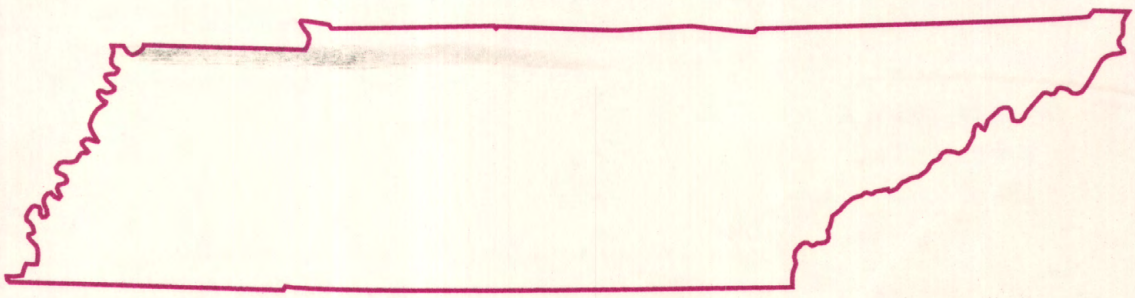
(200)
G43
Tennessee
1994

Water Resources Data Tennessee Water Year 1994



U.S. GEOLOGICAL SURVEY
RESTON, VA.
JUN 26 1995
SR
LIBRARY

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-94-1
Prepared in cooperation with the State of Tennessee
and with other agencies

CALENDAR FOR WATER YEAR 1994

1993

OCTOBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

NOVEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

DECEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1994

JANUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

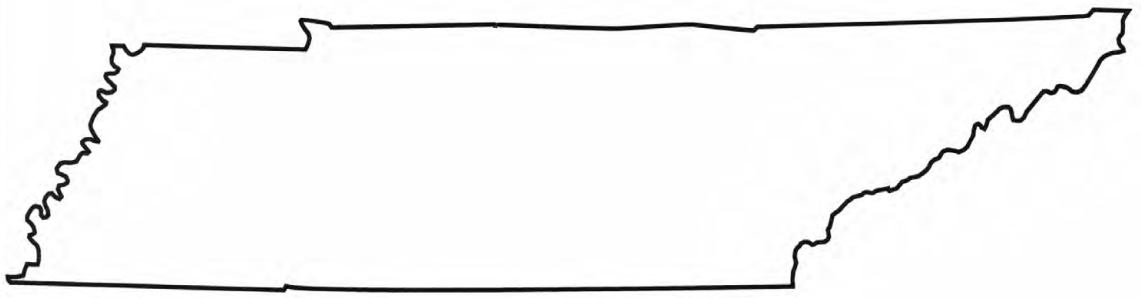
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Water Resources Data Tennessee Water Year 1994

by D.F. Flohr, J.T. Hamilton, J.G. Lewis, and L.B. Thomas



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-94-1
Prepared in cooperation with the State of Tennessee
and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, SECRETARY

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

For information on the water program in Tennessee write to:
District Chief, Water Resources Division
U.S. Geological Survey
810 Broadway, Suite 500
Nashville, Tennessee 37203

1995

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 water quality provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

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

Bradley A. Bryan, Knoxville
W. Harry Doyle, Jr., Memphis
Jerry F. Lowery, Nashville

The data were collected, computed, and processed by the following personnel:

J.E. Banton	F.D. Edwards	D.E. League
J.C. Barnett	A.M. Fielders	T.D. Phillips
M.W. Bennett	A.C. Hickey	P.Powers
A.K. Brachmann	G.C. Johnson	J.M. Shelton
D.E. Butner	W.K. Kelly	R.Thomas
C.W. Comstock	J.A. Kingsbury	T.D. Turner
P.H. Counts	R.R. Knight	

This report was prepared in cooperation with the State of Tennessee and with other agencies under the general supervision of Jess D. Weaver, Data Management Section Chief, and Harold C. Mattraw, Jr., District Chief, Tennessee.

REPORT DOCUMENTATION PAGE

Form Approved
OMB NO. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	March 1995	Annual--Oct. 1, 1993 to Sept. 30, 1994

4. TITLE AND SUBTITLE
Water Resources Data--Tennessee, Water Year 1994

5. FUNDING NUMBERS

6. AUTHOR(S)
D. F. Flohr, J. T. Hamilton, J. G. Lewis, and L. B. Thomas

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Geological Survey, Water Resources Division
Tennessee District
810 Broadway, Suite 500
Nashville, TN 37203

8. PERFORMING ORGANIZATION REPORT NUMBER
USGS-WDR-TN-94-1

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Geological Survey, Water Resources Division
Tennessee District
810 Broadway, Suite 500
Nashville, TN 37203

10. SPONSORING/MONITORING AGENCY REPORT NUMBER
USGS/WRD/HD-95/253

11. SUPPLEMENTARY NOTES
Prepared in cooperation with the Tennessee Department of Environment and Conservation; the Tennessee Valley Authority; and with other State, municipal, and Federal agencies.

12. DISTRIBUTION/AVAILABILITY STATEMENT
No restriction on distribution. This report may be purchased from National Technical Information Service, Springfield, Virginia 22161.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

Water-resources data for the 1994 water year for Tennessee consists of records of stage, discharge and water quality of streams and springs; stage, contents, and water quality of lakes and reservoirs; water levels and water quality of wells; and quantity and quality of precipitation. This report contains discharge records for 85 gaging stations; stage only record of 1 gaging station; elevation and contents for 27 lakes and reservoirs; water quality at 18 gaging stations and 10 wells; water levels for 30 observation wells; and 1 precipitation station. Also included are 97 crest-stage partial-record stations. Additional water data were collected at various stream sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Tennessee.

14. SUBJECT TERMS)
*Tennessee, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments analyses, Water temperature, Sampling sites, Water levels, Water analyses

15. NUMBER OF PAGES
399

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified		

CONTENTS

ILLUSTRATIONS

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

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

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

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

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

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

QUALITY OF GROUND WATER, 1994 WATER YEAR

QUALITY OF PRECIPITATION

WATER RESOURCES DATA - TENNESSEE, 1994

INTRODUCTION

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

This report consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains discharge records for 85 gaging stations; stage only at 1 gaging station; stage and contents at 27 lakes and reservoirs; water quality for 18 stations, and 10 wells; and water levels at 30 observation wells. Also included are data for 97 crest-stage partial-record stations. Locations of these sites are shown on figures 4 through 7. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and miscellaneous analyses or as seepage investigations.

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

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

Publications similar to this report are published annually by the USGS for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report TN-94-1." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

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) 736-5424. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

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

Athens Utility District
Tennessee Department of Environment and Conservation
Tennessee Department of Transportation
Tennessee Wildlife Resources Agency
Upper Duck River Development Agency
Harpeth Valley Utility District
Cities, Towns, or Counties;
- Alcoa
- Camden
- Crossville
- Dickson
- Franklin
- Grundy
- Harriman
- Johnson City
- Knoxville
- Memphis
- Metropolitan Government of Nashville and Davidson County
- Murfreesboro
- Red Boiling Springs
- Rogersville
- Sevierville
- Tullahoma
- Wartrace
- Shelby County

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, in collecting records for 6 gaging stations and 4 water-quality stations, by the Tennessee Valley Authority for 18 gaging stations, and by the U.S. Department of Energy for 11 gaging stations on Oak Ridge Reservation, the Department of the Air Force, Arnold Engineering Development Center for 3 water-quality stations, and by the U.S. Department of the Army, Ft. Campbell, for 2 gaging stations. All data are published in this report.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The State of Tennessee benefits from an abundance of streams, rivers, and lakes, The Tennessee and Cumberland are the largest rivers in the State, excluding the Mississippi River which flows along Tennessee's western boundary. The main stems of the Tennessee and Cumberland Rivers are highly regulated with a complex system of dams and reservoirs used for navigation, flood control, recreation, and water supply. Natural flow conditions occur only in tributaries to these rivers, or in other streams draining smaller basins throughout the State. Runoff data from these natural-flow streams can be used to describe the hydrologic conditions of the State for the 1994 water year.

A comparison of the mean discharges for the 1994 water year with the period-of-record mean at unregulated streams can be used to measure hydrologic conditions. The data for 1994 show that mean discharges at unregulated streams east of the Tennessee River (Kentucky Lake) ranged from 110 to 170 percent of the period-of- record mean. In West Tennessee mean discharges for 1994 ranged from about 105 to 140 percent of the period-of-record means. This comparison indicates that runoff during the water year was high above average in East and Middle Tennessee and varied from about average to above average on streams in West Tennessee.

The most significant flood to occur in Tennessee during the 1994 water year occurred March 27-29, 1994. The storm system occurring during this period produced high flows Statewide. East Tennessee was hardest hit and peak flows on the Little River above Townsend and the Little River near Maryville gages exceeded the 100-year recurrence interval. Peak flows in Southeastern Tennessee were approximately equal to a 25-year recurrence interval at the South Chickamauga Creek near Chickamauga gage and greater than 10-years at the Sequatchie River near Whitwell gage. Many other gaging stations across the State had peak flows in portions of Middle and East Tennessee as a result of this storm system.

Flooding occurred in several Middle and East Tennessee streams as the result of a storm system occurring on February 10-11, 1994. The highest recorded peak discharges for this storm occurred at the Sequatchie River near Whitwell gage and the Collins River near McMinnville gages and were approximately equal to a 25-year and 10-year recurrence interval respectively.

Ground Water

Ground-water levels at key aquifers throughout Tennessee were near normal during the 1994 water year. Ground-water levels are recorded continuously at a series of observation wells across the State (fig. 1). Water levels at well Ld:F-4 (Lauderdale County) is representative of conditions in West Tennessee and was near normal during most of the water year. Well Hm:O-15 (Hamilton County); and well Pm:C-1 (Putnam County) are representative of conditions in Middle, and East Tennessee and were above normal during much of the water year.

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

Water Quality

Water-quality data were collected at 20 surface-water sites during the 1993 water year. Four of these sites are part of the U.S. Geological Survey's National Stream Quality Accounting Network (NASQAN), where chemical, physical, and bacteriological determinations are made quarterly or bimonthly. These four stations are located on the Cumberland, Tennessee, Obion, and Hatchie Rivers. Data were also collected at two additional stations that are a part of the national Hydrologic Benchmark Network (HBN). Basins gaged as part of this network are relatively undisturbed by the activities of man. The HBN sites are located on the Buffalo and Little Rivers. Other surface-water quality activities in Tennessee included:

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

- Operation of three continuous monitors to measure temperature and pH in support of the Deparment of the Air Force, Arnold Engineering Development Center

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

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

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

The data from these networks did not identify any significant water-quality problems. Sanitary conditions (bacteria concentrations) at the stations were generally within the maximum allowable standards for human contact and recreation. There were no indications of toxic organics or inorganic compounds.

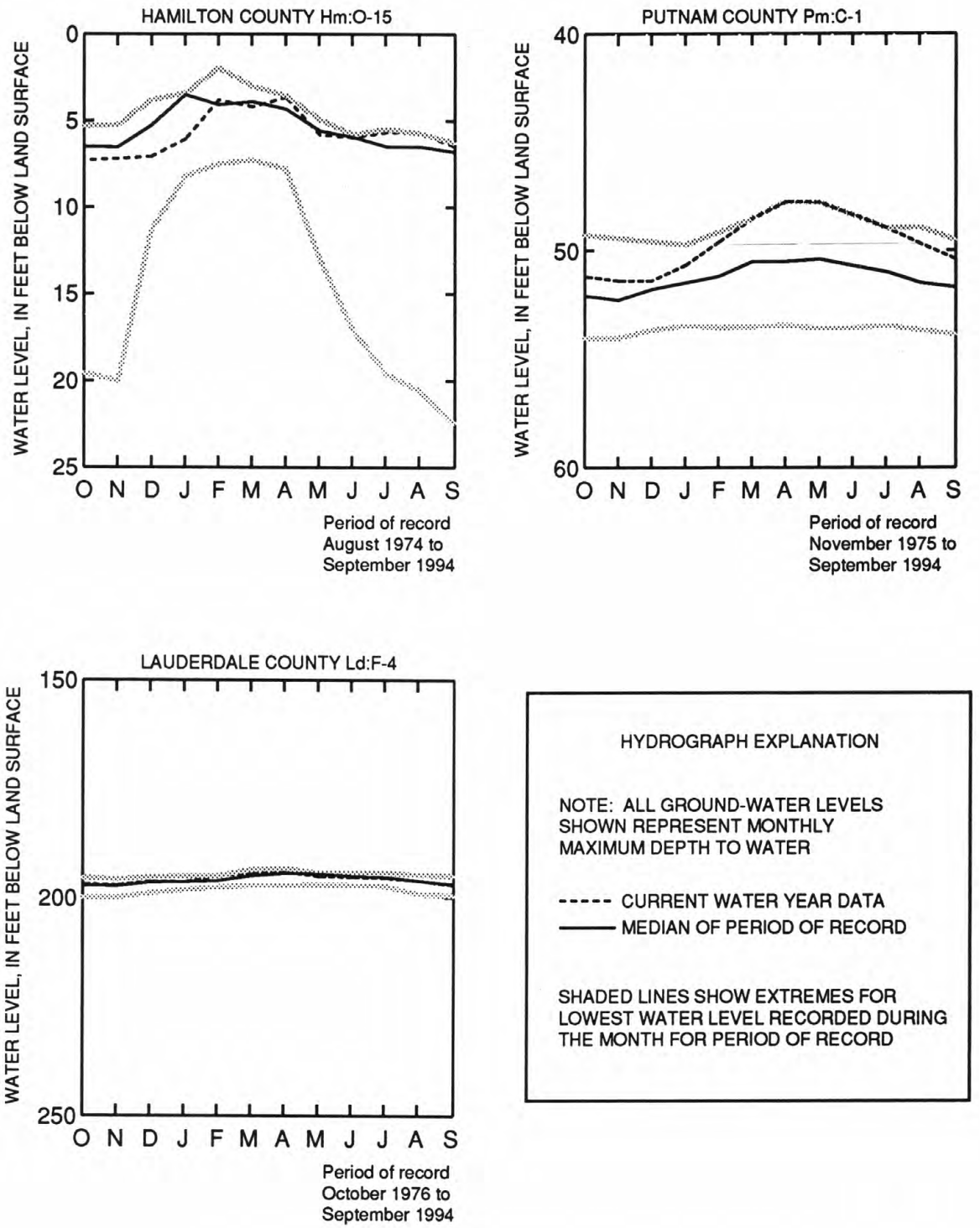


Figure 1. Ground-water levels for the 1994 water year compared to the maximum, minimum, and median water levels for the period of record.

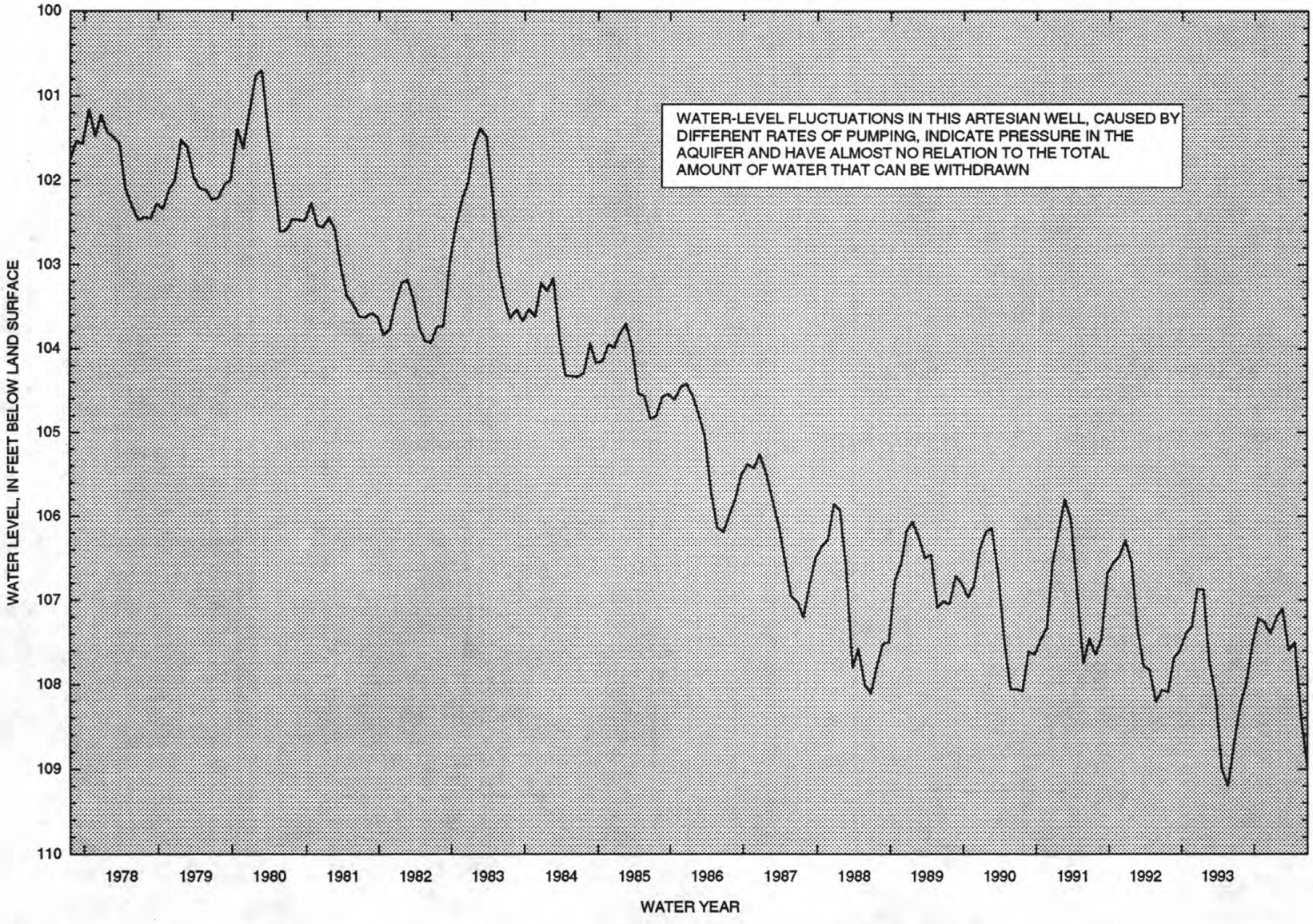


Figure 2. Hydrograph of well Sh:Q-1 in Shelby County showing long-term decline in water level.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 53 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 284 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in about two-thirds of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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 RECORDS

The surface-water and ground-water records published in this report are for the 1994 water year that began October 1, 1993, and ended September 30, 1994. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 4 through 7. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

Downstream Order System

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

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

Numbering system for wells

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

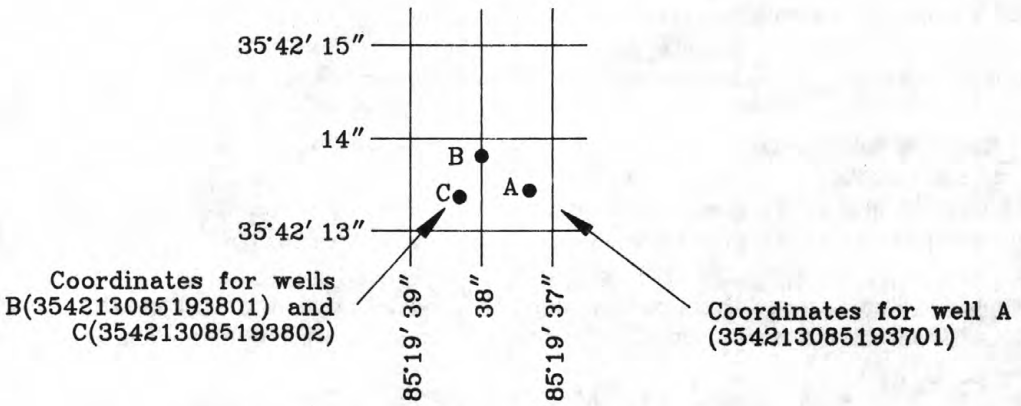


Figure 3.--System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

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

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

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

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

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

Data Presentation

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

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

Station manuscript

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

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

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

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

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

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

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

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

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

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

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Data Available

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

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

Records of Surface-Water Quality

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

Classification of Records

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

Arrangement of Records

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

On-Site Measurements and Sample Collection

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

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

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

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

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

Water Temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organisms count less than 0.5 percent (organisms may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Dissolved Tace-Element Concentrations

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level, Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of mamograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may acutally represnet elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network Procedures

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

Records of Ground-Water Levels

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

Data Collection and Computation

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

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

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

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

Data Presentation

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

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

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

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

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

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

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

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

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

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

Records of Ground-Water Quality

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

Data Collection and Computation

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

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

Data Presentation

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

EXPLANATION OF PRECIPITATION-QUALITY RECORDS

Collection of the Data

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

ACCESS TO WATSTORE DATA

The USGS is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the USGS's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National WATer Data STOrage and REtrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the USGS and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the USGS at its National Center in Reston, Virginia, and consists of related files and data bases.

* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the USGS collects or has collected data.

* Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

* Water-Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the USGS opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5¼ inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

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

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, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

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 KF-streptococcus 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.

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 [$(ft^3/s)/mi^2$] (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) 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.

Cubic foot per second-day [$(ft^3/s)/d$] is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,445 cubic meters.

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.

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

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.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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 stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing 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 eight-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 ($\mu g/g$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, $\mu g/L$) 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 dry 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.

National Stream Quality Accounting Network is a nationwide data-collection network designed by the USGS to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform
process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Parameter Code is a 5-digit number used in the USGS computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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 the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)			Method of analysis
Clay	0.00024	-	0.004	Sedimentation
Silt	.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 matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition 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, mass, or volume.

Pesticides are chemical compounds used to control undesirable organisms. 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 (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

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.

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.

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

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

Sea level in this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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 mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

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

Total sediment discharge (tons/day) is the total quantity of sediment (suspended-sediment and bed-load) as measured by dry weight or volume, that passes a section during a specified period.

Sodium-adsorption-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 that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the 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 representative 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 required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Suspended, total is the total amount of a given constituent in the part of a representative 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 an instrument that continuously records variations of water temperature on a chart. The more general term "temperature recorder" is the term used in the table headings and refers to any instrument that records water temperature whether on a chart, a tape, or any other medium.

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 of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

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 determined 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 is the quantity of any individual constituent, as measured by dry mass or volume that passes through a section during a specified period. It is computed by multiplying the total stream 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.

Water year in USGS reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

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

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

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 1976.

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

PUBLICATION OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "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-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 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.

2-E2. *Borehole geophysics applies to ground-water investigations*, by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 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 in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 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-A12. *Fluorometric procedures for dye tracing*, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.

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

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

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

PUBLICATION OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, N. Yotsukura, G.W. Parker, and L.L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
3-A19. *Levels of streamflow gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.
3-A20. *Simulation of soluable waste transport and buildup in surface water using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 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 programmed 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-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley. USGS-TWRI Book3, Chapter B4. 1993. 8 pages.
3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
3-B7. *Analytical solutions for one-, two, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Box 3, Chpater B7. 1992. 90 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.J. Fishman and L.C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969, 58 pages.
6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water flow problems, Part 1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

PUBLICATION OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

6-A4. *A modular finite-element model (MODFE) for area and axisymmetric ground-water flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 109 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-problems, Part 3: Design philosophy and programming details,* by L. J. Torak. USGS--TWRI Book 6, Chapter A5, 1993. 243 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. Schaffrannek, 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-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

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

Cumberland River Basin

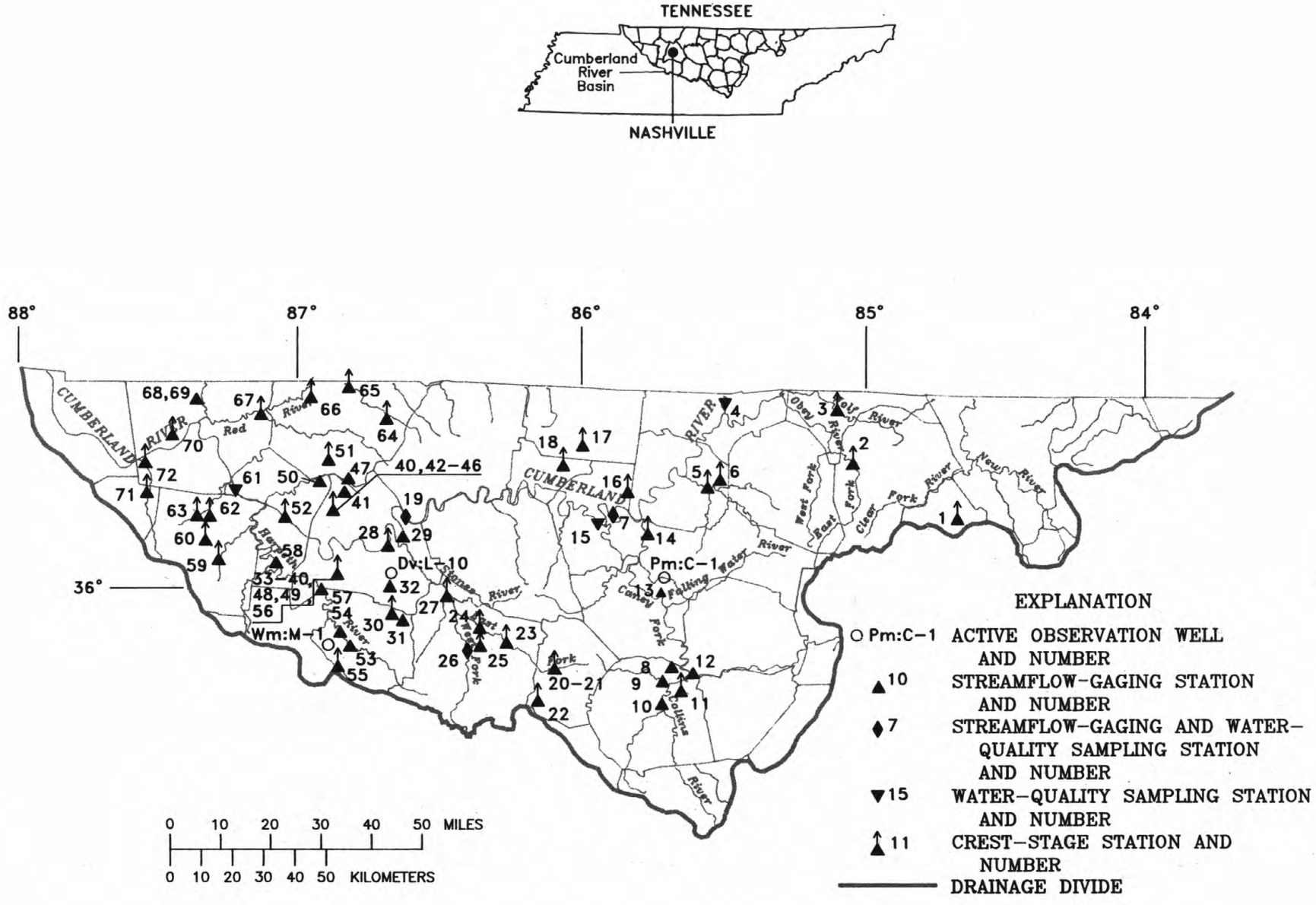


Figure 4.--Location of gaging sites in the Cumberland River Basin.

GREEN RIVER BASIN

03312255 SALT LICK CREEK AT RED BOILING SPRINGS, TN

LOCATION.--Lat 36°32'27", long 85°51'01", Macon County, Hydrologic Unit 05110002, near left bank on downstream end of bridge pier on Lake Road, 0.2 mi north of intersection of Lake Road and State Highway 50, 56, 0.6 mi north of Red Boiling Springs, and at mile 16.3.

DRAINAGE AREA.--12.6 mi².

PERIOD OF RECORD.--August 1991 to September 1994.

GAGE.--Data collection platform. Elevation of gage is 750 ft above sea level from topographic map.

REMARKS.--No estimated daily discharges. Records good except for discharges above 600 ft³/s which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT PERIOD.--August 1991 to September 1994: Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 5, 1991	1015	404	5.40	Jan. 28, 1994	0130	527	5.77
Dec. 2, 1991	1515	1,040	6.89	Feb. 9, 1994	0645	506	5.71
Dec. 2, 1991	2100	*3,820	*9.97	Feb. 11, 1994	0615	905	6.64
Jan. 2, 1992	2230	568	5.88	Feb. 23, 1994	0030	1,720	7.92
Jan. 13, 1992	2145	1,230	7.21	Mar. 9, 1994	1400	1,600	7.76
Mar. 6, 1992	1445	707	6.22	Mar. 27, 1994	0415	1,210	7.19
Mar. 10, 1992	0345	1,470	7.58	Mar. 27, 1994	2015	826	6.48
Dec. 4, 1993	1400	561	5.86	Apr. 15, 1994	1815	635	6.05
Jan. 7, 1994	0645	482	5.64	June 9, 1994	1415	850	6.53

Minimum daily discharge, 1.6 ft³/s, Sept. 1, 14, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1991 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	2.4	4.1
2	---	---	---	---	---	---	---	---	---	---	2.3	4.1
3	---	---	---	---	---	---	---	---	---	---	2.1	3.8
4	---	---	---	---	---	---	---	---	---	---	2.2	4.4
5	---	---	---	---	---	---	---	---	---	---	2.4	4.6
6	---	---	---	---	---	---	---	---	---	---	2.6	4.1
7	---	---	---	---	---	---	---	---	---	---	3.1	3.8
8	---	---	---	---	---	---	---	---	---	---	2.7	3.7
9	---	---	---	---	---	---	---	---	---	---	2.9	7.1
10	---	---	---	---	---	---	---	---	---	---	2.9	6.5
11	---	---	---	---	---	---	---	---	---	---	2.8	5.3
12	---	---	---	---	---	---	---	---	---	---	2.6	4.6
13	---	---	---	---	---	---	---	---	---	---	2.5	4.1
14	---	---	---	---	---	---	---	---	---	---	2.5	4.2
15	---	---	---	---	---	---	---	---	---	---	2.5	3.7
16	---	---	---	---	---	---	---	---	---	---	2.5	3.3
17	---	---	---	---	---	---	---	---	---	---	3.0	3.2
18	---	---	---	---	---	---	---	---	---	---	3.4	3.4
19	---	---	---	---	---	---	---	---	---	---	3.7	3.7
20	---	---	---	---	---	---	---	---	---	---	4.0	3.8
21	---	---	---	---	---	---	---	---	---	---	3.4	3.3
22	---	---	---	---	---	---	---	---	---	---	3.3	3.4
23	---	---	---	---	---	---	---	---	---	---	3.0	3.6
24	---	---	---	---	---	---	---	---	---	---	2.9	4.1
25	---	---	---	---	---	---	---	---	---	---	2.7	13
26	---	---	---	---	---	---	---	---	---	---	5.6	5.9
27	---	---	---	---	---	---	---	---	---	---	4.7	4.5
28	---	---	---	---	---	---	---	---	---	---	3.9	3.9
29	---	---	---	---	---	---	---	---	---	---	4.3	3.7
30	---	---	---	---	---	---	---	---	---	---	4.9	3.7
31	---	---	---	---	---	---	---	---	---	---	4.4	---
TOTAL	---	---	---	---	---	---	---	---	---	---	98.2	134.6
MEAN	---	---	---	---	---	---	---	---	---	---	3.17	4.49
MAX	---	---	---	---	---	---	---	---	---	---	5.6	13
MIN	---	---	---	---	---	---	---	---	---	---	2.1	3.2
CFSM	---	---	---	---	---	---	---	---	---	---	.25	.36
IN.	---	---	---	---	---	---	---	---	---	---	.29	.40

GREEN RIVER BASIN

03312255 SALT LICK CREEK AT RED BOILING SPRINGS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	8.0	127	23	14	18	32	10	13	55	7.0	6.9
2	3.9	7.8	700	139	13	17	27	9.9	10	38	6.4	11
3	3.6	7.7	319	211	13	16	24	12	14	96	6.3	13
4	3.7	7.5	55	87	12	15	21	10	26	50	6.3	11
5	54	7.2	33	52	12	14	18	10	35	32	5.8	12
6	13	7.1	26	37	12	87	16	9.8	20	25	5.6	12
7	9.0	7.3	22	29	12	55	16	9.2	15	20	5.5	8.7
8	8.3	7.1	19	25	11	32	17	11	13	16	5.8	7.2
9	8.0	7.0	30	25	10	26	17	12	12	13	6.1	6.4
10	8.1	7.0	33	21	9.9	444	16	9.5	11	12	6.4	14
11	8.0	6.9	26	20	9.6	69	15	8.8	9.8	11	5.7	9.6
12	7.6	7.0	21	19	11	42	14	11	9.8	9.6	5.1	7.1
13	7.4	6.8	59	154	17	31	14	16	14	8.7	4.8	6.5
14	7.6	6.8	55	262	15	27	14	12	13	7.9	4.8	6.1
15	8.1	6.8	35	64	22	24	14	10	10	9.4	5.6	5.9
16	7.7	6.8	27	37	19	22	15	9.3	9.8	9.2	5.8	5.3
17	7.9	6.7	22	28	17	20	14	8.8	8.7	11	5.1	5.2
18	7.9	6.7	19	23	16	26	13	8.4	71	9.5	4.3	12
19	8.1	6.6	17	19	15	49	13	8.3	48	8.0	3.8	13
20	8.0	12	16	18	14	34	14	8.6	25	7.3	3.6	9.4
21	7.8	12	17	17	13	27	30	14	18	9.5	3.8	7.6
22	8.0	35	17	16	12	26	21	13	14	11	5.2	9.2
23	13	21	32	35	15	23	17	9.1	12	10	7.6	9.4
24	13	14	31	29	16	20	15	8.8	12	8.2	14	7.4
25	9.2	11	25	23	17	22	14	8.7	106	8.2	7.3	6.9
26	8.2	9.7	21	20	50	23	13	8.3	49	9.9	5.5	13
27	11	9.1	19	18	35	21	13	8.0	37	9.7	33	16
28	21	8.6	42	17	26	19	13	9.6	24	8.6	62	11
29	12	8.3	47	17	21	18	12	27	18	7.1	17	8.6
30	9.4	39	34	16	---	39	11	28	15	7.4	10	7.2
31	8.2	---	27	15	---	42	---	17	---	7.6	7.9	---
TOTAL	314.5	314.5	1973	1516	479.5	1348	503	356.1	693.1	545.8	283.1	278.6
MEAN	10.1	10.5	63.6	48.9	16.5	43.5	16.8	11.5	23.1	17.6	9.13	9.29
MAX	54	39	700	262	50	444	32	28	106	96	62	16
MIN	3.6	6.6	16	15	9.6	14	11	8.0	8.7	7.1	3.6	5.2
CFSM	.81	.83	5.05	3.88	1.31	3.45	1.33	.91	1.83	1.40	.72	.74
IN.	.93	.93	5.83	4.48	1.42	3.98	1.49	1.05	2.05	1.61	.84	.82

GREEN RIVER BASIN

03312255 SALT LICK CREEK AT RED BOILING SPRINGS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	9.9	12	21	15	21	26	15	18	5.5	5.5	1.6
2	6.2	34	11	19	14	33	23	15	13	5.0	5.8	2.3
3	6.4	16	10	18	13	61	20	17	11	4.7	5.7	3.8
4	8.4	17	10	68	13	45	19	56	11	4.4	6.6	5.2
5	9.0	28	9.7	83	12	36	28	31	11	4.2	4.8	3.3
6	7.4	24	9.2	44	12	30	29	23	10	4.0	4.8	2.7
7	6.5	16	9.1	32	12	27	25	19	11	3.9	4.4	2.3
8	6.5	13	8.8	34	12	24	22	16	9.3	3.8	3.8	2.1
9	9.6	10	8.9	28	11	21	23	14	8.5	6.3	3.4	1.9
10	7.4	9.9	14	26	11	19	23	13	8.3	5.2	3.3	1.9
11	6.7	9.9	15	28	14	17	21	12	8.2	4.3	3.1	2.0
12	6.2	24	13	31	17	16	19	12	9.5	4.2	3.3	1.9
13	6.0	26	11	31	14	18	17	13	8.9	4.1	5.7	2.0
14	5.8	18	11	27	13	16	17	12	12	3.5	5.1	1.6
15	5.7	14	10	24	14	17	16	11	17	3.3	4.1	2.0
16	9.4	12	11	21	31	20	16	12	8.1	4.0	3.6	2.3
17	9.0	11	20	19	24	28	15	12	6.8	4.9	3.3	2.4
18	7.2	9.9	17	17	20	24	14	16	6.7	4.9	4.0	2.2
19	6.7	9.2	15	16	18	21	14	16	5.9	4.2	3.7	2.2
20	6.7	8.7	64	15	17	19	15	13	6.1	3.5	3.1	2.0
21	6.6	15	39	32	51	18	15	12	8.5	2.9	2.7	2.0
22	6.3	26	28	27	43	19	14	11	6.7	7.5	2.8	1.9
23	6.3	23	116	23	29	67	13	10	5.8	6.0	2.6	3.4
24	6.3	29	55	47	23	56	13	9.6	5.8	4.3	2.6	4.1
25	6.4	63	37	36	24	39	21	9.9	6.6	3.6	2.4	7.1
26	6.3	38	28	29	29	32	42	9.4	5.9	3.3	2.3	5.2
27	7.5	25	31	24	26	29	25	8.9	5.2	3.0	2.0	4.0
28	7.4	19	57	21	23	26	20	8.5	5.0	2.7	2.1	3.7
29	6.9	15	40	18	---	23	18	8.8	5.6	3.6	2.0	3.1
30	8.8	13	31	16	---	21	16	10	5.3	5.4	1.7	3.0
31	9.8	---	26	16	---	23	---	29	---	5.4	1.7	---
TOTAL	222.1	586.5	777.7	891	555	866	599	475.1	260.7	135.6	112.0	85.2
MEAN	7.16	19.5	25.1	28.7	19.8	27.9	20.0	15.3	8.69	4.37	3.61	2.84
MAX	9.8	63	116	83	51	67	42	56	18	7.5	6.6	7.1
MIN	5.7	8.7	8.8	15	11	16	13	8.5	5.0	2.7	1.7	1.6
CFSM	.57	1.55	1.99	2.28	1.57	2.22	1.58	1.22	.69	.35	.29	.23
IN.	.66	1.73	2.30	2.63	1.64	2.56	1.77	1.40	.77	.40	.33	.25

