream and Oct. 1, 1933, to Sept. 30, 1957, water-stage recorder at site 750 ft (229 m) downstream at datum 0.69 ft (0.210 m) higher.

REMARKS.--Records good. Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg.

AVERAGE DISCHARGE.--57 years, 647 ft^3/s (18.32 m^3/s), 25.25 in/yr (641 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 132,000 ft^3/s (3,740 m^3/s) Mar. 21, 1955, gage height, 27.25 ft (8.306 m), site and datum then in use, present site and datum, 28.4 ft (8.656 m) from high water profile, rating curve extended above 50,000 ft^3/s (1,416 m^3/s) on basis of slope-area measurement made 1,500 ft (457 m) downstream; minimum, 38 ft^3/s (1.08 m^3/s) Aug. 31, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage about 3 ft (0.914 m) higher than that of Mar. 21, 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,500 ft^3/s (184 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 3	Unknown	11100	314	14.22	4.334	Jan. 23	1700	*13400	379	15.25	4.648

Minimum discharge, 110 ft^3/s (3.12 m^3/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	161	3280	297	1600	646	631	560	456	287	300	146
2	122	154	1500	329	1160	600	509	529	373	218	233	152
3	121	150	874	7540	1230	569	670	508	335	192	203	190
4	120	150	630	6840	1220	532	651	480	352	189	184	149
5	119	151	484	2190	994	505	744	458	616	199	172	154
6	118	152	405	1550	875	484	916	438	436	187	166	129
7	117	141	349	982	742	511	772	680	355	177	164	126
8	116	136	309	759	665	462	999	2230	319	172	161	119
9	117	135	272	638	1220	432	1710	1070	267	189	189	119
10	124	134	243	542	1270	413	1280	783	278	243	263	111
11	127	132	221	500	1020	406	1000	645	264	226	229	114
12	127	132	202	450	861	394	836	555	252	275	198	126
13	126	131	192	415	762	382	728	485	252	221	243	141
14	123	130	226	360	659	495	642	440	243	189	190	140
15	126	128	246	338	601	1090	642	413	229	177	177	141
16	130	132	207	315	726	1280	668	391	237	172	179	178
17	131	136	199	306	1030	1210	3400	387	267	212	196	160
18	411	128	194	305	878	1340	2870	497	237	294	184	137
19	334	126	177	320	761	1060	1650	376	221	406	165	136
20	187	130	170	511	677	893	1250	515	218	277	152	133
21	154	124	194	2600	626	2280	993	825	210	224	141	125
22	145	122	440	1950	558	2480	835	485	207	246	136	119
23	185	126	673	8420	499	1490	730	409	199	378	132	116
24	193	169	712	3670	466	1130	669	373	192	274	141	116
25	185	165	611	1720	425	900	633	369	184	564	262	123
26	187	147	524	1180	410	735	662	409	184	333	266	150
27	325	136	460	881	638	623	727	420	204	271	175	141
28	262	1010	401	729	721	542	651	559	202	235	161	135
29	205	800	349	616	---	493	600	436	258	221	154	127
30	183	664	300	545	---	461	606	366	235	243	143	120
31	170	---	287	1210	---	578	---	342	---	323	142	---
TOTAL	5212	6232	15331	49008	23294	25416	29674	17433	8282	7814	5801	4053
MEAN	168	208	495	1581	832	820	989	562	276	252	187	135
MAX	411	1010	3280	8420	1600	2480	3400	2230	616	564	300	190
MIN	116	122	170	297	410	382	509	342	184	172	132	111
CFSM	.48	.60	1.42	4.54	2.39	2.36	2.84	1.62	.79	.72	.54	.39
IN.	.56	.67	1.64	5.24	2.49	2.72	3.17	1.86	.89	.84	.62	.43

CAL YR 1981 TOTAL 111712 MEAN 306 MAX 3280 MIN 87 CFSM .88 IN 11.94
WTR YR 1982 TOTAL 197550 MEAN 541 MAX 8420 MIN 111 CFSM 1.56 IN 21.12

03588500 SHOAL CREEK AT IRON CITY, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
07...	1230	118	160	18.0	4	1.3
NOV						
18...	1345	128	160	11.0	5	1.7
JAN						
07...	1230	1050	110	9.0	28	79
FEB						
10...	1400	1270	--	5.0	45	154
APR						
29...	1200	602	100	14.0	8	13
JUN						
09...	1030	266	120	22.5	23	17
JUL						
21...	1100	212	128	24.5	35	20
SEP						
03...	1330	194	--	--	17	8.9

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°03'54", long 88°15'08", Hardin County, Hydrologic Unit 06040001, at downstream end of lockwall in lower pool at Pickwick Landing Dam, 16.8 mi (27.0 km) upstream from Savannah, Tennessee, and at mile 206.7 (332.6 km).

DRAINAGE AREA.--32,820 mi^2 (85,000 km^2), approximately.

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1976 to September 1981.
WATER TEMPERATURE: April 1976 to September 1981.

REMARKS.--Flow regulated by Pickwick Landing Dam and many other reservoirs above the station. Continuous discharge records are published under station 03593500 Tennessee River at Savannah, Tn.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 326 micromhos Sept. 18, 19, 1978; minimum, 116 micromhos Apr. 27, 1979.
WATER TEMPERATURE: Maximum, 31.5°C July 7, 1978; minimum, 2.0°C Feb. 8, 9, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
15...	1130	29200	185	7.3	21.0	6.6	--	<1	220	--	--	--
DEC												
10...	0930	50300	210	7.5	11.0	3.2	--	--	--	81	16	24
FEB												
18...	0945	130000	155	7.2	7.0	20	12.3	68	K560	66	13	20
APR												
19...	1400	76000	150	6.4	16.0	3.7	10.0	K3	100	65	11	20
JUN												
08...	1415	49900	167	7.2	25.5	5.6	7.5	<1	--	64	6	20
AUG												
19...	1215	70500	162	7.6	28.5	4.1	5.8	<1	--	63	7	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
15...	--	--	--	--	--	53	17	12	.1	--	102	--
DEC												
10...	5.1	11	22	.6	1.8	65	19	10	.1	4.1	121	114
FEB												
18...	3.9	5.3	--	.3	--	53	18	5.4	.1	4.9	91	90
APR												
19...	3.6	4.6	13	.3	1.1	54	11	5.1	<.1	4.8	104	83
JUN												
08...	3.3	4.6	13	.3	1.6	58	11	6.3	.1	2.5	96	84
AUG												
19...	4.4	6.7	18	.4	1.3	56	13	7.4	.1	3.7	84	88

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
15...	.14	8040	.35	.110	.060	.040	10	788	53
DEC									
10...	.16	16400	.28	.090	.040	.020	55	7470	56
FEB									
18...	.12	31900	.61	.060	.070	.030	20	7020	78
APR									
19...	.14	21300	.65	.040	.070	.040	8	1640	57
JUN									
08...	.13	12900	.31	.070	.050	.020	11	1480	58
AUG									
19...	.11	16000	.24	.060	.060	--	7	1330	100

K--Results based on non-ideal colony count.

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
10...	1	1	<100	32	2	2	10	<10	3	<1
FEB										
18...	1	2	100	32	1	1	30	--	1	<1
JUN										
08...	1	<1	<100	26	2	3	10	<10	2	<1
AUG										
19...	2	2	<100	32	1	<1	10	10	2	2

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
10...	9	4	140	<3	50	<1	30	17	.2
FEB									
18...	13	5	580	44	30	<1	50	9	<.1
JUN									
08...	11	7	300	15	6	1	60	16	.2
AUG									
19...	8	12	350	12	6	1	80	6	.3

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
10...	<.1	6	1	<1	<1	<1	<1	60	17
FEB									
18...	<.1	7	2	<1	<1	<1	--	110	17
JUN									
08...	.2	7	8	<1	<1	<1	<1	70	13
AUG									
19...	.1	3	3	<1	<1	<1	<1	60	<4

03593500 TENNESSEE RIVER AT SAVANNAH, TN

LOCATION.--Lat 35°13'29", long 88°15'26", Hardin County, Hydrologic Unit 06040001, on right bank at upstream side of bridge on U.S. Highway 64, at Savannah, 16.8 mi (27.0 km) downstream from Pickwick Landing Dam and at mile 189.9 (305.5 km).

DRAINAGE AREA.--33,140 mi^2 (85,830 km^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 Tenn. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft (91.440 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 7, 1945, at datum 41.61 ft (12.683 m) higher. Oct. 1, 1948, to Apr. 13, 1978, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam. Since Apr. 13, 1978, auxiliary water-stage recorder over the tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, 16.8 mi (27.0 km) upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi (6.4 km) downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi (6.9 km) downstream from base gage at same datum.

REMARKS.--Records fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 232 and Water Resources Data for adjoining states).

AVERAGE DISCHARGE.--52 years, 54,746 ft^3/s (1,550 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 585,000 ft^3/s (16,600 m^3/s) Mar. 17, 1973, from Pickwick Landing Dam releases furnished by Tennessee Valley Authority; maximum gage height, 96.11 ft (29.294 m) Mar. 20, 1973; minimum discharge 60 ft^3/s (1.70 m^3/s) Apr. 23, 1966; minimum gage height, 41.20 ft (12.558 m), present datum, Oct. 20, 1931; minimum gage height since Kentucky Lake reached minimum pool elevation on Apr. 7, 1945, 53.40 ft (16.276 m) Jan. 12, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft (30.85 m) Mar. 21, 1897, present datum, from floodmarks, discharge, 450,000 ft^3/s (12,700 m^3/s), from rating curve extended above 320,000 ft^3/s (9,060 m^3/s). Flood of Jan. 2, 1927, reached a stage of 92.7 ft (28.25 m), present datum, discharge, 349,000 ft^3/s (9,880 m^3/s). Minimum stage since 1905, 38.8 ft (11.83 m) present datum, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198,000 ft^3/s (5,607 m^3/s) Jan. 7; maximum gage height, 76.47 ft (23.308 m) Jan. 7; minimum daily discharge, 14,600 ft^3/s (413 m^3/s) Nov. 20; minimum gage height, 54.12 ft (16.496 m) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25700	22800	83200	64400	84200	91100	29100	30900	27100	26100	47000	28600
2	27600	23600	80100	78000	79300	94600	34800	29600	29600	37800	55500	29800
3	25400	21300	79300	92800	83800	95200	31600	32800	27700	38300	47600	51300
4	16000	20100	71700	143000	97700	88700	36100	25600	34100	35500	42200	52800
5	27300	21100	64100	171000	112000	72300	33800	24900	32300	22600	46700	51300
6	28600	21600	49400	188000	125000	60800	38000	25000	29100	25000	45400	29000
7	27500	20800	45900	192000	123000	60800	42400	28900	22600	29500	38100	27000
8	24200	16900	49300	181000	117000	79200	42900	28900	25200	34400	42500	24700
9	25000	16800	43400	170000	117000	82800	39900	25300	21300	34000	38200	36700
10	23700	16500	43400	162000	120000	86400	32000	27500	27400	41900	50000	38300
11	20600	17000	41900	126000	121000	86600	30000	26900	33700	40300	54700	41100
12	29200	16900	33800	109000	121000	84200	33500	33000	30000	42500	57800	32900
13	32000	16900	31100	107000	121000	80500	29400	25000	33200	35900	68100	29900
14	28200	16700	31000	94400	120000	80900	30000	22000	21400	37100	54000	30400
15	26400	16500	38400	70300	117000	86400	27300	22800	28300	36900	53500	37300
16	24300	16800	43400	61200	116000	95000	33300	23400	21300	30400	47600	43200
17	24300	17500	35100	76700	138000	102000	45300	27400	29100	38600	48600	30600
18	25100	15600	54800	69000	149000	108000	65000	21500	21400	41500	49200	32900
19	26700	17300	36500	63000	152000	108000	74700	20800	15400	29800	59200	30700
20	26200	14600	28800	59700	154000	97900	81800	20900	33600	31100	61300	37400
21	26600	22000	30000	74400	153000	87200	60900	29900	32200	33200	62400	33300
22	25300	22400	28800	106000	140000	81800	52800	22700	19400	34200	43300	29800
23	24700	34200	34400	141000	120000	79100	45500	22400	24900	43000	43200	29700
24	24500	24900	33300	168000	91000	77600	43800	32800	24600	45100	42000	30700
25	23900	18600	35000	169000	82400	67300	33900	26400	21400	39300	42000	35400
26	23500	22800	34400	168000	73800	57000	40300	23500	34900	43600	39500	35800
27	23500	24200	34400	164000	79300	40700	35200	24100	37300	33200	28400	34300
28	23800	30200	50100	158000	88200	32200	34500	26400	22600	31700	33500	35100
29	23700	48600	55000	150000	---	43800	36000	29100	22900	34700	38300	34900
30	23900	61200	51600	136000	---	36000	34500	28700	26500	45500	36600	34400
31	23200	---	59800	107000	---	30300	---	25300	---	45300	37500	---
TOTAL	780600	676400	1431400	3819900	3195700	2374400	1228300	814400	810500	1118000	1453900	1049300
MEAN	25180	22550	46170	123200	114100	76590	40940	26270	27020	36060	46900	34980
MAX	32000	61200	83200	192000	154000	108000	81800	33000	37300	45500	68100	52800
MIN	16000	14600	28800	59700	73800	30300	27300	20800	15400	22600	28400	24700

CAL YR 1981 TOTAL 11222430 MEAN 30750 MAX 83200 MIN 8500
WTR YR 1982 TOTAL 18752800 MEAN 51380 MAX 192000 MIN 14600

03596000 DUCK RIVER BELOW MANCHESTER, TN

LOCATION.--Lat 35°28'15", long 86°07'18", Coffee County, Hydrologic Unit 06040002, on right bank 50 ft (15 m) downstream from Powers Bridge, 2.0 mi (3.2 km) southwest of Manchester, 3.2 mi (5.1 km) downstream from Little Duck River, 7.0 mi (11.3 km) upstream from Crumpton Creek, and at mile 265.4 (427.0 km).

DRAINAGE AREA.--107 mi^2 (277 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1934 to current year.

REVISED RECORDS.--WSP 1436: 1946-47.

GAGE.--Water-stage recorder. Datum of gage is 878.23 ft (267.685 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation for short periods during low flow by small reservoirs above station.

AVERAGE DISCHARGE.--48 years, 185 ft^3/s (5.239 m^3/s), 23.48 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft^3/s (1,080 m^3/s) May 27, 1973, gage height, 20.95 ft (6.386 m), from rating curve extended above 12,000 ft^3/s (340 m^3/s), based on contracted-opening measurement at gage height 15.04 ft (4.584 m), and slope-area measurements at gage heights 18.93 ft (5.770 m) and 20.95 ft (6.386 m); minimum, 8.0 ft^3/s (0.23 m^3/s) Aug. 12, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 23.2 ft (7.07 m) from floodmarks by Tennessee Valley Authority, discharge, about 50,000 ft^3/s (1,420 m^3/s). Flood in March 1902 reached approximately same stage.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0445	*8390	238	13.18	4.017	Aug. 16	2330	4110	116	9.16	2.792
Jan. 23	1530	3240	91.8	8.00	2.438						

Minimum discharge, 8.2 ft^3/s (0.23 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	798	176	345	239	339	97	30	46	57	54
2	16	12	309	125	234	189	200	80	29	26	37	71
3	16	12	156	2560	321	155	185	71	29	24	30	153
4	16	16	107	4840	311	135	154	64	30	29	27	81
5	16	44	81	805	231	133	170	59	29	26	26	56
6	17	40	68	469	197	152	211	55	27	23	29	47
7	15	36	61	355	164	399	142	55	27	22	34	42
8	15	31	55	262	148	285	220	107	26	21	43	39
9	15	29	50	215	701	206	373	85	26	36	823	37
10	17	27	45	171	472	165	217	63	26	95	305	35
11	17	24	42	129	286	142	155	54	24	126	126	37
12	17	24	41	119	234	127	124	49	24	90	88	35
13	15	24	39	110	237	118	106	45	25	38	60	35
14	9.2	23	54	102	197	119	96	41	25	30	50	33
15	14	23	65	100	181	745	87	39	24	27	43	32
16	23	24	59	95	549	679	80	38	25	26	1610	31
17	17	23	55	92	632	448	628	39	26	25	1690	29
18	43	22	59	90	383	361	616	40	25	80	728	30
19	27	22	51	253	280	250	283	49	23	67	237	30
20	21	23	43	299	251	195	205	48	23	51	141	29
21	13	22	46	1670	210	558	164	49	23	32	106	28
22	10	22	106	805	174	528	131	43	28	58	85	26
23	37	23	159	2190	152	280	107	39	25	89	119	26
24	19	27	127	860	137	208	95	36	22	44	181	26
25	14	24	95	431	117	171	90	34	22	34	100	38
26	28	24	80	315	102	152	97	33	22	30	74	37
27	47	196	74	237	318	124	179	32	22	27	60	42
28	22	148	68	208	341	105	148	32	22	87	54	51
29	16	78	61	176	---	95	109	31	23	51	48	38
30	14	245	54	157	---	90	109	30	39	32	64	27
31	13	---	92	228	---	267	---	30	---	75	59	---
TOTAL	594.2	1300	3200	18644	7905	7820	5820	1567	771	1467	7134	1275
MEAN	19.2	43.3	103	601	282	252	194	50.5	25.7	47.3	230	42.5
MAX	47	245	798	4840	701	745	628	107	39	126	1690	153
MIN	9.2	12	39	90	102	90	80	30	22	21	26	26
CFSM	.18	.41	.96	5.62	2.64	2.36	1.81	.47	.24	.44	2.15	.40
IN.	.21	.45	1.11	6.48	2.75	2.72	2.02	.54	.27	.51	2.48	.44

CAL YR 1981 TOTAL 20091.2 MEAN 55.0 MAX 798 MIN 9.2 CFSM .51 IN 6.98
WTR YR 1982 TOTAL 57497.2 MEAN 158 MAX 4840 MIN 9.2 CFSM 1.48 IN 19.99

03596000 DUCK RIVER BELOW MANCHESTER, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1975 to September 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C Aug. 16, 1977, July 14, 16-17, 1980; minimum, 1.5°C Feb. 2, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
09...	0930	14	225	14.0	10	.38
NOV						
04...	1400	14	240	17.0	5	.19
DEC						
11...	1050	44	145	4.5	5	.59
JAN						
27...	1615	223	85	5.0	12	7.2
MAR						
08...	1500	262	90	8.0	11	7.8
APR						
21...	1230	163	--	--	23	10
MAY						
24...	1345	37	140	15.5	4	.40
JUN						
09...	1300	26	185	24.0	7	.49
JUL						
22...	0845	29	175	24.0	35	2.7
SEP						
02...	0855	50	220	22.5	12	1.6

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 (50 m) downstream from Sims Bridge, 2.1 mi (3.4 km) upstream from Sugar Creek, 2.2 mi (3.5 km) west of Shelbyville, 2.9 mi (4.7 km) downstream from Flat Creek, and at mile 216.2 (347.9 km).

DRAINAGE AREA.--481 mi^2 (1,246 km^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.--Water-stage recorder. Datum of gage is 683.51 ft (208.334 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1966, at datum 2.0 ft (0.6 m) higher.

REMARKS.--Records good. 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.

AVERAGE DISCHARGE.--49 years, 816 ft^3/s (23.11 m^3/s), 23.04 in/yr (585 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,900 ft^3/s (1,780 m^3/s) Feb. 13, 1948, gage height, 38.40 ft (11.704 m), present datum, from floodmarks, from rating curve extended above 35,000 ft^3/s (991 m^3/s) on basis of slope-area measurement of peak flow; minimum, 5.0 ft^3/s (0.14 m^3/s) Aug. 23, 1936; minimum daily, 20 ft^3/s (0.57 m^3/s) Sept. 2, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft (12.07 m) present datum, discharge, about 70,000 ft^3/s (1,980 m^3/s), from high water profile by Tennessee Valley Authority. Flood in March 1902 reached a stage about 2.0 ft (0.61 m) higher than that in March 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,400 ft^3/s (436 m^3/s) at 1130 hours Jan. 4, gage height, 24.53 ft (7.477 m); minimum, 71 ft^3/s (2.01 m^3/s) Sept. 30; minimum daily, 75 ft^3/s (2.12 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	238	3110	285	1930	815	666	960	174	182	256	573
2	148	224	1200	268	1620	1160	486	682	171	179	184	505
3	154	183	663	6260	1690	1120	488	541	171	166	171	925
4	159	181	451	13300	1730	1040	421	431	179	166	166	446
5	159	282	313	5000	1530	885	402	358	184	174	161	303
6	153	272	234	2520	1060	485	452	299	179	166	195	241
7	145	215	189	2130	962	776	355	299	169	161	195	215
8	151	187	159	1740	891	712	527	752	171	164	551	201
9	156	171	129	904	1580	616	923	442	174	209	1330	190
10	159	161	133	804	1420	539	646	299	171	262	977	182
11	161	161	167	715	1640	481	528	244	164	362	907	182
12	160	159	156	656	1420	422	447	215	174	358	869	187
13	158	155	139	598	972	376	381	198	179	190	772	187
14	155	154	191	563	858	342	338	182	179	169	403	184
15	158	152	213	535	819	2130	291	171	174	182	204	179
16	158	154	159	522	1120	1930	287	164	171	171	1030	176
17	158	156	132	492	1550	1720	1960	156	174	319	1470	174
18	223	151	110	491	1640	1540	1670	174	171	224	2340	179
19	219	154	96	585	1470	1300	952	184	169	382	2010	184
20	147	169	77	600	1040	1070	698	184	169	328	1530	184
21	110	166	87	5110	912	1990	551	204	166	201	865	179
22	123	159	405	2570	819	1960	434	182	179	319	812	176
23	304	156	689	6120	755	1420	356	169	174	471	804	174
24	252	169	597	3670	712	1180	308	164	164	284	1300	125
25	208	174	441	2240	598	994	283	161	166	204	916	96
26	344	171	349	2150	424	555	284	164	169	182	678	102
27	1030	1490	295	1930	1050	434	1520	154	169	176	621	100
28	423	1050	248	1820	1070	361	733	149	174	174	235	91
29	220	461	204	1670	---	317	912	164	176	171	182	83
30	188	1200	169	1370	---	270	1750	179	174	171	174	75
31	238	---	183	1630	---	523	---	174	---	190	247	---
TOTAL	6669	8875	11688	67248	33282	29463	20049	8799	5178	7057	22555	6798
MEAN	215	296	377	2169	1189	950	668	284	173	228	728	227
MAX	1030	1490	3110	13300	1930	2130	1960	960	184	471	2340	925
MIN	110	151	77	268	424	270	283	149	164	161	161	75
(†)	-2200	-700	+3900	+12300	-1800	+5200	+9000	+1500	-2000	-400	+400	-800
MEAN‡	144	272	503	2566	1124	1118	968	332	106	215	740	200
CFSM‡	.30	.57	1.05	5.33	2.34	2.32	2.01	.69	.22	.45	1.54	.42
IN.‡	.35	.63	1.21	6.15	2.43	2.68	2.25	.80	.25	.51	1.77	.46

CAL YR 1981 TOTAL 97806 MEAN 268 MAX 3110 MIN 77 MEAN‡ 263 CFSM‡ .55 IN‡ 7.43
WTR YR 1982 TOTAL 227661 MEAN 624 MAX 13300 MIN 75 MEAN‡ 691 CFSM‡ 1.44 IN‡ 19.49

† Change in contents, in cfs-days, in Normandy Lake.
‡ Adjusted for change in contents.

03599460 DUCK RIVER NEAR COLUMBIA, TN

LOCATION.--Lat 35°35'53", long 86°57'27", Maury County, Hydrologic Unit 06040002, on right bank on Sowell Mill Pike, 0.8 mi (1.3 km) west of Union Grove School, 5.4 mi (8.7 km) east of Columbia, and at mile 141.1 (227.0 km).

DRAINAGE AREA.--1,176 mi^2 (3,046 km^2).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1973 to current year.

INSTRUMENTATION.--Temperature recorder since November 1973.

REMARKS.--No record, Jan. 17-21, July 17-30. Temperature ranged from 24.5°C to 28.5°C for the period July 17-30.

COOPERATION.--Temperature records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 33.0°C July 15-17, 1977, July 16, 17, 1979; minimum, 0.0°C Jan. 12-16, 18-20, 1981.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C July 7; minimum, 0.5°C Jan. 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	19.5	19.5	15.0	14.5	14.5	11.0	10.5	11.0	8.0	6.5	7.0
2	20.5	19.5	20.0	15.0	14.5	15.0	11.0	10.5	11.0	8.0	6.0	6.5
3	19.5	18.0	18.5	15.5	15.0	15.0	11.0	10.0	10.5	9.5	6.5	8.5
4	18.5	16.5	17.0	15.5	15.0	15.5	10.5	10.0	10.0	10.5	9.5	10.0
5	18.5	16.5	17.0	16.0	15.0	15.5	10.0	9.0	9.5	11.0	10.5	10.5
6	19.5	18.0	18.5	15.5	14.5	15.0	9.5	8.5	9.0	10.5	9.5	10.0
7	19.5	18.5	19.0	14.5	13.5	14.0	9.0	8.5	8.5	10.0	9.5	9.5
8	18.5	17.0	18.0	13.5	13.0	13.0	9.0	9.0	9.0	9.5	8.5	9.0
9	18.0	16.5	17.0	13.0	12.0	13.0	9.0	8.0	8.5	8.5	6.5	7.0
10	16.5	16.0	16.5	13.0	12.0	13.0	8.0	6.5	7.0	6.5	4.0	5.5
11	17.0	16.5	16.5	13.0	12.0	12.0	6.5	5.5	6.0	4.0	2.0	3.0
12	17.0	16.5	17.0	12.0	11.5	11.5	5.5	5.5	5.5	3.0	1.0	1.5
13	18.5	16.5	17.0	11.5	11.0	11.0	6.0	5.0	5.5	1.5	.5	1.0
14	18.0	17.0	17.0	11.0	10.5	10.5	6.0	5.5	5.5	1.5	1.0	1.0
15	17.0	17.0	17.0	10.5	10.0	10.5	6.0	5.5	6.0	1.5	1.0	1.0
16	18.0	16.5	17.0	11.0	10.0	10.5	6.0	5.5	5.5	2.0	1.5	2.0
17	18.5	17.0	18.0	11.0	10.5	10.5	5.5	5.5	5.5	---	---	---
18	18.5	18.0	18.0	10.5	10.0	10.0	5.5	4.0	4.5	---	---	---
19	18.0	15.5	17.0	11.0	10.0	10.5	4.0	3.0	3.5	---	---	---
20	16.0	14.5	15.5	11.0	10.0	10.5	3.5	1.5	2.0	---	---	---
21	15.0	14.5	15.0	10.0	8.5	9.5	2.0	1.5	2.0	---	---	---
22	15.0	14.5	14.5	8.5	7.0	8.0	7.0	2.0	4.5	11.0	9.5	10.5
23	14.5	14.0	14.0	8.0	7.0	7.0	8.0	6.5	7.0	11.0	10.5	10.5
24	14.0	12.0	13.5	8.0	6.5	7.0	7.0	6.5	7.0	11.0	9.5	10.0
25	13.0	12.0	12.0	8.5	7.0	8.0	8.0	6.5	7.0	10.0	9.0	9.5
26	13.0	12.0	12.0	9.0	8.0	8.5	7.0	6.5	7.0	9.0	7.0	8.0
27	13.5	13.0	13.5	11.5	9.0	10.5	8.5	7.0	8.0	8.0	6.0	6.5
28	13.5	13.0	13.0	11.0	9.5	10.5	8.5	7.0	8.0	6.5	6.0	6.5
29	14.0	13.0	13.5	10.5	10.0	10.5	8.5	7.0	8.0	6.5	5.5	6.0
30	14.0	13.5	13.5	10.5	10.0	10.5	7.0	5.5	6.5	8.0	6.5	7.0
31	14.5	14.0	14.0	---	---	---	6.5	6.0	6.0	10.5	8.0	9.5
MONTH	20.5	12.0	16.0	16.0	6.5	11.5	11.0	1.5	7.0	11.0	.5	7.0

03599460 DUCK RIVER NEAR COLUMBIA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.0	9.0	9.5	9.0	7.0	8.0	15.0	13.0	14.0	14.5	13.0	14.0
2	9.5	7.0	8.5	9.5	8.5	9.0	14.0	13.0	13.5	15.5	14.0	14.5
3	8.0	7.0	8.0	10.0	9.5	9.5	14.5	13.0	14.0	16.5	14.5	15.5
4	8.0	6.5	7.0	11.0	10.0	10.0	14.0	12.0	13.5	19.5	16.0	18.0
5	7.0	6.5	7.0	11.0	10.0	10.5	13.5	13.0	13.0	20.0	18.0	19.0
6	7.0	6.0	6.5	10.0	8.5	9.5	13.0	10.5	11.5	20.0	19.0	19.5
7	6.0	4.5	5.5	8.5	8.0	8.0	11.5	10.0	10.5	20.0	17.0	19.5
8	5.5	4.5	5.0	8.0	6.5	7.0	10.5	9.5	9.5	18.5	16.0	17.0
9	5.5	4.5	5.0	8.5	6.5	7.0	10.0	9.0	9.5	18.5	16.0	17.0
10	5.5	5.0	5.0	9.0	8.0	8.5	10.0	9.0	9.5	19.5	17.0	18.5
11	6.0	4.5	5.5	10.0	8.5	9.0	11.0	9.0	10.0	20.5	17.0	19.0
12	6.0	5.0	5.5	11.0	9.5	10.0	13.0	10.0	11.0	21.0	19.0	20.0
13	6.0	5.0	5.5	12.0	11.0	11.5	13.0	11.0	12.0	21.5	20.0	20.5
14	6.0	5.0	5.5	12.0	10.5	11.0	15.0	11.5	13.5	21.5	20.5	21.0
15	6.0	6.0	6.0	12.0	10.5	11.0	16.5	14.0	15.0	22.0	21.0	21.5
16	9.0	6.0	7.0	14.0	12.0	13.0	16.5	15.0	15.5	23.0	21.5	22.0
17	10.0	9.0	9.0	15.0	13.5	14.0	15.0	14.5	14.5	23.5	23.0	23.5
18	10.0	10.0	10.0	16.0	14.5	15.0	14.5	13.5	14.0	23.5	23.0	23.0
19	10.5	10.0	10.0	16.5	15.5	16.0	14.0	13.5	13.5	23.5	23.0	23.0
20	10.5	9.5	10.0	16.5	16.0	16.5	13.5	13.5	13.5	23.5	22.0	23.0
21	10.0	9.5	9.5	16.5	15.5	16.0	13.5	13.0	13.0	23.5	22.0	23.0
22	10.0	9.0	9.5	15.5	14.5	15.0	14.0	12.0	13.0	24.0	23.5	23.5
23	10.5	9.0	9.5	14.5	13.0	13.5	14.5	11.5	13.5	24.0	23.5	23.5
24	11.5	9.5	10.5	14.0	12.0	13.0	15.0	12.0	13.5	24.0	23.5	23.5
25	11.0	9.5	10.0	14.0	13.5	13.5	15.0	13.5	14.0	24.5	23.5	24.0
26	9.5	8.0	8.5	13.5	12.0	13.0	15.0	14.0	14.5	24.0	24.0	24.0
27	8.5	7.0	8.0	13.0	11.5	12.0	15.0	14.0	15.0	24.5	24.0	24.0
28	8.0	7.0	8.0	13.0	10.0	11.0	15.5	13.5	14.5	24.5	24.0	24.0
29	---	---	---	13.0	10.5	11.5	15.0	13.5	14.0	25.5	24.0	25.0
30	---	---	---	13.5	11.0	12.0	15.5	13.5	14.0	27.0	25.0	25.5
31	---	---	---	15.0	13.5	14.0	---	---	---	27.0	25.5	26.0
MONTH	11.5	4.5	7.5	16.5	6.5	11.5	16.5	9.0	13.0	27.0	13.0	21.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	24.5	25.5	28.0	26.0	26.5	27.0	26.5	26.5	24.5	23.5	24.0
2	24.5	24.0	24.0	28.0	26.5	27.0	26.5	26.0	26.5	24.5	23.5	24.0
3	24.5	24.0	24.0	28.5	27.0	28.0	26.5	26.0	26.0	23.5	22.0	23.5
4	24.0	23.5	23.5	28.0	26.5	27.0	28.0	26.0	27.0	22.0	21.0	22.0
5	24.0	23.0	23.5	27.0	26.0	26.5	28.5	26.5	27.0	22.0	20.5	21.5
6	24.5	23.5	24.0	28.5	26.0	27.0	28.5	26.5	28.0	22.0	21.5	21.5
7	25.0	23.5	24.0	29.0	27.0	28.0	28.0	26.5	27.0	22.0	21.5	21.5
8	26.0	24.0	25.0	28.5	26.5	27.0	28.0	26.5	27.0	23.5	21.5	22.0
9	26.5	25.0	26.0	27.0	26.0	26.5	27.0	26.0	26.5	23.0	22.0	22.0
10	26.5	25.5	26.0	26.0	25.0	25.5	26.5	25.5	26.0	23.0	22.0	23.0
11	26.0	25.0	25.5	25.5	25.0	25.5	26.0	24.0	25.0	23.0	22.0	23.0
12	25.5	24.0	24.5	26.0	24.0	25.5	24.0	23.0	23.5	23.0	22.0	22.0
13	24.0	23.5	24.0	26.0	25.0	25.5	23.5	22.0	22.0	23.5	22.0	22.0
14	24.5	23.0	23.5	26.0	25.5	26.0	23.5	21.5	23.0	24.0	23.0	23.5
15	25.0	23.5	24.5	26.5	26.0	26.0	23.5	23.0	23.0	24.5	23.5	24.0
16	24.5	24.0	24.5	27.0	26.0	26.5	23.5	23.0	23.0	24.5	23.5	24.0
17	24.5	24.0	---	---	---	---	23.5	21.5	23.5	24.5	23.5	24.0
18	25.0	23.5	---	---	---	---	23.0	21.5	22.0	24.0	23.5	24.0
19	24.5	24.0	---	---	---	---	23.0	21.5	22.0	23.5	22.0	23.0
20	25.0	23.5	---	---	---	---	23.0	21.5	22.0	23.5	22.0	23.0
21	24.5	23.5	---	---	---	---	23.0	21.0	21.5	22.0	21.5	22.0
22	25.5	24.0	---	---	---	---	22.0	21.0	21.5	21.5	20.0	20.5
23	26.0	24.5	---	---	---	---	23.0	21.5	22.0	20.0	18.5	19.0
24	26.5	24.5	---	---	---	---	23.0	21.5	22.0	19.0	18.5	18.5
25	26.0	24.5	25.0	---	---	---	23.0	21.5	22.0	18.5	18.0	18.5
26	26.0	25.0	25.5	---	---	---	22.0	20.5	21.5	18.0	17.0	18.0
27	26.0	25.0	25.5	---	---	---	23.0	20.5	21.5	18.5	17.0	18.0
28	26.0	25.0	25.5	---	---	---	23.0	22.0	23.0	18.5	17.0	18.0
29	26.5	25.5	26.0	---	---	---	23.0	22.0	23.0	18.5	18.0	18.5
30	27.0	25.5	26.5	---	---	---	23.5	23.0	23.0	19.0	18.5	19.0
31	---	---	---	27.0	26.5	26.5	23.5	23.0	23.5	---	---	---
MONTH	27.0	23.0	25.0	---	---	---	28.5	20.5	24.0	24.5	17.0	21.5

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 (1 m) downstream from bridge on former U. S. Highway 31, 2 blocks north of public square in Columbia, 0.7 mi (1.1 km) downstream from Columbia hydroelectric plant, 2.4 mi (3.9 km) upstream from Rutherford Creek, and at mile 132.8 (213.7 km).

DRAINAGE AREA.--1,208 mi^2 (3,129 km^2).

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to December 1981 (discontinued). Monthly discharge only for some periods, published in WSP 1306. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Water-stage recorder. Datum of gage is 535.33 ft (163.169 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft (0.722 m) higher prior to Oct. 1, 1933.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Flow regulated by Normandy Lake (station 03596460) since Jan. 5, 1976.

AVERAGE DISCHARGE.--65 years, 1905-8, 1921-81, 1,997 ft /s (56.56 m^3/s), 22.45 in/yr (570 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,500 ft^3/s (1,740 m^3/s) Mar. 17, 1973; maximum gage height, 51.75 ft (15.773 m) Feb. 14, 1948; no flow Oct. 22, 1922.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1902, reached a stage of 48.0 ft (14.63 m), present datum, discharge, 50,700 ft^3/s (1,440 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October to December 1981, 8,110 ft^3/s (230 m^3/s) at 0500 hours Dec. 2, gage height, 14.92 ft (4.548 m); minimum, 135 ft^3/s (3.82 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	337	5590									
2	138	324	7280									
3	137	311	3740									
4	137	287	2030									
5	138	252	1440									
6	143	228	1040									
7	144	327	787									
8	141	324	640									
9	137	272	542									
10	137	236	458									
11	142	213	381									
12	145	194	340									
13	145	187	347									
14	144	184	385									
15	143	181	438									
16	144	182	558									
17	147	180	542									
18	227	177	466									
19	251	172	420									
20	250	178	360									
21	239	175	381									
22	214	178	1310									
23	180	184	2200									
24	186	184	2460									
25	305	184	2000									
26	371	190	1540									
27	599	717	1260									
28	1670	2320	1040									
29	1330	2660	860									
30	704	1940	712									
31	454	---	618									
TOTAL	9381	13478	42165									
MEAN	303	449	1360									
MAX	1670	2660	7280									
MIN	137	172	340									
(†)	-2200	-700	+3900									
MEAN‡	232	426	1486									
CFSM‡	.19	.35	1.23									
IN.‡	.22	.39	1.42									

CAL YR 1981 TOTAL 240463 MEAN 659 MAX 8740 MIN 137 MEAN‡ 654 CFSM‡ .54 IN.‡ 7.35

† Change in contents, in cfs-days, in Normandy Lake.
‡ Adjusted for change in contents.

03600500 BIG BIGBY CREEK AT SANDY HOOK, TN

LOCATION.--Lat 35°29'19", long 87°13'59", Maury County, Hydrologic Unit 06040003, on right bank 45 ft (14 m) west of Louisville and Nashville Railroad track, 0.2 mi (0.3 km) downstream from bridge on U. S. Highway 43, 0.4 mi (0.6 km) northeast of Sandy Hook, 0.5 mi (0.8 km) upstream from Dry Creek, 3.5 mi (5.6 km) southwest of Mount Pleasant, and at mile 17.9 (28.8 km).

DRAINAGE AREA.--17.5 mi^2 (45.3 km^2).

PERIOD OF RECORD.--September 1953 to current year.

REVISED RECORDS.--WRD TN 1974: 1954(P), 1955, 1956-57(P), 1958(M), 1961(M), 1962-65(P), 1966 (M), 1967-68(P), 1969(M), 1970(P), 1971(M), 1972-73(P).

GAGE.--Water-stage recorder. Datum of gage is 670.44 ft (204.350 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--29 years, 28.0 ft^3/s (0.793 m^3/s), 21.73 in/yr (552 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,700 ft^3/s (218 m^3/s) Mar. 15, 1973, gage height, 11.55 ft (3.520 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 1.0 ft^3/s (0.028 m^3/s) Sept. 10, 1958, and July 9, 1959, caused by removal of gravel 0.2 mi (0.3 km) upstream; minimum natural discharge, 1.5 ft^3/s (0.042 m^3/s) Sept. 4-7, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 23	0415	838	23.7	5.45	1.661	May 7	1745	*990	28.0	5.79	1.765

Minimum discharge, 2.8 ft^3/s (0.079 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	5.5	112	9.4	65	34	57	20	13	14	10	4.7
2	4.9	5.5	39	12	43	29	46	18	11	8.4	8.2	6.1
3	4.2	5.4	23	246	76	25	47	17	11	7.6	7.2	4.9
4	4.2	5.3	16	152	59	21	37	15	11	7.1	6.3	4.1
5	4.1	5.5	12	67	42	18	42	14	10	6.5	5.7	3.9
6	4.5	5.7	9.9	42	36	18	37	13	9.6	6.0	6.5	3.9
7	4.3	5.6	8.9	29	27	17	32	222	9.1	5.7	6.1	3.9
8	4.3	5.5	8.4	27	26	14	59	179	8.6	5.6	6.8	3.4
9	4.3	6.0	7.5	19	103	13	63	80	8.4	5.5	6.4	3.4
10	4.2	5.7	6.6	15	76	13	48	55	8.3	6.0	5.9	3.4
11	4.2	5.5	6.2	13	39	13	39	41	8.0	10	6.9	4.2
12	4.2	5.4	5.8	12	33	12	32	32	8.2	7.0	8.2	4.9
13	4.1	5.6	5.8	11	28	12	28	27	8.1	6.3	6.3	5.2
14	4.0	5.3	11	10	24	13	25	23	7.5	6.0	5.8	8.5
15	4.1	5.6	8.9	9.2	22	148	23	24	7.5	5.8	5.4	7.2
16	4.5	6.0	8.0	8.1	46	83	43	22	6.2	5.6	5.5	6.4
17	4.6	6.2	8.0	7.6	44	53	252	20	6.6	7.0	5.8	4.4
18	5.0	6.0	7.5	8.0	35	38	102	21	6.6	10	5.5	4.3
19	40	5.8	6.6	22	27	32	62	18	6.4	60	4.9	4.7
20	15	6.2	6.2	27	23	28	43	31	6.5	15	4.6	4.0
21	6.0	5.4	15	251	21	56	32	25	6.1	8.0	4.6	3.8
22	6.5	5.4	35	111	18	47	26	20	6.4	7.3	4.4	3.6
23	9.0	5.8	51	336	15	38	22	18	6.0	8.3	4.6	3.5
24	10	6.6	33	108	14	33	20	16	5.7	8.7	6.0	3.5
25	5.5	5.8	23	57	13	28	19	15	5.4	10	5.1	7.2
26	7.0	5.4	19	36	14	24	22	15	5.2	6.9	4.8	5.0
27	9.4	65	17	27	48	21	27	13	5.4	6.0	4.5	4.1
28	7.5	27	13	23	45	19	24	13	13	9.0	4.4	3.7
29	6.0	15	11	19	---	18	22	12	10	8.7	4.3	3.3
30	5.9	47	9.4	17	---	17	22	11	14	11	4.2	3.2
31	5.7	---	10	86	---	89	---	12	---	20	4.4	---
TOTAL	211.1	301.7	553.7	1817.3	1062	1024	1353	1062	248.8	309.0	179.3	136.4
MEAN	6.81	10.1	17.9	58.6	37.9	33.0	45.1	34.3	8.29	9.97	5.78	4.55
MAX	40	65	112	336	103	148	252	222	14	60	10	8.5
MIN	3.9	5.3	5.8	7.6	13	12	19	11	5.2	5.5	4.2	3.2
CFSM	.39	.58	1.02	3.35	2.17	1.89	2.58	1.96	.47	.57	.33	.26
IN.	.45	.64	1.18	3.86	2.26	2.18	2.88	2.26	.53	.66	.38	.29

CAL YR 1981 TOTAL 4765.0 MEAN 13.1 MAX 248 MIN 3.3 CFSM .75 IN 10.13
WTR YR 1982 TOTAL 8258.3 MEAN 22.6 MAX 336 MIN 3.2 CFSM 1.29 IN 17.55

NOTE.--No gage-height record Oct. 8 to Nov. 19.

03602500 PINEY RIVER AT VERNON, TN

LOCATION.--Lat 35°52'16", long 87°30'05", Hickman County, Hydrologic Unit 06040003, on right bank at county highway bridge, 40 ft (12 m) upstream from Pretty Creek, 0.2 mi (0.3 km) northwest of Vernon, 2.3 mi (3.7 km) downstream from Mill Creek, 6.5 mi (10.5 km) north of Centerville, and at mile 8.3 (13.4 km).

DRAINAGE AREA.--202 mi^2 (523 km^2).

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 758: 1927(M). WSP 823: Drainage area. WSP 1306: Drainage area at site used Feb. 9, 1931, to May 10, 1934. WSP 1436: 1926(M), 1927, 1929, 1930-31(M), 1932, 1934(M).

GAGE.--Water-stage recorder. Datum of gage is 461.72 ft (140.732 m) National Geodetic Vertical Datum of 1929. Prior to May 11, 1934, nonrecording gage; July 3, 1925, to Feb. 8, 1931, at site 350 ft (107 m) upstream at datum 3.17 ft (0.966 m) higher; Feb. 9, 1931, to May 10, 1934, at site 0.4 mi (0.6 km) downstream at datum 0.40 ft (0.122 m) higher. May 11, 1934, to Sept. 30, 1970, water-stage recorder at site 350 ft (107 m) upstream; prior to June 29, 1965, at datum 3.17 ft (0.996 m) higher, and 2.17 ft (0.661 m) higher thereafter.

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

AVERAGE DISCHARGE.--57 years, 315 ft^3/s (8.921 m^3/s), 21.18 in/yr (538 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s (920 m^3/s) Dec. 21, 1926, gage height, 16.5 ft (5.03 m), site and datum then in use; minimum, 35 ft^3/s (0.991 m^3/s) Sept. 19, 20, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1897 reached a stage of 17.5 ft (5.33 m), original site and datum, discharge, 37,000 ft^3/s (1,050 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	0445	4830	137	10.63	3.240	Feb. 9	0800	*8000	227	12.84	3.914

Minimum discharge, 86 ft^3/s (2.44 m^3/s) Oct. 14, Nov. 21, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	104	1140	225	555	564	282	444	185	132	113	131
2	90	101	620	220	492	524	277	426	178	124	109	130
3	91	100	427	1130	504	493	336	401	172	123	107	121
4	92	100	341	2960	483	461	323	374	204	125	105	109
5	92	101	285	1160	450	420	336	353	186	129	103	104
6	94	98	253	799	431	394	328	332	171	125	159	103
7	90	95	230	601	383	373	313	384	167	122	119	101
8	89	94	212	473	428	346	336	620	164	120	131	101
9	89	94	188	410	4300	326	350	520	159	119	150	98
10	91	94	178	359	1490	333	341	440	176	121	127	97
11	89	93	170	318	967	373	336	380	159	124	116	97
12	89	93	162	298	777	386	328	354	154	118	113	97
13	89	93	154	285	675	394	320	322	153	115	111	370
14	89	90	161	262	590	504	305	293	148	114	111	193
15	89	89	150	246	538	1480	286	273	146	113	109	153
16	89	96	144	231	567	1130	313	470	150	112	109	153
17	91	95	144	210	606	848	1880	303	148	111	143	130
18	164	91	137	204	559	680	1390	305	142	114	119	123
19	121	91	133	209	497	584	934	267	139	122	112	122
20	105	91	129	275	459	523	737	257	140	119	107	114
21	100	88	239	1640	443	520	593	252	136	116	104	109
22	99	87	797	1150	407	463	502	233	135	114	101	105
23	111	90	636	2460	379	431	444	230	134	129	103	103
24	103	99	497	1390	361	415	411	217	132	127	115	102
25	100	94	423	909	334	393	393	207	129	115	128	112
26	111	91	368	670	328	363	389	203	129	110	117	124
27	141	174	342	543	461	338	607	260	128	109	109	111
28	122	183	309	469	600	312	477	281	130	109	107	105
29	115	155	275	406	---	297	440	223	130	109	104	100
30	110	190	248	371	---	292	479	205	133	110	102	99
31	107	---	236	490	---	305	---	193	---	126	106	---
TOTAL	3143	3154	9726	21373	19064	15265	14786	10022	4557	3676	3569	3717
MEAN	101	105	314	689	681	492	493	323	152	119	115	124
MAX	164	190	1140	2960	4300	1480	1880	620	204	132	159	370
MIN	89	87	129	204	328	292	277	193	128	109	101	97
CFSM	.50	.52	1.55	3.41	3.37	2.44	2.44	1.60	.75	.59	.57	.61
IN.	.58	.58	1.79	3.94	3.51	2.81	2.72	1.85	.84	.68	.66	.68

CAL YR 1981 TOTAL 73996 MEAN 203 MAX 2310 MIN 87 CFSM 1.01 IN 13.63
WTR YR 1982 TOTAL 112052 MEAN 307 MAX 4300 MIN 87 CFSM 1.52 IN 20.64

03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, Hydrologic Unit 06040003, on left bank 0.4 mi (0.6 km) downstream from Tumbling Creek, 1.3 mi (2.1 km) upstream from bridge on State Highway 13, 3.6 mi (5.8 km) Southeast of Hurricane Mills, and at mile 26.0 (41.8 km).

DRAINAGE AREA.--2,557 mi^2 (6,623 km^2).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1951, published as "near Hurricane Mills."

REVISED RECORDS.--WSP 803: 1935. WSP 823: 1927(M). WSP 853: Drainage area. WSP 1436: 1926-28, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 370.53 ft (112.938 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 21, 1934, nonrecording gage and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder at bridge 5.6 mi (9.0 km) downstream at datum 8.80 ft (2.682 m) lower.

REMARKS.--Records good. Flow regulated since January 1976 by Normandy Lake (station 03596460). Prior to 1953 occasional regulation at low flow from small dams upstream. Minor diversions for irrigation. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--57 years, 4,093 ft^3/s (115.9 m^3/s), 21.74 in/yr (552 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 122,000 ft^3/s (3,460 m^3/s) Feb. 14, 1948, gage height, 30.70 ft (9.357 m), from floodmark in gage house, present site and datum; minimum, 185 ft^3/s (5.24 m^3/s) Sept. 11, 12, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,900 ft^3/s (790 m^3/s) at 1815 hours Jan. 24, gage height, 17.49 ft (5.331 m); minimum, 558 ft^3/s (15.8 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	1420	5330	2050	6460	6240	3420	3920	1510	886	1040	939
2	638	1160	9590	1940	8010	6540	4550	5100	1420	942	856	800
3	622	999	10400	3290	7730	5550	4980	4710	1390	871	825	766
4	615	923	7230	16400	7960	4900	4890	3730	1360	798	766	1180
5	613	890	4590	25100	8110	4620	4350	3170	1570	821	725	1670
6	624	860	3380	26700	7640	4240	4050	2800	1440	820	872	1880
7	620	814	2730	24200	6670	4060	3680	2620	1280	787	844	1400
8	593	758	2310	10700	5860	3810	3560	4310	1200	737	782	1100
9	590	787	1980	7240	13200	3760	3750	8500	1130	765	967	906
10	600	842	1740	5980	16600	3700	4280	7120	1120	942	1170	794
11	604	788	1550	4800	12900	3550	5030	5260	1100	1050	972	754
12	600	728	1400	3770	10100	3210	4540	3970	1020	1090	1530	711
13	604	693	1260	3380	8000	3000	3900	3270	986	1090	2030	923
14	604	668	1220	3060	7010	2920	3460	2830	972	1170	1640	1090
15	593	640	1300	2770	6190	4500	3100	2540	957	1090	1520	887
16	589	664	1350	2550	5450	11100	2890	3120	916	998	1440	836
17	593	673	1340	2370	6020	13700	5010	2610	927	871	1470	776
18	757	655	1400	2110	7780	11600	12900	2310	908	852	1610	740
19	920	642	1350	2140	7670	8060	13600	2550	880	852	2440	729
20	1040	638	1220	2310	6720	6880	10900	2330	854	1200	2960	705
21	908	633	1320	5540	5960	6110	7360	2350	831	1150	3030	693
22	820	623	2530	12000	5220	6350	5700	2430	819	1120	2710	652
23	837	618	4420	19500	4480	7850	4680	2180	796	1130	2280	628
24	871	646	5330	27000	4010	7930	3960	2100	765	1280	1770	622
25	878	670	5250	26000	3610	6280	3490	1890	748	1170	1540	646
26	836	679	4650	19900	3340	5210	3310	1760	725	1380	1570	693
27	976	782	3890	10600	3420	4600	3790	1930	716	1400	2030	675
28	1350	1470	3300	7770	4540	3990	4030	2260	731	1160	1760	658
29	1510	2640	2840	6610	---	3340	4060	2300	747	959	1420	622
30	2250	3940	2490	5800	---	2950	4430	2000	812	857	1230	581
31	1860	---	2230	5430	---	2780	---	1710	---	864	1120	---
TOTAL	26160	28943	100920	299010	200660	173330	151650	99680	30610	31102	46919	26036
MEAN	844	965	3255	9645	7166	5591	5055	3215	1020	1003	1514	868
MAX	2250	3940	10400	27000	16600	13700	13600	8500	1570	1400	3030	1880
MIN	589	618	1220	1940	3340	2780	2890	1710	716	737	725	581

CAL YR 1981 TOTAL 665650 MEAN 1824 MAX 12900 MIN 587 MEAN‡ 1819 CFSM‡ .71 IN‡ 9.66
WTR YR 1982 TOTAL 1215020 MEAN 3329 MAX 27000 MIN 581 MEAN‡ 3396 CFSM‡ 1.33 IN‡ 18.03

‡ Adjusted for change in contents in Normandy Lake.