GREEN RIVER BASIN

03312255 SALT LICK CREEK AT RED BOILING SPRINGS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	5.8	9.6	21	27	27	58	18	8.6	7.7	7.7	11
2	3.0	6.4	9.4	19	23	30	46	15	8.8	6.9	7.2	9.2
3	3.1	6.7	9.5	20	21	30	42	29	9.0	6.4	6.7	7.9
4	2.9	6.7	241	23	20	30	37	28	9.3	6.2	6.6	7.2
5	2.7	7.1	117	21	19	26	37	20	9.0	5.9	16	7.5
6	2.7	6.8	42	24	17	24	82	17	9.6	5.6	7.4	8.0
7	2.6	6.2	26	222	16	26	65	34	30	5.8	6.3	7.2
8	2.6	5.9	19	75	16	36	49	47	19	5.0	5.8	6.9
9	2.9	5.8	19	41	211	783	40	27	24	5.4	5.3	6.5
10	3.6	5.8	79	30	112	211	99	20	15	5.2	5.1	6.4
11	3.7	5.6	40	26	592	66	163	16	12	4.8	5.0	6.1
12	4.0	5.5	25	24	154	44	93	15	11	5.5	4.7	5.9
13	3.8	5.8	21	23	87	36	71	14	9.8	7.0	4.6	6.2
14	3.7	23	21	22	54	32	53	29	8.9	9.2	12	5.7
15	3.9	36	22	21	41	28	179	56	8.4	14	9.9	5.7
16	15	20	20	21	34	26	140	30	7.6	15	7.0	5.3
17	19	35	19	20	30	24	76	20	14	14	7.7	5.1
18	12	23	17	21	26	23	53	17	9.6	14	6.1	9.9
19	19	17	16	21	23	22	41	14	7.7	8.4	5.5	7.3
20	14	15	19	21	32	21	33	13	7.3	6.8	8.3	5.7
21	9.4	13	23	21	74	21	29	12	7.2	13	22	5.1
22	6.8	11	21	18	284	20	26	12	6.5	70	9.3	4.7
23	5.6	10	19	17	534	19	23	11	6.3	55	7.5	4.6
24	4.9	10	17	32	82	19	21	10	7.5	19	6.6	8.1
25	4.5	10	16	105	44	19	20	10	7.2	12	6.1	5.9
26	4.6	10	15	75	34	20	22	42	34	13	5.8	4.6
27	4.8	20	14	75	30	584	21	31	26	17	5.4	6.7
28	4.7	15	33	212	28	281	19	17	17	12	5.3	5.8
29	4.7	11	42	63	---	98	17	13	13	10	7.3	5.2
30	5.8	10	29	40	---	71	17	11	9.3	8.7	6.7	4.6
31	6.0	---	23	31	---	71	---	9.9	---	7.9	12	---
TOTAL	188.9	369.1	1043.5	1405	2665	2768	1672	657.9	372.6	396.4	238.9	196.0
MEAN	6.09	12.3	33.7	45.3	95.2	89.3	55.7	21.2	12.4	12.8	7.71	6.53
MAX	19	36	241	222	592	783	179	56	34	70	22	11
MIN	2.6	5.5	9.4	17	16	19	17	9.9	6.3	4.8	4.6	4.6
CFSM	.48	.98	2.67	3.60	7.55	7.09	4.42	1.68	.99	1.01	.61	.52
IN.	.56	1.09	3.08	4.15	7.87	8.17	4.94	1.94	1.10	1.17	.71	.58

GREEN RIVER BASIN

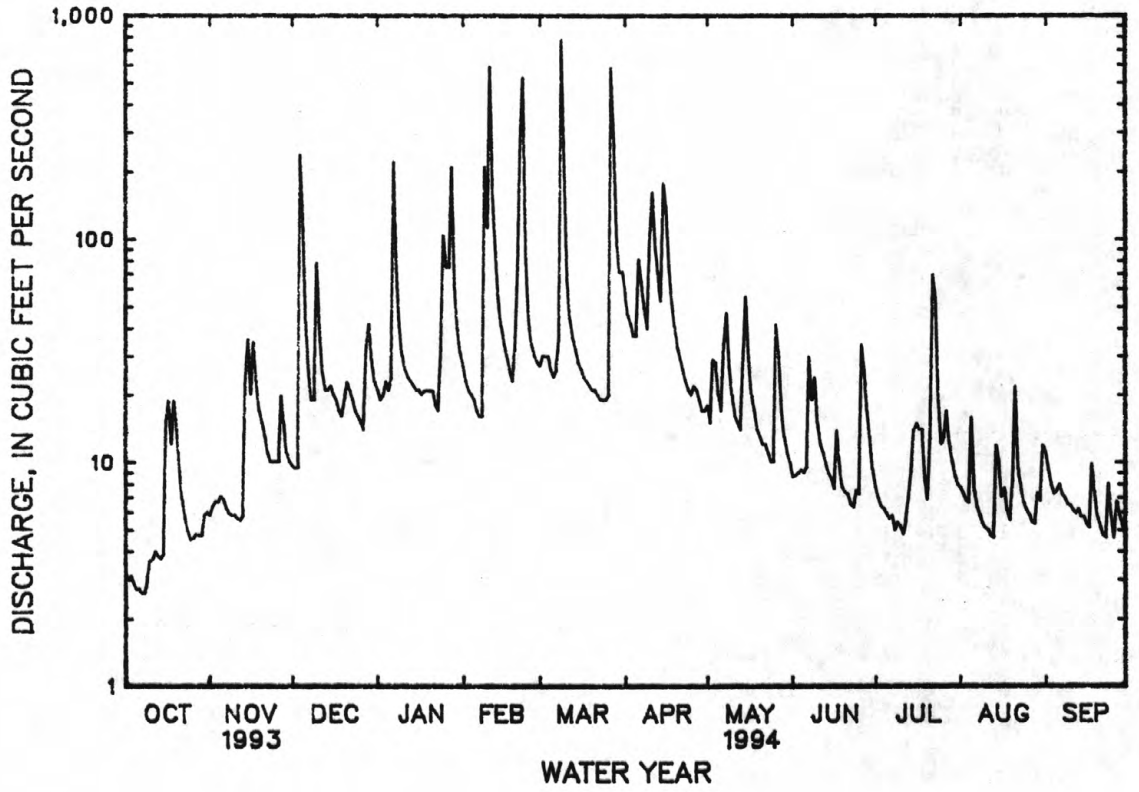
03312255 SALT LICK CREEK AT RED BOILING SPRINGS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1994, BY WATER YEAR (WY)

MEAN	7.80	14.1	40.8	41.0	43.5	53.6	30.8	16.0	14.7	11.6	5.90	5.79
MAX	10.1	19.5	63.6	48.9	95.2	89.3	55.7	21.2	23.1	17.6	9.13	9.29
(WY)	1992	1993	1992	1992	1994	1994	1994	1994	1992	1992	1992	1992
MIN	6.09	10.5	25.1	28.7	16.5	27.9	16.8	11.5	8.69	4.37	3.17	2.84
(WY)	1994	1992	1993	1993	1992	1993	1992	1992	1993	1993	1991	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1991 - 1994	
ANNUAL TOTAL	5581.1		11973.3			
ANNUAL MEAN	15.3		32.8		23.9	
HIGHEST ANNUAL MEAN					32.8	1994
LOWEST ANNUAL MEAN					15.2	1993
HIGHEST DAILY MEAN	241	Dec 4	783	Mar 9	783	Mar 9 1994
LOWEST DAILY MEAN	1.6	Sep 1	2.6	Oct 7	1.6	Sep 1 1993
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 9	2.8	Oct 3	1.9	Sep 9 1993
INSTANTANEOUS PEAK FLOW			1720	Feb 23	a3820	Dec 2 1991
INSTANTANEOUS PEAK STAGE			7.92	Feb 23	b9.97	Dec 2 1991
ANNUAL RUNOFF (CFSM)	1.21		2.60		1.89	
ANNUAL RUNOFF (INCHES)	16.48		35.35		25.72	
10 PERCENT EXCEEDS	29		64		37	
50 PERCENT EXCEEDS	12		16		12	
90 PERCENT EXCEEDS	2.9		5.3		3.9	

a From rating curve extended above 350 ft³/s on basis of flood profile computations.
b From high-water marks.



CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN

WATER-QUALITY RECORDS

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 northwest of courthouse in Celina, 600 ft downstream from Obey River, and at mile 380.8.

DRAINAGE AREA.--7,307 mi².

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1991 to current year.
pH: November 1991 to current year.
WATER TEMPERATURE: November 1991 to current year.
DISSOLVED OXYGEN: October 1992 to September 1993.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Lake Cumberland (station 03413500) and Dale Hollow Lake (station 03416500). Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 280 microsiemens, Aug. 29, 1992; minimum, 113 microsiemens, Mar. 27, 1994.
pH: Maximum, 8.5 units, Mar. 3, 4, 6, 1992; minimum, 6.2 units, Sept. 14, 1993.
WATER TEMPERATURE: Maximum, 17.7°C, May 18, 19, 1993; minimum, 3.9°C, Feb. 27, 1994.
DISSOLVED OXYGEN: Maximum, 12.8 mg/L, May 16, 1993; minimum, 7.2 mg/L, Oct. 9, Nov. 5, 1992, June 12, 1994.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 243 microsiemens, Jan. 11; minimum, 113 microsiemens, Mar. 27.
pH: Maximum, 8.3 units, Nov. 18, 21, 22; minimum, 6.6 units, April 9, July 20, 21, 22.
WATER TEMPERATURE: Maximum, 17.6°C, June 14; minimum, 3.9°C, Feb. 27.
DISSOLVED OXYGEN: Maximum, 12.3 mg/L, Feb. 26; minimum, 7.2 mg/L, June 12.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	181	176	178	196	191	195	208	200	203	200	196	199
2	181	177	179	200	196	198	200	200	200	206	199	204
3	185	181	183	200	196	196	200	200	200	210	205	207
4	185	181	183	200	196	197	215	171	192	205	197	202
5	185	181	185	200	196	197	183	159	170	204	200	201
6	189	185	186	196	195	195	206	167	181	204	196	200
7	185	185	185	199	195	196	213	206	209	204	165	187
8	189	185	186	199	195	196	213	208	209	212	188	196
9	189	185	186	199	195	195	212	208	209	220	212	217
10	185	185	185	195	195	195	215	203	207	239	220	236
11	---	---	---	199	195	195	207	194	200	243	239	240
12	175	175	175	199	195	197	206	202	205	239	239	239
13	176	175	176	199	195	195	205	201	204	239	239	239
14	177	176	177	198	194	195	209	204	205	240	235	238
15	178	177	178	222	194	208	208	203	206	240	236	237
16	187	175	179	210	194	202	207	203	206	236	236	236
17	191	168	181	218	202	211	207	202	203	236	236	236
18	177	168	171	214	210	213	202	198	201	236	232	233
19	201	177	182	210	206	208	205	201	201	---	---	---
20	201	194	198	210	206	206	201	196	199	---	---	---
21	195	186	191	210	206	209	200	195	197	---	---	---
22	195	195	195	209	209	209	199	198	199	228	228	228
23	196	192	193	209	205	206	198	194	198	228	224	227
24	193	192	193	205	201	202	201	197	197	228	224	228
25	198	193	197	201	201	201	201	197	199	228	209	218
26	199	194	197	201	201	201	200	200	200	209	201	204
27	195	191	194	209	201	205	200	195	198	---	---	---
28	192	192	192	217	205	210	203	198	199	---	---	---
29	193	192	193	217	212	213	202	198	201	201	197	200
30	194	189	191	212	208	209	202	197	200	205	201	202
31	195	191	194	---	---	---	201	197	200	205	201	202
MONTH	201	168	186	222	191	202	215	159	200	243	165	218

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	201	197	198	179	175	179	145	141	142	158	154	155
2	202	197	198	179	167	174	148	141	143	158	150	153
3	198	194	195	174	161	168	148	140	144	155	150	151
4	194	190	192	172	160	164	147	140	144	159	151	153
5	194	194	194	174	158	163	146	142	143	159	151	155
6	194	190	191	169	156	160	146	141	145	155	155	155
7	190	190	190	165	154	158	153	144	147	159	155	156
8	190	190	190	161	150	154	148	140	144	159	155	157
9	190	178	183	175	127	147	144	139	142	160	156	157
10	182	174	179	153	122	132	150	139	144	160	156	158
11	233	174	204	153	137	145	146	135	143	167	156	162
12	210	182	192	148	143	145	157	135	149	167	162	164
13	202	194	198	147	142	144	161	157	160	162	161	161
14	198	186	190	154	138	143	160	160	160	172	160	162
15	186	182	185	149	137	141	163	159	160	174	167	169
16	182	182	182	149	141	144	163	158	159	178	173	175
17	182	182	182	152	144	146	158	158	158	176	171	173
18	182	178	182	148	139	144	158	157	157	171	167	168
19	182	178	179	146	135	140	157	156	157	167	162	165
20	178	178	178	150	142	145	160	156	156	166	161	163
21	179	178	179	146	129	137	160	152	157	164	160	160
22	187	175	178	151	125	134	160	152	155	164	159	162
23	183	164	171	155	128	135	157	153	156	165	161	163
24	179	164	172	139	127	130	157	153	156	168	160	164
25	179	175	177	146	123	130	157	153	154	167	159	162
26	179	175	179	126	126	126	157	153	154	165	158	161
27	179	175	179	172	113	148	157	153	154	173	164	170
28	179	179	179	164	140	153	158	153	154	175	166	169
29	---	---	---	163	144	153	158	154	155	166	165	166
30	---	---	---	158	143	150	158	154	155	172	165	167
31	---	---	---	157	143	149	---	---	---	172	163	168
MONTH	233	164	186	179	113	148	163	135	152	178	150	162
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	170	163	167	145	141	144	145	140	143	180	175	179
2	166	161	165	145	141	144	146	141	143	175	170	173
3	164	152	159	145	145	145	143	134	138	174	169	170
4	---	---	---	150	145	147	134	128	130	169	163	167
5	---	---	---	150	146	148	130	126	127	163	158	161
6	---	---	---	150	146	148	139	129	133	161	157	158
7	184	173	182	166	150	153	141	137	139	164	160	160
8	173	153	163	170	154	163	144	140	143	164	160	162
9	157	149	153	158	150	153	142	139	141	164	160	162
10	153	146	149	154	150	151	139	137	139	164	160	162
11	150	142	148	158	150	153	144	137	141	164	160	162
12	154	146	151	162	150	155	144	140	143	164	160	163
13	158	154	155	162	146	150	144	144	144	164	160	163
14	158	142	150	150	149	149	144	144	144	164	160	162
15	142	134	139	153	149	149	144	143	143	164	164	164
16	139	135	138	---	---	---	147	143	143	164	164	164
17	139	135	138	---	---	---	147	143	144	165	164	164
18	139	139	139	153	149	151	147	143	145	165	165	165
19	143	139	143	149	145	147	147	143	146	169	165	168
20	159	143	153	149	145	146	147	143	146	173	169	169
21	167	151	157	149	144	145	151	147	148	173	165	168
22	155	144	151	148	142	144	154	146	150	169	165	166
23	156	140	147	---	---	---	154	150	150	169	165	166
24	144	140	143	---	---	---	154	150	150	169	165	165
25	148	136	142	147	143	144	154	149	151	169	165	167
26	144	136	139	152	145	146	153	149	150	169	165	168
27	140	136	139	157	152	155	152	151	151	169	165	168
28	144	137	140	160	155	157	154	150	152	169	165	167
29	145	137	142	155	150	153	179	149	163	168	164	164
30	145	141	144	152	147	151	183	179	182	168	164	164
31	---	---	---	147	145	146	182	177	181	---	---	---
MONTH	184	134	149	170	141	150	183	126	147	180	157	165

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.5	7.7	7.6	7.3	7.1	7.3	7.2	7.3	7.2	6.9	6.8
2	7.6	7.5	8.1	7.7	7.2	7.1	7.3	7.2	7.3	7.2	7.2	6.8
3	7.5	7.5	8.0	7.9	7.7	7.2	7.3	7.2	7.2	7.2	7.2	7.2
4	7.6	7.5	8.1	7.9	7.7	7.6	7.4	7.3	7.2	7.2	7.2	7.1
5	7.7	7.5	8.1	8.0	7.7	7.6	7.4	7.3	7.2	7.2	7.1	7.1
6	7.7	7.5	8.0	7.9	7.7	7.5	7.4	7.3	7.2	7.2	7.1	7.1
7	7.7	7.5	8.1	7.9	7.5	7.4	7.5	7.2	7.2	7.2	7.1	7.1
8	7.6	7.6	8.1	8.0	7.4	7.4	7.3	7.3	7.3	7.2	7.1	7.1
9	7.6	7.5	8.2	8.1	7.5	7.4	7.3	7.3	7.3	7.2	7.1	7.0
10	7.5	7.4	8.1	8.1	7.5	7.4	7.3	7.3	7.3	7.2	7.0	6.9
11	---	---	8.2	8.1	7.5	7.3	7.3	7.1	7.3	7.0	7.1	6.9
12	---	---	8.2	8.1	7.4	7.3	7.2	7.1	7.2	7.1	7.1	7.0
13	7.4	7.4	8.2	8.1	7.3	7.3	7.3	7.1	7.3	7.2	7.2	7.0
14	7.7	7.4	8.2	8.1	7.3	7.3	7.2	7.1	7.3	7.3	7.1	7.1
15	7.4	7.4	8.1	8.0	7.3	7.3	7.2	7.2	7.3	7.3	7.1	7.0
16	7.4	7.3	8.0	7.8	7.3	7.3	7.3	7.2	7.3	7.2	7.2	7.1
17	7.5	7.3	8.2	7.9	7.3	7.2	7.3	7.2	7.2	7.2	7.2	7.2
18	7.5	7.4	8.3	8.1	7.2	7.2	7.3	7.3	7.2	7.1	7.2	7.1
19	7.6	7.3	8.2	8.1	7.2	7.2	---	---	7.2	7.1	7.1	7.1
20	7.4	7.4	8.2	8.1	7.4	7.2	---	---	7.1	7.1	7.2	7.1
21	7.4	7.4	8.3	8.1	7.4	7.3	---	---	7.1	7.1	7.4	7.2
22	7.5	7.4	8.3	8.0	7.4	7.3	7.3	7.3	7.1	7.0	7.2	7.1
23	7.6	7.5	8.2	8.0	7.3	7.3	7.3	7.2	7.1	6.9	7.2	7.1
24	7.6	7.5	8.1	7.9	7.3	7.3	7.3	7.2	7.0	6.9	7.3	7.1
25	7.6	7.5	8.1	7.9	7.3	7.3	7.2	7.2	7.0	7.0	7.3	7.2
26	7.7	7.6	8.0	7.8	7.4	7.3	7.2	7.1	7.0	7.0	7.2	7.1
27	7.7	7.6	7.8	7.7	7.4	7.3	---	---	7.0	6.9	7.2	7.1
28	7.6	7.5	7.9	7.5	7.3	7.2	7.3	7.2	6.9	6.9	7.3	7.2
29	7.6	7.6	7.6	7.4	7.3	7.3	7.3	7.2	---	---	7.3	7.2
30	7.6	7.6	7.5	7.3	7.3	7.3	7.3	7.2	---	---	7.2	7.2
31	7.7	7.6	---	---	7.4	7.3	7.3	7.2	---	---	7.4	7.2
MONTH	7.7	7.3	8.3	7.3	7.7	7.1	7.5	7.1	7.3	6.9	7.4	6.8
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.3	7.2	6.9	7.8	7.7	7.4	7.2	7.1	7.1	7.0	7.0
2	7.3	7.3	7.2	7.1	7.8	7.5	7.4	7.3	7.1	7.1	7.0	7.0
3	7.3	7.3	7.1	7.1	7.8	7.4	7.3	7.3	7.1	7.1	7.1	7.0
4	7.4	7.3	7.1	7.1	7.9	7.4	7.3	7.3	7.2	7.1	7.1	7.0
5	7.3	7.3	7.1	7.1	8.0	7.5	7.4	7.3	7.2	7.1	7.1	7.1
6	7.3	7.3	7.1	7.0	8.0	7.4	7.5	7.4	7.1	7.0	7.2	7.1
7	7.4	7.2	7.1	7.0	8.1	7.3	7.5	7.2	7.1	7.0	7.2	7.1
8	7.3	6.9	7.1	7.0	7.4	7.1	7.5	7.2	7.0	6.8	7.2	7.1
9	7.0	6.6	7.0	6.9	7.3	7.1	7.4	7.3	7.1	7.0	7.2	7.1
10	7.3	6.8	6.9	6.9	7.5	7.2	7.5	7.2	7.0	7.0	7.2	7.1
11	7.3	6.8	7.2	6.9	7.3	7.2	7.4	7.3	7.0	6.8	7.2	7.2
12	7.2	7.1	7.3	7.2	7.3	7.1	7.5	7.2	6.9	6.8	7.3	7.1
13	7.1	7.1	7.4	7.3	7.3	7.1	7.5	7.3	6.9	6.9	7.1	7.1
14	7.1	7.1	7.8	7.4	7.6	7.3	7.6	7.3	6.9	6.8	7.1	7.1
15	7.4	7.1	7.8	7.6	7.5	7.3	7.5	7.4	6.9	6.9	7.1	7.1
16	7.3	7.2	7.8	7.6	7.4	7.1	---	---	6.9	6.8	7.1	7.1
17	7.4	7.3	7.8	7.7	7.4	7.2	---	---	6.9	6.9	7.1	7.1
18	7.4	7.3	7.9	7.7	7.4	7.0	6.9	6.7	6.9	6.9	7.1	7.1
19	7.4	7.3	7.9	7.8	7.3	7.2	6.9	6.8	6.9	6.9	7.2	7.1
20	7.3	7.1	7.9	7.8	7.4	7.2	6.6	6.6	6.9	6.9	7.2	7.2
21	7.2	7.1	7.9	7.8	7.5	7.3	7.0	6.6	6.9	6.9	7.2	7.2
22	7.3	7.2	7.9	7.8	7.4	7.1	7.1	6.6	6.9	6.9	7.2	7.2
23	7.3	7.3	7.9	7.8	7.4	7.1	---	---	6.9	6.8	7.2	7.0
24	7.3	7.3	7.9	7.8	7.5	7.1	---	---	6.8	6.8	7.1	7.0
25	7.3	7.3	8.0	7.7	7.5	7.2	7.2	7.2	6.9	6.8	7.1	7.0
26	7.3	7.2	7.9	7.8	7.5	7.2	7.2	7.1	7.0	6.8	7.1	7.0
27	7.3	7.2	8.0	7.8	7.5	7.3	7.1	7.0	6.9	6.9	7.1	7.1
28	7.2	7.2	7.9	7.6	7.6	7.1	7.1	7.0	7.0	6.9	7.2	7.0
29	7.3	7.2	7.7	7.6	7.5	7.2	7.1	7.0	7.1	7.0	7.2	7.2
30	7.2	7.1	7.7	7.7	7.5	7.2	7.1	7.0	7.0	7.0	7.2	7.2
31	---	---	7.8	7.6	---	---	7.1	7.1	7.0	7.0	---	---
MONTH	7.4	6.6	8.0	6.9	8.1	7.0	7.6	6.6	7.2	6.8	7.3	7.0

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.1	12.4	12.8	10.0	9.6	9.8	9.3	7.7	8.4	7.9	7.3	7.6
2	13.3	12.5	12.9	10.0	9.0	9.5	10.3	8.9	9.5	7.9	7.5	7.7
3	13.7	13.1	13.4	10.8	9.8	10.4	11.0	10.3	10.6	7.5	7.3	7.4
4	13.9	13.3	13.6	11.6	10.8	11.0	11.6	11.0	11.3	7.7	7.2	7.4
5	14.2	13.4	13.8	12.2	11.6	11.9	11.4	10.8	11.0	7.5	7.2	7.3
6	14.8	14.0	14.4	12.0	11.0	11.4	10.8	10.2	10.3	7.8	7.3	7.5
7	15.1	14.5	14.8	11.0	10.4	10.7	10.4	10.0	10.2	8.2	7.6	8.0
8	15.3	14.7	14.9	10.4	9.4	9.7	10.4	10.0	10.3	7.6	6.7	7.0
9	15.3	15.1	15.1	9.4	8.6	9.1	10.6	10.2	10.3	7.1	6.1	6.6
10	15.1	13.9	14.6	10.8	9.2	10.0	11.0	10.6	10.8	7.3	6.7	7.0
11	---	---	---	10.8	10.0	10.5	11.0	10.0	10.5	7.4	6.9	7.2
12	---	---	---	11.2	10.6	10.8	10.0	9.0	9.4	7.8	7.3	7.6
13	12.7	11.6	12.0	12.2	11.2	11.6	9.6	9.0	9.3	7.6	7.4	7.6
14	13.7	12.7	13.2	13.3	12.2	12.6	10.2	9.6	9.9	7.4	6.7	7.3
15	14.1	13.1	13.5	13.9	13.3	13.7	10.2	10.2	10.2	6.7	6.1	6.3
16	14.3	14.1	14.2	13.9	13.5	13.7	10.2	10.0	10.1	6.1	5.7	5.9
17	15.2	14.1	14.4	13.7	12.9	13.4	10.2	10.0	10.1	6.1	5.7	6.0
18	15.2	14.8	15.0	12.9	12.6	12.7	10.2	10.0	10.1	5.7	5.3	5.4
19	15.2	15.0	15.1	12.6	11.9	12.3	10.2	9.6	9.9	---	---	---
20	15.2	14.6	14.8	11.9	10.7	11.1	9.6	9.1	9.3	---	---	---
21	15.4	14.4	15.1	10.7	10.1	10.5	9.1	8.9	9.1	---	---	---
22	14.4	13.4	13.8	10.3	9.5	9.8	8.9	8.7	8.8	5.4	4.8	5.2
23	13.4	12.4	12.8	9.9	8.9	9.4	8.7	8.5	8.6	5.8	5.2	5.5
24	12.8	12.1	12.3	11.1	9.5	10.3	8.7	8.3	8.6	5.8	5.4	5.6
25	13.4	12.8	13.1	11.7	10.9	11.2	8.7	8.1	8.6	5.6	5.4	5.6
26	14.2	13.2	13.7	11.5	11.3	11.4	8.1	7.5	7.7	6.0	5.0	5.4
27	14.2	13.4	13.8	11.5	10.7	11.0	8.7	7.7	8.1	---	---	---
28	13.4	12.5	12.9	10.7	9.5	10.1	8.7	8.3	8.6	---	---	---
29	12.5	11.8	11.9	9.5	8.5	8.9	8.3	7.7	8.0	6.8	5.6	6.2
30	11.8	10.8	11.2	8.5	7.5	8.0	7.7	7.2	7.4	5.6	5.2	5.3
31	11.0	10.0	10.6	---	---	---	7.7	7.2	7.4	5.2	5.0	5.1
MONTH	15.4	10.0	13.6	13.9	7.5	10.9	11.6	7.2	9.4	8.2	4.8	6.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	4.6	4.7	4.9	4.7	4.8	8.0	7.7	7.9	11.6	11.0	11.3
2	5.0	4.4	4.7	5.0	4.7	4.9	8.4	8.0	8.2	11.0	10.2	10.5
3	5.0	4.4	4.7	5.4	4.8	5.1	8.2	8.0	8.1	11.3	10.5	10.9
4	5.0	4.4	4.7	5.6	5.0	5.2	8.2	7.7	7.9	10.9	10.5	10.7
5	5.2	4.8	5.0	5.8	5.2	5.4	8.2	7.8	8.0	11.1	10.7	10.9
6	5.2	4.8	5.0	5.6	5.2	5.4	8.9	8.2	8.7	11.4	10.4	11.1
7	5.2	4.6	4.9	6.1	5.5	5.8	8.5	7.9	8.2	10.6	10.2	10.4
8	5.6	5.0	5.3	6.1	5.9	6.0	8.3	7.8	8.1	11.4	10.0	10.6
9	6.6	5.4	5.9	6.1	5.7	5.9	9.5	8.3	8.9	11.3	10.2	10.8
10	5.8	4.2	4.8	6.1	5.7	5.9	9.3	9.1	9.2	10.9	10.3	10.7
11	5.2	4.2	4.7	6.1	5.7	5.9	11.0	9.1	9.8	10.7	10.1	10.4
12	5.6	4.8	5.2	6.1	5.7	5.9	11.4	10.6	11.1	10.8	10.1	10.3
13	5.6	5.0	5.3	6.1	5.9	6.0	10.6	10.2	10.4	10.4	10.0	10.1
14	5.2	4.4	4.6	6.6	5.9	6.2	10.2	9.2	9.8	11.3	10.0	10.4
15	4.6	4.4	4.5	6.8	6.2	6.4	10.4	9.0	9.6	11.7	10.9	11.2
16	4.7	4.2	4.4	6.4	5.8	6.2	10.6	10.0	10.3	11.8	11.5	11.8
17	4.7	4.1	4.4	6.2	5.6	5.8	10.2	9.7	9.9	11.9	11.4	11.6
18	4.9	4.3	4.6	6.8	5.8	6.3	10.1	9.5	9.8	11.6	11.2	11.4
19	5.1	4.5	4.8	7.0	6.0	6.7	10.7	9.9	10.3	11.4	10.9	11.2
20	5.3	4.9	5.0	6.7	6.0	6.4	10.7	10.1	10.4	11.1	10.7	10.8
21	5.9	5.1	5.5	7.5	6.7	7.0	10.7	10.1	10.3	11.3	10.7	10.8
22	7.1	5.5	5.8	7.5	6.9	7.3	11.0	10.3	10.6	12.1	10.6	11.3
23	7.6	6.5	7.1	7.3	6.7	7.0	11.2	10.6	10.9	12.5	11.7	12.2
24	7.6	5.5	6.6	7.5	7.1	7.3	11.2	10.6	10.8	13.6	12.2	12.9
25	5.5	4.7	4.9	7.5	7.1	7.2	11.4	10.8	11.0	13.8	12.6	13.1
26	4.9	4.1	4.5	7.4	7.0	7.2	11.5	10.7	11.0	12.7	12.1	12.5
27	4.9	3.9	4.3	9.3	7.4	8.8	11.3	10.9	11.0	12.3	11.9	12.1
28	4.9	4.3	4.6	9.3	8.1	8.8	11.3	10.7	10.9	12.2	11.5	11.9
29	---	---	---	8.1	7.6	7.8	11.6	11.0	11.2	12.4	11.4	12.0
30	---	---	---	7.6	7.2	7.4	11.4	11.2	11.2	12.0	11.4	11.7
31	---	---	---	7.8	7.2	7.6	---	---	---	12.9	11.8	12.7
MONTH	7.6	3.9	5.0	9.3	4.7	6.4	11.6	7.7	9.8	13.8	10.0	11.3

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	12.9	14.8	14.8	14.4	14.6	14.3	13.7	14.1	15.0	14.2	14.5
2	15.4	14.5	14.9	14.6	14.2	14.3	14.5	13.7	14.1	14.4	13.8	14.1
3	14.8	13.3	14.1	14.6	14.2	14.5	14.7	14.1	14.4	14.8	14.0	14.4
4	14.5	13.5	14.3	14.8	14.4	14.6	15.1	14.5	14.8	15.0	14.6	14.8
5	14.7	13.7	14.3	15.1	14.5	14.8	15.3	14.5	14.8	15.0	14.2	14.6
6	16.0	14.7	15.4	16.2	14.7	15.3	15.8	14.2	14.9	15.2	14.4	14.8
7	15.8	14.8	15.4	16.1	15.1	15.5	15.8	14.4	14.9	15.1	14.4	14.7
8	16.0	14.4	15.0	16.1	15.1	15.6	14.8	14.6	14.7	15.7	14.7	15.2
9	16.1	15.0	15.7	15.9	14.9	15.3	15.0	14.6	14.8	15.9	15.1	15.4
10	15.0	14.6	14.9	15.7	14.7	15.3	15.2	14.6	14.9	16.1	15.3	15.6
11	15.2	14.4	14.7	15.7	14.7	15.2	15.2	14.2	14.7	16.1	15.3	15.6
12	15.9	14.3	14.9	15.9	14.9	15.3	15.0	14.2	14.7	16.6	15.3	15.8
13	16.6	15.5	15.8	15.9	15.3	15.6	15.2	14.8	15.1	16.6	15.6	16.2
14	17.6	15.9	17.0	16.0	15.4	15.6	15.4	14.4	14.8	15.6	14.8	15.1
15	15.9	13.3	14.0	16.0	15.2	15.5	15.0	14.5	14.8	15.4	15.0	15.2
16	14.1	13.7	13.8	---	---	---	14.9	13.9	14.4	15.6	15.0	15.3
17	14.2	13.6	13.9	---	---	---	14.7	14.1	14.4	15.6	15.0	15.2
18	14.4	13.8	14.2	17.3	15.8	16.4	14.7	14.3	14.5	15.2	14.8	15.0
19	14.6	14.4	14.4	16.0	14.6	15.0	14.9	14.1	14.5	15.8	15.0	15.3
20	16.3	14.6	15.2	15.0	14.4	14.6	14.7	14.1	14.5	16.4	15.4	15.8
21	16.7	15.9	16.4	15.0	14.4	14.7	14.9	14.1	14.4	16.2	15.8	16.0
22	16.5	14.2	14.8	14.4	13.8	14.1	15.4	14.0	14.7	16.2	15.6	15.8
23	14.4	13.9	14.1	---	---	---	15.0	14.0	14.5	15.7	15.1	15.5
24	14.3	13.9	14.0	---	---	---	14.6	13.8	14.2	15.5	14.9	15.2
25	14.5	14.1	14.2	---	---	---	14.5	13.8	14.2	15.3	14.9	15.1
26	14.1	13.3	13.7	15.3	14.0	14.8	14.7	13.5	14.2	15.5	13.7	15.2
27	13.7	13.3	13.6	15.3	14.1	14.7	14.9	13.9	14.5	15.7	15.3	15.5
28	14.2	13.3	13.6	14.9	13.9	14.5	14.9	13.9	14.5	15.3	14.7	14.9
29	14.2	13.6	13.9	14.5	13.5	14.1	16.5	14.3	14.9	15.1	14.5	14.8
30	14.6	13.8	14.2	14.5	13.7	14.1	15.1	14.3	14.6	15.5	14.7	15.1
31	---	---	---	14.3	13.7	14.0	15.0	14.3	14.5	---	---	---
MONTH	17.6	12.9	14.6	17.3	13.5	14.9	16.5	13.5	14.6	16.6	13.7	15.2

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.9	9.5	9.7	11.4	10.2	10.8	10.7	10.0	10.4	10.4	10.3	10.4
2	9.7	9.3	9.5	11.5	11.0	11.3	10.1	9.8	9.9	10.5	10.3	10.4
3	9.6	9.0	9.3	11.3	10.2	10.6	9.9	9.5	9.7	10.8	10.4	10.7
4	9.7	9.6	9.6	10.2	10.0	10.1	9.5	9.2	9.4	10.8	10.4	10.6
5	10.1	9.7	9.9	10.2	9.9	10.0	9.4	9.0	9.3	10.7	10.4	10.6
6	9.9	9.7	9.9	10.1	9.8	9.9	9.4	8.5	9.2	10.5	10.4	10.5
7	10.0	9.7	9.8	10.5	9.9	10.1	8.9	8.4	8.7	10.6	10.4	10.5
8	9.8	9.1	9.7	10.7	10.2	10.4	8.8	8.5	8.6	10.8	10.5	10.7
9	9.7	9.4	9.5	11.0	10.7	10.9	9.1	8.8	9.0	10.8	10.5	10.7
10	---	---	---	10.8	10.1	10.4	9.2	8.9	9.1	10.6	10.5	10.6
11	---	---	---	10.4	10.2	10.3	9.2	8.9	9.1	10.6	10.5	10.5
12	---	---	---	10.2	10.0	10.1	9.2	8.9	9.1	10.5	10.3	10.4
13	10.9	10.2	10.7	10.1	9.4	9.7	9.2	8.8	9.0	10.4	10.2	10.3
14	10.6	10.1	10.4	9.6	9.2	9.4	9.2	9.1	9.1	10.4	10.2	10.3
15	10.6	10.2	10.4	9.6	8.9	9.3	9.3	9.1	9.3	10.6	10.4	10.5
16	10.3	9.9	10.2	8.9	8.7	8.9	9.3	9.2	9.3	10.8	10.6	10.7
17	9.9	8.9	9.7	9.0	8.9	9.0	9.2	9.0	9.1	10.8	10.6	10.7
18	9.1	8.9	9.0	9.2	8.9	9.1	9.2	9.0	9.1	10.9	10.7	10.8
19	9.4	8.6	9.0	9.2	9.0	9.1	9.3	9.1	9.2	---	---	---
20	9.8	9.0	9.5	9.5	9.2	9.4	9.3	9.1	9.2	---	---	---
21	9.3	8.9	9.1	10.1	9.5	9.7	9.3	9.1	9.2	---	---	---
22	9.9	9.2	9.5	10.3	9.9	10.1	9.5	9.3	9.5	11.2	11.1	11.2
23	10.2	9.0	10.0	10.5	10.3	10.4	9.4	9.3	9.4	11.2	10.9	11.1
24	10.1	9.3	9.9	10.3	9.6	9.9	9.5	9.3	9.4	11.3	11.0	11.1
25	10.2	9.8	10.0	9.6	9.4	9.5	9.5	9.3	9.4	11.3	11.2	11.2
26	10.4	9.9	10.2	9.5	9.3	9.4	10.0	9.5	9.8	11.2	10.9	11.1
27	10.5	10.1	10.3	9.7	9.3	9.5	9.9	9.7	9.8	---	---	---
28	10.5	9.9	10.2	10.0	9.4	9.7	10.0	9.7	9.9	---	---	---
29	10.6	10.1	10.4	10.5	9.8	10.0	10.3	9.9	10.1	10.9	10.9	10.9
30	10.5	10.2	10.4	10.8	10.4	10.6	10.4	10.2	10.3	11.1	10.9	11.0
31	10.9	10.1	10.5	---	---	---	10.5	10.3	10.4	11.2	11.1	11.1
MONTH	10.9	8.6	9.9	11.5	8.7	9.9	10.7	8.4	9.4	11.3	10.2	10.7

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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

THIS IS A BLANK PAGE

CUMBERLAND RIVER BASIN

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 north of Carthage, and at mile 313.5.

DRAINAGE AREA.--8,095 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year. Equivalent record prior to 1981 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Datum of gage is sea level.

REMARKS.--Flow regulated by Lake Cumberland (station 03413500) and Dale Hollow Lake (station 03416500) (see p. 122).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum daily discharge, 116,000 ft³/s, Mar. 13, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 67,500 ft³/s, Mar. 28; minimum daily, 2,500 ft³/s, Oct. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6750	4630	5180	17300	22400	42600	47800	37000	4460	9810	10400	10800
2	6040	4670	6170	13200	24500	41800	45000	36900	5480	9610	10000	12500
3	5290	4880	5410	9700	25200	44100	41500	32100	7170	8950	8930	11100
4	4680	5550	22200	13200	23100	45500	41800	30400	6170	7880	8870	11700
5	4400	6430	39900	21400	23900	42400	41500	33700	4480	5810	10100	8450
6	4700	5440	18700	20600	22800	40800	42700	32100	5040	6200	12000	7080
7	4120	4660	15900	26800	24000	40100	40500	30200	7890	4830	10400	7430
8	4110	3590	18200	33100	24000	38400	39700	28100	10000	4730	10800	9050
9	3800	4600	17500	24100	33800	53800	40600	31600	9060	4440	8020	7620
10	3120	5610	19100	27100	40700	67400	40900	29400	10600	5420	9450	7910
11	2500	6320	22200	26300	57800	63700	53400	31200	8210	7670	13200	6130
12	3470	6040	18800	26100	58500	52700	59100	29900	5500	5560	10300	6650
13	5030	6420	19000	25900	50500	45600	56600	28300	3770	3830	9580	7950
14	5000	6050	14900	24000	44400	45100	49200	26000	4120	4820	9840	13800
15	5310	5410	16300	22000	38400	43800	43300	26700	12500	8960	10500	9950
16	6390	6730	16800	24600	36000	41500	55300	22300	9200	5420	11500	10300
17	8840	8260	15100	23500	35400	41700	48700	18400	9020	11200	10600	9500
18	7240	8820	14700	26900	34400	41500	43200	14600	7480	6810	10600	8940
19	4690	9990	16600	21900	34100	40200	41800	12700	6160	7670	12000	6280
20	6800	7970	15500	24600	29000	38700	39200	14000	5160	9520	13300	4050
21	8180	5670	16400	25200	34300	39000	38700	15100	4830	9190	14700	7380
22	6850	4440	18100	24300	40200	38500	39800	11400	6410	8570	13400	7310
23	5310	5130	16200	23300	63500	38600	39300	9440	9970	8820	14300	7340
24	4690	5720	16900	19900	56700	38400	39200	6500	7990	10900	13200	9070
25	5020	6360	16600	25400	47700	38000	38700	6120	8660	13500	13700	5040
26	4440	5390	15500	40300	43000	37300	37200	7840	11600	11600	13500	3720
27	5120	4680	15300	35700	42700	55800	37600	9570	11300	14100	12800	5510
28	5450	6010	15400	40000	42700	67500	37400	7500	10700	12900	13100	7480
29	5420	4860	21700	39300	---	53400	38100	6240	12400	12500	12300	10100
30	5500	4740	18000	30500	---	42800	37300	4680	9790	14800	13200	7370
31	4810	---	16500	27200	---	42700	---	5460	---	10600	10700	---
TOTAL	163070	175070	524760	783400	1053700	1403400	1295100	635450	235120	266620	355290	247510
MEAN	5260	5836	16930	25270	37630	45270	43170	20500	7837	8601	11460	8250
MAX	8840	9990	39900	40300	63500	67500	59100	37000	12500	14800	14700	13800
MIN	2500	3590	5180	9700	22400	37300	37200	4680	3770	3830	8020	3720

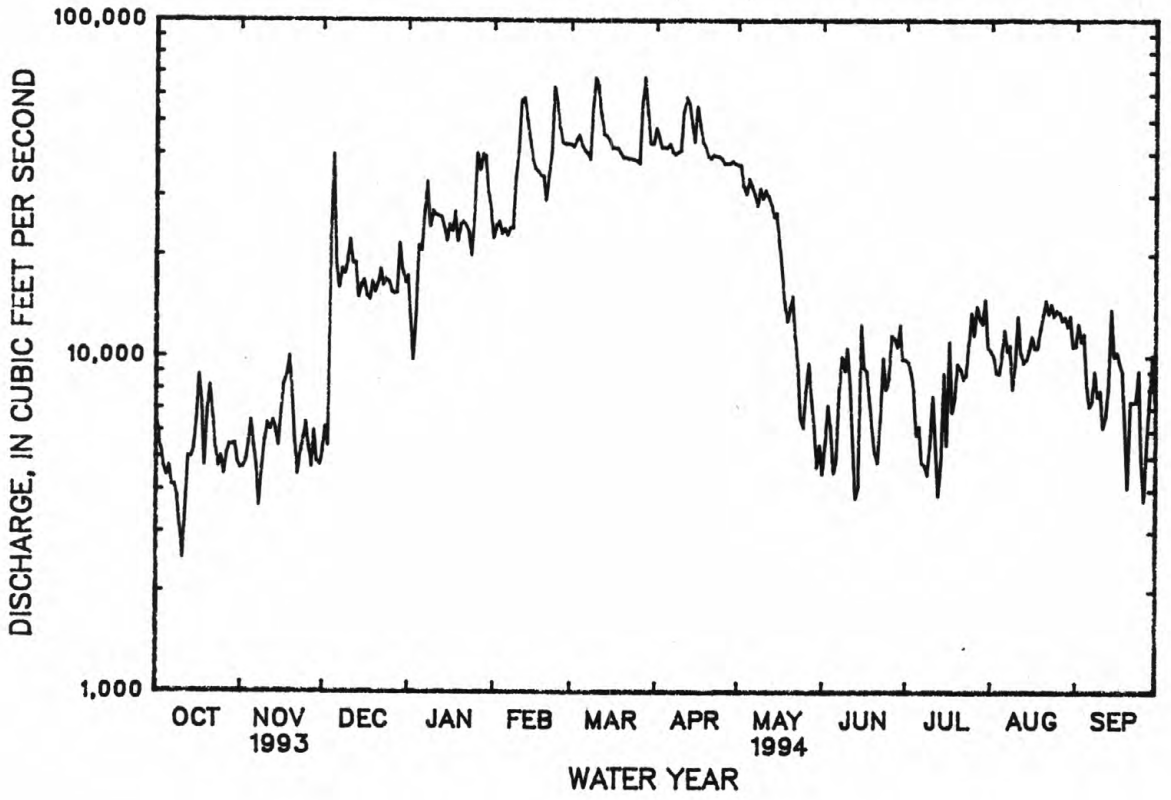
CUMBERLAND RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1994, BY WATER YEAR (WY)

MEAN	6805	8312	14290	16950	17070	17800	14650	11870	12200	10180	9987	8040
MAX	18890	20780	23430	32860	37630	45270	43170	37590	24760	19250	15800	16180
(WY)	1990	1990	1987	1991	1994	1994	1994	1984	1983	1989	1982	1982
MIN	3156	1795	2269	2493	4466	3686	4830	3925	5446	6090	5945	4409
(WY)	1989	1981	1981	1981	1981	1981	1981	1985	1985	1986	1988	1988

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1981 - 1994	
ANNUAL TOTAL	4168900		7138490			
ANNUAL MEAN	11420		19560		12330	
HIGHEST ANNUAL MEAN					19560	1994
LOWEST ANNUAL MEAN					6159	1988
HIGHEST DAILY MEAN	39900	Dec 5	67500	Mar 28	85200	May 8 1984
LOWEST DAILY MEAN	2490	May 16	2500	Oct 11	.00	Nov 2 1980
ANNUAL SEVEN-DAY MINIMUM	3190	May 14	3690	Oct 6	1290	Nov 22 1980
10 PERCENT EXCEEDS	20900		42500		25400	
50 PERCENT EXCEEDS	8770		12800		9200	
90 PERCENT EXCEEDS	4690		4950		3770	



CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1990 to current year.
WATER TEMPERATURE: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cordell Hull Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 290 microsiemens, Mar. 27, 1990; minimum, 140 microsiemens, Sept. 3, 1984.
pH: Maximum, 8.5 units, Mar. 9, 10, May 14, 16, 1992, June 16, 17, 1993; minimum 6.6 units, May 31, 1994.
WATER TEMPERATURE: Maximum, 23.6°C, July 8, 1988; minimum, 2.0°C, Jan. 12, 15-21, 1981.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L, Mar. 4, 1983; minimum, 3.7 mg/L, Aug. 5, 1988.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 220 microsiemens, Jan. 3; minimum, 141 microsiemens, March 11, 12.
pH: Maximum, 8.4 units, Jan. 6, 7, July 17, 18; minimum, 6.6 units, May 31.
WATER TEMPERATURE: Maximum, 23.3°C, July 25; minimum, 3.5°C, Jan. 19, 20, 21, 22.
DISSOLVED OXYGEN: Maximum, 11.8 mg/L, Jan. 27; minimum, 5.2 mg/L, Oct. 26.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	195	195	195	175	174	175	166	166	166	157	157	157
2	199	195	197	174	174	174	166	166	166	157	157	157
3	199	198	199	174	170	173	166	166	166	157	157	157
4	198	194	195	174	170	172	166	166	166	157	157	157
5	194	194	194	170	170	170	166	166	166	157	152	152
6	194	190	193	170	170	170	166	166	166	156	152	154
7	190	190	190	170	170	170	170	166	166	156	156	156
8	194	190	192	170	169	170	174	170	170	156	156	156
9	190	186	189	169	166	167	170	170	170	156	156	156
10	190	185	187	169	154	165	170	166	167	164	156	159
11	185	173	179	154	141	144	166	166	166	164	160	161
12	177	162	171	157	141	147	166	162	165	160	155	159
13	162	158	160	165	157	162	162	146	152	159	155	157
14	173	158	165	165	165	165	162	146	156	159	155	156
15	181	173	180	165	165	165	166	162	165	155	155	155
16	185	180	182	165	161	163	166	166	166	155	151	155
17	184	180	184	165	161	163	166	162	163	155	150	154
18	184	184	184	169	165	167	---	---	---	154	150	153
19	184	184	184	173	169	171	---	---	---	154	154	154
20	184	184	184	173	165	169	166	166	166	158	154	156
21	184	180	181	169	161	163	166	162	162	162	158	160
22	180	176	179	169	169	169	162	162	162	162	161	162
23	180	175	178	169	165	167	162	158	161	165	161	161
24	175	156	163	165	161	163	158	158	158	165	161	162
25	156	148	151	169	165	166	---	---	---	165	157	161
26	171	156	167	165	161	165	---	---	---	165	157	159
27	175	171	174	165	161	163	---	---	---	157	156	157
28	175	175	175	169	149	158	---	---	---	160	156	157
29	---	---	---	149	145	148	---	---	---	164	156	159
30	---	---	---	157	149	153	157	157	157	164	156	159
31	---	---	---	166	157	163	---	---	---	164	156	159
MONTH	199	148	181	175	141	165	174	146	164	165	150	157
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	166	158	161	159	155	156	169	160	162
2	---	---	---	165	158	159	159	154	155	165	161	161
3	---	---	---	165	158	161	158	154	155	161	161	161
4	---	---	---	172	161	162	161	153	154	165	161	161
5	---	---	---	168	161	161	157	153	154	165	161	162
6	---	---	---	168	160	162	156	152	154	165	165	165
7	166	166	166	175	160	163	156	152	154	172	165	166
8	173	166	170	165	160	161	159	151	154	169	165	165
9	177	169	173	164	159	160	159	151	153	188	165	166
10	177	173	174	163	158	159	155	150	151	189	165	168
11	181	172	174	162	157	158	153	150	151	170	166	169
12	176	172	173	165	156	158	157	153	154	170	170	170
13	180	176	177	164	156	161	158	154	154	170	170	170
14	189	176	182	168	163	163	158	154	155	173	170	170
15	185	180	184	163	163	163	159	155	157	173	170	171
16	184	180	182	167	159	162	160	155	159	174	171	171
17	184	180	182	162	162	162	160	156	160	174	171	171
18	---	---	---	170	157	163	161	156	159	171	171	171
19	---	---	---	161	157	160	161	157	158	171	171	171
20	---	---	---	161	156	159	166	157	159	174	171	171
21	182	178	179	160	156	159	158	158	158	172	168	171
22	182	173	178	163	156	159	163	158	159	175	168	171
23	177	173	175	163	159	159	163	159	160	172	168	168
24	177	168	173	163	159	160	163	159	160	172	168	168
25	172	168	170	162	162	162	164	156	160	169	164	168
26	172	168	170	162	158	161	164	156	159	169	165	167
27	172	167	169	161	157	158	164	156	160	173	165	168
28	175	167	168	157	156	157	164	160	161	169	165	168
29	---	---	---	156	156	156	164	160	161	169	165	167
30	163	159	161	160	156	158	164	160	161	168	168	168
31	---	---	---	160	155	156	164	160	161	---	---	---
MONTH	189	159	174	175	155	160	166	150	157	189	160	168

CUMBERLAND RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.9	7.2	7.3	6.9	7.2	6.8	8.3	7.1	7.6	7.5	7.4	6.9
2	7.7	7.1	7.8	7.0	7.9	6.8	8.3	7.4	7.6	7.5	7.4	6.9
3	7.5	7.1	7.6	7.0	8.0	7.4	8.1	7.3	7.6	7.5	7.0	6.9
4	7.5	7.2	7.4	7.0	7.6	7.3	8.1	7.4	7.6	7.5	7.0	6.9
5	7.3	7.0	7.8	7.1	7.8	7.4	7.5	7.4	7.6	7.5	7.2	6.9
6	7.4	7.0	7.4	7.0	8.0	7.1	8.4	7.4	7.5	7.5	7.4	7.0
7	7.4	7.0	7.5	7.0	7.3	7.1	8.4	7.5	7.5	7.5	7.4	6.9
8	7.3	7.0	7.6	7.1	7.4	6.9	7.7	7.4	7.5	7.5	7.4	6.9
9	7.2	6.9	7.5	7.0	8.0	7.2	7.5	7.4	7.5	7.5	7.2	6.9
10	7.1	6.7	8.3	7.3	7.7	7.1	7.5	6.9	7.5	7.5	7.4	7.0
11	7.2	6.7	8.2	7.2	7.1	7.1	7.7	6.9	7.5	7.4	7.4	6.9
12	7.2	6.7	8.1	7.1	7.1	7.0	8.0	7.1	7.5	7.3	7.3	7.1
13	7.4	6.7	7.6	7.3	7.7	7.0	8.3	7.1	7.4	7.3	7.3	7.2
14	7.1	6.7	8.2	7.3	7.7	7.0	8.3	7.4	7.4	7.2	7.4	7.3
15	7.5	6.8	8.1	7.5	7.7	6.9	7.6	7.5	7.2	7.2	7.4	7.4
16	7.9	6.9	7.8	7.4	6.9	6.7	7.6	7.5	7.4	7.1	7.5	7.4
17	7.6	6.9	7.9	7.4	6.9	6.7	7.6	7.6	7.2	7.1	7.5	7.4
18	7.5	7.2	7.7	7.2	7.0	6.7	7.6	7.6	7.1	7.1	7.5	7.4
19	7.5	7.1	7.6	7.1	7.5	6.8	7.6	7.6	7.1	7.1	7.5	7.4
20	7.6	7.1	7.2	7.0	8.2	7.3	7.6	7.6	7.5	7.1	7.5	7.4
21	7.4	6.9	7.7	6.9	7.8	7.7	7.6	7.6	7.4	7.1	7.7	7.4
22	7.3	6.8	7.5	6.8	7.9	7.6	7.6	7.5	7.4	7.0	7.5	7.4
23	7.3	6.8	7.6	7.0	7.8	7.3	7.5	7.5	7.3	7.0	7.5	7.5
24	7.2	6.9	7.8	6.9	7.6	7.2	7.5	7.5	7.1	7.0	7.6	7.5
25	7.6	7.0	7.4	6.7	7.9	7.2	7.6	7.5	7.1	7.0	7.6	7.5
26	7.5	7.1	7.9	6.8	7.3	7.2	7.5	7.5	7.0	7.0	7.6	7.5
27	7.4	7.0	7.7	7.0	7.2	7.1	7.5	7.5	7.0	7.0	7.6	7.4
28	7.5	7.0	7.1	6.8	8.1	7.2	7.5	7.5	7.0	6.9	7.6	7.5
29	7.8	7.0	7.2	6.8	7.7	7.3	7.5	7.5	---	---	7.6	7.5
30	7.6	7.1	7.1	6.8	7.3	7.2	7.5	7.5	---	---	7.6	7.5
31	7.6	7.0	---	---	7.4	7.2	7.5	7.5	---	---	7.5	7.4
MONTH	7.9	6.7	8.3	6.7	8.2	6.7	8.4	6.9	7.6	6.9	7.7	6.9
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.3	7.6	7.4	---	---	8.3	7.1	7.7	7.0	7.4	7.1
2	7.3	7.3	7.9	7.4	---	---	8.1	7.1	7.8	7.1	7.6	7.2
3	7.4	7.3	8.1	7.5	---	---	7.9	7.3	7.9	7.2	7.6	7.3
4	7.4	7.3	7.7	7.3	---	---	7.7	7.1	7.6	7.2	7.6	7.1
5	7.4	7.3	7.8	7.4	---	---	7.6	7.2	7.6	7.2	7.5	7.0
6	7.4	7.4	7.7	7.4	---	---	7.7	7.2	8.0	7.1	7.6	7.2
7	7.4	7.4	7.5	7.1	7.5	7.3	7.8	7.1	7.6	7.1	7.4	7.0
8	7.4	7.4	7.4	7.0	7.6	7.3	7.6	7.1	7.8	7.1	7.8	7.3
9	7.4	7.4	7.2	7.0	7.6	7.2	7.4	7.1	7.5	7.0	7.8	7.4
10	7.5	7.4	7.1	7.0	7.6	7.2	7.3	7.2	7.5	7.0	7.8	7.4
11	7.6	7.5	7.1	7.0	7.6	7.2	7.6	7.0	7.8	7.0	7.8	7.4
12	7.6	7.5	7.1	7.0	7.6	7.2	7.7	7.0	7.5	7.2	8.0	7.4
13	7.6	7.5	7.1	7.1	7.7	7.2	7.9	6.9	7.7	7.1	8.1	7.4
14	7.6	7.5	7.2	7.1	7.5	7.1	8.0	7.7	7.5	7.2	8.1	7.5
15	7.5	7.5	7.1	7.0	7.8	7.1	7.9	7.6	7.6	7.1	8.1	7.5
16	7.6	7.5	7.1	7.1	7.7	7.0	7.9	7.5	7.7	7.1	8.0	7.6
17	8.0	7.3	7.3	7.1	7.4	7.1	8.4	7.6	7.4	7.1	7.9	7.5
18	---	---	7.4	6.9	---	---	8.4	7.4	7.5	7.1	7.9	7.5
19	---	---	7.3	7.0	---	---	8.2	7.4	7.6	7.1	7.9	7.5
20	7.4	7.4	7.3	7.1	7.6	7.2	8.3	7.3	7.5	7.0	7.9	7.5
21	7.5	7.4	7.3	7.1	7.5	6.9	8.2	7.3	7.4	6.9	7.9	7.5
22	7.5	7.4	7.5	7.1	7.5	6.9	7.7	7.3	7.6	6.9	7.9	7.4
23	7.6	7.4	7.6	7.0	7.9	7.1	7.7	7.1	7.4	6.8	7.8	7.5
24	7.6	7.5	7.4	6.9	7.5	7.1	8.0	7.3	7.4	6.8	7.6	7.4
25	---	---	7.3	6.7	7.8	7.0	7.9	7.3	7.4	6.9	7.5	7.4
26	---	---	7.1	6.8	8.0	7.2	7.7	7.1	7.5	7.1	7.4	7.2
27	---	---	7.3	6.9	7.8	6.9	7.6	7.1	7.7	7.2	7.3	7.1
28	---	---	7.1	6.9	7.7	6.9	7.6	7.1	7.6	7.3	7.5	7.0
29	7.4	7.3	7.2	6.8	---	---	7.5	7.0	7.4	7.2	7.7	7.2
30	7.7	7.2	7.1	6.7	7.7	7.2	7.5	7.0	7.7	7.2	7.7	7.5
31	---	---	7.1	6.6	---	---	7.7	6.9	7.5	7.2	---	---
MONTH	8.0	7.2	8.1	6.6	8.0	6.9	8.4	6.9	8.0	6.8	8.1	7.0

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.9	17.5	18.0	13.4	12.8	13.2	10.7	10.1	10.3	6.6	6.4	6.5
2	18.3	17.5	18.0	13.0	12.4	12.7	10.3	10.1	10.2	6.6	6.4	6.5
3	17.9	17.5	17.8	12.6	12.4	12.6	10.1	9.9	10.0	6.6	6.4	6.4
4	17.7	17.4	17.6	12.4	12.4	12.4	10.1	9.3	9.7	6.4	6.0	6.2
5	17.7	17.2	17.4	12.6	12.1	12.4	9.7	9.1	9.5	6.1	6.0	6.1
6	17.5	17.0	17.4	12.1	11.6	11.8	9.9	9.1	9.6	6.5	6.1	6.2
7	17.5	17.0	17.3	11.6	11.2	11.5	10.3	9.9	10.1	6.7	6.5	6.6
8	17.5	16.8	17.2	11.6	11.0	11.3	10.5	10.3	10.4	6.7	6.5	6.5
9	17.0	16.4	16.8	11.2	10.8	11.0	10.3	10.1	10.3	6.7	6.3	6.4
10	16.4	15.8	16.1	10.8	10.6	10.7	10.3	10.1	10.2	6.5	6.3	6.4
11	16.2	15.6	15.9	10.8	10.4	10.6	10.1	9.7	9.9	6.3	5.9	6.1
12	16.4	15.4	15.8	10.6	10.2	10.4	9.7	9.4	9.5	6.3	5.9	6.0
13	16.2	15.6	15.9	10.6	10.2	10.4	9.4	9.2	9.3	6.7	6.3	6.5
14	16.2	15.8	15.9	11.0	10.4	10.7	9.4	9.4	9.4	6.7	6.5	6.5
15	16.2	15.6	15.9	11.2	11.0	11.0	9.4	9.2	9.3	6.5	5.7	6.1
16	16.8	16.0	16.2	11.2	10.8	10.9	9.2	8.8	9.0	5.7	5.3	5.5
17	16.8	15.8	16.4	11.6	11.2	11.4	8.8	8.6	8.7	5.3	4.7	5.1
18	16.6	16.0	16.1	11.6	11.4	11.5	9.0	8.6	8.8	4.7	3.7	4.2
19	16.2	15.8	16.1	11.6	11.4	11.6	9.0	8.6	8.9	3.7	3.5	3.6
20	17.0	15.8	16.3	11.4	11.2	11.3	9.0	8.6	8.9	3.7	3.5	3.6
21	16.8	16.0	16.4	11.4	11.0	11.1	8.8	8.4	8.6	3.9	3.5	3.6
22	16.2	15.6	15.9	11.4	10.8	11.0	8.6	8.2	8.4	4.1	3.5	3.8
23	15.8	15.2	15.6	11.2	10.8	11.0	8.4	8.0	8.2	4.4	4.0	4.2
24	15.8	15.2	15.5	11.2	10.8	11.1	8.0	7.6	7.8	4.8	4.4	4.6
25	15.4	15.2	15.3	11.4	11.0	11.3	7.6	7.2	7.4	5.2	4.8	4.9
26	15.6	15.0	15.3	11.4	11.1	11.3	7.2	6.8	6.9	5.6	5.2	5.4
27	15.2	14.8	15.1	11.3	10.9	11.1	7.0	6.8	6.8	5.8	5.6	5.7
28	15.0	14.2	14.8	11.1	10.7	11.0	7.0	6.8	6.9	6.2	5.8	5.9
29	15.2	14.4	15.0	11.1	10.5	10.7	7.0	6.8	7.0	6.6	6.2	6.4
30	14.8	13.6	14.5	10.7	10.3	10.5	6.8	6.4	6.6	6.8	6.6	6.6
31	14.0	13.4	13.7	---	---	---	6.6	6.4	6.4	6.6	6.0	6.3
MONTH	18.9	13.4	16.2	13.4	10.2	11.3	10.7	6.4	8.8	6.8	3.5	5.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.2	5.5	5.2	4.9	4.9	8.1	7.9	8.0	12.2	12.0	12.1
2	5.2	4.8	4.9	5.2	5.0	5.2	8.7	8.1	8.5	12.2	11.8	12.0
3	4.8	4.4	4.6	5.2	5.0	5.1	8.7	8.7	8.7	12.2	12.0	12.0
4	4.6	4.4	4.4	5.8	5.2	5.5	8.7	8.5	8.7	12.0	11.4	11.7
5	4.6	4.4	4.5	6.4	5.8	6.1	8.7	8.5	8.7	11.8	11.2	11.5
6	5.0	4.6	4.8	6.6	6.2	6.4	8.7	8.3	8.5	12.2	11.8	12.0
7	5.4	4.8	5.1	6.8	6.4	6.6	8.9	8.3	8.6	12.3	11.9	12.1
8	6.2	5.4	5.6	6.8	6.6	6.7	9.5	8.9	9.2	12.6	12.1	12.4
9	6.2	5.8	6.1	6.6	6.0	6.3	9.3	8.9	9.2	13.0	12.6	12.8
10	5.9	5.5	---	6.4	6.0	6.2	9.5	9.1	9.4	12.9	12.4	12.7
11	5.7	5.3	5.6	6.6	6.2	6.4	10.5	9.5	10.1	13.1	12.7	12.9
12	5.3	4.9	5.0	6.8	6.6	6.6	11.1	10.5	10.8	13.3	12.7	13.1
13	5.3	5.1	5.3	6.6	6.6	6.6	12.0	11.1	11.5	13.3	12.7	13.0
14	5.7	5.3	5.4	6.8	6.6	6.7	12.0	11.6	11.8	13.1	12.5	12.7
15	5.5	5.3	5.4	7.2	6.8	7.0	11.8	11.4	11.6	13.1	12.5	12.9
16	5.3	5.1	5.1	7.2	7.2	7.2	11.4	10.4	10.8	13.3	12.9	13.1
17	5.3	4.9	5.1	7.2	6.8	7.0	11.2	---	---	13.9	13.3	13.7
18	5.5	4.9	5.2	7.3	6.8	7.0	---	---	---	14.5	13.3	14.0
19	5.9	5.3	5.5	7.3	7.1	7.2	---	---	---	14.9	13.9	14.4
20	6.1	5.7	5.9	7.6	7.3	7.5	11.2	11.2	11.2	15.5	14.5	14.9
21	6.3	5.9	6.1	8.0	7.6	7.8	11.8	11.2	11.5	16.1	14.9	15.5
22	6.3	6.1	6.2	7.8	7.5	7.6	11.8	11.4	11.6	16.5	15.5	15.9
23	7.1	6.3	6.7	8.4	7.6	8.0	11.6	11.0	11.3	16.7	15.3	16.0
24	7.8	7.1	7.6	8.4	8.2	8.4	11.7	11.1	11.4	16.5	15.5	16.0
25	8.2	7.6	8.0	8.2	8.0	8.2	---	---	---	16.3	15.5	15.8
26	7.6	5.9	6.6	8.2	8.0	8.1	---	---	---	15.9	15.1	15.5
27	5.9	5.1	5.3	8.4	8.2	8.2	---	---	---	16.9	15.3	15.8
28	5.1	4.9	4.9	9.8	8.4	9.2	---	---	---	16.1	15.7	15.9
29	---	---	---	9.8	9.6	9.8	12.6	12.5	12.5	16.9	15.7	16.0
30	---	---	---	9.6	8.8	9.2	12.5	12.2	12.4	17.3	15.7	16.6
31	---	---	---	8.8	8.1	8.4	---	---	---	17.6	16.1	16.8
MONTH	8.2	4.4	5.6	9.8	4.9	7.1	12.6	7.9	10.3	17.6	11.2	13.9

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	22.3	19.9	20.9	20.9	18.3	19.4	19.3	18.1	18.8
2	---	---	---	21.8	19.4	20.7	20.7	18.3	19.5	19.3	18.1	18.7
3	---	---	---	21.8	18.8	20.1	20.7	18.1	19.2	19.2	18.1	18.6
4	---	---	---	21.1	18.8	19.8	19.4	18.0	18.8	19.2	18.2	18.8
5	---	---	---	20.7	18.5	19.5	19.6	17.7	18.5	19.0	18.2	18.6
6	---	---	---	21.2	18.5	19.5	20.8	18.0	19.1	18.9	18.1	18.5
7	19.0	16.7	17.8	21.2	19.2	19.7	20.2	17.8	19.1	18.5	17.7	18.1
8	19.4	17.6	18.4	20.3	17.9	19.1	20.8	18.6	19.5	19.3	17.5	18.3
9	19.4	17.8	18.6	19.5	17.9	18.7	20.7	18.9	19.7	19.5	17.7	18.6
10	19.7	17.6	18.8	19.4	17.7	18.4	20.9	18.9	19.7	19.7	17.7	18.5
11	19.7	18.3	19.0	21.3	17.8	18.9	21.4	19.1	20.1	19.1	17.9	18.5
12	20.1	18.3	19.0	20.8	18.3	19.5	21.4	19.8	20.3	19.9	18.1	18.7
13	19.9	18.3	18.7	19.9	18.3	19.2	22.2	19.2	20.5	20.2	18.4	19.1
14	19.3	17.5	18.5	20.3	18.3	19.1	21.8	19.6	20.5	20.6	18.4	19.7
15	20.8	17.4	19.1	20.5	18.1	19.3	21.4	19.8	20.4	20.6	19.0	19.9
16	21.0	18.4	19.5	20.4	18.6	19.3	22.0	19.2	20.5	20.6	19.2	19.9
17	19.4	17.8	19.2	22.0	19.0	20.1	21.4	19.4	20.5	20.6	19.4	20.0
18	---	---	---	22.3	19.4	20.5	21.3	19.4	20.4	20.4	19.4	19.8
19	---	---	---	22.2	19.6	20.3	21.5	19.3	20.3	20.4	19.4	19.7
20	20.4	18.4	18.8	22.6	19.8	20.7	21.3	19.3	20.3	20.2	19.4	19.6
21	20.5	18.4	19.1	22.6	19.7	20.9	21.1	19.1	20.1	20.4	19.2	19.7
22	20.1	18.9	19.5	21.3	20.1	20.7	20.9	19.1	20.0	20.4	19.0	19.7
23	21.9	18.9	20.0	21.3	19.9	20.7	20.3	18.7	19.7	20.1	19.1	19.5
24	20.8	18.6	19.9	23.0	20.1	21.3	20.1	18.7	19.5	19.7	18.7	19.1
25	21.6	18.4	19.4	23.3	20.5	21.9	19.6	18.5	19.2	18.9	18.3	18.6
26	22.1	18.7	20.1	23.1	20.6	21.9	19.5	18.4	19.1	19.1	18.1	18.4
27	21.7	19.7	20.6	22.5	20.4	21.4	19.7	18.3	19.2	18.9	18.1	18.7
28	21.8	20.0	21.1	22.4	20.0	21.0	19.7	18.3	19.1	18.8	18.1	18.5
29	---	---	---	21.6	19.4	20.1	19.2	18.1	18.8	19.0	18.0	18.5
30	21.9	20.1	20.7	21.9	18.8	20.2	19.6	18.0	19.0	19.0	18.2	18.5
31	---	---	---	21.3	18.5	19.7	19.4	18.2	18.8	---	---	---
MONTH	22.1	16.7	19.3	23.3	17.7	20.1	22.2	17.7	19.6	20.6	17.5	19.0

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	7.6	8.7	9.5	7.1	8.2	9.1	7.2	8.0	10.4	10.2	10.3
2	8.9	7.4	8.3	9.4	7.0	8.1	9.1	7.3	8.3	10.3	10.2	10.3
3	8.5	7.1	8.2	9.1	6.7	8.0	9.0	7.8	8.4	10.4	10.0	10.2
4	8.5	7.4	8.2	8.8	6.7	8.1	10.2	7.7	9.2	10.5	10.2	10.4
5	8.9	7.4	8.4	9.6	6.4	8.2	10.1	9.7	9.9	10.6	10.3	10.5
6	9.0	8.1	8.6	9.6	7.1	8.5	10.1	8.3	9.2	10.5	10.3	10.5
7	9.4	7.4	8.6	9.8	7.3	8.7	9.3	7.7	8.5	10.4	10.0	10.4
8	9.1	8.0	8.7	10.1	7.5	8.7	9.8	7.6	9.0	10.5	10.3	10.4
9	8.9	7.3	8.4	10.4	7.4	9.1	9.7	7.5	9.0	10.4	10.1	10.2
10	8.7	7.9	8.4	10.3	7.8	9.2	9.8	7.8	9.2	10.2	9.7	10.0
11	8.7	7.7	8.3	10.5	7.0	9.1	9.7	8.7	9.5	9.8	9.5	9.7
12	8.9	7.9	8.4	10.8	7.7	9.4	9.8	9.4	9.6	9.6	9.2	9.5
13	9.1	7.8	8.8	10.6	7.9	9.4	10.1	9.0	9.6	9.2	8.6	9.0
14	9.1	8.2	8.7	11.1	8.3	9.5	9.9	9.0	9.4	8.9	8.1	8.7
15	9.1	7.0	8.6	10.9	8.4	9.7	9.8	9.1	9.5	9.1	8.7	8.9
16	10.1	7.3	9.0	10.7	8.2	9.7	9.8	8.8	9.4	9.4	8.5	9.1
17	9.8	8.2	9.1	10.9	8.2	9.8	9.9	9.0	9.5	9.7	8.1	9.3
18	9.5	8.8	9.1	10.1	8.2	9.3	9.9	8.9	9.5	10.1	8.6	9.8
19	9.3	7.8	8.8	9.9	7.9	9.2	10.0	9.1	9.6	10.3	9.8	10.1
20	10.0	7.9	9.1	9.8	7.6	9.0	9.8	9.3	9.5	10.5	9.6	10.3
21	9.5	7.5	9.1	9.8	7.3	8.8	9.7	9.6	9.7	10.8	10.0	10.6
22	9.4	7.7	9.0	10.0	7.3	8.7	9.9	9.6	9.8	11.0	10.4	10.8
23	9.7	7.8	9.1	9.9	7.6	8.8	10.0	9.7	9.9	11.2	10.5	11.0
24	9.7	7.4	9.1	9.6	7.4	8.9	10.0	9.9	9.9	11.3	10.4	11.1
25	9.7	7.1	9.0	9.5	7.0	8.8	10.0	9.9	9.9	11.6	10.9	11.4
26	9.5	5.2	8.3	9.5	7.2	8.5	10.3	9.9	10.1	11.7	11.5	11.6
27	9.4	6.1	8.4	9.1	7.1	8.3	10.3	10.1	10.2	11.8	11.5	11.7
28	9.5	6.2	8.4	9.0	6.5	8.1	10.3	10.1	10.2	11.7	11.3	11.6
29	9.9	6.2	8.9	9.0	6.8	7.8	10.3	10.0	10.2	11.4	10.9	11.1
30	9.8	6.9	8.5	8.7	6.9	7.9	10.4	10.2	10.3	11.0	10.4	10.7
31	9.2	6.7	8.4	---	---	---	10.4	10.2	10.3	10.4	10.2	10.2
MONTH	10.1	5.2	8.7	11.1	6.4	8.8	10.4	7.2	9.5	11.8	8.1	10.3

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.4	10.3	10.3	11.2	11.2	11.2	10.9	10.6	10.8	10.4	10.3	10.3
2	10.6	10.4	10.5	11.2	11.2	11.2	10.9	10.9	10.9	10.3	10.2	10.3
3	10.6	10.5	10.6	11.2	11.2	11.2	10.9	10.8	10.8	10.3	10.2	10.2
4	10.7	10.6	10.6	11.2	11.0	11.1	11.0	10.8	10.8	10.3	10.1	10.2
5	10.6	10.6	10.6	11.1	11.1	11.1	11.0	10.9	10.9	10.4	10.3	10.4
6	10.7	10.6	10.6	11.1	11.1	11.1	11.0	10.9	10.9	10.4	10.3	10.3
7	10.7	10.7	10.7	11.1	11.1	11.1	11.0	10.7	10.8	10.3	10.1	10.2
8	10.7	10.6	10.7	11.2	11.1	11.1	10.7	10.6	10.7	10.3	10.1	10.2
9	10.7	10.7	10.7	11.1	11.0	11.1	11.0	10.6	10.8	10.8	10.2	10.3
10	10.7	10.6	10.7	11.0	10.7	10.9	11.0	10.9	11.0	10.3	10.2	10.3
11	10.6	10.4	10.5	10.8	10.4	10.6	10.9	10.7	10.8	10.2	9.8	10.0
12	10.6	10.5	10.6	10.7	10.4	10.5	10.7	10.3	10.5	10.1	9.8	9.9
13	10.7	10.5	10.6	10.8	10.7	10.7	10.3	10.0	10.1	10.6	9.9	10.0
14	10.7	10.5	10.6	10.9	10.8	10.9	10.5	10.1	10.2	10.0	9.9	10.0
15	11.5	10.5	10.6	10.9	10.8	10.9	10.5	10.4	10.4	9.9	9.8	9.8
16	10.7	10.6	10.7	10.8	10.8	10.8	10.6	10.4	10.5	10.6	9.8	9.9
17	10.8	10.7	10.8	10.8	10.8	10.8	---	---	---	10.2	9.8	9.9
18	10.8	10.7	10.8	10.9	10.8	10.9	---	---	---	10.3	9.5	9.9
19	10.9	10.8	10.8	10.9	10.9	10.9	---	---	---	10.1	9.3	9.8
20	10.9	10.9	10.9	10.9	10.8	10.9	---	---	---	9.9	9.3	9.7
21	10.9	10.8	10.9	10.9	10.8	10.8	---	---	---	9.9	9.3	9.6
22	10.8	10.8	10.8	10.9	10.8	10.9	10.9	10.8	10.8	10.5	9.5	9.9
23	10.8	10.5	10.6	10.9	10.8	10.9	10.9	10.8	10.8	10.7	7.9	9.9
24	10.5	10.1	10.2	10.8	10.8	10.8	10.8	10.7	10.8	10.5	8.1	9.5
25	10.1	9.9	10.0	10.9	10.8	10.8	---	---	---	10.2	7.3	9.2
26	10.8	10.1	10.5	10.9	10.8	10.8	---	---	---	9.9	7.5	9.2
27	11.1	10.8	11.0	11.1	10.8	10.9	---	---	---	10.1	9.1	9.6
28	11.2	11.1	11.2	10.9	10.0	10.4	---	---	---	9.6	9.3	9.5
29	---	---	---	10.0	9.9	9.9	---	---	---	9.7	8.3	9.2
30	---	---	---	10.2	10.0	10.1	10.5	10.4	10.5	9.5	7.3	8.7
31	---	---	---	10.6	10.2	10.5	---	---	---	9.4	8.0	8.6
MONTH	11.5	9.9	10.6	11.2	9.9	10.8	11.0	10.0	10.7	10.8	7.3	9.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	10.1	6.3	8.3	9.6	8.0	8.7	9.4	7.3	8.8
2	---	---	---	9.7	7.2	8.6	9.6	7.8	8.6	9.4	8.6	8.9
3	---	---	---	9.4	7.1	8.4	9.7	7.8	8.7	9.3	8.6	8.8
4	---	---	---	9.2	6.7	8.2	9.0	8.0	8.6	9.4	8.4	8.9
5	---	---	---	9.2	6.0	8.1	9.1	8.2	8.6	8.8	7.9	8.5
6	---	---	---	9.3	5.7	7.9	9.8	8.4	8.9	8.8	7.8	8.3
7	8.3	7.6	7.9	8.6	6.8	8.2	9.5	8.5	8.9	8.4	7.1	7.9
8	8.4	6.7	8.0	8.6	6.5	7.6	9.9	8.2	9.0	9.1	7.4	8.1
9	8.4	6.7	8.0	8.8	6.5	8.1	9.6	7.9	8.8	9.0	7.7	8.2
10	8.8	6.1	8.1	9.1	5.4	7.8	9.8	8.2	9.0	9.2	7.2	8.1
11	9.0	6.9	8.2	10.4	6.0	8.8	9.9	8.8	9.2	8.7	7.1	8.1
12	9.1	6.8	8.1	10.2	6.5	8.6	9.4	8.5	8.9	9.4	7.4	8.2
13	9.4	7.0	8.3	8.7	6.5	7.3	9.7	8.4	8.9	9.4	7.1	8.4
14	8.7	6.2	7.7	7.6	6.0	6.9	9.3	8.4	8.7	9.4	7.8	8.7
15	9.3	6.4	8.3	7.3	6.2	6.8	9.5	8.0	8.7	9.5	8.1	8.6
16	9.1	6.0	7.9	7.3	5.6	6.5	9.8	8.4	9.0	9.4	7.8	8.6
17	8.6	6.4	7.9	8.1	6.6	7.1	9.4	8.1	8.9	9.3	7.2	8.5
18	---	---	---	8.2	5.8	6.8	9.7	8.4	9.0	9.1	7.2	8.5
19	---	---	---	8.1	5.6	6.8	10.0	8.5	9.2	9.3	8.3	8.8
20	8.7	6.2	8.1	8.5	5.8	7.2	9.9	8.7	9.3	9.5	7.8	8.6
21	5.0	5.6	7.8	8.3	6.0	7.3	9.7	9.0	9.3	9.8	7.5	8.9
22	8.4	7.2	7.9	7.8	6.5	7.3	10.2	9.0	9.5	9.9	7.7	8.9
23	9.3	6.2	8.0	8.1	6.2	7.4	10.1	8.7	9.6	9.7	8.5	9.0
24	8.5	6.0	8.0	8.5	7.0	7.8	10.3	8.7	9.6	9.4	7.9	8.8
25	8.9	6.6	8.0	8.5	6.9	7.7	10.4	9.3	9.8	9.0	7.9	8.5
26	9.0	6.3	8.2	8.4	7.0	7.6	10.5	9.2	9.9	9.3	7.9	8.6
27	8.9	6.0	8.0	8.7	7.3	8.1	10.6	9.3	10.0	9.6	8.1	9.1
28	---	---	---	9.1	7.8	8.4	10.5	9.2	9.9	9.6	8.4	9.1
29	---	---	---	9.1	8.2	8.4	9.9	8.4	9.4	10.2	8.6	9.3
30	9.2	6.8	8.6	9.7	7.9	8.7	10.2	8.9	9.6	9.8	9.1	9.4
31	---	---	---	9.5	8.3	8.7	9.6	8.8	9.2	---	---	---
MONTH	9.4	5.6	8.0	10.4	5.4	7.8	10.6	7.8	9.1	10.2	7.1	8.6

CUMBERLAND RIVER BASIN

03420185 COLLINS RIVER AT BEERSHEBA SPRINGS, TN

LOCATION.--Lat 35°28'47", long 85°38'57", Grundy County, Hydrologic Unit 05130107, at left downstream end of State Highway 56 bridge, 2.6 mi downstream from Big Creek, 1.9 mi northeast of Beersheba Springs, and at mile 52.5.