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 (0.6 km) downstream from Little Opossum Creek, 0.5 mi (0.8 km) downstream from bridge on State Highway 13, 1.3 mi (2.1 km) north of Flat Woods, 3.9 mi (6.3 km) upstream from Sinking Creek, and at mile 58.7 (94.4 km).

DRAINAGE AREA.--447 mi^2 (1,158 km^2).

WATER-DISCHARGE RECORDS

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 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 513.58 ft (156.539 m) National Geodetic Vertical Datum of 1929. Prior to May 27, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--62 years, 750 ft^3/s (21.24 m^3/s), 22.78 in/yr (579 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft^3/s (2,550 m^3/s) Feb. 13, 1948, gage height, 32.0 ft (9.75 m), from high-water mark in gage house, from rating curve extended above 50,000 ft^3/s (1,420 m^3/s) on basis of slope-area and contracted-opening measurements of peak flow and rainfall-runoff study; minimum, 65 ft /s (1.84 m^3/s) Sept. 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 13, 1948.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft^3/s (127 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1430	*9950	282	15.61	4.758	Apr. 17	2400	5290	150	10.84	3.304
Jan. 23	2330	9690	274	15.37	4.685						

Minimum discharge, 175 ft^3/s (4.96 m^3/s) Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	256	2350	502	1320	681	1380	869	390	348	364	217
2	188	245	2350	476	1130	658	1090	805	435	344	325	231
3	188	241	1320	1510	1010	643	1120	755	398	296	296	239
4	186	236	929	8280	1250	612	1070	706	404	280	283	221
5	185	234	741	4310	1100	579	987	660	529	281	275	204
6	181	228	627	2010	985	568	1040	626	474	290	291	197
7	179	222	548	1420	887	544	953	623	409	272	296	195
8	176	220	496	1090	806	516	939	1560	385	256	390	192
9	177	221	452	905	1880	495	1380	1620	368	338	322	189
10	181	224	417	785	2540	476	1310	1080	354	390	379	186
11	187	224	386	645	1740	463	1090	877	341	534	420	187
12	188	222	348	559	1280	456	943	775	330	656	335	195
13	187	221	325	530	1080	456	836	708	330	491	298	217
14	182	220	356	507	960	1670	763	648	325	368	282	222
15	182	220	404	470	860	2430	691	588	314	328	274	219
16	186	227	381	452	842	1490	697	590	316	307	293	219
17	192	233	358	413	1040	1200	2850	547	330	289	284	236
18	407	226	352	391	1010	999	4480	515	321	329	279	228
19	496	223	332	425	893	858	2310	504	310	344	262	222
20	341	228	314	528	800	885	1640	609	306	406	248	228
21	259	236	381	2000	735	1260	1270	820	297	358	239	222
22	238	225	584	3210	674	1240	1060	694	287	324	234	207
23	282	221	802	5760	595	1080	931	601	280	369	249	202
24	307	231	985	6730	536	939	852	549	271	432	295	202
25	269	245	895	2430	512	841	811	522	262	678	338	208
26	270	236	786	1610	615	761	815	508	258	553	319	247
27	334	465	709	1210	760	673	987	497	256	418	289	243
28	398	1050	648	1010	729	611	1010	478	267	357	236	232
29	352	756	592	869	---	564	914	463	348	332	227	219
30	317	651	538	744	---	533	896	422	360	332	217	210
31	285	---	510	765	---	784	---	401	---	391	214	---
TOTAL	7688	8887	21216	52546	28569	25963	37115	21620	10255	11691	9053	6436
MEAN	248	296	684	1695	1020	838	1237	697	342	377	292	215
MAX	496	1050	2350	8280	2540	2430	4480	1620	529	678	420	247
MIN	176	220	314	391	512	456	691	401	256	256	214	186
CFSM	.56	.66	1.53	3.79	2.28	1.88	2.77	1.56	.77	.84	.65	.48
IN.	.64	.74	1.77	4.37	2.38	2.16	3.09	1.80	.85	.97	.75	.54

CAL YR 1981 TOTAL 162709 MEAN 446 MAX 3210 MIN 169 CFSM 1.00 IN 13.54
WTR YR 1982 TOTAL 241039 MEAN 660 MAX 8280 MIN 176 CFSM 1.48 IN 20.06

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1964 to January 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.0°C July 13-15, 1966; minimum, 0.0°C many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
30...	1300	666	81	7.1	10.0	9.5	140	240	40	2	13	1.9
DEC												
16...	1100	380	88	7.3	5.5	8.0	110	--	42	4	14	1.8
FEB												
24...	1200	604	85	7.1	11.0	11.6	K260	350	36	6	12	1.7
MAR												
23...	1130	1090	80	7.6	12.0	10.2	K3900	1400	34	5	11	1.6
APR												
26...	1330	804	85	--	17.0	--	--	--	--	--	--	--
JUN												
16...	1000	321	83	7.0	22.5	7.4	K800	K1400	42	0	14	1.9
AUG												
27...	1030	292	82	7.8	24.0	6.5	240	K810	42	0	14	1.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV												
30...	1.4	.1	6	.9	4.6	2.2	<.1	7.0	70	54	.09	126
DEC												
16...	1.1	.0	5	.6	4.5	1.8	<.1	5.1	65	52	.08	66.6
FEB												
24...	1.3	.0	6	.7	6.2	2.5	<.1	5.3	56	48	.07	91.3
MAR												
23...	1.5	.1	8	1.0	5.2	2.4	<.1	5.9	54	46	.07	159
APR												
26...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
16...	1.1	.0	5	.5	4.0	1.6	<.1	5.8	57	49	.07	49.4
AUG												
27...	1.3	.0	6	.4	3.0	1.3	.1	7.2	62	55	.08	48.8

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	ALKA-LINITY LAB (MG/L AS CACO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV											
30...	--	.40	.050	38	--	.060	.53	.46	.020	22	40
DEC											
16...	--	.39	.010	38	--	.040	1.00	.59	.010	6	6.2
FEB											
24...	.49	.46	--	30	.040	.020	--	1.7	.070	14	23
MAR											
23...	--	.50	.070	29	--	.070	--	.34	.020	57	168
APR											
26...	--	--	--	--	--	--	--	--	--	16	35
JUN											
16...	--	.25	.050	43	--	.040	1.30	.80	.030	14	12
AUG											
27...	.20	.15	.040	43	<.010	<.010	--	.30	.020	23	18

K--Results based on non-ideal colony count.

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
DEC											
16...	1	0	<100	17	<1	1	<1	20	<1	<3	5
JUN											
16...	1	1	400	27	<1	1	1	10	<1	<3	6

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC										
16...	<10	150	28	<1	<10	<4	10	7	.1	.1
JUN										
16...	<10	380	45	--	20	<4	30	9	<.1	<.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DEC										
16...	<10	<1	<1	<1	<1	51	<6.0	60	8	<.01
JUN										
16...	10	<1	<1	<1	<1	52	<6.0	20	5	<.01

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
JUN										
16...	6.4	5.0	4.4	3.4	3.0	1.5	3.1	1.6	1.1	.01

DATE	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)
JUN										
16...	<.10	78	<.10	<.01	<.1	<.10	3.0	<.01	1.0	<.01

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
JUN										
16...	3.4	<.01	2.8	<.01	<.01	1.4	<.01	<.01	<.1	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)
JUN										
16...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01

DATE	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN										
16...	<.01	<.01	<.01	<.10	<1	<10	<.01	<.01	<.01	<.01

03604500 BUFFALO RIVER NEAR LOBELVILLE, TN

LOCATION.--Lat 35°48'46", long 87°47'51", Perry County, Hydrologic Unit 06040004, on right bank 30 ft (9 m) upstream from Standing Rock Bridge, 1.4 mi (2.3 km) downstream from bridge on State Highway 13, 3 mi (5 km) north of Lobelville, 13 mi (21 km) downstream from Cane Creek, and at mile 17.7 (28.5 km).

DRAINAGE AREA.--707 mi^2 (1,831 km^2).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935. WSP 823: Drainage area. WSP 853: 1928-37. WSP 1436: 1932(M).

GAGE.--Water-stage recorder. Datum of gage 403.02 ft (122.840 m) National Geodetic Vertical Datum of 1929. Nov. 1, 1927, to May 31, 1934, nonrecording gage 40 ft (12 m) downstream at same datum.

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

AVERAGE DISCHARGE.--55 years, 1,185 ft^3/s (33.56 m^3/s), 22.76 in/yr (578 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft^3/s (2,830 m^3/s) Feb. 14, 1948, gage height, 23.76 ft (7.242 m) from high-water mark in gage house, from rating curve extended above 40,000 ft^3/s (1,130 m^3/s) on basis of slope-area measurement of peak flow; minimum, 135 ft^3/s (3.82 m^3/s) Aug. 18, 1953, caused by regulations upstream at unknown location; minimum discharge unaffected by regulation, 142 ft^3/s (4.02 m^3/s) Oct. 1-8, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 14, 1948. Flood of March 1902 reached a stage of about 21.8 ft (6.64 m), discharge not determined, from flood profile by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,200 ft^3/s (147 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	1900	*10600	300	13.07	3.984	Feb. 9	1515	5480	155	9.98	3.042
Jan. 25	0400	10200	289	12.85	3.917	Apr. 18	2300	6780	192	10.91	3.325

Minimum discharge, 294 ft^3/s (8.33 m^3/s) Sept. 10, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	522	1810	797	1500	1310	1280	1340	654	541	560	351
2	340	486	3000	774	1870	1280	1680	1270	614	515	520	347
3	336	457	2800	1430	1740	1220	1650	1190	633	505	488	347
4	336	442	1860	5420	1710	1170	1680	1110	644	462	455	347
5	336	432	1420	9620	1820	1120	1640	1030	692	441	432	339
6	336	423	1180	6290	1680	1070	1580	969	764	429	488	325
7	335	416	1020	2870	1530	1020	1550	959	722	431	471	317
8	331	406	896	2180	1460	967	1520	1180	639	422	452	309
9	327	399	801	1760	4400	914	1690	1940	594	408	585	303
10	327	393	721	1490	4400	873	1980	1860	564	477	685	296
11	330	392	656	1300	3690	828	1880	1500	554	600	563	294
12	335	394	603	1140	2710	795	1670	1300	529	630	565	298
13	338	389	554	1020	2180	779	1500	1160	515	756	519	352
14	336	387	538	932	1850	784	1350	1070	504	691	475	337
15	333	384	546	866	1630	1210	1240	1000	495	556	447	344
16	333	394	566	800	1510	2890	1200	924	491	489	434	365
17	336	399	561	741	1530	2990	3060	887	496	453	450	353
18	437	399	531	689	1640	2230	6150	832	490	478	431	348
19	565	398	509	663	1550	1890	5630	783	485	476	417	335
20	676	397	488	767	1430	1620	3310	836	474	481	404	343
21	623	401	534	1790	1320	1620	2450	927	463	513	388	338
22	522	401	1020	3510	1220	1690	2010	1080	456	514	374	335
23	481	400	1220	6300	1140	1890	1700	1020	443	499	369	321
24	481	399	1330	8450	1070	1700	1490	904	431	507	414	317
25	499	403	1430	8410	997	1520	1340	833	420	565	429	327
26	508	412	1350	3440	936	1380	1290	800	410	712	439	341
27	553	485	1230	2450	1020	1250	1470	874	404	749	433	353
28	560	737	1120	1950	1210	1140	1570	1020	408	613	418	363
29	592	1140	1020	1640	---	1050	1530	865	422	536	383	350
30	596	1090	938	1440	---	972	1410	784	459	513	362	340
31	557	---	854	1390	---	1000	---	710	---	558	352	---
TOTAL	13347	14177	33106	82319	50743	42172	59500	32957	15869	16520	14202	10055
MEAN	431	473	1068	2655	1812	1360	1983	1063	529	533	458	335
MAX	676	1140	3000	9620	4400	2990	6150	1940	764	756	685	365
MIN	327	384	488	663	936	779	1200	710	404	408	352	294
CFSM	.61	.67	1.51	3.76	2.56	1.92	2.81	1.50	.75	.75	.65	.47
IN.	.70	.75	1.74	4.33	2.67	2.22	3.13	1.73	.83	.87	.75	.53

CAL YR 1981 TOTAL 274657 MEAN 752 MAX 4600 MIN 296 CFSM 1.06 IN 14.45
WTR YR 1982 TOTAL 384967 MEAN 1055 MAX 9620 MIN 294 CFSM 1.49 IN 20.26

03605555 TRACE CREEK ABOVE DENVER, TN

LOCATION.--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 (1.6 km) east of Denver, 3.9 mi (6.3 km) northeast of New Johnsonville, and at mile 4.2 (6.8 km).

DRAINAGE AREA.--31.9 mi^3 (82.6 km^3).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Published as "near Denver" prior to October 1972.

REVISED RECORDS.--WDR TN-76-1: 1973-75(P).

GAGE.--Water-stage recorder. Datum of gage is 377.05 ft (114.925 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1973, at site 1.1 mi (1.8 km) upstream. Oct. 22 to Nov. 6, 1963, at different datum and Nov. 7, 1963, to Dec. 31, 1972, at datum 12.47 ft (3.801 m) higher.

REMARKS.--Records fair. Natural flow of stream effected by periodic transbasin diversion of water from the Duck River basin into the Trace Creek basin to supplement the Waverly municipal water supply.

AVERAGE DISCHARGE.--19 years, 52.3 ft^3/s (1.481 m^3/s), 22.26 in/yr (565 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s (260 m^3/s), Apr. 19, 1973, gage height, 12.43 ft (3.789 m); maximum discharge at prior site and datum, 3,640 ft^3/s (103 m^3/s), May 13, 1967, gage height, 9.08 ft (2.768 m); minimum discharge, 3.0 ft^3/s (0.085 m^3/s) Aug. 9, 13, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1886, 14 ft (4.3 m) January 1937, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,210 ft^3/s (62.6 m^3/s) at 0315 hours Feb. 9, gage height, 7.53 ft (2.295 m), no other peak above base of 1,850 ft^3/s (52.4 m^3/s); minimum, 6.7 ft^3/s (0.190 m^3/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	18	152	34	95	47	25	60	15	12	8.4	19
2	10	18	70	43	73	44	26	50	13	12	8.0	14
3	9.5	18	54	407	70	42	60	45	13	12	8.0	12
4	9.5	15	45	362	67	40	45	41	14	13	8.0	11
5	9.5	16	39	142	57	37	43	34	14	17	9.4	10
6	10	14	32	100	55	36	42	32	12	12	10	9.7
7	9.5	14	29	77	46	34	36	34	12	13	9.9	9.4
8	9.5	15	28	59	56	34	40	39	14	14	10	8.9
9	9.5	12	25	51	776	32	43	31	13	14	12	8.7
10	9.3	12	22	45	168	34	39	28	14	11	12	8.4
11	9.0	12	20	36	108	39	36	26	13	12	11	8.4
12	9.0	12	20	34	88	47	37	23	13	11	11	8.7
13	9.0	14	18	32	73	50	34	21	12	8.7	11	23
14	9.0	13	18	29	65	83	32	19	12	9.9	11	16
15	9.0	14	18	28	59	247	31	21	11	11	11	13
16	9.2	14	16	25	59	139	47	23	14	10	12	13
17	11	14	17	21	59	100	487	21	15	9.1	14	12
18	36	13	16	22	52	77	156	20	13	11	12	11
19	14	13	15	25	47	66	99	19	14	15	11	10
20	13	16	13	86	43	57	79	28	16	11	11	9.7
21	11	14	46	603	40	54	62	28	14	8.9	10	8.9
22	11	13	206	255	38	47	51	24	13	8.7	10	8.7
23	14	12	148	553	36	45	45	24	13	9.4	12	8.2
24	12	14	93	176	34	39	39	21	13	8.9	13	8.2
25	13	13	69	115	32	37	37	20	13	8.0	17	8.2
26	19	13	57	83	31	33	56	20	13	7.8	14	8.2
27	29	18	54	68	46	31	200	21	12	7.8	12	7.8
28	20	17	51	58	55	28	103	19	13	7.1	9.9	7.5
29	18	16	43	49	---	29	78	17	12	8.0	8.7	7.1
30	17	23	36	46	---	27	72	16	12	8.9	9.1	7.1
31	17	---	34	96	---	27	---	16	---	9.4	16	---
TOTAL	405.5	440	1504	3760	2428	1682	2180	841	395	331.6	342.4	315.8
MEAN	13.1	14.7	48.5	121	86.7	54.3	72.7	27.1	13.2	10.7	11.0	10.5
MAX	36	23	206	603	776	247	487	60	16	17	17	23
MIN	9.0	12	13	21	31	27	25	16	11	7.1	8.0	7.1
CFSM	.41	.46	1.52	3.79	2.72	1.70	2.28	.85	.41	.34	.35	.33
IN.	.47	.51	1.75	4.38	2.83	1.96	2.54	.98	.46	.39	.40	.37

CAL YR 1981 TOTAL 12774.4 MEAN 35.0 MAX 1570 MIN 9.0 CFSM 1.10 IN 14.90
WTR YR 1982 TOTAL 14625.5 MEAN 40.1 MAX 776 MIN 7.1 CFSM 1.26 IN 17.05

03605555 TRACE CREEK ABOVE DENVER, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
16...	1330	9.0	270	18.0	2	.05
NOV						
18...	1130	12	260	11.0	2	.06
JAN						
21...	1445	377	190	6.5	75	76
FEB						
12...	1430	91	170	5.5	10	2.5
MAR						
25...	1500	33	190	14.5	5	.45
MAY						
05...	1515	34	--	19.0	7	.64
JUN						
16...	1430	17	230	22.0	11	.50
JUL						
29...	1310	7.3	280	26.5	5	.10
SEP						
10...	1230	7.4	270	21.0	6	.12

03606500 BIG SANDY RIVER AT BRUCETON, TN

LOCATION.--Lat 36°02'19", long 88°13'42", Carroll County, Hydrologic Unit 06040005, on right bank on downstream end of abutment of county bridge, 700 ft (213 m) downstream from bridge on U.S. Highway 70, 0.6 mi (1.0 km) upstream from Cherry Creek, 0.9 mi (1.4 km) east of Bruceton, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--205 mi^2 (531 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 853: Drainage area. WSP 923: 1929-35.

GAGE.--Water-stage recorder. Datum of gage is 380.58 ft (116.001 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 1, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--53 years, 292 ft^3/s (8.269 m^3/s), 19.34 in/yr (491 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) Jan. 21, 1935, gage height, 16.16 ft (4.926 m) from graph based on gage readings, from rating curve extended above 9,200 ft^3/s (261 m^3/s); minimum, 28 ft^3/s (0.79 m^3/s) Aug. 17-19, 22, Sept. 1, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1897 reached a stage of 18 ft (5.5 m), discharge, 25,000 ft^3/s (708 m^3/s), and flood in March 1919 reached a stage of 17 ft (5.2 m), discharge, 21,000 ft^3/s (595 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 23	1800	2190	62.0	12.23	3.728	Sept. 13	1630	*3930	111	13.50	4.115
Feb. 9	1300	2080	58.9	12.13	3.697						

Minimum daily discharge, 61 ft^3/s (1.73 m^3/s) July 14, 15, 23, Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	108	1010	160	507	256	153	175	132	171	284	195
2	73	109	550	184	427	200	133	163	106	123	246	289
3	74	109	390	878	358	185	355	147	94	92	107	256
4	75	111	197	1100	315	184	235	135	107	144	80	117
5	76	128	156	916	236	172	198	128	189	108	70	83
6	76	115	144	855	210	176	190	121	117	81	251	73
7	80	108	137	367	179	188	153	124	97	72	216	69
8	78	105	133	204	262	163	258	151	89	70	119	65
9	79	105	125	177	1910	155	372	132	84	74	364	63
10	81	105	120	172	1660	157	259	119	110	75	109	62
11	82	104	119	167	1640	189	185	110	96	74	82	62
12	82	104	119	162	885	203	161	103	86	86	101	69
13	82	105	119	157	330	190	149	98	86	65	89	2910
14	83	104	142	152	265	238	144	95	83	61	95	2480
15	104	104	141	147	235	816	139	98	80	61	80	1910
16	99	138	127	142	233	646	209	113	98	64	76	1800
17	111	140	128	143	235	437	1120	100	118	62	132	390
18	488	118	124	143	209	228	994	94	95	67	96	220
19	213	115	112	159	189	198	1130	96	86	66	78	167
20	129	125	109	426	179	179	627	104	84	69	70	132
21	108	117	486	1630	173	178	243	117	81	62	66	114
22	103	112	876	1420	163	160	185	105	79	64	64	94
23	155	118	761	2060	158	146	166	115	77	61	63	92
24	135	138	648	1880	155	140	156	101	75	66	71	90
25	117	124	293	1320	148	137	168	97	73	70	67	92
26	182	118	199	603	150	130	242	116	72	71	65	107
27	300	150	207	263	290	127	452	132	81	62	63	95
28	181	131	192	228	318	127	311	282	89	67	65	86
29	138	119	162	202	---	126	206	270	116	97	63	80
30	118	290	146	212	---	124	199	159	145	80	61	77
31	111	---	154	597	---	135	---	141	---	231	83	---
TOTAL	3886	3677	8326	17226	12019	6670	9472	4039	2925	2616	3476	12337
MEAN	125	123	269	556	429	215	316	130	97.5	84.4	112	411
MAX	488	290	1010	2060	1910	816	1130	282	189	231	364	2910
MIN	73	104	109	142	148	124	133	94	72	61	61	62
CFSM	.61	.60	1.31	2.71	2.09	1.05	1.54	.63	.48	.41	.55	2.01
IN.	.71	.67	1.51	3.13	2.18	1.21	1.72	.73	.53	.47	.63	2.24

CAL YR 1981 TOTAL 75800 MEAN 208 MAX 3790 MIN 70 CFSM 1.02 IN 13.75
WTR YR 1982 TOTAL 86669 MEAN 237 MAX 2910 MIN 61 CFSM 1.16 IN 15.73

03606500 BIG SANDY RIVER AT BRUCETON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968, 1970-72, 1976 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
15...	1800	112	40	17.0	22	6.7	--
JAN							
20...	1430	325	37	3.5	87	76	--
FEB							
11...	1525	1700	35	2.0	107	491	84
MAR							
24...	1645	140	36	16.0	38	14	--
MAY							
05...	1300	125	--	18.0	59	20	--
JUN							
16...	1645	100	36	21.5	100	27	--
JUL							
28...	1430	59	41	25.5	69	11	--
SEP							
09...	1430	63	37	21.5	26	4.4	--

03609500 TENNESSEE RIVER NEAR PADUCAH, KY

LOCATION.--Lat 37°01'11", long 88°16'50", Marshall County, Hydrologic Unit 06040006, on left bank at Gilbertsville, 4,000 ft (1,200 m) downstream from Kentucky Dam, 2.3 mi (3.7 km) upstream from Shadie Creek, 16 mi (26 km) east of Paducah, and at mile 21.6 (34.8 km).

DRAINAGE AREA.--40,200 mi^2 (104,100 km^2), approximately.

PERIOD OF RECORD.--October 1875 to September 1889 (gage heights only), October 1889 to current year. Prior to October 1931, published as "at Johnsonville, Tenn.", and October 1931 to September 1939, published as "near Johnsonville, Tenn."

REVISED RECORDS.--WSP 1306: 1936 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 286.35 ft (87.279 m) National Geodetic Vertical Datum of 1929. Prior to October 1939, various types of gages between 75 and 80 mi (121 and 129 km) upstream at datums from 33.16 to 34.67 ft (10.107 to 10.567 m) higher. October 1939 to September 1942, water-stage recorder 16.4 mi (26.4 km) downstream at present datum. Auxiliary water-stage recorder 16.3 mi (26.2 km) downstream at present datum since Oct. 1, 1942. October 1939 to Sept. 30, 1942, auxiliary water-stage recorder at same site and datum as present base gage at Gilbertsville. (See WSP 1706 for details).

REMARKS.--Records good. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other lakes have been built above station (see basic data releases for adjoining states). Flow completely regulated. Barkley-Kentucky Canal (station 03438190) diverts water from or to Lake Barkley in Cumberland River basin.

AVERAGE DISCHARGE.--76 years (1889-1965, prior to opening of Barkley-Kentucky Canal), 64,060 ft^3/s (1,814 m^3/s), unadjusted; 17 years (1965-82, since opening of Barkley-Kentucky Canal), 64,840 ft^3/s (1,836 m^3/s), 21.90 in/yr (556 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500,000 ft^3/s (14,200 m^3/s) Feb. 17, 1948; maximum gage height, 62.43 ft (19.029 m) Feb. 2, 1937, at Gilbertsville, present datum; minimum daily discharge, 60 ft^3/s (1.70 m^3/s) May 16, 1961.
Maximum discharge since closure of Kentucky Dam on Aug. 30, 1944, 500,000 ft^3/s (14,200 m^3/s) Feb. 17, 1948.
Maximum discharge since opening of Barkley-Kentucky Canal in June 1966, 420,000 ft^3/s (11,900 m^3/s) Mar. 17, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 230,000 ft^3/s (6,510 m^3/s) Jan. 25, maximum gage height, 41.42 ft (12.625 m) Jan. 28; minimum daily discharge, 20,000 ft^3/s (566 m^3/s) July 15; minimum gage height, 12.77 ft (3.892 m) June 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34800	34300	69900	55100	155000	88000	40000	46100	37200	22000	48800	55000
2	34800	26500	82500	53400	127000	108000	38000	46800	39100	33000	48600	52500
3	25600	27900	66600	73500	112000	105000	41000	39800	40600	32000	49600	52500
4	25400	27500	55100	156000	109000	103000	40000	34100	32500	32000	49600	52600
5	27900	26900	53000	188000	123000	86100	45000	35500	24900	25000	50000	48800
6	29400	30800	53200	203000	132000	64700	48000	35400	20600	28000	43900	41400
7	29000	22200	53100	204000	134000	53900	42000	33200	25400	35000	40000	39500
8	28400	22500	54600	207000	134000	58100	45000	31700	23600	37000	39700	39000
9	28100	26900	37800	205000	150000	69800	49500	32500	27400	38000	39900	36300
10	28000	25200	38700	191000	175000	73900	35000	32400	35900	38000	45700	33300
11	27600	24300	39000	183000	182000	74200	39000	33100	34600	37000	52400	33200
12	28000	24400	37100	174000	178000	67600	39000	33500	30600	36000	51500	32200
13	30900	25700	29600	158000	165000	63900	39000	33100	25600	20000	51100	35100
14	33200	25500	38200	141000	156000	63000	38500	33400	20800	37000	47800	42800
15	33600	24700	39300	116000	152000	84800	29000	28500	23900	48000	47100	41000
16	33300	25400	37200	81100	150000	129000	27000	26100	33800	48000	38800	42300
17	24800	30000	40100	62000	143000	149000	34200	26700	35100	45000	43100	42500
18	27200	28600	40200	56000	140000	152000	46100	28100	37900	35000	51700	42600
19	34000	29400	35700	56000	149000	150000	62000	27900	37100	39000	51000	35800
20	35300	30000	33500	58800	152000	142000	80800	28700	34700	40000	51000	35600
21	35700	27900	32800	78300	150000	125000	76500	28100	35500	38000	50800	35400
22	40300	27200	43600	133000	148000	103000	63000	33800	28800	44400	39200	36100
23	42000	27100	53300	178000	148000	95400	53200	27800	26400	46600	40500	35400
24	41200	28000	50500	211000	125000	77900	53000	28000	26800	48000	41400	35200
25	41100	32300	49000	226000	90400	56000	44000	34200	30800	47600	40400	35600
26	42000	25500	40000	225000	72300	30000	38000	33000	31700	41200	40300	31200
27	36000	32800	41000	222000	65900	25000	39000	34000	23300	44800	40200	33000
28	41100	38100	49300	205000	66900	25000	44600	35400	26000	38000	41000	35200
29	41300	39100	48500	191000	---	40000	47600	33700	21000	41600	40000	35000
30	42300	49400	49100	189000	---	49000	46100	35400	21000	41400	41900	35100
31	34900	---	54100	182000	---	45000	---	34100	---	41700	41000	---
TOTAL	1037200	866100	1445600	4662200	3784500	2557300	1363100	1024100	892600	1178300	1397800	1179000
MEAN	33460	28870	46630	150400	135200	82490	45440	33040	29750	38010	45090	39300
MAX	42300	49400	82500	226000	182000	152000	80800	46800	40600	48000	52400	53000
MIN	24800	22200	29600	53400	65900	25000	27000	26100	20600	20000	38800	31200

CAL YR 1981 TOTAL 13012100 MEAN 35650 MAX 134000 MIN 14900
WTR YR 1982 TOTAL 21387800 MEAN 58600 MAX 226000 MIN 20000

RESERVOIRS IN TENNESSEE RIVER BASIN, TN

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 (10.5 km) north of Sevierville, and at mile 32.3 (52.0 km). DRAINAGE AREA, 4,541 mi^2 (11,761 km^2). PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gages, 32 ft (10 m) high by 40 ft (12 m) wide and 8 sluice gates 10 ft (3 m) high by 5.67 ft (1.73 m) 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 (305.410 m), top of gates, is 743,600 cfs-days (1,820 hm^3), of which 631,200 cfs-days (1,545 hm^3) is controlled storage above elevation 940.00 ft (286.512 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 760,000 cfs-days (1,860 hm^3) July 25, 1949, elevation, 1,001.79 ft (305.346 m); minimum after first filling, 1,000 cfs-days (2.447 hm^3) Jan. 16, 1956, elevation, 883.7 ft (269.35 m) estimated.

EXTREMES FOR CURRENT YEAR: Maximum contents, 559,100 cfs-days (1,368 hm^3) June 7, elevation, 989.31 ft (301.542 m); minimum, 126,300 cfs-days (309.1 hm^3) Dec. 22, elevation, 942.62 ft (287.311 m).

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft (140 m) upstream from South Holston Dam on South Fork Holston River, 7.0 mi (11.3 km) southeast of Bristol, Virginia-Tennessee, and at mile 49.8 (80.1 km). DRAINAGE AREA, 703 mi^2 (1,821 km^2). PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 11, 1951, non-recording gage at same site and datum.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) 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 (530.962 m), spillway crest, is 385,200 cfs-days (942.6 hm^3), of which 220,800 cfs-days (540.3 hm^3) is controlled storage above elevation 1,675.00 ft (510.540 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 347,100 cfs-days (849.3 hm^3) Apr. 3, 1975, elevation, 1,732.82 ft (528.164 m); minimum after first filling, 57,700 cfs-days (141.2 hm^3) Jan. 13, 1956, elevation, 1,614.15 ft (491.993 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 308,900 cfs-days (755.9 hm^3) June 23, elevation, 1,722.96 ft (525.158 m); minimum, 196,300 cfs-days (480.3 hm^3) Dec. 12, elevation, 1,687.37 ft (514.310 m).

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi (8 km) east of Elizabethton, and at mile 36.7 (59.0 km). DRAINAGE AREA, 468 mi^2 (1,212 km^2). PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) 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 (601.980 m), spillway crest, is 341,300 cfs-days (835.2 hm^3), of which 178,500 cfs-days (436.8 hm^3) is controlled storage above elevation 1,915.00 ft (583.692 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 293,300 cfs-days (717.7 hm^3) Apr. 6, 1974, elevation, 1,961.07 ft (597.734 m); minimum after first filling, 25,100 cfs-days (61.42 hm^3) Jan. 13, 1956, elevation, 1,813.47 ft (552.746 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 270,900 cfs-days (662.9 hm^3) May 10, elevation, 1,954.07 ft (595.601 m); minimum, 180,600 cfs-days (441.9 hm^3) Dec. 19, elevation, 1,922.02 ft (585.832 m).

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 (1.1 km) northeast of Spurgeon, 1.3 mi (2.1 km) downstream from Watauga River, and at mile 18.6 (29.9 km). DRAINAGE AREA, 1,840 mi^2 (4,766 km^2). PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates. 35 ft (11 m) high by 35 ft (11 m) 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 (422.15 m), top of gates, is 97,500 cfs-days (238.6 hm^3), of which 74,800 cfs-days (183.0 hm^3) is controlled storage above elevation 1,330 ft (405.4 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 99,100 cfs-days (242.5 hm^3) May 19, 1964, elevation 1,384.99 ft (422.145 m); minimum after first filling, 21,300 cfs-days (52.12 hm^3) Jan. 23, 1956, elevation, 1,327.06 ft (404.488 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 96,400 cfs-days (235.9 hm^3) Aug. 1, elevation, 1,384.48 ft (421.990 m); minimum, 45,100 cfs-days (110.4 hm^3) Jan. 12, elevation, 1,353.10 ft (412.425 m).

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 (0.3 km) upstream from bridge on U. S. Highway 23, 4.5 mi (7.2 km) southeast of Kingsport, and at mile 8.2 (13.2 km). DRAINAGE AREA, 1,903 mi^2 (4,929 km^2). PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, 35 ft (11 m) high by 35 ft (11 m) 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 (385.0 m), top of gates, is 13,600 cfs-days (33.28 hm^3), of which 2,200 cfs-days (5.383 hm^3) is controlled storage above elevation 1,258 ft (383.4 m), normal minimum pool. Reservoir is used for navigation, flood control and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 14,000 cfs-days (34.26 hm^3) Feb. 11, 1954, elevation, 1,263.80 ft (385.206 m), minimum after first filling, 9,300 cfs-days (22.76 hm^3) Mar. 16, 1954, elevation, 1,252.32 ft (381.707 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 13,600 cfs-days (33.28 hm^3) Oct. 8, elevation, 1,263.00 ft (384.962 m); minimum, 11,200 cfs-days (27.41 hm^3) Jan. 18, elevation, 1,257.35 ft (383.240 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

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 (0.5 km) upstream from bridge on State Highway 92, 2.7 mi (4.3 km) upstream from Mill Spring Creek, 2.8 mi (4.5 km) north of Jefferson City, and at mile 52.3 (84.2 km). DRAINAGE AREA, 3,429 mi^2 (8,881 km^2). PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates 32 ft (10 m) high by 40 ft (12 m) 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 (327.66 m), top of gates, is 778,400 cfs-days (1,905 hm^3), of which 580,300 cfs-days (1,420 hm^3) is controlled storage above elevation 1,020.0 ft (310.90 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 779,400 cfs-days (1,907 hm^3) May 11, 1944, maximum elevation, 1,074.47 ft (327.498 m) May 30, 1973; minimum after first filling, 48,400 cfs-days (118.4 hm^3) Jan. 7, 1954, elevation, 980.77 ft (298.939 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 539,600 cfs-days (1,320 hm^3) June 20, elevation, 1,057.67 ft (322.378 m); minimum, 249,300 cfs-days (610.0 hm^3) Oct. 25, elevation, 1,027.60 ft (312.212 m).

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 (2 km) northeast of Lenoir City, and at mile 602.3 (969.1 km). DRAINAGE AREA, 9,550 mi^2 (24,730 km^2). PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates 32 ft (10 m) high by 40 ft (12 m) 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 (248.412 m), top of gates, is 424,000 cfs-days (1,038 hm^3), of which 120,000 cfs-days (293.6 hm^3) is controlled flood storage above elevation 807.00 ft (245.974 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft (300 m) 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.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 815.00 ft (248.412 m) Sept. 11, 1943, May 14, 1945; minimum after first filling, 805.54 ft (245.529 m) Jan 18, 1954. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 185,000 cfs-days (452.7 hm^3) July 31; maximum elevation, 813.40 ft (247.924 m) Aug. 1; minimum midnight contents, 146,000 cfs-days (357.3 hm^3) Dec. 8; minimum elevation, 807.22 ft (246.041 m) Jan. 28.

03518200 CHILHOWEE LAKE.--Lat 35°32'43", long 84°03'02", Monroe County, Hydrologic Unit 06010204, at Chilhowee Dam on Little Tennessee River, 2.4 mi (3.9 km) southwest of Chilhowee, 2.6 mi (4.2 km) upstream from Citico Creek, 10.1 mi (16.2 km) downstream from Calderwood Dam, and at mile 33.6 (54.1 km). DRAINAGE AREA, 1,977 mi^2 (5,120 km^2). PERIOD OF RECORD, August 1957 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with rockfill end abutments. Spillway controlled by six radial gates 38 ft (12 m) high by 35 ft (11 m) wide. Closure of dam was made June 9, 1957; storage began Aug. 1, 1957; water in reservoir first reached minimum pool elevation Aug. 9, 1957. Total capacity at elevation 874.0 ft (266.40 m), top of gates, is 24,800 cfs-days (60.68 hm^3), of which 3,400 cfs-days (8.320 hm^3) is controlled storage above elevation 870.0 ft (265.18 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 25,400 cfs-days (62.15 hm^3) May 28, 1973, elevation, 874.60 ft (266.578 m); minimum after first filling, 18,100 cfs-days (44.29 hm^3) May 18, 1963, elevation, 865.94 ft (263.938 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 25,000 cfs-days (61.18 hm^3) Feb. 3, elevation, 874.24 ft (266.468 m); minimum, 20,300 cfs-days (49.67 hm^3) Mar. 18, elevation, 868.61 ft (264.752 m).

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 (1.8 km) south of Lenoir City, and at mile 0.4 (0.6 km). DRAINAGE AREA, 2,627 mi^2 (6,804 km^2). PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Resevoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates 42 ft (13 m) high by 40 ft (12 m) 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 (248.412 m), top of gates, is 225,500 cfs-days (551.8 hm^3), of which 63,800 cfs-days (156.1 hm^3) is controlled storage above elevation 807.00 ft (245.974 m), minimum navigation pool. Reservoir is used for navigation, flood control, and indirectly, power. Records furnished by Tennessee Valley Authority.

Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft (300 m) 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.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 213,000 cfs-days (521.2 hm^3) Aug. 1, 1982, elevation, 813.49 ft (247.952 m); minimum after first filling, 161,400 cfs-days (394.9 hm^3) Jan. 14, 1980, elevation, 806.96 ft (245.961 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 213,000 cfs-days (521.2 hm^3) Aug. 1, elevation, 813.49 ft (247.952 m); minimum, 164,900 cfs-days (403.5 hm^3) Jan. 28, elevation, 807.44 ft (246.108 m).

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 (4.0 km) northwest of Norris, and at mile 79.8 (128.4 km). DRAINAGE AREA, 2,912 mi^2 (7,542 km^2). PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of gage is 0.11 ft (0.034 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with three drum gates 100 ft (30 m) wide by 14 ft (4 m) 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 (315.197 m), top of gates, is 1,286,600 cfs-days (3,148 hm^3), of which 969,000 cfs-days (2,371 hm^3) is controlled storage above elevation 960.11 ft (292.642 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,236,700 cfs-days (3,026 hm^3) Feb. 11, 1937, elevation, 1,031.21 ft (314.313 m); minimum after first filling, 75,500 cfs-days (184.7 hm^3) Jan. 24, 1956, elevation, 909.46 ft (277.203 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 882,600 cfs-days (2,160 hm^3) June 17, elevation, 1,011.09 ft (308.180 m); minimum, 489,100 cfs-days (1,197 hm^3) Nov. 23, elevation, 979.87 ft (298.664 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

03505900 MELTON HILL LAKE.--Lat 35°53'04", 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi (14 km) southwest of Oak Ridge, 19 mi (31 km) west of Knoxville, 57 mi (92 km) downstream from Norris Dam on Clinch River, and at mile 23.1 (37.2 km). DRAINAGE AREA, 3,343 mi^2 (8,658 km^2). PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft (13 m) high by 40 ft (12 m) 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 (242.6 m), top of gates, is 63,500 cfs-days (155.4 hm^3), of which 16,100 cfs-days (39.40 hm^3) is controlled storage above elevation 790.0 ft (240.79 m), normal minimum pool. Reservoir is used for navigation, power, and recreation. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 64,900 cfs-days (158.8 hm^3) Mar. 16, 1973, elevation, 796.45 ft (242.758 m); minimum after first filling, 35,100 cfs-days (85.89 hm^3) Feb. 9, 1966, elevation, 784.10 ft (238.994 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 61,400 cfs-days (150.2 hm^3) June 6, elevation, 795.30 ft (242.407 m); minimum, 48,300 cfs-days (118.2 hm^3) Dec. 6, elevation, 790.37 ft (240.905 m).

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 (10.4 km) southeast of Spring City, 72.4 mi (116.5 km) downstream from Fort Loudoun Dam, and at mile 529.9 (852.6 km). DRAINAGE AREA, 17,310 mi^2 (44.830 km^2), approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates 32 ft (10 m) high by 40 ft (12 m) wide, also one 2-section leaf trashway gate 16.3 ft (5.0 m) high by 24 ft (7 m) 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 (227.08 m), top of gates, is 592,400 cfs-days (1,450 hm^3), of which 191,000 cfs-days (467.6 hm^3) is controlled flood storage above elevation 735.0 ft (224.03 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 745.40 ft (227.198 m) Mar. 17, 1973; minimum after first filling, 733.44 ft (223.552 m) Mar. 20, 1945. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 526,000 cfs-days (1,287 hm^3) Sept. 2; maximum elevation, 741.78 ft (226.095 m) Sept. 2; minimum midnight contents, 414,000 cfs-days (1,013 hm^3) Jan. 30; minimum elevation, 735.05 ft (224.043 m) Jan. 31.

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 (22.2 km) east of Cleveland, and at mile 11.9 (19.1 km). DRAINAGE AREA, 595 mi^2 (1,541 km^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 (2.100 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 347 ft (110 m) of spillway. Spillway is equipped with four floodgates 6 ft (2 m) high by 20 ft (6 m) wide and 265 ft (80 m) of flashboards about 5.7 ft (2 m) high. Crest of spillway under gates is at elevation 830.82 ft (253.234 m); remainder of spillway is 1.0 ft (0.3 m) 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 (255.285 m), about top of flashboards, is 42,300 cfs-days (103.5 hm^3), of which 15,600 cfs-days (38.17 hm^3) is controlled storage above elevation 817.9 ft (249.30 m), normal minimum pool. Reservoir is used for power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight contents observed, 53,300 cfs-days (130.4 hm^3) July 9, 1916; maximum midnight elevation observed, 840.2 ft (256.09 m) Feb. 10, 1946; minimum contents observed, 27,300 cfs-days (66.80 hm^3) Jan. 27, 1956, elevation, 817.7 ft (249.23 m); minimum midnight elevation observed, 814.8 ft (248.35 m) Dec. 14, 1934.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 41,900 cfs-days (102.5 hm^3) Jan. 4, elevation, 837.1 ft (255.15 m); minimum contents observed, 33,000 cfs-days (80.75 hm^3) Feb. 25, elevation, 827.0 ft (252.07 m).

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 (9.3 km) northeast of Chattanooga, 58.9 mi (94.8 km) downstream from Watts Bar Dam, and at mile 471.0 (757.8 km). DRAINAGE AREA, 20,790 mi^2 (53,850 km^2), approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft (12.33 m) high by 40 ft (12 m) 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 (208.922 m), top of gates, is 372,600 cfs-days (911.8 hm^3), of which 175,000 cfs-days (428.2 hm^3) is controlled flood storage above elevation 675.0 ft (205.74 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 686.10 ft (209.123 m) Mar. 18, 1973; minimum after first filling, 673.27 ft (205.213 m) Jan. 21, 1942. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 327,000 cfs-days (800.2 hm^3) May 29; maximum elevation, 683.13 ft (208.218 m) May 30; minimum midnight contents, 199,000 cfs-days (487.0 hm^3) Jan. 17; minimum elevation, 674.31 ft (205.530 m) Jan. 17.

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi (3 km) upstream from Sequatchie River, 5 mi (8 km) south of Jasper, 46.3 mi (74.5 km) downstream from Chickamauga Dam, and at mile 424.7 (683.3 km). DRAINAGE AREA, 21,870 mi^2 (56,640 km^2), approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft (181.36 m), is equipped with 10 radial gates, each 40 ft (12 m) high by 40 ft (12 m) wide. A trash gate, 5.5 ft (1.7 m) high by 15 ft (5 m) 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 (193.55 m), top of gates, is 127,200 cfs-days (311.3 hm^3), of which 16,200 cfs-days (39.64 hm^3) is controlled storage above elevation 632.0 ft (192.63 m), ordinary minimum. Reservoir is used for navigation and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 634.99 ft (193.545 m) Apr. 19, 1969; minimum after first filling, 630.82 ft (192.274 m) Feb. 20, 1968. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 129,000 cfs-days (315.7 hm^3) Jan. 4; maximum elevation, 634.80 ft (193.487 m) Aug. 17; minimum midnight contents, 116,000 cfs-days (283.9 hm^3) Jan. 15; minimum elevation, 631.98 ft (192.628 m) Jan. 16.

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 (1.9 km) upstream from Spring Creek, 2.5 mi (4.0 km) northeast of Estill Springs, 6.8 mi (10.9 km) upstream from bridge on U. S. Highway 41-A, and at mile 170.0 (273.5 km). DRAINAGE AREA, 263 mi^2 (681 km^2). PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, 25 ft (8 m) high by 50 ft (15 m) wide and two sluice gates 6 ft (2 m) high by 4 ft (1 m) 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 (293.22 m), surcharge pool, is 44,400 cfs-days (108.6 hm^3), of which 9,900 cfs-days (24.22 hm^3) is controlled storage above elevation 957.0 ft (291.69 m), normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes. 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 (103.5 hm^3) April 21 and 22, 1956, elevation, 960.98 ft (292.907 m); minimum after first filling, 26,300 cfs-days (64.36 hm^3) Nov. 8-11, 1953, elevation, 951.93 ft (290.148 m).

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 39,500 cfs-days (96.66 hm^3) Aug. 21, elevation, 959.63 ft (292.495 m); minimum midnight contents, 36,200 cfs-days (88.58 hm^3) Dec. 14, elevation, 957.89 ft (291.965 m).

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 (0.6 km) upstream from bridge on State Highway 50, 9.5 mi (15.3 km) west of Winchester, and at mile 133.4 (214.6 km). DRAINAGE AREA, 529 mi^2 (1,370 km^2). PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates 42 ft (13 m) high by 40 ft (12 m) wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 5, 1971. Total capacity at elevation 895 ft (272.8 m), top of gates, is 306,500 cfs-days (750.0 hm^3), of which 142,400 cfs-days (348.5 hm^3) is controlled storage above elevation 865 ft (263.7 m), normal minimum pool. Reservoir is used for flood control, power, and recreation. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 296,300 cfs-days (725.0 hm^3) Mar. 17, 1973, elevation, 893.24 ft (272.260 m); minimum after first filling 154,000 cfs-days (376.8 hm^3) Oct. 15, 1972, elevation, 862.24 ft (262.811 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 265,400 cfs-days (649.4 hm^3) May 10, elevation, 887.67 ft (270.562 m); minimum, 197,900 cfs-days (484.3 hm^3) Jan. 2, elevation, 873.50 ft (266.243 m).

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 (2.4 km) north of town of Pickwick Dam, 6.1 mi (9.8 km) upstream from Lick Creek, 52.7 mi (84.8 km) downstream from Wilson Dam, and at mile 206.7 (332.6 km). DRAINAGE AREA, 38,820 mi^2 (85,000 km^2), approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two Z-section lift gates 40 ft (12 m) high by 40 ft (12 m) 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 (127.41 m), top of gates, is 557,100 cfs-days (1,363 hm^3), of which 210,200 cfs-days (514.4 hm^3) is controlled flood storage above elevation 408.0 ft (124.36 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 419.49 ft (127.860 m) Mar. 30, 1944; minimum after first filling, 407.12 ft (124.090 m) Dec. 18, 1944. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 494,000 cfs-days (1,209 hm^3) Jan. 7; maximum elevation, 415.88 ft (126.760 m) Apr. 19; minimum midnight contents, 352,000 cfs-days (861.3 hm^3) Dec. 14; minimum elevation, 407.95 ft (124.343 m) Dec. 13.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'48", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi (2.4 km) northeast of Normandy, 2.6 mi (4.2 km) downstream from Riley Creek, 8 mi (13 km) north of Tullahoma, and at mile 248.6 (400.0 km). DRAINAGE AREA, 195 mi^2 (505 km^2). PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, 40 ft (12 m) high by 36 ft (11 m) 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 (268.2 m), top of gates, is 64,000 cfs-days (156.6 hm^3), of which 30,400 cfs-days (74.39 hm^3) is controlled storage above elevation 859 ft (261.8 m), normal minimum pool. Reservoir is used for flood control, water supply, water quality control, recreation, and shoreline development. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 61,800 cfs-days (151.2 hm^3) Apr. 5, 1977, elevation, 878.66 ft (276.816 m); minimum after first filling, 26,800 cfs-days (65.58 hm^3) Nov. 27, 1981, elevation, 853.12 ft (260.031 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 60,900 cfs-days (149.0 hm^3) Aug. 17, elevation, 878.11 ft (267.648 m); minimum, 26,800 cfs-days (65.58 hm^3) Nov. 27, elevation, 853.12 ft (260.031 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--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, and at mile 22.4 (36.0 km). DRAINAGE AREA, 40,200 mi^2 (104,100 km^2), approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 24 lift gates 50 ft (15 m) high by 40 ft (12 m) 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 (114.30 m), top of gates, is 3,090,000 cfs-days (7,561 hm^3), of which 2,020,700 cfs-days (4,945 hm^3) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 369.01 ft (112.474 m) Mar. 28, 1973; minimum after first filling, 348.02 ft (106.076 m) Mar. 11, 1961. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 1,522,000 cfs-days (3,724 hm^3) Apr. 20; maximum elevation, 359.72 ft (109.643 m) Apr. 20; minimum midnight contents, 995,000 cfs-days (2,435 hm^3) Dec. 17; minimum elevation, 353.22 ft (107.661 m) Jan. 16.

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, TN, with a total capacity of 1,300 cfs-days (3.181 hm^3), none of which is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, TN, with a total capacity of 20,800 cfs-days (50.90 hm^3) of which 840 cfs-days (2.055 hm^3) is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles (8.0 km) west of Ducktown, TN, with a total capacity of 1,660 cfs-days (4.062 hm^3), of which 1,550 cfs-days (3.793 hm^3) is controlled storage. Records of contents previous to 1971 water year published (as Ocoee No. 3 Lake near Ducktown, TN).

TENNESSEE RIVER BASIN

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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.....	956.55	218400	-	1699.19	230300	-	1926.39	191700	-
Oct. 31.....	950.85	177100	-41300	1689.62	202600	-27700	1922.72	182300	-9400
Nov. 30.....	951.70	183000	+5900	1687.73	197300	-5300	1922.65	182200	-100
Dec. 31.....	943.47	131100	-51900	1690.99	206400	+9100	1924.60	187100	+4900
CAL YR 1981	-	-	+3200	-	-	+26500	-	-	+7900
Jan. 31.....	949.45	167800	+36700	1701.90	238600	+32200	1931.10	204100	+17000
Feb. 28.....	953.12	192900	+25100	1709.84	263800	+25200	1943.48	238800	+34700
Mar. 31.....	965.20	291900	+99000	1716.97	287800	+24000	1950.93	261000	+22200
Apr. 30.....	976.77	407800	+115900	1719.12	295300	+7500	1953.10	267800	+6800
May 31.....	987.16	531200	+123400	1719.34	296100	+800	1953.71	269800	+2000
June 30.....	986.01	516600	-14600	1721.97	305400	+9300	1949.18	255600	-14200
July 31.....	981.96	467100	-49500	1718.44	292900	-12500	1941.89	234300	-21300
Aug. 31.....	975.86	397900	-69200	1712.51	272600	-20300	1936.12	217900	-16400
Sept. 30.....	962.03	263900	-134000	1705.12	248600	-24000	1934.08	212200	-5700
WTR YR 1982	-	-	+45500	-	-	+18300	-	-	+20500
	03486800 BOONE LAKE			03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30.....	1378.30	83500	-	1261.06	12700	-	1034.74	305200	-
Oct. 31.....	1372.85	73500	-10000	1261.00	12700	0	1028.99	259600	-45600
Nov. 30.....	1366.25	62600	-10900	1260.95	12700	0	1028.95	259300	-300
Dec. 31.....	1358.20	51500	-11100	1260.50	12500	-200	1030.66	272300	+13000
CAL YR 1981	-	-	+1800	-	-	-300	-	-	+57500
Jan. 31.....	1356.97	50000	-1500	1259.44	12000	-500	1037.48	328600	+56300
Feb. 28.....	1363.88	58900	+8900	1261.70	13000	+1000	1040.82	358300	+29700
Mar. 31.....	1372.13	72300	+13400	1262.32	13300	+300	1047.30	421300	+63000
Apr. 30.....	1380.24	87400	+15100	1260.40	12400	-900	1049.71	447000	+25700
May 31.....	1381.30	89600	+2200	1260.90	12600	+200	1053.37	488100	+41100
June 30.....	1381.47	89900	+300	1262.05	13100	+500	1056.47	524900	+36800
July 31.....	1384.43	96300	+6400	1262.27	13200	+100	1049.49	444600	-80300
Aug. 31.....	1382.28	91600	-4700	1260.60	12500	-700	1044.33	391300	-53300
Sept. 30.....	1378.00	82900	-8700	1261.20	12800	+300	1044.03	388300	-3000
WTR YR 1982	-	-	-600	-	-	+100	-	-	+83100
	03499500 FORT LOUDOUN LAKE ‡			03518200 CHILHOWEE LAKE			03519800 TELLICO LAKE		
Sept. 30.....	812.50	179000	-	873.74	24600	-	812.57	205500	-
Oct. 31.....	812.65	181000	+2000	873.87	24700	+100	812.70	206500	+1000
Nov. 30.....	808.90	154000	-27000	873.83	24700	0	809.03	176800	-29700
Dec. 31.....	808.00	149000	-5000	873.70	24600	-100	808.15	170100	-6700
CAL YR 1981	-	-	+2000	-	-	0	-	-	-2700
Jan. 31.....	807.75	148000	-1000	872.28	23300	-1300	807.78	167400	-2700
Feb. 28.....	808.10	149000	+1000	872.79	23800	+500	808.27	171000	+3600
Mar. 31.....	808.57	152000	+3000	873.14	24100	+300	808.65	173900	+2900
Apr. 30.....	812.54	180000	+28000	873.30	24200	+100	812.62	205900	+32000
May 31.....	812.54	180000	0	873.48	24400	+200	812.62	205900	0
June 30.....	812.41	179000	-1000	873.61	24500	+100	812.47	204600	-1300
July 31.....	813.26	185000	+6000	873.40	24300	-200	813.33	211700	+7100
Aug. 31.....	812.35	179000	-6000	873.49	24400	+100	812.75	207000	-4700
Sept. 30.....	812.35	179000	0	873.87	24700	+300	812.43	204300	-2700
WTR YR 1982	-	-	0	-	-	+100	-	-	-1200

‡ Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
	03532500 NORRIS LAKE			03535900 MELTON HILL LAKE			03543000 WATTS BAR LAKE‡		
Sept. 30.....	984.81	540800	-	794.10	57900	-	741.06	511000	-
Oct. 31.....	981.99	510900	-29900	793.45	56100	-1800	739.24	476000	-35000
Nov. 30.....	980.17	492200	-18700	792.95	54800	-1300	736.96	435000	-41000
Dec. 31.....	984.56	538100	+45900	794.00	57600	+2800	736.48	431000	-4000
CAL YR 1981	-	-	+189800	-	-	+9000	-	-	+8000
Jan. 31.....	997.17	687000	+148900	793.50	56300	-1300	735.65	417000	-14000
Feb. 28.....	998.89	709300	+22300	793.50	56300	0	735.61	417000	0
Mar. 31.....	1002.79	761900	+52600	793.74	56900	+600	736.79	432000	+15000
Apr. 30.....	1003.79	775800	+13900	793.74	56900	0	741.06	510000	+78000
May 31.....	1008.16	838500	+62700	794.60	59300	+2400	740.95	508000	-2000
June 30.....	1009.69	861300	+22800	794.35	58600	-700	740.55	500000	-8000
July 31.....	1002.61	759400	-101900	794.86	60100	+1500	741.05	513000	+13000
Aug. 31.....	994.75	656400	-103000	793.15	55300	-4800	740.40	499000	-14000
Sept. 30.....	992.43	628000	-28400	793.73	56900	+1600	740.75	505000	+6000
WTR YR 1982	-	-	+87200	-	-	-1000	-	-	-6000
	03564000 LAKE OCOEE			03566500 CHICKAMAUGA LAKE‡			03570520 NICKAJACK LAKE‡		
Sept. 30.....	835.5	40400	-	680.97	288000	-	633.50	121000	-
Oct. 31.....	835.1	40100	-300	678.78	251000	-37000	633.99	123000	+2000
Nov. 30.....	830.6	36000	-4100	676.59	220000	-31000	633.95	123000	0
Dec. 31.....	829.4	35000	-1000	675.78	214000	-6000	633.30	123000	0
CAL YR 1981	-	-	+700	-	-	0	-	-	+5000
Jan. 31.....	827.7	33600	-1400	675.75	215000	+1000	632.54	119000	-4000
Feb. 28.....	827.7	33600	0	675.67	214000	-1000	632.34	121000	+2000
Mar. 31.....	831.0	36300	+2700	675.84	210000	-4000	633.75	122000	+1000
Apr. 30.....	835.0	40000	+3700	681.76	303000	+93000	633.60	121000	-1000
May 31.....	835.4	40300	+300	682.47	316000	+13000	633.74	120000	-1000
June 30.....	835.5	40400	+100	682.02	308000	-8000	632.98	119000	-1000
July 31.....	835.8	40700	+300	681.23	297000	-11000	633.60	122000	+3000
Aug. 31.....	835.5	40400	-300	680.87	286000	-11000	633.25	120000	-2000
Sept. 30.....	834.9	39900	-500	680.41	278000	-8000	633.59	121000	+1000
WTR YR 1982	-	-	-500	-	-	-10000	-	-	0
	03579000 WOODS RESERVOIR			03580740 TIMS FORD LAKE			03593000 PICKWICK LAKE‡		
Sept. 30.....	959.12	38500	-	880.28	228200	-	411.16	407000	-
Oct. 31.....	958.60	37500	-1000	879.49	224500	-3700	409.88	382000	-25000
Nov. 30.....	958.07	36500	-1000	879.49	224500	0	409.38	379000	-3000
Dec. 31.....	958.03	36500	0	873.62	198400	-26100	409.34	381000	+2000
CAL YR 1981	-	-	-100	-	-	+12000	-	-	+6000
Jan. 31.....	958.05	36500	0	878.26	218800	+20400	408.90	375000	-6000
Feb. 28.....	958.07	36500	0	876.89	212600	-6200	409.63	389000	+14000
Mar. 31.....	959.48	39200	+2700	882.65	239700	+27100	412.09	426000	+37000
Apr. 30.....	959.49	39300	+100	887.14	262600	+22900	414.06	467000	+41000
May 31.....	959.40	39100	-200	887.09	262400	-200	414.27	472000	+5000
June 30.....	959.48	39200	+100	886.08	257100	-5300	413.87	463000	-9000
July 31.....	959.56	39400	+200	885.36	253400	-3700	413.14	449000	-14000
Aug. 31.....	959.38	39000	-400	884.98	251400	-2000	412.33	431000	-18000
Sept. 30.....	959.23	38700	-300	883.33	243100	-8300	412.77	440000	+9000
WTR YR 1982	-	-	+200	-	-	+14900	-	-	+33000

‡ Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03596460	NORMANDY LAKE		03609000	KENTUCKY LAKE‡	
Sept. 30.....	856.64	30800	-	355.35	1153000	-
Oct. 31.....	854.70	28600	-2200	354.88	1114000	-39000
Nov. 30.....	854.09	27900	-700	354.76	1137000	+23000
Dec. 31.....	857.50	31800	+3900	354.10	1097000	-40000
CAL YR 1981	-	-	-1700	-	-	+16000
Jan. 31.....	867.22	44100	+12300	354.22	1209000	+112000
Feb. 28.....	865.92	42300	-1800	354.95	1180000	-29000
Mar. 31.....	869.54	47500	+5200	355.90	1196000	+16000
Apr. 30.....	875.32	56500	+9000	359.60	1477000	+281000
May 31.....	876.31	58000	+1500	359.17	1458000	-19000
June 30.....	875.00	56000	-2000	359.04	1430000	-28000
July 31.....	874.76	55600	-400	357.98	1359000	-71000
Aug. 31.....	875.02	56000	+400	357.01	1285000	-74000
Sept. 30.....	874.55	55200	-800	355.26	1149000	-136000
WTR YR 1982	-	-	+24400	-	-	-4000

‡ Contents based on backwater profile.

07024300 BEAVER CREEK AT HUNTINGDON, TN

LOCATION.--Lat 35°59'56", long 88°26'01", Carroll County, Hydrologic Unit 08010203, on left bank on downstream end of pier of bridge on U.S. Highway 70, 0.3 mi (0.5 km) southwest of Huntingdon, 0.6 mi (1.0 km) downstream from Brier Creek, and at mile 5.6 (9.0 km).

DRAINAGE AREA.--55.5 mi^2 (143.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1946, 1948, 1952-54, 1958-61 and annual maximum, water years 1954-62. October 1962 to current year.

REVISED RECORDS.--WSP 1920: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 364.20 ft (111.008 m) National Geodetic Vertical Datum of 1929 (Tennessee State Highway Department bench mark). Dec. 21, 1945, to Oct. 3, 1962, nonrecording gage at site 30 ft (9.1 m) downstream at same datum; Jan. 6, 1954, to Oct. 3, 1962, crest-stage gage at same site at datum 1.17 ft (0.356 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--20 years, 114 ft^3/s (3.228 m^3/s), 27.89 in/yr (708 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,350 ft^3/s (236 m^3/s) Sept. 9, 1970 from rating curve extended above 3,600 ft^3/s (102 m^3/s) on basis of contracted opening measurement of peak flow; maximum gage height, 15.20 ft (4.633 m) Sept. 13, 1982; minimum discharge, 19 ft^3/s (0.54 m^3/s) May 17, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,800 ft^3/s (51.0 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 23	Unknown	Unknown		Unknown		Sept. 13	1300	*7,290	206	15.20	4.633

Minimum discharge, 21 ft^3/s (0.59 m^3/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	38	421	58	120	78	42	51	38	39	28	58
2	27	39	170	107	250	63	49	51	29	28	26	36
3	28	39	70	536	400	56	201	41	27	56	26	33
4	29	40	59	907	150	59	79	39	39	362	28	28
5	29	42	55	399	100	52	80	36	44	102	25	26
6	29	42	48	102	85	79	70	30	31	50	154	27
7	30	39	47	70	80	69	69	37	29	40	60	26
8	30	39	46	55	100	52	172	42	28	39	37	26
9	30	38	41	52	1200	47	154	33	27	38	83	26
10	31	37	40	46	487	47	83	29	48	35	39	26
11	32	38	39	44	143	80	70	28	32	32	30	27
12	31	37	40	77	86	83	61	27	30	30	28	44
13	32	37	38	58	77	80	56	26	30	27	36	4510
14	37	37	48	48	73	125	54	25	29	26	41	2230
15	49	37	45	46	69	334	52	30	29	26	30	438
16	38	58	42	43	73	193	118	29	63	26	31	173
17	122	45	42	42	86	89	529	26	40	25	54	47
18	413	38	39	41	70	80	535	25	34	25	33	35
19	125	40	35	60	57	126	113	25	31	25	28	33
20	43	41	33	300	52	76	96	39	30	25	25	28
21	34	40	259	700	51	72	67	37	28	24	28	26
22	36	38	527	450	46	59	57	29	28	25	24	23
23	74	44	308	1800	43	54	45	34	28	24	31	22
24	44	62	107	650	43	52	42	29	27	25	39	22
25	39	44	75	250	40	51	50	27	26	25	30	36
26	136	45	66	120	44	47	98	29	28	24	26	71
27	104	135	90	90	135	45	152	34	48	25	27	35
28	53	62	71	75	125	43	70	37	31	54	30	28
29	43	48	58	65	---	43	54	30	30	77	27	26
30	39	179	52	60	---	43	57	27	28	38	29	24
31	38	---	58	250	---	44	---	33	---	35	42	---
TOTAL	1852	1498	3069	7601	4285	2421	3375	1015	990	1432	1175	8190
MEAN	59.7	49.9	99.0	245	153	78.1	113	32.7	33.0	46.2	37.9	273
MAX	413	179	527	1800	1200	334	535	51	63	362	154	4510
MIN	27	37	33	41	40	43	42	25	26	24	24	22
CFSM	1.08	.90	1.78	4.41	2.76	1.41	2.04	.59	.60	.83	.68	4.92
IN.	1.24	1.00	2.06	5.09	2.87	1.62	2.26	.68	.66	.96	.79	5.49

CAL YR 1981 TOTAL 29060 MEAN 79.6 MAX 3110 MIN 25 CFSM 1.43 IN 19.48
WTR YR 1982 TOTAL 36903 MEAN 101 MAX 4510 MIN 22 CFSM 1.82 IN 24.73

OBION RIVER BASIN

07024300 BEAVER CREEK AT HUNTINGDON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1963-65, July 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
08...	1500	30	--	14.0	12	.97	--
NOV							
18...	0930	40	54	10.0	11	1.2	--
JAN							
05...	1550	271	59	7.0	123	90	74
FEB							
10...	1635	639	--	1.0	114	197	87
MAR							
17...	1525	84	56	18.0	67	15	--
APR							
28...	1230	70	60	14.0	43	8.1	94
JUN							
08...	1200	28	42	19.5	48	3.6	--
JUL							
12...	1445	30	--	20.5	47	3.8	--
SEP							
13...	1445	7120	30	23.0	179	3440	61

DATE	TIME	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV											
18...	0930	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
18...	<.01	<.01	<.01	<.01	<.01	<.01	<1	<.01	<.01	<.01	<.01

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN

LOCATION.--Lat 36°07'05", long 88°48'39", Weakley County, Hydrologic Unit 08010203, on left bank 75 ft (23 m) downstream from bridge on U.S. Highway 45E, 1.1 mi (1.8 km) downstream from Mosley Branch, 2.5 mi (4.0 km) south of Greenfield, and 9.7 mi (15.6 km) upstream from confluence with Middle Fork.

DRAINAGE AREA.--383 mi^2 (992 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 1311: 1936(M). WSP 1920: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 300.36 ft (91.550 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1939, recording gage at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--53 years, 585 ft^3/s (16.57 m^3/s), 20.74 in/yr (527 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft^3/s (725 m^3/s) Jan. 22, 1937, gage height, 17.82 ft (5.432 m), from floodmarks, from rating curve extended above 14,000 ft^3/s (396 m^3/s); minimum, 61 ft^3/s (1.73 m^3/s) Aug. 21, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 17	2100	4020	114	14.32	4.365	Sept. 13	0200	4170	118	14.38	4.383
Jan. 23	1600	*8430	239	15.50	4.724	Sept. 16	1500	7660	217	15.35	4.679

Minimum discharge, 113 ft^3/s (3.200 m^3/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	311	784	329	1340	447	223	416	161	279	133	131
2	124	276	843	604	1430	446	245	437	158	204	129	132
3	122	251	942	1670	1870	392	509	338	158	192	124	136
4	121	237	770	2110	1480	375	466	309	169	317	120	136
5	121	240	526	2070	1230	341	553	278	174	720	117	134
6	121	236	391	2160	926	322	476	256	167	822	115	131
7	122	226	327	1920	667	331	399	245	165	729	115	128
8	124	223	287	1100	828	343	585	237	157	579	135	124
9	127	219	257	617	2580	329	564	225	152	350	145	121
10	129	212	236	456	2250	313	595	218	222	238	146	118
11	130	206	224	410	2480	484	514	216	156	190	146	116
12	130	201	215	370	2130	489	417	199	160	166	144	167
13	129	198	209	340	1530	610	358	187	153	152	141	2850
14	129	199	214	320	770	716	315	179	149	145	153	2700
15	131	198	212	310	578	1250	281	230	148	139	145	3680
16	135	212	210	300	511	1310	750	202	367	134	144	7040
17	869	213	213	300	475	1330	2160	193	239	130	152	6840
18	2590	227	208	295	468	965	1630	183	200	127	175	4940
19	2310	229	200	437	459	634	1700	177	188	123	164	2210
20	2160	237	190	966	426	552	1860	174	173	122	151	885
21	1960	219	611	2850	381	538	1290	176	158	120	143	523
22	1430	209	1000	3250	341	469	826	227	149	119	133	383
23	867	248	1240	7810	313	417	613	259	141	118	129	312
24	578	276	1410	6670	292	385	483	192	135	128	162	269
25	455	245	1320	4930	268	345	408	177	130	122	155	241
26	499	258	885	3300	254	309	459	170	128	122	142	228
27	507	349	626	2340	305	281	479	163	495	118	134	221
28	532	286	493	1070	354	260	584	162	610	123	130	221
29	508	304	427	707	---	244	557	166	571	162	127	214
30	425	543	380	663	---	232	465	164	406	123	125	200
31	358	---	351	1390	---	227	---	161	---	132	126	---
TOTAL	18068	7488	16201	52064	26936	15686	20764	6916	6539	7245	4300	35531
MEAN	583	250	523	1679	962	506	692	223	218	234	139	1184
MAX	2590	543	1410	7810	2580	1330	2160	437	610	822	175	7040
MIN	121	198	190	295	254	227	223	161	128	118	115	116
CFSM	1.52	.65	1.37	4.38	2.51	1.32	1.81	.58	.57	.61	.36	3.09
IN.	1.75	.73	1.57	5.06	2.62	1.52	2.02	.67	.64	.70	.42	3.45

CAL YR 1981 TOTAL 180199 MEAN 494 MAX 7970 MIN 121 CFSM 1.29 IN 17.50
WTR YR 1982 TOTAL 217738 MEAN 597 MAX 7810 MIN 115 CFSM 1.56 IN 21.15

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, July 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
10...	1020	127	--	--	144	49	--
NOV							
18...	1530	253	65	13.0	462	316	--
JAN							
06...	1130	2130	56	7.5	283	1630	52
FEB							
11...	1100	2440	--	2.0	412	2710	49
MAR							
18...	1035	1040	62	19.0	198	556	--
APR							
29...	1200	571	60	16.0	217	335	76
JUN							
09...	1200	155	52	25.5	82	34	--
JUL							
13...	1315	152	65	25.4	36	15	--
SEP							
13...	1745	2700	40	24.0	472	3440	87

DATE	TIME	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV											
18...	1530	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
18...	<.01	<.01	<.01	<.01	<.01	<.01	<1	<.01	<.01	<.01	<.01

07026000 OBION RIVER AT OBION, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°15'04", long 89°11'33", Obion County, Hydrologic Unit 08010202, near left bank on downstream end of pier of bridge on U.S. Highway 51, 0.5 mi (0.8 km) upstream from Richland Creek, 0.6 mi (1.0 km) south of Obion, 14.5 mi (23.3 km) downstream from North Fork, and at mile 62.4 (100.4 km). Water quality sampling site at same location.

DRAINAGE AREA.--1,852 mi^2 (4,797 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to September 1958, October 1966 to current year. Gage height and discharge records at this site from 1964 to 1975 are in reports of Corps of Engineers.

REVISED RECORD.--WSP 1211: 1930, 1943. WSP 2120: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 246.48 ft (75.127 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1932, nonrecording gage at present site at datum 5.00 ft (1.524 m) higher; Oct. 1, 1932, to Aug. 2, 1939, nonrecording gage, and Aug. 3, 1939, to Sept. 1958, water-stage recorder at present site at datum 15.00 ft (4.572 m) higher.

REMARKS.--Records fair.

COOPERATION.--Twenty-eight discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--45 years, (water years 1930-58, 1967-82), 2,675 ft^3/s (75.76 m^3/s), 19.61 in/yr (498 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99,500 ft^3/s (2,820 m^3/s) Jan. 24, 1937, gage height 40.4 ft (12.31 m), present datum; minimum, under conditions of no backwater, 230 ft^3/s (6.51 m^3/s) Oct. 7-9, 1943; minimum daily discharge, 15 ft^3/s (0.42 m^3/s), backwater from Mississippi River, Feb. 4, 1937; reverse flow of 57 ft^3/s (1.61 m^3/s) measured by current meter on that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,600 ft^3/s (555 m^3/s) Jan. 25, gage height, 32.01 ft (9.757 m); minimum, 432 ft^3/s (12.23 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	947	3420	1060	11500	1720	976	1670	745	894	661	1230
2	450	860	2740	1140	8500	1540	1510	1710	772	791	637	2240
3	445	786	1960	5930	7800	1400	11900	1480	717	704	608	1130
4	441	724	1730	11600	8900	1320	11000	1330	722	870	599	759
5	497	729	1390	10500	4500	1310	7000	1240	790	3010	581	622
6	534	740	1130	6600	3000	1160	4500	1180	818	1700	622	560
7	558	689	999	4500	2500	1170	2500	1180	717	1490	666	515
8	548	632	908	3260	2000	1140	2200	1130	680	2050	795	481
9	548	594	860	1950	11100	1080	3440	1070	651	3390	763	454
10	553	581	765	1510	10500	1080	2410	999	1060	1480	836	454
11	553	571	735	1300	8000	1240	1950	952	918	969	680	445
12	548	571	733	1150	6000	2000	1680	884	684	811	670	454
13	553	576	709	1050	4000	1810	1520	800	698	697	680	6190
14	558	548	720	1000	3000	2790	1410	723	675	652	777	10700
15	590	553	759	970	2500	4700	1320	712	646	632	726	11200
16	594	599	752	950	2500	3980	5130	855	1910	622	708	10500
17	655	708	742	930	3800	2900	14700	736	1950	599	726	10500
18	7880	706	752	920	2500	2340	15800	680	1060	581	800	7000
19	7690	695	709	1480	1850	1760	14000	689	838	772	768	4500
20	5790	749	673	1670	1630	1550	10000	675	765	717	740	2500
21	4380	756	985	8970	1510	2630	7000	694	725	646	708	1300
22	2770	677	5200	12200	1620	2170	4500	642	699	599	689	950
23	2130	709	6320	17500	1220	1490	3000	698	674	571	675	898
24	1690	1320	4110	19100	1140	1260	2000	618	648	581	985	800
25	1350	1040	2730	19300	1080	1160	1500	585	628	576	5000	745
26	1480	837	2140	16000	1010	1080	1400	590	646	627	3130	703
27	2230	1040	1710	9000	1210	995	2300	604	1860	759	1560	703
28	1700	1170	1530	4500	2050	927	2090	698	1710	608	809	684
29	1390	951	1300	3500	---	908	1880	717	1240	731	553	651
30	1200	1210	1150	3000	---	918	1860	675	1090	689	454	608
31	1050	---	1070	11000	---	1030	---	684	---	670	481	---
TOTAL	51827	23268	51431	183540	116920	52558	142476	27900	27736	30488	29087	80476
MEAN	1672	776	1659	5921	4176	1695	4749	900	925	983	938	2683
MAX	7880	1320	6320	19300	11500	4700	15800	1710	1950	3390	5000	11200
MIN	441	548	673	920	1010	908	976	585	628	571	454	445
CFSM	.90	.42	.90	3.20	2.26	.92	2.56	.49	.50	.53	.51	1.45
IN.	1.04	.47	1.03	3.69	2.35	1.06	2.86	.56	.56	.61	.58	1.62

CAL YR 1981 TOTAL 756316 MEAN 2072 MAX 26000 MIN 441 CFSM 1.12 IN 15.19
WTR YR 1982 TOTAL 817707 MEAN 2240 MAX 19300 MIN 441 CFSM 1.21 IN 16.42

07026000 OBION RIVER AT OBION, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1975 to September 1981.
WATER TEMPERATURE: June 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 488 micromhos Dec. 14, 1976; minimum, 35 micromhos July 21, 22, 1975.
WATER TEMPERATURES: Maximum, 33.5°C June 18, 1978; minimum, -0.5°C several days in Jan. and Feb., 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
13...	1300	553	80	6.9	19.0	20	--	1570	140	--	--	--
DEC												
08...	0900	908	85	6.4	9.5	17	--	--	--	21	3	5.1
FEB												
19...	1100	1850	108	6.7	5.0	75	10.6	550	2900	31	10	7.5
APR												
21...	1200	7000	67	6.4	16.0	190	6.1	K170	2300	22	5	5.7
JUN												
09...	1345	651	95	6.7	28.0	31	--	K1	K290	26	0	6.3
AUG												
17...	1100	698	80	6.4	25.0	27	7.4	200	260	22	0	5.4

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
13...	--	--	--	--	--	23	2.1	4.6	<.1	--	49	--
DEC												
08...	2.0	6.1	35	.6	2.6	18	7.7	6.6	.1	11	64	53
FEB												
19...	3.0	5.7	27	.5	2.4	21	13	6.1	.1	9.7	58	60
APR												
21...	2.0	4.0	26	.4	2.3	17	7.0	3.2	<.1	5.9	--	40
JUN												
09...	2.5	7.3	36	.6	1.6	30	4.0	6.0	<.1	12	60	58
AUG												
17...	2.0	6.2	37	.6	1.1	26	4.0	4.5	.1	12	60	51

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
13...	.06	73.2	.53	.070	.100	.050	50	75	88
DEC									
08...	.08	157	.48	.190	--	.130	61	150	96
FEB									
19...	.07	290	.79	.110	.170	.030	466	2330	32
APR									
21...	.05	756	.39	.170	.360	.030	420	7940	95
JUN									
09...	.08	105	.59	.100	.170	.050	170	299	64
AUG									
17...	.08	113	.47	.060	.130	.030	64	121	91

K--Results based on non-ideal colony count.

07026000 OBION RIVER AT OBION, TN--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
08...	1	0	<100	27	<1	3	20	<10	1	<1
FEB										
19...	1	1	100	57	<1	2	20	10	2	1
JUN										
09...	1	1	<100	27	5	3	10	<10	2	<1
AUG										
17...	1	1	<100	30	2	<1	<10	<10	3	3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
08...	9	11	2000	530	3	3	160	120	<.1
FEB									
19...	8	8	6100	140	18	3	220	75	<.1
JUN									
09...	11	5	2800	63	16	2	240	130	.4
AUG									
17...	8	4	2000	210	9	2	170	90	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
08...	<.1	3	5	<1	<1	<1	<1	40	19
FEB									
19...	<.1	8	5	<1	<1	<1	<1	70	16
JUN									
09...	.2	10	4	<1	<1	<1	<1	70	18
AUG									
17...	<.1	5	6	<1	<1	<1	<1	60	8

07026370 NORTH REELFOOT CREEK AT STATE HIGHWAY 22, NEAR CLAYTON, TN

LOCATION.--Lat 36°27'50", long 89°15'13", Lake County, Hydrologic Unit 08010202, on left bank on upstream side of bridge on State Highway 22, 0.9 mile (1.4 km) northwest of Clayton, 9.9 miles (15.9 km) west of intersection of State Highways 22 and 5, and 11.8 miles (19.0 km) northeast of the spillway at Reelfoot Lake.

DRAINAGE AREA.--56.3 mi^2 (145.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 290 ft (88.4 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) June 6, 1981, gage height, 18.93 ft (5.770 m); no flow many days each year.

EXTREMES FOR CURRENT PERIOD.--May 1980 to September 1982: Peak discharges above base of 520 ft^3/s (14.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 29, 1980	1200	*959	27.2	17.90	5.456	Jan. 22, 1982	2315	*1090	30.9	18.18	5.541
						Jan. 31, 1982	0630	893	25.3	17.60	5.364
Oct. 17, 1980	1445	959	27.2	17.90	5.456	Feb. 9, 1982	0045	736	20.8	16.77	5.111
May 14, 1981	0715	729	20.6	16.73	5.099	Apr. 16, 1982	0215	694	19.7	16.82	5.127
June 6, 1981	1900	*1740	49.3	18.93	5.770	July 5, 1982	0230	865	24.5	17.56	5.352
June 10, 1981	1545	674	19.1	16.37	4.990	Aug. 25, 1982	0615	803	22.7	17.32	5.279
						Sept. 15, 1982	2300	800	22.7	17.31	5.276
Jan. 3, 1982	2300	576	16.3	15.52	4.730						

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								17	4.2	71	.03	.00
2								15	3.2	40	.02	.00
3								16	2.7	32	.01	.00
4								13	2.0	26	.00	.00
5								11	1.5	19	.00	.00
6								10	.89	12	.00	.00
7								9.1	.43	8.0	.00	.00
8								8.5	.34	5.5	.00	.00
9								7.0	.34	4.0	.00	.00
10								5.9	.34	3.0	.00	.00
11								5.6	.34	2.0	.00	.00
12								30	.34	1.0	.00	.00
13								29	.34	.80	.00	.00
14								17	.34	.60	.00	.00
15								13	.36	.50	.00	.00
16								12	.38	.40	.00	.00
17								12	.38	.30	.00	.00
18								13	.38	.20	.00	.00
19								11	.38	.14	.00	.00
20								11	.38	.10	.00	.00
21								8.8	.38	.08	.00	.00
22								8.4	.38	.07	.00	.00
23								11	3.4	.60	.00	7.2
24								10	56	.10	.00	1.7
25								9.1	14	.06	.00	.86
26								8.4	11	.04	.00	.26
27								6.9	7.3	5.0	.00	.13
28								5.7	3.8	.30	.00	.09
29								4.6	335	.10	.00	.08
30								5.2	128	.06	.00	.06
31								3.7	---	.04	.00	---
TOTAL								347.9	578.82	232.99	.06	10.38
MEAN								11.2	19.3	7.52	.002	.35
MAX								30	335	71	.03	7.2
MIN								3.7	.34	.04	.00	.00
CFSM								.20	.34	.13	.000	.006
IN.								.23	.38	.15	.00	.00

07026370 NORTH REELFOOT CREEK AT STATE HIGHWAY 22, NEAR CLAYTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	5.6	13	1.2	97	17	30	4.2	22	5.2	1.0	3.7
2	.03	4.0	11	1.2	47	13	23	3.5	41	4.9	1.5	1.1
3	.01	3.0	9.5	1.0	52	11	21	3.1	101	4.3	.92	1.8
4	.00	2.1	9.0	.76	15	171	277	2.6	82	4.0	.59	1.5
5	.00	2.3	8.3	.56	12	141	146	2.2	59	16	.38	.36
6	.00	1.0	7.8	.55	11	70	73	1.8	1210	18	.37	.29
7	.00	.59	7.5	.58	9.9	43	50	1.8	463	35	7.6	.23
8	.00	.73	30	.68	9.5	30	35	1.8	362	19	8.6	.14
9	.00	.42	110	.77	7.8	23	27	1.3	304	16	6.4	.26
10	.00	.25	84	.77	26	20	22	116	374	13	4.7	.06
11	.00	.18	50	.76	78	17	18	113	301	11	3.4	.21
12	.00	.14	35	.54	54	15	15	45	239	9.6	2.6	.15
13	.00	1.6	20	.50	26	13	11	21	146	8.3	1.8	.04
14	.00	1.8	12	.50	19	11	13	373	94	7.0	1.1	.02
15	.00	2.3	8.3	.55	16	11	7.6	139	59	11	.67	1.7
16	.00	20	6.0	.51	28	11	6.9	65	33	5.1	.45	3.5
17	319	315	4.4	.32	35	9.9	6.2	39	21	4.6	.65	.10
18	168	190	3.6	.25	24	9.3	5.6	32	17	42	.55	.02
19	69	90	3.1	.23	18	8.3	7.5	109	15	36	.18	.01
20	42	64	2.6	.24	14	7.8	8.7	33	13	12	.13	.00
21	22	30	1.9	1.3	12	7.0	9.3	23	12	12	.20	.00
22	12	17	1.4	1.3	10	6.9	8.4	18	11	8.2	.12	.00
23	7.1	12	1.4	1.3	8.8	7.4	43	14	11	8.8	.10	.00
24	4.5	13	1.5	1.3	7.6	6.9	9.6	13	10	9.0	.06	.00
25	3.2	21	1.6	1.4	7.1	6.4	8.7	17	7.8	9.5	.04	.00
26	2.2	50	1.6	1.9	6.7	6.2	8.1	25	7.1	5.6	.05	.00
27	36	137	1.7	1.3	5.9	5.6	7.4	62	6.4	4.5	.09	.00
28	26	130	1.4	1.3	8.6	5.5	7.1	24	6.0	4.4	.05	.00
29	17	58	1.2	1.0	---	97	12	17	5.5	5.6	.03	.00
30	11	30	1.2	1.9	---	115	6.2	20	5.7	3.0	.02	.00
31	6.8	---	1.2	2.8	---	42	---	21	---	3.2	.53	---
TOTAL	745.88	1203.01	451.2	29.27	665.9	958.2	923.3	1361.3	4058.5	355.8	44.88	15.19
MEAN	24.1	40.1	14.6	.94	23.8	30.9	30.8	43.9	135	11.5	1.45	.51
MAX	319	315	110	2.8	97	171	277	373	1210	42	8.6	3.7
MIN	.00	.14	1.2	.23	5.9	5.5	5.6	1.3	5.5	3.0	.02	.00
CFSM	.43	.71	.26	.02	.42	.55	.55	.78	2.40	.20	.03	.009
IN.	.49	.79	.30	.02	.44	.63	.61	.90	2.67	.24	.03	.01

WTR YR 1981 TOTAL 10792.43 MEAN 29.6 MAX 1210 MIN .00 CFSM .53 IN. 7.13

OBION RIVER BASIN

07026370 NORTH REELFOOT CREEK AT STATE HIGHWAY 22, NEAR CLAYTON, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.25	21	5.1	224	29	9.8	23	.11	.13	.15	74
2	.00	.20	4.4	13	140	18	54	20	.09	.09	.13	11
3	.00	.17	1.7	122	94	16	328	18	.09	.09	.11	7.4
4	.00	.15	1.8	251	63	27	124	17	.07	20	.08	5.5
5	.00	.13	1.1	114	50	20	64	15	.07	389	.08	4.1
6	.00	.11	1.9	58	34	17	35	14	.06	97	32	3.2
7	.00	.10	.66	33	31	15	23	23	.06	39	38	2.6
8	.00	.07	.72	21	98	11	44	6.1	.05	20	4.3	2.6
9	.00	.05	.66	16	376	11	37	4.6	.04	36	3.5	1.8
10	.00	.04	.54	14	120	11	25	3.8	.03	33	3.0	1.4
11	.00	.03	.60	11	113	16	19	3.2	.01	14	2.6	1.2
12	.00	.02	.60	9.1	61	18	16	2.6	.00	8.1	2.2	.99
13	.00	.01	.54	9.3	46	18	14	2.0	.01	5.7	3.9	1.9
14	.00	.01	.46	9.4	50	20	12	1.7	.00	4.4	4.1	1.8
15	.00	.01	.35	8.4	70	39	10	1.5	.00	3.6	2.4	107
16	.00	.00	.26	7.8	97	27	122	1.2	.65	3.0	1.9	211
17	200	.00	.35	7.1	176	20	245	.94	.25	2.5	2.1	39
18	20	.00	.36	6.6	98	14	160	.74	.12	1.9	1.4	12
19	10	.00	.36	5.4	57	11	90	.54	.07	1.6	1.3	2.4
20	4.0	.00	.36	7.3	39	9.6	50	.48	.08	1.1	.90	.16
21	1.5	.00	.74	87	29	37	33	.60	.07	.71	.90	.00
22	1.0	.00	62	688	21	14	25	.47	.05	.43	.60	.00
23	.60	.00	134	590	17	11	21	.34	.03	.25	.38	.00
24	.45	.00	59	302	14	8.6	19	.24	.00	.30	155	.00
25	.40	.00	33	265	11	7.3	18	.16	.00	.21	363	.00
26	.35	.00	20	214	10	6.0	34	.15	.00	1.8	89	.00
27	2.0	.00	15	128	21	5.2	41	.13	37	.58	55	.00
28	.80	.00	11	63	37	4.8	25	.13	2.8	.25	24	.00
29	.50	.00	8.7	49	---	4.4	34	.13	.24	.22	13	.00
30	.40	7.5	6.9	55	---	4.4	29	.11	.17	.26	8.7	.03
31	.30	---	5.9	522	---	4.9	---	.10	---	.20	7.2	---
TOTAL	242.30	8.85	394.96	3691.5	2197	475.2	1760.8	161.96	42.22	685.42	820.93	491.08
MEAN	7.82	.30	12.7	119	78.5	15.3	58.7	5.22	1.41	22.1	26.5	16.4
MAX	200	7.5	134	688	376	39	328	23	37	389	363	211
MIN	.00	.00	.26	5.1	10	4.4	9.8	.10	.00	.09	.08	.00
CFSM	.14	.005	.23	2.11	1.39	.27	1.04	.09	.03	.39	.47	.29
IN.	.16	.01	.26	2.44	1.45	.31	1.16	.11	.03	.45	.54	.32

CAL YR 1981 TOTAL 9038.45 MEAN 24.8 MAX 1210 MIN .00 CFSM .44 IN 5.97
WTR YR 1982 TOTAL 10972.22 MEAN 30.1 MAX 688 MIN .00 CFSM .54 IN 7.25

07026370 NORTH REELFOOT CREEK AT HIGHWAY 22, NEAR CLAYTON, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN							
06...	1530	51	155	8.0	410	56	99
FEB							
11...	1500	88	140	2.5	328	78	94
MAR							
18...	0955	15	320	17.0	201	8.1	--
APR							
28...	1230	27	340	16.5	222	16	--
JUN							
10...	0950	.04	490	24.5	66	.01	--
JUL							
15...	1545	3.6	200	27.5	77	.75	--
SEP							
08...	1505	2.2	180	25.0	43	.26	--

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 (0.6 km) east of Blue Bank, 0.8 mi (1.3 km) west of the spillway and 3.3 mi (5.3 km) southeast of Tiptonville.

DRAINAGE AREA.--240 mi^2 (622 km^2).

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft (82.363 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft (4.770 m), from recorded range in stage, about Apr. 26, 1973; minimum, 10.42 ft (3.176 m) Oct. 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft (5.18 m), at spillway, present datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.56 ft (3.828 m) Feb. 18; minimum, 11.05 ft (3.368 m) Nov. 19, 26.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.29	11.25	11.21	11.51	---	12.06	12.09	12.16	11.95	11.76	11.40	11.78
2	11.28	11.26	11.25	11.55	---	12.08	11.95	12.13	11.94	11.72	11.36	11.89
3	11.24	11.26	11.28	11.59	---	12.06	12.22	12.13	11.93	11.70	11.34	11.90
4	11.26	11.27	11.28	11.67	---	12.21	12.31	12.12	11.95	11.69	11.32	11.92
5	11.25	11.28	11.27	11.72	---	12.22	12.41	12.11	11.90	11.70	11.30	11.92
6	11.27	11.28	11.23	11.86	---	12.22	12.32	12.11	11.87	11.70	11.40	11.92
7	11.26	11.27	11.25	11.91	---	12.20	12.29	12.17	11.83	11.72	11.38	11.92
8	11.25	11.26	11.26	11.83	---	12.15	12.31	12.16	11.82	11.78	11.36	11.90
9	11.21	11.32	11.30	11.87	---	12.19	12.29	12.14	11.81	11.78	11.36	11.88
10	11.22	11.25	11.26	---	---	12.17	12.25	12.12	11.84	11.76	11.33	11.85
11	11.21	11.23	11.26	---	12.43	12.23	12.20	12.12	11.80	11.76	11.32	11.85
12	11.19	11.24	11.25	---	12.43	12.09	12.13	12.08	11.80	11.75	11.29	11.88
13	11.17	11.23	11.27	---	12.43	12.28	12.25	12.08	11.78	11.73	11.34	11.87
14	11.20	11.22	11.27	---	12.43	12.38	12.24	12.06	11.74	11.71	11.33	11.87
15	11.20	11.23	11.24	---	12.44	12.29	12.18	12.06	11.72	11.67	11.33	11.88
16	11.20	11.22	11.22	---	12.48	12.21	12.33	12.06	11.85	11.68	11.33	11.90
17	11.23	11.21	11.31	---	12.55	12.23	12.39	12.04	11.84	11.65	11.33	11.90
18	11.24	11.16	11.26	---	12.54	12.19	12.38	12.02	11.81	11.62	11.31	11.95
19	11.22	11.09	11.22	---	12.49	12.10	12.37	11.99	11.81	11.60	11.28	11.94
20	11.21	11.16	11.22	---	12.44	12.15	12.45	12.04	11.76	11.60	11.24	11.96
21	11.21	11.16	11.33	---	12.43	12.11	12.34	11.98	11.76	11.60	11.25	11.93
22	11.30	11.15	11.40	---	12.33	12.09	12.27	12.04	11.75	11.58	11.19	11.90
23	11.27	11.19	11.41	---	12.22	12.10	12.21	12.02	11.75	11.55	11.17	11.87
24	11.23	11.22	11.43	---	12.30	12.10	12.15	12.00	11.71	11.52	11.18	11.90
25	11.26	11.15	11.46	---	12.26	12.12	12.11	12.01	11.68	11.50	11.25	11.91
26	11.29	11.22	11.45	---	12.22	12.11	12.18	11.99	11.71	11.51	11.26	11.88
27	11.28	11.22	11.48	---	12.16	12.14	12.21	12.00	11.82	11.47	11.37	11.86
28	11.28	11.20	11.52	---	12.09	12.09	12.18	11.98	11.80	11.50	11.41	11.85
29	11.27	11.21	11.49	---	---	12.04	12.21	11.95	11.79	11.45	11.42	11.84
30	11.26	11.24	11.46	---	---	12.02	12.18	11.97	11.82	11.44	11.42	11.83
31	11.26	---	11.50	---	---	12.09	---	12.00	---	11.43	11.96	---
MEAN	11.24	11.22	11.32	---	---	12.15	12.25	12.06	11.81	11.63	11.34	11.89
MAX	11.30	11.32	11.52	---	---	12.38	12.45	12.17	11.95	11.78	11.96	11.96
MIN	11.17	11.09	11.21	---	---	12.02	11.95	11.95	11.68	11.43	11.17	11.78

07029500 HATCHIE RIVER AT BOLIVAR, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank on upstream end of bridge pier on State Highway 18, 250 ft (76 m) upstream from Illinois Central Gulf Railroad bridge, 0.6 mi (1.0 km) downstream from Spring Creek, and 1.5 mi (2.4 km) northeast of Bolivar and at mile 135.1 (217.4 km).

DRAINAGE AREA.--1,480 mi^2 (3,833 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 323.49 ft (98.600 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. No gage height record May 13 through July 30 due to bridge construction.

AVERAGE DISCHARGE.--53 years, 2,395 ft^3/s (67.83 m^3/s), 21.98 in/yr (558 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,600 ft^3/s (1,740 m^3/s) Mar. 18, 1973, gage height, 21.66 ft (6.602 m), from rating curve extended above 34,000 ft^3/s (963 m^3/s); minimum, 78 ft^3/s (2.21 m^3/s) Sept. 2, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft^3/s (297 m^3/s) at 2100 hours Apr. 17, gage height 15.90 ft (4.846 m); minimum, 198 ft^3/s (5.607 m^3/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	543	2090	834	5450	2330	3630	3570	1200	600	759	441
2	258	498	2540	830	4880	2430	3240	3030	1050	560	874	390
3	252	477	2980	1340	4440	2460	4130	2580	920	540	687	337
4	249	472	3230	3000	3900	2450	4130	2210	820	900	468	338
5	251	472	3150	4240	3560	2320	4060	1890	750	1300	366	362
6	252	495	3190	4510	3260	2100	3990	1640	710	1200	501	323
7	249	511	3220	4570	2900	1870	4130	1430	690	1000	857	267
8	251	495	3070	4800	2740	1700	5370	1370	680	840	1400	236
9	251	468	2500	5440	6360	1570	6550	1480	1100	720	1450	222
10	252	450	1780	6160	6690	1450	6940	1700	1200	620	1190	212
11	257	437	1210	6170	6350	1350	6920	1810	1100	550	1170	199
12	271	430	922	5790	6140	1300	6410	1750	970	495	1510	207
13	296	422	823	5290	6140	1300	5890	1550	830	455	1790	356
14	313	418	796	4760	6240	1410	5420	1420	870	415	1910	558
15	319	417	807	3930	6090	2350	4990	1280	930	390	1750	697
16	329	422	834	2850	5820	4120	5120	1150	820	370	1640	805
17	345	434	838	2230	5410	4600	8210	1050	680	360	1660	807
18	598	437	796	2210	4870	4490	9730	1100	550	350	1670	873
19	928	454	735	1310	4320	4560	8100	2000	450	480	1400	876
20	1390	460	668	1370	3850	4720	7470	3000	420	700	946	725
21	1460	468	823	2370	3390	5340	7330	3800	395	900	649	548
22	1180	472	1170	3660	2950	5530	7430	4000	380	1000	490	433
23	864	471	1500	5000	2530	5470	7300	3800	370	920	401	349
24	684	476	1650	5010	2110	5200	6900	3750	365	800	357	313
25	647	491	1630	5220	1790	4940	6390	3700	365	630	333	284
26	648	519	1500	5860	1590	4830	6030	3350	420	570	314	279
27	694	632	1320	6770	1680	4790	5660	2950	800	540	297	287
28	795	930	1160	7390	2040	4730	5200	2500	950	540	282	309
29	824	1330	1030	7310	---	4500	4670	2100	900	540	277	309
30	734	1600	937	6730	---	4140	4110	1700	720	550	276	278
31	623	---	871	6210	---	4000	---	1450	---	591	305	---
TOTAL	16731	16601	49770	133164	117490	104350	175450	70110	22405	20426	27979	12620
MEAN	540	553	1605	4296	4196	3366	5848	2262	747	659	903	421
MAX	1460	1600	3230	7390	6690	5530	9730	4000	1200	1300	1910	876
MIN	249	417	668	830	1590	1300	3240	1050	365	350	276	199
CFSM	.37	.37	1.08	2.90	2.84	2.27	3.95	1.53	.51	.45	.61	.28
IN.	.42	.42	1.25	3.35	2.95	2.62	4.41	1.76	.56	.51	.70	.32

CAL YR 1981 TOTAL 523242 MEAN 1434 MAX 5950 MIN 249 CFSM .97 IN 13.15
WTR YR 1982 TOTAL 767096 MEAN 2102 MAX 9730 MIN 199 CFSM 1.42 IN 19.28

NOTE.--No gage height record May 13 through July 30.

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1968, 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1980 to current year.
WATER TEMPERATURE: June 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1980.

REMARKS: No record, Oct. 15-18 (equipment malfunction), May 13 to Sept. 30 (monitor removed for bridge construction).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 140 micromhos Aug. 5, 1981; minimum, 28 micromhos Apr. 18, 1982.
WATER TEMPERATURE: Maximum, 31.5°C July 15, 16, 1980; minimum, 0.0°C on several days during winter period in 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum for period Oct. 1 to May 13, 132 micromhos Nov. 24; minimum 28 micromhos Apr. 18.
WATER TEMPERATURE: Maximum for period Oct. 1 to May 13, 21.0°C Oct. 1, Mar. 19, May 6; minimum, 0.0°C on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
17...	0945	432	89	6.8	10.5	16	--	--	--	19	0	5.1
DEC												
09...	0900	2520	73	6.4	7.0	38	--	--	--	21	7	5.9
FEB												
17...	1000	5500	55	6.6	7.5	70	9.9	K50	440	19	8	5.3
APR												
20...	1000	7500	40	6.5	16.0	100	7.0	400	220	15	3	4.1
JUN												
09...	0945	1090	75	6.2	24.5	29	5.8	650	K1	23	0	6.2
AUG												
18...	1030	1740	60	6.7	24.5	50	5.9	620	2400	15	1	4.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV												
17...	1.5	8.8	48	.9	1.3	23	4.6	9.7	<.1	12	58	56
DEC												
09...	1.4	3.5	24	.3	2.8	14	12	4.9	.1	9.0	54	47
FEB												
17...	1.3	2.7	--	.3	--	11	10	2.3	<.1	7.0	42	35
APR												
20...	1.2	2.0	21	.2	1.3	12	6.0	2.5	<.1	5.9	--	30
JUN												
09...	1.8	4.9	30	.5	1.4	34	8.0	6.5	.1	9.7	58	53
AUG												
18...	1.1	3.6	32	.4	1.5	14	6.0	4.4	<.1	8.8	51	39

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
17...	.07	80.6	--	--	--	--	62	86	31
DEC									
09...	.07	367	.17	.120	.080	.010	100	680	71
FEB									
17...	.05	624	.25	.060	.090	.020	49	728	63
APR									
20...	.04	1050	.13	.080	.330	.020	101	2050	83
JUN									
09...	.07	171	.43	.200	.090	.020	57	168	91
AUG									
18...	.06	240	.35	.090	.090	.020	60	282	96

K--Results based on non-ideal colony count.