DRAINAGE AREA.--157 mi².

PERIOD OF RECORD.--April to September 1994.

GAGE.--Data logger. Elevation of gage is 925 ft above sea level from topographic map.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1928 reached a discharge of 31,700 ft³/s, from WSP 1767. Flood in February 1994 reached a stage of 20.36 ft, discharge 18,100 ft³/s, and in March, 1994 reached a stage of 18.25 ft, discharge 13,000 ft³/s, from flood marks at gage, discharge from rating curve extended above 16.19 ft, discharge 9,320 ft³/s, by straight line extension.

EXTREMES FOR CURRENT PERIOD.--April to September 1994: Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 16	1515	*403	*6.82				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1994 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e45	.00	.00	39	.00	.00
2	---	---	---	---	---	---	e35	.00	.00	34	.00	.00
3	---	---	---	---	---	---	e30	.00	.00	18	.00	.00
4	---	---	---	---	---	---	e30	.00	.00	3.7	.00	.00
5	---	---	---	---	---	---	e45	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	83	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	75	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	78	.00	.00	.00	.00	.00
9	---	---	---	---	---	---	43	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	29	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	91	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	95	.00	.00	49	.00	.00
13	---	---	---	---	---	---	98	.00	.00	42	.00	.00
14	---	---	---	---	---	---	e115	.00	.00	38	.00	.00
15	---	---	---	---	---	---	e210	.00	.00	31	.00	.00
16	---	---	---	---	---	---	377	.00	.00	20	.00	.00
17	---	---	---	---	---	---	266	.00	.00	9.6	.00	.00
18	---	---	---	---	---	---	89	.00	.00	3.2	.00	.00
19	---	---	---	---	---	---	44	.00	.00	.39	.00	.00
20	---	---	---	---	---	---	31	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	28	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	25	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	24	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	25	.00	.00	.00	.00	.00
25	---	---	---	---	---	---	25	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	25	.00	21	.00	.00	.00
27	---	---	---	---	---	---	20	.00	57	.00	.00	.00
28	---	---	---	---	---	---	11	.00	44	.00	.00	.00
29	---	---	---	---	---	---	3.1	.00	37	.00	.00	.00
30	---	---	---	---	---	---	.01	.00	38	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	2095.11	0.00	197.00	287.89	0.00	0.00
MEAN	---	---	---	---	---	---	69.8	.000	6.57	9.29	.000	.000
MAX	---	---	---	---	---	---	377	.00	57	49	.00	.00
MIN	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
CFSM	---	---	---	---	---	---	.44	.00	.04	.06	.00	.00
IN.	---	---	---	---	---	---	.50	.00	.05	.07	.00	.00

e Estimated

CUMBERLAND RIVER BASIN

03420185 COLLINS RIVER AT BEERSHEBA SPRINGS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1994, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	69.8	.000	6.57	9.29	.000	.000
MAX	---	---	---	---	---	---	69.8	.000	6.57	9.29	.000	.000
(WY)	---	---	---	---	---	---	1994	1994	1994	1994	1994	1994
MIN	---	---	---	---	---	---	69.8	.000	6.57	9.29	.000	.000
(WY)	---	---	---	---	---	---	1994	1994	1994	1994	1994	1994

CUMBERLAND RIVER BASIN

03420200 COLLINS RIVER NEAR TARLTON, TN

LOCATION.--Lat 35°31'04", long 85°40'27", Grundy County, Hydrologic Unit 05130107, on right bank, 60 ft above bridge on State Highway 56, 0.4 mi below Taylor Creek, 2.2 mi northwest of Tarlton, and at mile 48.3.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--January to September 1994.

GAGE.--Data logger. Elevation of gage is 885 ft above sea level from topographic map.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 23, 1929, reached a discharge of 38,300 ft³/s, from WSP 1676.

EXTREMES FOR CURRENT PERIOD.--January to September 1994: Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 11	1100	*15,200	*32.32	Apr. 6	1115	5,230	14.82
Feb. 23	1500	6,510	18.02	Apr. 11	0930	6,750	18.56
Mar. 2	2115	3,420	10.05	Apr. 16	0400	5,120	14.52
Mar. 28	0900	11,300	27.22	June 27	0445	3,230	9.54

Minimum discharge, 10 ft³/s, Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR JANUARY 1994 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e550	561	659	1210	104	37	236	138	21
2	---	---	---	e360	416	2640	899	140	34	169	115	84
3	---	---	---	e340	333	2680	688	150	51	108	108	163
4	---	---	---	e450	276	1630	661	505	46	73	90	105
5	---	---	---	e500	276	1100	614	465	35	59	365	65
6	---	---	---	435	365	777	4370	341	49	50	672	53
7	---	---	---	1320	318	575	2650	268	112	43	364	54
8	---	---	---	2530	284	457	1540	312	223	40	256	47
9	---	---	---	1470	399	418	1030	345	214	46	236	38
10	---	---	---	897	1900	840	849	267	169	62	215	32
11	---	---	---	637	12800	795	5620	216	122	186	151	27
12	---	---	---	1320	6990	614	2940	176	83	1120	110	23
13	---	---	---	1250	2390	497	2530	138	81	917	82	19
14	---	---	---	897	1260	434	1720	107	66	949	61	17
15	---	---	---	629	887	370	2110	495	75	767	59	16
16	---	---	---	441	644	304	4200	585	73	462	60	15
17	---	---	---	474	497	254	2140	339	53	394	51	14
18	---	---	---	791	398	231	1300	238	41	454	44	13
19	---	---	---	591	330	212	878	187	40	463	37	13
20	---	---	---	481	282	185	607	141	35	396	32	12
21	---	---	---	370	1540	169	437	101	30	279	55	12
22	---	---	---	299	2200	186	336	75	27	228	167	11
23	---	---	---	271	5240	206	272	60	30	199	136	11
24	---	---	---	276	3480	355	231	50	41	155	78	18
25	---	---	---	382	1680	2120	201	42	55	107	56	71
26	---	---	---	774	1070	1550	174	42	244	86	44	46
27	---	---	---	1500	728	4890	149	118	2470	312	38	39
28	---	---	---	2420	540	10200	139	143	972	473	33	55
29	---	---	---	2060	---	5120	136	85	528	326	28	44
30	---	---	---	1210	---	1960	110	57	332	236	24	34
31	---	---	---	808	---	1510	---	45	---	176	22	---
TOTAL	---	---	---	26733	48084	43938	40741	6337	6368	9571	3927	1172
MEAN	---	---	---	862	1717	1417	1358	204	212	309	127	39.1
MAX	---	---	---	2530	12800	10200	5620	585	2470	1120	672	163
MIN	---	---	---	271	276	169	110	42	27	40	22	11
CFSM	---	---	---	4.96	9.87	8.15	7.80	1.17	1.22	1.77	.73	.22
IN.	---	---	---	5.72	10.28	9.39	8.71	1.35	1.36	2.05	.84	.25

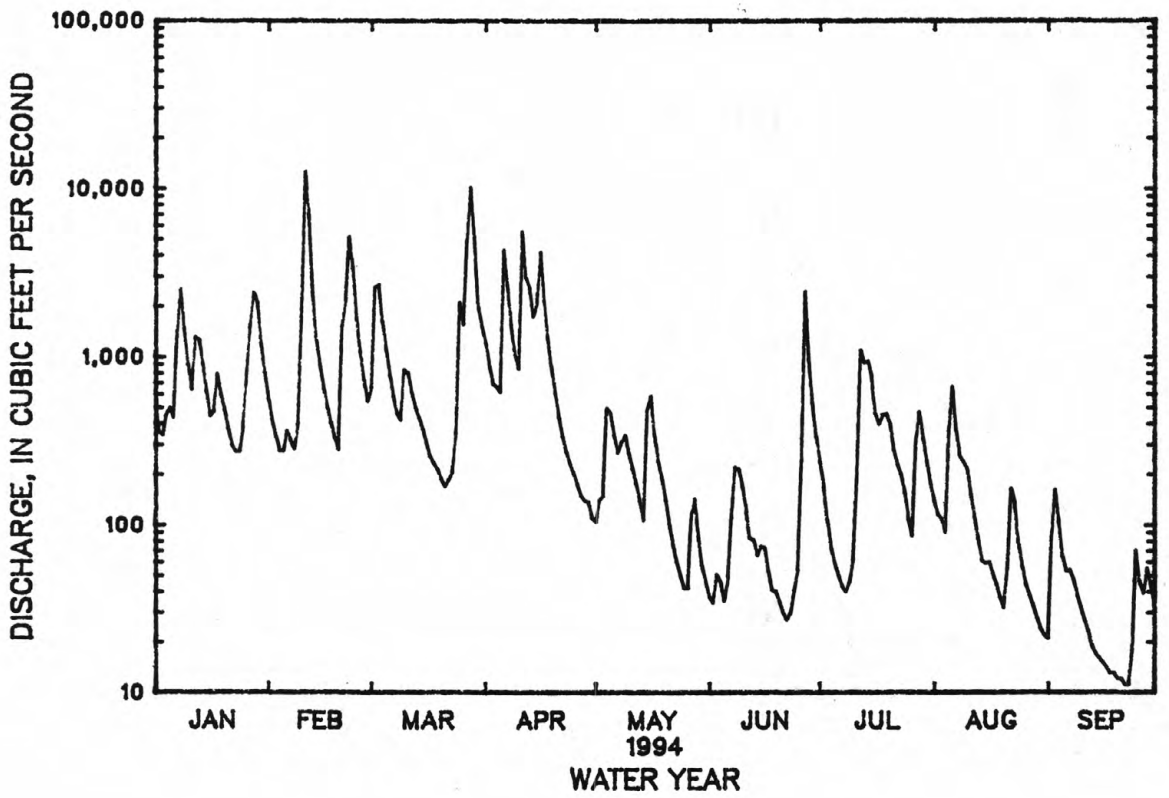
e Estimated

CUMBERLAND RIVER BASIN

03420200 COLLINS RIVER NEAR TARLTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1994, BY WATER YEAR (WY)

MEAN	---	---	---	862	1717	1417	1358	204	212	309	127	39.1
MAX	---	---	---	862	1717	1417	1358	204	212	309	127	39.1
(WY)	---	---	---	1994	1994	1994	1994	1994	1994	1994	1994	1994
MIN	---	---	---	862	1717	1417	1358	204	212	309	127	39.1
(WY)	---	---	---	1994	1994	1994	1994	1994	1994	1994	1994	1994



CUMBERLAND RIVER BASIN

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

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

DRAINAGE AREA.--640 mi².

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	0900	12,200	14.80	Mar. 28	1030	38,500	29.28
Feb. 11	2000	*44,500	*31.57	Apr. 6	1600	20,400	20.15
Feb. 23	2100	22,300	21.33	Apr. 11	1830	24,400	22.45
Mar. 25	0800	12,800	15.29	Apr. 16	1230	12,200	14.87

Minimum discharge, 87 ft³/s, Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	103	174	1600	2050	2110	4020	728	386	752	531	227
2	104	101	167	1340	1680	7200	3040	709	369	592	469	400
3	102	100	163	1230	1440	8840	2450	759	373	548	429	418
4	101	101	2320	1760	1260	5060	2230	1400	372	451	451	391
5	97	107	9260	1830	1180	3340	2220	1380	379	386	1430	321
6	95	108	4250	1540	1240	2470	15200	1100	467	348	1730	283
7	92	114	2210	2010	1190	1960	9610	929	816	318	1140	257
8	94	132	1420	5860	1090	1650	4790	915	1170	290	792	244
9	91	138	1060	4120	1830	1840	3220	959	1000	273	635	230
10	92	131	1870	2620	e7000	6870	2880	835	705	275	595	213
11	99	123	3220	1950	32800	3270	18300	715	574	349	510	201
12	99	117	2280	2240	29500	2320	12200	638	474	1550	433	191
13	96	112	1570	2890	11100	1900	7090	577	413	1800	381	180
14	93	125	1270	2360	4360	1690	4930	526	385	1420	338	173
15	95	308	1220	1890	3010	1500	3930	765	354	1350	398	167
16	105	483	1220	1480	2310	1280	10400	1280	344	1070	350	163
17	109	529	1190	1410	1870	1110	6480	988	324	930	314	165
18	107	489	1060	2310	1580	1010	3700	788	307	778	285	175
19	104	469	936	1960	1360	920	2640	673	372	761	262	185
20	101	410	838	1580	1210	837	2040	601	346	708	250	160
21	106	329	1040	1370	4890	795	1650	546	309	610	466	152
22	99	268	1480	1180	7270	816	1370	499	288	525	796	148
23	97	230	1350	1070	15800	793	1180	462	287	476	539	152
24	99	209	1140	1070	13400	2330	1040	431	286	435	430	188
25	100	195	973	1470	5580	10400	927	411	277	380	348	211
26	96	185	864	3470	3340	5370	841	438	396	1220	298	224
27	94	193	760	4360	2410	14900	1220	623	7130	3740	270	234
28	92	188	774	6840	1920	36400	1160	617	3470	1280	250	208
29	92	180	2400	5960	---	20600	867	538	1600	1060	236	208
30	105	178	2960	3720	---	8090	743	464	1050	771	222	200
31	104	---	2090	2660	---	5340	---	415	---	600	215	---
TOTAL	3065	6455	53529	77150	163670	163011	132368	22709	25023	26046	15793	6669
MEAN	98.9	215	1727	2489	5845	5258	4412	733	834	840	509	222
MAX	109	529	9260	6840	32800	36400	18300	1400	7130	3740	1730	418
MIN	91	100	163	1070	1090	793	743	411	277	273	215	148
CFSM	.15	.34	2.70	3.89	9.13	8.22	6.89	1.14	1.30	1.31	.80	.35
IN.	.18	.38	3.11	4.48	9.51	9.48	7.69	1.32	1.45	1.51	.92	.39

e Estimated

CUMBERLAND RIVER BASIN

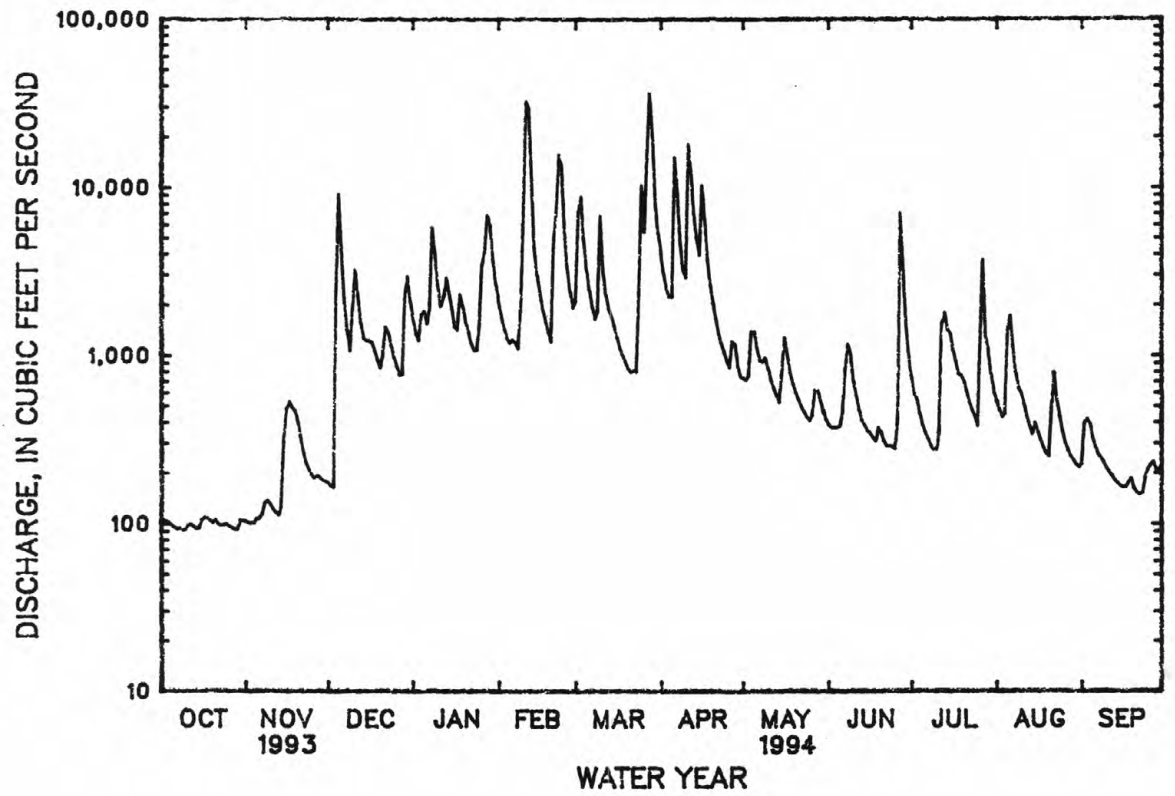
03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1994, BY WATER YEAR (WY)

MEAN	312	769	1619	2101	2437	2513	1796	1072	613	429	304	287
MAX	2345	4286	6783	6262	6564	6279	4412	3825	4216	2091	1439	1204
(WY)	1976	1958	1991	1974	1939	1929	1994	1984	1928	1989	1942	1992
MIN	63.5	69.0	107	126	391	619	462	225	85.9	115	76.2	62.9
(WY)	1932	1932	1940	1940	1941	1988	1986	1941	1988	1944	1925	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1925 - 1994	
ANNUAL TOTAL	387202		695488			
ANNUAL MEAN	1061		1905		1182	
HIGHEST ANNUAL MEAN					2193	1973
LOWEST ANNUAL MEAN					409	1931
HIGHEST DAILY MEAN	19500	Mar 24	36400	Mar 28	64100	Dec 23 1990
LOWEST DAILY MEAN	91	Oct 9	91	Oct 9	a37	Oct 28 1961
ANNUAL SEVEN-DAY MINIMUM	94	Oct 5	94	Oct 5	50	Sep 24 1925
INSTANTANEOUS PEAK FLOW			44500	Feb 11	b75300	Mar 23 1929
INSTANTANEOUS PEAK STAGE			31.57	Feb 11	39.10	Mar 23 1929
INSTANTANEOUS LOW FLOW			87	Oct 10	35	Sep 21 1930
ANNUAL RUNOFF (CFSM)	1.66		2.98		1.85	
ANNUAL RUNOFF (INCHES)	22.51		40.43		25.09	
10 PERCENT EXCEEDS	2420		4290		2600	
50 PERCENT EXCEEDS	529		760		529	
90 PERCENT EXCEEDS	106		109		110	

a Caused by regulation from highway constuction.
b From rating curve extended above 42,000 ft³/s on basis of slope-area measuremnt of peak flow.



CUMBERLAND RIVER BASIN

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 downstream from powerhouse of Tennessee Valley Authority, 0.8 mi downstream from Great Falls Dam, 0.9 mi downstream from Collins River, 1.5 mi northwest of Rock Island, and at mile 90.3.

DRAINAGE AREA.--1,678 mi².

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.--Data collection platform. Datum of gage is 647.09 ft above sea level. Prior to Mar. 30, 1924, at sites from 80 ft to 0.5 mi upstream at different datums. Apr. 12, 1925, to Sept. 9, 1930, at present site at datum 5.00 ft higher and Sept. 10, 1930, to Sept. 18, 1964, 3.00 ft higher.

REMARKS.--Records good, except for estimated discharges, periods of low flow and rapidly changing stages, which are fair. Flow regulated since Dec. 8, 1916, by Great Falls Lake (station 03422000) (see p. 122). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1902 reached a stage about 10 ft lower than the flood of Mar. 23, 1929, at a point 8 mi downstream, from profile by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102,000 ft³/s, at 1445 hours Feb. 11, gage height, 29.62 ft; minimum daily, 40 ft³/s, Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	87	331	3570	5060	6050	10400	2080	1130	3540	1660	394
2	249	84	318	3560	4280	18700	8560	2360	1220	3510	1470	301
3	267	87	279	3560	3810	21200	6510	2200	1230	2940	1290	291
4	45	90	2200	5050	3600	11000	5640	2630	57	2990	1280	441
5	40	89	21200	5300	3560	8190	6730	3940	56	2730	1310	834
6	497	46	9020	4340	3550	6300	40700	1770	575	1580	2620	1230
7	313	46	4930	8800	3520	5410	23400	2930	517	1480	2520	536
8	304	127	3980	15100	3480	5110	11100	1110	1970	1070	1820	507
9	46	131	3600	8780	3490	4960	9100	2220	2240	341	1390	531
10	46	88	6590	5390	8470	11600	7500	1340	3380	340	1290	243
11	237	84	9970	4890	86900	7160	53900	3190	2390	950	1270	246
12	2840	87	5410	7120	49800	5890	27300	2910	2080	2370	1270	288
13	2800	46	4330	7350	20500	5500	15900	2830	1920	3380	1260	272
14	45	47	3770	5580	13000	5040	12400	2730	1600	1610	1250	279
15	44	51	3540	4630	10200	4880	12400	2030	975	2290	1240	279
16	44	e350	3570	3950	7480	4830	33200	2280	1290	52	785	428
17	43	e850	3540	3660	5990	4710	15900	2730	981	684	1230	404
18	270	e1200	3510	4110	5200	4580	9100	1910	57	1360	662	163
19	266	e1100	3470	4110	4550	4420	7300	1580	56	1450	390	157
20	312	e950	3470	3700	4430	4070	5740	1040	896	1280	48	160
21	406	e700	3430	3640	9770	3810	4900	569	705	955	48	171
22	308	e850	3430	3560	15000	2930	4400	492	1010	1240	698	155
23	48	e400	3430	3500	35000	2200	3950	828	1010	1270	665	817
24	48	e320	3410	2770	28200	2660	3580	627	1020	1260	688	52
25	290	51	3390	3580	14200	12900	3560	603	63	658	674	45
26	294	51	3390	11300	10100	12500	3590	541	2090	848	658	169
27	330	51	3330	12900	7770	39600	3590	697	3220	5200	47	45
28	332	51	2230	20700	6420	85400	3580	55	4430	4040	47	45
29	327	e540	3410	13900	---	40000	3540	55	7250	2630	743	45
30	47	e500	3560	8580	---	18200	2550	55	4280	1990	683	45
31	46	---	3570	6120	---	14300	---	1120	---	1530	458	---
TOTAL	11500	9154	133608	203100	377330	384100	360020	51452	49698	57568	31464	9573
MEAN	371	305	4310	6552	13480	12390	12000	1660	1657	1857	1015	319
MAX	2840	1200	21200	20700	86900	85400	53900	3940	7250	5200	2620	1230
MIN	40	46	279	2770	3480	2200	2550	55	56	52	47	45
(†)	-5000	0	+11700	1300	-500	0	-5400	-3900	+9000	+200	-5300	-200
MEAN‡	210	305	4687	6594	13460	12390	11820	1534	1957	1863	844	312
CFSM‡	.13	.18	2.79	3.93	8.02	7.38	7.04	.91	1.17	1.11	.50	.19
IN.‡	.14	.20	3.22	4.53	8.35	8.51	7.86	1.05	1.30	1.28	.58	.21

CAL YR 1993 MEAN‡ 2459 CFSM‡ 1.46 IN.‡ 19.89
WTR YR 1994 MEAN‡ 4604 CFSM‡ 2.74 IN.‡ 37.24

e Estimated

CUMBERLAND RIVER BASIN

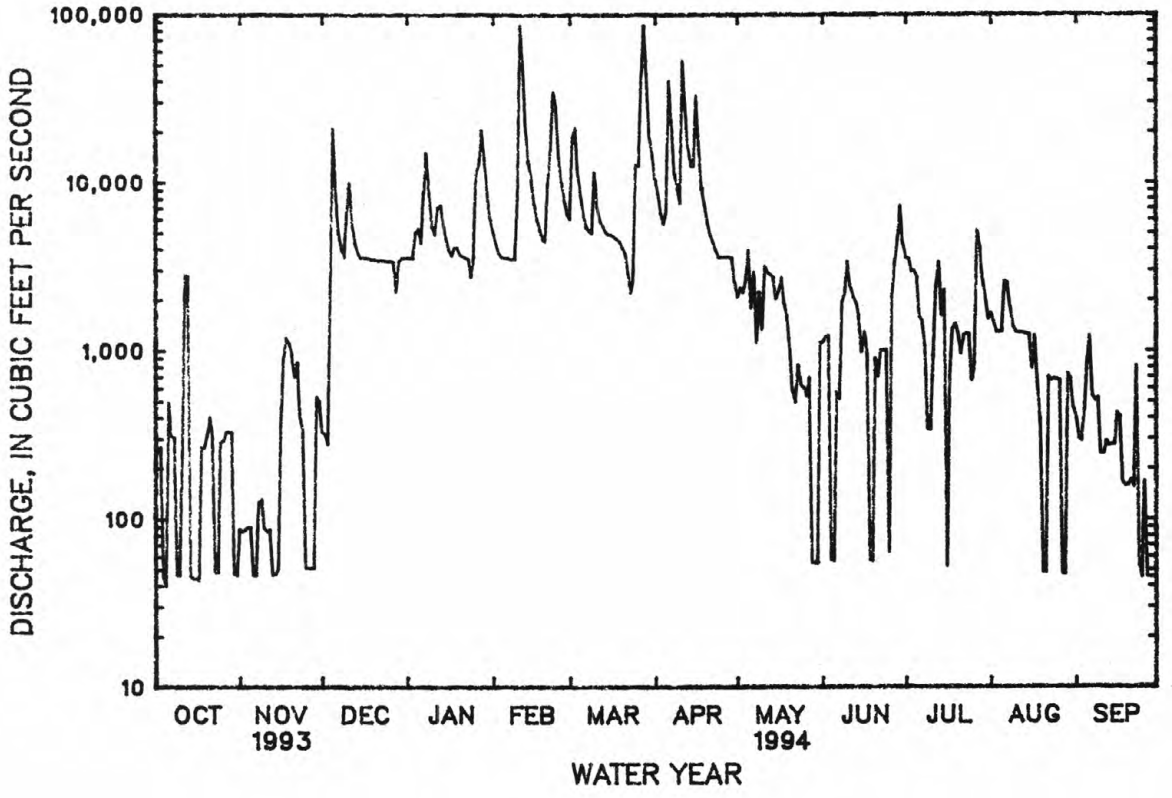
03422500 CANEY FORK NEAR ROCK ISLAND, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1994, BY WATER YEAR (WY)

MEAN	865	1775	4172	5823	6337	7006	5060	2921	1607	1170	973	770
MAX	5017	9575	14860	16700	17030	18730	14920	12020	9810	6799	8810	2901
(WY)	1976	1958	1991	1937	1939	1929	1912	1984	1928	1916	1920	1950
MIN	37.2	40.6	325	359	1055	1229	991	638	83.6	115	79.8	125
(WY)	1954	1954	1964	1981	1934	1988	1986	1988	1988	1968	1976	1968

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1912 - 1994	
ANNUAL TOTAL	898824		1678567			
ANNUAL MEAN	2463		4599		3141	
HIGHEST ANNUAL MEAN					5451	1973
LOWEST ANNUAL MEAN					1112	1981
HIGHEST DAILY MEAN	40400	Mar 24	86900	Feb 11	154000	Mar 23 1929
LOWEST DAILY MEAN	40	Oct 5	40	Oct 5	25	Aug 25 1951
ANNUAL SEVEN-DAY MINIMUM	55	Sep 19	64	Sep 24	32	Oct 19 1971
INSTANTANEOUS PEAK FLOW			102000	Feb 11	a210000	Mar 23 1929
INSTANTANEOUS PEAK STAGE			29.62	Feb 11	b43.60	Mar 23 1929
INSTANTANEOUS LOW FLOW					c25	Aug 25 1951
10 PERCENT EXCEEDS	5370		10300		6770	
50 PERCENT EXCEEDS	1440		2090		1780	
90 PERCENT EXCEEDS	58		56		127	

a From rating curve extended above 110,000 ft³/s.
b From floodmarks.
c Also occurred several days August to October 1951.



CUMBERLAND RIVER BASIN

03424730 SMITH FORK AT TEMPERANCE HALL, TN

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

DRAINAGE AREA.--214 mi².

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

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	2000	15,300	22.80	Mar. 27	1230	*16,100	*23.41
Dec. 10	1000	4,800	12.00	Apr. 6	0630	7,120	15.02
Jan. 28	0700	8,330	16.37	Apr. 11	1000	11,700	19.95
Feb. 11	1100	12,800	20.82	Apr. 16	0100	10,500	18.71
Feb. 23	0700	10,400	18.61	June 27	0330	6,650	14.44
Mar. 9	2330	10,400	18.61				

Minimum discharge, 15 ft³/s, Oct. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	26	59	305	333	319	1060	124	59	135	70	32
2	22	26	53	270	268	1190	760	117	55	96	58	45
3	19	26	51	247	227	1680	589	123	69	75	50	70
4	17	26	6240	529	191	903	502	238	61	64	43	55
5	16	27	3400	459	178	581	475	179	55	59	112	44
6	16	27	814	357	164	424	4050	141	268	55	163	41
7	17	27	416	1860	143	343	1420	122	360	50	89	38
8	17	26	284	1530	133	304	835	137	323	47	62	35
9	19	26	218	674	1540	3860	620	144	184	45	53	31
10	22	25	2810	416	2050	4830	613	114	130	42	46	28
11	20	26	1210	309	9140	1390	6530	98	95	41	39	26
12	19	30	504	429	2790	766	1670	87	77	47	35	25
13	19	39	318	442	1550	536	1130	80	66	51	32	23
14	20	50	258	350	889	438	731	78	59	49	30	22
15	20	226	310	275	606	361	2810	216	54	46	30	22
16	20	205	312	214	448	306	4450	214	49	47	30	20
17	24	404	250	647	360	268	1180	157	45	45	35	21
18	26	355	205	806	309	252	679	115	43	41	39	25
19	24	159	172	410	274	231	479	94	42	43	36	29
20	22	107	159	307	252	211	367	81	41	44	30	29
21	21	81	428	241	620	206	299	74	137	39	551	27
22	19	66	369	201	895	199	258	69	90	38	303	25
23	18	58	269	209	6050	179	225	64	60	38	131	27
24	19	51	207	270	1710	1270	199	61	53	36	82	82
25	22	47	175	1130	877	2080	180	58	51	33	61	121
26	25	44	149	2010	558	942	163	65	79	113	51	68
27	25	52	127	1720	410	10500	151	187	2210	291	44	52
28	24	78	588	4560	342	7910	165	128	331	190	38	47
29	23	84	1760	1420	---	1880	140	88	191	103	35	41
30	23	68	711	721	---	1060	122	72	213	69	32	35
31	25	---	419	457	---	1590	---	64	---	56	36	---
TOTAL	651	2492	23245	23775	33307	47009	32852	3589	5550	2128	2446	1186
MEAN	21.0	83.1	750	767	1190	1516	1095	116	185	68.6	78.9	39.5
MAX	28	404	6240	4560	9140	10500	6530	238	2210	291	551	121
MIN	16	25	51	201	133	179	122	58	41	33	30	20
CFSM	.10	.39	3.50	3.58	5.56	7.09	5.12	.54	.86	.32	.37	.18
IN.	.11	.43	4.04	4.13	5.79	8.17	5.71	.62	.96	.37	.43	.21

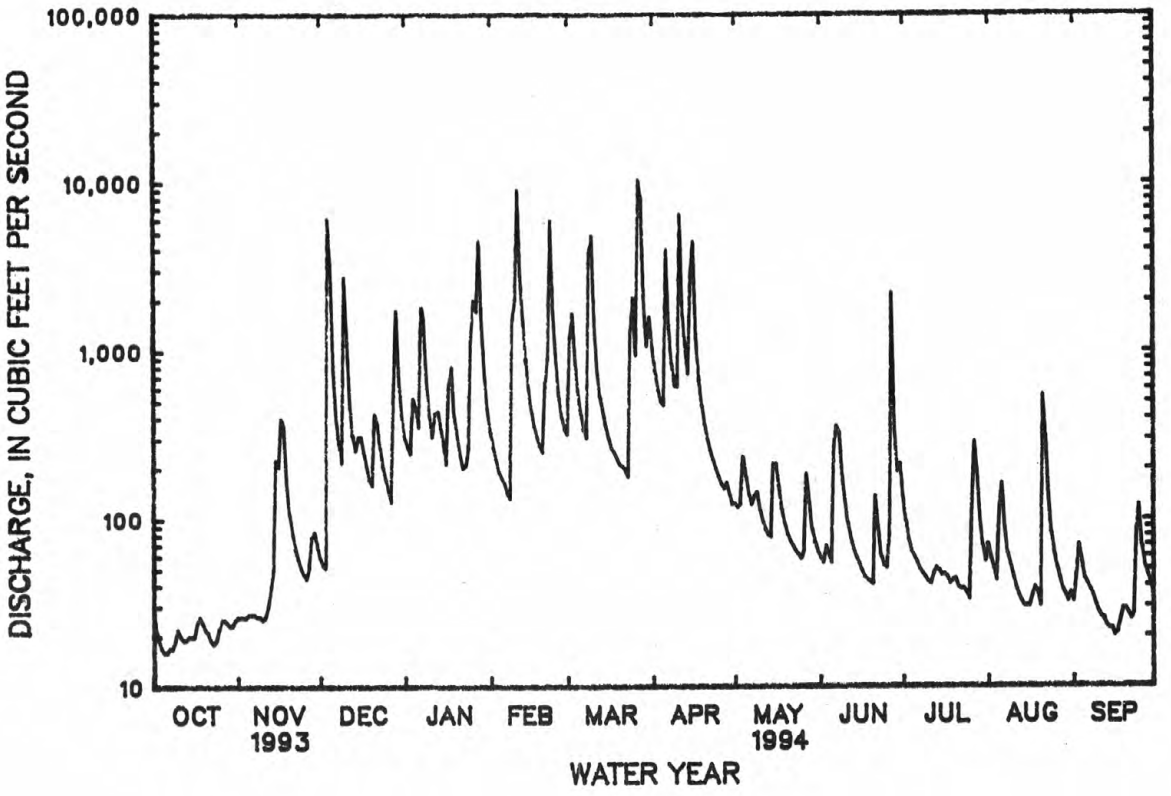
CUMBERLAND RIVER BASIN

03424730 SMITH FORK AT TEMPERANCE HALL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

MEAN	62.4	177	721	617	595	872	534	148	118	201	80.5	121
MAX	130	411	811	767	1190	1516	1095	267	185	460	185	389
(WY)	1993	1993	1992	1994	1994	1994	1994	1993	1994	1992	1992	1992
MIN	21.0	37.2	602	503	212	496	158	61.4	52.7	68.6	22.8	26.8
(WY)	1994	1992	1993	1992	1993	1992	1992	1992	1993	1994	1993	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	93314		178230			
ANNUAL MEAN	256		488		357	
HIGHEST ANNUAL MEAN					488	1994
LOWEST ANNUAL MEAN					279	1993
HIGHEST DAILY MEAN	6240	Dec 4	10500	Mar 27	10500	Mar 27 1994
LOWEST DAILY MEAN	13	Sep 2	16	Oct 5	13	Sep 2 1993
ANNUAL SEVEN-DAY MINIMUM	15	Aug 27	17	Oct 3	15	Nov 11 1991
INSTANTANEOUS PEAK FLOW			16100	Mar 27	16100	Mar 27 1994
INSTANTANEOUS PEAK STAGE			23.41	Mar 27	23.41	Mar 27 1994
INSTANTANEOUS LOW FLOW			15	Oct 6	13	Sep 2 1993
ANNUAL RUNOFF (CFSM)	1.19		2.28		1.67	
ANNUAL RUNOFF (INCHES)	16.22		30.98		22.68	
10 PERCENT EXCEEDS	598		1180		729	
50 PERCENT EXCEEDS	95		122		107	
90 PERCENT EXCEEDS	20		25		22	



CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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 downstream from Caney Fork River, and at mile 308.2.