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
DEC										
09...	1	1	<100	36	1	<1	10	<10	4	<1
FEB										
17...	--	6	<100	38	<1	2	30	--	1	<1
JUN										
09...	1	1	<100	32	3	2	10	<10	4	<1
AUG										
18...	1	1	<100	30	2	<1	10	10	2	1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
DEC									
09...	6	3	2400	430	5	<1	140	130	<.1
FEB									
17...	16	7	4100	110	14	<1	60	19	<.1
JUN									
09...	10	3	3500	330	8	<1	490	380	.2
AUG									
18...	8	3	3400	310	9	2	250	120	1.8

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
09...	<.1	2	2	<1	<1	<1	<1	70	37
FEB									
17...	.1	4	2	<1	<1	<1	--	70	23
JUN									
09...	.2	16	9	<1	<1	<1	<1	30	11
AUG									
18...	<.1	5	6	<1	<1	<1	<1	70	10

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	85	59	75	104	92	98	75	65	71	90	84	86
2	61	58	60	106	93	102	72	62	68	102	83	87
3	63	60	61	109	88	101	67	59	62	119	69	79
4	61	58	59	114	97	108	59	53	56	71	60	64
5	78	58	63	112	100	107	57	53	55	59	54	56
6	86	76	82	111	92	102	61	56	58	55	50	52
7	88	80	84	104	92	97	65	59	61	58	52	54
8	94	79	83	103	92	99	72	65	69	58	53	55
9	90	76	83	108	94	101	74	70	72	57	52	54
10	93	81	85	112	92	103	79	72	76	54	50	51
11	98	79	85	112	95	104	73	63	66	56	50	53
12	99	78	85	112	95	106	64	63	63	56	53	54
13	103	84	91	117	97	107	64	62	63	61	55	58
14	120	83	97	115	101	107	82	71	79	64	57	62
15	---	---	---	113	95	102	84	78	80	68	57	63
16	---	---	---	101	84	96	83	77	79	71	68	70
17	---	---	---	109	89	98	86	78	82	83	68	73
18	---	---	---	111	92	102	84	78	81	87	76	81
19	---	---	---	118	90	105	92	83	88	85	78	81
20	---	---	---	110	88	99	94	88	90	96	78	82
21	---	---	---	106	77	92	103	71	87	87	62	68
22	---	---	---	83	64	74	87	73	77	66	54	58
23	---	---	---	94	68	75	77	64	69	59	49	51
24	---	---	---	132	76	88	65	60	63	53	49	51
25	---	---	---	103	79	91	68	60	65	54	49	51
26	---	---	---	106	81	91	70	67	69	53	50	51
27	---	---	---	98	68	82	72	70	71	50	48	49
28	---	---	---	73	58	65	82	70	74	51	47	48
29	84	78	81	75	58	64	86	81	84	53	47	50
30	86	77	81	91	58	67	88	85	87	56	51	53
31	97	80	88	---	---	---	89	85	87	63	52	55
MONTH	---	---	---	132	58	94	103	53	73	119	47	61
		FEBRUARY			MARCH			APRIL			MAY	
1	60	55	57	77	70	73	73	66	69	73	69	71
2	62	57	60	77	72	74	77	63	67	76	71	73
3	65	61	63	79	72	75	66	57	62	76	71	73
4	69	62	65	82	75	78	62	56	58	74	72	73
5	69	65	68	79	73	76	67	57	60	77	72	75
6	73	68	70	74	72	72	64	57	59	77	74	76
7	77	70	73	73	70	71	64	57	60	79	73	76
8	95	73	77	74	70	71	70	54	58	75	72	73
9	65	41	53	74	71	72	55	49	52	75	71	73
10	41	35	38	78	71	72	53	48	51	76	66	70
11	50	39	45	83	79	81	55	49	53	78	68	70
12	50	47	49	85	80	82	59	51	56	79	71	76
13	53	49	50	85	80	82	61	57	59	82	75	79
14	55	50	52	84	71	79	65	60	62	---	---	---
15	60	52	56	82	60	65	67	63	64	---	---	---
16	61	57	59	62	53	56	72	65	67	---	---	---
17	64	57	59	58	55	56	76	30	49	---	---	---
18	65	58	62	63	57	60	37	28	32	---	---	---
19	67	61	64	65	62	64	43	36	40	---	---	---
20	66	62	65	64	61	62	46	42	44	---	---	---
21	68	65	67	67	59	62	47	44	46	---	---	---
22	70	67	69	60	56	58	49	46	47	---	---	---
23	71	69	70	59	55	57	52	48	51	---	---	---
24	78	70	75	62	58	60	56	51	54	---	---	---
25	80	75	77	61	58	59	60	55	57	---	---	---
26	82	75	78	60	57	58	61	57	59	---	---	---
27	78	72	75	58	57	57	67	61	64	---	---	---
28	77	70	73	60	57	58	67	64	65	---	---	---
29	---	---	---	63	58	61	71	64	67	---	---	---
30	---	---	---	66	63	65	73	67	70	---	---	---
31	---	---	---	78	66	69	---	---	---	---	---	---
MONTH	95	35	63	85	53	67	77	28	57	---	---	---

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.5	15.0	14.5	15.0	10.5	10.0	10.0	6.5	6.0	6.0
2	20.5	19.0	19.5	16.0	15.0	15.5	10.0	9.0	9.5	7.0	5.5	6.0
3	18.5	17.5	18.0	16.0	15.0	15.5	9.5	8.5	9.0	9.5	7.0	8.0
4	18.5	16.5	17.5	17.0	16.0	16.0	9.0	8.5	9.0	9.5	8.0	9.0
5	19.5	17.5	18.5	16.5	15.5	16.0	8.5	7.5	8.0	7.5	6.0	7.0
6	20.0	19.0	19.5	16.0	15.0	15.5	8.0	7.5	7.5	9.0	7.5	8.0
7	19.0	18.0	18.5	14.5	13.5	14.0	8.5	7.5	8.0	9.0	6.0	7.5
8	18.0	17.0	17.5	14.0	13.0	13.5	8.0	7.5	8.0	5.5	4.0	4.5
9	17.5	16.5	17.0	14.0	13.0	13.5	7.5	7.0	7.0	3.5	2.5	3.0
10	17.5	16.5	17.0	13.5	12.0	13.0	7.0	6.0	6.5	2.5	.0	1.0
11	18.0	17.0	17.5	12.0	11.5	11.5	6.0	6.0	6.0	.0	.0	.0
12	17.5	17.0	17.5	11.5	10.5	11.0	6.0	5.5	6.0	.0	.0	.0
13	18.0	17.0	17.5	11.0	10.0	10.5	5.5	5.0	5.5	.0	.0	.0
14	18.0	17.0	17.5	11.0	10.0	10.5	5.5	5.5	5.5	.0	.0	.0
15	---	---	---	11.0	9.5	10.5	5.5	5.0	5.5	.0	.0	.0
16	---	---	---	11.5	10.5	11.0	5.5	5.0	5.5	.0	.0	.0
17	---	---	---	11.0	10.0	10.5	6.0	5.5	5.5	.0	.0	.0
18	---	---	---	11.0	9.5	10.5	5.0	3.5	4.5	.0	.0	.0
19	---	---	---	12.0	10.5	11.5	3.5	2.5	3.0	.5	.0	.0
20	---	---	---	11.0	9.5	10.5	2.5	2.0	2.0	1.5	.5	1.0
21	---	---	---	9.0	7.5	8.0	2.0	.5	1.5	3.0	1.5	2.5
22	---	---	---	8.0	6.5	7.5	5.0	2.0	3.5	7.5	3.0	4.5
23	---	---	---	8.0	7.0	7.5	5.0	4.5	5.0	8.0	6.5	7.5
24	---	---	---	8.0	7.0	7.5	5.0	4.5	4.5	6.5	4.5	5.0
25	---	---	---	8.0	6.5	7.5	5.5	4.5	5.0	5.5	4.0	5.0
26	---	---	---	9.5	8.0	8.5	6.0	5.0	5.5	4.5	3.5	4.0
27	---	---	---	10.0	9.5	9.5	6.0	5.5	6.0	4.0	3.0	3.5
28	---	---	---	9.5	9.0	9.0	6.5	5.5	6.0	6.0	4.5	5.5
29	13.0	12.0	13.0	10.0	9.5	9.5	6.0	5.5	6.0	6.0	5.5	6.0
30	14.0	12.5	13.0	10.0	9.5	9.5	5.5	5.0	5.5	8.5	6.0	7.5
31	15.0	13.5	14.0	---	---	---	6.5	5.5	6.0	9.0	7.0	8.5
MONTH	---	---	---	17.0	6.5	11.5	10.5	.5	6.0	9.5	.0	4.0
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.0	5.5	7.5	6.0	6.5	17.5	14.5	16.0	17.0	16.0	16.5
2	6.0	5.0	5.5	8.5	6.5	7.5	17.0	16.5	16.5	18.0	16.5	17.0
3	6.5	5.0	6.0	9.5	8.0	8.5	17.5	15.0	16.5	18.5	17.0	18.0
4	5.0	4.0	4.5	10.5	9.5	10.0	16.0	14.0	15.5	19.5	18.0	18.5
5	4.5	4.0	4.5	10.5	9.5	10.0	15.5	14.0	15.0	20.0	19.0	19.5
6	4.0	2.5	3.5	10.0	8.5	9.5	14.0	11.5	12.5	21.0	19.5	20.5
7	3.0	1.5	2.5	8.5	7.5	8.0	12.0	10.5	11.0	20.5	19.0	20.0
8	3.0	2.5	2.5	8.0	7.0	7.5	11.0	9.5	10.0	19.5	18.5	19.0
9	3.0	1.5	2.5	7.5	6.5	7.0	11.0	8.5	9.5	20.0	18.5	19.5
10	1.5	.0	.5	8.0	7.0	7.5	11.0	9.0	10.0	19.5	18.5	19.0
11	2.5	.0	1.0	9.5	8.0	8.5	13.0	10.0	11.5	20.0	18.5	19.5
12	2.5	2.0	2.0	11.5	9.0	10.0	14.5	12.0	13.5	20.5	19.5	20.0
13	3.0	1.5	2.5	12.5	11.5	12.0	15.0	14.0	14.5	20.0	19.5	20.0
14	4.0	2.0	3.0	12.5	12.0	12.0	17.5	14.0	15.5	---	---	---
15	5.5	3.5	4.5	14.0	11.0	12.5	19.5	16.0	17.5	---	---	---
16	7.5	5.5	6.5	16.5	14.0	15.5	18.5	17.5	18.0	---	---	---
17	8.0	7.0	7.5	19.0	15.5	17.5	18.0	16.5	17.5	---	---	---
18	8.5	7.0	8.0	19.5	17.0	18.0	16.5	15.5	16.0	---	---	---
19	9.5	7.5	8.5	21.0	18.0	19.5	16.0	15.5	15.5	---	---	---
20	10.5	7.5	9.0	20.5	19.0	19.5	16.0	16.0	16.0	---	---	---
21	11.0	9.0	10.0	20.0	18.0	19.0	16.0	15.0	15.0	---	---	---
22	10.5	9.0	9.5	17.5	15.5	16.5	15.0	14.0	14.5	---	---	---
23	11.0	9.5	10.5	16.5	14.0	15.0	15.5	14.0	15.0	---	---	---
24	11.5	10.5	11.0	17.5	14.0	16.0	15.5	14.5	15.0	---	---	---
25	10.5	9.5	10.0	16.5	14.0	15.5	15.5	15.5	15.5	---	---	---
26	9.5	8.0	8.5	14.5	12.0	13.0	16.0	15.5	15.5	---	---	---
27	8.0	7.0	7.5	13.5	11.0	12.0	16.0	15.5	16.0	---	---	---
28	7.0	6.5	6.5	13.0	10.0	11.5	17.0	15.0	16.0	---	---	---
29	---	---	---	13.5	11.0	12.5	16.0	15.0	15.5	---	---	---
30	---	---	---	14.5	12.5	13.5	16.5	15.0	15.5	---	---	---
31	---	---	---	17.0	14.5	15.5	---	---	---	---	---	---
MONTH	11.5	.0	6.0	21.0	6.0	12.5	19.5	8.5	14.5	---	---	---

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 (6 m) downstream from bridge on U.S. Highways 70 and 79, 1.5 mi (2.4 km) upstream from Beaver Creek, 1.5 mi (2.4 km) northeast of Arlington, and at mile 30.4 (48.9 km).

DRAINAGE AREA.--262 mi^2 (679 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 350 ft^3/s (9.912 m^3/s), 18.14 in/yr (461 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft^3/s (671 m^3/s) Mar. 13, 1975, gage height, 24.96 ft (7.608 m); minimum, 66 ft^3/s (1.87 m^3/s) Apr. 6, 7, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (156 m^3/s) and maximim (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 9	2130	7340	208	20.99	6.398	Apr. 17	1715	*9560	271	21.94	6.687

Minimim daily discharge, 79 ft^3/s (2.24 m^3/s) many days in Sept., but may have been less during periods of missing record.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	85	304	93	530	139	136	138	433	338	87	80
2	80	85	120	188	242	123	491	127	137	109	85	79
3	80	84	103	1700	416	116	1070	119	378	93	85	79
4	80	84	98	1890	318	113	257	116	295	90	85	79
5	80	83	95	312	205	107	173	110	145	107	84	79
6	80	83	95	208	189	114	154	106	117	95	83	79
7	81	83	95	177	165	125	125	112	111	88	83	79
8	80	83	94	162	737	111	2440	111	107	117	82	79
9	81	82	93	157	6550	105	1620	103	105	135	82	79
10	82	82	93	151	2990	102	286	104	104	93	82	79
11	81	82	93	149	381	101	182	100	103	90	81	79
12	82	82	92	148	222	105	150	99	99	92	81	84
13	81	82	91	148	181	101	135	98	99	87	86	86
14	83	82	91	146	155	240	125	98	98	86	122	83
15	84	82	91	146	145	1060	118	98	98	85	87	81
16	84	82	91	145	140	291	2150	98	550	85	94	93
17	275	82	91	141	135	177	7790	98	159	85	86	85
18	1600	82	91	141	126	140	6430	97	114	85	84	83
19	146	82	91	189	119	126	1220	97	106	85	83	82
20	99	82	91	369	115	121	988	97	104	85	81	81
21	92	82	136	2150	114	883	376	97	103	232	81	80
22	91	83	208	549	110	272	219	97	102	94	80	80
23	94	83	162	3560	108	157	175	106	103	89	80	79
24	90	84	115	818	107	135	157	97	103	88	83	79
25	89	83	101	267	104	124	153	1990	105	86	80	79
26	158	83	98	192	106	114	1070	1550	115	98	80	79
27	125	85	98	170	240	110	1370	349	105	86	80	79
28	94	86	96	163	192	107	270	549	403	85	80	79
29	88	84	94	156	---	106	179	153	267	84	80	79
30	86	177	93	161	---	105	158	119	100	85	84	79
31	85	---	93	1870	---	115	---	188	---	91	82	---
TOTAL	4511	2584	3397	16816	15142	5845	30167	7421	4968	3248	2613	2420
MEAN	146	86.1	110	542	541	189	1006	239	166	105	84.3	80.7
MAX	1600	177	304	3560	6550	1060	7790	1990	550	338	122	93
MIN	80	82	91	93	104	101	118	97	98	84	80	79
CFSM	.56	.33	.42	2.07	2.07	.72	3.84	.91	.63	.40	.32	.31
IN.	.64	.37	.48	2.39	2.15	.83	4.28	1.05	.71	.46	.37	.34

CAL YR 1981 TOTAL 70872 MEAN 194 MAX 6000 MIN 80 CFSM .74 IN 10.06
WTR YR 1982 TOTAL 99132 MEAN 272 MAX 7790 MIN 79 CFSM 1.04 IN 14.08

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
07...	1115	82	44	15.5	21	4.6	--
NOV							
12...	1030	82	--	--	14	3.1	--
DEC							
16...	1230	90	50	10.0	12	2.9	--
JAN							
22...	1350	442	70	7.5	360	430	87
MAR							
04...	1230	116	--	--	31	9.7	--
APR							
15...	1110	123	65	17.5	42	14	--
JUN							
02...	1045	136	45	19.0	233	86	--
JUL							
13...	1115	90	--	--	97	24	--
AUG							
17...	1130	87	54	20.0	82	19	--
SEP							
29...	1100	80	47	19.0	21	4.5	--

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV										
12...	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--
JUL										
13...	--	<.1	--	<1.0	--	<.1	--	<.1	--	.4

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV										
12...	<.01	--	<.01	--	<.01	--	<.01	--	<0	--
JUL										
13...	--	<.1	--	<.1	--	<.1	--	<1.00	--	<10

DATE	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV										
12...	<.01	--	<.01	--	<.01	--	<.01	--	<.01	--
JUL										
13...	--	<.1	--	<.1	--	<.1	--	<.1	--	<.1

07030295 LOOSAHATCHIE RIVER TRIBUTARY AT NEW ALLEN ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°14'17", long 89°57'04", Shelby County, Hydrologic Unit 08010209, on right bank at downstream end of bridge at the intersection of New Allen Road and Hawkins Mill Road in Memphis, 0.82 mi (1.32 km) east of Illinois Central Gulf Railroad, and 3.4 mi (5.5 km) east of U.S. Highway 51.

DRAINAGE AREA.--1.26 mi^2 (3.26 km^2).

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 243 ft (74.1 m), from topographic map.

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

AVERAGE DISCHARGE.--5 years (water years 1978-82) 1.72 ft^3/s (.049 m^3/s) 18.54 in/yr (471 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,550 ft^3/s (43.9 m^3/s) July 22, 1980, gage height 8.57 ft (2.612 m) from rating curve extended above 170 ft^3/s (4.81 m^3/s) on basis of slope-area measurement of peak flow; no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peaks above base of 175 ft^3/s (4.96 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 17	0145	512	14.5	5.21	1.588	July 4	0445	492	13.9	5.11	1.558
June 16	0235	231	6.54	3.60	1.097						

No flow Dec. 18, 19, 20, Jan. 10, 11-14, 15 result of freezeup all or part of each day.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.04	.03	.02	.53	.08	.03	.14	.11	.16	.08	.08
2	.02	.04	.02	5.6	.53	.06	.03	.11	.06	.16	.08	.06
3	.02	.03	.02	8.2	.84	.21	.04	.08	.52	.15	.08	.04
4	.02	.03	.03	.76	.84	.62	.04	.08	.08	38	.08	.04
5	.02	.04	.02	.08	.84	.20	.04	.08	.08	1.3	.08	.04
6	.03	.04	.02	.08	.64	1.4	.06	.33	.06	.73	.27	.04
7	.03	.04	.02	.04	.53	.61	.06	4.4	.06	.52	.16	.06
8	.04	.04	.03	.03	.53	.35	.04	.33	1.9	14	.16	.06
9	.04	.04	.02	.03	.63	.33	.06	.11	2.5	2.1	.16	.08
10	.04	.02	.02	.02	.63	.33	.08	.39	1.5	1.2	.16	.11
11	.04	.02	.02	.00	.44	.48	.08	.08	.08	.97	.16	.16
12	.04	.02	.02	.00	.44	.53	.08	.19	.11	.33	.16	3.8
13	.04	.02	.05	.00	.44	.27	.04	.06	.08	.08	1.9	1.5
14	.19	.02	.05	.00	.44	6.5	.11	.06	.08	.08	3.6	.44
15	.04	.03	.03	.39	.44	4.7	.11	1.2	.08	.08	.15	2.3
16	.04	.03	.02	.12	.44	.86	12	.11	27	.09	.07	.75
17	10	.01	.36	.17	.44	.53	58	.06	.06	.08	.06	.11
18	1.3	.02	.04	.02	.33	.26	1.7	.30	.20	.08	.05	.16
19	.06	.05	.00	.02	.24	.24	6.6	.12	.11	.08	.03	.04
20	.06	.02	.00	13	.24	.36	2.1	.08	.08	.11	.04	.06
21	.06	.02	1.3	4.2	.11	.97	.71	.06	.06	.08	.04	.04
22	.61	.12	.58	13	.11	.43	.46	.34	.06	.11	.04	.03
23	.44	.03	.29	5.9	.11	.30	.33	.16	.06	.11	.18	.03
24	.08	.02	.11	.33	.11	.18	.24	.08	.06	.11	.11	.03
25	.08	.02	.11	.13	.11	.24	.24	13	.46	.11	.16	.03
26	1.8	.02	.11	.07	.11	.11	2.1	.75	4.6	.11	.16	.03
27	.08	.02	.11	.05	.16	.44	.33	.24	.37	.11	.08	.02
28	.11	3.3	.11	.04	.11	.03	.16	.11	11	.11	.11	.02
29	.11	.04	.02	.53	---	.03	.37	.08	.68	.11	.11	.02
30	.03	.04	.02	.24	---	.03	.17	.06	.26	.11	.50	.02
31	.04	---	.02	12	---	.03	---	.21	---	1.0	.11	---
TOTAL	15.53	4.23	3.60	65.07	11.36	21.71	86.41	23.40	52.96	62.37	9.13	10.20
MEAN	.50	.14	.12	2.10	.41	.70	2.88	.75	1.77	2.01	.29	.34
MAX	10	3.3	1.3	13	.84	6.5	58	13	27	38	3.6	3.8
MIN	.02	.01	.00	.00	.11	.03	.03	.06	.06	.08	.03	.02
CFSM	.40	.11	.10	1.67	.33	.56	2.29	.60	1.41	1.60	.23	.27
IN.	.46	.12	.11	1.92	.34	.64	2.55	.69	1.56	1.84	.27	.30

CAL YR 1981 TOTAL 292.08 MEAN .80 MAX 42 MIN .00 CFSM .64 IN 8.62
WTR YR 1982 TOTAL 365.97 MEAN 1.00 MAX 58 MIN .00 CFSM .79 IN 10.80

07031650 WOLF RIVER AT GERMANTOWN, TN

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, Hydrologic Unit 08010210, on left bank at bridge on Germantown Road at Germantown, 3.6 mi (5.8 km) downstream from Grays Creek, 6.4 mi (10.3 km) upstream from Fletcher Creek, at at mile 18.9 (30.4 km).

DRAINAGE AREA.--699 mi^2 (1,810 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Published as "near Germantown" prior to 1978.

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft (71.860 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 1,012 ft^3/s (28.66 m^3/s), 19.66 in/yr (499 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft^3/s (946 m^3/s) Mar. 14, 1975, gage height, 27.98 ft (8.528 m); minimum, 190 ft^3/s (5.38 m^3/s) Sept. 15, 16, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft^3/s (198 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 9	0330	8310	235	15.02	4.578	Apr. 17	0915	10100	286	16.48	5.023
Apr. 16	1845	*10800	306	17.02	5.188	Apr. 20	0015	7800	221	14.58	4.444

Minimum discharge, 239 ft^3/s (6.77 m^3/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	337	864	397	1360	690	548	899	669	402	572	250
2	249	337	895	500	1120	620	1400	795	867	547	354	255
3	247	326	842	3950	1020	609	1770	704	803	440	305	251
4	245	317	726	4350	872	597	1630	638	880	367	287	248
5	246	311	641	4000	775	558	1470	597	1060	340	275	245
6	245	303	611	2600	737	532	1280	562	1120	324	267	244
7	244	297	560	1500	682	521	988	535	955	315	259	244
8	244	293	485	1100	1430	486	1740	533	619	314	257	244
9	244	289	424	800	4780	453	1620	512	478	669	258	243
10	244	288	386	650	4930	431	1600	478	418	587	263	242
11	245	288	365	600	6040	426	1410	459	383	440	280	241
12	247	288	354	570	4490	424	1270	442	403	370	273	243
13	248	290	348	560	3210	420	939	423	392	342	318	243
14	250	288	349	560	2550	2080	772	406	349	315	541	246
15	252	285	355	550	1960	3130	657	397	335	290	536	251
16	252	288	354	550	1190	3240	5380	385	669	280	483	299
17	403	288	349	540	936	2960	8260	382	581	272	489	360
18	836	286	350	540	791	2670	6780	378	491	265	433	314
19	457	288	341	2000	706	2230	7890	373	389	296	404	292
20	409	290	331	4200	651	1750	5670	370	355	266	366	283
21	366	288	430	3550	615	2260	3970	370	338	264	334	273
22	378	286	538	4000	582	1750	2810	370	328	279	309	263
23	396	300	657	6400	534	1540	2160	389	319	286	291	256
24	406	304	650	6500	492	1360	1410	440	360	268	276	252
25	385	318	544	3300	466	1010	1040	1900	425	266	269	250
26	427	317	479	2200	506	831	2900	1700	375	274	263	247
27	390	341	458	2000	889	706	3200	1130	325	259	257	246
28	382	371	435	1620	810	608	2200	1400	337	257	253	245
29	360	401	425	1130	---	543	1400	1180	324	259	251	244
30	350	653	410	873	---	508	1030	804	310	299	249	242
31	346	---	400	1810	---	511	---	550	---	388	248	---
TOTAL	10243	9556	15356	63900	45124	36454	75194	20501	15657	10540	10220	7756
MEAN	330	319	495	2061	1612	1176	2506	661	522	340	330	259
MAX	836	653	895	6500	6040	3240	8260	1900	1120	669	572	360
MIN	244	285	331	397	466	420	548	370	310	257	248	241
CFSM	.47	.46	.71	2.95	2.31	1.68	3.59	.95	.75	.49	.47	.37
IN.	.55	.51	.82	3.40	2.40	1.94	4.00	1.09	.83	.56	.54	.41

CAL YR 1981 TOTAL 209655 MEAN 574 MAX 5220 MIN 222 CFSM .82 IN 11.16
WTR YR 1982 TOTAL 320501 MEAN 878 MAX 8260 MIN 241 CFSM 1.26 IN 17.06

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV							
03...	1110	328	43	17.0	72	64	--
DEC							
10...	1515	383	160	8.5	36	37	--
JAN							
26...	1130	2190	43	4.5	385	2280	68
MAR							
04...	0955	603	--	--	94	153	--
APR							
14...	1130	754	55	17.5	89	181	--
MAY							
27...	1135	1180	--	23.5	542	1730	--
JUL							
14...	1230	314	48	27.0	108	92	--
AUG							
20...	1100	370	41	26.0	89	89	--

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV												
03...	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--	<.01	--
JUL												
14...	--	<.1	--	<1.0	--	<.1	--	<.1	--	.8	---	<.1

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
03...	--	<.01	--	<.01	--	<0	--	<.01	<.01	<.01	<.01
JUL											
14...	<.1	--	<.1	--	<1.00	--	<10	--	--	--	--

DATE	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)
NOV											
03...	<.01	--	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL											
14...	--	<.1	--	<.1	--	<.1	--	<.1	--	<.1	--

07031680 FLETCHER CREEK NEAR CORDOVA, TN

LOCATION.--Lat 35°11'21", long 89°45'42", Shelby County, Hydrologic Unit 08010210, on right bank at upstream side of bridge at Berryhill Road, 1.3 mi (2.1 km) south of U.S. Highway 64, and 2.5 mi (4.0 km) north of Cordova.

DRAINAGE AREA.--1.45 mi^2 (3.76 km^2).

PERIOD OF RECORD.--June 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 319 ft (97 m), from topographic map.

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

AVERAGE DISCHARGE.--8 years (water years 1975-82), 2.42 ft^3/s (0.069 m^3/s), 22.66 in/yr (576 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 740 ft^3/s (21.0 m^3/s) Mar. 12, 1975, gage height, 13.00 ft (3.962 m), from graphic comparison with nearby stations; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 8	2130	394	11.2	9.46	2.883	Apr. 17	Unknown	*669	18.9	11.18	3.408
Apr. 16	1205	434	12.3	9.75	2.972						

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.50	.19	.99	.40	.01	.00	.00	6.9	.00	.00
2	.00	.00	.04	21	.48	.24	4.5	.00	.00	.01	.00	.00
3	.00	.00	.02	9.4	7.1	.37	.79	.00	.58	.00	.00	.43
4	.00	.00	.00	1.7	.91	1.3	.03	.01	.00	.02	.00	.44
5	.00	.00	.00	.37	.35	.95	.10	.01	.00	.00	.00	.00
6	.00	.00	.00	.13	.47	3.3	.01	.00	.00	.00	.00	.03
7	.00	.00	.00	.05	.12	1.1	.01	.29	.00	.00	.00	.00
8	.00	.00	.00	.00	73	.44	61	.02	.00	.00	.00	.00
9	.00	.00	.00	.00	18	.16	5.0	.07	.00	.00	.00	.00
10	.00	.00	.00	.00	1.3	.12	1.5	.07	.00	.00	.00	.00
11	.00	.00	.00	.00	.60	.58	.90	.03	.00	.00	.00	.00
12	.00	.00	.00	.00	.45	.87	.50	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.35	.72	.35	.00	.00	.00	4.4	.00
14	.00	.00	.00	.00	.22	8.2	.24	.00	.00	.00	.01	.00
15	.00	.00	.02	.26	.25	5.5	.16	.27	.00	.00	.90	.04
16	.00	.00	.01	.03	.35	1.6	37	.03	15	.00	1.3	.00
17	23	.00	.00	.04	.45	.96	45	.00	.01	.00	.00	.00
18	4.3	.00	.00	.02	.25	.96	2.0	.00	.00	.00	.00	.01
19	.00	.00	.00	.02	.13	.66	8.6	.00	.00	.00	.00	.00
20	.00	.00	.00	3.3	.10	.91	3.4	.00	.00	.00	.00	.00
21	.00	.00	7.1	4.3	.09	17	1.1	.00	.00	.00	.00	.00
22	1.7	.00	1.9	.30	.07	.87	1.9	3.4	.00	.00	.00	.00
23	.13	.00	1.5	.11	.06	.20	1.4	.00	1.2	.02	.03	.00
24	.00	.04	.11	.05	.05	.10	1.0	.00	.00	.00	.00	.00
25	.00	.00	.04	.02	.08	.03	1.0	4.6	1.7	.00	.00	.00
26	2.2	.00	.03	.02	1.5	.01	1.3	.00	.06	.00	.00	.00
27	.01	.00	.33	.02	5.5	.01	.05	.00	.00	.00	.02	.00
28	.00	.00	.23	.02	.90	.01	.00	.91	1.1	.00	.00	.00
29	.00	.00	.26	.84	---	.01	.00	.00	.00	.00	.00	.00
30	.00	5.4	.14	.24	---	.01	.00	.00	.00	.88	.00	.00
31	.00	---	.12	28	---	.06	---	.00	---	.00	.00	---
TOTAL	31.34	5.44	12.35	70.43	114.12	47.65	178.85	9.71	19.65	7.83	6.66	.95
MEAN	1.01	.18	.40	2.27	4.08	1.52h	5.96	.31	.66	.25	.21	.032
MAX	23	5.4	7.1	28	73	17	61	4.6	15	6.9	4.4	.44
MIN	.00	.00	.00	.00	.05	.01	.00	.00	.00	.00	.00	.00
CFSM	.70	.12	.28	1.57	2.81	1.06	4.11	.21	.46	.17	.15	.02
IN.	.80	.14	.32	1.81	2.93	1.22	4.59	.25	.50	.20	.17	.02

CAL YR 1981 TOTAL 462.79 MEAN 1.27 MAX 57 MIN .00 CFSM .88 IN 11.86
WTR YR 1982 TOTAL 504.98 MEAN 1.38 MAX 73 MIN .00 CFSM .95 IN 12.95

07031683 FLETCHER CREEK AT WHITTEN ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°11'16", long 89°50'09", Shelby County, Hydrologic Unit 08010210, on left bank at upstream end of bridge on Whitten Road, 0.9 mi (1.45 km) north of I-40 and 1.0 mi (1.6 km) south of U.S. Highway 70.

DRAINAGE AREA.--21.4 mi^2 (55.4 km^2).

PERIOD OF RECORD.--November 1977 to February 1982.

REVISED RECORDS.--WRD TN-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (73.2 m), from topographic map.

REMARKS.--Records poor. 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, 7,160 ft^3/s (203 m^3/s) Apr. 2, 1979, gage height, 18.46 ft (5.627 m); no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges during the period October 1981 to February 1982 above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 17	2240	2010	56.9	12.19	3.716	Feb. 8	2205	*4110	116	15.05	4.587
Jan. 31	0400	1870	53.0	11.90	3.627						

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO FEBRUARY 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	12	1.3	12							
2	.00	.00	.70	300	2.9							
3	.00	.00	.15	150	113							
4	.00	.00	.10	30	8.2							
5	.00	.00	.06	7.0	3.0							
6	.00	.00	.02	2.0	2.7							
7	.00	.00	.01	.50	.57							
8	.00	.00	.01	.15	694							
9	.00	.00	.01	.07	372							
10	.00	.00	.01	.04	19							
11	.00	.00	.00	.03	8.7							
12	.00	.00	.00	.03	6.8							
13	.00	.00	.02	.02	4.2							
14	.00	.00	.87	.02	2.5							
15	.00	.00	.34	1.5	2.6							
16	.00	.00	.17	.30	3.6							
17	290	.00	.09	.45	6.1							
18	153	.00	.03	.20	3.1							
19	.68	.00	.00	.20	1.3							
20	.12	.00	.00	50	.83							
21	.02	.00	50	60	.80							
22	17	.00	12	15	.58							
23	7.0	1.1	11	.15	.51							
24	.20	.40	.80	.70	.43							
25	.09	.10	.35	.30	.59							
26	42	.01	.25	.18	35							
27	2.0	.01	1.3	.12	98							
28	.23	.00	1.0	.09	13							
29	.09	.00	1.1	3.6	---							
30	.00	108	.50	1.4	---							
31	.00	---	.40	469	---							
TOTAL	512.43	109.62	93.29	1094.35	1416.01							
MEAN	16.5	3.65	3.01	35.3	50.6							
MAX	290	108	50	469	694							
MIN	.00	.00	.00	.02	.43							
CFSM	.77	.17	.14	1.65	2.36							
IN.	.89	.19	.16	1.90	2.46							

CAL YR 1981 TOTAL 8137.88 MEAN 22.3 MAX 981 MIN .00 CFSM 1.04 IN 14.15

07031777 LICK CREEK AT DICKINSON STREET AT MEMPHIS, TN

LOCATION.--Lat 35°09'24", long 90°00'12", Shelby County, Hydrologic Unit 08010210, on right bank 100 ft (30 m) upstream from bridge on Dickinson Street, and 1,200 ft (366 m) south of Jackson Avenue in Memphis.

DRAINAGE AREA.--2.96 mi^2 (7.67 km^2).

PERIOD OF RECORD.--December 1974 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 234 ft (71 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years (water years 1976-82), 5.75 ft^3/s (0.163 m^3/s), 26.38 in/yr (670 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft^3/s (47.9 m^3/s) Apr. 17, 1982, gage height, 12.52 ft (3.816 m); minimum, 0.01 ft^3/s (<0.001 m^3/s) Sept. 23, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft^3/s (15.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 17	1940	942	26.7	9.52	2.902	May 22	1240	656	18.6	8.11	2.472
Jan. 22	2210	699	19.8	8.34	2.542	June 16	0220	993	28.1	9.75	2.972
Jan. 31	0145	709	20.1	8.39	2.557	July 4	0310	1190	33.7	10.59	3.228
Mar. 20	2305	588	16.7	7.74	2.359	Aug. 13	1510	609	17.2	7.86	2.396
Apr. 17	0125	*1690	47.9	12.52	3.816	Aug. 14	0310	646	18.3	8.06	2.457

Minimum discharge, 0.01 ft^3/s (<0.001 m^3/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.1	.89	.60	.91	1.2	.25	.40	.15	1.6	1.9	1.4
2	2.3	1.6	.68	26	.68	.65	26	.52	2.0	.87	1.7	1.4
3	2.0	.87	.69	22	9.5	.60	1.6	.39	16	1.1	1.9	1.6
4	2.4	.87	.71	1.0	.49	2.3	.70	.14	4.4	76	2.2	1.4
5	2.7	1.0	1.0	.60	2.1	.59	6.7	.30	1.3	.44	19	1.6
6	3.7	.65	.54	.60	.79	8.3	.75	2.8	1.5	.57	2.1	1.5
7	4.7	1.0	.54	.60	.58	.59	.44	9.7	1.3	.58	1.1	2.0
8	2.9	.87	.68	.70	59	.31	15	.25	1.4	3.0	2.2	2.1
9	2.4	.67	.90	.70	2.0	.10	1.0	.12	1.4	.73	.42	3.2
10	2.5	1.4	.66	.70	.70	.13	.50	.30	5.0	1.1	4.6	2.6
11	2.6	1.1	.87	.70	.40	1.1	.40	.23	.69	2.0	.42	2.3
12	2.9	.59	.65	.70	.30	.09	.44	.20	2.3	2.0	.56	18
13	3.2	.27	2.9	.70	.29	.22	.45	.41	.70	1.7	33	1.5
14	7.9	.65	1.9	.60	.38	30	.46	.12	.65	1.2	33	1.1
15	.96	2.7	.64	3.7	.40	1.6	.46	7.8	.91	1.6	3.3	8.7
16	.72	1.7	.51	.80	.36	.10	24	.20	72	.34	1.7	1.1
17	81	1.4	.40	.70	3.0	.38	116	.30	1.2	.94	.22	.47
18	3.3	1.5	.54	1.0	.44	.10	1.2	.22	1.3	1.3	.13	9.9
19	1.6	3.7	.54	1.5	.23	.46	22	8.7	1.1	1.3	.75	.17
20	2.1	.10	.54	40	.39	15	1.5	8.9	.93	1.3	.37	.15
21	1.2	.15	23	10	.36	17	.52	.39	1.1	1.4	.43	.28
22	16	.18	6.9	41	.43	.50	.86	22	1.4	5.9	.93	.35
23	2.7	23	1.6	4.5	.87	.26	.50	.35	1.3	1.1	.22	.22
24	1.5	.64	1.1	.32	1.3	.29	.42	.28	2.1	1.1	.55	.06
25	1.4	.64	1.1	.32	1.4	.27	.73	1.0	18	1.2	1.2	.15
26	28	.39	2.7	.27	7.2	.24	9.5	.25	1.4	1.4	1.1	.15
27	2.6	1.1	2.0	.34	2.3	.46	.18	.19	1.1	1.7	1.2	.08
28	1.6	.46	.77	.35	1.6	.58	.40	.15	20	1.4	1.0	.07
29	1.4	.69	.50	7.5	---	.30	1.2	.12	1.5	1.8	.95	.39
30	1.4	32	.61	2.1	---	.15	.28	.25	1.2	2.1	1.2	.84
31	1.4	---	.70	39	---	.73	---	.21	---	2.0	1.1	---
TOTAL	194.18	84.99	57.76	209.60	98.40	84.60	234.44	67.19	165.33	120.77	120.45	64.78
MEAN	6.26	2.83	1.86	6.76	3.51	2.73	7.81	2.17	5.51	3.90	3.89	2.16
MAX	81	32	23	41	59	30	116	22	72	76	33	18
MIN	.72	.10	.40	.27	.23	.09	.18	.12	.15	.34	.13	.06
CFSM	2.12	.96	.63	2.28	1.19	.92	2.64	.73	1.86	1.32	1.31	.73
IN.	2.44	1.07	.73	2.63	1.24	1.06	2.95	.84	2.08	1.52	1.51	.81

CAL YR 1981 TOTAL 1648.28 MEAN 4.52 MAX 81 MIN .10 CFSM 1.53 IN 20.71
WTR YR 1982 TOTAL 1502.49 MEAN 4.12 MAX 116 MIN .06 CFSM 1.39 IN 18.88

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN
(National stream-quality accounting and pesticide station)

LOCATION.--Lat 35°07'37", long 90°04'25", Shelby County, Hydrologic Unit 08010100, on left bank 50 ft (15 m) downstream from Harahan Bridge at Memphis, 1.3 mi (2.1 km) downstream from Beale Street gage, 3.5 mi (5.6 km) downstream from Wolf River, 62.4 mi (100.4 km) upstream from St. Francis River, and at mile 734.8 (1,182.3 km).

DRAINAGE AREA.--932,800 mi^2 (2,416,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: January 1933 to September 1980. Monthly discharge only for some periods, published in WSP 1311.

Gage heights: October 1934 to September 1951 and October 1952 to September 1980 in reports of Geological Survey. Since November 1871, at Beale Street gage, in reports of Mississippi River Commision, December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at nonrecording gage 1,000 ft (305 m) downstream, and since December 1934 at water-stage recorder at present site, in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 183.91 ft (56.056 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1934, Beale Street nonrecording gage 1.3 mi (2.1 km) upstream at present datum. Apr. 16 to Dec. 21, 1934, nonrecording gage 1,000 ft (305 m) downstream at present datum.

REMARKS.--Flow regulated by many locks, dams, and reservoirs.

COOPERATION.--Records furnished by Corps of Engineers.

AVERAGE DISCHARGE.--47 years, 475,800 ft^3/s (13,500 m^3/s), 344,700,000 acre-ft/yr (425 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980,000 ft^3/s (56,100 m^3/s) Feb. 8, 1937; maximum gage height, 48.69 ft (14.841 m) Feb. 10, 1937; minimum discharge, 79,200 ft^3/s (2,240 m^3/s) Aug. 26, 1936; minimum gage height, -5.70 ft (-1.737 m) Sept. 21, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1937, 46.55 ft (14.188 m) Apr. 9, 1913, at Beale Street gage or about 45.2 ft (13.78 m) at present site.

EXTREMES FOR 1980 WATER YEAR.--Maximum discharge, 1,260,000 ft^3/s (35,700 m^3/s) Apr. 3; maximum gage height, 31.99 ft (9.751 m) Apr. 8; minimum daily discharge, 222,000 ft^3/s (6,290 m^3/s) July 25.

NOTE.--Records for 1981 and 1982 water years were not available in time for inclusion in this report. These records will be published in a subsequent report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	643000	324000	833000	692000	511000	541000	1250000	595000	514000	351000	261000	373000
2	628000	333000	864000	696000	474000	558000	1250000	538000	474000	361000	246000	318000
3	606000	325000	876000	696000	438000	557000	1250000	504000	427000	376000	258000	287000
4	585000	324000	885000	689000	405000	534000	1250000	488000	388000	382000	266000	267000
5	570000	349000	885000	671000	381000	493000	1250000	485000	361000	383000	276000	260000
6	568000	390000	885000	639000	364000	451000	1240000	484000	356000	390000	277000	271000
7	559000	420000	862000	593000	344000	419000	1220000	488000	398000	405000	262000	298000
8	545000	448000	832000	542000	323000	404000	1230000	487000	479000	414000	249000	319000
9	528000	483000	776000	499000	302000	410000	1210000	471000	552000	401000	248000	332000
10	512000	511000	702000	464000	285000	451000	1180000	442000	601000	378000	262000	341000
11	495000	517000	623000	446000	277000	535000	1140000	403000	627000	355000	274000	356000
12	480000	518000	564000	436000	275000	618000	1120000	368000	630000	330000	283000	355000
13	464000	521000	544000	431000	282000	679000	1110000	345000	617000	319000	286000	340000
14	449000	536000	519000	431000	289000	718000	1090000	324000	597000	324000	285000	318000
15	436000	550000	503000	445000	286000	739000	1060000	312000	581000	334000	280000	287000
16	434000	559000	504000	480000	285000	752000	1030000	310000	567000	349000	273000	271000
17	442000	564000	528000	522000	290000	783000	1020000	315000	552000	364000	289000	266000
18	453000	564000	561000	551000	299000	786000	1020000	328000	537000	374000	313000	262000
19	459000	561000	596000	567000	316000	804000	1020000	351000	521000	372000	346000	264000
20	462000	548000	619000	572000	334000	847000	1030000	380000	506000	357000	383000	269000
21	457000	534000	624000	568000	351000	891000	1030000	452000	493000	331000	400000	269000
22	442000	536000	609000	566000	371000	925000	1030000	534000	481000	301000	401000	277000
23	425000	536000	576000	567000	394000	970000	1020000	582000	468000	263000	397000	277000
24	401000	524000	547000	572000	407000	1020000	1000000	594000	469000	235000	406000	278000
25	378000	515000	511000	581000	409000	1070000	989000	584000	454000	222000	436000	282000
26	354000	526000	490000	594000	408000	1110000	958000	573000	427000	225000	459000	287000
27	339000	570000	497000	604000	417000	1140000	909000	571000	406000	238000	472000	286000
28	329000	658000	537000	599000	454000	1170000	840000	575000	398000	252000	471000	283000
29	323000	742000	596000	581000	504000	1200000	759000	577000	380000	268000	461000	274000
30	309000	799000	644000	562000	---	1220000	679000	570000	360000	282000	447000	266000
31	311000	---	672000	542000	---	1240000	---	547000	---	278000	419000	---
TOTAL	14386000	15285000	20264000	17398000	10475000	24035000	32184000	14577000	14621000	10214000	10386000	8833000
MEAN	464100	509500	653700	561200	361200	775300	1073000	470200	487400	329500	335000	294400
MAX	643000	799000	885000	696000	511000	1240000	1250000	595000	630000	414000	472000	373000
MIN	309000	324000	490000	431000	275000	404000	679000	310000	356000	222000	246000	260000
AC-FT	28530000	30320000	40190000	34510000	20780000	47670000	63840000	28910000	29000000	20260000	20600000	17520000

CAL YR 1979	TOTAL	261226000	MEAN	715700	MAX	1540000	MIN	309000	AC-FT	518100000		
WTR YR 1980	TOTAL	192658000	MEAN	526400	MAX	1250000	MIN	222000	AC-FT	382100000		

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1973 to current year.

PERIOD DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1973 to September 1981.
WATER TEMPERATURES: February 1973 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 571 micromhos July 30, 1977; minimum daily, 174 micromhos Feb. 7, 1979.
WATER TEMPERATURES: Maximum daily, 32.0°C July 22, 24, 1981; minimum daily, 0.0°C Jan. 12, 13, 14, 17, 18, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
07...	0845	198000	484	8.1	19.5	22	8.5	430	K20	180	39	47
DEC												
02...	0900	250000	470	7.8	8.0	27	11.2	1000	380	160	34	41
FEB												
08...	1530	925000	270	7.4	.0	140	13.5	K89	1100	96	29	27
APR												
13...	1645	758000	377	7.9	9.5	160	10.2	370	120	140	34	38
JUN												
10...	1045	393000	365	8.0	21.5	150	7.3	K430	410	140	33	39
AUG												
03...	1700	380000	398	8.1	29.0	85	6.8	670	K40	160	39	42

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
07...	15	22	21	.7	3.4	140	63	21	.3	3.8	288	260
DEC												
02...	15	26	25	.9	2.7	130	60	23	.3	4.7	280	251
FEB												
08...	7.0	13	22	.6	2.0	67	34	14	.3	5.2	212	143
APR												
13...	12	20	23	.7	2.2	110	37	15	.2	7.8	233	199
JUN												
10...	11	14	17	.5	2.4	110	39	13	.3	6.8	221	192
AUG												
03...	13	17	19	.6	3.2	119	36	14	.3	8.0	203	206

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
07...	.39	154000	.91	.070	.200	.110	67	35800	88
DEC									
02...	.38	189000	1.5	.150	.150	.070	64	43200	88
FEB									
08...	.29	529000	1.4	.260	.320	.060	218	544000	94
APR									
13...	.32	477000	2.3	.100	.360	.100	361	739000	74
JUN									
10...	.30	235000	2.8	.080	.290	.080	495	525000	94
AUG									
03...	.28	208000	2.1	.110	.260	.120	126	129000	98

K--Results based on non-ideal colony count.

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT										
07...	4	4	100	70	1	<1	20	10	3	2
FEB										
08...	2	2	300	300	1	<1	30	10	2	2
APR										
13...	2	2	100	--	2	<3	20	10	4	<1
AUG										
03...	4	2	200	--	1	1	20	10	<1	<1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT									
07...	190	33	2200	26	17	4	210	32	.2
FEB									
08...	35	17	9300	150	19	5	310	14	<.1
APR									
13...	110	25	7800	58	26	7	350	9	<.1
AUG									
03...	100	30	5400	13	16	6	180	4	<.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
07...	.1	50	<1	<1	2	<1	<1	120	110
FEB									
08...	--	12	6	2	2	<1	<1	190	190
APR									
13...	.2	13	7	2	2	<1	<1	60	<3
AUG									
03...	<.1	10	3	2	2	<1	<1	120	110

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, Hydrologic Unit 08010211, on left bank at downstream side of bridge on Winchester Road, 2.6 mi (4.2 km) south of Germantown, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--68.2 mi^2 (176.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-1964, 1969; October 1969 to current year.

REVISED RECORDS.--WRD TN 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft (80.138 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 103 ft^3/s (2.92 m^3/s), 20.51 in/yr (521 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,680 ft^3/s (274 m^3/s) Mar. 12, 1975, gage height, 27.11 ft (8.263 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft^3/s (105 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 14	1030	4880	138	18.62	5.675	Apr. 16	1300	*8730	247	25.67	7.824

No flow Oct. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.13	49	.38	20	15	47	13	1.4	180	.36	.17
2	.00	.13	4.6	104	6.0	10	945	9.6	1.1	56	.28	.14
3	.00	.12	.60	304	25	8.2	454	7.9	32	4.8	.23	.14
4	.00	.08	.40	235	5.0	7.4	141	6.5	63	1.7	.17	.15
5	.00	.18	.35	24	4.0	5.1	163	6.5	9.9	.82	.17	.13
6	.02	.13	.32	9.6	3.5	9.3	178	14	4.7	.63	.20	.12
7	.03	.12	.30	4.6	50	10	89	120	2.2	.55	.18	.09
8	.02	.12	.26	.99	2000	11	788	20	1.2	41	.17	.10
9	.01	.14	.22	.87	600	12	389	10	1.1	93	.13	.10
10	.01	.15	.18	.71	70	8.9	40	7.0	9.0	4.7	.11	.10
11	.01	.15	.17	.51	25	8.2	13	5.5	2.9	5.1	.35	.10
12	.01	.15	.17	.45	20	7.8	8.5	4.5	4.0	1.5	.14	.34
13	.02	.15	.25	.47	15	10	7.6	4.5	2.3	.77	5.5	.41
14	.06	.15	.63	.52	10	2100	7.4	4.5	1.4	.67	26	.19
15	.09	.15	.44	.83	9.0	932	7.4	150	.92	.62	.71	.77
16	.11	.18	.40	6.1	8.5	120	3330	45	156	.75	5.1	.57
17	66	.18	.34	2.0	8.5	182	1570	15	13	1.3	4.4	.23
18	102	.18	.30	1.3	8.5	58	222	10	5.0	7.6	.21	.64
19	.82	.17	.27	39	6.5	34	387	60	2.1	2.3	.42	.15
20	.30	.43	.27	57	5.5	38	160	115	1.4	11	.13	.14
21	.17	.28	30	705	5.0	466	60	25	1.4	.61	.10	.09
22	1.8	.26	20	242	4.5	78	38	400	.88	3.8	.10	.08
23	1.7	1.6	22	1040	4.0	28	24	90	1.3	.89	.08	.06
24	.34	1.1	12	96	4.0	17	20	25	1.2	.38	.06	.05
25	.18	.55	4.0	34	15	15	19	20	1.3	.42	.03	.10
26	19	2.5	.61	24	100	15	746	20	1.8	.45	.12	.12
27	2.9	14	.66	19	250	14	207	30	1.2	.31	.11	.17
28	.44	1.0	.68	16	30	11	40	37	11	.36	.09	.14
29	.22	.43	.46	15	---	8.2	23	10	5.6	.74	.07	.09
30	.14	161	.37	15	---	6.1	23	5.2	73	.58	.09	.06
31	.13	---	.37	900	---	39	---	2.4	---	.40	.16	---
TOTAL	196.54	185.91	150.62	3898.33	3312.5	4284.2	10146.9	1293.1	413.30	423.75	45.97	5.74
MEAN	6.34	6.20	4.86	126	118	138	338	41.7	13.8	13.7	1.48	.19
MAX	102	161	49	1040	2000	2100	3330	400	156	180	26	.77
MIN	.00	.08	.17	.38	3.5	5.1	7.4	2.4	.88	.31	.03	.05
CFSM	.09	.09	.07	1.85	1.73	2.02	4.96	.61	.20	.20	.02	.003
IN.	.11	.10	.08	2.13	1.81	2.34	5.53	.71	.23	.23	.03	.00

CAL YR 1981 TOTAL 12658.76 MEAN 34.7 MAX 2040 MIN .00 CFSM .51 IN 6.90
WTR YR 1982 TOTAL 24356.86 MEAN 66.7 MAX 3330 MIN .00 CFSM .98 IN 13.29

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1979 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV							
03...	1440	.12	150	21.0	20	.01	--
DEC							
10...	1215	.18	140	7.5	44	.02	--
JAN							
21...	1430	364	50	5.0	1100	1080	97
MAR							
03...	1050	7.6	--	--	37	.76	--
APR							
13...	1045	7.5	85	15.5	32	.65	--
MAY							
27...	1445	9.2	--	--	70	1.7	--
JUL							
14...	0945	.59	95	26.0	60	.10	--
AUG							
19...	1455	.02	92	32.0	27	.00	--
SEP							
30...	1235	.06	180	26.0	12	.00	--

DATE	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN TOTAL (UG/L)
NOV											
03...	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--	<.01
JUL											
14...	--	<.1	--	<1.0	--	<.1	--	<.1	--	<.1	--

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV										
03...	<.01	--	<.01	--	<.01	<0	.11	.01	<.01	<.01
JUL										
14...	--	<.1	--	<.1	--	--	--	--	--	--

DATE	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV											
03...	--	<.01	--	<.01	--	<.01	--	<.01	--	<.01	--
JUL											
14...	<.1	--	<.1	--	<.1	--	<.1	--	<.1	--	<.1

07032222 JOHNS CREEK TRIBUTARY AT HOLMES ROAD NEAR MEMPHIS, TN

LOCATION.--Lat 35°00'20", long 89°52'16", Shelby County, Hydrologic Unit 08010211, on left bank at upstream side of bridge at Holmes Road, 1,200 ft (366 m) east of St. Louis-San Francisco Railroad, 2.0 mi (3.2 km) east of U.S. Highway 78, and 2.2 mi (3.5 km) southeast of Memphis city limits.

DRAINAGE AREA.--5.83 mi^2 (15.10 km^2).