DRAINAGE AREA.--10,690 mi².

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 microsiemens, Sept. 5, 1981; minimum, 89 microsiemens, July 2, 1980.
WATER TEMPERATURE: Maximum, 29.5°C, Oct. 10, 1977; minimum, 2.0°C, Jan 20, 22, 23, 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT												
21...	1030	80020	11000	194	196	7.5	7.8	15.5	757	1.1	8.1	82
DEC												
07...	1045	80020	21800	180	195	7.4	7.6	11.0	757	18	9.0	82
FEB												
07...	1130	80020	31000	196	202	7.5	7.4	6.0	755	2.5	11.4	92
APR												
21...	0930	80020	71200	135	152	7.3	7.5	12.0	752	3.3	11.7	110
JUL												
14...	0930	80020	7540	123	131	7.2	7.4	15.0	755	1.9	6.9	69

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
OCT												
21...	K8	K14	83	32	23	6.2	4.9	11	0.2	1.3	52	56
DEC												
07...	K1600	5400	82	19	24	5.3	3.4	8	0.2	1.4	63	69
FEB												
07...	K3	K3	82	25	23	5.9	4.7	11	0.2	1.8	57	59
APR												
21...	22	K11	62	19	18	4.2	2.6	8	0.1	1.2	44	47
JUL												
14...	K1300	340	57	13	18	3.0	1.7	6	0.1	1.0	45	--

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

CUMBERLAND RIVER BASIN

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT 21...	32	4.1	0.10	3.7	108	110	0.15	3210	<0.010	0.210	0.210
DEC 07...	25	3.0	0.20	3.8	116	109	0.16	6830	<0.010	0.380	0.380
FEB 07...	30	3.5	<0.10	3.8	116	110	0.16	9710	0.010	0.440	0.450
APR 21...	20	2.5	<0.10	4.2	92	83	0.13	17700	0.010	0.420	0.430
JUL 14...	11	2.4	<0.10	3.9	74	--	0.10	1510	<0.010	0.460	0.460

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 21...	--	<0.010	0.30	0.030	<0.010	--	<0.010	<10	19	<3	5
DEC 07...	0.05	0.040	0.30	0.080	0.020	0.09	0.030	--	--	--	--
FEB 07...	0.05	0.040	<0.20	0.020	0.020	0.03	0.010	50	21	<3	47
APR 21...	0.01	0.010	<0.20	0.030	0.010	0.03	0.010	100	18	<3	43
JUL 14...	--	<0.010	<0.20	0.030	0.020	0.03	0.010	40	16	<3	29

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	<4	4	<10	<1	<1	<1.0	95	<6	8	233	92
DEC 07...	--	--	--	--	--	--	--	--	140	8080	100
FEB 07...	<4	9	<10	<1	<1	<1.0	96	<6	6	493	96
APR 21...	<4	11	<10	<1	<1	<1.0	68	<6	16	3020	97
JUL 14...	<4	7	<10	<1	<1	<1.0	61	<6	6	120	100

CUMBERLAND RIVER BASIN

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

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

DRAINAGE AREA.--11,673 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Datum of gage is sea level.

REMARKS.--Flow regulated by six lakes or reservoirs (see p. 122).

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft³/s, Jan. 29, 1937; maximum gage height, 438.80 ft, Mar. 14, 1975; minimum daily discharge, 86 ft³/s, Aug. 15, 1936; minimum gage height since filling of Cheatham Lake on Oct. 1, 1956, 383.49 ft, Sept. 10, 1962, at present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 437.4 ft Dec. 31, 1926, at present datum, from profile by U.S. Army Corps of Engineers, discharge, 200,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 103,000 ft³/s, Mar. 28, 29; minimum daily, 3,860 ft³/s, Oct. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7230	4750	7240	23800	34300	65000	75200	52300	8240	15600	12100	14100
2	8380	4400	7230	21700	28600	64600	79000	51700	8880	12600	12200	14500
3	7540	4360	7150	16500	33200	65300	72300	46500	9570	12400	13100	16200
4	5070	4350	27900	17000	32400	69900	70500	37700	9210	12300	11500	12700
5	5050	6370	69000	24600	32200	69700	70800	39200	6470	9930	13100	14700
6	5820	6920	46800	29700	30000	66300	76900	38100	6220	10500	12100	11100
7	6400	5320	26000	31600	28500	61300	80200	32900	8430	8950	16100	9390
8	4800	5430	24200	54500	28400	60000	77000	38100	18400	8770	16800	10200
9	4320	4840	24300	43400	39200	76500	72000	31600	12700	8040	15700	9680
10	3970	5660	30700	36100	55700	98700	73300	35100	14600	8700	14900	11400
11	3870	5920	37500	36000	82000	92900	83300	36000	12800	8620	15500	8750
12	3860	6200	26800	32600	88600	81000	88500	32100	9530	11700	17200	7370
13	10300	5670	24400	35600	82900	73500	88400	28300	5580	10200	14800	9340
14	10500	6160	28100	30900	77000	65200	83600	31400	6550	8460	15000	11400
15	10900	7720	19300	28400	71700	53300	83700	31700	6970	8710	14600	13600
16	5610	10600	21700	30600	64100	55900	91300	30700	10900	12700	14600	13300
17	7620	9180	24000	29900	60000	55700	93200	19800	12000	11400	14800	11900
18	13600	11100	21600	28400	55400	56400	91400	17900	9180	14800	14400	9180
19	8240	13500	21600	38100	53900	56400	84700	17100	7870	11300	14800	8170
20	4940	11100	20700	32600	50200	51700	72200	16800	8950	11600	18200	6770
21	10300	7710	18000	31700	49100	45400	69000	15400	6820	12000	20500	6210
22	8650	5560	26500	32000	63200	44800	66800	16300	6800	12000	17800	8370
23	5740	4310	26800	29200	92700	45800	66700	10100	8160	12000	15400	8420
24	3980	5900	23200	26900	85800	46900	67000	8200	11200	9410	15400	12700
25	4420	6610	20400	32400	72000	47100	63200	7940	12300	11600	16800	10700
26	4440	7140	21300	48700	69400	51100	61100	7020	13300	12800	13700	4310
27	5790	4870	22400	54100	64900	78400	61500	12000	19300	15900	15200	5080
28	6050	5320	18300	67000	64800	103000	61000	9420	15900	16200	15600	5470
29	6000	5860	28000	61400	---	103000	56000	6650	14900	14500	14400	9810
30	5000	7590	32000	50200	---	88200	52300	7270	15500	14100	13900	10900
31	5270	---	24100	38700	---	72700	---	8600	---	14000	15300	---
TOTAL	203660	200420	777220	1094300	1590200	2065700	2232100	773900	317230	361790	465500	305720
MEAN	6570	6681	25070	35300	56790	66640	74400	24960	10570	11670	15020	10190
MAX	13600	13500	69000	67000	92700	103000	93200	52300	19300	16200	20500	16200
MIN	3860	4310	7150	16500	28400	44800	52300	6650	5580	8040	11500	4310

CUMBERLAND RIVER BASIN

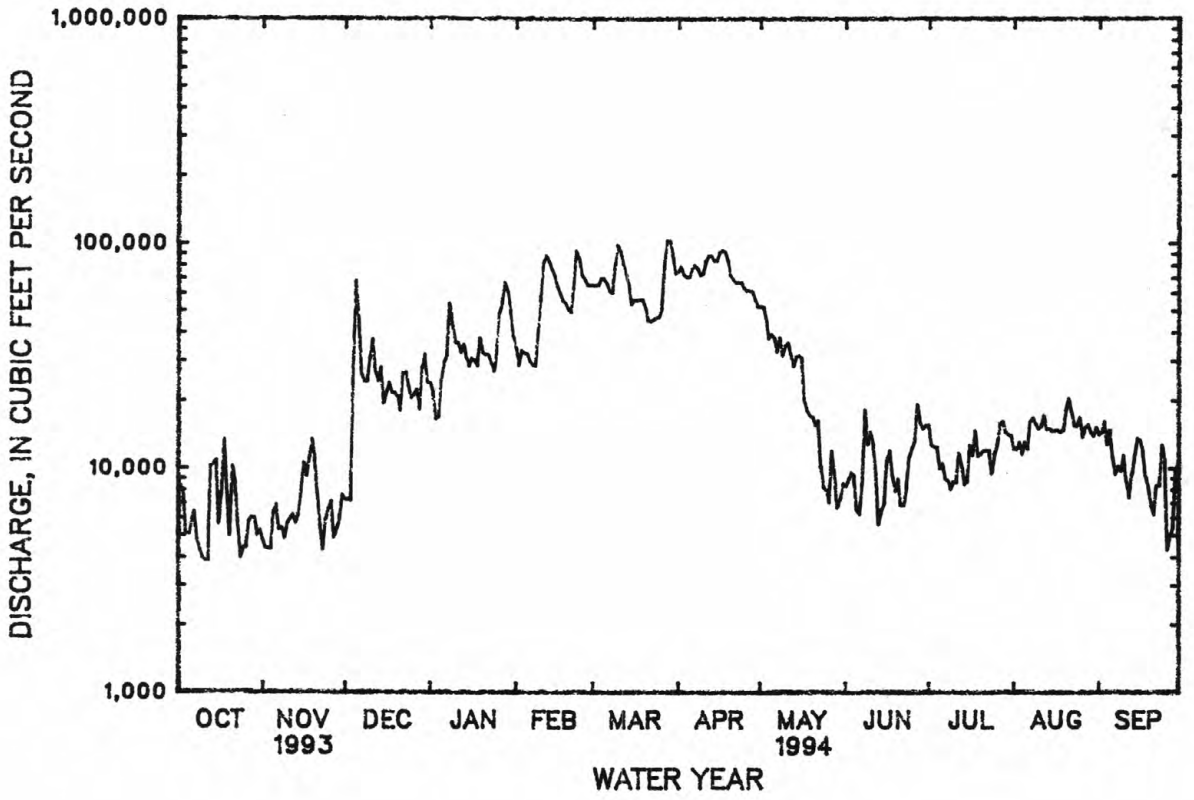
03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1994, BY WATER YEAR (WY)

MEAN	9411	12640	23070	29450	28360	32040	29850	20440	15050	12760	11940	10070
MAX	29430	29530	43590	79580	61700	73880	74400	65100	37840	28410	21400	27600
(WY)	1990	1980	1979	1974	1957	1975	1994	1984	1973	1967	1982	1979
MIN	2660	3449	3974	4656	8524	6778	6963	5465	6048	4211	4991	2723
(WY)	1969	1981	1981	1981	1981	1981	1986	1988	1988	1974	1975	1968

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1957 - 1994	
ANNUAL TOTAL	5818870		10387740			
ANNUAL MEAN	15940		28460		19550	
HIGHEST ANNUAL MEAN					28560	1974
LOWEST ANNUAL MEAN					8780	1988
HIGHEST DAILY MEAN	69000	Dec 5	103000	Mar 28	146000	Mar 14 1975
LOWEST DAILY MEAN	3860	Oct 12	3860	Oct 12	200	Nov 3 1957
ANNUAL SEVEN-DAY MINIMUM	4720	Oct 6	4720	Oct 6	1070	Oct 28 1969
10 PERCENT EXCEEDS	33000		71200		41700	
50 PERCENT EXCEEDS	11000		15700		14000	
90 PERCENT EXCEEDS	5770		5910		5200	

* Regulated period only.



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

WATER-QUALITY RECORDS

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

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

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 262 microsiemens, Apr. 15, Dec. 2, 1988; minimum, 137 microsiemens, Mar. 14, 1994.
pH: Maximum, 9.8 units, Mar. 26, 1988; minimum, 6.4 units, July 28, 1991, July 24, 25, 26, 1993.
WATER TEMPERATURE: Maximum, 27.6°C, Aug. 8, 1988; minimum, 2.1°C, Dec. 24, 1989.
DISSOLVED OXYGEN: Maximum, 16.0 mg/L, March 25, 1994; minimum, 2.9 mg/L, Sept. 5, 1988, July 8, 1993.
TURBIDITY: Maximum recorded, 79 NTU, Feb. 11, 1994, may have been higher during period of missing record; minimum, 5 NTU, May 15, 1993.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 230 microsiemens, Jan. 29, 30; minimum, 137 microsiemens, March 14.
pH: Maximum, 8.6 units, May 20, 21, 22; minimum, 6.5 units, Aug. 5.
WATER TEMPERATURE: Maximum, 25.5°C, June 28; minimum, 3.2°C, Jan. 19, 20, 21, 22.
DISSOLVED OXYGEN: Maximum, 16.0 mg/L, March 25; minimum, 3.5 mg/L, June 21.
TURBIDITY: Maximum recorded, 79 NTU, Feb. 11, 1994, may have been higher during period of missing record; minimum, 6 NTU, Sept. 28.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	218	210	214	170	162	165	167	156	161	153	145	147
2	221	210	216	169	161	167	160	152	156	153	145	149
3	218	206	211	169	161	163	160	156	158	152	148	149
4	214	202	206	169	161	163	165	156	159	156	147	150
5	209	201	203	169	161	165	161	153	157	155	147	150
6	205	197	202	169	161	163	161	153	155	155	147	151
7	205	197	202	165	157	162	170	154	162	158	150	153
8	205	197	200	165	157	159	171	162	167	158	150	153
9	205	192	198	161	153	158	172	163	166	157	153	154
10	200	188	193	176	157	168	169	162	165	161	153	156
11	200	188	193	165	153	158	172	162	167	161	156	158
12	204	184	196	169	157	165	176	169	172	165	156	160
13	188	176	180	161	149	155	180	169	172	165	161	162
14	188	175	182	153	137	144	180	173	178	165	161	164
15	179	167	175	153	141	146	179	156	167	165	161	163
16	175	164	169	154	146	151	172	156	164	165	161	163
17	179	167	174	158	146	152	171	163	166	165	157	162
18	179	171	175	155	147	151	178	167	170	165	161	163
19	179	171	175	155	147	150	174	162	168	165	161	163
20	175	171	173	155	147	150	166	158	160	169	161	164
21	175	168	173	160	147	153	162	153	159	170	161	166
22	179	171	175	164	152	157	161	153	158	170	166	167
23	187	175	181	164	156	161	157	149	154	174	166	169
24	187	168	177	164	156	159	156	148	153	174	166	170
25	179	168	174	165	157	161	156	147	151	174	166	169
26	181	170	177	165	153	161	151	147	149	174	166	169
27	173	154	161	162	150	157	151	147	149	174	166	168
28	166	150	157	166	154	162	150	146	148	174	166	168
29	---	---	---	163	154	159	150	146	148	174	166	169
30	---	---	---	167	159	162	153	145	147	---	---	---
31	---	---	---	167	159	162	---	---	---	---	---	---
MONTH	221	150	186	176	137	158	180	145	160	174	145	160
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	184	176	180	166	158	161	172	164	167
2	---	---	---	184	172	176	166	162	163	173	165	167
3	---	---	---	180	172	175	170	162	166	173	165	170
4	---	---	---	176	172	175	170	163	167	173	165	169
5	---	---	---	176	169	173	170	161	167	174	166	169
6	180	176	178	179	168	173	168	161	166	174	166	169
7	183	175	177	179	171	174	167	163	165	171	166	168
8	178	174	177	179	171	176	169	162	164	175	167	169
9	181	173	177	179	171	176	165	157	161	175	167	169
10	180	171	177	178	171	175	161	156	158	171	167	168
11	175	167	171	178	171	174	161	156	159	176	168	170
12	170	163	168	178	170	172	162	153	159	179	168	174
13	169	162	167	177	166	171	163	158	160	178	169	174
14	168	161	165	170	165	167	163	159	160	176	167	171
15	171	164	165	169	161	163	164	156	157	174	166	170
16	171	164	169	165	161	163	165	156	159	172	164	169
17	177	169	172	164	156	160	162	153	158	170	162	167
18	180	171	177	164	156	161	162	154	158	168	163	166
19	186	176	180	164	155	158	163	155	159	167	161	164
20	189	179	184	163	155	158	164	155	159	164	156	161
21	195	185	188	162	154	157	165	156	158	165	160	162
22	197	187	192	162	150	154	165	157	160	166	161	163
23	198	186	192	158	150	154	166	157	163	166	162	164
24	194	186	191	158	153	155	167	162	164	167	159	163
25	194	185	189	161	149	155	168	159	164	168	160	165
26	189	181	186	162	154	159	168	160	163	169	161	165
27	189	181	186	---	---	---	168	160	162	170	161	168
28	189	185	187	162	154	158	164	160	162	171	169	170
29	189	181	184	162	158	160	168	164	166	172	169	170
30	185	176	182	162	158	159	172	164	166	171	168	170
31	---	---	---	166	158	161	172	164	167	---	---	---
MONTH	198	161	179	184	149	166	172	153	162	179	156	168

CUMBERLAND RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.6	7.7	7.5	8.0	7.4	8.0	7.8	8.1	8.0	7.5	7.3
2	7.9	7.5	7.7	7.4	8.0	7.5	8.0	7.7	8.0	7.9	7.4	7.1
3	7.7	7.4	7.6	7.4	8.1	7.5	7.9	7.6	8.0	7.8	7.3	7.2
4	7.7	7.4	8.0	7.4	8.5	7.7	7.9	7.7	7.9	7.8	7.3	7.0
5	7.7	7.4	8.0	7.4	8.5	7.9	7.8	7.7	8.2	7.8	7.2	7.1
6	7.9	7.4	8.0	7.8	8.3	7.6	7.9	7.7	7.9	7.7	7.3	7.1
7	8.0	7.5	8.0	7.8	7.8	7.6	8.1	7.7	7.9	7.7	7.5	7.1
8	7.8	7.2	8.1	7.9	7.7	7.5	8.0	7.9	8.1	7.8	7.4	7.2
9	7.7	7.2	8.1	7.8	8.0	7.5	8.0	7.7	8.2	7.8	7.4	7.1
10	7.5	7.3	8.1	7.8	8.1	7.9	7.7	7.6	8.3	7.9	7.4	7.1
11	7.6	7.3	8.1	7.7	8.2	8.1	7.9	7.6	8.4	8.3	7.2	7.1
12	7.6	7.3	8.1	7.7	8.2	8.1	8.0	7.6	8.3	7.8	7.3	7.1
13	7.8	7.3	8.0	7.6	8.2	8.1	8.1	7.9	7.9	7.6	7.4	7.1
14	7.7	7.3	8.1	7.7	8.2	8.1	8.1	8.0	8.2	7.5	7.5	7.2
15	8.0	7.3	8.0	7.7	8.1	8.1	8.1	8.0	7.8	7.4	7.6	7.4
16	7.9	7.5	8.0	7.6	8.1	8.1	8.2	8.1	7.5	7.3	7.6	7.5
17	7.8	7.4	8.0	7.6	8.1	8.1	8.2	8.1	7.4	7.2	7.5	7.4
18	7.8	7.6	7.9	7.6	8.2	8.1	8.2	8.1	7.5	7.3	7.5	7.4
19	7.7	7.5	8.0	7.6	8.3	8.1	8.2	8.2	7.5	7.4	7.5	7.3
20	7.6	7.4	7.8	7.6	8.2	8.1	8.2	8.2	7.6	7.5	7.6	7.2
21	7.7	7.5	7.9	7.5	8.2	8.0	8.2	8.2	7.7	7.5	7.6	7.4
22	7.7	7.5	7.7	7.5	8.2	8.1	8.2	8.1	7.7	7.6	7.5	7.3
23	7.9	7.5	7.8	7.5	8.2	8.0	8.3	8.1	7.8	7.6	7.8	7.3
24	7.8	7.5	7.7	7.4	8.1	8.0	8.3	8.2	7.7	7.5	8.0	7.4
25	7.7	7.5	7.7	7.4	8.1	8.0	8.3	8.2	7.7	7.5	8.2	7.5
26	7.8	7.5	8.0	7.5	8.0	8.0	8.3	8.2	7.6	7.5	8.1	8.0
27	7.8	7.6	8.0	7.4	8.0	7.9	8.3	8.2	7.6	7.4	8.0	7.8
28	7.8	7.6	7.7	7.3	8.1	8.0	8.3	8.2	7.4	7.3	8.0	7.8
29	8.0	7.6	7.8	7.4	8.0	7.9	8.2	8.1	---	---	8.3	7.8
30	7.8	7.6	7.8	7.5	8.0	7.8	8.2	8.1	---	---	8.4	8.2
31	7.8	7.5	---	---	7.9	7.8	8.2	8.0	---	---	8.4	8.0
MONTH	8.0	7.2	8.1	7.3	8.5	7.4	8.3	7.6	8.4	7.2	8.4	7.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.7	7.1	6.9	---	---	7.4	7.2	7.6	7.0	7.7	7.4
2	7.8	7.6	7.0	6.7	---	---	7.5	7.1	7.6	7.0	8.2	7.6
3	7.8	7.5	6.9	6.7	---	---	7.3	7.0	8.1	7.0	8.3	7.8
4	7.6	7.4	6.7	6.6	---	---	7.5	7.0	7.7	6.9	8.0	7.7
5	7.6	7.5	7.0	6.6	---	---	7.5	6.9	7.0	6.5	7.8	7.5
6	7.5	7.3	7.1	6.8	7.4	7.1	7.5	6.9	7.5	6.9	7.6	7.2
7	7.4	7.3	7.2	7.0	7.5	7.3	7.4	7.0	7.9	7.1	7.5	7.2
8	7.4	7.3	7.2	7.0	7.6	7.3	7.7	7.0	7.7	7.0	8.0	7.2
9	7.5	7.2	7.3	7.1	7.5	7.4	7.5	6.9	7.6	7.2	7.8	7.2
10	8.3	7.3	7.5	7.1	7.4	7.3	7.1	6.8	7.9	7.3	7.9	7.2
11	8.2	7.3	7.4	7.3	7.4	7.2	7.6	6.8	7.9	7.2	7.7	7.2
12	7.5	7.3	8.1	7.3	7.4	7.2	7.5	7.2	8.0	7.2	7.9	7.1
13	7.3	6.8	8.2	8.0	7.3	7.1	7.5	7.1	8.3	7.1	7.7	7.1
14	6.9	6.6	8.2	8.1	7.3	7.0	7.3	6.9	7.7	7.0	7.5	7.0
15	7.4	6.8	8.2	8.0	---	---	7.0	6.9	7.6	7.1	7.7	6.7
16	7.0	6.9	8.2	8.0	7.4	7.2	7.2	6.9	7.8	7.0	7.8	6.9
17	7.0	6.8	8.2	8.1	7.4	7.1	7.2	6.9	7.7	7.0	7.2	6.8
18	6.8	6.8	8.3	8.2	7.4	7.0	7.2	6.9	7.5	6.8	7.4	6.8
19	6.8	6.7	8.5	8.2	7.6	7.0	7.3	6.9	7.8	6.8	7.9	7.2
20	6.9	6.7	8.6	8.2	7.9	7.0	7.4	6.9	7.7	6.9	7.7	7.4
21	7.0	6.8	8.6	8.3	7.9	7.4	7.8	7.0	7.5	7.0	7.4	7.1
22	7.0	6.9	8.6	8.2	7.7	7.2	7.4	7.2	7.7	6.8	7.8	6.9
23	6.9	6.8	8.3	7.9	7.3	7.1	7.5	7.1	7.7	6.9	7.6	7.3
24	7.0	6.8	8.1	7.8	7.4	7.1	7.5	7.1	7.8	6.9	7.7	7.3
25	7.0	6.8	8.1	7.7	7.6	7.2	7.5	7.1	8.0	7.1	7.6	7.2
26	7.1	6.9	8.0	7.7	7.7	7.3	7.5	6.9	7.5	6.9	7.6	7.2
27	7.1	7.0	8.0	7.6	7.5	7.3	---	---	7.9	6.7	7.7	7.3
28	7.5	7.0	8.2	7.8	7.7	7.4	7.5	6.6	7.9	6.9	7.7	7.5
29	7.6	7.1	8.3	7.7	7.5	7.3	7.4	6.7	7.6	7.2	7.9	7.4
30	7.6	7.1	---	---	7.4	7.2	7.8	6.7	8.3	7.0	8.1	7.6
31	---	---	---	---	---	---	7.8	6.9	7.8	7.2	---	---
MONTH	8.3	6.6	8.6	6.6	7.9	7.0	7.8	6.6	8.3	6.5	8.3	6.7

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.8	20.2	20.4	13.8	13.0	13.5	10.5	9.7	10.2	6.1	5.5	5.7
2	20.2	18.2	19.5	13.4	12.8	13.2	10.5	10.1	10.2	6.1	5.5	5.9
3	20.1	18.7	19.7	13.2	12.7	13.0	10.5	10.1	10.2	6.3	5.7	6.0
4	19.9	18.9	19.5	13.0	12.4	12.7	10.7	10.3	10.4	---	---	---
5	20.1	18.9	19.6	12.7	12.4	12.6	11.0	10.4	10.7	---	---	---
6	19.7	19.1	19.5	12.7	12.0	12.3	10.8	10.2	10.6	6.1	4.9	5.3
7	20.1	19.3	19.8	12.0	11.4	11.7	10.8	10.4	10.5	5.9	4.7	5.3
8	19.9	19.3	19.6	11.6	11.0	11.4	10.6	10.2	10.4	6.3	4.9	5.8
9	19.9	18.7	19.5	11.5	10.9	11.3	10.4	9.8	10.1	6.1	4.9	5.5
10	19.1	18.5	18.8	11.7	10.7	11.3	10.2	9.8	10.1	6.1	4.9	5.5
11	18.7	18.1	18.4	11.7	11.1	11.4	10.2	9.6	9.8	5.5	4.5	5.0
12	18.1	17.6	17.8	11.5	11.1	11.3	9.6	9.2	9.5	6.5	6.1	6.3
13	18.4	17.4	17.9	11.9	11.1	11.5	9.6	9.2	9.4	6.9	6.3	6.5
14	18.2	17.7	17.9	12.6	11.7	12.1	9.6	9.2	9.4	6.7	5.9	6.4
15	18.4	17.7	18.0	12.8	12.1	12.5	9.6	9.4	9.5	6.1	4.9	5.5
16	18.4	18.0	18.2	12.6	12.1	12.3	9.6	9.2	9.4	4.9	4.3	4.6
17	18.6	18.0	18.2	12.9	12.5	12.7	9.4	9.0	9.2	4.7	4.3	4.5
18	18.4	17.8	18.1	12.9	12.6	12.6	9.2	8.8	9.1	4.5	3.6	4.0
19	18.6	18.0	18.3	12.7	12.4	12.5	9.0	8.6	8.9	3.8	3.2	3.6
20	19.0	18.2	18.6	12.6	12.2	12.4	9.0	8.6	8.8	3.8	3.2	3.5
21	19.0	17.8	18.3	12.4	11.8	12.1	8.8	7.1	8.5	3.8	3.2	3.5
22	17.8	17.3	17.6	12.2	11.6	12.0	8.6	8.2	8.4	3.8	3.2	3.5
23	17.7	17.1	17.4	12.2	11.4	11.9	8.4	7.8	8.2	4.2	3.4	3.8
24	17.5	16.9	17.2	12.0	11.4	11.8	8.0	7.5	7.7	4.6	4.0	4.2
25	17.5	16.7	17.0	12.2	11.8	11.9	7.7	6.9	7.3	5.0	4.2	4.6
26	17.5	16.9	17.1	12.1	11.7	11.9	7.3	6.3	6.7	5.4	4.8	5.1
27	17.1	16.5	16.7	11.9	10.9	11.6	7.1	6.3	6.7	6.0	5.0	5.5
28	16.8	16.1	16.6	11.5	10.7	11.0	7.1	6.7	6.8	6.4	5.8	6.1
29	16.6	15.8	16.2	10.9	10.1	10.6	6.9	6.5	6.6	6.6	6.2	6.3
30	16.0	14.6	15.5	10.7	10.1	10.3	6.9	6.3	6.5	7.1	6.4	6.7
31	14.8	13.4	14.3	---	---	---	6.5	5.5	5.8	6.9	6.5	6.7
MONTH	20.8	13.4	18.1	13.8	10.1	12.0	11.0	5.5	8.9	7.1	3.2	5.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.7	6.1	6.2	6.8	6.0	6.4	10.4	9.6	10.1	14.3	13.5	14.0
2	6.3	5.9	6.1	6.3	5.9	6.1	10.3	9.6	9.9	13.6	13.1	13.5
3	6.3	5.7	6.0	5.9	5.5	5.7	9.9	9.3	9.7	13.6	12.7	13.0
4	6.3	5.9	6.1	6.7	5.7	6.2	9.9	9.3	9.6	13.2	12.5	12.9
5	6.3	5.9	6.1	6.9	6.3	6.7	10.1	9.7	9.9	13.5	13.1	13.2
6	6.3	5.7	6.0	7.3	6.5	7.0	10.1	9.7	9.8	13.9	12.8	13.6
7	6.3	5.7	6.0	7.7	7.1	7.4	9.9	9.3	9.6	14.1	13.5	13.9
8	6.9	5.9	6.4	7.7	7.3	7.5	10.5	9.7	10.1	14.6	13.8	14.2
9	6.9	6.3	6.6	7.5	6.9	7.1	10.9	10.1	10.4	14.4	13.6	14.1
10	6.3	5.7	6.0	7.1	6.7	6.9	11.1	10.5	10.9	15.5	14.2	14.9
11	6.4	5.7	6.0	7.1	6.5	6.8	11.5	10.9	11.2	15.5	14.9	15.3
12	6.4	5.6	6.0	7.3	6.7	7.0	12.1	11.3	11.7	15.5	14.7	15.1
13	6.0	5.6	5.8	7.5	7.1	7.2	12.2	11.7	11.9	15.3	14.8	15.0
14	6.2	5.8	6.0	7.8	7.1	7.4	12.4	11.8	12.1	15.2	14.4	14.9
15	6.4	6.0	6.1	8.3	7.4	7.9	12.6	12.2	12.5	15.1	14.2	14.7
16	6.4	5.8	6.2	8.3	7.8	8.0	13.0	12.5	12.7	15.9	14.7	15.2
17	6.6	6.2	6.4	8.1	7.6	7.9	13.0	12.5	12.8	15.9	15.1	15.5
18	6.6	6.0	6.4	8.5	7.8	8.2	12.9	12.2	12.7	16.4	15.6	15.9
19	7.0	6.2	6.6	8.7	8.1	8.5	13.1	12.2	12.7	16.6	15.6	16.2
20	7.0	6.6	6.8	9.1	8.3	8.8	13.6	12.7	13.1	17.3	16.5	16.8
21	7.4	6.6	7.0	9.4	8.8	9.1	13.4	12.8	13.3	17.4	16.3	16.8
22	7.6	7.0	7.3	9.6	8.8	9.2	13.4	12.8	13.2	18.0	17.0	17.3
23	8.3	7.2	7.8	9.8	8.8	9.3	13.3	12.7	12.9	18.1	17.0	17.6
24	8.3	7.8	8.0	10.0	9.4	9.7	13.5	12.8	13.2	18.1	17.3	17.7
25	8.3	7.8	8.0	9.8	9.2	9.6	13.5	12.9	13.3	18.2	17.5	17.9
26	8.1	7.6	7.8	9.8	9.2	9.6	14.2	13.3	13.7	18.3	17.6	18.0
27	7.8	7.2	7.4	9.8	9.4	9.6	14.4	13.6	14.1	19.1	17.0	18.0
28	7.4	6.6	7.1	10.2	9.2	9.7	14.8	14.0	14.3	19.8	18.2	19.0
29	---	---	---	10.2	9.8	10.0	14.9	14.2	14.6	19.8	18.3	19.2
30	---	---	---	10.2	9.8	10.1	14.7	14.3	14.5	---	---	---
31	---	---	---	10.6	10.0	10.2	---	---	---	---	---	---
MONTH	8.3	5.6	6.6	10.6	5.5	8.1	14.9	9.3	12.0	19.8	12.5	15.6

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	25.1	23.3	24.2	24.5	23.9	24.2	23.2	21.1	22.5
2	---	---	---	24.1	23.3	23.7	24.7	23.7	24.1	23.4	22.6	23.1
3	---	---	---	24.4	23.2	23.8	25.3	23.7	24.4	23.3	22.4	22.9
4	---	---	---	24.2	23.6	23.9	24.9	23.9	24.3	22.9	22.0	22.5
5	---	---	---	24.4	23.7	24.0	24.1	23.3	23.7	22.4	21.8	22.2
6	21.0	19.8	20.4	24.9	23.3	24.1	24.8	23.8	24.2	22.0	21.0	21.5
7	21.0	19.8	20.3	25.4	23.9	24.6	24.6	23.4	24.1	21.6	21.0	21.2
8	22.3	20.0	21.5	24.8	23.8	24.5	24.2	23.4	23.8	22.0	20.6	21.1
9	21.9	20.7	21.2	24.4	23.0	23.7	24.1	23.1	23.4	21.9	20.6	21.2
10	21.7	20.9	21.3	24.1	22.9	23.5	23.9	22.7	23.4	22.5	20.5	21.5
11	22.4	21.3	21.7	24.7	22.6	23.8	24.3	22.5	23.4	21.7	20.7	21.3
12	22.7	20.8	21.7	24.5	23.5	24.2	24.1	22.5	23.3	22.3	20.1	21.2
13	22.4	21.2	21.7	24.4	23.4	24.0	24.7	22.5	23.4	22.3	21.1	21.7
14	22.4	21.2	21.7	23.8	22.8	23.3	23.8	22.0	23.1	22.8	21.1	21.9
15	22.3	21.3	21.8	23.4	22.5	22.9	24.0	22.3	22.9	23.2	21.3	22.1
16	23.1	21.7	22.2	23.6	22.3	23.0	23.8	22.5	23.2	23.3	21.9	22.5
17	23.1	21.4	22.3	23.9	22.4	23.0	23.4	22.1	22.8	22.6	22.0	22.3
18	23.8	21.9	22.6	23.5	22.4	23.0	23.4	22.3	22.9	22.7	21.8	22.1
19	23.6	22.1	22.7	23.5	21.4	22.6	24.0	22.5	23.1	22.9	22.2	22.6
20	24.2	22.4	23.2	24.0	22.2	23.1	23.8	22.3	23.0	22.7	22.0	22.4
21	23.5	22.6	23.1	24.0	21.9	23.0	23.2	22.6	22.9	22.3	21.8	22.0
22	23.9	22.7	23.1	23.0	22.3	22.6	23.9	22.8	23.3	22.5	21.6	22.0
23	24.7	22.7	23.5	23.5	22.1	22.7	23.9	22.9	23.4	22.3	21.4	21.9
24	24.2	23.1	23.6	23.3	22.6	22.9	23.9	22.9	23.4	21.9	21.3	21.6
25	25.0	23.0	24.0	24.4	22.8	23.3	23.9	22.9	23.3	21.9	21.3	21.4
26	25.3	24.0	24.4	23.6	22.4	23.1	23.2	22.4	23.0	21.5	20.9	21.1
27	24.9	24.1	24.5	---	---	---	23.8	21.5	22.6	21.3	20.6	20.9
28	25.5	24.3	24.9	24.6	23.2	23.9	23.2	21.3	22.5	20.8	20.5	20.6
29	24.6	23.6	24.4	24.6	23.6	24.1	23.2	20.1	21.2	21.0	20.3	20.6
30	24.2	23.2	23.8	24.8	23.6	24.2	23.8	20.1	23.0	20.9	20.4	20.7
31	---	---	---	24.9	23.5	24.2	23.6	21.9	22.9	---	---	---
MONTH	25.5	19.8	22.6	25.4	21.4	23.6	25.3	20.1	23.3	23.4	20.1	21.8

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	7.8	8.2	9.6	8.9	9.2	12.2	11.2	11.6	10.4	9.9	10.1
2	8.8	7.6	8.2	9.6	9.0	9.2	12.2	11.0	11.4	10.2	9.9	10.0
3	7.8	6.3	7.4	9.6	9.1	9.3	11.5	10.4	11.1	9.9	9.5	9.7
4	8.4	7.1	7.9	9.7	8.2	9.1	12.8	10.6	11.6	10.2	9.6	9.9
5	8.7	7.0	8.2	9.0	6.6	8.5	12.5	10.8	11.5	10.2	9.8	10.0
6	8.5	6.6	7.9	9.1	8.4	8.9	11.2	9.7	10.4	10.3	9.9	10.0
7	9.0	8.0	8.4	9.7	8.9	9.4	10.1	9.4	9.6	11.0	9.7	9.9
8	8.2	6.2	7.2	10.0	9.3	9.6	11.2	9.1	9.3	14.1	11.0	13.7
9	7.9	6.2	6.9	10.1	9.6	9.9	9.6	9.0	9.1	14.0	10.0	12.2
10	7.2	6.1	6.7	10.1	9.6	9.9	9.5	9.0	9.1	10.0	9.6	9.8
11	7.6	6.9	7.3	10.6	9.5	10.1	9.8	9.0	9.5	9.8	9.5	9.6
12	7.6	7.2	7.4	10.6	9.9	10.2	9.4	8.7	9.0	9.7	9.1	9.4
13	8.3	7.1	7.7	10.4	9.4	10.0	9.3	8.6	9.0	9.2	8.8	9.0
14	7.6	6.8	7.3	10.9	9.4	10.4	9.0	8.6	8.7	9.3	8.8	9.1
15	8.7	6.9	7.8	10.3	9.5	10.0	8.9	8.1	8.6	9.3	9.0	9.1
16	8.5	6.7	7.9	10.3	9.3	10.0	8.9	8.1	8.6	9.7	9.0	9.4
17	8.1	5.8	7.4	10.4	9.7	10.2	8.9	8.4	8.6	9.7	9.3	9.5
18	7.7	6.9	7.3	10.1	9.8	10.0	8.9	8.4	8.7	10.0	9.6	9.8
19	7.3	6.2	7.1	10.4	9.4	10.1	9.2	8.7	8.9	10.3	9.8	10.1
20	7.7	5.7	7.0	10.4	9.5	10.1	9.0	8.7	8.8	10.1	9.4	9.9
21	7.6	6.2	6.9	10.7	10.1	10.4	9.2	8.3	8.9	10.1	9.2	9.9
22	7.9	6.8	7.5	10.7	10.2	10.6	8.9	8.6	8.8	10.4	9.6	10.1
23	8.9	7.4	8.2	10.9	10.3	10.6	9.2	8.7	9.0	10.4	9.8	10.1
24	8.9	8.1	8.5	10.9	10.3	10.7	9.4	8.9	9.2	10.3	9.5	10.1
25	8.5	7.8	8.1	10.9	10.2	10.6	9.9	9.2	9.6	10.4	9.8	10.2
26	8.6	7.7	8.1	11.7	10.2	10.9	10.2	9.5	9.9	13.9	10.1	12.5
27	8.5	7.9	8.2	11.2	10.5	11.0	10.2	9.8	10.0	13.9	13.2	13.5
28	9.1	8.3	8.8	12.2	11.1	11.5	10.1	9.5	9.9	13.2	12.5	12.9
29	9.6	8.9	9.2	11.9	11.3	11.7	10.5	9.9	10.1	12.9	12.1	12.6
30	9.2	8.6	8.9	11.9	11.3	11.5	10.3	10.0	10.1	13.4	12.2	13.2
31	9.3	8.6	9.1	---	---	---	10.3	10.0	10.1	12.2	9.7	10.4
MONTH	9.6	5.7	7.8	12.2	6.6	10.1	12.8	8.1	9.6	14.1	8.8	10.5