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 304 ft (93 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years, 7.76 ft^3/s (0.220 m^3/s), 18.08 in/yr (459 mm/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,970 ft^3/s (55.8 m^3/s) May 22, 1979, gage height, 12.99 ft (3.959 m); no flow, Jan. 12-14 (result of freeze-up), Sept. 17, 19-22, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft^3/s (24.1 m^3/s) and maximum(*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 16	1120	*1040	29.45	7.54	2.298	June 30	1900	1020	28.89	7.42	2.262

No flow, Jan. 12-14 (result of freeze-up), Sept. 17, 19-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.07	.85	.05	1.4	1.4	12	1.0	.37	12	.08	.07
2	.04	.07	.12	22	.50	.80	124	.67	.30	.73	.08	.06
3	.03	.08	.12	46	1.6	.98	19	.60	8.8	.25	.08	.06
4	.03	.07	.10	5.7	.70	.98	3.4	.55	1.2	.28	.07	.05
5	.01	.08	.07	.24	.42	.98	7.2	.55	.37	.15	.07	.05
6	.02	.09	.07	.14	.41	.77	4.2	.55	.27	.09	.07	.09
7	.03	.10	.07	.09	.25	.74	1.8	10	.25	.05	.12	.14
8	.03	.10	.07	.07	151	.74	51	1.5	.25	.05	.14	.14
9	.03	.08	.07	.07	65	.74	7.7	1.0	.23	.05	.12	.08
10	.03	.10	.07	.05	4.4	.74	2.9	.65	3.5	.04	.07	.05
11	.03	.10	.07	.01	2.4	.74	1.8	.50	.25	.10	.08	.06
12	.03	.10	.07	.00	1.9	.74	1.3	.40	.29	.04	.07	.10
13	.03	.10	.07	.00	1.2	.74	.95	.40	.24	.03	.57	.18
14	.03	.08	.10	.00	.89	187	.80	.40	.20	.03	.46	.10
15	.03	.08	.10	.02	.85	58	.66	13	.20	.03	.05	.60
16	.04	.08	.08	.08	.79	6.9	303	3.0	46	.03	3.0	.13
17	23	.08	.08	.03	.74	12	87	1.5	1.0	.03	.09	.00
18	9.9	.08	.07	.02	.74	4.0	6.8	1.0	.36	.03	.05	.04
19	.05	.09	.04	2.0	.73	2.3	44	12	.24	.03	.05	.00
20	.03	.10	.03	3.4	.55	1.7	10	18	.25	.04	.05	.00
21	.06	.10	3.8	49	.48	37	3.2	2.0	.27	.05	.05	.00
22	.19	.10	1.2	35	.43	4.1	1.6	35	.30	.05	.06	.00
23	.14	.14	.86	59	.36	2.1	.95	8.0	.26	.05	.06	.02
24	.06	.10	.11	.93	.36	1.2	.66	2.0	.27	.06	.04	.03
25	.05	.07	.07	.35	.36	.87	.63	1.5	.27	.07	.04	.03
26	9.3	.14	.07	.18	7.8	.64	101	1.5	.33	.10	.05	.03
27	.35	.24	.07	.11	16	.55	9.5	25	.36	.08	.04	.04
28	.07	.08	.07	.10	3.1	.48	2.7	13	.78	.05	.04	.07
29	.08	.07	.05	.10	---	.48	2.0	1.4	.26	.06	.04	.07
30	.07	22	.05	.10	---	.48	2.0	.58	143	.08	.05	.06
31	.07	---	.05	61	---	4.0	---	.44	---	.08	.07	---
TOTAL	43.89	24.77	8.72	285.84	265.56	334.89	813.75	157.69	210.67	14.81	5.91	2.35
MEAN	1.42	.83	.28	9.22	9.48	10.8	27.1	5.09	7.02	.48	.19	.078
MAX	23	22	3.8	61	151	187	303	35	143	12	3.0	.60
MIN	.01	.07	.03	.00	.25	.48	.63	.40	.20	.03	.04	.00
CFSM	.24	.14	.05	1.58	1.63	1.85	4.65	.87	1.20	.08	.03	.01
IN.	.28	.16	.06	1.82	1.69	2.14	5.19	1.01	1.34	.09	.04	.01

CAL YR 1981 TOTAL 1346.86 MEAN 3.69 MAX 187 MIN .01 CFSM .63 IN 8.59
WTR YR 1982 TOTAL 2168.65 MEAN 5.94 MAX 303 MIN .00 CFSM 1.02 IN 13.84

07032224 JOHNS CREEK AT RAINES ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°02'05", long 89°53'10", Shelby County, Hydrologic Unit 08010211, on right bank at upstream side of Raines Road, 500 ft (152 m) west of Mendenhall Road, and 1.0 mi (1.6 km) south of Winchester Road in Memphis.

DRAINAGE AREA.--19.4 mi^2 (50.2 km^2).

PERIOD OF RECORD.--May 1975 to April 1982.

REVISED RECORDS.--WRD TN-80-1: 1975-79 (P).

GAGE.--Water-stage recorder. Altitude of gage is 276 ft (84 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years (water years 1976-1981), 31.3 ft^3/s (0.886 m^3/s), 21.91 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft^3/s (233 m^3/s) Apr. 16, 1982, gage height, 18.26 ft (5.566 m); minimum, 0.04 ft^3/s (0.001 m^3/s) Sept. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges during period October 1981 to April 1982, above base of 2,600 ft^3/s (73.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 8	2210	3660	104	13.45	4.100	Apr. 16	1115	*8220	233	18.26	5.566
Mar. 14	0735	4370	124	14.39	4.386						

Minimum discharge, 0.17 ft^3/s (0.005 m^3/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	1.1	16	.76	12	2.4	24					
2	.26	1.0	5.8	106	5.8	2.0	343					
	.25	.66	5.0	143	22	2.6	50					
4	.23	.70	3.2	41	7.4	2.7	11					
5	.28	.70	1.4	7.3	4.4	1.0	31					
6	.28	.64	.93	4.4	4.9	5.4	15					
7	.26	.71	1.0	2.6	1.5	3.7	6.5					
8	.26	.76	.77	.89	690	1.5	124					
9	.34	.56	.63	.76	299	.80	26					
10	.26	.47	.35	.64	16	.84	9.9					
11	.23	.47	.35	.54	9.0	2.4	6.3					
12	.22	.62	.35	.64	7.7	1.1	4.5					
13	.27	.64	1.6	.54	5.0	.68	3.7					
14	1.3	.64	3.8	.54	3.1	920	3.0					
15	.43	.89	.88	3.4	2.9	219	2.0					
16	.31	1.1	.64	5.0	2.6	25	1780					
17	64	.64	.57	1.2	5.0	84	609					
18	56	.70	.39	2.8	2.6	17	43					
19	1.8	3.2	.32	23	1.0	9.1	123					
20	.60	1.1	.32	23	.60	6.5	36					
21	.54	.48	37	50	.48	89	12					
22	8.6	.43	24	69	.37	12	8.9					
23	4.6	5.0	13	243	.29	6.8	4.7					
24	1.1	1.4	3.2	8.5	.26	5.3	2.8					
25	1.1	.48	1.7	3.8	.35	3.4	2.0					
26	73	7.8	2.0	1.2	9.8	1.7	390					
27	11	18	2.5	.55	81	1.1	39					
28	3.0	1.6	1.0	.43	5.8	.74	11					
29	1.5	1.3	.73	2.7	---	.83	6.8					
30	1.3	136	.57	.98	---	.71	4.4					
31	.98	---	.69	243	---	5.2	---					
TOTAL	234.58	189.79	130.69	991.17	1200.85	1434.50	3732.5					
MEAN	7.57	6.33	4.22	32.0	42.9	46.3	124					
MAX	73	136	37	243	690	920	1780					
MIN	.22	.43	.32	.43	.26	.68	2.0					
CFSM	.39	.33	.22	1.65	2.21	2.39	6.39					
IN.	.45	.36	.25	1.90	2.30	2.75	7.16					

CAL YR 1981 TOTAL 5722.03 MEAN 15.7 MAX 1030 MIN .14 CFSM .81 IN 10.97

07032241 BLACK BAYOU AT SOUTHERN AVENUE AT MEMPHIS, TN

LOCATION.--Lat 35°06'55", long 89°56'00", Shelby County, Hydrologic Unit 08010211, on right bank 130 ft (40 m) downstream from Southern Avenue, and 150 ft (46 m) east of Normal Street in Memphis.

DRAINAGE AREA.--0.59 mi^2 (1.53 km^2).

PERIOD OF RECORD.--December 1974 to current year.

REVISED RECORDS.--WRD TN-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map.

REMARKS.--Records poor. Water used to wash the aeration trays at Sheahan Pumping Station is a major portion of the base flow of this stream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--7 years (water years 1976-82), 1.59 ft^3/s (.045 m^3/s), 36.60 in/yr (930 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 714 ft^3/s (20.2 m^3/s) Sept. 29, 1977, gage height, 9.05 ft (2.758 m); no flow part of each day Jan. 16, 23, 24, 1981, result of freeze up.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 18	1920	263	7.45	6.67	2.033	May 31	1415	255	7.22	6.61	2.015
Mar. 27	0520	459	13.0	7.86	2.396	July 21	1625	452	12.8	7.82	2.384
Mar. 31	0610	483	13.7	7.99	2.435	Aug. 13	1455	356	10.1	7.28	2.219
Apr. 17	0135	*630	17.8	8.71	2.655						

Minimum 0.11 ft^3/s (0.003 m^3/s) Oct. 10.

REVISIONS.--The peak discharges for all peaks exceeding 250 ft^3/s (7.08 m^3/s) and annual maximums (*) for water years 1975-81 are given below. These figures supersede those published in the reports for 1977, 1978, 1979, 1980, 1981.

Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Water year	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1975	Jan. 10,1975	0315	295	8.35	6.90	2.103	1978	May 7,1978	0355	*630	17.8	8.71	2.655
1975	Mar. 12,1975	0920	*661	18.7	8.85	2.697	1978	May 19,1978	1655	522	14.8	8.19	2.496
1975	Mar. 28,1975	0025	318	9.01	7.05	2.149	1978	Aug. 10,1978	1505	412	11.7	7.60	2.316
1975	Apr. 9,1975	0920	274	7.76	6.75	2.057	1978	Aug. 29,1978	2300	285	8.07	6.83	2.082
1976	Feb. 5,1976	1225	291	8.24	6.87	2.094	1979	Dec. 3,1978	1045	497	14.1	8.06	2.457
1976	Mar. 26,1976	2105	298	8.44	6.92	2.109	1979	Dec. 7,1978	1700	414	11.7	7.61	2.319
1976	Mar. 29,1976	1840	432	12.2	7.71	2.350	1979	Apr. 1,1979	2030	569	16.1	8.42	2.566
1976	June 1,1976	2205	404	11.4	7.55	2.301	1979	Apr. 1,1979	2145	530	15.0	8.23	2.508
1976	June 29,1976	1430	365	10.3	7.33	2.234	1979	Apr. 11,1979	0150	411	11.6	7.59	2.313
1976	July 29,1976	1845	328	9.29	7.11	2.167	1979	Apr. 11,1979	1840	500	14.2	8.08	2.463
1976	Sept. 4,1976	1315	*463	13.1	7.88	2.402	1979	May 3,1979	2140	*659	18.7	8.84	2.694
							1979	June 24,1979	0420	334	9.46	7.15	2.179
1977	May 8,1977	1740	652	18.5	8.81	2.685							
1977	May 27,1977	2010	274	7.76	6.75	2.057	1980	Jan. 16,1980	2135	257	7.28	6.63	2.021
1977	Aug. 14,1977	1235	315	8.92	7.03	2.143	1980	June 24,1980	0235	*397	11.2	7.51	2.289
1977	Sept.24,1977	1200	393	11.1	7.49	2.283	1980	July 22,1980	1145	351	9.94	7.25	2.210
1977	Sept.24,1977	0455	*714	20.2	9.05	2.758							
							1981	May 25,1981	2140	382	10.8	7.43	2.265
1978	Nov. 21,1977	0140	341	9.66	7.19	2.192	1981	June 6,1981	0250	297	8.41	6.91	2.106
1978	Dec. 4,1977	2005	569	16.1	8.42	2.566	1981	July 5,1981	0410	356	10.1	7.28	2.219
1978	Mar. 13,1978	1935	472	13.4	7.93	2.417	1981	Aug. 31,1981	1100	*416	11.8	7.62	2.323

07032241 BLACK BAYOU AT SOUTHERN AVENUE AT MEMPHIS, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.91	.62	.72	.86	.32	.47	.92	1.2	.60	.62	.66
2	.46	.74	.79	9.7	1.1	.47	6.2	.97	1.1	.68	.59	.63
3	.58	.80	.69	3.1	2.2	.45	.55	.94	2.6	1.1	.67	.61
4	.48	.94	.65	.74	1.1	.35	.61	1.1	1.5	9.7	.68	.61
5	.42	.82	.88	.58	1.2	.61	2.6	1.0	1.1	.62	1.6	.50
6	.59	.94	1.0	.52	.94	1.7	.56	1.6	.66	1.4	.60	.62
7	.44	.70	.87	.71	.62	.39	.81	2.8	.45	.61	.57	.64
8	.44	.95	.89	.48	17	.59	3.4	.87	.42	.53	.62	.65
9	.55	.78	.72	.45	1.2	.42	.84	.92	.76	1.0	.67	.63
10	.55	.67	.65	.57	.48	.35	.90	1.1	.42	.66	2.6	.54
11	.36	.56	.91	.57	.34	.67	.56	1.5	.43	.57	.62	.67
12	.45	1.0	.69	.45	.57	.42	.59	1.0	.61	1.1	.61	1.0
13	.42	.83	1.2	.60	.44	.33	1.0	.77	.57	.73	16	1.2
14	.93	.63	.95	.45	.29	8.0	.60	1.3	.54	.56	2.1	.69
15	.52	.79	.91	.51	.58	.45	.40	2.0	1.1	1.0	.66	.61
16	.60	.48	.84	.62	.46	.32	7.5	.43	7.9	.63	.65	.66
17	14	.57	.91	.45	.32	.34	24	.65	.59	.53	.49	.60
18	.90	.53	.82	.44	.57	7.5	.82	.57	1.2	.57	.49	1.4
19	.78	.73	.62	.56	.46	.75	6.0	1.1	.61	.49	.49	.64
20	.68	.85	.85	4.3	.33	.37	1.3	1.2	.72	.49	.55	.69
21	.82	.62	4.4	.97	.59	.46	.76	.85	.62	12	.67	.60
22	2.9	.54	.81	19	.46	.51	.83	4.6	.46	1.1	.62	.64
23	.91	2.1	.86	1.2	.31	.61	.78	.81	.53	.56	.56	.63
24	.66	.50	.91	.69	.63	.65	.67	1.6	1.6	.67	.66	.63
25	.62	.50	.70	.82	.45	.62	2.3	1.2	.67	.68	.55	.63
26	4.9	.60	1.2	.42	2.8	.57	5.1	1.1	.72	.70	.60	.60
27	.92	.63	.77	.79	1.3	2.3	1.7	1.6	1.4	.69	.55	.68
28	.64	.55	.50	.75	.47	.79	.67	2.4	.47	.66	.59	.69
29	.84	.66	.75	1.6	---	.61	.92	1.1	.55	.64	1.0	.66
30	.67	6.3	.64	1.6	---	1.1	.61	1.3	1.0	.59	.63	.61
31	.78	---	.51	12	---	7.1	---	6.5	---	1.4	.60	---
TOTAL	39.47	28.22	28.51	66.36	38.07	40.12	74.05	45.80	32.50	43.26	38.91	20.62
MEAN	1.27	.94	.92	2.14	1.36	1.29	2.47	1.48	1.08	1.40	1.26	.69
MAX	14	6.3	4.4	19	17	8.0	24	6.5	7.9	12	16	1.4
MIN	.36	.48	.50	.42	.29	.32	.40	.43	.42	.49	.49	.50
CFSM	2.15	1.59	1.56	3.63	2.31	2.19	4.19	2.51	1.83	2.37	2.14	1.17
IN.	2.48	1.78	1.79	4.18	2.40	2.53	4.66	2.88	2.05	2.72	2.45	1.30

CAL YR 1981 TOTAL 421.62 MEAN 1.16 MAX 20 MIN .13 CFSM 1.97 IN 26.54
WTR YR 1982 TOTAL 495.89 MEAN 1.36 MAX 24 MIN .29 CFSM 2.31 IN 31.21

07032248 CANE CREEK AT EAST PERSON AVENUE AT MEMPHIS, TN

LOCATION.--Lat 35°06'02", long 90°00'43", Shelby County, Hydrologic Unit 08010211, on left bank 40 ft (12.2 km) upstream from bridge on East Person Avenue, 0.4 mi (0.6 km) east of Elvis Presley Boulevard, 0.6 mi (1.0 km) south of South Parkway East in Memphis, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--4.98 mi^2 (12.90 km^2).

PERIOD OF RECORD.--December 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 243 ft (74 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years (water years 1976-82), 10.6 ft^3/s (0.300 m^3/s), 28.91 in/yr (734 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,380 ft^3/s (124 m^3/s) June 30, 1982, gage height, 15.26 ft (4.651 m); minimum, 0.70 ft^3/s (0.020 m^3/s) Aug. 5, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above a base of 1,400 ft^3/s (39.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 17	2015	2490	70.5	11.96	3.645	Apr. 17	0130	3830	108	14.39	4.386
Jan. 22	2210	1850	52.4	10.60	3.231	June 30	Unknown	*4380	124	15.26	4.651
Jan. 31	0155	1600	45.3	9.99	3.045	Aug. 13	1510	1470	41.6	9.69	2.954

Minimum discharge, 1.9 ft^3/s (0.054 m^3/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.3	3.1	2.6	4.4	4.0	3.6	4.2	8.0	30	5.4	3.7
2	3.2	2.8	3.0	73	4.4	3.5	52	3.9	7.0	15	5.6	3.7
3	2.6	3.0	3.4	38	18	3.3	5.0	4.4	105	9.0	4.8	3.7
4	2.7	3.2	3.3	3.6	5.0	3.5	3.5	5.1	11	180	4.8	3.6
5	3.1	3.4	3.1	3.0	5.8	3.3	7.0	5.4	9.0	45	49	4.1
6	3.3	3.5	2.8	3.0	7.5	18	4.0	7.7	7.0	13	6.4	3.6
7	3.6	3.7	2.9	3.0	4.5	3.5	3.5	19	7.0	9.0	4.4	3.7
8	3.7	3.7	3.6	3.1	130	3.2	9.5	4.4	6.0	7.0	4.6	3.9
9	3.5	3.7	3.5	3.1	12	3.4	4.5	4.6	6.0	6.5	4.6	4.4
10	2.9	3.4	3.9	3.1	5.0	3.6	3.7	4.9	90	6.0	5.9	4.4
11	2.6	3.1	3.7	3.1	4.0	4.9	4.0	4.9	7.0	11	6.2	4.1
12	3.0	3.1	2.6	3.1	4.5	3.3	3.3	4.9	11	6.5	6.7	17
13	3.2	2.8	6.0	3.0	4.0	3.5	3.0	5.1	7.0	6.0	89	4.2
14	9.1	2.8	3.3	3.0	4.0	52	3.0	5.1	7.0	6.3	21	3.9
15	2.9	5.9	2.6	6.4	4.0	5.2	3.0	19	6.0	6.3	10	40
16	3.0	2.6	2.9	3.6	9.0	3.2	52	3.3	150	5.9	8.4	3.8
17	147	3.1	2.6	3.0	5.5	11	222	3.7	10	5.5	6.0	3.6
18	9.4	3.2	2.6	4.8	4.5	3.7	3.9	4.4	7.0	6.0	6.2	18
19	3.9	5.1	2.6	6.7	4.0	3.6	42	70	6.5	6.2	4.1	3.4
20	3.6	2.5	2.6	51	4.0	5.8	5.8	90	6.5	6.5	4.7	3.8
21	3.8	2.5	30	24	4.0	10	3.4	12	9.0	6.9	4.4	3.7
22	28	2.7	7.8	127	4.0	5.5	3.3	120	6.5	15	5.1	4.0
23	3.9	22	2.8	14	3.8	4.5	3.3	11	25	5.7	4.6	4.2
24	3.7	2.9	2.5	4.7	3.6	4.0	3.3	9.0	8.0	5.9	4.2	4.2
25	3.4	2.9	2.7	4.9	6.0	3.7	3.3	35	90	5.9	4.4	4.1
26	51	2.6	4.3	4.5	16	3.8	8.3	9.0	9.0	5.2	4.0	3.1
27	3.8	2.8	3.2	4.7	7.0	3.7	3.2	8.0	60	5.9	3.3	3.5
28	3.1	2.5	2.8	5.0	5.0	3.6	3.7	7.0	170	5.7	3.6	4.3
29	3.0	2.5	2.5	13	---	3.6	5.0	6.5	15	5.5	4.0	3.9
30	3.1	79	2.7	6.2	---	4.5	4.4	85	200	5.8	3.7	3.7
31	3.0	---	2.6	87	---	6.7	---	11	---	6.2	3.7	---
TOTAL	330.1	191.3	128.0	518.2	293.5	199.1	479.5	587.5	1066.5	460.4	302.8	179.3
MEAN	10.6	6.38	4.13	16.7	10.5	6.42	16.0	19.0	35.6	14.9	9.77	5.98
MAX	147	79	30	127	130	52	222	120	200	180	89	40
MIN	2.6	2.5	2.5	2.6	3.6	3.2	3.0	3.3	6.0	5.2	3.3	3.1
CFSM	2.13	1.28	.83	3.35	2.11	1.29	3.21	3.82	7.15	2.99	1.96	1.20
IN.	2.47	1.43	.96	3.87	2.19	1.49	3.58	4.39	7.97	3.44	2.26	1.34

CAL YR 1981 TOTAL 2734.7 MEAN 7.49 MAX 147 MIN 1.8 CFSM 1.50 IN 20.42
WTR YR 1982 TOTAL 4736.2 MEAN 13.0 MAX 222 MIN 2.5 CFSM 2.61 IN 35.37

07032260 CYPRESS CREEK AT NEELY ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°01'36", long 90°03'23", Shelby County, Hydrologic Unit 08010211, on right bank at downstream end of bridge on Neely Road, 1.8 mi (2.9 km) west of U.S. Highway 51 and 1.1 mi (1.8 km) southeast of U.S. Highway 61 in Memphis.

DRAINAGE AREA.--3.18 mi^2 (8.24 km^2).

PERIOD OF RECORD.--February 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 244 ft (74.4 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years, 4.16 ft^3/s (0.118 m^3/s), 17.76 in/yr (451 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,830 ft^3/s (51.8 m^3/s) Apr. 11, 1979, gage height, 12.72 ft (3.877 m); no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 17	2030	417	11.8	5.59	1.704	Apr. 16	0835	504	14.3	6.15	1.875
Jan. 22	2205	667	18.9	7.24	2.207	June 16	0315	518	14.7	6.25	1.905
Jan. 31	0140	460	13.0	5.86	1.786	June 30	2030	*1020	28.9	9.38	2.859
Feb. 8	1930	491	13.9	6.06	1.847	July 4	0515	683	19.3	7.34	2.237
Mar. 14	0530	774	21.9	7.92	2.414						

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.44	.24	.23	.31	.17	.24	.06	1.8	.39	.00
2	.00	.03	.17	46	.24	.22	42	.12	.05	.18	.04	.00
3	.00	.02	.13	12	6.2	.13	.84	.10	15	.08	.15	.01
4	.00	.01	.13	.22	.22	.49	.24	.09	3.3	59	.00	.01
5	.00	.01	.12	.07	1.0	.14	2.8	.08	.06	.18	.00	.00
6	.00	.00	.12	.06	.34	7.7	.24	.25	.05	.12	.00	.00
7	.00	.00	.10	.06	.12	.25	.22	7.2	.05	.05	.00	.00
8	.00	.00	.09	.06	103	.19	10	.12	.03	.08	.00	.00
9	.00	.00	.06	.03	8.0	.18	.22	.12	.02	.06	.00	.00
10	.01	.00	.07	.00	.39	.22	.18	.05	12	.04	.02	.00
11	.00	.00	.24	9.1	.24	1.4	.24	.04	.05	.44	.01	.17
12	.00	.00	.12	.01	.28	.20	.15	.04	.15	.04	.00	5.8
13	.00	.01	1.6	.00	.18	.18	.11	.03	.08	.03	12	.07
14	1.1	.01	.49	.00	.17	83	.10	.02	.04	.04	2.3	.00
15	.09	.01	.07	1.0	.17	6.0	.10	8.5	.03	.02	1.1	.00
16	.02	.02	.07	.15	3.5	.40	71	.20	53	.02	.07	.00
17	42	.02	.11	.02	2.0	13	44	.10	.08	.01	.01	.00
18	3.8	.02	.06	.00	.22	.39	.30	.08	.04	.00	.02	2.8
19	.07	.66	.01	.06	.18	.32	45	8.5	.03	.04	.02	.00
20	.02	.12	.03	30	.17	4.0	4.2	9.5	.01	.02	.02	.00
21	.01	.08	20	17	.17	13	.49	.30	.03	.00	.02	.00
22	8.6	.06	9.3	44	.17	.33	.21	25	.02	4.2	.02	.00
23	.20	2.3	.80	9.4	.15	.24	.18	.25	.42	.04	.03	.00
24	.14	.10	.23	.28	.12	.20	.16	.20	.02	.00	.03	.00
25	.24	.03	.20	.18	.35	.17	.13	1.0	11	.20	.09	.00
26	22	.03	1.3	.14	11	.18	12	.20	.08	.02	.02	.00
27	.39	.03	.55	.13	.59	.17	.38	.17	2.4	.00	.01	.00
28	.03	.03	.24	.15	.45	.17	.21	.12	34	.00	.01	.00
29	.02	.16	.26	2.8	---	.17	.78	.07	.05	.00	.02	.00
30	.00	22	.24	1.5	---	.43	.20	2.3	62	.02	.01	.00
31	.00	---	.26	42	---	2.4	---	.13	---	.37	.01	---
TOTAL	78.74	25.78	37.61	216.66	139.85	136.18	236.85	65.12	194.15	67.10	16.42	8.86
MEAN	2.54	.86	1.21	6.99	4.99	4.39	7.90	2.10	6.47	2.16	.53	.30
MAX	42	22	20	46	103	83	71	25	62	59	12	5.8
MIN	.00	.00	.01	.00	.12	.13	.10	.02	.01	.00	.00	.00
CFSM	.80	.27	.38	2.20	1.57	1.38	2.48	.66	2.04	.68	.17	.09
IN.	.92	.30	.44	2.53	1.64	1.59	2.77	.76	2.27	.78	.19	.10

CAL YR 1981 TOTAL 789.65 MEAN 2.16 MAX 80 MIN .00 CFSM .68 IN 9.23
WTR YR 1982 TOTAL 1223.32 MEAN 3.35 MAX 103 MIN .00 CFSM 1.05 IN 14.31

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first table is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. Other measurements made for seepage investigations are listed in subsequent tables.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements: Date	Measurements: Discharge (ft^3/s)
		Cumberland River basin				
*03432925	Little Harpeth River at Granny White Pike at Brentwood, TN	Lat 36°01'30", long 86°49'09", Williamson County, at bridge on Granny White Pike, 2.0 miles southwest of Brentwood, and at mile 1.1.	22.0	1978-82	8-13-82	3.2
03433660	South Harpeth River at Fernvale, TN	Lat 35°57'15", long 87°04'43", Williamson County, at new county road bridge, at Fernvale, 3.1 miles southeast of Fairview, and at mile 14.0.	27.6	1974-75, 1978-82	10- 1-81	11
03433700	South Harpeth River at Linton, TN	Lat 36°00'32", long 87°01'43", Davidson County, at new bridge on Old Harding Pike, 0.2 mile downstream from East Fork Creek, and 0.9 mile south of Linton.	59.7	1967-68, 1970-73, 1975, 1978-82	10- 1-81	16
03434560	Trace Creek near White Bluff, TN	Lat 36°07'06", long 87°11'49", Dickson County, at county road bridge, 1.5 miles northeast of White Bluff, and at mile 3.5.	1.99	1974-75, 1978-82	7-16-82	1.6
03434590	Jones Creek near Burns, TN	Lat 36°06'15", long 87°19'05", Dickson County, at bridge on Rock Church Road, 3.5 miles north of Burns, and at mile 21.9.	13.3	1974-76, 1978-82	7-16-82	3.2
03434620	Town Branch near Charlotte, TN	Lat 36°10'44", long 87°18'15", Dickson County, at bridge on Old Ashland City road, 2.0 miles east of Charlotte, and at mile 1.5.	8.33	1974-76, 1978-82	7-16-82	.94
03435007	Hurricane Creek near Salem, TN	Lat 36°25'34", long 87°19'02", Montgomery County, at Chapel Hill Road bridge, 2.4 miles south of Salem, 3.0 miles east of Orgains Crossroads, and 3.6 miles north of Southside.	11.2	1964, 1974-75, 1978-82	7-16-82	.99
03435110	South Fork Red River at Cross Plains, TN	Lat 36°33'30", long 86°41'32", Robertson County, at county road bridge, 0.7 mile north of Cross Plains, and at mile 24.4.	19.7	1974-76 1978-82	7-15-82	2.2
03435120	South Fork Red River near Orlinda, TN	Lat 36°35'34", long 86°45'53", Robertson County, at bridge on State Highway 49, 2.75 miles west of Orlinda, and at mile 17.9.	69.2	1969, 1974-76, 1978-82	7-15-82	12

* Also crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin--Continued				
03436130	Passenger Creek near Sango, TN	Lat 36°32'07", long 87°11'50", Montgomery County, at county road bridge, 2.4 miles northeast of Sango.	20.5	1964 1974-76, 1978, 1980-82	7-15-82	3.9
03436460	Little West Fork Red River near New Providence, TN	Lat 36°35'31", long 87°23'23", Montgomery County, at bridge on Peachers Mill Road, 3.0 miles north of New Providence.	179.0	1964, 1974, 1978-82	7-16-82	38
		Tennessee River basin				
03593115	Lick Creek near Michie, TN	Lat 35°04'30", long 88°25'47", McNairy County, at county road bridge, 1.7 miles north of Michie and at mile 11.2.	9.93	1982	9-27-82	.19
03604750	Birdsong Creek at Holladay, TN	Lat 35°52'53", long 88°08'39", Benton County, at bridge on State Highway 69, 0.7 mile north of Holladay.	15.7	1975-78, 1980-82	9-29-82	2.2
03606350	Big Sandy River at Westport, TN	Lat 35°53'34", long 88°18'32", Carroll County, at county road bridge, 0.3 mile southeast of Westport, and at mile 43.4.	110	1975-78, 1980-82	9-27-82	48
03607225	Holly Fork Creek at Nobles, TN	Lat 36°21'01", long 88°13'46", Henry County, at bridge on State Highway 79, 0.6 mile southwest of Nobles.	26.8	1982	9-30-82	9.0
		Obion River basin				
07024760	Spring Creek near Greenfield, TN	Lat 36°11'24", long 88°45'53", Weakley County, at bridge on State Highway 54, 3.2 miles northeast of Greenfield, and at mile 2.3.	93.4	1955 1975-78, 1980-82	9-30-82	24
07025190	Mud Creek near Sharon, TN	Lat 36°15'59", long 88°50'05", Weakley County, at bridge on U.S. Highway 45-E, 2.2 miles north of Sharon, and at mile 11.0.	45.6	1958, 1975-78, 1980-82	9-30-82	.24
07025300	North Fork Obion River at Jones Mill, TN	Lat 36°26'46", long 88°27'57", Henry County, at county road bridge at Jones Mill, and at mile 42.8.	83.7	1958-61, 1964, 1975-78, 1980-82	9-30-82	43
07026100	Reeds Creek near Trimble, TN	Lat 36°10'48", long 89°15'15", Dyer County, at county road bridge, 0.4 mile north of Locust Grove, 4.0 miles southwest of Trimble, and at mile 1.6.	51.8	1975-78, 1980-82	9-30-82	1.3
07027270	Tar Creek at Oak Grove, TN	Lat 35°24'02", long 88°34'54", Chester County, at bridge on Finger Road, 0.3 mile south of Oak Grove.	16.4	1982	9-29-82	5.1
07027280	Jacks Creek at Jacks Creek, TN	Lat 35°28'16", long 88°31'21", Chester County, at bridge on State Highway 100, at town of Jacks Creek, and at mile 8.5.	17.9	1975-78, 1980-82	9-29-82	3.0
		Hatchie River basin				
07029450	Cub Creek near Hebron, TN	Lat 35°10'28", long 88°54'50", Hardeman County, at county road bridge, 0.3 mile southeast of State Highway 125, 1.4 miles northwest of Hebron, and 7.8 miles northwest of Middelton.	15.0	1980-82	9-28-82	1.7

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Wolf River basin				
07030940	Grays Creek near Cordova, TN	Lat 35°09'47", long 89°44'25", Shelby County, at bridge on Macon Road, 2.2 miles northeast of Cordova.	31.2	1982	9-28-82	.02

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which 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.

Annual maximum discharge at crest-stage partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Mobile River basin					
*02384900	Coahulla Creek near Cleveland, TN	Lat 35°07'00", long 84°50'18", Bradley County, at bridge on State Highway 74, 2.5 miles southeast of intersection of State Highways 74 and 60 at Cleveland. Datum of gage is 828.3 ft National Geodetic Vertical Datum of 1929.	4.35	1955-82	3-15-82	6.04	335
		Green River basin					
03313600	West Fork Drakes Creek tributary near Fountain Head, TN	Lat 36°33'34", long 86°27'26", Sumner County, at culvert under county road, 2.3 miles northeast of Fountain Head, and 0.4 mile upstream from mouth.	0.95	1967-82	9- 4-82	5.27	169
		Cumberland River basin					
03409000	White Oak Creek at Sunbright, TN	Lat 36°14'38", long 84°40'14", Morgan County, at bridge on U.S. Highway 27 in Sunbright. Datum of gage is 1,294.05 ft National Geodetic Vertical Datum of 1929.	13.5	1933‡, 1955-82	5-28-82	10.48	-
03417700	Mathews Branch tributary near Livingston, TN	Lat 36°20'04", long 85°20'23", Overton County, at culvert under State Highway 42, 3.0 miles south of intersection of State Highways 85 and 42, 2.9 miles southwest of Livingston.	0.49	1955-82	1- 3-82	3.58	132
03418201	Doe Creek at Gainesboro, TN	Lat 36°21'23", long 85°39'20", Jackson County, at bridge on Highway 56, at Gainesboro. Datum of gage is 519.37 ft National Geodetic Vertical Datum of 1929.	5.72	1978-82	8-31-82	7.28	-
03420360	Mud Creek tributary No. 2 near Summitville, TN	Lat 35°36'10", long 86°01'33", Coffee County, at culvert under county road, 3.5 miles northwest of Summitville, and 0.7 mile upstream from mouth.	2.28	1967-82	1- 3-82	5.09	652
03420500	Barren Fork near Trousdale, TN	Lat 35°39'55", long 85°53'00", Warren County, at county highway bridge on Trousdale-McMinnville pike, 3.2 miles east of Trousdale. Datum of gage is 925.61 ft National Geodetic Vertical Datum of 1929.	126	1933-57‡, 1958-82	1- 4-82	13.08	15,000
03420600	Owen Branch near Centertown, TN	Lat 35°42'30", long 85°53'05", Warren County, at bridge on U.S. Highway 70-S, 2.4 miles southeast of Centertown.	4.60	1955-82	1- 3-82	3.05	100
03421200	Charles Creek near McMinnville, TN	Lat 35°43'00", long 85°46'05", Warren County, at bridge on county road at Faulkner Springs, 2.7 miles north of McMinnville.	31.1	1955-82	1- 3-82	10.97	5,000

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Cumberland River basin--Continued					
03425500	Spring Creek near Lebanon, TN	Lat 36°10'49", long 86°14'29", Wilson County, at bridge on Eastover Road, 3.4 miles southeast of Lebanon. Datum of gage is 556.08 ft National Geodetic Vertical Datum of 1929.	35.3	1955-61‡, 1962-82	8-16-82	10.88	9,700
03425644	Town Creek above Gallatin, TN	Lat 36°24'17", long 86°25'36", Sumner County, 200 ft above culvert on U.S. Highway 31E, 1.3 miles northeast of intersection of Highway 109 and 31E in Gallatin.	2.25	1982a	5-28-82	4.69	-
03425646	Town Creek at Gallatin, TN	Lat 36°22'50", long 86°27'15", Sumner County, at bridge on Maple Street, 0.5 mile downstream from U.S. Highway 31E and Main Street junction at Gallatin.	4.90	1978-82a	4-17-82	7.65	1,160
03425700	Spencer Creek near Lebanon, TN	Lat 36°14'20", long 86°24'03", Wilson County, at bridge on county road, 100 ft north of junction of county road and and U.S. Highway 70, 6.5 miles west of square in Lebanon.	3.32	1955-82	1- 3-82	4.35	285
03425800	Cedar Creek tributary at Green Hill, TN	Lat 36°13'52", long 86°31'40", Wilson County, at culvert under U.S. Highway 70, 0.2 mile east of Green Hill.	0.86	1955-57, 1959-82	9- 4-82	3.75	182
03426000	Drakes Creek above Hendersonville, TN	Lat 36°22'14", long 86°37'00", Sumner County, at bridge on Long Hollow Pike, 4.5 miles north of Hendersonville. Datum of gage is 503.06 ft National Geodetic Vertical Datum of 1929.	19.2	1955-61‡, 1962-82	2- 9-82	5.08	1,300
03428043	Lytle Creek at Sanbyrne Drive at Murfreesboro, TN	Lat 35°49'38", long 86°23'28", Rutherford County, at bridge on Sanbyrne Drive, 1 mile south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft National Geodetic Vertical Datum of 1929.	17.6	1978-82	1982	<0.00	-
*03430118	McCrory Creek at Ironwood Drive at Donelson, TN	Lat 36°09'07", long 86°39'02", Davidson County, at bridge under Ironwood Drive, 1.3 miles southeast of intersection of U.S. Highway 70 (Lebanon Road) and Donelson Pike in Donelson.	7.31	1977-82a	2- 8-82	6.30	1,030
03430400	Mill Creek at Nolensville, TN	Lat 35°57'32", long 86°40'31", Williamson County, at bridge on Sunset Road, 0.6 mile northwest of Nolensville. Datum of gage is 586.18 ft National Geodetic Vertical Datum of 1929.	12.0	1965-82	8-17-82	8.00	6,100
03431000	Mill Creek near Antioch, TN	Lat 36°04'54", long 86°40'50", Davidson County, at bridge on Franklin-Limestone Road, 1.6 miles north of Antioch. Datum of gage is 472.57 ft National Geodetic Vertical Datum of 1929.	64.0	1954-61‡, 1962-63, 1964-75‡, 1976-82	2- 9-82	12.15	4,340

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Cumberland River basin--Continued					
03431040	Sevenmile Creek at Blackman Road, at Nashville, TN	Lat 36°04'21", long 86°44'00", Davidson County, at bridge on Blackman Road, 7.0 miles southeast of State capitol in Nashville. Datum on gage is 499.08 ft National Geodetic Vertical Datum of 1929.	12.2	1965-82	2- 9-82	4.80	-
03431060	Mill Creek at Thompson Lane, near Woodbine, TN	Lat 36°07'04", long 86°43'08", Davidson County, at bridge on Thompson Lane, 1.5 miles northeast of intersection of Thompson Lane and Nolensville Road (U.S. Highway 31-A, 41-A) in Woodbine. Datum of gage is 432.55 ft National Geodetic Vertical Datum of 1929.	93.4	1965-82	2- 9-82	11.58	6,360
03431062	Mill Creek tributary at Glenrose Avenue, at Woodbine, TN	Lat 36°07'02", long 86°43'37", Davidson County, at culvert under Glenrose Avenue, 1.1 miles northeast of intersection of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth.	1.17	1977-82a	10-17-81	3.35	128
03431120	West Fork Browns Creek at General Bates Drive, at Nashville, TN	Lat 36°06'29", long 86°47'07", Davidson County, at bridge on General Bates Drive, 4.0 miles south of State capitol in Nashville. Datum of gage is 499.94 ft National Geodetic Vertical Datum of 1929.	3.30	1965-82	2- 9-82	4.01	393
03431240	East Fork Browns Creek at Baird-Ward Printing Company, at Nashville, TN	Lat 36°06'33", long 86°46'00", Davidson County, at bridge on access road to Baird-Ward Printing Co., Plant No. 1, 500 ft west of 100-Oaks Shopping Center, and 4.0 miles southeast of State capitol in Nashville. Datum of gage is 497.91 ft National Geodetic Vertical Datum of 1929.	1.58	1965-82	7-19-82	4.54	470
03431340	Browns Creek at Factory Street, at Nashville, TN	Lat 36°08'26", long 46°45'31", Davidson County, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 miles southeast of State capitol in Nashville. Datum of gage is 418.92 ft National Geodetic Vertical Datum of 1929.	13.2	1965-82	7-19-82	5.44	726
03431490	Pages Branch at Avondale, TN	Lat 36°12'22", long 86°46'24", Davidson County, at culvert under Trinity Lane, 900 ft east of intersection of Interstate 65 and Trinity Lane at Avondale, 0.9 mile upstream from mouth.	2.01	1977-82a	9-13-82	5.06	676
03431520	Claylick Creek at Lickton, TN	Lat 36°18'02", long 86°48'37", Davidson County, at bridge on Lickton Road in Lickton, 1,200 ft upstream from mouth.	4.13	1965-82	2- 9-82	4.57	568
03431550	Earthman Fork at Whites Creek, TN	Lat 36°15'55", long 86°49'51", Davidson County, at bridge on Whites Creek Pike in town of Whites Creek, 1,800 ft upstream from mouth.	6.29	1965-82	5-28-82	5.79	806

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Dis-charge (ft^3/s)
		Cumberland River basin--Continued					
03431580	Ewing Creek at Knight Road, near Bordeaux, TN	Lat 36°13'55", long 86°48'14", Davidson County, at bridge on Knight Road, 3.0 miles northeast of Bordeaux. Datum of gage is 438.27 ft National Geodetic Vertical Datum of 1929.	13.3	1965-82	9-13-82	10.31	5,010
03432371	Harpeth River tributary at Franklin, TN	Lat 35°55'24", long 86°52'46", Williamson County, on right bank 10 ft above culvert on 11th Avenue, 0.4 mile southwest of junction of U.S. Highway 431 and State Highway 96, 0.6 mile west of Courthouse, at Franklin.	1.81	1978-82a	7-22-82	5.37	188
*03432925	Little Harpeth River at Granny White Pike, at Brentwood, TN	Lat 36°01'30", long 86°49'09", Williamson County, at bridge on Granny White Pike, 2.0 miles southwest of Brentwood. Datum of gage is 618.29 ft National Geodetic Vertical Datum of 1929.	22.0	1978-82	2- 9-82	9.38	1,570
03434583	Jones Creek tributary at Dickson, TN	Lat 36°05'08", long 87°22'39", Dickson County, on right bank 50 ft above bridge on a private drive, 1.0 mile northeast of County Courthouse, 0.3 mile northeast of intersection of U.S. Highway 70 bypass and State Highway 48, at Dickson.	2.4	1978-82a	4-17-82	5.59	336
03435030	Red River near Portland, TN	Lat 36°33'24", long 86°34'14", Sumner County, at county road bridge, 1.5 miles upstream from Austin Branch, 3.5 miles southwest of Portland and at mile 93.0.	15.1	1966-75‡, 1976-82	2- 9-82	8.77	1,530
		Tennessee River basin					
03461230	Caney Creek near Cosby, TN	Lat 35°47'03", long 83°12'11", Cocke County, at culvert under State Highway 32, 3.3 miles southeast of Cosby.	1.62	1967-82	2- 3-82	3.55	40
03465000	North Indian Creek near Unicoi, TN	Lat 36°10'35", long 82°17'36", Unicoi County, on right bank 900 ft upstream from Rocky Branch, 3.4 miles southeast of Unicoi. Datum of gage is 2,209.56 ft National Geodetic Vertical Datum of 1929.	15.9	1945-57‡, 1959-82	4-28-82	4.22	645
03466361	Richland Creek at Greeneville, TN	Lat 36°08'33", long 82°49'27", Greene County, at sewage treatment plant, 0.2 mile upstream from bridge on Old Asheville Highway, 1.4 miles south-southeast of Greeneville post office, and at mile 6.3.	3.48	1978-82a	7-31-82	6.65	796
03467500	Nolichucky River near Morristown, TN	Lat 36°10'49", long 83°10'32", Hamblen County, on right bank along Southern Railway, 0.6 mile upstream from Susong Bridge, 7 miles southeast of Morristown. Datum of gage is 1,015.73 ft National Geodetic Vertical Datum of 1929.	1,679	1921-57‡, 1959-82	7-31-82	10.96	15,700
03469110	Ramsey Creek near Pittman Center, TN	Lat 35°45'33", long 83°20'49", Sevier County, at culvert under State Highway 73, 1.5 miles southeast of Pittman Center.	2.18	1967-82	1982	<3.55	<238

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Tennessee River basin--Continued					
03469130	Little Pigeon River near Sevierville, TN	Lat 35°51'38", long 83°30'13", Sevier County, at bridge on U.S. Highway 411, 2.9 miles east of Sevierville. Datum of gage is 928.21 ft National Geodetic Vertical Datum of 1929.	110	1954-82	1982	<11.77	<7,700
03469160	East Fork Little Pigeon River near Sevierville, TN	Lat 35°51'55", long 83°29'17", Sevier County, at bridge on U.S. Highway 411, 5.2 miles east of Sevierville. Datum of gage is 929.20 ft National Geodetic Vertical Datum of 1929.	64.1	1954-82	2- 3-82	9.74	2,080
03469500	West Prong Little Pigeon River near Pigeon Forge, TNb/	Lat 35°48'21", long 83°34'28", Sevier County, at bridge on old State Highway 71, 1.6 miles northwest of Pigeon Forge. Datum of gage is 965.23 ft National Geodetic Vertical Datum of 1929.	76.2	1946-49‡, 1954-82	1- 4-82	10.88	7,170
03481600	Corn Creek at Mountain City, TN	Lat 36°29'23", long 81°48'52", Johnson County, at bridge on county road, 600 ft north of junction of county road and U.S. Highway 421, 1 mile northwest of Mountain City.	5.34	1959-61, 1963-82	1982	<2.08	-
03482000	Roan Creek near Neva, TN	Lat 36°22'37", long 81°53'14", Johnson County, on right bank on Butler-Neva road, 1.7 miles southwest of Neva. Datum of gage is 2,103.11 ft National Geodetic Vertical Datum of 1929.	102	1943-55‡, 1959-82	2- 3-82	6.13	3,060
03486225	Powder Branch near Johnson City, TN	Lat 36°19'03", long 82°16'40", Carter County, at culvert under county road, 4.0 miles east of Johnson City, 4.3 miles southwest of Elizabethton, and at mile 0.2.	4.88	1973-82	7-31-82	9.12	6.4
03491200	Big Creek tributary near Rogersville, TN	Lat 36°25'30", long 82°57'17", Hawkins County, at culvert under county road, 300 ft upstream from mouth, 2.8 miles northeast of Rogersville.	2.00	1955-82	9- 1-82	4.07	95
03492006	Turkey Creek at Morristown, TN	Lat 36°14'09", long 83°17'51", Hamblen County, 300 ft downstream from bridge on South Outer Street at Morristown.	5.09	1978-82a	7-31-82	6.30	c1,860
03498700	Nails Creek near Knoxville, TN	Lat 35°52'49", long 83°46'47", Sevier County, at culvert under State Highway 71, 0.8 mile southeast of Shooks Gap, 10.5 miles southeast of Knoxville.	0.36	1955-82	7-31-82	6.45	77
03499007	Pistol Creek at Calderwood Avenue, at Alcoa, TN	Lat 36°46'08", long 83°58'58", Blount County, 150 ft upstream from bridge on Calderwood Avenue at Alcoa.	15.7	1978-82a	6-15-82	6.50	794
03519610	Baker Creek tributary near Binfield, TN	Lat 35°41'56", long 84°02'46", Blount County, at culvert under county road, 1.5 miles east of Binfield.	2.10	1966-77, 1979-82	1- 4-82, 5-28-82	4.43	179
03519640	Baker Creek near Greenback, TN	Lat 35°40'21", long 86°46'28", Blount County, at county road bridge, 1.0 mile upstream from Little Baker Creek, 3.4 miles east of Greenback, and at mile 15.0.	16.0	1965-75‡, 1976-82	1- 4-82	6.95	570

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Tennessee River basin--Continued					
03520100	Sweetwater Creek near Loudon, TN	Lat 35°44'17", long 84°22'25", Loudon County, at bridge on State Highway 72, 2.0 miles west of Loudon. Datum of gage is 737.03 ft National Geodetic Vertical Datum of 1929.	62.2	1954-82	1982	<5.81	<740
03534000	Coal Creek at Lake City, TNd/	Lat 36°13'14", long 84°09'27", Anderson County, at bridge on U.S. Highway 25-W, at Lake City. Datum of gage is 842.91 ft National Geodetic Vertical Datum of 1929.	24.5	1932-34‡, 1955-82	1- 4-82	6.26	5,590
03534500	Buffalo Creek at Norris, TN	Lat 36°11'05", long 84°03'34", Anderson County, at culvert under Norris Freeway (State Highway 71), 1.0 mile southeast of Norris. Datum of gage is 901.71 ft National Geodetic Vertical Datum of 1929.	e9.92	1948-50‡, 1955-82	1- 4-82	6.95	545
03535180	Willow Fork near Halls Crossroads, TN	Lat 36°05'59", long 83°54'27", Knox County, at culvert under Quarry Road, 1.7 miles northeast of Halls Crossroads. Datum of gage is 1,027.82 ft National Geodetic Vertical Datum of 1929.	3.23	1967-82	7-31-82	6.57	230
03538130	Caney Creek near Kingston, TN	Lat 35°51'53", long 84°23'07", Roane County, 1.5 miles upstream from mouth, 2.4 miles northeast of intersection of U.S. Highway 70 and Buttermilk Road, 7.5 miles east of Kingston.	5.55	1962-82	1- 4-82	6.51	940
03538200	Poplar Creek near Oliver Springs, TN	Lat 36°01'20", long 84°18'37", Anderson County, at bridge on State Highway 61, 0.9 mile downstream from Brushy Fork, 2.5 miles southeast of Oliver Springs, 4 miles upstream from Indian Creek.	55.9	1954-82	1- 4-82	13.06	2,530
03538500	Emory River near Wartburg, TN	Lat 36°06'46", long 84°36'54", Morgan County, at bridge on Wartburg-Lancing Road, 1.2 miles northwest of Wartburg. Datum of gage is 1,003.06 ft National Geodetic Vertical Datum of 1929.	83.2	1935-57‡, 1958-66, 1967-68‡, 1969-82	1- 4-82	13.03	4,760
03538600	Obed River at Crossville, TN	Lat 35°57'27", long 85°03'00", Cumberland County, at bridge on former U.S. Highway 70-S, 0.5 mile southwest of junction of U.S. Highways 70-S and 70-N, 1.5 miles northwest of Crossville.	12.0	1955-82	1- 4-82	6.54	585
03538900	Self Creek near Big Lick, TN	Lat 35°47'54", long 85°02'33", Cumberland County, at culvert under county road, 1.3 miles southwest of Big Lick.	3.80	1968-82	1- 4-82	3.49	127
03541100	Bitter Creek near Camp Austin, TN	Lat 36°00'53", long 84°31'33", Morgan County, at culvert under U.S. Highway 27, 3.0 miles southeast of Camp Austin.	5.53	1967-82	1- 4-82	7.92	2,870
03542500	Piney River at Spring City, TN	Lat 35°41'59", long 84°51'17", Rhea County, at bridge on U.S. Highway 27, 0.5 mile northeast of Spring City. Datum of gage is 749.65 ft National Geodetic Vertical Datum of 1929.	95.9	1928-30‡, 1955-82	1- 4-82	12.67	-