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.2	9.6	9.9	11.5	11.3	11.5	13.5	13.1	13.2	12.6	12.4	12.5
2	9.7	9.4	9.6	11.6	11.4	11.5	13.4	13.1	13.2	12.7	12.6	12.6
3	9.8	9.4	9.6	11.7	11.4	11.5	13.3	12.9	13.1	12.6	10.8	12.1
4	9.8	9.4	9.6	11.6	11.2	11.3	13.1	12.7	12.9	10.8	10.2	10.3
5	9.8	9.3	9.6	11.4	11.0	11.2	12.8	12.4	12.6	11.8	10.1	10.6
6	10.0	9.4	9.7	11.2	10.9	11.1	12.6	12.3	12.5	10.6	10.2	10.4
7	10.3	9.5	9.9	11.4	10.9	11.1	12.5	12.2	12.4	10.5	10.0	10.3
8	10.4	9.9	10.2	11.3	11.1	11.2	12.3	11.9	12.1	10.6	10.2	10.3
9	14.0	9.9	11.6	11.6	10.8	11.1	12.3	12.0	12.1	10.7	9.5	10.2
10	13.9	13.6	13.9	11.3	10.8	11.1	12.6	12.2	12.4	10.8	10.0	10.4
11	13.6	13.2	13.4	11.2	9.7	10.9	13.1	12.5	12.8	10.5	9.9	10.3
12	13.7	13.2	13.4	11.0	10.6	10.7	13.1	12.8	13.0	11.1	9.4	10.5
13	13.5	13.2	13.3	10.8	9.9	10.3	13.3	12.9	13.1	11.1	10.1	10.6
14	13.4	13.0	13.2	10.3	9.6	10.0	13.0	12.6	12.8	11.3	10.1	10.6
15	13.1	12.6	12.9	10.5	9.6	10.2	12.8	12.4	12.6	10.9	10.0	10.4
16	13.0	12.6	12.9	10.5	10.2	10.3	12.7	12.5	12.6	11.0	9.9	10.5
17	13.2	12.1	12.9	10.5	10.1	10.3	12.6	12.4	12.5	10.9	10.3	10.6
18	12.9	12.1	12.7	10.4	10.2	10.3	12.9	12.4	12.6	11.5	10.3	11.0
19	12.8	12.3	12.7	10.5	10.0	10.3	12.6	12.3	12.4	11.8	10.7	11.4
20	12.7	12.0	12.6	10.4	10.0	10.3	12.5	12.1	12.2	12.1	10.6	11.4
21	12.6	12.4	12.5	---	---	---	12.5	12.2	12.3	12.1	10.6	11.4
22	12.6	11.7	12.1	13.5	11.1	12.3	12.6	12.4	12.5	12.2	10.7	11.6
23	11.8	11.1	11.6	14.1	12.7	13.5	12.6	12.5	12.6	11.9	9.7	11.1
24	11.6	10.8	11.2	14.0	13.1	13.7	12.6	12.4	12.5	11.4	9.7	10.8
25	11.0	10.6	10.9	16.0	15.4	15.6	12.7	12.4	12.6	11.1	9.7	10.5
26	11.3	10.8	11.1	15.8	15.3	15.5	12.7	12.5	12.6	10.5	8.9	9.9
27	11.2	10.9	11.1	15.4	14.8	15.1	12.6	12.4	12.5	10.4	8.4	9.8
28	11.4	11.1	11.2	15.1	14.3	14.8	12.6	12.5	12.5	11.2	9.0	10.4
29	---	---	---	14.7	14.2	14.5	12.6	12.4	12.5	11.0	8.9	10.2
30	---	---	---	14.4	13.5	14.0	12.6	12.3	12.4	---	---	---
31	---	---	---	13.7	13.0	13.3	---	---	---	---	---	---
MONTH	14.0	9.3	11.6	16.0	9.6	11.9	13.5	11.9	12.6	12.7	8.4	10.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.3	6.3	7.1	9.1	8.2	8.6	7.5	6.8	7.2
2	---	---	---	7.3	6.3	6.9	9.2	8.0	8.6	8.1	6.8	7.5
3	---	---	---	7.2	6.6	6.9	10.0	7.9	8.8	8.3	7.2	7.8
4	---	---	---	7.0	6.4	6.7	9.4	8.3	8.8	8.6	7.4	8.1
5	---	---	---	7.0	5.9	6.6	8.7	7.7	8.2	8.2	7.3	7.9
6	8.1	6.9	7.6	6.9	4.3	6.0	9.2	8.4	8.8	7.7	7.0	7.4
7	7.8	6.9	7.2	6.6	4.7	5.9	9.3	7.2	8.8	8.1	7.0	7.6
8	7.9	6.7	7.4	6.7	4.8	5.9	8.9	7.2	8.3	8.8	6.9	7.7
9	8.0	6.5	7.3	6.5	5.2	5.9	8.6	7.7	8.3	8.4	7.0	7.6
10	7.0	6.3	6.7	6.2	5.0	5.8	9.1	7.7	8.5	8.6	6.9	7.7
11	7.2	5.9	6.6	7.2	4.9	6.1	9.0	8.2	8.7	8.1	6.9	7.5
12	7.3	5.5	6.6	7.1	5.7	6.5	9.3	8.2	8.7	9.3	6.8	7.7
13	6.9	5.4	6.3	6.9	5.5	6.3	9.7	8.1	8.8	9.4	7.3	8.2
14	6.5	5.5	6.0	6.8	5.6	6.2	8.7	8.0	8.4	9.1	7.4	8.1
15	6.1	4.9	5.6	6.6	5.9	6.3	8.4	7.9	8.1	9.9	6.9	8.3
16	6.0	4.5	5.4	7.2	6.0	6.5	8.4	7.6	8.0	10.0	7.7	8.6
17	5.7	4.3	5.1	7.5	6.4	6.9	8.3	7.4	7.7	8.7	7.2	8.1
18	5.4	4.2	4.8	7.3	6.2	6.8	8.1	7.2	7.7	8.4	7.2	7.8
19	5.6	3.9	4.9	7.4	6.2	6.8	8.4	7.0	7.7	9.0	7.8	8.3
20	5.5	3.7	4.8	7.5	5.9	6.9	8.2	7.1	7.6	8.8	7.5	8.3
21	5.3	3.5	4.4	7.2	6.0	6.7	7.9	7.2	7.4	8.1	7.3	7.7
22	5.3	3.7	4.6	7.3	6.0	6.7	8.1	7.0	7.6	8.8	6.8	7.7
23	5.9	3.7	4.9	6.9	6.1	6.7	8.4	7.1	7.7	8.3	7.0	7.6
24	5.6	4.6	5.1	7.3	6.2	6.7	8.7	7.2	7.8	8.1	6.7	7.5
25	6.4	4.9	5.5	6.9	5.9	6.6	8.7	7.3	7.8	8.3	6.5	7.5
26	7.2	5.6	6.3	6.1	5.7	5.9	8.5	7.5	7.9	8.0	6.6	7.2
27	6.6	5.9	6.3	---	---	---	8.9	7.1	7.8	8.1	7.1	7.8
28	7.9	5.7	6.6	7.6	6.2	6.9	8.6	7.1	7.8	8.2	7.4	7.8
29	6.7	5.6	6.3	7.8	6.6	7.2	7.9	7.0	7.4	8.9	7.4	7.9
30	7.3	5.9	6.5	8.8	7.1	8.0	8.5	6.9	7.6	9.1	7.6	8.3
31	---	---	---	9.0	7.6	8.3	8.0	7.2	7.6	---	---	---
MONTH	8.1	3.5	6.0	9.0	4.3	6.6	10.0	6.9	8.1	10.0	6.5	7.8

CUMBERLAND RIVER BASIN

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

TURBIDITY (NTU), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17	12	15	12	15	12	17	15	45	31	---	---
2	17	13	15	11	15	12	20	16	34	29	---	---
3	16	13	13	9.3	14	12	20	18	37	31	---	---
4	17	12	15	9	19	12	22	19	35	31	---	---
5	14	11	16	12	23	17	22	17	34	26	---	---
6	14	12	17	13	48	23	19	16	29	24	---	---
7	14	10	17	13	52	42	20	16	25	21	---	---
8	15	11	16	13	46	41	22	17	25	21	---	---
9	15	10	15	13	45	35	29	20	24	20	---	---
10	18	13	16	13	37	24	35	28	33	22	---	---
11	16	13	16	12	27	21	34	27	79	33	---	---
12	17	12	16	13	30	26	28	24	---	---	---	---
13	14	10	16	13	33	27	34	23	---	---	---	---
14	16	11	16	13	40	33	42	34	---	---	---	---
15	14	10	16	13	39	32	45	40	---	---	---	---
16	14	11	16	13	35	27	43	28	---	---	---	---
17	14	11	17	14	30	23	31	26	---	---	---	---
18	16	13	20	15	24	20	33	28	---	---	---	---
19	16	12	20	15	21	19	34	25	---	---	---	---
20	14	12	21	15	20	18	32	26	---	---	---	---
21	19	12	22	16	21	18	36	26	---	---	---	---
22	17	14	18	15	20	19	36	24	---	---	---	---
23	16	11	17	15	20	18	35	24	---	---	---	---
24	15	11	18	15	20	17	36	20	---	---	---	---
25	15	11	17	14	20	17	26	21	---	---	---	---
26	14	11	16	13	20	16	27	17	---	---	---	---
27	15	11	16	13	19	16	27	20	---	---	---	---
28	15	12	16	13	19	16	35	27	---	---	---	---
29	18	13	14	12	18	16	35	30	---	---	---	---
30	19	12	16	12	18	15	48	34	---	---	---	---
31	17	14	---	---	18	15	55	44	---	---	---	---
MONTH	19	10	22	9	52	12	55	15	79	20	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	11	6
29	---	---	---	---	---	---	---	---	---	---	12	7
30	---	---	---	---	---	---	---	---	---	---	11	8
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	12	6

CUMBERLAND RIVER BASIN

03426385 MANSKER CREEK ABOVE GOODLETSVILLE, TN

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

DRAINAGE AREA.--27.7 mi², includes Slater Creek.

PERIOD OF RECORD.--August 1993 to September 1994.

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

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

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 1200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1200	1,390	6.74	Mar. 9	0900	2,330	8.63
Dec. 4	1930	1,980	7.86	Mar. 27	1915	1,370	6.60
Feb. 9	0645	1,460	6.80	Apr. 15	1330	2,740	9.49
Feb. 22	2100	*3,340	*10.68	Aug. 14	1715	1,850	7.62

Minimum discharge, 0.20 ft³/s, Aug. 22, Sept. 11, 12, 13, 14, 15, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	e.70	.69
2	---	---	---	---	---	---	---	---	---	---	e.70	.93
3	---	---	---	---	---	---	---	---	---	---	e.70	1.8
4	---	---	---	---	---	---	---	---	---	---	e.70	1.5
5	---	---	---	---	---	---	---	---	---	---	e1.0	.89
6	---	---	---	---	---	---	---	---	---	---	e2.0	.72
7	---	---	---	---	---	---	---	---	---	---	e1.0	.53
8	---	---	---	---	---	---	---	---	---	---	8.0	.61
9	---	---	---	---	---	---	---	---	---	---	e.70	.96
10	---	---	---	---	---	---	---	---	---	---	e.65	.62
11	---	---	---	---	---	---	---	---	---	---	e.65	.49
12	---	---	---	---	---	---	---	---	---	---	e1.0	.36
13	---	---	---	---	---	---	---	---	---	---	e3.0	.29
14	---	---	---	---	---	---	---	---	---	---	e1.5	.37
15	---	---	---	---	---	---	---	---	---	---	e1.0	1.7
16	---	---	---	---	---	---	---	---	---	---	e.80	1.7
17	---	---	---	---	---	---	---	---	---	---	e.75	1.4
18	---	---	---	---	---	---	---	---	---	---	1.3	.91
19	---	---	---	---	---	---	---	---	---	---	.99	.71
20	---	---	---	---	---	---	---	---	---	---	.77	.64
21	---	---	---	---	---	---	---	---	---	---	.65	29
22	---	---	---	---	---	---	---	---	---	---	.47	3.2
23	---	---	---	---	---	---	---	---	---	---	.50	6.4
24	---	---	---	---	---	---	---	---	---	---	.54	5.4
25	---	---	---	---	---	---	---	---	---	---	.96	9.9
26	---	---	---	---	---	---	---	---	---	---	1.2	4.9
27	---	---	---	---	---	---	---	---	---	---	.87	3.0
28	---	---	---	---	---	---	---	---	---	---	.72	2.3
29	---	---	---	---	---	---	---	---	---	---	.92	1.8
30	---	---	---	---	---	---	---	---	---	---	.90	1.6
31	---	---	---	---	---	---	---	---	---	---	.73	---
TOTAL	---	---	---	---	---	---	---	---	---	---	36.37	85.32
MEAN	---	---	---	---	---	---	---	---	---	---	1.17	2.84
MAX	---	---	---	---	---	---	---	---	---	---	8.0	29
MIN	---	---	---	---	---	---	---	---	---	---	.47	.29
CFSM	---	---	---	---	---	---	---	---	---	---	.04	.10
IN.	---	---	---	---	---	---	---	---	---	---	.05	.11

e Estimated

CUMBERLAND RIVER BASIN

03426385 MANSKER CREEK ABOVE GOODLETSVILLE, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	4.3	6.9	32	45	41	69	53	6.5	8.6	3.8	4.2
2	3.4	3.8	6.6	31	36	174	59	36	6.1	7.0	3.4	8.3
3	2.8	3.7	11	29	30	124	56	74	5.1	5.6	3.1	4.6
4	2.0	3.4	726	29	26	85	48	87	4.4	4.7	3.3	3.7
5	1.8	3.5	230	26	24	64	85	60	4.1	4.1	46	4.2
6	1.4	3.4	68	25	21	52	256	44	5.9	4.3	15	5.1
7	1.2	3.2	40	123	19	44	133	89	14	4.0	8.6	4.4
8	1.2	3.1	27	75	18	85	90	105	9.5	3.8	6.2	3.7
9	1.3	3.1	83	48	442	1340	69	63	8.2	4.4	5.4	3.2
10	1.4	3.0	288	39	192	320	152	44	7.9	6.0	4.0	2.8
11	1.5	2.8	80	32	773	131	273	32	5.7	4.1	3.3	2.6
12	1.5	3.1	48	28	341	90	143	25	4.6	3.8	4.5	2.3
13	1.5	4.5	34	24	253	71	95	20	3.9	3.7	3.2	2.0
14	1.4	18	126	e22	136	59	70	34	3.5	4.2	133	1.9
15	1.5	45	80	e20	96	49	818	119	3.2	7.3	48	1.8
16	12	21	52	e18	74	40	308	78	2.9	10	20	2.3
17	23	30	38	e17	60	33	127	49	33	7.7	15	3.7
18	9.6	25	29	e15	50	30	83	35	20	5.5	10	3.2
19	44	18	24	e13	42	25	63	26	8.9	4.4	8.0	2.9
20	22	15	28	e10	47	23	49	21	6.0	3.8	11	2.8
21	11	12	35	11	294	22	38	17	4.8	9.6	24	2.6
22	7.6	9.7	31	11	802	19	31	14	4.2	15	11	2.3
23	5.5	8.2	26	17	504	18	26	11	3.7	11	8.0	15
24	4.3	7.0	22	46	147	28	22	9.8	3.6	8.5	6.7	24
25	3.7	6.8	20	250	93	59	20	8.8	4.3	6.5	5.6	9.1
26	3.4	7.1	16	149	66	66	18	20	e640	9.0	4.8	7.0
27	3.1	11	14	488	52	705	15	16	e430	8.1	4.0	6.9
28	3.1	10	48	460	43	430	14	11	e32	6.6	3.5	5.5
29	3.2	9.0	68	137	---	156	91	8.5	18	5.3	3.3	4.6
30	4.8	7.7	47	82	---	98	108	7.3	12	4.5	3.1	4.1
31	4.9	---	36	59	---	85	---	6.1	---	4.0	6.0	---
TOTAL	190.5	305.4	2388.5	2366	4726	4566	3429	1223.5	1316.0	195.1	434.8	150.8
MEAN	6.15	10.2	77.0	76.3	169	147	114	39.5	43.9	6.29	14.0	5.03
MAX	44	45	726	488	802	1340	818	119	640	15	133	24
MIN	1.2	2.8	6.6	10	18	18	14	6.1	2.9	3.7	3.1	1.8
CFSM	.22	.37	2.78	2.76	6.09	5.32	4.13	1.42	1.58	.23	.51	.18
IN.	.26	.41	3.21	3.18	6.35	6.13	4.61	1.64	1.77	.26	.58	.20

e Estimated

CUMBERLAND RIVER BASIN

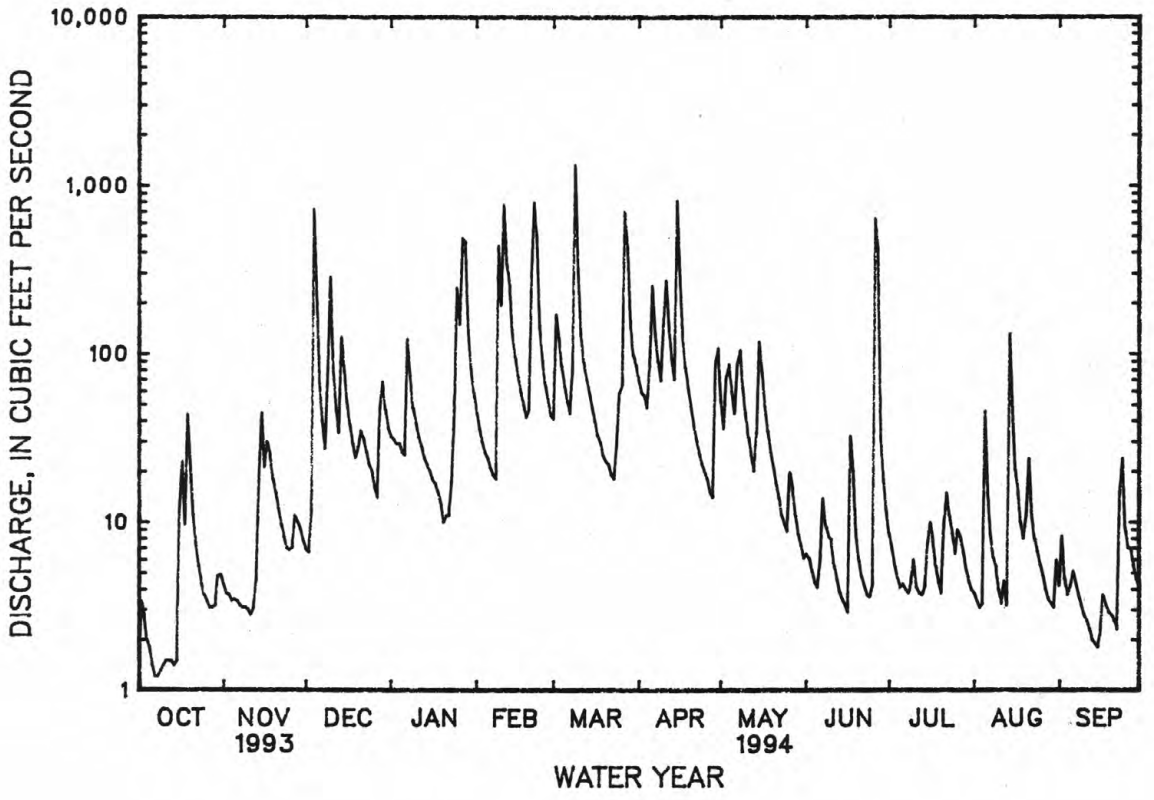
03426385 MANSKER CREEK ABOVE GOODLETSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	6.15	10.2	77.0	76.3	169	147	114	39.5	43.9	6.29	7.60	3.94
MAX	6.15	10.2	77.0	76.3	169	147	114	39.5	43.9	6.29	14.0	5.03
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994
MIN	6.15	10.2	77.0	76.3	169	147	114	39.5	43.9	6.29	1.17	2.84
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1993	1993

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	21291.6			
ANNUAL MEAN	58.3		58.3	
HIGHEST ANNUAL MEAN			58.3	1994
LOWEST ANNUAL MEAN			58.3	1994
HIGHEST DAILY MEAN	1340	Mar 9	1340	Mar 9 1994
LOWEST DAILY MEAN	1.2	Oct 7	.29	Sep 13 1993
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 6	.53	Sep 8 1993
INSTANTANEOUS PEAK FLOW	3340	Feb 22	3340	Feb 22 1994
INSTANTANEOUS PEAK STAGE	10.68	Feb 22	10.68	Feb 22 1994
INSTANTANEOUS LOW FLOW	a1.0	Oct 7	b.20	Aug 22 1993
ANNUAL RUNOFF (CFSM)	2.11		2.11	
ANNUAL RUNOFF (INCHES)	28.59		28.61	
10 PERCENT EXCEEDS	126		100	
50 PERCENT EXCEEDS	16		10	
90 PERCENT EXCEEDS	3.2		1.2	

a Also occurred Oct. 8, 9.
b Also occurred Sept. 11, 12, 13, 14, 15, 1993.



CUMBERLAND RIVER BASIN

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 downstream from Sinking Creek, 4.5 mi northwest of the courthouse in Murfreesboro, and at mile 10.7.

DRAINAGE AREA.--177 mi², includes 17 mi² without surface drainage.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good, except for estimated daily discharges for the period Oct. 1 to Nov. 2 which are fair. Flow is affected by Murfreesboro sewage treatment plant outflow. An annual average of 11.6 ft³/s, with a maximum of 15.5 ft³/s is discharged to the West Fork Stones River 25 ft above the station. Prior to July 1987 an annual average of 7.7 ft³/s was discharged. Natural flow of stream affected by transbasin diversion of water from East Fork Stones River basin into the West Fork Stones River basin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	0130	13,700	19.14	Mar. 27	1900	*16,400	*20.21
Jan. 28	1000	6,540	14.18	Apr. 6	1030	9,460	16.89
Feb. 11	1430	10,600	17.57	Apr. 11	1130	7,050	14.82
Feb. 23	1000	6,920	14.65	Apr. 16	0400	5,960	13.43
Mar. 10	0230	8,080	15.77	June 27	0800	7,870	15.59
Mar. 25	0300	13,200	18.93	July 27	1200	3,790	10.07

Minimum discharge, 9.5 ft³/s, Nov. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	e14	38	350	461	428	819	141	30	255	141	149
2	20	14	37	333	389	1740	621	113	29	196	88	134
3	18	14	37	298	336	1320	517	159	28	157	72	155
4	18	13	3720	414	291	707	483	294	25	131	59	105
5	16	13	5270	392	264	501	567	215	27	107	1450	89
6	15	13	936	313	240	396	5500	158	38	93	456	93
7	14	12	560	1130	215	332	1380	141	47	81	237	76
8	14	13	418	1200	197	301	791	297	46	74	144	76
9	15	12	357	598	694	2220	572	213	35	68	98	68
10	e13	13	1910	436	1420	4180	481	160	31	65	76	59
11	e14	12	1070	367	7790	1150	4190	128	27	57	62	51
12	15	12	590	590	2640	736	1330	106	31	55	53	43
13	14	11	434	536	1650	557	1660	92	36	54	45	38
14	15	18	453	430	1000	469	756	85	50	58	39	35
15	13	107	493	348	724	389	1090	112	53	206	43	32
16	e12	64	433	280	562	325	3200	99	38	161	69	31
17	e12	80	357	584	460	281	974	79	31	123	61	33
18	e13	84	303	763	388	249	642	68	26	99	48	56
19	15	89	261	435	334	220	488	59	24	69	42	43
20	14	72	254	340	306	198	394	56	21	57	35	37
21	e14	60	351	280	809	181	332	51	21	55	920	34
22	13	53	350	245	806	166	284	48	35	63	532	32
23	15	46	283	241	4120	145	245	45	35	57	242	59
24	13	41	238	311	1320	2670	213	42	43	50	160	343
25	15	37	212	853	764	5560	192	39	165	43	114	243
26	14	33	185	2010	551	1060	169	68	897	355	92	150
27	e13	54	162	1840	436	9800	160	59	4100	1640	77	124
28	e12	47	482	3890	365	9460	234	44	592	495	65	105
29	e13	42	1400	1290	---	1950	185	39	382	264	57	89
30	e13	40	632	782	---	1110	141	34	337	168	50	75
31	e14	---	431	573	---	1170	---	33	---	160	53	---
TOTAL	450	1133	22657	22452	29532	49971	28610	3277	7280	5516	5680	2657
MEAN	14.5	37.8	731	724	1055	1612	954	106	243	178	183	88.6
MAX	21	107	5270	3890	7790	9800	5500	297	4100	1640	1450	343
MIN	12	11	37	241	197	145	141	33	21	43	35	31

e Estimated

CUMBERLAND RIVER BASIN

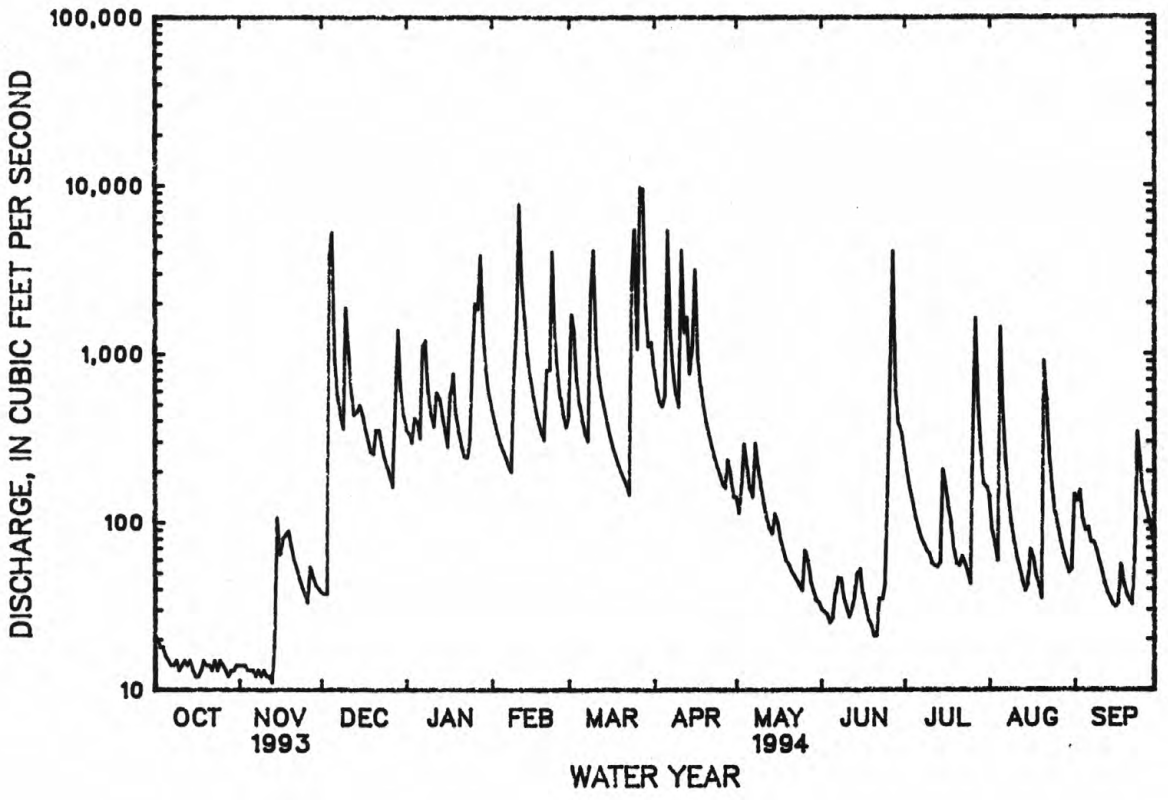
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

MEAN	104	212	636	584	693	677	356	142	199	180	68.2	127
MAX	493	516	1259	881	1156	1612	954	388	765	658	183	438
(WY)	1990	1993	1991	1989	1991	1994	1994	1991	1989	1989	1994	1992
MIN	10.6	37.8	168	444	183	303	101	32.1	11.0	13.9	14.6	20.1
(WY)	1988	1994	1990	1992	1993	1988	1990	1988	1988	1988	1990	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		aWATER YEARS 1988 - 1994	
ANNUAL TOTAL	79186		179215			
ANNUAL MEAN	217		491		330	
HIGHEST ANNUAL MEAN					491	1994
LOWEST ANNUAL MEAN					164	1988
HIGHEST DAILY MEAN	5270	Dec 5	9800	Mar 27	9800	Mar 27 1994
LOWEST DAILY MEAN	11	Nov 13	11	Nov 13	7.7	Jul 3 1988
ANNUAL SEVEN-DAY MINIMUM	12	Nov 7	12	Nov 7	8.9	Jul 3 1988
INSTANTANEOUS PEAK FLOW			16400	Mar 27	31000	Mar 13 1975
INSTANTANEOUS PEAK STAGE			20.21	Mar 27	23.80	Mar 13 1975
INSTANTANEOUS LOW FLOW			9.5	Nov 13	2.9	Jul 7 1988
10 PERCENT EXCEEDS	500		1120		708	
50 PERCENT EXCEEDS	89		145		116	
90 PERCENT EXCEEDS	14		15		15	

a See REMARKS.



CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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

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

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

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good. Interruptions in the record were due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 520 microsiemens, Nov. 2, 1993; minimum 63 microsiemens, Dec. 25, 1987.
pH: Maximum, 9.0 units, Mar. 24, 1986; minimum, 5.8 units, June 18, 1992.
WATER TEMPERATURE: Maximum, 33.2°C, June 24, 1988; minimum, 0.9°C, Dec. 26, 27, 1989.
DISSOLVED OXYGEN: Maximum, 18.2 mg/L, March 20, 1988; minimum, 1.6 mg/L, Sept. 12, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 520 microsiemens, Nov. 2; minimum 103 microsiemens, June 27.
pH: Maximum, 8.4 units, Jan. 24; minimum, 6.2 units, June 21, 22, 23, 24, 25.
WATER TEMPERATURE: Maximum, 30.7°C, June 21; minimum, 1.0°C, Jan. 19.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L, April 23; minimum, 3.3 mg/L, June 23.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	429	412	421	519	514	517	462	452	458	380	365	373
2	433	429	431	520	515	517	459	452	456	382	378	381
3	434	426	431	516	513	514	459	429	454	383	379	382
4	434	427	429	514	511	513	431	149	292	385	379	381
5	437	431	435	513	506	510	288	150	229	381	368	375
6	440	435	438	511	507	509	330	288	314	371	368	369
7	440	434	438	510	502	507	354	330	344	372	252	341
8	437	432	434	511	506	508	364	354	359	302	240	265
9	435	405	427	511	502	507	371	353	367	349	302	330
10	427	415	422	509	501	507	353	230	288	366	349	357
11	442	416	430	509	501	505	308	233	273	371	366	369
12	448	442	445	506	502	504	345	308	329	368	353	362
13	452	447	450	511	501	506	360	345	354	353	343	347
14	456	450	453	513	440	495	364	355	360	358	349	353
15	458	453	455	462	425	432	365	360	362	369	358	364
16	456	453	455	442	426	432	368	361	365	380	369	374
17	471	456	461	451	420	444	377	366	372	419	348	375
18	478	471	474	451	434	440	384	376	380	348	317	325
19	484	478	482	463	451	454	389	383	386	358	318	334
20	486	484	485	475	463	469	390	382	387	370	358	363
21	488	484	486	480	475	479	389	381	386	388	370	376
22	486	483	485	482	473	478	390	387	388	403	383	392
23	492	485	488	475	472	473	390	385	387	401	391	396
24	495	490	493	478	473	476	392	385	389	402	380	391
25	499	495	497	480	475	479	399	391	393	386	280	365
26	502	498	500	483	454	480	401	392	398	280	238	253
27	507	502	504	474	452	468	403	391	399	284	254	266
28	514	507	510	468	461	464	405	361	388	277	172	217
29	517	513	514	471	450	463	361	260	282	309	243	283
30	513	507	510	457	450	454	341	288	317	331	309	322
31	514	508	511	---	---	---	365	341	354	344	331	338
MONTH	517	405	464	520	420	483	462	149	362	419	172	346

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	350	344	346	338	328	333	289	277	282	327	314	321
2	354	349	352	329	209	283	301	288	294	329	319	323
3	359	354	356	278	208	242	306	299	302	331	305	318
4	362	358	360	313	278	298	307	299	304	335	317	328
5	365	357	361	325	313	317	309	276	300	335	323	329
6	365	351	360	327	318	324	278	128	175	342	332	336
7	364	348	359	333	324	329	280	223	259	344	333	338
8	365	356	362	342	331	335	299	280	290	345	327	336
9	371	305	335	338	145	273	308	299	302	344	333	337
10	328	264	286	246	136	186	312	303	309	344	328	337
11	272	132	164	296	246	275	345	174	264	337	323	330
12	260	188	228	314	296	306	386	281	325	343	329	335
13	289	260	276	324	314	318	291	231	256	345	332	342
14	313	289	302	327	317	323	307	263	290	351	332	344
15	326	313	319	329	317	324	314	219	294	352	331	344
16	332	325	328	327	312	322	249	159	198	342	319	335
17	330	325	328	325	307	319	298	249	278	355	342	349
18	334	327	331	324	300	316	312	298	304	356	351	354
19	337	326	333	323	297	313	313	304	310	357	350	354
20	342	331	336	323	298	314	317	301	311	355	349	352
21	342	286	332	329	319	323	313	294	306	355	344	350
22	286	270	278	331	300	320	313	288	303	348	323	345
23	282	158	209	332	294	316	309	279	299	348	343	345
24	295	231	270	334	114	258	307	280	297	349	344	347
25	312	295	305	248	114	185	307	274	294	349	345	347
26	322	312	316	287	248	272	315	295	304	349	270	331
27	327	320	324	275	118	162	323	308	317	350	304	324
28	331	323	328	209	130	160	335	314	323	353	349	351
29	---	---	---	253	209	235	330	312	323	354	349	352
30	---	---	---	276	253	268	328	318	323	356	350	353
31	---	---	---	278	274	276	---	---	---	360	349	352
MONTH	371	132	314	342	114	285	386	128	291	360	270	340
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	357	350	352	342	330	336	365	301	341	398	388	393
2	358	350	353	338	327	332	373	343	357	388	374	379
3	358	351	353	338	328	334	387	373	380	378	365	372
4	367	352	354	344	321	335	380	373	377	373	367	370
5	359	348	354	345	322	334	378	169	260	371	353	366
6	359	326	351	343	326	335	269	198	230	378	353	366
7	359	229	339	348	336	344	321	269	296	384	378	379
8	353	330	346	349	345	347	351	321	337	389	384	387
9	353	346	350	348	342	346	365	351	359	393	388	391
10	357	353	355	346	335	341	378	365	372	396	389	393
11	357	353	354	357	343	352	382	370	376	399	391	395
12	354	172	337	353	347	350	376	370	374	399	391	396
13	359	323	347	353	345	350	371	354	365	398	391	395
14	364	244	345	352	339	346	363	354	359	396	391	393
15	375	308	338	345	331	340	361	353	358	391	388	389
16	378	365	371	336	285	319	366	345	360	391	386	388
17	416	372	387	285	247	263	362	333	347	390	350	381
18	412	386	402	252	248	250	370	362	367	400	371	390
19	386	363	374	275	252	262	383	370	378	408	394	403
20	364	354	359	287	275	283	392	383	387	394	359	374
21	359	349	354	302	287	296	387	217	310	367	358	362
22	362	350	355	311	297	307	263	215	235	376	367	372
23	373	355	367	312	302	308	327	263	296	378	283	357
24	397	303	377	317	305	313	366	327	348	373	351	366
25	435	178	369	336	313	320	385	366	377	354	343	348
26	328	148	231	326	192	304	397	385	393	354	346	349
27	218	103	149	201	144	170	401	395	398	365	354	360
28	289	218	259	277	183	233	402	395	399	387	365	378
29	319	286	308	334	277	308	406	397	402	398	387	394
30	336	319	327	357	334	346	406	397	401	406	398	401
31	---	---	---	368	310	357	398	377	391	---	---	---
MONTH	435	103	341	368	144	315	406	169	353	408	283	380