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Tennessee River basin--Continued					
03544500	Richland Creek near Dayton, TN.	Lat 35°30'17", long 85°01'20", Rhea County 0.4 mile above bridge on State Highway 30, 1.0 mile northwest of Dayton. Datum of gage is 728.59 ft above mean sea level.	50.2	1928-31‡ 1935-55‡ 1956-79 1981-82‡	1- 4-82	6.43	3,390
03566036	South Mouse Creek at 20th Street, at Cleveland, TN	Lat 35°10'30", long 84°52'37", Bradley County, at bridge on 20th Street at Cleveland.	7.31	1978-82a	3-15-82	5.69	630
03566200	Brymer Creek near McDonald, TN	Lat 35°07'20", long 84°57'00", Bradley County, at bridge on U.S. Highways 11 and 64, 1.9 miles east of McDonald.	9.68	1955-82	1- 3-82	5.30	650
03566599	North Chickamauga Creek at Greens Mill, near Hixson, TN	Lat 35°10'30", long 85°13'40", Hamilton County, at bridge on Boy Scout Road, 2.3 miles north of Hixson.	99.5	1925,1944, 1953-56, 1980-82	8-17-82	36.85	-
035686655 (3500360 85173400)	South Fork Dobbs Branch at Chattanooga, TN	Lat 35°00'36", long 85°17'34", Hamilton County, 33 ft upstream from culvert under Clie Street, 2.9 miles south-southeast of County Courthouse, and at mile 1.3.	1.12	1979-82a	1- 3-82	48.00	241
03569168	Stringers Branch at Leawood Drive, at Redbank, TN	Lat 35°07'00", long 85°17'28", Hamilton County, at bridge on Leawood Drive at Redbank.	1.54	1980-82	8-17-82	22.40	-
03570800	Little Brush Creek near Dunlap, TN	Lat 35°24'15", long 85°23'18", Sequatchie County, at bridge on former State Highway 8, 1.5 miles north of Dunlap.	15.4	1959-82	1- 3-82	5.68	1,280
03571500	Little Sequatchie River at Sequatchie, TN	Lat 35°07'47", long 85°35'10", Marion County, at Highway 27 bridge, 1.0 mile northeast of Sequatchie.	116	1925,1929, 1930, 1932-34‡, 1944,1951-54, 1965,1979-82	1- 4-82	10.09	-
03571730	Standifer Branch at Jasper, TN	Lat 35°04'22", long 85°36'56", Marion County, at bridge on U.S. Highways 41, 64, and 72, 0.6 mile east of courthouse, 0.8 mile above Town Creek, at Jasper.	15.3	1982	1- 3-82	16.16	-
03571800	Battle Creek near Monteagle, TN	Lat 35°08'03", long 85°46'15", Marion County, at bridge on former U.S. Highways 41 and 64, 9.2 miles southeast of Monteagle. Datum of gage is 621.51 ft National Geodetic Vertical Datum of 1929.	50.4	1955-82	1- 4-82	7.71	3,230
03578500	Bradley Creek near Prairie Plains, TN	Lat 35°21'21", long 85°58'45", Coffee County, on left bank 165 ft downstream from highway bridge, 1.1 miles northwest of Prairie Plains. Datum of gage is 968.13 ft National Geodetic Vertical Datum of 1929.	41.3	1952-59‡, 1960-82	1- 4-82	10.93	2,660
03581500	West Fork Mulberry Creek at Mulberry, TN	Lat 35°12'34", long 86°27'46", Lincoln County, at old bridge 1,000 ft downstream from State Highway 50, 0.2 mile southwest of Mulberry. Datum of gage is 687.72 ft National Geodetic Vertical Datum of 1929.	41.2	1954-62‡, 1963-66, 1967-68‡, 1969-82	1- 4-82	14.10	10,600
03582300	Norris Creek near Fayetteville, TN	Lat 35°09'53", long 86°32'45", Lincoln County, at bridge on old State Highway 50, 2.0 miles northeast of Fayetteville. Datum of gage is 666.27 ft National Geodetic Vertical Datum of 1929.	42.6	1954-82	1- 4-82	10.47	-

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Tennessee River basin--Continued					
03582395	Tanyard Branch at Fayetteville, TN	Lat 35°09'02", long 86°34'22", Lincoln County, 20 ft above culvert on West Cambell Street, 0.1 mile west of junction of West Cambell Street and U.S. Highway 231-431, 0.2 mile southwest of Courthouse, at Fayetteville.	0.47	1978-82a	7-22-82	3.92	-
03583200	Chicken Creek at McBurg, TN	Lat 35°11'03", long 86°48'47", Lincoln County, at bridge on county highway R7374 in McBurg.	7.66	1955-82	1-23-82	5.69	2,300
03583300	Richland Creek near Cornersville, TN	Lat 35°19'10", long 86°52'20", Marshall County, at bridge on U.S. Highway 31-A, 3.4 miles southwest of Cornersville. Datum of gage is 754.28 ft National Geodetic Vertical Datum of 1929.	47.5	1962-68‡, 1969-82	1-23-82	12.02	4,220
03584060	Pleasant Run Creek at East College Street, at Pulaski, TN	Lat 35°11'47", long 87°01'52", Giles County, at culvert under U.S. Highway 64, 0.1 mile east of junction of U.S. Highway 31 and U.S. Highway 64, 0.2 mile south of the Courthouse, at Pulaski.	0.29	1978-82a	7-24-82	6.11	-
03587200	Bluewater Creek tributary near Leoma, TN	Lat 35°08'29", long 87°22'05", Lawrence County, at culvert under U.S. Highway 43, 1.8 miles southeast of Leoma.	0.49	1955-82	1-23-82	4.42	213
03587500	Shoal Creek above Little Shoal Creek at Lawrenceburg, TN f/	Lat 35°14'02", long 87°20'00", Lawrence County, at bridge on U.S. Highway 43, 0.5 mile south of intersection of U.S. Highways 43 and 64 in Lawrenceburg.	27.0	1932-53‡, 1955-82	1-23-82	8.21	2,400
03594200	Eagle Creek near Clifton Junction, TN	Lat 35°20'21", long 87°58'22", Wayne County, at bridge on State Highway 114, 2.5 miles northwest of Clifton Junction and 2.6 miles upstream from mouth.	19.0	1955-82	1- 3-82	5.86	2,300
03594300	Cypress Creek tributary near Pope, TN	Lat 35°37'10", long 87°57'20", Perry County, at culvert under State Highways 20 and 100, in Craig Hollow, 2.0 miles east of Pope.	0.75	1955-82	1-23-82	2.91	108
03595520	Grindstone Hollow Creek at Manchester, TN	Lat 35°28'56", long 86°05'33", Coffee County, 30 ft above culvert on Oakdale Street, 0.2 mile west of County Courthouse, at Manchester.	2.11	1978-82a	8-16-82	7.54	589
03597000	Garrison Fork at Fairfield, TN	Lat 35°33'59", long 86°17'00", Bedford County, at bridge on county road, 0.1 mile east of Fairfield. Datum of gage is 800.25 ft National Geodetic Vertical Datum of 1929.	66.3	1954-58‡, 1959-66, 1967-68‡, 1970-82	1- 3-82	17.11	9,480
03597300	Wartrace Creek above Bell Buckle, TN	Lat 35°37'45", long 86°21'22", Bedford County, at culvert under county road, 2.7 miles north of Bell Buckle.	4.99	1966-82	4- 4-77 6- 7-78 9-13-79 3-20-80 4-17-82	g7.13 g7.13 g6.55 g6.59 6.68	g1,020 g1,020 g845 g857 884
03597450	Kelly Creek tributary near Bell Buckle, TN	Lat 35°36'34", long 86°19'11", Bedford County, at bridge on county road, 3.0 miles northeast of Bell Buckle.	0.73	1966-82	1- 3-82	3.93	667

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Tennessee River basin--Continued					
03597500	Wartrace Creek at Bell Buckle, TN	Lat 35°35'16", long 86°20'22", Bedford County, at bridge on State Highway 82, 0.2 mile downstream from Kelly Creek, 0.9 mile east of Bell Buckle, and at mile 7.7. Datum of gage is 822.44 ft National Geodetic Vertical Datum of 1929.	16.3	1953-61‡, 1962-66, 1966-75‡, 1979-82	1- 3-82	8.66	2,520
03598200	Weakley Creek near Rover, TN	Lat 35°38'05", long 86°33'03", Bedford County, at culvert under county road, 3.7 miles southeast of intersection of county road with U.S. Highway 41-A at Rover.	9.46	1955-82	1- 3-82	4.56	570
03599200	East Rock Creek at Farmington, TN	Lat 35°30'05", long 86°42'50", Marshall County, at bridge on old State Highway 64, 0.2 mile west of Farmington.	43.1	1954-82	1-23-82	9.43	2,650
03602100	Moss Spring Hollow at Centerville, TN	Lat 35°45'44", long 87°27'47", Hickman County, at bridge on State Highways 48 and 100, 1.2 miles south of Centerville.	3.68	1954-82	1982	<3.27	-
03604070	Coon Creek tributary near Hohenwald, TN	Lat 35°34'07", long 87°40'02", Perry County, at culvert under State Highway 20, 7 miles northwest of Hohenwald.	0.51	1967-82	4-17-82	4.10	101
03604080	Hugh Hollow Branch near Hohenwald, TN	Lat 35°34'59", long 87°40'36", Perry County, at culvert under State Highway 20, 8 miles northwest of Hohenwald.	1.52	1967-82	1-23-82	3.38	262
03604090	Coon Creek above Chop Hollow, near Hohenwald, TN	Lat 35°35'19", long 87°41'09", Perry County, at bridge on State Highway 20, 9 miles northwest of Hohenwald.	6.02	1967-82	4-17-82	2.98	106
03605700	Deer Creek tributary near Waverly, TN	Lat 36°10'20", long 87°44'40", Humphreys County, at culvert under State Highway 13 in Smith Hollow, 8.0 miles northeast of Waverly.	1.04	1955-82	2- 9-82	1.98	-
03607274	Bailey Fork Creek tributary at Paris, TN	Lat 36°18'17", long 88°17'39", Henry County, on left bank 15 ft downstream from bridge on Wilson Street in Paris, 0.36 mile south of U.S. Highway 79.	1.04	1978-82a	7-24-82	7.79	313
		Obion River basin					
07025220	Cane Creek near Martin, TN	Lat 36°19'36", long 88°51'05", Weakley County, at bridge on U.S. Highway 45-E, 1.2 miles south of Martin. Datum of gage is 350.67 ft National Geodetic Vertical Datum of 1929.	6.79	1955-82	4- 3-82	10.90	-
07027530	South Fork Forked Deer River tributary at Jackson, TN	Lat 35°37'01", long 88°49'19", Madison County, on right bank 15 ft upstream of bridge on Farrar Street and 10 ft east of intersection of Union Street in Jackson.	0.98	1978-82a	6-21-82	10.00	483

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Obion River basin--Continued					
07028500	North Fork Forked Deer River at Trenton, TN	Lat 35°58'49", long 88°55'35", Gibson County, at bridge on State Highways 77 and 104, 0.8 mile east of Trenton, 1.0 mile downstream from Thompson Levee Creek and 1.6 miles upstream from Cain Creek.	73.5	1950-71‡, 1980-82	9-13-82	19.62	-
07028600	Cain Creek tributary near Trenton, TN	Lat 35°56'17", long 88°56'27", Gibson County, at culvert under U.S. Highway 45-W, 2.9 miles south of square in Trenton.	0.95	1955-57, 1959-82	9-13-82	12.80	1,330
07028700	Cain Creek near Trenton, TN	Lat 35°57'56", long 88°57'14", Gibson County, at bridge on U.S. Highway 54, 1.6 miles southwest of Trenton.	14.4	1954-82	9-13-82	15.00	15,600
07028940	Turkey Creek near Medina, TN	Lat 35°47'39", long 88°48'37", Gibson County, at county road (Lewis Road) bridge, 1.7 miles southwest of Medina.	7.87	1967-82	9-13-82	18.43	-
07028985	Middle Fork Forked Deer River tributary at Humboldt, TN	Lat 35°49'16", long 88°55'23", Gibson County, on left bank 30 ft upstream of bridge on Sixth Street, 350 ft northwest of U.S. Highways 79 and 70 alternate, in Humboldt.	2.12	1978-82a	9-13-82	8.29	2,760
07029090	Lewis Creek near Dyersburg, TN	Lat 36°03'14", long 89°21'42", Dyer County, at bridge on U.S. Highway 51, 2.1 miles northeast of square in Dyersburg. Datum of gage is 276.52 ft National Geodetic Vertical Datum of 1929.	25.5	1955-78, 1980-82	1-22-82	14.01	900
		Hatchie River basin					
07030147	Town Creek tributary at Covington, TN	Lat 35°33'59", long 89°38'55", Tipton County, on left bank 550 ft downstream of Liberty Avenue, 20 ft east of College Street, and 125 ft west of U.S. Highway 51, in Covington.	0.75	1978-82a	4-17-82	9.27	475
		Loosahatchie River basin					
07030270	Clear Creek near Arlington, TN	Lat 35°16'20", long 89°42'17", Shelby County, at bridge on U.S. Highways 70 and 79, 3.0 miles southwest of Arlington. Datum of gage is 245.78 ft National Geodetic Vertical Datum of 1929.	60.5	1954-56, 1959-82	4-17-82	15.60	4,070
07030300	Loosahatchie River tributary at St. Elmo Avenue, at Memphis, TN	Lat 35°13'56", long 89°58'51", Shelby County, 120 ft downstream from culvert under St. Elmo Avenue, at Memphis.	0.82	1975-82a	7- 8-82	10.13	1,860
		Wolf River basin					
07031653	Wolf River tributary at Willey Road, at Germantown, TN	Lat 35°05'54", long 89°48'36", Shelby County, 16 ft upstream from culvert on Willey Road and 700 ft west of Cordova Road, at Germantown.	0.21	1975-82a	4-16-82	10.85	212
07031657	Wolf River tributary at Neshoba Road, at Germantown, TN	Lat 35°06'21", long 89°49'54", Shelby County, 30 ft upstream from culvert on Neshoba Road and 150 ft west of Brookside Drive, at Germantown.	0.36	1975-82a	4-16-82	14.40	655

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Wolf River basin--Continued					
07031665	White Station Creek at Rich Road, at Memphis, TN	Lat 35°08'09", long 89°53'37", Shelby County, at downstream side of bridge on Rich Road, 2,000 ft west of White Station Road, at Memphis.	2.45	1975-82a	4-17-82	9.52	3,190
07031690	Fletcher Creek tributary at Whitten Road, at Memphis, TN	Lat 35°09'38", long 89°50'13", Shelby County, at upstream end of culvert under Whitten Road, 0.5 mile north of Mullins Station Road, 1.1 miles northeast of Shelby Penal Farm.	0.54	1975-82a	4-17-82	7.17	229
07031694	Harrington Creek tributary at Elmore Park Road, at Bartlett, TN	Lat 35°12'08", long 89°51'26", Shelby County, 25 ft upstream from culvert under Elmore Park Road, 750 ft south of Stage Road, 1 mile east of Bartlett.	0.33	1975-82a	4-17-82	17.96	268
07031695	Harrington Creek tributary at Hawthorne Road, at Bartlett, TN	Lat 35°11'43", long 89°51'21", Shelby County, 25 ft downstream from culvert under Hawthorne Road, 30 ft west of Elmore Park Road, 1 mile southeast of Bartlett.	0.21	1975-82a	4-17-82	10.20	157
07031697	Harrington Creek tributary at Stage Road, at Bartlett, TN	Lat 35°12'30", long 89°53'05", Shelby County, 30 ft upstream from culvert under Stage Road, 300 ft west of Chaucer Road, 1 mile west of Bartlett.	0.91	1975-82a	4-17-82	12.19	766
07031710	Harrison Creek at Charleswood Road, at Memphis, TN	Lat 35°08'34", long 89°55'00", Shelby County, upstream side of bridge at Charleswood Road, 300 ft west of Waring Road, at Memphis.	1.59	1975-82a	4-17-82	13.97	2,380
07031725	Workhouse Bayou tributary at Isabelle Street, at Memphis, TN	Lat 35°09'24", long 89°56'01", Shelby County, 200 ft upstream from culvert under Isabelle Street, at Memphis.	0.09	1975-82a	4-17-82	5.86	162
07031758	Cypress Creek at Broad Street, at Memphis, TN	Lat 35°08'51", long 89°57'33", Shelby County, at bridge on Broad Street, 650 ft east of intersection of Tillman Street, 700 ft west of intersection of Vandalia Street, at Memphis.	4.97	1978-82a	4-17-82	11.49	6,300
07031761	Cypress Creek tributary at Cumberland Street at Memphis, TN	Lat 35°08'22", long 89°58'10", Shelby County, 2,900 ft south of Broad Street, 300 ft east of Missouri Pacific Railroad, and 150 ft west of Illinois Central Gulf Railroad, at Memphis.	0.47	1978-82a	7- 4-82	9.52	425
07031765	Overton Bayou at North Drive, at Memphis, TN	Lat 35°09'20", long 89°58'52", Shelby County, beside Cypress Drive, 45 ft upstream from culvert under North Drive, at Memphis.	0.30	1975-82a	4-17-82	7.15	303
07031773	Lick Creek at Jefferson Avenue, at Memphis, TN	Lat 35°08'20", long 89°59'50", Shelby County, 20 ft upstream from culvert under Jefferson Avenue, at Memphis.	1.00	1975-82a	4-17-82	9.56	845
07031795	Wolf River tributary at Whitney Avenue, at Memphis, TN	Lat 35°12'31", long 90°01'15", Shelby County, at upstream end of culvert under Whitney Avenue, at Memphis.	0.35	1975-82a	6-16-82	9.49	189
		Nonconnah Creek basin					
07032195	Nonconnah Creek tributary at Shelby Drive, at Memphis, TN	Lat 35°01'13", long 89°49'57", Shelby County, at upstream end of culvert under Shelby Drive, at Memphis.	1.58	1975-82a	4-16-82	12.01	-

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Nonconnah Creek basin--Continued					
07032242	Cherry Bayou at Park Avenue, at Memphis, TN	Lat 35°06'24", long 89°54'13", Shelby County, 20 ft downstream from culvert under Park Avenue, 150 ft west of Colonial Road, at Memphis.	0.18	1975-82a	10-17-81	5.80	161
07032244	Cherokee Creek at Kimball Avenue, at Memphis, TN	Lat 35°05'43", long 89°57'31", Shelby County, at downstream end of culvert under Kimball Avenue, at intersection of Alamo Street, at Memphis.	0.49	1975-82a	4-17-82	7.15	414
*07032246	Days Creek at Shelby Drive, at Memphis, TN	Lat 35°01'14", long 90°00'37", Shelby County, 75 ft upstream from culvert under Shelby Drive, at Memphis.	2.63	1975-82a	4-16-82	10.05	1,480
07032247	Parkway Bayou at South Parkway East, at Memphis, TN	Lat 35°06'33", long 89°59'41", Shelby County, between one-way lanes of South Parkway East, 100 ft west of Castalia Street, at Memphis.	0.49	1975-82a	4-17-82	9.35	1,240
07032249	Latham Branch at Valley Boulevard, at Memphis, TN	Lat 35°05'56", long 90°02'43", Shelby County, between one-way lanes of Valley Boulevard, 200 ft downstream from Dison Avenue, at Memphis.	0.05	1975-82a	4-17-82	14.21	63

* Also a low-flow partial-record station.
‡ Operated as a continuous-record gaging station.
a Operated as a flood hydrograph station.
b Published as West Fork Little Pigeon River prior to 1966.
c May have been higher after gage washed out.
d Published as at Coal Creek prior to 1935.
e Includes 2.10 mi^2 without surface drainage.
f Published as Beeler Fork at Lawrenceburg prior to 1934.
g Revised.

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 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin				
361135084254700 Smoky Creek	New River	Lat 36°11'35", long 84°25'47", Scott County, 2.7 miles southwest of Hembree, 8.2 miles southwest of Smoky Junction and 200 ft above Asher Fork.	2.09		3-11-82	6.6
361134084254100 Asher Fork	Smoky Creek	Lat 36°11'34", long 84°25'41", Scott County, 2.5 miles southwest of Hembree, 8.0 miles southwest of Smoky Junction and 50 ft above mouth.	3.19		3-11-82	8.3
361138084254000 Smoky Creek	New River	Lat 36°11'38", long 84°25'40", Scott County, 2.5 miles southwest of Hembree, 8.0 miles southwest of Smoky Junction and 200 ft below Asher Fork.	5.24		3-11-82	16
03407874 Green Branch	Smoky Creek	Lat 36°12'09", long 84°24'59", Scott County, 1.9 miles south of Hembree, 4.0 miles northeast of Braytown, and 4.7 miles east of Charley's Branch.	1.38	1976-77‡	3-11-82	3.7
361252084245300 Bills Branch	Smoky Creek	Lat 36°12'52", long 84°24'53", Scott County, 1.0 mile southeast of Hembree, 4.2 miles southwest of Smoky Junction and at mouth.	1.17		3-10-82	3.8
361303084250000 Lowe Branch	Smoky Creek	Lat 36°13'03", long 84°25'00", Scott County, 0.9 mile southeast of Hembree, 6.1 miles southwest of Smoky Junction and 50 ft above mouth.	0.79		3-10-82	2.4
361351084250400 Smoky Creek	New River	Lat 36°13'51", long 84°25'04", Scott County, 200 ft below bridge at Hembree, 5.4 miles southwest of Smoky Junction.	16.7		3-10-82	54
361419084245600 Little Brimestone Creek	Smoky Creek	Lat 36°14'19", long 84°24'56", Scott County, 0.7 mile northeast of Hembree, 4.5 miles southwest of Smoky Junction, at county road 100 ft above mouth.	2.04		3-10-82	7.1
03407877 Bowling Branch	Smoky Creek	Lat 36°16'14", long 84°24'17", Scott County, 2.5 miles southwest of Smoky Junction, 3.0 miles northeast of Hembree and at mile 0.8.	2.19	1975-81‡	3-09-82	14
03407990 New River	South Fork Cumberland River	Lat 36°24'18", long 84°29'45", Scott County, 0.6 mile southwest of Huntsville, 0.3 mile above Flat Creek.	300		9-30-82	*82
03407992 Flat Creek	New River	Lat 36°24'58", long 84°30'13", Scott County, 0.6 mile northwest of Huntsville at bridge on State Highway 63, 0.8 mile above mouth.	2.46		9-30-82	* .60

‡ Operated as a continuous-record station.

Discharge measurements made at miscellaneous sites during water year 1982--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Tennessee River basin				
03566535 North Chickamauga Creek	Tennessee River	Lat 35°12'40", long 85°12'55", Hamilton County, at Thrasher Pike, 2 miles upstream from Falling Water Creek, and 3 miles southwest of Daisy.	74.0	1964,	8-17-82	6,120
03596090 Crumpton Creek	Duck River	Lat 35°25'18", long 86°08'09", Coffee County, 300 feet upstream from Wiley Creek, 0.1 mile north of Rutledge Falls, and at mile 3.1.	22.8	1964, 1974-75, 1982	10-21-81	2.0
03596100 Crumpton Creek	Duck River	Lat 35°25'19", long 86°08'12", Coffee County, 50 feet upstream from Rutledge Falls, 100 feet downstream from county bridge, 150 feet downstream from Wiley Creek, at Rutledge Falls, and at mile 3.0.	28.1	1953-55, 1957, 1964, 1974-75, 1982	10-21-81	3.9

Miscellaneous Sites

Discharge measurements made at miscellaneous sites during water year 1982--Continued

Peak discharges at selected sites for the thunderstorms of August 16, 17 and September 13, 1982.

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin				
03424840 Hickman Creek	Caney Fork	Lat 36°08'26", long 85°56'24", Smith County, at Hickman.	33.3		8-16-82	+17,400
03424900 Mulherrin Creek	Caney Fork	Lat 36°11'28", long 85°57'11", Smith County, at bridge on State Highway 53, 1.3 miles upstream from mouth, and 1.5 miles northwest of Gordonsville.	26.9	1968-70	8-16-82	+24,000
03425032 Peyton Creek	Cumberland River	Lat 36°22'37", long 85°56'56", Smith County, 100 feet downstream from bridge on State Highway 80, at Pleasant Shade.	27.4	1953	8-16-82	+21,600
03425050 Peyton Creek	Cumberland River	Lat 36°18'30", long 86°00'28", Smith County, at bridge on State Highway 25, 0.55 mile upstream from mouth, and 0.9 mile southeast of Riddleton.	49.8		8-16-82	+31,500
		Tennessee River Basin				
03566400 Soddy Creek	Tennessee River	Lat 35°18'05", long 85°09'56", Hamilton County, at county bridge, 0.8 mile north of Soddy.	49.0	1932, 1955-56, 1959-68, 1979-81	8-17-82	+16,000
03566535 North Chickamauga Creek	Tennessee River	Lat 35°12'40", long 85°12'55", Hamilton County, at Thrasher Pike, 2 miles upstream from Falling Water Creek, and 3 miles southwest of Daisy.	74.0	1964, 1979-81	8-17-82	+26,800
03569245 Suck Creek	Tennessee River	Lat 35°07'28", long 85°23'26", Hamilton County, at State, Highway 27, 1,000 feet upstream from mouth, and 3.5 miles west of Signal Mountain.	22.6	1944, 1955, 1979-81	8-17-82	+43,000
03570470 Running Water Creek	Tennessee River	Lat 34°59'22", long 85°29'32", Marion County, between State Highway 134 and Interstate 24, at Whiteside.	4.77		8-17-82	+8,790
		Obion River Basin				
07024370 Little Reedy Creek	Reedy Creek	Lat 35°55'44", long 88°29'50", Carroll County, 1.8 miles upstream from mouth, at State Highway 1 and U.S. Highway 70, and 6 miles southwest of Huntingdon.	0.91		9-13-82	+971
07028950 Turkey Creek	Middle Fork Forked Deer River	Lat 35°46'07", long 88°49'59", Madison County, at bridge on U.S. Highway 45E, 0.6 mile northeast of Fairview.	13.3	1967-73	9-13-82	+14,600

Discharge measurements made at selected sites at Acorn Lake in Montgomery Bell State Park, Dickson County

Data were collected at Acorn Lake as a part of the Clean Lakes Project in cooperation with the Tennessee Department of Public Health, Division of Water Quality Control. The following table contains the measurements and water-quality data collected at five (5) contributing tributaries and at the outflow of the lake.

Site number and name	Location	Drainage area (mi^2)	Date	Discharge (ft^3/s)	Temp. (°C) water	Specific Conductance (umhos at 25°C)
034345921 Acorn Lake Tributary 1-6	Lat 36°06'06", long 87°15'55"	0.41	10-13-81	0.18	17.0	210
			12- 2-81	0.62	11.0	150
			1- 5-82	0.97	8.5	95
			2- 2-82	0.62	8.0	153
			2-23-82	0.52	16.0	150
			3-17-82	1.06	--	--
			4-12-82	0.47	20.0	170
			5-19-82	0.39	18.0	177
			6-15-82	0.31	21.0	210
			7-28-82	0.28	23.0	220
034345922 Acorn Lake Tributary 1-5	Lat 36°06'08", long 87°15'55"	0.55	10-13-81	0.15	17.0	240
			12- 2-81	0.98	10.5	170
			1- 5-82	2.00	8.5	120
			2- 2-82	1.44	8.0	152
			2-23-82	0.74	15.0	160
			3-17-82	1.83	--	--
			4-12-82	0.75	20.0	180
			5-19-82	0.43	19.0	180
			6-15-82	0.27	21.0	215
			7-28-82	0.15	22.0	195
034345923 Acorn Lake Tributary 1-4	Lat 36°06'07", long 87°16'03"	0.04	10-13-81	0.02	18.0	190
			12- 2-81	a0.01	11.0	85
			1- 5-82	0.03	8.0	70
			2- 2-82	0.03	7.0	81
			2-23-82	0.04	15.0	70
			3-17-82	0.09	--	--
			4-12-82	a<0.02	--	--
			5-19-82	a<0.02	19.0	90
			6-15-82	a<0.01	--	--
			7-28-82	a<0.01	32.0	160
034345926 Acorn Lake Tributary 1-7	Lat 36°05'53", long 87°16'17"	0.09	10-13-81	0.02	15.0	255
			12- 2-81	0.09	9.0	122
			1- 5-82	0.18	5.0	93
			2- 2-82	0.11	6.5	115
			2-23-82	0.06	10.0	155
			3-17-82	0.14	--	--
			4-12-82	0.06	17.0	140
			5-19-82	0.05	17.5	165
			6-15-82	b0.03	19.0	220
			7-28-82	a<0.01	22.0	260
034345927 Acorn Lake Tributary 1-8	Lat 36°05'47", long 87°16'30"	0.12	10-13-81	0.03	16.0	205
			12- 2-81	0.25	9.5	95
			1- 5-82	0.45	6.0	80
			2- 2-82	0.21	5.5	103
			2-23-82	0.11	13.0	120
			3-17-82	0.31	--	--
			4-12-82	0.11	19.5	120
			5-19-82	0.08	19.0	134
			6-15-82	b0.08	20.5	185
			7-28-82	a0.01	24.0	210
034345928 Acorn Lake Outflow	Lat 36°06'00", long 87°16'38"	1.42	10-13-81	0.36	18.0	170
			12- 2-81	2.92	9.5	185
			1- 5-82	7.78	6.5	123
			2- 2-81	4.10	5.5	142
			2-23-82	2.64	10.0	130
			3-17-82	6.95	--	--
			4-12-82	1.83	19.0	135
			5-19-82	1.24	27.0	120
			6-15-82	0.78	30.0	150
			7-28-82	1.14	32.0	145

a Estimated discharge.
b Volumetric measurement.

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.

One measurement was made in the 1982 Water Year in conjunction with a water quality sample. The results of the measurement and the water quality sample are given in the following table.

DISCHARGE MEASUREMENT, WATER YEAR 1982

Site number and name	Location	Tributary to	Date	Discharge (gpm)
03601060 Dickson Spring at Mt. Joy, TN	Lat 35°31'30", long 87°16'02", Maury County, at Mount Joy.	West Fork to Big Bigby Creek	8-20-82	5

WATER QUALITY DATA, WATER YEAR 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 20...	1300	200	7.6	17.0	100	6	35	3.8	2.1

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 20...	.3	94	6.0	1.0	.5	8.5	132	115	.28

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 20...	.070	10	<1	7	1	2	<1	10

A reconnaissance of the stream system was made Sept. 28, 29, 1981, at which time the channel was observed dry at several locations. These observations were made during a period of low base-flow of Sweetwater Creek, and were used to help identify reaches of channel losses to the ground-water flow system.

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Observed discharge (ft^3/s)
26.9	353252084290300 Sweetwater Creek near Christianburg (03520018)	Lat 35°32'52", long 84°29'03" Monroe County, 26.9 miles above mouth.		.00
26.7	353248084285400 Sweetwater Creek Tributary near Christianburg (03520020)	Lat 35°32'48", long 84°28'54" Monroe County, 0.3 mile above mouth.		.00
26.6	353214084292300 Sweetwater Creek Tributary at Head of Creek Road, near Mt. Harmony (03520025)	Lat 35°32'14", long 84°29'23" McMinn County, 0.8 mile above mouth.		.00
26.6	353228084292400 Sweetwater Creek Tributary at Head of Creek Road, near Reagan (03520026)	Lat 35°32'28", long 84°29'24" McMinn County, 0.6 mile above mouth.		.00
26.6	353245084291500 Sweetwater Creek Tributary at New Bethany Church, near Reagan (03520027)	Lat 35°32'45", long 84°29'15" McMinn County, 0.2 mile above mouth.		.00
26.6	353250084291600 Sweetwater Creek Tributary above County Line, near Reagan (03520028)	Lat 35°32'50", long 84°29'16" McMinn County, 0.1 mile above mouth.	0.64	.00
26.1	353234084300800 Sweetwater Creek Tributary near Mt. Harmony (03520032)	Lat 35°32'34", long 84°30'08" McMinn County, 1.0 mile above mouth.		.00
25.8	353300084301800 Sweetwater Creek Tributary above Browder Lake, near Reagan (03520034)	Lat 35°33'00", long 84°30'18" McMinn County, 0.5 mile above mouth.		.00
24.8	353247084310700 Sweetwater Creek West Tributary above Reagan (035200355)	Lat 35°32'47", long 84°31'07" McMinn County, at mouth.	1.10	.00
24.8	353254084305900 Sweetwater Creek Tributary above Reagan (03520356)	Lat 35°32'54", long 84°30'59" McMinn County, 0.1 mile above mouth.		.00
24.8	353436084300500 Sweetwater Creek Tributary above SCS Dam, at Wood (035200375)	Lat 35°34'36", long 84°30'00" Monroe County, 0.5 mile above mouth.		.00
24.8	353420084295100 Sweetwater Creek Tributary below SCS Dam, at Wood (035200376)	Lat 35°34'20", long 84°29'51" Monroe County, 0.1 mile above mouth.	1.61	.00
23.8	353444084291300 Sweetwater Creek Tributary at Old Athens Road, at Wood (03520038)	Lat 35°34'44", long 84°29'13" Monroe County, 0.1 mile above mouth.	0.24	.00
23.5	353452084290100 Sweetwater Creek Tributary at Lee Highway, at Wood (035200382)	Lat 35°34'52", long 84°29'01" Monroe County, 0.2 mile above mouth.	0.34	.00
22.7	353412084284100 Sweetwater Creek West Tributary at Wood (035200388)	Lat 35°34'12", long 84°28'41" Monroe County, 1.2 miles above mouth.		.00

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Observed discharge (ft^3/s)
22.7	353412084283900 Sweetwater Creek East Tributary at Wood (03520039)	Lat 35°34'12", long 84°28'39" Monroe County, at mouth.		.00
21.6	353559084293800 Sweetwater Creek Tributary at Monroe Street, at Sweetwater (035200412)	Lat 35°35'59", long 84°29'38" Monroe County, 1.7 miles above mouth.		.00
21.6	353544084292500 Unnamed Spring outlet at Highway 68, at Sweetwater (0352004131)	Lat 35°35'44", long 84°29'25" Monroe County, at mouth.		.00
21.6	353539084282000 Sweetwater Creek Tributary at Clark Street, at Sweetwater (035200417)	Lat 35°35'39", long 84°28'20" Monroe County, 0.2 mile above mouth.	1.66	.00
20.0	353636084285900 Sweetwater Creek Tributary below Pond Spring Road, at Sweetwater (035200426)	Lat 35°36'36", long 84°28'59" Monroe County, 1.3 miles above mouth.		.00
20.0	353634084285100 Sweetwater Creek Tributary at Oakland Road, at Sweetwater (0352004261)	Lat 35°36'34", long 84°28'51" Monroe County, 1.1 miles above mouth.		.00
20.0	353639084284000 Sweetwater Creek Tributary at Northpoint Road, at Sweetwater (035200427)	Lat 35°36'39", long 84°28'40" Monroe County, at mouth.		.00
20.0	353637084282200 Sweetwater Creek Tributary at Thompson Road, at Sweetwater (035200428)	Lat 35°36'37", long 84°28'22" Monroe County, 0.6 mile above mouth.		.00
20.0	353634084280500 Sweetwater Creek Tributary above North Price Street, at Sweetwater (0352004281)	Lat 35°36'34", long 84°28'05" Monroe County, 1.4 mile above mouth.		.00
20.0	353631084274300 Sweetwater Creek Tributary at Main Street, at Sweetwater (035200429)	Lat 35°36'31", long 84°27'43" Monroe County, at mouth.	1.30	.00
18.9	353619084264700 Sweetwater Creek Tributary at Hudson Street, near East Sweetwater (035200441)	Lat 35°36'19", long 84°26'47" Monroe County, 0.7 mile above mouth.		.00
18.1	353609084260200 Sweetwater Creek Tributary at East Sweetwater (035200443)	Lat 35°36'09", long 84°26'02" Monroe County, 2.1 miles above mouth.		.00
18.1	353626084260100 Sweetwater Creek Tributary at Ward Street, at East Sweetwater (035200444)	Lat 35°36'26", long 84°26'01" Monroe County, 1.8 miles above mouth.		.00
18.1	353639084260000 Sweetwater Creek Tributary at Overhill Trail, near Sweetwater (035200445)	Lat 35°36'39", long 84°26'00" Monroe County, 1.6 miles above mouth.		.00
18.1	353645084254800 Unnamed Sink Drain at East Sweetwater (035200446)	Lat 35°36'45", long 84°25'48" Monroe County.		.00
15.1	353715084254500 Sweetwater Creek Tributary at Hawkins Road, at East Sweetwater (035200524)	Lat 35°37'15", long 84°25'45" Monroe County, 0.7 mile above mouth.		.00
15.1	353756084253000 Sweetwater Creek Tributary above Old Sweetwater (035200528)	Lat 35°37'56", long 84°25'30" Monroe County, at mouth.		.00

Discharge measurements were made Oct. 15, 1981, on Sweetwater Creek and tributaries. The reach is 12.7 mi (20.4 km) in length. This channel survey was made during a period of low base-flow and was used in conjunction with dry channel observations of Sept. 28, 29, 1981, to identify reaches of ground-water discharge to streams as well as creek gains and losses. Tributary flow was considered a contribution and not a gain.

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
26.7	353249084291200 Sweetwater Creek at Old Mine Road, near Sweetwater (03520019)	Lat 35°32'49", long 84°29'12" Monroe County, 26.7 miles above mouth.	1.11	.00			
26.7	353249084291300 Sweetwater Creek Tributary above Bell Spring, near Sweetwater (03520021)	Lat 35°32'49", long 84°29'13" Monroe County, 0.2 mile above mouth.	1.70	.00			
26.7	353247084291400 Bell Spring near Sweetwater (03520022)	Lat 35°32'47", long 84°29'14" McMinn County, 0.1 mile above tributary mouth.		.17		15.0	232
26.6	353250084291400 Bell Spring Branch near Sweetwater (03520023)	Lat 35°32'50", long 84°29'14" Monroe County, 26.6 miles above mouth of Sweetwater Creek.		.15		15.5	230
26.6	353256084291900 Sweetwater Creek at County Line, near Sweetwater (03520029)	Lat 35°32'56", long 84°29'19" McMinn County, 26.6 miles above mouth.		.74	+0.6	15.5	232
26.6	353258084291900 Unnamed Spring at County Line, near Sweetwater (03520030)	Lat 35°32'58", long 84°29'19" McMinn County.		.00			
26.1	353258084292600 Dugan Spring near Sweetwater (03520031)	Lat 35°32'58", long 84°29'26" McMinn County.		.33		14.0	245
24.8	353244084310500 Sweetwater Creek Tributary at Highway 11, at Reagan (035200353)	Lat 35°32'44", long 84°31'05" McMinn County, 2.6 miles above mouth.	0.88	.00			
24.8	353302084304700 Sweetwater Creek Tributary at Old Mine Road, at Reagan (035200358)	Lat 35°33'02", long 84°30'47" McMinn County, 2.1 miles above mouth.	2.58	.00		14.0	345
24.8	353324084305900 Sweetwater Creek Tributary at Gregory Chapel, at Reagan (03520036)	Lat 35°33'24", long 84°30'59" McMinn County, 0.5 mile above mouth.		.02		14.0	250
24.8	353315084305100 Sweetwater Creek Tributary at Reagan (035200362)	Lat 35°33'15", long 84°30'51" McMinn County, 0.2 mile above mouth.	1.63	.00			
24.8	353339084302800 Sweetwater Creek Tributary below Reagan (035200364)	Lat 35°33'39", long 84°30'28" McMinn County, 0.6 mile above mouth.	4.70	.00			
24.8	353355084301500 Sweetwater Creek Tributary at Grove Road, near Reagan (035200368)	Lat 35°33'55", long 84°30'15" McMinn County, 0.1 mile above mouth.	0.89	.17		15.0	300
24.8	353409084300000 Sweetwater Creek Tributary near Reagan (03520037)	Lat 35°34'09", long 84°30'00" McMinn County, 0.3 mile above mouth.	5.90	.85		16.5	270
23.9	353431084291300 Sweetwater Creek at Head of Creek Road, near Sweetwater (035200378)	Lat 35°34'31", long 84°29'13" Monroe County, 23.9 miles above mouth.	13.8	3.0	+0.9	16.0	255
23.3	353416084290100 Unnamed Spring at Wood (035200383)	Lat 35°34'16", long 84°29'01" Monroe County.		.06		15.5	345

Sweetwater Creek low base-flow seepage investigation--Headwaters to Old Sweetwater--Continued

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss	Water Temp. (°C)	Specific Conductance (umhos/cm)
23.3	353448084284300 Sweetwater Creek Tributary at Wood (035200384)	Lat 35°34'48", long 84°28'43" Monroe County, at mouth.	0.44	.05		14.5	340
22.7	353503084281600 Sweetwater Creek above Highway 68, at Wood (035200386)	Lat 35°35'03", long 84°28'16" Monroe County, 22.7 miles above mouth.	15.1	3.4	+0.3	15.0	260
22.7	353503084281400 Sweetwater Creek Tributary above Highway 68, at Wood (035200395)	Lat 35°35'03", long 84°28'14" Monroe County, at mouth.	0.93	.11		14.0	405
22.4	03520040 Kilpatrick Spring near Sweetwater (03520040)	Lat 35°34'58", long 84°27'21" Monroe County, 1.0 mile southeast of Sweetwater.		.78		15.0	280
22.4	353508084275700 Kilpatrick Spring Branch at Sweetwater (035200403)	Lat 35°35'08", long 84°27'57" Monroe County, 0.1 mile above mouth.	0.78	.68		15.5	290
21.8	03520041 Sweetwater Creek above Filter Plant at Sweetwater (03520041)	Lat 35°35'36", long 84°28'10" Monroe County, 50 ft above tributary, 200 ft above water treatment plant, and 500 ft below bridge on U.S. Highway 11.	17.1	4.3	+0.1	15.5	260
21.8	353525084282200 Sweetwater Creek Tributary at Highway 68, at Sweetwater (0352004101)	Lat 35°35'25", long 84°28'22" Monroe County, 0.3 mile above mouth.		1.0		17.0	320
21.8	353536084281200 Sweetwater Creek Tributary above Water Plant, at Sweetwater (035200411)	Lat 35°35'36", long 84°28'12" Monroe County, at mouth.	0.48	1.0		15.5	292
21.6	353547084293700 Sweetwater Creek Tributary at Waimer Road, at Sweetwater (035200413)	Lat 35°35'47", long 84°29'37" Monroe County, 1.4 miles above mouth.		.00			
21.6	353546084292300 Sweetwater Creek Tributary above Gemtron Drive, near Sweetwater (0352004132)	Lat 35°35'46", long 84°29'23" Monroe County, 1.2 miles above mouth.		.04		20.5	344
21.6	353546084292200 Sweetwater Creek Tributary below Gemtron Drive, near Sweetwater (035200414)	Lat 35°35'46", long 84°29'22" Monroe County, 1.2 miles above mouth.		.08		20.0	350
21.6	353544084290100 Sweetwater Creek Tributary at Sequoyah, at Sweetwater (035200415)	Lat 35°35'44", long 84°29'01" Monroe County, 0.9 mile above mouth.		.02		20.5	281
21.6	353545084290100 Sweetwater Creek Tributary above Sequoyah, at Sweetwater (035200416)	Lat 35°35'45", long 84°29'01" Monroe County, at mouth.		.00			
21.5	353549084280800 Sweetwater Creek above Cannon Spring, at Sweetwater (035200418)	Lat 35°35'49", long 84°28'08" Monroe County, 21.5 miles above mouth.	19.4	5.7	+0.4	14.5	290
21.5	353550084280500 Sweetwater Creek below Cannon Spring, at Sweetwater (035200419)	Lat 35°35'50", long 84°28'05" Monroe County, 21.5 miles above mouth.		6.5	+0.8	14.5	280
21.1	353551084274700 Sweetwater Creek at City Park, at Sweetwater (0352004201)	Lat 35°35'51", long 84°27'47" Monroe County, 21.1 miles above mouth.	19.5	6.3	-0.2	15.0	300

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi²)	Discharge (ft³/s)	Sweetwater Creek gain or loss	Water Temp. (°C)	Specific Conductance (umhos/cm)
20.9	353539084272800 Sweetwater Creek Tributary at Moon Street, at Sweetwater (035200421)	Lat 35°35'39", long 84°27'28" Monroe County, at mouth.		.00			
20.9	353539084272900 Spring Branch at Moon Street, at Sweetwater (035200422)	Lat 35°35'39", long 84°27'29" Monroe County, 0.3 mile above mouth.		.21		15.5	370
20.9	353553084273500 Sweetwater Creek Tributary at Commerce Street, at Sweetwater (035200423)	Lat 35°35'53", long 84°27'35" Monroe County, at mouth.	0.81	.24		16.0	370
20.8	353555084273200 Sweetwater Creek Tributary above North Street, at Sweetwater (035200424)	Lat 35°35'55", long 84°27'32" Monroe County, at mouth.	0.03	.10		14.5	420
20.7	353601084272600 Sweetwater Creek at North Street, at Sweetwater (035200425)	Lat 35°36'01", long 84°27'26" Monroe County, 20.7 miles above mouth.	20.7	8.0	+1.4	14.5	300
20.1	03520043 Sweetwater Creek at Sweetwater (03520043)	Lat 35°36'32, long 84°27'40" Monroe County, at U.S. Highway 11 Bridge at Sweetwater, 20.1 miles above mouth	21.2	7.2	-0.8	14.5	305
19.2	353659084272200 Sweetwater Creek Tributary at Old Highway, at Sweetwater (035200438)	Lat 35°36'59", long 84°27'22" Monroe County, .01 mile above mouth.	0.63	.00			
19.2	03520044 Sweetwater Creek at Southern Railway Bridge, at Sweetwater (03520044)	Lat 35°36'57", long 84°27'17" Monroe County, at Southern Railway Bridge, about 2000 ft northeast of Sweetwater City limits, 19.2 miles above mouth.	23.7	7.2	0.0	15.5	332
18.9	353653084270100 Sweetwater Creek Tributary at Sweetwater (035200442)	Lat 35°36'53", long 84°27'01" Monroe County, at mouth.	0.75	.19		14.5	365
18.1	353714084265100 Sweetwater Creek Tributary above Southern Railroad, near Sweetwater (035200449)	Lat 35°37'14", long 84°26'51" Monroe County, at mouth.	1.09	.04		14.0	290
17.6	03520045 Sweetwater Creek below Sweetwater (03520045)	Lat 35°37'31", long 84°26'57" Monroe County, at U.S. Highway 11 bridge, 2.0 miles northeast of downtown Sweetwater 17.6 miles above mouth.	26.4	7.1	-0.3	14.5	345
17.4	353741084265700 Sweetwater Creek Tributary at Fairlane (03520046)	Lat 35°37'41", long 84°26'57" Monroe County, 0.1 mile above mouth.	1.30	.00			
16.9	353800084263300 Sweetwater Creek Tributary below Fairlane (03520048)	Lat 35°38'00", long 84°26'33" Monroe County, at mouth.	0.18	1.2		15.0	250
16.7	03520050 Sweetwater Creek near Sweetwater	Lat 35°38'04", long 84°26'27" Monroe County, 1.0 mile downstream from U.S. Highway 11 bridge, 2.9 miles northeast of downtown Sweetwater, 16.7 miles above mouth.	28.1	9.0	+0.7	15.5	188
15.9	353820084262500 Sweetwater Creek Tributary near Fairlane (03520051)	Lat 35°38'20", long 84°26'25" Monroe County, at mouth.	0.64	.00			
15.4	353830084261100 Sweetwater Creek above Old Sweetwater (035200512)	Lat 35°38'30", long 84°26'11" Monroe County, 15.4 miles above mouth.	29.1	8.4	-0.6	15.0	315

Sweetwater Creek low base-flow seepage investigation--Headwaters to Old Sweetwater--Continued

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss	Water Temp. (°C)	Specific Conductance (umhos/cm)
15.4	353831084260900 Sweetwater Creek Tributary at Old Sweetwater (035200518)	Lat 35°38'31", long 84°26'09" Monroe County, at mouth.	0.78	.65		14.0	320
15.1	353750084251600 Sweetwater Creek Tributary near Old Sweetwater (035200526)	Lat 35°37'50", long 84°25'16" Monroe County, 1.2 miles above mouth.		.23		15.0	295
15.1	03520053 Sweetwater Creek Tributary near Sweetwater (03520053)	Lat 35°38'12", long 84°25'50" Monroe County, 1500 ft west of U.S. Highway 11E, 3.1 miles northeast of Sweetwater, 0.3 mile above mouth.	2.79	2.1		15.5	285
15.1	353828084255100 Sweetwater Creek Tributary at Highway 11, at Old Sweetwater (03520054)	Lat 35°38'28", long 84°25'51" Monroe County, at mouth.	2.85	2.4		15.0	290
14.0	353858084254100 Sweetwater Creek at Old Sweetwater (03520055)	Lat 35°38'58", long 84°25'41" Monroe County, 14.0 miles above mouth.	33.2	11	-0.4	15.0	320

Listed below are additional measurements made in conjunction with this study.

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Date	Water Temp. (°C)	Specific Conductance (µmhos/cm)
26.1	353300084294800 Sweetwater Creek Tributary at Old Mine Road, near Reagan (03520033)	Lat 35°33'00", long 84°29'48" McMinn County, 0.3 mile above mouth.	0.62	.00	Oct. 20	---	---
25.2	353358084295300 Sweetwater Creek below Browder Lake Outlet, near Sweetwater (035200351)	Lat 35°33'58", long 84°29'53" McMinn County, 25.2 miles above mouth.	5.61	1.2	Oct. 20	15.0	183
24.8	353409084300000 Sweetwater Creek Tributary near Reagan (03520037)	Lat 35°34'09", long 84°30'00" McMinn County, 0.3 mile above mouth.	5.90	.94		16.5	270
23.9	353431084291300 Sweetwater Creek at Head of Creek Road, near Sweetwater (035200378)	Lat 35°34'31", long 84°29'13" Monroe County, 23.9 miles above mouth.	13.8	2.9	Oct. 20	16.0	255
	353858084252800 Sweetwater Creek Tributary below Old Sweetwater (03520056)	Lat 35°38'58", long 84°25'28" Monroe County, at mouth.	0.13	.00	Oct. 15	---	---

Discharge measurements and observations of dry channel were made Feb. 23, 24, 1982, on Sweetwater Creek and tributaries. The reach is 12.7 mi (20.4 km) in length. This channel survey was made during a period of high base-flow and was used to identify reaches of ground-water discharge to streams as well as river gains and losses. Tributary flow was considered a contribution and not a gain.

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
26.7	353249084291200 Sweetwater Creek at Old Mine Road, near Sweetwater (03520019)	Lat 35°32'49", long 84°29'12" Monroe County, 26.7 miles above mouth.	1.11	.04		11.5	166
26.7	353249084291300 Sweetwater Creek Tributary above Bell Spring near Sweetwater (03520021)	Lat 35°32'49", long 84°29'13" Monroe County, 0.2 mile above mouth.	1.70	4.2		13.0	163
26.7	353247084291400 Bell Spring near Sweetwater (03520022)	Lat 35°32'47", long 84°29'14" McMinn County, 0.1 mile above tributary mouth.		.83		14.0	180
26.6	353250084291600 Sweetwater Creek Tributary above County Line, near Reagan (03520028)	Lat 35°32'50", long 84°29'16" McMinn County, 0.1 mile above mouth.	0.64	.01		---	172
26.1	353315084294400 Sweetwater Creek above Browder Lake, near Reagan (035200317)	Lat 35°33'15", long 84°29'44" McMinn County, 26.1 miles above mouth.	3.66	8.1	+3.0	15.0	186
26.1	353258084292600 Dugan Spring near Sweetwater (03520031)	Lat 35°32'58", long 84°29'26" McMinn County.		1.5		13.0	126
26.1	353300084294800 Sweetwater Creek Tributary at Old Mine Road, near Reagan (03520033)	Lat 35°33'00", long 84°29'48" McMinn County, 0.3 mile above mouth.	0.62	.73		14.5	172
26.1	353314084294500 Sweetwater Creek Tributary below Dugan Spring (035200335)	Lat 35°33'14", long 84°29'45" McMinn County, at mouth.	0.75	2.5		14.5	182
25.8	353300084301800 Sweetwater Creek Tributary above Browder Lake, near Reagan (03520034)	Lat 35°33'00", long 84°30'18" McMinn County, 0.5 mile above mouth.	0.04			14.0	145
25.8	353322084295700 Sweetwater Creek Tributary near Browder Lake, near Reagan (035200342)	Lat 35°33'22", long 84°29'57" McMinn County, at mouth.	0.35	.14		16.0	170
25.2	353358084295300 Sweetwater Creek below Browder Lake near Sweetwater (035200351)	Lat 35°33'58", long 84°29'53" McMinn County, 25.2 miles above mouth.	5.61	11	+0.3	11.5	160
24.8	353244084310500 Sweetwater Creek Tributary at Highway 11, at Reagan (035200353)	Lat 35°32'44", long 84°31'05" McMinn County, 2.6 miles above mouth.	0.88	1.0		12.5	200
24.8	353247084310700 Sweetwater Creek West Tributary above Reagan (035200355)	Lat 35°32'47", long 84°31'07" McMinn County, at mouth.	1.10	.00			
24.8	353302084304700 Sweetwater Creek Tributary at Old Mine Road, at Reagan (035200358)	Lat 35°33'02", long 84°30'47" McMinn County, 2.1 miles above mouth.	2.58	4.0		11.0	210
24.8	353315084305100 Sweetwater Creek Tributary at Reagan (035200362)	Lat 35°33'15", long 84°30'51" McMinn County, 0.2 mile above mouth.	1.63	3.5		10.0	130
24.8	353339084302800 Sweetwater Creek Tributary below Reagan (035200364)	Lat 35°33'39", long 84°30'28" McMinn County, 0.6 mile above mouth.	4.70	8.5		11.0	190

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
24.8	353355084301500 Sweetwater Creek Tributary at Grove Road, near Reagan (035200368)	Lat 35°33'55", long 84°30'15" McMinn County, 0.1 mile above mouth.	0.89	2.0		---	---
24.8	353409084300000 Sweetwater Creek Tributary near Reagan (03520037)	Lat 35°34'09", long 84°30'00" McMinn County, 0.3 mile above mouth.	5.90	13		11.0	198
24.8	353420084295100 Sweetwater Creek Tributary below SCS Dam, at Wood (035200376)	Lat 35°34'20", long 84°29'51" Monroe County, 0.1 mile above mouth.	1.61	1.5		10.5	122
23.9	353431084291300 Sweetwater Creek at Head of Creek Road, near Sweetwater (035200378)	Lat 35°34'31", long 84°29'13" Monroe County, 23.9 miles above mouth.	13.8	29	+3.5	9.5	200
23.8	353444084291300 Sweetwater Creek Tributary at Old Athens Road, at Wood (03520038)	Lat 35°34'44", long 84°29'13" Monroe County, 0.1 mile above mouth.	0.24	.00			
23.5	353452084290100 Sweetwater Creek ributary at Lee Highway, at Wood (035200382)	Lat 35°34'52", long 84°29'01" Monroe County, 0.2 mile above mouth.	0.34	.00			
23.3	353416084290100 Unnamed Spring at Wood (035200383)	Lat 35°34'16", long 84°29'01" Monroe County.		.55		14.5	295
23.3	353448084284300 Sweetwater Creek Tributary at Wood (035200384)	Lat 35°34'48", long 84°28'43" Monroe County, at mouth.	0.44	.87		12.0	285
22.7	353503084281600 Sweetwater Creek above Highway 68, at Wood (035200386)	Lat 35°35'03", long 84°28'16" Monroe County, 22.7 miles above mouth.	15.1	32	+2.1	9.0	195
22.7	353503084281400 Sweetwater Creek Tributary above Highway 68, at Wood (035200395)	Lat 35°35'03", long 84°28'14" Monroe County, at mouth.	0.93	1.5		13.0	315
22.4	03520040 Kilpatrick Spring near Sweetwater (03520040)	Lat 35°34'58", long 84°27'21" Monroe County, 1.0 mile southeast of Sweetwater.		5.5		14.0	200
22.4	353508084275700 Kilpatrick Spring Branch at Sweetwater (035200403)	Lat 35°35'08", long 84°27'57" Monroe County, 0.1 mile above mouth.	0.78	6.3		15.0	216
21.8	03520041 Sweetwater Creek above Filter Plant at Sweetwater (03520041)	Lat 35°35'36", long 84°28'10" Monroe County, 50 ft above tributary, 200 ft above water treatment plant, and 500 ft below bridge on U.S. Highway 11.	17.1	39	-0.8	9.0	203
21.8	353525084282200 Sweetwater Creek Tributary at Highway 68, at Sweetwater (0352004101)	Lat 35°35'25", long 84°28'22" Monroe County, 0.3 mile above mouth.		5.0		17.0	242
21.8	353536084281200 Sweetwater Creek Tributary above Water Plant, at Sweetwater (035200411)	Lat 35°35'36", long 84°28'12" Monroe County, at mouth.	0.48	4.6		8.5	272
21.6	353559084293800 Sweetwater Creek Tributary at Monroe Street, at Sweetwater (035200412)	Lat 35°35'59", long 84°29'38" Monroe County, 1.7 miles above mouth.		.00			
21.6	353547084293700 Sweetwater Creek Tributary at Waimer Road, at Sweetwater (035200413)	Lat 35°35'47", long 84°29'37" Monroe County, 1.4 miles above mouth.		.00			

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
21.6	353544084292500 Unnamed Spring outlet at Highway 48, at Sweetwater (0352004131)	Lat 35°35'44", long 84°29'25" Monroe County, at mouth.		.05		10.5	58
21.6	353546084292300 Sweetwater Creek Tributary above Gemtron Drive, near Sweetwater (0352004132)	Lat 35°35'46", long 84°29'23" Monroe County, 1.2 miles above mouth.		.60		10.5	97
21.6	353546084292200 Sweetwater Creek Tributary below Gemtron Drive, near Sweetwater (035200414)	Lat 35°35'46", long 84°29'22" Monroe County, 1.2 miles above mouth.		.57		11.0	146
21.6	353544084290100 Sweetwater Creek Tributary at Sequoyah, at Sweetwater (035200415)	Lat 35°35'44", long 84°29'01" Monroe County, 0.9 mile above mouth.		2.3		11.5	160
21.6	353545084290100 Sweetwater Creek Tributary above Sequoyah, at Sweetwater (035200416)	Lat 35°35'45", long 84°29'01" Monroe County, at mouth.		.39		11.0	220
21.6	353539084282000 Sweetwater Creek Tributary at Clark Street, at Sweetwater (035200417)	Lat 35°35'39", long 84°28'20" Monroe County, 0.2 mile above mouth.	1.66	3.3		14.0	178
21.5	353549084280800 Sweetwater Creek above Cannon Spring, at Sweetwater (035200418)	Lat 35°35'49", long 84°28'08" Monroe County, 21.5 miles above mouth.	19.4	51	+4.1	8.5	208
21.5	353550084280500 Sweetwater Creek below Cannon Spring, at Sweetwater (035200419)	Lat 35°35'50", long 84°28'05" Monroe County, 21.5 miles above mouth.		51	0	8.5	208
21.1	353551084274700 Sweetwater Creek at City Park, at Sweetwater (0352004201)	Lat 35°35'51", long 84°27'47" Monroe County, 21.1 miles above mouth.	19.5	54	+3.0	9.5	215
20.9	353553084273500 Sweetwater Creek Tributary at Commerce Street, at Sweetwater (035200423)	Lat 35°35'53", long 84°27'35" Monroe County, at mouth.	0.81	1.6		15.5	270
20.8	353555084273200 Sweetwater Creek Tributary above North Street, at Sweetwater (035200424)	Lat 35°35'55", long 84°27'32" Monroe County, at mouth.	0.03	.43		13.5	340
20.7	353601084272600 Sweetwater Creek at North Street, at Sweetwater (035200425)	Lat 35°36'01", long 84°27'26" Monroe County, 20.7 miles above mouth.	20.7	54	-2.0	9.0	220
20.1	03520043 Sweetwater Creek at Sweetwater (03520043)	Lat 35°36'32, long 84°27'40" Monroe County, at U.S. Highway 11 Bridge at Sweetwater, 20.1 miles above mouth	21.2	55	+1.0	9.5	228
20.0	353631084274300 Sweetwater Creek Tributary at Main Street, at Sweetwater (035200429)	Lat 35°36'31", long 84°27'43" Monroe County, at mouth.	1.30	1.2		10.0	124
19.2	353659084272200 Sweetwater Creek Tributary at Old Highway, at Sweetwater (035200438)	Lat 35°36'59", long 84°27'22" Monroe County, .01 mile above mouth.	0.63	.00			

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
19.2	03520044 Sweetwater Creek at Southern Railway Bridge, at Sweetwater (03520044)	Lat 35°36'57", long 84°27'17" Monroe County, at Southern Railway Bridge, about 2000 ft northeast of Sweetwater City limits, 19.2 miles above mouth.	23.7	59	+2.8	8.5	240
18.9	353653084270100 Sweetwater Creek Tributary at Sweetwater (035200442)	Lat 35°36'53", long 84°27'01" Monroe County, at mouth.	0.75	1.5		12.5	395
18.1	353639084260000 Sweetwater Creek Tributary at Overhill Trail, near Sweetwater (035200445)	Lat 35°36'39", long 84°26'00" Monroe County, 1.6 miles above mouth.		.00			
18.1	353700084261300 Sweetwater Creek Tributary below Hawkins Road, near East Sweetwater (035200447)	Lat 35°37'00", long 84°26'13" Monroe County, at mouth.		.00			
18.1	353713084263200 Sweetwater Creek Tributary below Hawkins Road, near Sweetwater (035200448)	Lat 35°37'13", long 84°26'32" Monore County, 0.3 mile above mouth.		4.6			
18.1	353714084265100 Sweetwater Creek Tributary above Southern Railroad, near Sweetwater (035200449)	Lat 35°37'14", long 84°26'51" Monroe County, at mouth.	1.09	4.2		15.5	290
17.6	03520045 Sweetwater Creek below Sweetwater (03520045)	Lat 35°37'31", long 84°26'57" Monroe County, at U.S. Highway 11 bridge, 2.0 miles northeast of downtown Sweetwater 17.6 miles above mouth.	26.4	68	+3.3	9.5	230
17.4	353741084265700 Sweetwater Creek Tributary at Fairlane (03520046)	Lat 35°37'41", long 84°26'57" Monroe County, 0.1 mile above mouth.	1.30	.00			
16.9	353757084264300 Sweetwater Creek Tributary below Springs, below Fairlane (03520047)	Lat 35°37'57", long 84°26'43" Monroe County, 0.2 mile above mouth.		5.8		14.0	200
16.9	353800084263300 Sweetwater Creek Tributary below Fairlane (03520048)	Lat 35°38'00", long 84°26'33" Monroe County, at mouth.	0.18	5.9		14.0	207
15.9	353820084262500 Sweetwater Creek Tributary near Fairlane (03520051)	Lat 35°38'20", long 84°26'25" Monroe County, at mouth.	0.64	.00			
15.4	353830084261100 Sweetwater Creek above Old Sweetwater (035200512)	Lat 35°38'30", long 84°26'11" Monroe County, 15.4 miles above mouth.	29.1	74	+0.1	9.0	240
15.4	353905084263700 Sweetwater Creek Tributary at Washington Pike, at Old Sweetwater (035200514)	Lat 35°39'05", long 84°26'37" Monroe County, 0.8 mile above mouth.		.00			
15.4	353900084270100 Sweetwater Creek Tributary at Washington Pike, near Old Sweetwater (035200516)	Lat 35°39'00", long 84°27'01" Monroe County, 0.4 mile above mouth.		.05			
15.4	353831084260900 Sweetwater Creek Tributary at Old Sweetwater (035200518)	Lat 35°38'31", long 84°26'09" Monroe County, at mouth.	0.78	1.9		12.0	203
15.1	353759084245500 Unnamed Spring near Old Sweetwater (035200525)	Lat 35°37'59", long 84°24'55" Monore County, 1.6 miles above mouth.		1.3		14.0	300

Sweetwater Creek high base-flow seepage investigation--Headwaters to Old Sweetwater--Continued

Sweetwater Creek River mile	Site number, stream name, and downstream order number	Location	Drainage area (mi^2)	Discharge (ft^3/s)	Sweetwater Creek gain or loss (ft^3/s)	Water Temp. (°C)	Specific Conductance (umhos/cm)
15.1	353750084251600 Sweetwater Creek Tributary near Old Sweetwater (035200526)	Lat 35°37'50", long 84°25'16" Monroe County, 1.2 miles above mouth.		1.8		13.5	302
15.1	353756084253000 Sweetwater Creek Tributary above Old Sweetwater (035200528)	Lat 35°37'56", long 84°25'30" Monroe County, at mouth.		.00			
15.1	03520053 Sweetwater Creek Tributary near Sweetwater (03520053)	Lat 35°38'12", long 84°25'50" Monroe County, 1500 ft west of U.S. Highway 11E, 3.1 miles northeast of Sweetwater, 0.3 mile above mouth.	2.79	10		13.0	265
15.1	353828084255100 Sweetwater Creek Tributary at Highway 11, at Old Sweetwater (03520054)	Lat 35°38'28", long 84°25'51" Monroe County, at mouth.	2.85	9.0		14.5	255
14.0	353858084254100 Sweetwater Creek at Old Sweetwater (03520055)	Lat 35°38'58", long 84°25'41" Monroe County, 14.0 miles above mouth.	33.2	84	-0.9	10.0	240

CUMBERLAND RIVER BASIN

361135084254700 - SMOKY CREEK NEAR MAHAN VILLAGE, TN (034078737)

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
11...	1130	6.6	280	7.2	9.5	34	71

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
11...	183	310	10	10	<10	13	.23

361134084254100 - ASHER FORK NEAR HEMBREE, TN (034078738)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
11...	1200	8.3	290	7.4	10.0	40	85

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
11...	178	250	20	40	30	8	.18

361138084254000 - SMOKY CREEK NEAR HEMBREE, TN (034078739)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
11...	1030	15	285	7.3	10.0	38	81

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
11...	174	210	30	30	20	8	.34

361252084245300 - BILLS BRANCH AT MOUTH NEAR HEMBREE, TN (034078752)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
10...	1430	3.7	168	7.1	9.5	9	85

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
10...	113	430	20	90	80	8	.08

CUMBERLAND RIVER BASIN--Continued

361303084250000 - LOWE BRANCH AT HEMBREE, TN (034078753)

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
10...	1330	2.4	125	7.1	10.5	24	30

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
10...	73	350	30	10	<10	11	.07

361351084250400 - SMOKY CREEK BELOW HEMBREE, TN (034078757)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
10...	1030	54	210	6.8	8.5	22	65

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
10...	139	490	20	60	40	11	1.6

361419084245600 - LITTLE BRIMESTONE CREEK AT HEMBREE, TN (034078759)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR							
10...	0815	7.1	42	6.7	6.0	5	12

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR							
10...	34	2500	150	60	20	27	.52

03407992 - FLAT CREEK AT HUNTSVILLE, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
SEP					
30...	1520	.60	620	6.2	17.0

CUMBERLAND RIVER BASIN--Continued

03408815 - CROOKED CREEK NEAR ALLARDT, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT								
01...	1030	.39	105	6.6	11.5	9.3	18	25
19...	1125	1.8	145	--	9.5	--	--	--
19...	1515	1.6	145	--	11.5	--	--	--
NOV								
18...	1340	2.9	108	--	7.5	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
01...	60	1000	70	600	5	.01

03409400 - WHITE OAK CREEK AT RUGBY, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT								
01...	1500	1.0	250	6.6	18.0	7.9	66	36
20...	1500	8.7	310	--	10.5	--	--	--
NOV								
19...	1205	14	180	--	7.5	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
01...	151	230	80	70	4	.01

03414500 - EAST FORK OBEY RIVER NEAR JAMESTOWN, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY FIELD (MG/L AS CACO3)
OCT							
07...	1215	56	290	7.0	14.5	10.4	54
NOV							
03...	1350	187	160	--	13.5	--	--
DEC							
09...	1220	237	158	--	5.5	--	--
JAN							
21...	1230	4550	140	--	6.5	--	--

03435770 SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
08...	1410	13	240	14.0	--	--	--
DEC							
03...	1130	131	295	10.0	--	--	--
JAN							
05...	1030	340	230	7.5	--	--	--
AUG							
06...	1200	49	210	25.0	839	111	99

OBION RIVER BASIN

07025400 - NORTH FORK OBION RIVER NEAR MARTIN, TN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV							
18...	1515	173	44	13.0	20	9.3	--
JAN							
06...	1330	540	60	8.0	234	341	74
FEB							
12...	0915	437	65	3.0	131	155	--
MAR							
19...	0915	267	65	18.0	82	59	63
APR							
28...	0945	238	62	15.5	62	40	--
JUN							
09...	1515	137	44	25.0	82	30	--
JUL							
13...	1545	134	45	24.5	19	6.9	--
SEP							
14...	1030	1190	38	23.0	297	954	83

DATE	TIME	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV											
18...	1515	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
18...	<.01	<.01	<.01	<.01	<.01	<.01	<1	<.01	<.01	<.01	<.01

07029100 - NORTH FORK FORKED DEER RIVER AT DYERSBURG, TN (CE)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV							
18...	1000	221	89	11.0	38	23	--
JAN							
07...	1245	2790	68	7.0	499	3760	--
FEB							
10...	1345	3030	66	.5	741	6060	67
MAR							
17...	1345	922	80	19.5	375	934	--
APR							
27...	1110	1580	100	16.0	1100	4690	98
JUN							
10...	1445	447	85	25.0	2260	2730	93
JUL							
15...	1100	184	85	27.0	70	35	--
SEP							
15...	1030	2940	60	25.5	651	5170	92

DATE	TIME	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV											
18...	1000	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
18...	<.01	<.01	<.01	<.01	<.01	<.01	<1	.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

CUMBERLAND RIVER BASIN

03407990 - NEW RIVER NEAR HUNTSVILLE, TN (LAT 36 24 18 LONG 084 29 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
SEP , 1982				
30...	1200	82	362	17.5

03408600 - LONG BRANCH NEAR GRIMSLEY, TN (LAT 36 15 32 LONG 084 57 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
NOV , 1981				
18...	1000	1.0	20	7.5

03422500 - CANEY FORK NEAR ROCK ISLAND, TN (LAT 35 48 26 LONG 085 37 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	0930	71	330	18.2

03426800 - EAST FORK STONES RIVER AT WOODBURY, TN (LAT 35 49 41 LONG 086 04 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	1225	4.8	345	19.0
NOV				
03...	0845	10	350	14.0
DEC , 1981				
08...	1115	18	345	11.0
JAN , 1982				
18...	1150	18	325	4.0

03428200 - WEST FORK STONES RIVER AT MURFREESBORO, TN (LAT 35 54 10 LONG 086 25 48)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
13...	1320	6.3	610	20.0
NOV				
03...	1110	41	550	16.5
DEC , 1981				
09...	1350	86	500	8.5
JAN , 1982				
18...	1420	95	500	3.0

03431517 - CUMMINGS BRANCH AT LICKTON, TN (LAT 36 18 25 LONG 086 48 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
02...	1200	.17	440	17.0
NOV				
02...	0950	.68	400	15.5
DEC , 1981				
07...	1055	1.9	320	13.0
JAN , 1982				
05...	1015	17	240	10.0

03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TN (LAT 36 19 12 LONG 087 03 04)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
08...	1415	24	210	15.0
NOV				
16...	0930	32	290	9.5
DEC , 1981				
29...	1430	91	240	6.0

03432350 - HARPETH RIVER AT FRANKLIN, TN (LAT 35 55 14 LONG 086 51 56)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
01...	1150	1.7	390	18.0
08...	1525	2.0	380	17.0
NOV				
20...	1005	11	410	9.0
JAN , 1982				
20...	1130	370	300	4.0

03433500 - HARPETH RIVER AT BELLEVUE, TN (LAT 36 03 16 LONG 086 55 42)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
02...	1000	23	450	15.0
NOV				
20...	1155	40	430	9.0
JAN , 1982				
20...	1510	754	380	6.0

03435000 - CUMBERLAND RIVER BELOW CHEATHAM DAM, TN (LAT 36 19 26 LONG 087 13 32)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
JAN , 1982				
07...	1200	36300	235	7.0

03435770 - SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN (LAT 36 30 47 LONG 086 51 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
08...	1410	13	240	14.0
DEC				
03...	1130	131	295	10.0
JAN , 1982				
05...	1030	340	230	7.5
AUG				
06...	1200	49	210	25.0

CUMBERLAND RIVER BASIN--Continued

03436690 - YELLOW CREEK AT ELLIS MILLS, TN (LAT 36 18 39 LONG 087 33 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
08...	1015	28	305	14.5	04...	1315	985	190	9.0
NOV									
17...	1200	29	280	13.5					

TENNESSEE RIVER BASIN

03455000 - FRENCH BROAD RIVER NEAR NEWPORT, TN (LAT 35 58 54 LONG 083 09 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
22...	1500	503	232	13.0	29...	1215	1860	80	5.0
NOV									
24...	1030	766	205	6.5					

03461200 - COSBY CREEK ABOVE COSBY, TN (LAT 35 46 58 LONG 083 13 03)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
22...	1145	4.2	22	11.0	29...	1415	28	16	5.0
NOV									
24...	1345	11	25	6.5					

03461500 - PIGEON RIVER AT NEWPORT, TN (LAT 35 57 38 LONG 083 10 28)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
22...	0950	88	740	12.0	31...	1050	270	330	4.0
NOV									
24...	1145	156	820	8.5					

03466228 - SINKING CREEK AT AFTON, TN (LAT 36 11 55 LONG 082 44 31)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
20...	1000	3.9	430	9.5	30...	1300	14	410	7.5
NOV									
23...	1445	3.4	380	7.5					

03486000 - WATAUGA RIVER AT ELIZABETHTON, TN (LAT 36 21 21 LONG 082 13 26)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					NOV , 1981				
21...	0915	120	110	8.5	24...	1525	153	93	6.5

03490500 - HOLSTON RIVER AT SURGOINSVILLE, TN (LAT 36 28 19 LONG 082 50 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					FEB , 1982				
19...	1630	1140	375	16.5	17...	1520	11000	295	9.0
DEC									
29...	1130	2420	340	7.0					

03491000 - BIG CREEK NEAR ROGERSVILLE, TN (LAT 36 25 34 LONG 082 57 07)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
19...	1315	6.2	390	13.0	28...	1410	55	310	7.0
NOV					FEB , 1982				
23...	1030	7.7	350	3.5	16...	1500	146	280	9.0

03491300 - BEECH CREEK AT KEPLER, TN (LAT 36 24 06 LONG 082 53 09)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
19...	1130	5.3	300	11.5	28...	1550	24	250	4.5
NOV					FEB , 1982				
23...	0935	4.1	290	1.5	16...	1200	116	218	7.5

03528000 - CLINCH RIVER ABOVE TAZEWELL, TN (LAT 36 25 30 LONG 083 23 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
05...	1430	334	350	16.0	28...	1000	2570	240	2.5
DEC									
09...	1200	476	290	4.0					

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

TENNESSEE RIVER BASIN--Continued

03535000 - BULLRUN CREEK NEAR HALLS CROSSROADS, TN (LAT 36 06 52 LONG 083 59 16)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
13...	1400	12	355	14.5	05...	1105	466	215	7.0
DEC					21...	1145	1040	155	3.0
04...	1145	101	285	8.0	FEB				
JAN , 1982					03...	1105	679	190	7.0
04...	1230	1550	145	8.0					

03538225 - POPLAR CREEK NEAR OAK RIDGE, TN (LAT 35 59 55 LONG 084 20 23)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
29...	1505	76	260	14.5	06...	1325	382	160	7.5
DEC					FEB				
03...	1330	167	200	8.0	02...	1500	240	185	5.0
16...	1140	55	270	4.0					

03538250 - EAST FORK POPLAR CREEK NEAR OAK RIDGE, TN (LAT 35 57 58 LONG 084 21 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
22...	1035	15	480	13.5	04...	1530	282	175	9.0
DEC					FEB				
03...	1110	34	390	10.5	04...	1215	85	--	8.5

03539800 - OBED RIVER NEAR LANCING, TN (LAT 36 04 53 LONG 084 40 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
21...	1305	113	97	13.5	05...	1400	6630	55	7.5
DEC					FEB				
02...	1315	5900	48	9.0	11...	1145	2320	47	3.5

03540500 - EMORY RIVER AT OAKDALE, TN (LAT 35 58 59 LONG 084 33 29)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
29...	0900	1640	67	13.0	05...	1515	8860	52	6.5
NOV					26...	1230	3260	55	3.0
30...	1300	2360	53	7.5					
DEC									
15...	1230	779	50	7.0					

03543500 - SEWEE CREEK NEAR DECATUR, TN (LAT 35 34 53 LONG 084 44 53)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
06...	1210	16	300	15.0	23...	1040	274	185	6.5
NOV					JAN , 1982				
20...	1730	20	250	9.5	26...	1400	368	180	5.5

03563000 - OCOEE RIVER AT EMF, TN (LAT 35 05 48 LONG 084 32 07)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
08...	0830	27	160	17.5	04...	1315	1540	85	9.0
NOV					JAN , 1982				
20...	1100	42	390	8.5	27...	1100	1540	115	3.5

03565300 - SOUTH CHESTUEE CREEK NEAR BENTON, TN (LAT 35 10 02 LONG 084 42 59)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
09...	0900	7.8	310	12.5	22...	0940	26	250	2.5
NOV					JAN , 1982				
19...	0940	4.5	310	7.5	27...	1500	61	195	4.0

03566420 - WOLFTEVER CREEK NEAR OOLTEWAH, TN (LAT 35 03 43 LONG 085 03 59)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					DEC , 1981				
08...	1100	1.6	360	14.5	10...	1050	6.9	330	5.5
NOV					JAN , 1982				
03...	1200	2.7	420	16.0	20...	1300	40	205	5.0

TENNESSEE RIVER BASIN--Continued

03567500 - SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TN (LAT 35 00 50 LONG 085 12 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981					JAN , 1982				
07...	1715	99	340	12.5	07...	0830	2150	164	9.0
NOV					20...	1110	596	255	4.5
03...	1030	122	310	15.5	21...	1640	5320	125	8.5
JAN , 1982					22...	0900	5150	118	9.0
04...	1245	10500	87	8.5	22...	1230	4410	121	8.5
04...	1810	11800	60	8.0	22...	2310	3390	150	9.0
05...	1700	11200	75	8.0	23...	0950	3990	137	8.0
06...	1315	4480	130	8.0	23...	1245	4660	140	8.0
06...	1615	4020	127	8.5					

03582000 - ELK RIVER ABOVE FAYETTEVILLE, TN (LAT 35 08 04 LONG 086 32 23)

OCT , 1981					NOV , 1981				
05...	1500	503	200	13.0	17...	1225	593	200	10.0

03584500 - ELK RIVER NEAR PROSPECT, TN (LAT 35 01 39 LONG 086 56 52)

NOV , 1981				
06...	1040	338	220	17.0

03588000 - SHOAL CREEK AT LAWRENCEBURG, TN (LAT 35 14 40 LONG 087 21 02)

OCT , 1981					JAN , 1982				
06...	1810	25	180	17.0	07...	1655	103	160	9.0

03588400 - CHISHOLM CREEK AT WESTPOINT, TN (LAT 35 08 04 LONG 087 31 45)

OCT , 1981					JAN , 1982				
07...	0858	14	160	16.0	07...	0920	124	70	9.0
NOV									
18...	1510	19	85	11.0					

03598000 - DUCK RIVER NEAR SHELBYVILLE, TN (LAT 35 28 49 LONG 086 29 57)

NOV , 1981					NOV , 1981				
05...	1020	160	160	16.0	17...	0815	161	220	10.0

03599500 - DUCK RIVER AT COLUMBIA, TN (LAT 35 37 05 LONG 087 01 56)

OCT , 1981					JAN , 1982				
08...	1210	147	240	19.0	08...	1240	3840	300	9.0
NOV									
19...	1030	173	300	13.0					

03600500 - BIG BIGBY CREEK AT SANDY HOOK, TN (LAT 35 29 19 LONG 087 13 59)

OCT , 1981					JAN , 1982				
08...	0830	4.2	150	13.0	08...	0900	22	170	4.0
NOV									
19...	0755	5.2	170	12.0					

03602500 - PINEY RIVER AT VERNON, TN (LAT 35 52 16 LONG 087 30 05)

OCT , 1981					DEC , 1981				
14...	1510	88	270	16.0	29...	1450	267	225	7.0
NOV									
16...	1530	98	225	11.5					

03603000 - DUCK RIVER ABOVE HURRICANE MILLS, TN (LAT 35 55 48 LONG 087 44 35)

OCT , 1981					JAN , 1982				
16...	1115	591	250	18.0	22...	1420	13100	240	7.5
NOV									
17...	1605	640	260	11.5					

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

TENNESSEE RIVER BASIN--Continued

03604500 - BUFFALO RIVER NEAR LOBELVILLE, TN (LAT 35 48 46 LONG 087 47 51)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
15...	1405	333	125	17.5
NOV				
17...	1200	399	120	12.5
JAN , 1982				
21...	1035	1650	165	6.0

LOOSAHATCHIE RIVER BASIN

07030295 - LOOSAHATCHIE R TR AT NEW ALLEN RD AT MEMPHIS, TN (LAT 35 14 17 LONG 089 57 04)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				
01...	0745	.01	170	7.0
DEC , 1981				
08...	0900	.01	185	11.0

WOLF RIVER BASIN

07031680 - FLETCHER CREEK NEAR CORDOVA, TN (LAT 35 11 21 LONG 089 45 42)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
JAN , 1982				
22...	1120	2.0	110	8.0

07031683 - FLETCHER CR AT WHITTEN RD, AT MEMPHIS, TN (LAT 35 11 16 LONG 089 50 09)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
DEC , 1981				
15...	1320	.33	130	7.5

07031777 - LICK CREEK AT DICKINSON STREET, AT MEMPHIS, TN (LAT 35 09 24 LONG 090 00 12)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
DEC , 1981				
10...	1210	.84	160	8.0

NONCONNAH CREEK BASIN

07032222 - JOHNS CREEK TRIB AT HOLMES RD, NR MEMPHIS, TN (LAT 35 00 20 LONG 089 52 16)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
NOV , 1981				
04...	1130	.09	78	21.0
DEC				
10...	1030	.07	125	5.0
JAN , 1982				
21...	1230	12	75	5.5

07032224 - JOHNS CREEK AT RAINES RD, AT MEMPHIS, TN (LAT 35 02 05 LONG 089 53 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
NOV , 1981				
05...	0830	.44	675	15.0
DEC				
10...	0955	.23	360	5.5
JAN , 1982				
21...	0950	75	80	5.0

07032241 - BLACK BAYOU AT SOUTHERN AVENUE, AT MEMPHIS, TN (LAT 35 06 55 LONG 089 56 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
NOV , 1981				
12...	1315	.48	120	17.0
DEC				
22...	0935	.29	130	14.0
JAN , 1982				
22...	1140	.43	125	14.0

07032248 - CANE CREEK AT EAST PERSON AVENUE, AT MEMPHIS, TN (LAT 35 06 02 LONG 090 00 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
NOV , 1981				
10...	1445	3.4	170	19.0
DEC				
16...	1145	2.4	200	12.0
JAN , 1982				
21...	1230	5.0	200	11.0

MISSISSIPPI RIVER BASIN

07032260 - CYPRESS CREEK AT NEELY RD, AT MEMPHIS, TN (LAT 35 01 36 LONG 090 03 23)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
DEC , 1981				
15...	1200	.07	180	8.0
JAN , 1982				
20...	1245	.13	240	5.5

BRADLEY COUNTY

350503084505000. Local number, Br:E-1.

LOCATION.--Lat 35°05'03", long 84°50'50", Hydrologic Unit 03150101, on Trewhitt Road, 0.5 mi (0.8 km) north of Goodwill Road, Cleveland.
Owner: F. G. Trewhitt.

AQUIFER.--Conasauga shale of middle and late Cambrian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (910 mm), depth 25 ft (8 m), casing information not available.

DATUM.--Land-surface datum is 850 ft (259 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of concrete casing at land-surface datum.

PERIOD OF RECORD.--February 1950 to November 1955, April 1964 to current year. Analog record February 1950 to November 1955, April 1964 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.38 ft (2.25 m) below land-surface datum, Dec. 19, 1967; lowest recorded, 24.97 ft (7.61 m) below land-surface datum, Dec. 7, 8, 1954; highest water level measured, 8.22 ft (2.51 m) below land-surface datum, Apr. 5, 1977; lowest measured, 23.20 ft (7.07 m) below land-surface datum, Dec. 12, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	WATER LEVEL	DATE	WATER LEVEL	DATE
OCT 8	21.31	DEC 10	20.60	JAN 20	16.85	MAR 3	9.57	APR 15	11.14	MAY 27	14.43
AUG 19	19.21										

CANNON COUNTY

354823086104400. Local number, Cn:D-1.

LOCATION.--Lat 35°48'23", long 86°10'44", Hydrologic Unit 05130203, on county road on Cannon County and Rutherford County lines, 1.5 mi (2.4 km) south of Readyville.
Owner: Ray Barker.

AQUIFER.--Lebanon Limestone of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter, 6 in (150 mm), depth 30 ft (9 m), cased with steel to unknown depth, open end.

DATUM.--Land-surface datum is 715 ft (218 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--April 1967 to current year. Analong record April 1967 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.91 (0.28 m) below land-surface datum, Mar. 11, 1968; lowest recorded, 19.38 ft (5.91 m) below land-surface datum, Dec. 9, 10, 1968; highest water level measured, 12.14 ft (3.70 m) below land-surface datum, Jan. 8, 1974; lowest measured, 18.07 ft (5.51 m) below land-surface datum, June 27, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	16.85	JAN 18	15.08	APR 1	15.39	SEP 14	15.40

CARTER COUNTY

361738082132900. Local number, Ct:H-1.

LOCATION.--Lat 36°17'38", long 82°13'29", Hydrologic Unit 06010103, 3.5 mi (5.6 km) south of Elizabethton, 0.8 mi (1.3 km) north of Gap Creek.
Owner: Gap Creek Community.

AQUIFER: Honaker dolomite of middle Cambrian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 24 in (610 mm), depth 31 ft (9 m), casing information not available.

INSTRUMENTATION.--Water level recorder since April 1964.

DATUM.--Altitude of land-surface datum is 1,820 ft (555 m). Measuring point: Top of concrete tile, 2.50 ft (0.76 m) above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface seepage. Missing record Jan. 14 to Feb. 18, Apr. 19 to May 5.

PERIOD OF RECORD.--April 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.42 ft (0.43 m) below land-surface datum, Sept. 1, 1982; lowest, 26.01 ft (7.93 m) below land-surface datum Dec. 22, 23, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.90	14.98	14.72	5.65	---	6.24	5.66	9.55	9.89	10.17	7.41	6.04
10	14.92	14.99	14.99	9.12	---	4.84	6.39	9.58	10.16	10.53	6.97	7.37
15	14.96	14.99	15.12	---	---	5.13	6.67	12.24	8.71	11.05	8.97	4.77
20	14.99	14.97	14.86	---	4.48	4.13	---	12.81	10.19	8.27	9.98	5.68
25	14.90	14.95	13.98	---	5.53	5.00	---	12.24	10.82	10.49	9.90	6.39
EOM	14.98	14.84	12.93	---	5.62	5.56	---	9.78	10.70	11.22	10.64	7.56

WTR YR 1982 MAX 1.42 SEPT 1, 1982 MIN 15.20 DEC 14, 1981

DICKSON COUNTY

360429087233602. Local number, Di:F-19.

LOCATION.--Lat 36°04'29", long 87°23'36", Hydrologic Unit 06040003, on north side of State Highway 48, 0.4 mi (0.6 km) northeast of State Highway 48 bridge over East Piney River at Dickson.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (150 mm), depth 387 ft (118 m), cased to 22 ft (6.7 m), open end.

INSTRUMENTATION.--Water-level recorder since July 1960.

DATUM.--Altitude of land-surface datum is 755 ft (230 m). Measuring point: Top of instrument shelf, 1.26 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--July 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.52 ft (2.29 m) below land-surface datum, Mar. 12, 13, 1975; lowest 33.91 ft (10.34 m) below land-surface datum, July 23, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.66	33.16	26.96	21.47	23.52	24.11	27.08	26.96	31.81	33.44	33.78	32.84
10	33.69	33.39	30.68	25.12	19.91	25.88	26.73	25.10	32.87	33.72	33.78	33.26
15	33.67	33.34	32.27	---	23.37	18.99	28.84	28.45	33.17	33.83	33.86	30.12
20	33.21	33.27	32.29	---	23.51	---	---	27.44	33.25	33.88	33.65	30.38
25	33.16	33.06	23.93	21.23	25.14	24.91	---	29.23	33.44	33.76	32.65	32.51
EOM	33.00	32.69	27.19	23.95	22.14	27.62	---	31.09	33.58	33.90	32.27	32.47

WTR YR 1982 MAX 16.79 FEB 8, 1982 MIN 33.91 JUL 23, 1982

360200089280100. Local number, Dy:H-1.

LOCATION.--Lat 36°02'00", long 89°28'01", Hydrologic Unit 08010206, 4.0 mi (6.4 km) west of Dyersburg on State Highway 20 at Finley.
Owner: U.S. Geological Survey.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (100 mm), depth 70 ft (21 m), cased to 60 ft (18 m), screened 60 to 70 ft (18 to 21 m).

DATUM.--Altitude of land-surface datum is 278 ft (85 m). Measuring point: Top of casing, 1.00 ft (.30 m) above land-surface datum.

PERIOD OF RECORD.--April 1955 to current year. Analog record April 1955 to February 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.69 ft (1.12 m) below land-surface datum, Feb. 28, 1962; lowest recorded, 18.93 ft (5.77 m) below land-surface datum, Jan. 18-21, 1957; highest water level measured, 4.18 ft (1.27 m) below land-surface datum, Apr. 13, 1979; lowest measured, 17.24 ft (5.25 m) below land-surface datum, Jan. 27, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	15.15	FEB 10	8.63	APR 27	7.93	JUL 14	12.75
JAN 26	11.07	MAR 17	7.67	JUN 10	11.66	SEP 16	15.83

360147089230700. Local number, Dy:H-7.

LOCATION.--Lat 36°01'47", long 89°23'07", Hydrologic Unit 08010204, 500 ft (152 m) east of U.S. Highway 51 and on south side of Illinois Central railroad, at Dyersburg.
Owner: City of Dyersburg.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 10 in (610 to 250 mm), depth 656 ft (200 m), cased to 605 ft (184 m), screened 605 to 655 ft (184 to 200 m).

DATUM.--Land-surface datum is 270.07 ft (82.32 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.10 ft (0.94 m) above land-surface datum.

PERIOD OF RECORD.--February 1954 to current year. Analog record February 1954 to February 1971, periodic measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.69 ft (0.82 m) above land-surface datum, Mar. 1, 2, Apr. 19, 1962; lowest recorded, 17.1 ft (5.2 m) below land-surface datum, Aug. 10, 1956; highest water level measured, 0.20 ft (0.06 m) above land-surface datum, Mar. 20, 1975, lowest measured, 10.22 ft (3.12 m) below land-surface datum, September 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	4.66	FEB 10	6.30	APR 27	2.87	SEP 15	8.69
JAN 7	6.70	MAR 17	4.32	JUL 14	8.64		

FAYETTE COUNTY

352226089330101. Local number, Fa:R-1.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft (24 m) south of State Highway 59, 1.1 mi (1.9 km) southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 1,025 ft (312 m), cased to 1,008 ft (307 m), screened 1,008 to 1,025 ft (307 to 312 m).

DATUM.--Land-surface datum is 317.50 ft (96.77 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft (1.13 m) 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 (19.78 m) below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft (23.24 m) below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft (22.44 m) below land-surface datum, Apr. 28, 1976; lowest measured, 80.25 ft (24.46 m) below land-surface datum, Sept. 30, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	79.64	DEC 31	79.54	FEB 25	79.75	APR 29	79.51	JUN 30	79.65	SEP 1	80.15
NOV 30	79.68	JAN 29	79.64	MAR 31	79.58	JUN 1	79.55	JUL 30	79.94	SEP 30	80.25

352226089330102. Local number, Fa:R-2.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft (24 m) south of State Highway 59, 1.1 mi (1.8 km) southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 365 ft (111 m), cased to 345 ft (105 m), screened 345 to 365 ft (105 to 111 m).

DATUM.--Land-surface datum is 317.20 ft (96.68 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.20 ft (1.28 m) 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 (11.35 m) below land-surface datum, Mar. 10, 1952; lowest recorded, 42.12 ft (12.84 m) below land-surface datum, Nov. 30, 1967; highest water level measured, 39.38 ft (12.00 m) below land-surface datum, May 2, 1980; lowest measured, 41.67 ft (12.70 m) below land-surface datum, December 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	40.78	DEC 31	40.77	FEB 25	40.75	APR 29	40.20	JUN 30	40.22	SEP 1	40.68
NOV 30	40.88	JAN 29	40.81	MAR 31	40.44	JUN 1	40.21	JUL 30	40.48	SEP 30	40.89

HAMILTON COUNTY

350234085181200. Local number, Hm:G-36.

LOCATION.--Lat 35°02'34", long 85°18'12", Hydrologic Unit 06020001, in Tennessee Valley Authority parking lot, Douglas Street in Chattanooga.
Owner: Tennessee Valley Authority.

AQUIFER.--Knox Dolomite of Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 16 in (410 mm) to 120 ft (36.6 m), 6 in (150 mm) to 250 ft (76.2 m), cased to 27 ft (8.2 m), open end.

INSTRUMENTATION.--Water-level recorder since April 1981.

DATUM.--Altitude of land-surface datum 670.3 ft (204.3 m). Measuring point: Top of instrument shelf, 1.5 ft (.46 m) above land-surface datum.

REMARKS.--The well has been pumped at rates up to 1,200 gal/min (76 L/s) over a 68 hour period indicating a specific capacity of 20.4 [(gal/min)/ft], [(4.2 L/S)/m]. No record July 16 to Aug. 19.

PERIOD OF RECORD.--April 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.47 ft (1.06 m) below land-surface datum, Jan. 4, 1982; lowest, 11.73 ft (3.58 m) below land-surface datum, Oct. 22, 23, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.62	11.13	9.04	4.90	6.80	8.34	9.31	---	10.51	11.06	---	10.52
10	11.63	10.56	10.01	7.78	7.19	8.20	8.92	---	10.86	11.06	---	10.61
15	11.63	10.88	9.63	8.48	8.28	7.84	9.54	---	11.02	10.72	---	10.71
20	11.67	10.99	10.01	8.66	7.00	6.99	9.18	---	10.63	---	7.45	10.91
25	11.60	10.83	9.06	6.15	8.62	7.61	9.63	---	11.06	---	8.98	11.11
EOM	10.92	10.25	9.37	8.12	7.25	8.71	9.30	10.76	10.89	---	9.95	10.41

WTR YR 1982 MAX 3.47 JAN 4, 1982 MIN 11.73 OCT 22, 23, 1981

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 the Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 10 in (250 mm), depth 262 ft (80 m), cased to 50 ft (15 m), open end.

INSTRUMENTATION.--Water-level recorder since May 1975.

DATUM.--Altitude of land-surface datum is 735 ft (224 m). Measuring point: Top of back shelter panel, 8.00 ft (2.44 m) above land-surface datum.

REMARKS.--Well previously published as "at Savannah Valley". Water level affected intermittently by pumping from municipal supply well 300 ft (91 m) south. Negative values indicate water levels above land-surface. No record May 27 to Sept. 30.

PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.40 ft (1.34 m) above land-surface datum, May 31, 1979; lowest, 7.73 ft (2.36 m) below land-surface datum, Aug. 31, Sept. 1, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.38	7.37	6.68	-1.14	-.04	2.89	5.22	5.64				
10	7.45	7.53	7.10	1.30	.35	1.09	5.24	5.70				
15	7.44	7.53	6.93	---	2.28	2.54	5.55	6.09				
20	7.45	7.33	7.02	5.60	.17	1.88	4.98	6.22				
25	7.44	7.43	6.13	-.30	2.79	1.63	5.32	6.30				
EOM	7.48	7.12	6.21	2.23	2.27	4.07	5.24	---				

WTR YR 1982 MAX -3.09 JAN 4, 1982 MIN 7.61 OCT 24, 1981

HUMPHREYS COUNTY

360020087573300. Local number, Hs:H-1.

LOCATION.--Lat 36°00'20", long 87°57'33", Hydrologic Unit 06040005, 100 ft (30 m) north of Woodland Drive at New Johnsonville.
Owner: A. M. Powers.

AQUIFER.--Camden Chert of early Devonian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (200 mm), depth 187 ft (57 m), cased to 72 ft (22 m), open end.

INSTRUMENTATION.--Water-level recorder since February 1962.

DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--February 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.02 ft (25.91 m) below land-surface datum, Mar. 25, 1973; lowest, 90.20 ft (27.49 m) below land-surface datum, Nov. 25, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.35	87.16	87.11	86.62	86.47	86.37	86.31	86.04	86.55	86.90	87.21	87.33
10	87.37	87.25	87.10	86.74	86.27	86.40	86.31	86.12	86.61	---	87.16	87.36
15	87.40	87.21	87.08	86.65	86.24	86.12	86.26	86.22	86.63	---	87.22	87.26
20	87.31	87.26	87.17	86.78	86.29	86.11	86.09	86.29	86.75	---	87.27	87.35
25	87.19	87.24	86.87	86.48	86.46	86.32	86.07	86.33	86.81	---	87.29	87.34
EOM	87.22	87.19	86.82	86.45	86.34	86.37	85.92	86.40	86.88	87.11	87.36	87.42

WTR YR 1982 MAX 85.87 APR 28, 29, 1982 MIN 87.42 SEP 30, 1982

LAUDERDALE COUNTY

353839089493500. Local number, Ld:F-4.

LOCATION.--Lat 35°38'39", long 89°49'35", Hydrologic Unit 08010208, 1.1 mi (1.8 km) north of State Highway 87, at Fort Pillow State Park.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 to 6 to 3 in (200 to 150 to 80mm), depth 879 ft (268 m), cased to 869 ft (265 m), screened 869 to 879 ft (265 to 268 m).

INSTRUMENTATION.--Water-level recorder since April 1966.

DATUM.--Land-surface datum is 437.05 ft (133.21 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--April 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 187.76 ft (57.23 m) below land-surface datum, Apr. 7, 1975; lowest, 197.82 ft (60.29 m) below land-surface datum, Jan. 17, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	197.61	197.44	197.69		---	195.02	194.50	195.46	194.68	195.51	195.98	196.56
10	197.71	197.50	197.54		---	195.85	195.12	195.53	194.73	195.35	196.17	196.40
15	197.74	197.43	197.52		---	195.81	195.40	195.57	194.57	195.39	196.18	196.64
20	197.60	197.62	---		195.93	195.06	195.14	195.63	194.65	195.59	196.36	196.78
25	197.50	197.79	---		195.28	194.10	195.04	195.53	195.01	195.66	196.37	196.85
EOM	197.57	197.76	---		194.74	193.62	195.36	195.17	195.37	195.71	196.61	197.09

WTR YEAR 1982 MAX 197.79 NOV 25, DEC 2, 1981 MIN 193.54 MAR 30, 31, 1982

354158089384300. Local number, Ld: G-12.

LOCATION.--Lat 35°41'58", long 89°38'43", Hydrologic Unit 08010208, 130 ft (40m) west of Glimp-Ripley Road, 0.1 mi (0.16 km) northeast of State Highway 87 at Glimp.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 440 ft (134 m), cased to 420 ft (128 m), screened 420 to 440 ft (128 to 134 m).

INSTRUMENTATION.--Water level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 360 ft (110 m). Measuring point: Inside top of shelter base plate, 2.70 ft (0.82 m) above land-surface datum.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 103.54 ft (31.56 m) below land-surface datum, Apr. 20, 1982; lowest, 106.24 ft (32.38 m) below land-surface datum, Oct. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	106.10	106.01	106.06	105.62	105.00	104.31	103.73	103.82	104.15	104.36	105.09	105.56
10	106.17	106.04	106.01	105.68	104.78	104.33	103.79	103.94	104.15	104.40	105.19	105.58
15	106.23	105.89	105.85	105.33	104.50	104.23	103.74	104.05	104.14	104.58	105.23	105.48
20	106.14	106.02	105.95	105.36	104.49	104.27	103.64	104.11	104.17	104.70	105.34	105.54
25	105.97	105.94	105.81	105.28	104.62	104.30	103.65	104.17	104.20	104.85	105.40	105.54
EOM	106.02	105.84	105.68	105.16	104.48	103.95	103.75	104.10	104.25	104.96	105.48	105.70

WTR YEAR 1982 MAX 103.54 APR 20, 1982 MIN 106.24 OCT 13, 1981

354357089271701. Local number, Ld:J-5.

LOCATION.--Lat 35°43'57", long 89°27'17", Hydrologic Unit 08010208, 50 ft (15 m) southeast of Conner Church Road, 1.7 mi (2.7 km) north of State Highway 19 and 2.5 mi (4.0 km) northwest of Nutbush.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 277 ft (84 m), cased to 257 ft (78 m), screened 257 to 277 ft (78 to 84).

INSTRUMENTATION.--Water level recorder since March 1982.

DATUM.--Altitude of land-surface datum is 469 ft (143 m). Measuring point: Inside top of shelter base plate, 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--March 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 130.07 ft (39.64 m) below land-surface datum, June 16, 17, 1982; lowest 130.83 ft (39.87 m) below land-surface datum, March 9, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5						---	130.61	130.41	130.19	130.16	130.22	130.43
10						130.81	130.57	130.37	130.20	130.18	130.28	130.47
15						130.71	130.54	130.36	130.19	130.24	130.24	130.35
20						130.71	---	130.32	130.13	130.27	130.30	130.38
25						130.72	130.46	130.29	130.14	130.27	130.34	130.41
EOM						130.72	130.42	130.16	130.13	130.15	130.37	130.50

WTR YEAR 1982 MAX 130.07 JUN 16, 17, 1982 MIN 130.83 MAR 9, 1982

LAUDERDALE COUNTY--Continued

354552089455900. Local number, Ld:L-2.

LOCATION.--Lat 35°45'52", long 89°45'59", Hydrologic Unit 08010100, 70 ft (21 m) south of State Highway 19, 1.2 mi (1.9 km) east of Ashport.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 245 ft (75 m), cased to 225 ft (69 m), screened 225 to 245 ft (69 to 75 m).

INSTRUMENTATION.--Water-level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 239 ft (73 m). Measuring point: Inside top of shelter base plate, 2.00 ft (.61 m) above land-surface datum.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.43 ft (2.87 m) below land-surface datum, Apr. 17, 1982; lowest, 15.82 ft (4.82 m) below land-surface datum, Jan. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.91	14.09	14.59	14.28	12.74	11.05	9.68	9.76	9.96	9.97	10.80	11.71
10	14.09	14.10	14.51	14.06	12.28	11.00	9.59	9.86	9.81	10.01	11.05	11.68
15	14.19	14.10	14.52	13.68	11.96	10.96	9.61	10.01	9.66	10.12	11.11	11.64
20	14.10	14.32	14.68	13.81	11.86	10.84	9.62	10.19	9.50	10.30	11.33	11.80
25	14.09	14.46	14.68	13.72	11.71	10.47	9.58	10.25	9.56	10.41	11.49	11.93
EOM	14.14	14.58	14.47	13.12	11.37	9.95	9.63	10.11	9.72	10.54	11.69	12.18

WTR YEAR 1982 MAX 9.43 APR 17, 1982 MIN 14.68 DEC 19, 20, 24, 25, 1981

355251089350500. Local number, Ld: S-2.

LOCATION.--Lat 35°52'51", long 89°35'05", Hydrologic Unit 08010100, about 0.7 mi (1.1 km) east of Old Bed Forked Deer River, 3 mi (4.8 km) west of Knob Creek.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (150 mm), depth 100 ft (30 m), cased to 80 ft (24 m), screened 80 to 100 ft (24 to 30 m).

INSTRUMENTATION.--Water level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 254 ft (77 m). Measuring point: Inside top of shelter base plate, 3.20 ft (0.97 m) above land-surface datum.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.57 ft (0.78 m) above land-surface datum, Mar. 30, 1982; lowest, 9.09 ft (2.77 m) below land-surface datum, Oct. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	7.18	7.15	4.46	1.18	0.08	---	3.90	4.61	5.34	7.08	7.98
10	---	7.24	7.12	5.24	0.79	1.85	---	4.31	4.44	5.61	7.19	8.13
15	8.10	7.16	7.10	5.38	1.02	2.44	---	4.81	4.32	6.05	7.16	7.29
20	7.50	7.32	7.17	5.86	2.08	2.77	---	5.01	3.91	6.45	7.35	7.38
25	7.32	7.26	6.52	3.20	2.77	-.38	2.97	5.27	4.46	6.76	7.60	7.50
EOM	7.20	7.19	6.55	2.53	1.12	-2.35	3.29	4.85	4.73	6.70	7.78	7.70

WTR YEAR 1982 MAX -2.57 MAR 30, 1982 MIN 8.16 SEPT 11, 1982

LINCOLN COUNTY

350033086422900. Local number, Li:G-4

LOCATION.--Lat 35°00'33", long 86°42'29", Hydrologic Unit 06030002, on west side of Pepper Road at Taft well field, 0.8 mi (1.3 km) south of State Highway 110, Taft.
Owner: Lincoln County Board of Public Utilities.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 85 ft (25.9 m), cased to 40 ft (12.2 m), open end.

INSTRUMENTATION.--Water-level recorder since May 1979.