CUMBERLAND RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.3	7.1	7.3	7.0	7.1	6.9	7.9	7.8	7.9	7.8	8.0	7.8
2	7.4	7.2	7.3	7.2	6.9	6.7	7.9	7.7	8.0	7.8	8.0	7.8
3	7.6	7.3	7.3	7.2	7.0	6.7	7.8	7.7	8.0	7.8	7.8	7.6
4	7.7	7.5	7.2	7.0	7.7	6.8	7.7	7.6	8.0	7.8	8.0	7.8
5	7.6	7.3	7.1	6.9	7.5	7.4	7.9	7.6	8.1	7.8	8.1	7.9
6	7.4	6.9	7.1	6.9	7.6	7.5	7.7	7.6	8.0	7.8	8.2	7.9
7	7.0	6.8	7.1	7.0	7.7	7.6	7.7	7.5	8.0	7.7	8.2	7.7
8	7.0	6.8	7.1	7.0	7.7	7.6	7.7	7.6	8.0	7.6	7.9	7.7
9	7.0	6.8	7.1	7.0	7.7	7.7	7.8	7.7	7.9	7.5	7.7	7.4
10	7.0	6.9	7.1	7.1	7.7	7.4	7.7	7.6	7.9	7.7	7.4	7.3
11	7.4	7.0	7.1	7.1	7.5	7.4	7.8	7.6	7.8	7.5	7.6	7.4
12	7.5	7.3	7.3	7.1	7.6	7.5	7.8	7.7	7.6	7.4	7.8	7.5
13	7.4	7.3	7.4	7.1	7.7	7.6	7.7	7.7	7.6	7.6	7.8	7.5
14	7.4	7.3	7.2	7.0	7.6	7.6	7.9	7.7	7.7	7.6	7.9	7.6
15	7.3	7.2	7.2	6.9	7.6	7.6	8.1	7.8	7.7	7.6	7.9	7.5
16	7.2	7.0	6.9	6.7	7.7	7.6	8.1	7.9	7.9	7.6	7.9	7.5
17	7.1	7.0	6.9	6.7	7.7	7.7	7.9	7.7	8.0	7.7	7.8	7.4
18	7.1	7.0	6.8	6.6	7.8	7.7	7.8	7.7	8.1	7.7	7.7	7.3
19	7.2	7.1	7.0	6.8	7.9	7.7	7.9	7.7	8.2	7.8	7.6	7.2
20	7.3	7.1	7.3	6.9	7.8	7.7	8.1	7.7	7.9	7.6	7.5	7.1
21	7.2	7.0	7.3	7.2	7.8	7.7	8.2	7.9	7.9	7.6	7.3	7.0
22	7.2	7.1	7.3	7.1	7.9	7.7	8.3	7.9	7.8	7.5	7.4	7.0
23	7.2	7.2	7.2	7.1	7.9	7.7	8.1	7.8	7.8	7.5	7.2	6.9
24	7.2	7.1	7.2	7.0	7.9	7.7	8.4	7.8	7.8	7.7	7.5	6.9
25	7.1	7.1	7.1	6.8	8.0	7.7	8.0	7.8	8.0	7.8	7.4	7.1
26	7.1	7.0	7.2	6.8	8.1	7.8	7.8	7.7	8.1	7.9	7.6	7.4
27	7.1	7.0	7.3	6.8	8.2	7.9	7.7	7.7	8.1	7.8	7.6	7.1
28	7.1	7.0	7.3	7.1	7.9	7.7	7.7	7.6	8.2	7.9	7.3	7.2
29	7.0	6.9	7.2	7.1	7.8	7.6	7.8	7.6	---	---	7.4	7.3
30	7.0	7.0	7.2	7.1	7.8	7.7	7.9	7.8	---	---	7.5	7.4
31	7.0	7.0	---	---	7.9	7.7	7.9	7.8	---	---	7.6	7.4
MONTH	7.7	6.8	7.4	6.6	8.2	6.7	8.4	7.5	8.2	7.4	8.2	6.9
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.5	7.8	7.6	7.8	7.4	---	---	7.7	7.5	7.9	7.3
2	7.8	7.5	7.9	7.6	7.6	7.3	---	---	7.8	7.4	7.9	7.7
3	7.6	7.5	7.8	7.7	7.7	7.5	---	---	7.8	7.5	8.0	7.7
4	7.7	7.4	8.0	7.6	7.6	7.4	---	---	7.9	7.6	7.9	7.7
5	7.4	7.2	8.0	7.8	7.7	7.2	---	---	7.9	7.7	7.8	7.7
6	7.4	7.2	8.1	7.8	7.7	7.2	---	---	7.8	7.6	7.8	7.6
7	7.4	7.3	7.9	7.7	7.7	7.2	---	---	7.9	7.6	7.9	7.7
8	7.6	7.4	8.1	7.7	7.6	7.2	---	---	8.0	7.6	8.2	7.7
9	7.6	7.4	8.1	7.8	7.6	7.5	---	---	8.1	7.7	8.1	8.0
10	7.4	7.3	8.1	7.8	7.7	7.5	---	---	8.2	7.8	8.1	7.9
11	7.6	7.2	8.0	7.8	7.8	7.5	---	---	8.2	7.9	7.9	7.4
12	7.5	7.4	8.0	7.8	7.7	7.3	---	---	8.1	7.8	7.8	7.4
13	7.6	7.2	8.0	7.7	7.5	7.2	---	---	7.8	7.4	7.9	7.5
14	7.3	7.2	8.0	7.8	7.3	7.0	---	---	8.0	7.4	7.9	7.6
15	7.4	7.1	7.8	7.5	7.3	6.9	---	---	8.1	7.8	8.0	7.5
16	7.8	7.3	7.8	7.5	7.0	6.7	---	---	8.1	7.8	7.8	7.5
17	8.0	7.8	7.7	7.4	6.7	6.6	---	---	7.8	7.5	7.8	7.4
18	8.1	7.8	7.5	7.3	6.7	6.5	---	---	7.6	7.2	7.9	7.4
19	8.2	7.8	7.3	6.9	6.5	6.4	---	---	7.5	7.0	7.8	7.6
20	8.2	7.8	7.0	6.6	6.4	6.3	---	---	7.8	7.2	7.7	7.5
21	8.1	7.6	7.9	7.0	6.3	6.2	---	---	7.8	7.3	7.6	7.4
22	7.8	7.5	8.2	7.8	6.3	6.2	---	---	7.3	7.2	7.6	7.4
23	7.8	7.3	8.0	7.6	6.3	6.2	---	---	7.5	7.2	7.6	7.2
24	7.8	7.3	7.8	7.5	6.3	6.2	---	---	7.6	7.3	7.7	7.2
25	7.7	7.3	7.7	7.4	7.5	6.2	---	---	7.8	7.4	7.6	7.4
26	7.7	7.3	7.8	7.0	7.6	7.4	---	---	7.7	7.5	7.7	7.4
27	7.6	7.4	7.7	7.5	---	---	---	---	7.6	7.4	7.6	7.3
28	7.8	7.4	7.6	7.4	---	---	7.7	7.5	7.6	7.3	7.7	7.2
29	7.8	7.5	7.8	7.4	---	---	7.9	7.6	7.6	7.2	7.8	7.4
30	7.8	7.5	7.6	6.9	---	---	8.0	7.7	7.7	7.2	7.8	7.5
31	---	---	7.9	6.9	---	---	8.0	7.7	7.5	7.1	---	---
MONTH	8.2	7.1	8.2	6.6	7.8	6.2	8.0	7.5	8.2	7.0	8.2	7.2

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	16.1	17.4	---	---	---	8.0	6.0	7.1	6.8	6.1	6.4
2	18.6	17.2	18.0	8.1	5.2	6.7	9.1	7.6	8.4	7.9	6.8	7.4
3	19.6	16.9	18.0	8.9	7.5	8.2	10.6	9.1	9.8	8.3	7.9	8.1
4	18.6	15.8	17.1	11.4	8.9	10.1	12.2	10.6	11.5	7.9	6.8	7.4
5	19.2	15.7	17.4	13.8	10.7	12.1	12.1	11.1	11.6	7.0	6.4	6.7
6	20.6	16.6	18.5	10.7	7.9	9.3	11.1	10.6	10.9	8.0	6.4	7.0
7	21.2	17.5	19.3	9.4	6.0	7.4	10.8	9.8	10.3	8.7	7.4	8.4
8	21.4	18.0	19.7	8.8	4.3	6.4	11.1	10.0	10.5	7.4	5.7	6.2
9	19.9	18.5	19.2	8.6	5.2	6.8	10.9	9.7	10.4	6.1	5.1	5.6
10	18.5	14.7	16.4	9.6	5.2	7.1	11.9	10.9	11.6	6.8	5.5	6.1
11	14.7	12.8	13.7	9.6	5.0	7.2	11.8	9.8	11.0	7.4	6.2	6.7
12	15.4	12.2	13.6	9.1	7.1	8.3	9.8	8.7	9.1	8.3	7.4	7.9
13	16.0	12.9	14.5	15.2	9.1	12.3	9.5	8.6	9.1	8.5	8.3	8.4
14	18.2	14.5	16.1	16.5	13.3	15.0	9.8	9.4	9.6	8.4	6.3	7.7
15	17.6	15.4	16.6	15.9	14.5	15.3	9.9	9.8	9.9	6.3	3.4	4.8
16	18.0	17.0	17.5	15.1	13.9	14.5	10.0	9.8	9.9	3.6	2.5	3.1
17	19.3	17.5	18.3	15.6	14.2	15.2	9.9	9.8	9.9	3.4	2.8	3.2
18	18.6	17.8	18.2	14.2	13.2	13.5	10.4	9.6	10.0	3.2	1.7	2.4
19	19.6	17.9	18.7	13.2	11.8	12.6	9.9	8.8	9.3	2.3	1.0	1.6
20	20.6	18.9	19.8	11.8	9.7	10.8	8.9	8.6	8.7	2.8	1.8	2.4
21	20.0	16.7	18.5	10.1	8.4	9.4	8.9	8.0	8.4	4.1	2.6	3.1
22	---	---	---	9.7	7.9	9.0	8.0	7.5	7.8	5.0	2.8	3.7
23	---	---	---	10.0	8.1	9.1	7.7	6.8	7.3	5.9	4.1	5.2
24	---	---	---	10.6	8.9	9.9	7.0	6.0	6.5	7.8	5.9	6.9
25	16.4	13.1	14.8	11.2	10.3	10.7	6.2	5.1	6.0	8.3	7.2	8.1
26	17.5	14.2	15.8	11.1	9.4	10.6	6.1	4.4	5.2	8.8	6.4	7.5
27	16.7	14.7	15.5	9.7	8.5	9.2	7.4	5.2	6.3	10.2	8.8	9.6
28	---	---	---	8.5	7.0	7.6	7.7	7.0	7.5	10.2	9.1	9.6
29	13.0	11.9	12.5	7.6	5.9	6.8	7.7	6.9	7.2	9.8	8.3	9.1
30	11.9	9.3	10.5	7.4	5.8	6.6	6.9	6.0	6.4	8.6	7.8	8.2
31	9.3	7.5	8.6	---	---	---	6.8	5.5	6.2	8.1	7.1	7.7
MONTH	21.4	7.5	16.5	16.5	4.3	9.9	12.2	4.4	8.8	10.2	1.0	6.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.2	6.2	6.7	10.2	9.5	9.9	12.7	10.5	11.7	20.0	16.8	18.0
2	6.9	5.6	6.2	10.0	7.1	8.8	14.8	12.2	13.5	19.0	15.3	17.0
3	7.4	5.7	6.5	8.9	6.9	7.9	14.2	12.8	13.6	17.8	15.5	16.2
4	7.3	6.5	6.9	11.4	8.9	10.2	14.2	11.6	13.0	15.8	15.1	15.6
5	9.0	7.3	8.1	13.2	10.8	11.9	13.6	12.7	13.1	17.8	14.3	15.9
6	10.3	8.3	9.0	13.9	11.2	12.5	12.8	12.2	12.5	19.3	15.4	17.2
7	10.4	8.2	9.2	14.7	12.6	13.7	12.4	11.0	11.9	18.2	17.1	17.7
8	12.2	9.7	11.1	14.2	11.5	13.2	13.9	11.5	12.8	18.3	16.3	17.1
9	12.4	9.1	11.1	11.5	6.5	9.2	15.4	13.1	14.3	19.6	16.1	17.6
10	9.1	4.7	6.5	8.8	6.0	7.2	15.8	15.0	15.4	20.3	17.1	18.5
11	4.9	1.7	3.0	10.3	8.6	9.5	17.8	15.4	16.4	21.0	16.9	18.9
12	7.9	4.9	6.5	11.1	9.4	10.3	17.8	16.8	17.4	21.5	18.0	19.7
13	8.5	7.6	8.2	11.6	10.5	11.0	17.3	16.3	16.7	20.3	18.2	18.9
14	8.1	6.8	7.6	12.9	10.3	11.6	17.5	15.3	16.5	21.5	17.3	19.6
15	8.7	7.7	8.3	14.3	12.0	12.9	17.2	16.2	16.8	21.1	19.7	20.4
16	9.7	7.8	8.7	13.8	11.6	12.6	16.2	14.8	15.5	23.3	19.5	21.2
17	10.2	8.2	9.2	12.9	10.6	11.7	16.6	14.7	15.7	22.6	19.4	20.9
18	11.2	9.0	10.1	14.7	11.4	12.7	17.6	15.2	16.4	22.5	19.3	20.9
19	13.0	10.6	11.7	15.1	12.0	13.3	18.8	16.1	17.5	21.8	18.6	20.3
20	13.3	12.3	12.9	15.8	12.9	14.3	19.5	16.9	18.1	22.0	18.1	20.1
21	14.1	13.0	13.5	15.7	14.0	15.1	19.8	17.1	18.3	22.6	18.6	20.7
22	13.1	12.5	12.7	16.6	12.8	14.5	18.9	17.1	18.0	23.3	19.2	21.4
23	13.3	12.2	12.8	16.7	12.7	14.8	19.5	15.8	17.4	24.1	20.2	22.2
24	13.2	10.8	11.9	15.7	14.6	15.1	19.9	16.7	18.1	24.8	20.9	23.3
25	11.0	9.7	10.5	14.7	12.9	13.5	21.3	17.5	19.2	24.5	22.6	23.8
26	10.3	8.4	9.3	13.3	12.6	13.0	21.2	19.0	20.0	24.2	21.0	22.6
27	9.3	7.3	8.3	14.6	13.3	14.1	20.7	19.5	20.0	22.4	19.6	21.0
28	10.0	7.8	8.9	13.3	11.2	11.8	21.7	18.8	20.1	22.4	18.8	20.8
29	---	---	---	12.2	10.9	11.6	22.4	19.9	20.8	23.5	19.8	21.8
30	---	---	---	12.0	11.1	11.6	20.7	19.3	20.0	24.8	22.3	23.3
31	---	---	---	11.7	10.5	11.1	---	---	---	25.6	22.1	23.8
MONTH	14.1	1.7	9.1	16.7	6.0	12.0	22.4	10.5	16.4	25.6	14.3	19.9

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.6	23.1	24.4	25.2	22.2	23.6	24.7	21.9	23.2	26.3	24.3	25.3
2	26.0	23.8	24.8	26.1	23.1	24.4	25.5	22.7	24.1	24.4	22.8	23.6
3	26.2	23.3	24.7	26.6	23.6	25.1	26.6	23.8	25.1	24.3	21.6	22.9
4	27.6	22.8	25.4	27.7	24.2	25.9	26.1	24.6	25.4	23.6	21.1	22.4
5	26.2	24.5	25.3	28.5	24.9	26.6	25.6	22.2	23.3	23.0	22.0	22.5
6	26.4	23.7	25.1	28.5	26.0	27.2	23.5	21.3	22.2	23.9	22.1	22.9
7	25.9	23.8	25.3	27.3	25.6	26.1	24.4	21.6	22.8	24.4	21.7	23.0
8	26.0	23.9	25.0	26.2	24.9	25.6	25.2	22.0	23.5	24.2	21.4	22.8
9	27.1	24.7	25.8	25.8	24.8	25.3	26.7	23.1	24.8	24.5	21.7	23.0
10	26.2	24.6	25.4	26.0	24.2	25.1	27.3	24.2	25.7	24.5	21.3	23.0
11	27.3	24.6	25.7	25.8	24.7	25.3	27.9	24.7	26.2	24.6	21.8	23.3
12	28.1	22.6	25.8	25.4	24.3	24.8	28.5	25.8	27.1	24.9	22.3	23.8
13	26.8	25.0	25.9	25.1	24.0	24.6	28.9	26.0	27.5	24.4	22.8	23.7
14	27.5	25.2	26.0	25.8	24.1	25.0	28.3	26.2	27.3	25.7	23.3	24.5
15	27.3	24.2	25.9	25.8	24.7	25.2	27.5	25.7	26.5	25.9	23.7	24.7
16	28.1	25.5	26.9	25.6	24.3	25.0	26.3	24.2	25.4	25.4	23.7	24.6
17	28.8	26.1	27.2	25.6	24.3	25.0	27.0	24.0	25.4	25.3	24.4	24.8
18	29.1	25.7	27.3	26.4	23.9	25.1	27.2	24.4	25.8	24.5	22.8	23.6
19	30.1	26.0	27.8	27.9	24.5	26.1	27.5	24.9	26.3	23.3	21.0	22.3
20	30.1	26.9	28.2	28.9	25.8	27.3	26.9	25.3	26.2	23.1	21.0	22.2
21	30.7	26.4	28.3	28.2	26.5	27.2	26.2	22.5	24.3	22.3	20.8	21.8
22	28.5	26.8	27.8	27.1	25.4	26.2	23.5	21.8	22.6	23.1	20.7	21.8
23	28.3	26.5	27.4	26.8	25.1	26.0	24.4	22.1	23.1	22.3	19.6	21.1
24	27.2	24.9	26.0	27.8	24.9	26.4	25.0	22.1	23.5	20.6	19.3	19.8
25	25.7	21.6	23.9	27.4	25.8	26.7	25.9	22.8	24.3	20.1	18.3	19.1
26	22.7	20.5	21.4	27.5	23.7	26.1	26.4	23.8	25.1	19.7	17.4	18.5
27	21.9	20.3	21.0	23.7	21.5	22.2	27.0	24.3	25.6	19.3	17.4	18.5
28	22.5	21.0	21.7	22.7	21.0	21.8	27.1	24.5	25.8	20.0	16.8	18.4
29	23.4	21.7	22.5	23.8	21.5	22.4	26.4	24.6	25.5	20.1	17.6	18.9
30	24.2	21.8	22.8	24.7	21.4	22.8	26.9	23.9	25.5	20.6	17.7	19.1
31	---	---	---	24.5	22.0	23.2	26.8	25.3	26.2	---	---	---
MONTH	30.7	20.3	25.4	28.9	21.0	25.1	28.9	21.3	25.0	26.3	16.8	22.2

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.9	7.7	8.5	10.9	9.0	9.9	15.0	11.7	13.7	11.8	10.8	11.2
2	9.1	7.1	8.0	11.9	9.7	10.7	14.6	11.7	13.3	12.8	10.5	11.3
3	9.8	6.8	7.8	11.4	9.9	10.5	13.3	10.6	11.9	11.2	10.1	10.6
4	10.1	7.3	8.2	10.5	8.7	9.7	11.5	9.5	9.9	11.2	10.1	10.6
5	9.9	7.1	8.0	11.1	8.0	9.1	---	---	---	13.3	10.8	11.6
6	9.5	6.5	7.6	10.0	7.8	8.7	---	---	---	11.5	10.4	10.9
7	9.2	5.9	7.1	11.9	8.1	9.8	---	---	---	10.9	10.1	10.4
8	8.9	5.5	6.7	12.8	9.5	10.9	---	---	---	11.5	10.9	11.3
9	7.2	5.3	6.1	14.5	10.3	11.9	10.8	10.0	10.3	12.3	11.3	11.6
10	7.0	5.2	5.8	14.8	10.7	12.4	10.1	9.8	10.0	12.7	11.0	11.6
11	7.7	5.6	6.5	14.9	11.0	12.6	10.4	9.9	10.2	12.1	10.4	11.2
12	9.6	6.8	8.0	14.2	10.7	12.0	11.1	10.4	10.7	10.6	10.1	10.3
13	10.3	7.5	8.6	13.6	9.3	11.2	11.1	10.3	10.6	10.7	10.0	10.2
14	10.5	7.3	8.5	10.7	7.2	8.7	10.5	10.2	10.3	11.5	9.9	10.5
15	9.4	6.8	7.9	8.2	6.3	7.0	10.4	10.1	10.2	13.1	10.5	11.6
16	8.4	5.9	6.8	7.7	6.2	6.9	10.7	10.2	10.4	14.2	11.6	12.6
17	8.0	5.2	6.3	7.8	5.9	7.0	10.8	10.3	10.4	11.9	11.5	11.7
18	7.6	5.0	5.9	8.4	7.1	7.7	11.1	10.2	10.5	13.1	11.7	12.3
19	8.0	4.8	6.0	9.1	8.0	8.5	11.7	10.2	10.7	14.1	12.1	12.8
20	7.7	4.6	5.9	10.9	8.5	9.7	11.0	10.1	10.5	13.9	11.8	12.5
21	6.3	3.8	4.9	11.4	9.3	10.3	11.8	10.1	10.8	14.9	11.6	12.7
22	7.7	4.6	5.8	12.0	9.5	10.8	12.2	10.6	11.1	15.3	11.2	12.6
23	8.4	5.7	6.7	12.3	9.6	11.0	12.6	10.6	11.3	13.0	10.3	11.5
24	9.0	6.5	7.3	12.0	9.5	10.9	13.4	10.9	11.7	14.8	10.1	11.6
25	9.0	6.5	7.5	11.3	9.3	10.6	12.8	10.8	11.6	10.5	9.7	10.0
26	8.8	6.2	7.1	10.9	9.2	10.1	14.6	11.3	12.5	10.8	10.0	10.4
27	9.0	5.7	6.8	13.0	9.2	11.1	15.2	11.2	12.6	10.0	9.5	9.8
28	9.4	6.0	7.2	13.2	9.7	11.6	11.9	10.5	11.0	9.7	9.4	9.5
29	8.2	6.3	7.0	13.7	10.6	12.3	11.1	10.9	11.1	10.2	9.7	9.9
30	8.4	7.0	7.7	14.7	11.1	13.1	12.0	11.0	11.4	11.1	10.1	10.4
31	9.6	7.8	8.7	---	---	---	12.8	11.1	11.6	11.2	10.0	10.4
MONTH	10.5	3.8	7.1	14.9	5.9	10.2	15.2	9.5	11.1	15.3	9.4	11.1

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.1	10.3	11.0	10.9	8.7	9.4	10.0	8.4	9.1	10.6	7.7	8.9
2	12.7	10.5	11.2	9.9	9.0	9.3	10.4	8.1	8.9	12.7	8.2	10.0
3	13.2	10.5	11.4	10.3	9.4	9.9	8.6	7.8	8.2	9.8	8.5	9.1
4	11.9	10.1	10.8	11.1	8.6	9.7	11.5	8.2	9.4	10.4	8.4	9.4
5	13.2	9.8	10.9	11.9	8.4	9.5	9.3	8.1	8.6	12.3	9.2	10.3
6	14.5	9.6	11.2	12.9	8.1	9.7	9.1	8.3	8.6	11.7	8.7	9.9
7	15.1	9.5	11.4	13.1	7.7	9.6	10.3	9.1	9.6	9.3	7.9	8.5
8	13.2	8.8	10.4	9.5	7.3	8.2	11.2	8.8	9.8	10.8	7.8	9.0
9	9.7	8.1	8.9	9.7	8.0	8.8	11.4	8.5	9.6	11.1	8.2	9.2
10	11.1	9.7	10.5	10.1	9.5	9.8	9.8	8.1	8.7	10.6	7.7	8.7
11	11.9	11.1	11.5	10.4	9.1	9.6	8.5	7.9	8.1	11.1	7.6	8.8
12	11.1	10.4	10.8	11.1	8.9	9.7	8.6	8.2	8.4	10.5	7.3	8.4
13	10.4	10.1	10.3	10.6	8.6	9.2	8.6	8.4	8.5	9.3	7.1	8.0
14	11.4	10.2	10.7	11.8	8.3	9.6	10.2	8.3	9.0	10.8	6.5	8.2
15	11.2	9.9	10.4	12.2	7.9	9.4	8.8	8.0	8.3	8.2	6.2	6.9
16	11.9	9.8	10.4	13.1	7.7	9.6	9.6	8.3	9.1	9.4	5.5	7.1
17	12.3	9.5	10.5	13.6	8.0	10.0	10.8	9.2	9.7	10.0	5.7	7.5
18	12.9	9.1	10.4	14.4	7.8	10.1	11.6	8.9	9.8	11.3	6.0	8.1
19	13.6	8.7	10.4	14.6	7.5	10.1	12.3	8.5	9.9	11.3	5.9	8.2
20	10.6	8.2	9.1	13.9	7.2	9.6	13.6	8.4	10.2	11.3	6.0	8.3
21	9.9	8.1	8.8	9.9	6.6	7.8	14.6	8.2	10.5	11.8	5.9	8.5
22	9.0	8.5	8.7	14.3	6.9	9.8	13.8	8.2	10.4	11.5	5.5	8.3
23	8.8	8.2	8.5	13.3	7.0	9.5	15.7	8.4	11.0	10.3	5.3	7.7
24	9.6	8.6	9.1	7.7	6.6	7.1	14.7	8.3	10.8	10.2	4.6	7.5
25	10.8	9.1	9.7	8.4	7.0	7.8	15.0	8.1	10.7	9.9	4.9	7.4
26	11.8	9.1	10.1	8.8	8.0	8.4	12.2	7.6	9.6	7.4	4.7	6.0
27	12.7	9.6	10.6	8.0	7.1	7.4	10.6	7.5	8.7	9.4	4.7	6.9
28	13.3	9.2	10.7	8.5	7.4	8.0	12.3	7.4	9.3	8.9	5.2	7.1
29	---	---	---	9.0	8.4	8.7	11.6	7.8	9.1	9.7	5.3	7.4
30	---	---	---	8.9	8.4	8.6	10.1	7.3	8.6	10.9	5.5	8.1
31	---	---	---	9.6	8.5	9.0	---	---	---	11.3	5.9	8.4
MONTH	15.1	8.1	10.3	14.6	6.6	9.1	15.7	7.3	9.3	12.7	4.6	8.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.3	5.5	7.8	9.2	6.0	7.3	9.1	6.9	7.8	8.2	5.9	7.1
2	10.3	5.5	7.4	9.4	5.8	7.2	9.9	6.6	7.9	8.8	6.7	7.5
3	10.1	5.1	7.3	10.1	5.5	7.3	10.3	6.5	8.0	9.2	7.1	7.9
4	10.4	5.2	7.4	10.3	5.0	7.3	9.5	6.5	7.8	9.4	7.1	8.0
5	7.6	5.2	6.3	9.6	4.4	6.6	7.8	7.0	7.6	8.5	6.9	7.6
6	8.6	4.4	6.2	9.3	4.4	6.3	7.9	7.3	7.7	8.7	6.7	7.5
7	8.1	4.3	6.3	7.3	3.9	5.5	8.4	7.2	7.6	9.4	6.6	7.7
8	9.1	4.4	6.7	8.3	4.5	6.3	8.8	7.1	7.7	9.6	6.8	7.9
9	9.8	4.9	7.1	7.7	4.4	6.1	9.5	6.8	7.8	9.8	6.8	8.0
10	8.9	4.8	6.7	7.9	4.6	5.9	9.7	6.6	7.8	9.7	6.7	8.0
11	10.3	5.5	7.7	7.0	3.7	5.2	10.1	6.5	7.9	9.5	6.6	7.9
12	9.6	5.8	7.3	6.1	3.6	4.8	10.5	6.2	8.1	9.3	6.4	7.7
13	8.3	4.7	6.5	6.5	3.7	5.1	10.0	6.1	7.8	8.5	6.3	7.4
14	8.4	5.1	6.8	7.7	4.1	5.9	8.7	5.6	7.0	8.6	6.2	7.4
15	10.3	4.2	7.0	8.8	4.2	6.6	8.5	5.3	6.8	8.5	6.0	7.1
16	10.4	4.5	7.4	7.7	4.9	6.5	8.5	6.1	7.0	8.1	6.0	6.8
17	9.8	5.2	7.3	6.5	4.1	5.2	8.7	6.0	7.1	6.8	5.3	6.1
18	10.9	4.9	7.5	5.6	3.8	4.6	9.1	5.9	7.3	8.6	5.4	6.8
19	11.4	5.4	7.8	---	---	---	9.3	5.9	7.5	8.6	6.2	7.2
20	12.2	5.0	7.7	---	---	---	8.9	5.8	7.3	8.5	6.0	7.1
21	12.8	4.8	7.9	---	---	---	8.1	6.7	7.4	7.9	6.1	7.0
22	9.0	4.6	6.7	---	---	---	8.1	7.6	7.9	8.7	6.2	7.2
23	8.8	3.3	5.8	---	---	---	8.6	7.5	7.9	7.1	6.2	6.8
24	7.1	3.6	5.5	---	---	---	9.0	7.4	8.0	8.5	6.8	7.7
25	8.9	4.2	6.2	---	---	---	9.4	7.0	8.0	9.1	8.0	8.3
26	8.6	7.0	7.9	---	---	---	9.8	6.8	8.0	9.2	7.8	8.3
27	8.6	7.6	8.1	8.0	6.9	7.5	10.3	6.7	8.2	9.3	7.6	8.3
28	7.9	7.1	7.7	8.1	7.6	7.8	10.3	6.5	8.1	10.0	7.7	8.5
29	7.8	6.1	7.2	8.4	7.5	7.8	9.6	6.3	7.8	10.3	7.6	8.6
30	8.0	6.0	6.9	8.9	7.3	7.9	9.9	6.3	7.9	10.5	7.6	8.7
31	---	---	---	9.1	7.1	7.9	8.3	5.8	7.1	---	---	---
MONTH	12.8	3.3	7.1	10.3	3.6	6.5	10.5	5.3	7.7	10.5	5.3	7.6

CUMBERLAND RIVER BASIN

03430147 STONERS CREEK NEAR HERMITAGE, TN

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

DRAINAGE AREA.--20.6 mi².

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

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

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

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1400	1,350	7.78	Mar. 27	1300	863	6.59
Feb. 11	0715	1,280	7.62	Mar. 27	2030	1,200	7.44
Feb. 22	2315	1,710	8.52	Apr. 6	0130	889	6.66
Mar. 9	1615	1,390	7.86	Apr. 10	1600	1,010	6.98
Mar. 27	0615	950	6.82	Apr. 15	1730	*2,990	*10.75

Minimum discharge, 0.44 ft ³/s, Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	1.7	4.5	32	39	34	56	12	5.6	4.4	2.4	9.0
2	.71	1.6	4.6	28	32	58	45	9.1	4.4	3.5	2.0	9.5
3	.72	1.5	8.7	27	27	50	44	24	3.9	2.8	1.6	6.7
4	.62	1.4	621	43	23	40	38	18	3.5	2.3	4.0	4.9
5	.57	2.5	174	31	22	33	94	12	3.3	1.9	26	6.7
6	.55	2.9	64	28	19	28	326	10	9.8	1.6	6.7	8.1
7	.51	2.6	39	246	17	25	107	24	11	1.5	4.2	5.9
8	.48	2.1	27	93	19	30	70	27	9.3	1.4	3.1	4.4
9	.50	1.8	53	58	117	664	52	15	7.2	1.2	2.3	3.6
10	.59	1.6	284	43	170	250	321	11	6.1	3.2	1.8	3.0
11	.55	1.4	77	34	807	112	258	8.9	4.7	2.1	1.5	2.6
12	.55	1.4	49	29	240	73	130	7.6	3.8	1.5	1.2	2.3
13	.55	1.8	37	25	129	56	82	6.7	3.2	1.4	1.0	2.0
14	.51	21	150	22	81	47	57	12	2.8	1.3	34	1.8
15	.50	60	71	18	59	37	983	29	2.4	4.8	19	1.6
16	11	22	48	17	45	30	262	27	2.1	2.9	6.5	2.0
17	9.2	26	36	42	37	26	109	13	3.6	2.1	4.3	2.3
18	4.8	17	28	51	31	23	69	10	2.2	2.6	3.0	1.6
19	24	12	23	47	27	20	50	8.4	1.7	1.9	2.3	1.5
20	9.2	9.7	42	43	34	19	38	7.4	1.5	1.4	47	1.4
21	5.4	7.6	53	32	133	18	31	6.2	1.3	10	130	1.2
22	3.4	6.3	38	19	465	15	26	5.3	1.2	6.5	28	1.1
23	2.6	5.4	29	33	421	14	22	4.5	1.9	3.5	15	35
24	2.1	4.9	24	43	129	31	19	4.0	2.9	2.5	11	75
25	1.7	4.5	21	142	79	67	16	3.6	4.7	1.8	8.0	18
26	1.4	4.2	17	95	54	40	14	52	75	38	6.6	13
27	1.2	7.4	15	152	42	775	13	25	34	19	5.3	9.7
28	1.2	6.9	93	310	35	376	11	13	13	8.5	4.4	7.3
29	1.1	5.8	92	107	---	143	12	9.2	8.2	5.3	3.6	5.7
30	2.0	5.0	53	69	---	93	12	7.1	5.7	3.7	3.5	4.7
31	1.6	---	39	50	---	78	---	5.7	---	2.8	22	---
TOTAL	90.58	250.0	2314.8	2009	3333	3305	3367	427.7	240.0	147.4	411.3	251.6
MEAN	2.92	8.33	74.7	64.8	119	107	112	13.8	8.00	4.75	13.3	8.39
MAX	24	60	621	310	807	775	983	52	75	38	130	75
MIN	.48	1.4	4.5	17	17	14	11	3.6	1.2	1.2	1.0	1.1
CFSM	.14	.40	3.62	3.15	5.78	5.18	5.45	.67	.39	.23	.64	.41
IN.	.16	.45	4.18	3.63	6.02	5.97	6.08	.77	.43	.27	.74	.45

CUMBERLAND RIVER BASIN

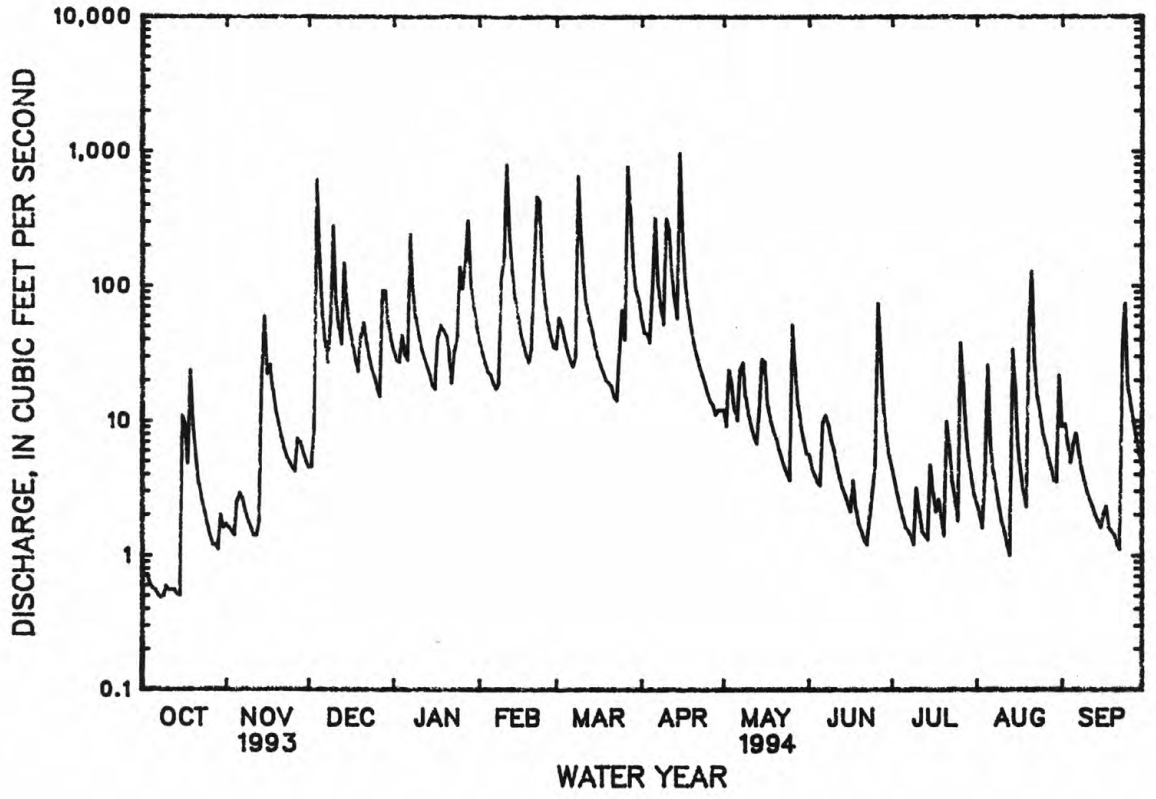
03430147 STONERS CREEK NEAR HERMITAGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

MEAN	3.18	15.4	52.3	50.9	60.0	81.0	50.8	14.3	12.6	23.3	6.01	4.74
MAX	3.45	22.4	74.7	64.8	119	107	112	23.9	22.6	62.0	13.3	8.39
(WY)	1993	1993	1994	1994	1994	1994	1994	1993	1992	1992	1994	1994
MIN	2.92	8.33	29.9	39.4	28.1	54.4	10.6	5.24	7.22	3.11	.79	1.46
(WY)	1994	1994	1993	1993	1992	1992	1992	1992	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1992 - 1994	
ANNUAL TOTAL	9378.73		16147.38			
ANNUAL MEAN	25.7		44.2		33.7	
HIGHEST ANNUAL MEAN					44.2	1994
LOWEST ANNUAL MEAN					23.1	1993
HIGHEST DAILY MEAN	621	Dec 4	983	Apr 15	1260	Jul 3 1992
LOWEST DAILY MEAN	.29	Aug 12	.48	Oct 8	.29	Aug 12 1993
ANNUAL SEVEN-DAY MINIMUM	.34	Aug 27	.53	Oct 6	.34	Aug 27 1993
INSTANTANEOUS PEAK FLOW			2990	Apr 15	a4220	Jul 3 1992
INSTANTANEOUS PEAK STAGE			10.75	Apr 15	12.60	Jul 3 1992
INSTANTANEOUS LOW FLOW			.44	Oct 8	.27	Sep 12 1993
ANNUAL RUNOFF (CFSM)	1.25		2.15		1.63	
ANNUAL RUNOFF (INCHES)	16.94		29.16		22.21	
10 PERCENT EXCEEDS	59		93		64	
50 PERCENT EXCEEDS	9.7		12		10	
90 PERCENT EXCEEDS	.48		1.5		1.3	

a From rating curve extended above 500 ft³/s on basis of contracted-opening measurment of peak flow.



CUMBERLAND RIVER BASIN

03430550 MILL CREEK NEAR NOLENSVILLE, TN

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

DRAINAGE AREA.--40.5 mi².

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

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

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

EXTREMES FOR CURENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1315	5,180	11.98	Mar. 27	0500	8,840	14.76
Jan. 28	0100	3,430	10.31	Apr. 6	0030	4,990	11.82
Feb. 11	0530	3,320	10.19	Apr. 11	0315	2,670	9.42
Feb. 22	2115	6,320	12.94	Apr. 15	1830	6,590	13.15
Mar. 9	1430	7,650	13.94	June 26	2215	*10,600	*15.91

Minimum daily discharge, .34 ft³/s, Oct. 11.