DATUM.--Altitude of land-surface datum is 910 ft (277 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage from Taft well field for municipal water supply.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.05 ft (3.06 m) below land-surface datum, June 1, 1980; lowest recorded, 35.85 ft (10.93 m) below land-surface datum, Oct. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	34.24	33.97	31.10	25.14	24.17	27.21	24.40	27.65	29.67	27.78	26.16
10	35.04	33.94	33.90	29.01	25.61	25.62	25.76	25.78	27.67	29.08	25.64	27.06
15	35.74	35.67	33.61	29.46	25.38	23.94	18.64	26.35	26.56	27.10	24.84	27.88
20	35.05	34.70	32.90	26.85	26.35	24.33	23.96	27.11	24.59	28.31	23.61	28.53
25	34.17	34.96	33.10	27.32	24.63	25.59	24.57	28.32	28.09	27.11	22.43	26.48
EOM	33.34	34.43	33.32	21.38	25.21	26.98	25.47	28.73	26.96	26.44	21.17	27.39

WTR YR 1982 MAX 16.09 APR 15, 1982 MIN 35.85 OCT 9, 1981

MADISON COUNTY

354223088380200. Local number, Md:N-1.

LOCATION.--Lat 35°42'23", long 88°38'02", Hydrologic Unit 08010205, 90 ft (27 m) south of State Highway 20, about 0.4 mi (0.6 km) east of Claybrook.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--McNairy Sand of late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 659 ft (201 m), cased to 639 ft (195 m), screened 639 to 659 ft (195 to 201 m).

DATUM.--Land-surface datum is 562.70 ft (171.51 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--June 1949 to current year. Analog record June 1949 to February 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 124.50 ft (37.95 m) below land-surface datum, Mar. 10, 1952; lowest recorded, 129.13 ft (39.36 m) below land-surface datum, Nov. 15, 1963; highest water level measured, 124.98 ft (38.09 m) below land-surface datum, Apr. 8, 1980; lowest measured, 131.17 ft (39.98 m) below land-surface datum, June 20, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	126.81	JAN 5	126.53	MAR 17	126.60	JUN 8	126.51	SEP 16	127.01
NOV 17	126.75	FEB 10	126.42	APR 28	126.30	JUL 12	126.71		

PUTNAM COUNTY

360521085432600. Local number, Pm:C-1.

LOCATION.--Lat 36°05'21", long 85°43'26", Hydrologic Unit 05130108, at Interstate 40 and State Highway 56, Silver Point.
Owner: Tennessee Department of Highways.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (150 mm), depth 175 ft (53 m), cased to 60 ft (18 m), open end.

INSTRUMENTATION.--Water-level recorder since March 1968.

DATUM.--Altitude of land-surface datum is 1,030 ft (314 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Record good.

PERIOD OF RECORD.--March 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.30 ft (14.72 m) below land-surface datum, May 2, 1974; lowest, 53.54 ft (16.32 m) below land-surface datum, Feb. 11, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.73	52.96	53.06	52.76	52.06	51.40	51.08	51.11	51.57	51.93	52.42	52.70
10	52.75	53.03	53.00	52.72	51.96	51.20	51.06	51.16	51.66	51.96	52.49	52.68
15	52.81	53.04	53.00	---	51.73	51.09	51.09	51.21	51.65	52.06	52.56	52.82
20	52.89	53.12	53.00	52.48	51.53	51.02	51.09	51.29	51.74	52.11	52.57	53.07
25	52.88	53.13	52.90	52.33	51.55	51.07	51.00	51.32	51.79	52.20	52.60	53.23
EOM	52.95	53.04	52.86	52.37	51.43	51.00	51.11	51.47	51.87	52.37	52.63	53.18

WTR YR 1982 MAX 50.69 APR 3, 1982 MIN 53.23 SEP 25, 1982

SEVIER COUNTY

353922083345600. Local number, Sv:E-2.

LOCATION.--Lat 35°39'22", long 83°34'56", Hydrologic Unit 06010201, 3.3 mi (5.3 km) southwest of Great Smoky Mountains National Park Headquarters, near Gatlinburg.

AQUIFER.--Elkmont Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well in phyllite, sandstone, diameter 6 in (150 mm); depth 220 ft (67 m), cased to 27 ft (8 m).

INSTRUMENTATION.--Water level recorder since May 1979.

DATUM.--Altitude of land-surface datum is 2,150 ft (655 m). Measuring point: Floor of recorder shelter 1.50 ft (0.46 m) above land surface datum.

REMARKS.--Missing record Oct. 1 to Dec. 2, Apr. 19 to May 2.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.86 ft (1.79 m) below land surface datum, Jan. 4, 1982; lowest, 9.68 ft (2.95 m) below land surface datum, Aug. 10, Sept. 16, 17, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	8.87	8.05	8.41	8.94	9.26	9.16	9.21	9.35	9.07	8.95
10	---	---	9.13	9.03	8.69	8.83	9.23	9.24	9.34	9.18	9.18	9.25
15	---	---	9.12	9.19	8.96	8.95	8.79	9.32	9.23	9.33	9.29	9.34
20	---	---	9.14	9.14	8.72	8.75	---	9.29	9.37	9.26	9.33	9.39
25	---	---	8.74	8.65	9.04	9.07	---	9.29	9.43	9.31	9.26	9.41
EOM	---	---	8.94	9.11	8.80	9.19	---	9.11	9.42	8.84	9.39	9.43

WTR YR 1982 MAX 5.86 JAN 4, 1982 MIN 9.45 JUL 2, 3, 4, 1982

SHELBY COUNTY

350514089553700. Local number, Sh:K-75.

LOCATION.--Lat 35°05'14", long 89°55'37", Hydrologic Unit 08010211, at Willowview Ave. and Getwell Road, 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 (150 mm), depth 91 ft (28 m), cased to 81 ft (25 m), screened 81 to 91 ft (25 to 28 m).

INSTRUMENTATION.--Water-level recorder since August 1948.

DATUM.--Altitude of land-surface datum is 260 ft (79 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--August 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.28 ft (6.49 m) below land-surface datum, Apr. 2, 1950; lowest, 50.26 ft (15.32 m) below land-surface datum, Sept. 18, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.76	48.86	49.12	49.41	49.68	49.97	49.97	49.66	49.91	49.72	49.94	50.10
10	48.93	48.91	49.14	49.63	49.72	49.59	49.94	49.67	49.93	49.73	50.04	50.08
15	48.81	48.85	49.17	49.37	49.52	49.72	49.80	49.79	49.72	49.84	49.97	50.19
20	48.77	49.12	49.03	49.50	49.47	49.78	49.90	49.75	49.75	49.86	50.07	50.20
25	48.74	48.88	49.12	49.67	49.89	49.94	49.52	49.79	49.76	49.95	50.10	50.10
EOM	48.84	48.92	49.30	49.89	49.72	49.87	49.74	49.87	49.73	49.91	50.10	50.02

WTR YEAR 1982 MAX 48.55 OCT 1, 1981 MIN 50.26 SEP 18, 1982

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, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 434 ft (132 m), cased to 424 ft (129 m), screened 424 to 434 ft (129 to 132 m).

INSTRUMENTATION.--Water-level recorder since September 1940.

DATUM.--Land-surface datum is 228.70 ft (69.71 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.30 ft (1.31 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--September 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.65 ft (3.86 m) below land-surface datum, Sept. 3, 1940; lowest, 58.54 (17.84 m) below land-surface datum, Aug. 14, Sept. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.53	---	54.34	53.81	54.09	52.33	50.81	48.86	53.74	56.13	57.73	58.36
10	55.60	---	54.11	53.77	53.39	52.58	50.56	49.75	54.31	56.29	57.74	57.73
15	55.97	---	54.20	---	53.57	52.44	50.14	50.55	54.89	56.69	57.70	57.97
20	55.89	---	54.53	---	53.79	52.79	50.14	51.46	54.51	57.32	57.72	57.96
25	55.24	---	54.48	---	53.54	51.84	49.81	52.21	54.77	57.48	57.76	57.79
EOM	54.82	54.43	54.01	54.49	52.94	50.93	48.97	53.20	55.45	57.64	58.31	57.54

WTR YEAR 1982 MAX 48.71 MAY 2, 3, 1982 MIN 58.37 SEP 4, 1982

350735089593300. Local number, Sh:P-76.

LOCATION.--Lat 35°07'35", long 89°59'33", Hydrologic Unit 08010210, at Central Avenue and Tanglewood Street, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian unused well, diameter 12 in (300 mm), depth 488 ft (149 m), cased to 428 ft (130 m), screened 428 to 488 ft (130 to 149 m).

INSTRUMENTATION.--Water-level recorder since October 1932.

DATUM.--Land-surface datum is 286.70 ft (87.39 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--October 1928 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft (17.88 m) below land-surface datum, Apr. 3, 1933; lowest, 144.77 ft (44.13 m) below land-surface datum, July 20-25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.56	135.56	133.72	132.68	135.92	134.24	132.02	131.80	132.67	134.77	137.40	137.13
10	137.86	135.10	133.51	133.59	136.24	133.20	131.57	131.95	134.21	134.99	---	136.96
15	137.54	134.93	133.23	136.02	135.95	132.70	130.91	132.96	134.06	135.90	---	136.64
20	136.68	134.73	133.71	139.25	136.04	133.67	131.03	133.66	134.54	137.04	---	136.08
25	136.52	134.70	134.40	138.25	135.45	133.06	131.09	132.44	135.17	137.23	---	135.82
EOM	135.94	132.96	133.47	136.63	134.89	132.60	131.34	132.64	134.85	137.77	137.07	136.50

WTR YEAR 1982 MAX 130.70 APR 12, 1982 MIN 139.25 JAN 20, 21, 1982

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 (1.0 km) west of Germantown Road, near Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 384 ft (117 m), cased to 375 ft (114 m), screened 375 to 384 ft (114 to 117 m).

INSTRUMENTATION.--Water-level recorder since October 1940.

DATUM.--Land-surface datum is 330.40 ft (100.71 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.40 ft (0.73 m), above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--October 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft (22.58 m) below land-surface datum, Dec. 27, 1940; lowest 104.11 ft (31.73 m) below land-surface datum, Sept. 7, 8, 14, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	103.63	103.57	103.67	103.60	103.77	103.50	103.37	103.21	103.31	103.33	103.93	104.07
10	103.63	103.69	103.57	103.76	103.63	103.59	103.47	---	103.35	103.39	104.00	104.06
15	103.64	103.54	103.50	103.57	103.48	103.46	103.28	---	103.28	103.57	103.89	104.09
20	103.63	103.69	103.67	103.78	103.65	103.46	103.39	---	103.35	103.69	103.94	104.02
25	103.63	103.58	103.62	103.84	103.77	103.46	103.22	---	103.41	103.76	103.91	103.93
EOM	103.63	103.49	103.47	103.67	103.57	103.48	103.23	103.15	103.37	103.85	104.03	104.07

WTR YEAR 1982 MAX 103.00 APR 26, 1982 MIN 104.11 SEP 7, 8, 14, 1982

350923090023500. Local number, Sh:O-124.

LOCATION.--Lat 35°09'23", long 90°02'35", Hydrologic Unit 08010100, at Fifth Street and Sycamore Avenue, Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Unused work shaft to tunnel connected to an unknown number of drilled artesian wells, diameter of shaft 30 in (760 mm), depth 98 ft (30 m), cased to 80 ft (24 m).

INSTRUMENTATION.--Water-level recorder since September 1938.

DATUM.--Land-surface datum is 229.70 ft (70.01 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--May 1927 to 1933, 1936 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.09 ft (5.82 m) below land-surface datum, Apr. 1, 1933; lowest, 73.4 ft (22.4 m) below land-surface datum, July 30 to Aug. 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.61	69.11	67.96	66.05	67.44	63.74	61.23	62.33	63.63	65.43	69.13	69.34
10	70.73	69.37	66.79	65.91	65.86	63.96	61.50	62.60	63.39	65.27	69.41	68.76
15	70.50	68.80	66.77	67.27	66.25	63.81	61.71	63.66	63.74	66.16	69.29	69.23
20	69.72	68.87	67.07	70.06	66.65	63.52	62.05	64.03	63.56	66.97	69.16	69.14
25	69.29	68.82	67.64	70.04	65.61	62.52	61.60	63.58	64.38	67.78	69.37	69.21
EOM	69.39	67.98	66.31	68.68	64.64	61.97	61.63	63.46	65.03	68.17	69.48	69.14

WTR YEAR 1982 MAX 59.02 APR 8, 1982 MIN 70.73 OCT 8, 10, 1981

351320089535800. Local number, Sh:P-1.

LOCATION.--Lat 35°13'20", long 89°53'58", Hydrologic Unit 08010210, at Scheibler Road, 0.2 mi (0.3 km) east of Yale Road, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 344 ft (105 m), cased to 334 ft (102 m), screened 334 to 344 ft (102 to 105 m).

INSTRUMENTATION.--Water-level recorder since July 1941.

DATUM.--Land-surface datum is 299.80 ft (91.38 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--September 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 63.33 ft (19.30 m) below land-surface datum, Sept. 27, 1940; lowest, 119.46 ft (36.41 m) below land-surface datum, Aug. 6, 7, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	115.67	114.13	113.66	113.38	114.14	113.39	113.13	111.54	114.58	117.11	119.45	119.17
10	115.55	114.01	113.72	113.43	113.79	113.36	112.73	111.72	115.65	117.29	119.21	119.38
15	115.27	113.40	113.72	114.19	113.50	113.43	112.11	112.12	115.95	118.23	118.33	119.14
20	114.92	113.15	---	114.29	113.58	114.02	111.59	112.74	116.34	118.73	118.04	118.70
25	114.70	113.17	---	---	113.62	113.69	111.81	112.88	116.36	119.06	118.22	118.26
EOM	114.46	113.54	113.40	114.34	113.39	113.22	111.74	113.98	116.65	119.11	118.58	118.18

WTR YEAR 1982 MAX 111.43 APR 19, 1982 MIN 119.46 AUG 6, 7, 1982

SHELBY COUNTY--Continued

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi (4.8 km) west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: T. D. Ervin

AQUIFER.--Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 16 in (610 to 410 mm), depth 1,558 ft (475 m), cased to 1,497 ft (456 m), screened 1,497 to 1,558 ft (456 to 475 m).

DATUM.--Land-surface datum is 264.20 ft (80.53 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.60 ft (0.18 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage at 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 (10.82 m) below land-surface datum, Apr. 11, 1948; lowest recorded, 60.42 ft (18.42 m) below land-surface datum, Dec. 20, 1970; highest water level measured 33.20 ft (10.12 m), Apr. 21, 1947; lowest measured 65.75 ft (20.04 m) below land-surface datum, July 29, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	65.12	JAN 28	65.33	APR 28	65.20	MAY 28	65.24	JUL 8	65.65	AUG 31	65.26
NOV 27	65.41	FEB 24	65.00	MAY 3	65.32	JUN 30	65.45	JUL 29	65.75	SEP 29	65.56
DEC 30	65.37	MAR 30	64.71								

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi (4.8 km) west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: T. D. Ervin.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in (460 to 300 mm), depth 440 ft (134 m), cased to 360 ft (110 m), screened 360 to 440 ft (110 to 134 m).

DATUM.--Land-surface datum is 268.76 ft (81.92 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.60 ft (0.49 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

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 (12.07 m) below land-surface datum, June 29, 1953; lowest recorded, 59.12 ft (18.02 m) below land-surface datum during period August through September 1977, from maximum-minimum recorder.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	57.36	JAN 28	57.39	APR 28	55.42	MAY 28	55.75	JUL 8	57.36	AUG 31	58.72
NOV 27	57.15	FEB 24	56.70	MAY 3	55.24	JUN 30	56.86	JUL 29	58.14	SEP 29	58.78
DEC 30	57.40	MAR 30	56.09								

355505086541100. Local number, Wm:M-1.

LOCATION.--Lat 35°55'05", long 86°54'11", Hydrologic Unit 05130204, on Horton Lane, 0.8 mi (1.3 km) west of Carter's Creek Road, near Franklin.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Knox Dolomite of late Cambrian and early Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 6 in (150 mm), depth 1,160 ft (354 m), cased to 473 ft (144m), open end.

DATUM.--Land-surface datum is 712 ft (217 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

REMARKS.--Period of record low resulted from water-level measurements on the well during a 72 hour aquifer test.

PERIOD OF RECORD.--January 1950 to current year. Water-level recorder December 1951 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 84.21 ft (25.67 m) below land-surface datum, Mar. 10, 1952; lowest recorded 87.11 ft (26.55 m) below land-surface datum, Sept. 10, 1970; highest water level measured, 85.43 ft (26.04 m) below land-surface datum, Feb. 19, 1974; lowest measured, 114.81 ft (34.99 m) below land-surface datum, Jan. 31, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 15	88.07	AUG 13	88.54

355749086533300. Local number, Wm:M-8.

LOCATION.--Lat 35°57'49", long 86°53'33", Hydrologic Unit 05130204, 3.9 mi (6.3 km) north of Franklin.
Owner: City of Franklin.

AQUIFER.--Carters Limestone of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (250 mm) to 54 ft (16.5 m), 9 in (230 mm) to 170 ft (51.8 m), 6 in (150 mm) to 192 ft (58.5 m) below land surface, cased to 54 ft (16.5 m), open end.

INSTRUMENTATION.--Water-level recorder since August 1976.

DATUM.--Altitude of land-surface datum is 630 ft (192 m). Measuring point: Instrument shelf, 2.2 ft (0.67 m) (corrected) above land-surface datum.

REMARKS.--Period of record low resulted from water levels being affected by 68 hour aquifer test run in well field. Three wells were pumped at a combined rate of 925 gal/min. No record Mar. 6 to Apr. 30.

PERIOD OF RECORD.--August 1976 to current year.

REVISED RECORD.--Records published in WRD TN 1976-80 are in error. A correction of 2.2 ft (0.67 m) should be subtracted from all published data to obtain the correct water level below land surface datum.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.46 ft (3.80 m) below land-surface datum, Mar. 21, 1980; lowest measured, 68.29 ft (20.81 m below land-surface datum, Nov. 1, 1980; lowest recorded, 40.51 ft (12.35 m) below land-surface datum, Dec. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.04	32.07	30.60	25.16	28.04	30.21	---	31.42	31.42	32.05	31.99	32.20
10	32.09	32.13	31.03	29.21	24.34	---	---	30.11	31.60	32.08	31.94	32.24
15	32.12	32.16	31.29	30.28	28.42	---	---	30.90	31.75	32.14	32.05	32.24
20	32.13	32.19	31.47	30.50	28.61	---	---	30.61	31.85	32.03	32.07	32.27
25	32.09	32.20	29.60	24.87	29.97	---	---	31.07	31.90	31.51	32.13	32.29
EOM	32.00	31.82	30.45	29.00	29.44	---	31.24	31.25	31.98	31.86	32.19	32.31

WTR YEAR 1982 MAX 20.49 JAN 23, 1982 MIN 32.20 NOV 22, 23, 24, 25, 26, 1981

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

BENTON COUNTY

360441087594801 - EVA WELL BN:J-1

DATE	TIME	SAMPLING DEPTH (FEET)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 23...	1400	1440	8.1	22.0	380	16	65	52	2000	92

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 23...	45	19	360	48	2800	6.3	7.2	5180	<.10	.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 23...	30	1	<1	<1	50	1	60	<1	20

CHEATHAM COUNTY

360905087070201 - RANGER'S STATION CH:D-2

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 30...	1230	1400	8.0	17.0	89	0	22	8.3	240	84

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 30...	12	11	300	200	120	9.0	9.2	806	776	<.10

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 30...	<.010	30	1	1	<1	9	3	2	<1	<4

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

HENRY COUNTY

361649088091001 - SPRINGVILLE SCH HY:K-3

DATE	TIME	SAMPLING DEPTH (FEET)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 23...	1215	2240	7.2	18.5	540	210	120	58	1500	85

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 23...	28	43	330	570	1900	4.0	9.6	4380	<.10	.020

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 23...	30	1	<1	<1	50	3	20	<1	10

HUMPHREYS COUNTY

360145087570001 - FOUR SEASONS HS:H-12

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 24...	1300	146	66	5.9	18.5	13	0	4.6	.4	2.6	27

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 24...	.3	1.7	18	7.0	2.7	.7	13	56	50	<.10

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 24...	1.70	30	1	3	<1	1900	3	140	1	3300

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

HUMPHREYS COUNTY

360146087565901 - JAMES DILL HS:H-11

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
AUG 24...	1315	65	5.6	19.0	19	5	4.0	2.1	4.4	.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 24...	<.1	14	3.0	8.4	<.1	8.8	48	42	.27	<.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 24...	20	<1	1	2	530	4	95	<1	42

360210087570001 - LONG HS:H-10

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
AUG 24...	1230	42	6.1	18.0	16	0	4.0	1.5	2.5	.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 24...	<.1	18	1.0	1.9	<.1	8.6	37	34	.16	<.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 24...	<10	<1	1	2	500	4	55	<1	850

360247087545801 - TOWNSEND HS:H-14

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 24...	1100	22.0	39	5.9	18.0	6	0	1.2	.6	1.2	30

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 24...	.2	.4	6	3.0	1.3	<.1	9.4	26	22	.12

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 24...	.020	30	<1	<1	2	45	7	4	<1	55

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

HUMPHREYS COUNTY--Continued

360450087553901 - VALLEY W WELDING HS:H-13

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 24...	1145	200	300	7.3	21.5	150	0	55	2.5	1.7	2

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 24...	.1	1.0	150	3.0	1.8	.2	9.0	170	167	<.10

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 24...	.050	30	<1	1	2	320	16	55	<1	4200

LAUDERDALE COUNTY

353945089443401 - LD:G-6 FORT PILLOW PRISON FARM

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 04...	1430	665	210	6.7	19.5	91	0	20	10	5.7	12

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 04...	.3	2.1	120	4.0	1.8	.1	10	113	119	<.10	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 04...	1	<1	10	1	5300	5	110	<.1	<1	10	.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

354031089342401 - LD:H-26 CITY OF HENNING

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 04...	1045	70.0	650	6.8	17.0	310	0	65	36	16	10

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 04...	.4	.5	320	35	15	.2	40	437	398	5.0	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 04...	3	1	10	3	11	2	1	<.1	<1	10	.8

354031089342801 - LD:H-23 CITY OF HENNING

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 04...	0915	570	165	6.5	18.5	68	0	16	6.9	7.9	20

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 04...	.5	1.1	96	2.0	1.9	.1	12	100	<.10	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 04...	1	<1	10	1	3000	3	56	<.1	<1	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

354225089461700 - LD:F-8

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR											
25...	1115	750	6.6	15.0	340	0	92	27	7.7	5	.2
SEP											
16...	1545	706	6.8	16.5	340	0	94	25	7.5	5	.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUETS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
MAR										
25...	2.8	390	6.7	3.2	.2	34	423	<.01	1.50	2
SEP										
16...	2.8	385	4.0	3.0	.3	33	416	<.10	.910	4

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR										
25...	1	<10	1	14000	10	1000	<.1	<1	10	1.8
SEP										
16...	1	10	<1	14000	3	880	<.1	<1	<4	4.8

354308089331101 - LD:H-28 TENNESSEE ELECTRO-PLATING CO.

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG											
11...	1540	220	320	6.6	17.0	160	0	34	18	7.1	9

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG											
11...	.3	.2	180	4.0	2.2	.2	25	198	.35	.020	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG										
11...	<1	10	2	16	<1	5	.1	<1	40	.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

354444089314401 - LD:H-21 CITY OF RIPLEY

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 05...	1230	730	205	6.3	18.5	83	0	19	8.7	5.9	13

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 05...	.3	1.6	110	2.0	1.2	.1	11	110	114	<.10	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 05...	1	1	10	2	5800	5	110	<.1	<1	<10	1.0

354645089304501 - LD:N-7 S-R PLANT

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 11...	1430	180	370	6.8	16.5	180	0	41	20	6.2

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	ARSENIC DISSOLVED (UG/L AS AS)
AUG 11...	7	.2	2.4	220	4.0	2.4	.2	20	222	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 11...	<1	10	2	8300	7	140	<.1	<1	20	.4

354727089364001 - LD:N-5 WALNUT GROVE FISH FARM

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 06...	0915	801	195	6.2	19.0	82	0	18	9.1	4.5	10

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG 06...	.2	2.2	100	5.0	1.8	.1	12	112	<.10	<.010	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 06...	<1	10	2	5800	4	110	<.1	<1	<10	.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

354731089314301 - LD:N-4

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
MAR											
25...	1400	514	360	6.7	17.0	160	0	36	18	6.9	8
APR											
21...	0900	514	380	6.6	17.0	170	0	37	19	8.4	9
MAY											
21...	1130	514	360	6.6	17.0	160	0	37	17	7.1	8
JUN											
23...	1130	514	365	6.6	17.0	160	0	36	17	8.2	10
JUL											
22...	0930	514	350	6.6	17.5	160	0	37	17	6.7	8
AUG											
12...	0900	514	360	6.6	17.0	160	0	37	17	7.5	9
SEP											
16...	1400	514	359	6.5	17.5	160	0	37	17	6.8	8

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
MAR											
25...	.3	3.2	200	2.7	2.2	.2	18	--	211	<.01	.040
APR											
21...	.3	3.1	200	3.0	2.7	.2	18	--	216	<.10	.020
MAY											
21...	.3	3.7	198	3.0	2.6	.2	18	--	211	.30	<.010
JUN											
23...	.3	3.2	210	6.0	2.5	.2	18	201	214	.25	.050
JUL											
22...	.3	3.1	212	2.0	2.5	.2	18	--	207	<.10	.020
AUG											
12...	.3	3.1	200	3.0	2.4	.2	19	--	210	<.10	.020
SEP											
16...	.3	3.1	200	2.0	2.1	.2	18	--	206	<.10	.040

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
25...	1	1	<10	1	9600	7	190	.3	<1	<10	.2
APR											
21...	1	<1	10	3	10000	1	200	.4	<1	20	.8
MAY											
21...	1	1	10	4	9800	4	170	.7	<1	10	.3
JUN											
23...	1	1	10	1	10000	8	180	<.1	<1	<10	.6
JUL											
22...	1	1	10	3	10000	<1	180	<.1	<1	10	.7
AUG											
12...	2	<1	10	1	9800	7	170	<.1	<1	<10	.2
SEP											
16...	1	1	10	<1	10000	4	170	<.1	<1	<10	1.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

355022089244101 - LD:O-11 CITY OF GATES

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 05...	1100	345	249	6.5	17.5	100	0	23	11	8.3	14

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, SILICA, DISSOLVED (MG/L AS SIO2)	NITRO-RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	GEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG 05...	.4	4.0	128	<1.0	2.4	.1	17	141	<.10	<.010	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 05...	<1	20	2	16000	7	320	<.1	<1	20	.6

355045089315001 - LD:N-6 EDITH BAPTIST CHURCH

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 10...	1400	181	480	7.1	16.5	250	0	54	28	6.7	6

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 10...	.2	.4	280	2.0	5.0	.3	18	278	282	2.1	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 10...	1	2	10	13	44	1	2	<.1	<1	260	.7

355126089241501 - LD:O-12 TUPPERWARE PLANT

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
AUG 06...	1200	285	315	6.4	17.0	150	34	16	9.8	12	.4

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG 06...	1.3	2.0	3.5	.2	20	188	190	<.10	<.010	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 06...	1	10	3	1400	4	47	.1	<1	10	.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LAUDERDALE COUNTY--Continued

355303089321101 - LD:S-4 FLETCHER GIN CO.

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG											
10...	1515	120	505	7.2	16.0	250	6	63	23	9.0	7

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG											
10...	.3	.8	244	24	9.6	.2	26	305	307	<.10	.100

DATE	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG											
10...	5	<1	20	1	3800	3	870	<.1	<1	30	.3

355336089382301 - LD:R-2 CONTINENTAL GRAIN CO.

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG											
11...	1215	75.0	570	7.0	16.5	280	0	74	22	8.6	6

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG											
11...	.2	3.2	286	21	4.5	.2	37	363	<.10	.170	14

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG										
11...	<1	20	1	18000	7	2300	<.1	<1	20	1.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MAURY COUNTY

352956087071001 - UNDERWOOD MY:C-5

DATE	TIME	SAMPLING DEPTH (FEET)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 19...	1500	875	7.9	16.5	180	0	36	23	58	39

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 19...	2.1	8.1	180	120	15	5.4	8.5	386	<.10	<.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 19...	10	1	1	<1	38	4	9	<1	16

353044087114501 - RHONE-POULENC MY:F-11

DATE	TIME	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
AUG 20...	1100	8.2	17.0	97	0	23	9.7	150	75	7.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 20...	8.4	230	71	91	8.7	11	533	512	<.10	.060

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 20...	200	1	1	<1	59	4	34	<1	23

353348087095301 - GARY DAVENPORT MY:F-12

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 20...	1400	1100	1400	7.6	16.0	180	0	35	23	190

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 20...	68	6.9	13	270	200	130	5.7	8.1	768	<.10

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 20...	<.010	20	1	1	<1	38	1	4	<1	19

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MAURY COUNTY--Continued

353410087065201 - JEWELL MY:G-11

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 20...	0930	600	7.2	22.5	260	40	78	16	3.8	3

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 20...	.1	.6	220	24	8.3	.3	9.6	304	291	3.4

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 20...	.060	<10	1	<1	<1	8	<1	4	<1	680

354035087005901 - WALKER MY:M-10

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 19...	1330	1100	8.0	16.5	120	0	23	14	200	77

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
AUG 19...	9.1	10	290	200	71	6.9	8.8	700	700	<.10

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 19...	.020	40	1	1	<1	43	3	19	<1	83

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY

350114090071701 - SH:J-146 MLGW #404

DATE AUG	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
25...	1330	153	6.3	18.0	5	63	0	14	6.7	7.4	20	.4

DATE AUG	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
25...	.6	74	3.0	3.2	.2	15	90	94	<.10	.10	<.010	1

DATE AUG	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
25...	48	1	<1	2	360	3	5	<.1	2	<1	<1

DATE AUG	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
25...	4	<.01	3	<.01	.20

350218089511701 - SH:L-36

DATE AUG	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
25...	0930	87	6.1	18.0	7	36	0	9.0	3.2	3.7	18	.3

DATE AUG	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
25...	.2	40	3.0	1.8	<.1	11	52	56	<.10	.40	<.010	1

DATE AUG	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
25...	17	2	<1	2	170	1	5	.2	3	<1	<1

DATE AUG	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
25...	9	<.01	<1	<.01	.20

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

350446090013500 - SH:J-154 MLGW #137

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
AUG 25...	1115	138	6.0	17.0	7	51	0	12	5.0	7.8	25	.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG 25...	1.0	64	2.0	2.9	.1	14	81	84	<.10	<.10	<.010	2

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
AUG 25...	72	<1	<1	3	750	3	15	<.1	5	<1	<1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
AUG 25...	<4	<.01	1	<.01	.20

350452090075901 - SH:H-13 CARGILL

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
AUG 26...	1315	210	6.7	18.5	6	94	0	22	9.5	8.0	16

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
AUG 26...	.4	.7	110	5.0	3.3	.3	10	122	1	97

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
AUG 26...	1	<1	2	1100	2	13	<.1	2	<1	<1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
AUG 26...	7	<.01	<1	<.01	.30

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

350518089554400 - SH:K-73 MLGW #85

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
AUG												
24...	1415	190	6.3	17.0	8	60	0	14	6.0	13	32	.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
AUG												
24...	.6	68	16	8.1	.1	12	113	109	<.10	<.10	<.010	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
AUG											
24...	50	1	<1	4	930	1	160	.1	3	<1	<1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
AUG					
24...	11	<.01	<1	<.01	.10

350917090012000 - SH:O-231 MLGW #10B

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
MAR												
31...	1330	518	150	6.2	17.5	--	--	--	--	--	--	--
AUG												
25...	1445	518	140	6.2	17.5	7	53	0	12	5.7	7.8	24

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
MAR												
31...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
25...	.5	.6	68	2.0	2.4	.1	15	86	<.10	<.10	<.010	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
MAR											
31...	--	--	--	--	--	--	--	--	--	--	--
AUG											
25...	66	<1	<1	5	810	3	11	.2	1	<1	<1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	TRITIUM, TOTAL (PCI/L)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	CARBON 14 PERCENT MODERN
MAR								
31	--	--	--	--	--	2	-20.5	64.8
AUG								
25...	5	<.01	5	<.01	.20	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

350926089594901 - SH:P-146

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
17...	1145	509	123	6.1	17.5	41	0	9.4	4.3	58	<1	1
SEP												
02...	1300	509	120	6.1	18.0	40	0	9.3	4.1	56	1	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
17...	43	<1	<1	10	1	1	<.1	1	<1	<1	--
SEP											
02...	38	<1	<1	20	2	<1	<.1	<1	<1	<1	21

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
17...	5	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0
SEP												
02...	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	<1.0	<1.0
SEP												
02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
17...	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	<1.0	<1.0
SEP												
02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
17...	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<1.0
SEP												
02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

350926089594901 - SH:P-146--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	--	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 17...	--	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	--	--	<.10
SEP 02...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	--	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXY CHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 17...	--	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP 02...	<.01	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 17...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351023089595601 - SH:P-145

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	ANTIMONY, DISSOLVED (UG/L AS SB)
JUN 17...	1030	540	145	6.4	17.5	54	0	12	5.8	73	84	<1
SEP 02...	1400	540	140	6.5	18.0	52	0	12	5.2	68	--	<1

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN 17...	1	120	<1	<1	10	1	2	<.1	<1	<1	<1	--
SEP 02...	1	120	<1	<1	10	1	<1	<.1	<1	<1	<1	87

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN 17...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZOAPYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351023089595601 - SH:P-145--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 17...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	--	<1.0	<1.0	<1.0	<.10
SEP 02...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	--	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 17...	--	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP 02...	<.01	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 17...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351035089580500 - SH:P-124

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN 17...	1515	466	178	6.6	18.0	74	0	17	7.6	89	<1	1
SEP 02...	1115	466	170	6.3	18.0	68	0	16	6.9	84	<1	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN 17...	75	<1	<1	10	9	2	<.1	4	<1	<1	--
SEP 02...	66	<1	<1	20	2	<1	<.1	1	<1	<1	57

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN 17...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZOAPYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351035089580500 - SH:P-124--Continued

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 02...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 17...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10
SEP 02...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	--	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 17...	--	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP 02...	<.01	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 17...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
SEP 02...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351101089582001 - SH:P-140

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
15...	1345	40.0	615	6.8	19.5	220	0	47	26	260	<1	1
AUG												
31...	1130	40.0	550	6.7	20.0	210	--	44	23	220	1	2

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
15...	190	<1	<1	10	9	4	.2	1	3	<1	--
AUG											
31...	180	<1	<1	20	5	2	.4	1	1	<1	190

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
15...	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351101089582001 - SH:P-140--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 15...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	--	<1.0	<1.0	<1.0	<.10
AUG 31...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 15...	<.01	<.01	<.01	<.01	<.01	.20	.04	.19	.01	--	<.01
AUG 31...	<.01	<.01	<.01	<.01	<.01	.20	<.01	.24	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 15...	<.01	<.01	.02	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 31...	<.01	<.01	.03	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 15...	--	<1	.07	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 31...	<.01	<1	.35	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 15...	<.10	<.01	<1	<.01	<.01	<.01	.01	<.01
AUG 31...	<.10	.01	<1	<.01	<.01	<.01	.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351103089585300 - SH:P-122

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
16...	1400	19.0	820	6.7	16.5	280	0	64	29	370	<1	2
SEP												
01...	1315	19.0	700	6.7	19.0	260	41	60	27	220	<1	2

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
16...	130	<1	<1	10	<1	3	<.1	5	<1	<1	--
SEP											
01...	120	<1	<1	20	2	4	<.1	1	<1	<1	180

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
16...	<4	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0
SEP												
01...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
16...	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351103089585300 - SH:P-122--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	--	--	<1.0	<1.0	--	<1.0	<1.0	--	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN												
16...	--	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	--	--	<.10
SEP												
01...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN											
16...	<.01	<.01	<.01	<.01	<.01	.10	<.01	.05	<.01	--	<.01
SEP											
01...	<.01	<.01	<.01	<.01	<.01	<.10	<.01	.04	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN											
16...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP											
01...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN											
16...	--	<1	.02	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP											
01...	<.01	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN								
16...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
SEP								
01...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351103089585301 - SH:P-136

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
17...	1630	49.0	460	6.8	19.0	180	0	38	20	180	<1	1
SEP												
01...	1330	49.0	420	6.6	19.0	170	0	37	18	170	<1	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
17...	130	<1	<1	10	1	1	<.1	<1	<1	<1	--
SEP											
01...	120	<1	<1	20	1	1	<.1	2	1	<1	200

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
17...	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351103089585301 - SH:P-136

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 17...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 17...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	<1.0	<1.0	<.10
SEP 01...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 17...	<.01	<.01	<.01	<.01	<.01	.20	.03	.21	<.01	--	<.01
SEP 01...	<.01	<.01	<.01	<.01	<.01	.10	.01	.12	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 17...	<.01	<.01	.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP 01...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 17...	--	<1	.85	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP 01...	<.01	<1	<.01	.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 17...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
SEP 01...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351106089581500 - SH:P-127

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
15...	1115	26.0	810	6.8	17.0	250	0	62	24	360	<1	3
SEP												
01...	1045	26.0	875	6.6	18.5	300	0	77	26	400	1	5

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
15...	310	<1	<1	10	1	5	.1	1	<1	<1	--
SEP											
01...	330	<1	1	20	2	5	<.1	3	<1	<1	360

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
15...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP												
01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351106089581500 - SH:P-127

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYL-VINYL-ETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 01...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 15...	<1.0	14.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEP 01...	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 15...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10
SEP 01...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 15...	<.01	<.01	<.01	<.01	<.01	.20	.04	.15	<.01	--	<.01
SEP 01...	<.01	<.01	<.01	<.01	<.01	.10	.02	.10	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXY CHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 15...	<.01	<.01	.11	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
SEP 01...	<.01	<.01	.12	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 15...	--	<1	.02	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
SEP 01...	<.01	<1	<.01	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 15...	<.10	<.01	<1.0	<.01	<.01	<.01	.02	<.01
SEP 01...	<.10	<.01	<1.0	<.01	<.01	<.01	.05	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351109089512901 - SH:Q-40

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
MAR 31...	1800	441	--	--	--	--	--	--	--	--	--	--
AUG 24...	1300	441 --	129	6.0	17.0	6	39	0	9.1	4.0	8.1	31

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAR 31...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	.6	.6	70	6.0	5.1	.2	12	77	74	<.10	<.10	<.010

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
MAR 31...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	2	75	<1	2	7	1400	3	20	.1	1	<1	<1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	TRITIUM, TOTAL (PCI/L)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	CARBON 14 PERCENT MODERN
MAR 31	--	--	--	--	--	2	-21.5	62.6
AUG 24...	19	<.01	6	<.01	.10	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351111089582401 - SH:P-138

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
14...	1115	29.0	525	6.5	19.5	180	40	38	21	140	1	2
AUG												
31...	1015	30.0	510	6.4	20.0	180	10	37	20	170	<1	2

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
14...	140	<1	<1	<10	4	3	<.1	4	7	<1	--
AUG											
31...	120	<1	1	10	4	<1	<.1	2	3	<1	160

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
14...	19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETA CRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351111089582401 - SH:P-138--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 14...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	<1.0	<1.0	<.10
AUG 31...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 14...	<.01	<.01	<.01	<.01	<.01	1.30	.20	1.05	.05	--	<.01
AUG 31...	<.01	<.01	<.01	<.01	<.01	.20	<.01	.15	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 14...	<.01	<.01	.09	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 31...	<.01	<.01	.07	<.01	<.01	<.01	<.01	<.01	<.01	.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 14...	--	<1	1.1	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 31...	<.01	<1	.03	.01	.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 14...	<.10	<.01	<1.0	<.01	<.01	<.01	.01	<.01
AUG 31...	<.10	<.01	<1.0	<.01	<.01	<.01	.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351111089585101 - SH:P-135

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
16...	1515	40.0	1900	6.6	22.5	450	0	95	52	700	3	22
AUG												
30...	1500	40.0	2000	6.6	24.0	480	0	99	55	780	1	190

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
16...	1100	1	1	10	11	3	<.1	25	1	<1	--
AUG											
30...	1200	<1	2	10	2	13	.2	8	<1	<1	630

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
16...	45	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351111089585101 - SH:P-135--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 16...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 16...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	<1.0	<1.0	<.10
AUG 30...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 16...	<.01	<.01	<.01	<.01	<.01	.20	.02	.13	.01	--	<.01
AUG 30...	<.01	<.01	<.01	<.01	<.01	.10	.01	.09	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 16...	<.01	<.01	.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 30...	<.01	<.01	.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 16...	--	<1	.49	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 30...	<.01	<1	.04	.04	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 16...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
AUG 30...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351112089585100 - SH:P-121

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN												
15...	1530	24.0	2400	6.4	21.0	440	0	92	51	860	<1	7
AUG												
30...	1530	24.0	2050	6.4	22.5	390	0	84	44	780	1	9

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN											
15...	2000	<10	1	20	1	2	.3	3	<1	<1	--
AUG											
30...	2000	<10	1	10	2	11	.2	8	<1	<1	700

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN												
15...	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0
AUG												
30...	20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN												
15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG												
30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351112089585100 - SH:P-121--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 30...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 15...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	<1.0	<1.0	<.10
AUG 30...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 15...	<.01	<.01	<.01	<.01	<.01	.20	.03	.21	.01	--	<.01
AUG 30...	<.01	<.01	<.01	<.01	<.01	.40	<.01	.43	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 15...	<.01	<.01	.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 30...	<.01	<.01	.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 15...	--	<1	.10	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 30...	<.01	<1	.12	.04	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 15...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
AUG 30...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351115089583300 - SH:P-123

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN 15...	1000	29.0	550	6.7	19.5	150	0	32	16	220	<1	12
AUG 31...	1415	29.0	505	6.5	20.0	150	0	33	16	210	1	75

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN 15...	90	<1	2	10	1	5	<.1	1	1	<1	--
AUG 31...	100	<1	2	20	2	5	<.1	1	<1	<1	180

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN 15...	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351115089583300 - SH:P-123--Continued

DATE	BENZO A ANTHRACENE,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 15...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 15...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	--	<1.0	<1.0	<1.0	<1.0	<.10
AUG 31...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 15...	<.01	<.01	<.01	<.01	<.01	.20	.02	.17	<.01	--	<.01
AUG 31...	<.01	<.01	<.01	<.01	<.01	.40	.06	.36	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXYCHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 15...	<.01	<.01	.64	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 31...	<.01	<.01	.67	<.01	<.01	<.01	<.01	<.01	<.01	.02	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 15...	--	<1	.03	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 31...	<.01	<1	.09	.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 15...	<.10	<.01	<1	<.01	<.01	.05	.07	<.01
AUG 31...	<.10	<.01	<1	<.01	<.01	.05	.10	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351116089583701 - SH:P-137

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY FIELD (MG/L AS CACO3)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
JUN 14...	1430	30.0	1100	6.7	20.0	270	0	68	25	460	<1	7
AUG 31...	1500	30.0	1250	6.7	20.0	300	0	77	26	530	1	3

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)
JUN 14...	920	<1	<1	20	3	3	.2	13	<1	<1	--
AUG 31...	830	<1	2	30	1	5	.2	1	<1	<1	490

DATE	ZINC, DISSOLVED (UG/L AS ZN)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	ACENAPHTHYLENE TOTAL (UG/L)	ACENAPHTHENE TOTAL (UG/L)	ANTHRACENE TOTAL (UG/L)
JUN 14...	9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHRYSENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DIMETHYL PHTHALATE TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	ETHYLBENZENE TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORENE TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISOPHORONE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	N-NITROSODI-N-PROPYLAMINE TOTAL (UG/L)	N-NITROSODIPHENYLAMINE TOTAL (UG/L)	N-NITROSODIMETHYLAMINE TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	NITROBENZENE TOTAL (UG/L)	PARACHLOROMETACRESOL TOTAL (UG/L)	PHENANTHRENE TOTAL (UG/L)	PYRENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351116089583701 - SH:P-137--Continued

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	1,2,4-TRICHLOROBENZENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	2-NITROPHENOL TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	2,4-DICHLOROPHENOL TOTAL (UG/L)	2,4-DIMETHYLPHENOL TOTAL (UG/L)	2,4-DINITROTOLUENE TOTAL (UG/L)	2,4,-DINITROPHENOL TOTAL (UG/L)	2,6-DINITROTOLUENE TOTAL (UG/L)	3,3'-DICHLOROBENZIDINE TOTAL (UG/L)	4-BROMOPHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)
JUN 14...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AUG 31...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	AROCLOR 1016 PCB TOTAL (UG/L)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN TOTAL (UG/L)	PHENOL (C6H5OH) TOTAL (UG/L)	PENTACHLOROPHENOL TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHALATE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	BENZIDINE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 14...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10
AUG 31...	<1.0	<.1	<1.0	<1.0	<1.0	<.10	<1.0	<1.0	<1.0	<1.0	<1.0	<.10

DATE	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	ALPHA BHC, TOTAL (UG/L)	BETA BHC, TOTAL (UG/L)	DELTA BHC, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	ALPHA CHLORDANE, TOTAL (UG/L)	GAMMA CHLORDANE, TOTAL (UG/L)	TRANS NONOCHLOR, TOTAL (UG/L)	OXYCHLORDANE TOTAL (UG/L)	DDD, TOTAL (UG/L)
JUN 14...	<.01	<.01	<.01	<.01	<.01	2.40	.34	2.00	.10	--	<.01
AUG 31...	<.01	<.01	<.01	<.01	<.01	.70	.11	.62	<.01	<.01	<.01

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	CHLORDENE, TOTAL (UG/L)	1-HYDROXY CHLORDENE, TOTAL (UG/L)	DIELDRIN, TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN ALPHA, TOTAL (UG/L)	ENDOSULFAN BETA, TOTAL (UG/L)	ENDOSULFAN SULFATE, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN ALDEHYDE, TOTAL (UG/L)
JUN 14...	<.01	<.01	1.27	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01
AUG 31...	<.01	<.01	.45	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ENDRIN KETONE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE, TOTAL (UG/L)	ISODRIN, TOTAL (UG/L)	AROCLOR 1221 PCB, TOTAL (UG/L)	AROCLOR 1232 PCB, TOTAL (UG/L)	AROCLOR 1242 PCB, TOTAL (UG/L)	AROCLOR 1248 PCB, TOTAL (UG/L)	AROCLOR 1254 PCB, TOTAL (UG/L)	AROCLOR 1260 PCB, TOTAL (UG/L)
JUN 14...	--	<1	.54	<.01	<.01	<.1	<.1	<.1	<.1	<.1	<.1
AUG 31...	<.01	<1	.09	.03	<.01	<.1	<.1	<.1	<.1	<.1	<.1

DATE	PCB, TOTAL (UG/L)	HEXACHLOROBENZENE, TOTAL (UG/L)	HEXACHLOROBUTADIENE, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	HEXACHLORONORBORNADIENE, TOTAL (UG/L)	HEPTACHLORONORBORNENE, TOTAL (UG/L)	OCTACHLOROCYCLOPENTENE, TOTAL (UG/L)
JUN 14...	<.10	<.01	<1.0	<.01	<.01	<.01	<.01	<.01
AUG 31...	<.10	<.01	<1.0	<.01	<.01	<.01	.01	<.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351440089572301 - SH:P-134 MORTON WELL FIELD

DATE AUG	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
24...	1130	128	6.2	16.5	5	46	0	11	4.4	5.8	21	.4

DATE AUG	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
24...	1.3	58	4.0	2.7	.2	11	76	75	<.10	<.10	<.010	1

DATE AUG	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
24...	92	<1	<1	3	1600	2	26	<.1	1	<1	<1

DATE AUG	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
24...	11	<.01	5	<.01	.70

351703089575301 - SH:U-20, W.R. GRACE

DATE AUG	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
24...	0920	275	6.7	17.0	9	130	0	27	14	9.0	13	.4

DATE AUG	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)
24...	1.9	150	2.0	2.4	.2	9.8	157	<.10	.10	.010	2

DATE AUG	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
24...	330	<1	<1	1	5000	2	90	.1	1	<1	<1

DATE AUG	ZINC, DISSOLVED (UG/L AS ZN)	CYANIDE DISSOLVED (MG/L AS CN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
24...	<4	<.01	<1	<.01	.20

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SHELBY COUNTY--Continued

351942089412701 - SH:W-15 MLGW-LNG

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	TRITIUM, TOTAL (PCI/L)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	CARBON 14 PERCENT MODERN
OCT									
02...	0905	100	5.9	17.0	38	48	--	--	--
APR									
01...	1400	94	6.1	17.0	--	--	3.0	-18.9	59.0

352045090024901 - SH:T-16 SHELBY FOREST CAMPGROUND

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
JUN											
03...	1455	584	350	6.5	18.0	2	160	35	18	8.2	10

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	MERCURY DISSOLVED (UG/L AS HG)
JUN											
03...	.3	3.5	180	5.0	1.8	.2	11	177	<1	<1	<.1

DATE	ZINC, DISSOLVED (UG/L AS ZN)	TRITIUM, TOTAL (PCI/L)	C-13/C-12 STABLE ISOTOPE RATIO PER MIL	CARBON 14 PERCENT MODERN
JUN				
03...	11	4	-14.8	40.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

STATION NUMBER	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
350008089545000	SH:K-120	82-04-28	1445	124MMPS	273	98	6.0	17.5	34	66
350024089582601	SH:K-87	82-04-22	1115	124MMPS	402	108	6.1	17.0	38	77
350152089582001	SH:K-131	82-04-23	0920	124MMPS	315	88	6.3	17.5	36	60
350514089553700	SH:K-75	82-04-27	1345	112TRRC	91.0	340	6.3	17.5	120	195
350711089560202	SH:K-94	81-11-27	1140	124CLBR	550	125	6.3	17.0	40	89
350858089591401	SH:P-99	82-04-27	1000	112TRRC	59.0	620	6.8	21.0	280	363
351017090001901	SH:O-214	81-11-03	1100	112TRRC	82.0	320	6.8	17.5	150	182
351040090025501	SH:O-215	81-11-02	1615	111ALVM	100	1450	6.7	17.5	--	870
351124089520001	SH:Q-79	81-10-01	0930	112TRRC	70.0	130	6.0	18.0	34	94
351229089443801	SH:R-18	81-11-04	1215	124MMPS	--	54	5.9	16.5	19	44
351248090033001	SH:O-192	81-10-19	1130	111ALVM	80.0	500	6.8	16.5	--	314
351328089520801	SH:Q-80	81-10-01	1330	112TRRC	60.0	110	6.1	17.5	56	86
351340089433401	SH:R-17	81-10-02	1115	112TRRC	50.0	130	5.7	17.0	26	81
351424089572901	SH:P-125	81-10-01	1315	124MMPS	458	130	6.2	18.0	62	79
351456089564701	SH:P-141	81-10-19	1430	112TRRC	--	330	6.4	18.0	--	217
351525089512101	SH:V-12	81-10-01	1115	112TRRC	80.0	100	6.1	18.5	46	76
351749089492001	SH:V-19	81-11-03	1600	112TRRC	75.0	140	6.2	16.0	42	97
351923089422801	SH:W-16	81-11-04	1445	124MMPS	499	110	6.0	17.0	40	62
351928090013601	SH:T-21	82-05-14	1430	112TRRC	80.0	750	7.2	17.0	--	440
351945089453401	SH:V-18	81-11-03	1515	112TRRC	72.0	480	6.3	16.0	160	261
351956089593201	SH:U-43	81-11-03	1355	112TRRC	83.0	650	6.8	16.5	310	355
352012089503801	SH:V-10	82-05-07	1400	124MMPS	446	360	6.6	17.0	190	206
352036089534501	SH:U-41	81-11-26	1500	124MMPS	399	315	6.7	17.0	160	175
352051089550901	SH:U-42	81-11-03	1245	112TRRC	100	200	6.2	17.0	65	141
352113089570900	SH:U-2	82-05-12	1315	124MMPS	440	412	6.6	17.5	220	233
352212090005701	SH:T-20	81-10-01	1500	112TRRC	--	150	7.2	23.0	64	90
352653089483201	TP:E-22	81-11-26	1130	124MMPS	596	137	6.4	18.0	65	83

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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