REVISIONS.--The maximum discharge for the water year 1992 has been revised to 7,280 ft³/s, Mar. 10, 1992, gage height, 13.67 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.5	3.3	55	76	66	146	e40	7.0	19	5.5	4.5
2	1.2	1.3	2.9	48	62	117	108	e130	6.1	14	4.4	3.8
3	1.0	1.1	4.3	46	52	112	102	e110	5.4	9.7	3.6	2.9
4	.76	1.1	1080	64	46	85	90	e65	4.8	7.2	4.0	2.4
5	.59	1.6	215	52	43	68	378	e40	5.3	5.7	103	3.3
6	.48	1.9	85	47	38	58	1020	e90	17	4.4	22	6.2
7	.45	1.7	51	494	34	50	264	e90	15	3.9	12	4.1
8	.42	1.7	37	207	33	59	169	e45	12	4.1	7.6	2.9
9	.38	1.8	49	115	231	2700	122	e35	7.8	30	5.6	2.2
10	.37	1.8	490	80	370	521	125	e30	6.3	11	4.3	1.9
11	.34	1.7	137	66	1800	244	685	e25	5.7	5.5	3.2	1.8
12	.35	1.9	76	72	560	162	219	e20	4.4	4.4	2.6	1.6
13	.36	2.3	54	59	358	124	148	e30	3.5	4.2	2.2	1.7
14	.40	5.0	184	54	210	98	104	e50	3.1	3.7	2.4	2.3
15	.38	7.0	125	45	149	77	1280	e35	2.6	3.4	3.2	3.5
16	.42	3.6	80	42	107	62	405	e25	2.2	2.8	2.3	4.5
17	1.4	4.7	59	206	83	54	195	e20	2.0	7.6	2.1	7.2
18	1.7	4.9	47	131	68	48	129	e15	1.8	6.1	1.8	11
19	2.0	4.4	39	77	58	42	90	e13	1.7	4.1	2.3	12
20	2.0	3.9	54	68	68	38	68	e11	1.4	2.8	3.4	11
21	1.8	3.0	76	46	176	36	55	10	8.4	31	189	10
22	1.9	2.6	58	47	1210	32	46	8.3	9.1	20	19	10
23	2.2	2.1	46	70	820	29	40	6.7	2.5	161	7.9	122
24	2.1	1.9	38	74	265	272	34	5.6	2.5	59	4.7	157
25	1.9	1.9	34	292	168	197	30	4.9	4.3	47	3.2	37
26	1.9	1.8	28	306	117	120	27	31	1470	34	2.5	21
27	1.8	4.0	25	466	88	4070	e25	29	446	31	2.0	14
28	1.6	4.7	163	831	72	852	e20	19	79	20	1.6	9.7
29	1.5	4.3	179	230	---	323	e18	14	44	15	1.4	6.5
30	1.7	3.7	96	145	---	220	e120	11	27	9.4	1.4	5.0
31	1.7	---	67	101	---	208	---	8.6	---	7.8	6.0	---
TOTAL	36.50	84.9	3682.5	4636	7362	11144	6262	1067.1	2207.9	588.8	436.2	483.0
MEAN	1.18	2.83	119	150	263	359	209	34.4	73.6	19.0	14.1	16.1
MAX	2.2	7.0	1080	831	1800	4070	1280	130	1470	161	189	157
MIN	.34	1.1	2.9	42	33	29	18	4.9	1.4	2.8	1.4	1.6
CFSM	.03	.07	2.93	3.69	6.49	8.87	5.15	.85	1.82	.47	.35	.40
IN.	.03	.08	3.38	4.26	6.76	10.23	5.75	.98	2.03	.54	.40	.44

e Estimated

CUMBERLAND RIVER BASIN

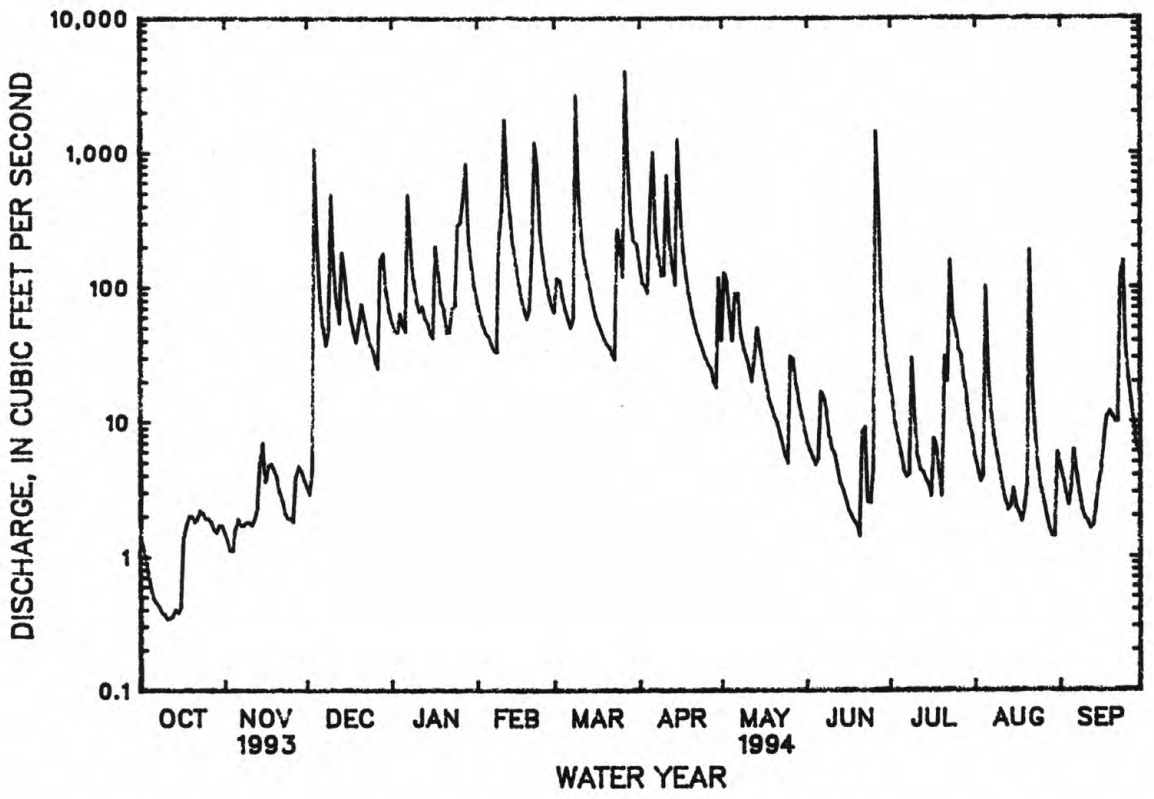
03430550 MILL CREEK NEAR NOLENSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

MEAN	3.14	20.5	85.8	107	166	221	94.6	26.9	39.8	27.2	6.02	8.02
MAX	5.10	38.3	119	150	263	359	209	37.8	73.6	58.8	14.1	16.1
(WY)	1993	1993	1994	1994	1994	1994	1994	1993	1994	1992	1994	1994
MIN	1.18	2.83	52.8	64.5	69.9	150	20.3	8.40	9.59	3.80	1.73	3.21
(WY)	1994	1994	1993	1993	1993	1992	1992	1992	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1992 - 1994		
ANNUAL TOTAL	15921.46		37990.90				
ANNUAL MEAN	43.6		104		72.7		
HIGHEST ANNUAL MEAN					104		1994
LOWEST ANNUAL MEAN					41.3		1993
HIGHEST DAILY MEAN	1080	Dec 4	4070	Mar 27	4070	Mar 27	1994
LOWEST DAILY MEAN	a.08	Sep 13	.34	Oct 11	a.08	Sep 13	1993
ANNUAL SEVEN-DAY MINIMUM	.10	Sep 9	.37	Oct 9	.10	Sep 9	1993
INSTANTANEOUS PEAK FLOW			10600	Jun 26	10600	Jun 26	1994
INSTANTANEOUS PEAK STAGE			15.91	Jun 26	15.91	Jun 26	1994
ANNUAL RUNOFF (CFSM)	1.08		2.57		1.79		
ANNUAL RUNOFF (INCHES)	14.61		34.87		24.36		
10 PERCENT EXCEEDS	104		207		131		
50 PERCENT EXCEEDS	8.8		20		15		
90 PERCENT EXCEEDS	.60		1.7		1.4		

a Also occurred Sept. 14, 1993.



CUMBERLAND RIVER BASIN

03431000 MILL CREEK NEAR ANTIOCH, TN

LOCATION.--Lat 36°04'54", long 86°40'50", Davidson County, Hydrologic Unit 05130202, on left bank, 10 ft downstream from Franklin Limestone Road bridge, 900 ft upstream from Louisville and Nashville spur track bridge, 1.6 mi north of Antioch, 2.1 mi downstream from Whittemore Branch, 8.2 mi southeast of the State Capitol in Nashville, and at mile 11.0.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--October 1953 to September 1961. Annual maximum, water years 1962-63. October 1963 to September 1975. Annual maximum, water years 1976-92. October 1992 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 472.57 ft above sea level. Dec. 5, 1961, to Nov. 29, 1963, Oct. 1976 to Sept. 1992, crest-stage gage at same site and datum.

REMARKS.--Records good, except for discharges below 5.0 cfs, which are poor. Minor diversion from gage pool for industrial use. Periodic observations of water temperature and specfic conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage since at least 1920, that of May 4, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1530	3,620	10.95	Mar. 27	2200	4,410	12.13
Feb. 22	2400	4,470	12.21	Apr. 6	0300	3,430	10.67
Mar. 09	1700	*5,750	*13.57	Apr. 15	2030	4,480	12.22
Mar. 27	0800	5,590	13.42	June 27	0200	4,520	12.27

No flow Oct. 12-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	5.8	4.2	66	109	98	213	182	12	22	17	10
2	2.5	5.4	4.1	53	86	156	160	55	12	18	13	10
3	1.6	5.4	14	59	72	156	149	202	11	15	11	6.3
4	1.6	5.7	1330	83	62	122	134	179	8.2	13	11	5.1
5	2.0	10	334	70	59	98	328	95	31	11	162	12
6	2.1	6.6	125	60	52	87	1290	60	17	9.1	35	13
7	2.0	5.0	70	688	45	80	380	136	46	7.8	20	8.7
8	1.6	4.2	49	351	41	107	242	136	21	7.6	15	6.2
9	1.7	5.1	61	e175	270	2670	172	71	15	51	12	5.0
10	.70	5.2	597	e110	491	826	254	51	12	32	10	4.4
11	.08	5.2	181	95	1970	372	978	40	10	12	8.6	3.4
12	.00	5.4	100	96	795	248	331	34	8.4	9.1	6.9	3.6
13	.00	7.4	69	91	511	186	219	29	8.2	7.4	5.8	3.3
14	.00	48	253	83	302	152	156	41	6.0	6.9	33	3.2
15	.01	46	166	68	213	124	1450	47	5.5	6.3	17	3.0
16	4.9	18	108	107	156	100	656	64	5.1	5.5	8.7	3.2
17	13	20	76	318	125	84	295	35	4.3	20	6.5	5.6
18	5.4	13	58	e180	102	77	194	27	4.1	12	5.9	3.3
19	7.5	11	43	e105	86	67	143	23	3.5	9.3	5.0	2.4
20	6.1	8.9	65	e70	102	63	110	21	3.3	7.5	13	2.0
21	7.8	6.9	100	70	282	59	89	18	34	46	226	2.2
22	6.8	4.7	72	67	1050	52	71	17	17	39	35	2.2
23	5.6	4.2	55	91	1370	41	61	15	10	119	18	154
24	5.2	4.1	43	117	390	295	54	14	10	79	13	271
25	4.7	3.6	38	390	237	266	46	12	23	33	9.8	50
26	4.9	3.8	31	369	165	157	40	48	468	88	8.0	28
27	4.5	9.4	29	538	128	3700	40	39	912	62	6.8	19
28	4.2	5.0	187	1070	105	1320	32	20	93	33	5.1	15
29	4.2	5.0	254	324	---	479	28	16	49	25	5.2	12
30	7.6	5.3	129	200	---	318	27	13	30	19	4.4	10
31	6.7	---	86	142	---	313	---	12	---	23	16	---
TOTAL	116.69	293.3	4731.3	6306	9376	12873	8342	1752	1889.6	848.5	763.7	677.1
MEAN	3.76	9.78	153	203	335	415	278	56.5	63.0	27.4	24.6	22.6
MAX	13	48	1330	1070	1970	3700	1450	202	912	119	226	271
MIN	.00	3.6	4.1	53	41	41	27	12	3.3	5.5	4.4	2.0
CFSM	.06	.15	2.38	3.18	5.23	6.49	4.34	.88	.98	.43	.38	.35
IN.	.07	.17	2.75	3.67	5.45	7.48	4.85	1.02	1.10	.49	.44	.39

e Estimated

CUMBERLAND RIVER BASIN

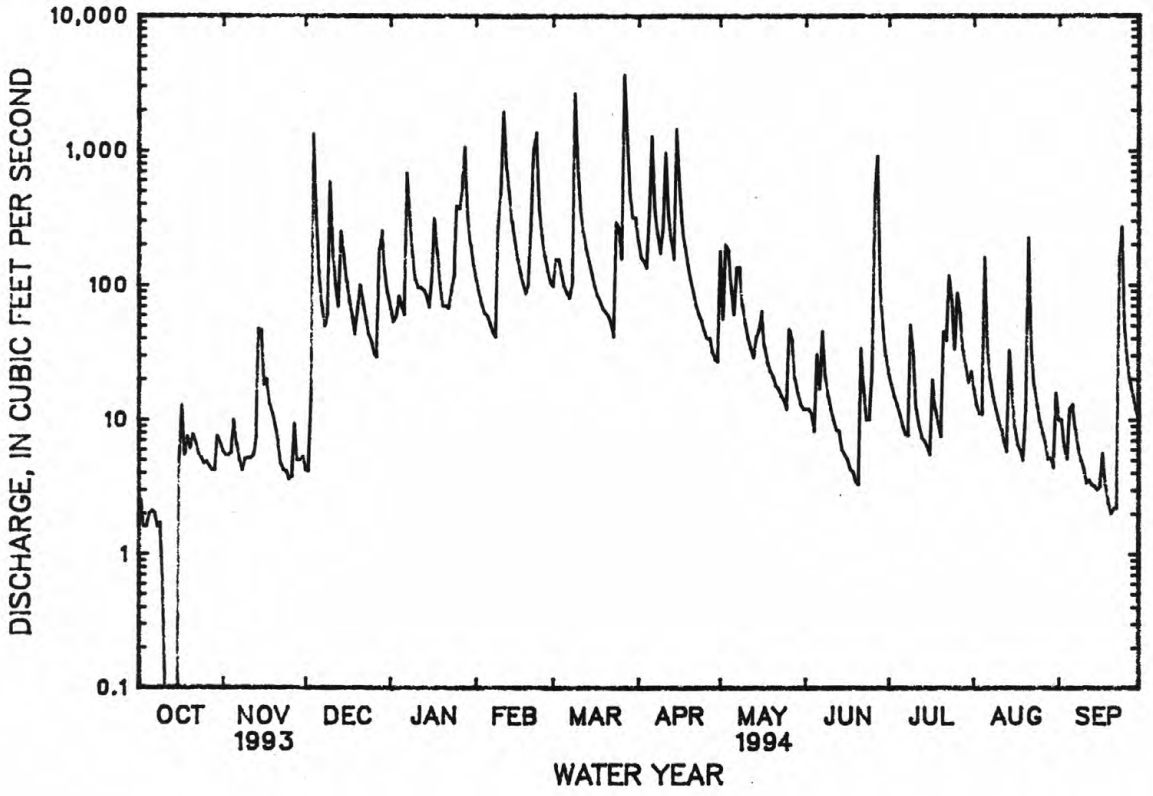
03431000 MILL CREEK NEAR ANTIOCH, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1994, BY WATER YEAR (WY)

MEAN	15.4	50.1	132	171	217	233	153	79.3	53.0	17.1	16.0	16.5
MAX	69.6	225	439	544	512	694	348	245	318	63.9	86.0	103
(WY)	1958	1958	1973	1974	1956	1975	1973	1973	1960	1972	1972	1974
MIN	.000	.000	2.85	50.2	44.9	77.5	20.9	13.8	1.89	.017	1.14	.085
(WY)	1954	1954	1954	1955	1968	1966	1967	1960	1990	1954	1969	1956

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1954 - 1994	
ANNUAL TOTAL	24757.29		47969.19			
ANNUAL MEAN	67.8		131		98.0	
HIGHEST ANNUAL MEAN					182	1973
LOWEST ANNUAL MEAN					49.8	1966
HIGHEST DAILY MEAN	1330	Dec 4	3700	Mar 27	7440	Mar 21 1955
LOWEST DAILY MEAN	.00	Oct 12	a.00	Oct 12	b.00	Oct 1 1953
ANNUAL SEVEN-DAY MINIMUM	.36	Oct 9	.36	Oct 9	.00	Oct 1 1953
INSTANTANEOUS PEAK FLOW			5750	Mar 9	30100	May 4 1979
INSTANTANEOUS PEAK STAGE			13.57	Mar 9	23.78	May 4 1979
ANNUAL RUNOFF (CFSM)	1.06		2.05		1.53	
ANNUAL RUNOFF (INCHES)	14.39		27.88		20.81	
10 PERCENT EXCEEDS	159		298		208	
50 PERCENT EXCEEDS	28		34		21	
90 PERCENT EXCEEDS	1.8		4.2		1.0	

a Also occurred Oct. 13-14.
b Also occurred one or more days 1953-56, 1964-65.



CUMBERLAND RIVER BASIN

03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN

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

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--December 1963 to September 1975. August 1993 to September 1994.

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

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

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 9, 1993	0800	583	4.90	Mar. 27, 1994	1845	508	4.68
Dec. 4, 1993	1100	616	4.99	Apr. 15, 1994	1400	1,600	7.28
Feb. 22, 1994	2000	1,080	6.22	June 26, 1994	1900	*2,070	*8.02
Mar. 9, 1994	1400	508	4.68	Aug. 31, 1994	0545	811	5.53

Minimum discharge, 0.69 ft³/s, Oct. 15.

REVISIONS.--The peak discharges and annual maximums (*) reported for water year 1975 have been revised as shown in the following table. They supersede figures published in reports for 1975.

Water year	Date	Time	Discharges (ft³/s)	Gage height (ft)
1975	Nov. 19, 1974	0925	954	5.91
	Jan. 10, 1975	0850	1,050	6.14
	Feb. 23, 1975	1435	1,160	6.41
	Mar. 12, 1975	0900	1,760	7.51
	Mar. 29, 1975	0430	*1,910	*7.77
	May 8 1975	1540	1,100	6.27
	May 26 1975	1740	1,160	6.42
	July 19 1975	1545	994	6.01

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	2.1	1.3
2	---	---	---	---	---	---	---	---	---	---	2.0	1.3
3	---	---	---	---	---	---	---	---	---	---	1.8	8.8
4	---	---	---	---	---	---	---	---	---	---	e2.0	1.9
5	---	---	---	---	---	---	---	---	---	---	e6.8	1.4
6	---	---	---	---	---	---	---	---	---	---	4.0	1.2
7	---	---	---	---	---	---	---	---	---	---	e2.8	1.1
8	---	---	---	---	---	---	---	---	---	---	e2.5	1.7
9	---	---	---	---	---	---	---	---	---	---	e2.0	22
10	---	---	---	---	---	---	---	---	---	---	e1.8	2.2
11	---	---	---	---	---	---	---	---	---	---	e1.5	1.8
12	---	---	---	---	---	---	---	---	---	---	1.3	1.6
13	---	---	---	---	---	---	---	---	---	---	19	1.4
14	---	---	---	---	---	---	---	---	---	---	2.5	1.7
15	---	---	---	---	---	---	---	---	---	---	2.0	8.4
16	---	---	---	---	---	---	---	---	---	---	1.8	2.5
17	---	---	---	---	---	---	---	---	---	---	1.7	2.0
18	---	---	---	---	---	---	---	---	---	---	1.8	1.8
19	---	---	---	---	---	---	---	---	---	---	1.9	1.8
20	---	---	---	---	---	---	---	---	---	---	1.8	2.6
21	---	---	---	---	---	---	---	---	---	---	1.6	1.3
22	---	---	---	---	---	---	---	---	---	---	1.4	1.1
23	---	---	---	---	---	---	---	---	---	---	4.4	9.9
24	---	---	---	---	---	---	---	---	---	---	1.5	2.4
25	---	---	---	---	---	---	---	---	---	---	20	25
26	---	---	---	---	---	---	---	---	---	---	3.6	8.7
27	---	---	---	---	---	---	---	---	---	---	2.4	3.4
28	---	---	---	---	---	---	---	---	---	---	1.8	2.6
29	---	---	---	---	---	---	---	---	---	---	2.0	2.1
30	---	---	---	---	---	---	---	---	---	---	1.7	1.9
31	---	---	---	---	---	---	---	---	---	---	1.3	---
TOTAL	---	---	---	---	---	---	---	---	---	---	104.8	126.9
MEAN	---	---	---	---	---	---	---	---	---	---	3.38	4.23
MAX	---	---	---	---	---	---	---	---	---	---	20	25
MIN	---	---	---	---	---	---	---	---	---	---	1.3	1.1
CFSM	---	---	---	---	---	---	---	---	---	---	.29	.36
IN.	---	---	---	---	---	---	---	---	---	---	.33	.40

e Estimated

CUMBERLAND RIVER BASIN

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.4	2.0	13	21	23	31	8.3	4.1	9.3	3.6	9.3
2	1.5	1.3	2.2	10	17	43	24	6.7	5.3	7.5	3.2	6.8
3	1.4	1.3	16	20	14	28	26	25	3.7	6.4	3.1	4.5
4	1.3	1.2	183	16	12	23	20	12	3.2	5.3	8.7	3.6
5	1.2	3.1	49	13	10	19	63	8.8	17	4.6	69	13
6	1.1	1.4	25	11	8.8	16	84	7.3	18	4.1	10	5.6
7	1.1	1.3	16	77	7.7	14	49	28	12	3.8	6.6	4.1
8	1.0	1.2	11	35	7.1	23	37	15	6.0	3.4	4.9	3.4
9	2.0	1.3	29	25	24	243	29	10	5.0	3.2	4.2	2.8
10	1.1	1.3	49	20	42	110	78	8.2	4.2	2.9	3.3	2.4
11	1.1	1.2	23	17	180	62	66	7.1	3.5	2.8	2.7	2.1
12	1.0	2.3	16	14	93	44	53	6.5	3.1	2.4	2.4	3.6
13	.91	1.4	15	11	63	35	40	6.2	2.8	2.5	2.0	1.8
14	.84	30	25	9.9	46	28	31	21	2.6	2.1	16	1.6
15	.78	16	17	7.9	35	22	284	17	2.3	1.8	4.4	1.5
16	10	7.9	13	6.9	28	18	107	8.8	2.1	1.9	2.9	1.4
17	7.4	17	11	27	22	15	60	6.9	2.0	2.0	2.4	3.2
18	3.3	6.8	8.7	15	18	13	43	6.2	1.9	7.4	1.9	1.6
19	13	6.3	7.3	13	15	11	33	5.5	1.7	2.4	1.6	1.3
20	3.5	3.9	20	10	22	10	26	5.1	1.6	4.1	23	1.2
21	3.7	3.2	13	10	82	8.7	21	4.6	16	13	20	1.1
22	2.2	2.8	11	12	223	7.6	18	4.3	18	6.6	6.1	1.1
23	1.8	2.5	9.0	15	151	6.9	15	4.1	4.0	3.7	4.3	38
24	1.6	2.3	7.7	15	72	25	13	3.8	5.9	2.9	3.4	22
25	1.5	2.3	6.9	40	49	16	11	6.6	17	2.5	2.8	6.8
26	1.3	3.7	5.8	34	36	21	10	42	282	41	2.5	8.3
27	1.1	4.2	5.1	77	28	242	10	13	64	18	2.1	4.6
28	1.1	2.3	38	86	23	148	9.2	8.3	28	9.1	1.8	3.7
29	1.1	2.1	26	50	---	71	10	6.5	18	6.2	1.6	3.1
30	3.1	2.0	18	35	---	52	13	5.4	13	4.8	7.2	2.6
31	1.9	---	14	26	---	39	---	4.7	---	4.1	55	---
TOTAL	75.63	135.0	692.7	771.7	1349.6	1437.2	1314.2	322.9	568.0	191.8	282.7	166.1
MEAN	2.44	4.50	22.3	24.9	48.2	46.4	43.8	10.4	18.9	6.19	9.12	5.54
MAX	13	30	183	86	223	243	284	42	282	41	69	38
MIN	.78	1.2	2.0	6.9	7.1	6.9	9.2	3.8	1.6	1.8	1.6	1.1
CFSM	.21	.38	1.89	2.11	4.08	3.93	3.71	.88	1.60	.52	.77	.47
IN.	.24	.43	2.18	2.43	4.25	4.53	4.14	1.02	1.79	.60	.89	.52

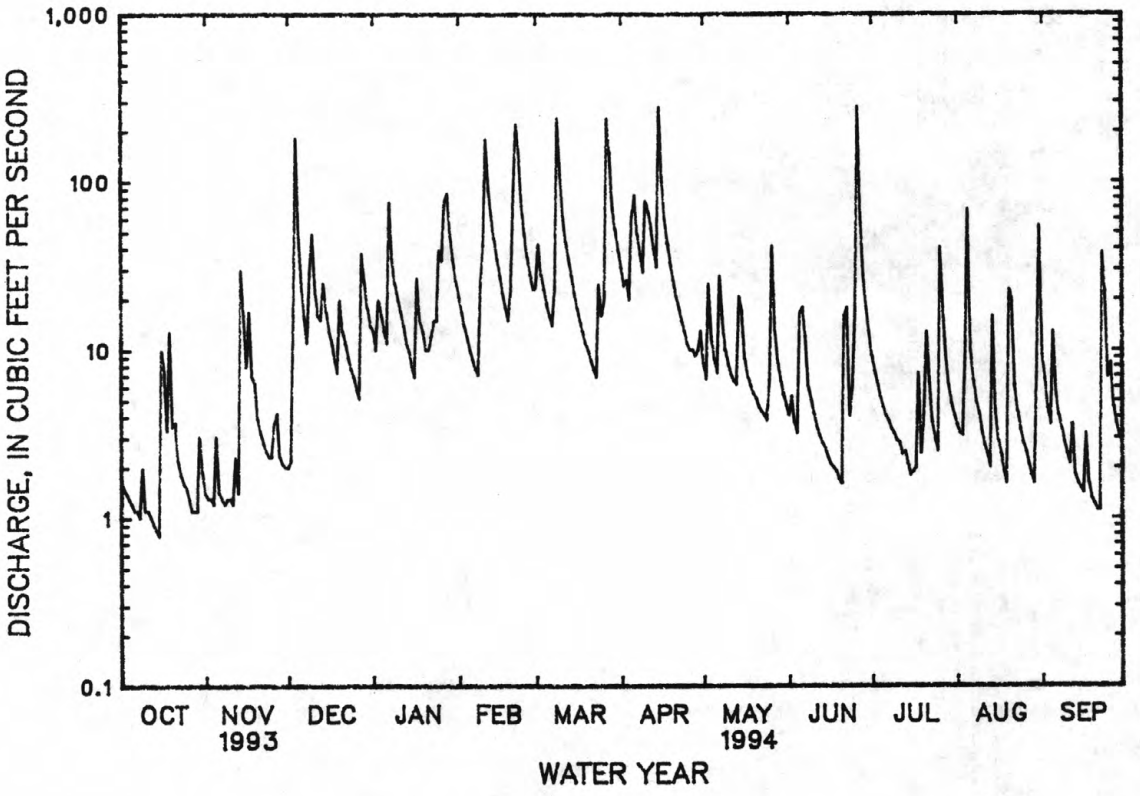
CUMBERLAND RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

MEAN	3.62	12.0	21.7	26.1	27.5	38.4	27.3	17.3	11.0	6.41	6.26	5.61
MAX	7.99	34.8	63.8	86.5	49.2	102	50.3	38.5	41.2	19.8	23.2	21.0
(WY)	1973	1974	1973	1974	1969	1975	1973	1970	1974	1967	1971	1974
MIN	.71	1.36	1.28	5.79	5.87	9.70	4.36	5.42	1.71	.96	1.65	.92
(WY)	1966	1966	1966	1966	1967	1966	1967	1971	1966	1964	1968	1965

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1964 - 1994		
ANNUAL TOTAL	7307.53				
ANNUAL MEAN	20.0		17.2		
HIGHEST ANNUAL MEAN			29.6		1973
LOWEST ANNUAL MEAN			6.67		1966
HIGHEST DAILY MEAN	284	Apr 15	696	Mar 12	1975
LOWEST DAILY MEAN	.78	Oct 15	.29	Sep 5	1973
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 9	.36	Sep 2	1973
INSTANTANEOUS PEAK FLOW	2070	Jun 26	2070	Jun 26	1994
INSTANTANEOUS PEAK STAGE	8.02	Jun 26	8.02	Jun 26	1994
INSTANTANEOUS LOW FLOW	.69	Oct 15	.15	Sep 5	1973
ANNUAL RUNOFF (CFSM)	1.70		1.46		
ANNUAL RUNOFF (INCHES)	23.04		19.77		
10 PERCENT EXCEEDS	45		39		
50 PERCENT EXCEEDS	8.3		5.9		
90 PERCENT EXCEEDS	1.6		1.2		



THIS IS A BLANK PAGE

CUMBERLAND RIVER BASIN

034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN

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

DRAINAGE AREA.--12,860 mi², approximately.

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

GAGE.--Data collection platform and acoustic velocity meter. Datum of gage is 368.17 ft above sea level. Prior to fall of 1922 inclined and vertical staff gage at site 350 ft downstream and from fall of 1922 to Apr. 9, 1940, staff gage at site 400 ft downstream, both gages at same datum. Nov. 1, 1930, to Sept. 30, 1954, upper staff gage at former lock 1, 2.7 miles downstream was used as auxiliary gage. Prior to May 1992 at site .2 mi upstream at same datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203,000 ft³/s, Jan. 1, 1927, gage height 56.2 ft; minimum gage height observed after first filling of pool at dam 1, 6.1 ft Oct. 19, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 125,000 ft³/s, at 1300 hours Mar. 29, gage height, 38.05 ft; minimum daily discharge, 4,290 ft³/s, Oct 10; minimum gage height, 16.52 ft, Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7610	5650	8770	27700	46600	79800	96100	62200	8890	22000	14100	15900
2	9100	5760	8640	24400	39800	79700	101000	62000	9540	18900	13500	16200
3	8350	5620	8270	21400	42600	80100	99500	58400	10600	18000	14400	17100
4	5820	5830	25800	20600	44100	84300	92700	46800	9900	14000	13800	15500
5	5590	6610	82200	26900	41800	83800	91700	47400	8050	12800	15300	15200
6	5700	7710	67100	34100	41800	81600	101000	47100	7880	12500	14000	12900
7	6700	6570	38800	38200	37100	77200	103000	40200	8670	10400	18400	10600
8	6190	7000	31500	61700	35400	74000	103000	44800	20100	10300	15900	10900
9	4850	6330	31900	58500	44400	88900	95600	38800	13200	9150	19100	10800
10	4290	6880	40100	46800	65100	113000	94800	42200	15900	8600	17800	12000
11	4950	7690	48500	45500	96700	111000	105000	44100	15600	8810	17600	10200
12	5160	7630	39500	43000	106000	102000	107000	39800	10900	11700	17800	8740
13	10300	6420	31200	43100	103000	96300	107000	35300	7160	11000	16600	9240
14	12100	6210	37200	40400	98100	86100	102000	34300	6830	8940	16100	11800
15	12300	9750	29700	35000	95100	74200	103000	37800	7600	9100	16400	14500
16	8380	12100	27300	34500	86700	73700	113000	37600	11100	13300	15600	14500
17	7380	12100	37100	37100	81500	73600	111000	29400	12200	12000	15700	13200
18	14100	13500	29400	35900	75400	71000	109000	20200	11000	16800	15500	10400
19	12200	15800	28900	45100	70400	69600	104000	18700	9540	12900	15800	8940
20	7390	14000	27800	44100	65100	64900	90300	19700	9090	12700	18400	7180
21	10500	9130	24500	40400	65600	56300	83800	17000	8480	12700	24600	6570
22	11400	7610	32800	40300	75600	52600	80400	17200	7880	13900	20700	7900
23	6760	6780	34500	34900	111000	56400	79800	12800	8360	13000	19000	9760
24	4630	7740	31100	31400	106000	55500	80200	10100	11600	10900	18100	12100
25	5510	7520	24300	34900	92300	58200	77300	8910	12200	12000	19100	13400
26	5910	8680	24300	55400	84500	62300	75100	8290	16300	14300	17100	7340
27	6850	6640	25600	67700	77100	89700	75700	13600	25000	18500	16900	5720
28	7780	5870	22500	80400	80600	119000	72000	11100	23400	19700	16700	6350
29	7680	7140	30800	79200	---	119000	68400	7730	20800	18600	16500	9610
30	6390	8740	40900	67500	---	112000	63500	8290	21500	17400	15500	11700
31	5250	---	31500	54500	---	97800	---	9120	---	16300	17100	---
TOTAL	237120	245010	1002480	1350600	2009400	2543600	2785900	930940	369270	421200	523100	336250
MEAN	7649	8167	32340	43570	71760	82050	92860	30030	12310	13590	16870	11210
MAX	14100	15800	82200	80400	111000	119000	113000	62200	25000	22000	24600	17100
MIN	4290	5620	8270	20600	35400	52600	63500	7730	6830	8600	13500	5720

CUMBERLAND RIVER BASIN

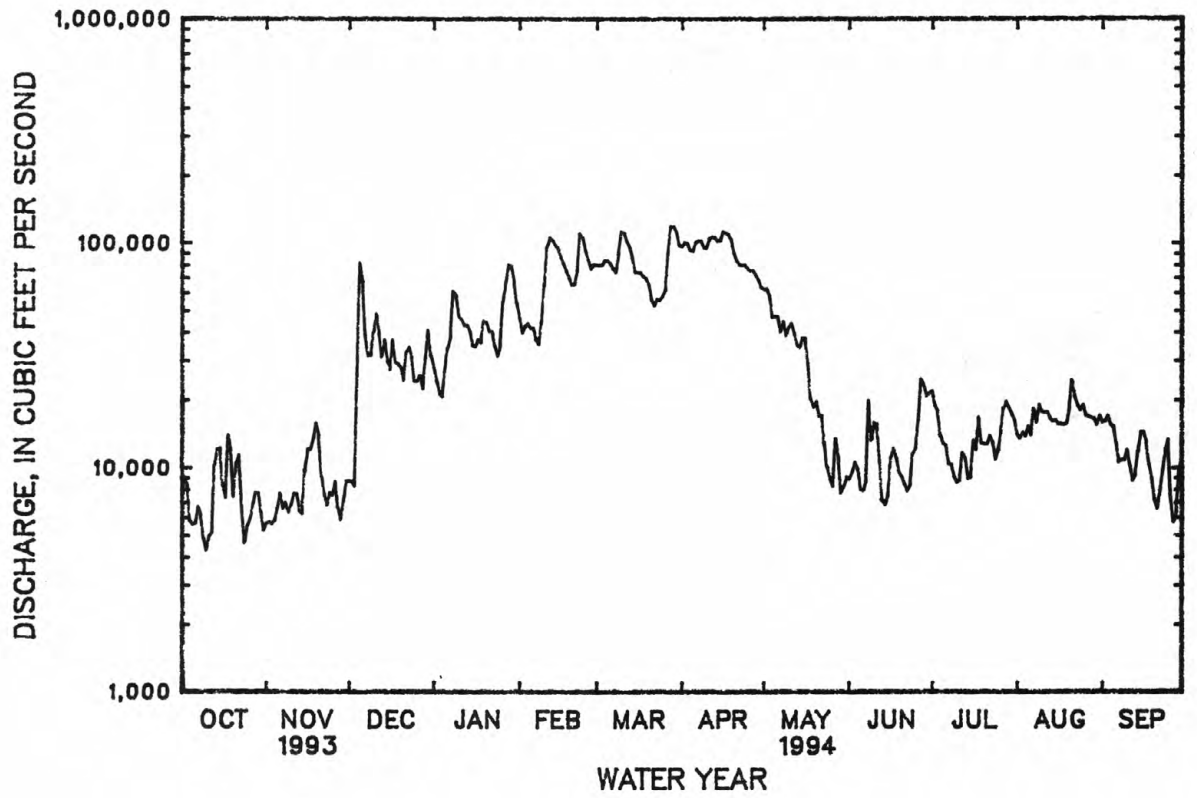
034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

MEAN	13010	12900	27770	41170	45480	56300	64190	17890	13560	15130	14230	12730
MAX	18380	17620	32340	43570	71760	82050	92860	30030	18150	20320	16870	18820
(WY)	1993	1993	1994	1994	1994	1994	1994	1994	1992	1992	1994	1992
MIN	7649	8167	23210	38760	19200	30560	35510	7195	10210	11490	10490	8176
(WY)	1994	1994	1993	1993	1993	1993	1993	1992	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1992 - 1994	
ANNUAL TOTAL	6978810		12754870			
ANNUAL MEAN	19120		34940		27490	
HIGHEST ANNUAL MEAN					34940	1994
LOWEST ANNUAL MEAN					20030	1993
HIGHEST DAILY MEAN	82200	Dec 5	119000	Mar 28	119000	Mar 28 1994
LOWEST DAILY MEAN	4290	Oct 10	4290	Oct 10	4290	Oct 10 1993
ANNUAL SEVEN-DAY MINIMUM	5410	Oct 6	5410	Oct 6	5410	Oct 6 1993
INSTANTANEOUS PEAK FLOW			125000	Mar 29	203000	Jan 1 1927
INSTANTANEOUS PEAK STAGE			38.05	Mar 29	56.2	Jan 1 1927
10 PERCENT EXCEEDS	41800		89900		58500	
50 PERCENT EXCEEDS	12500		18500		16600	
90 PERCENT EXCEEDS	6680		7170		7600	

* Period of daily discharge only.



CUMBERLAND RIVER BASIN

03431599 WHITES CREEK NEAR BORDEAUX, TN

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

DRAINAGE AREA.--51.3 mi².

PERIOD OF RECORD.--October 1964 to April 1975 (published as at Tucker Road, near Bordeaux), August 1993 to September 1994. Occasional low-flow measurements, water years 1962-64.

GAGE.--Data collection platform. Datum of gage is 397.79 ft above sea level. Oct 1964 to April 1975 at site 0.4 mi downstream at datum 3.85 ft higher.

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

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1230	4,080	12.26	Mar. 27	1945	3,610	11.59
Feb. 11	0800	3,180	10.97	Apr. 6	0015	3,730	11.76
Feb. 22	2130	7,030	16.22	Apr. 15	1445	*10,100	*19.04
Mar. 9	0345	3,320	11.18	June 26	1900	3,410	11.30
Mar. 9	1000	5,560	14.29				

Minimum discharge, 0.65 ft³/s, Sept. 14, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.5	1.6
2	---	---	---	---	---	---	---	---	---	---	1.5	1.6
3	---	---	---	---	---	---	---	---	---	---	1.5	11
4	---	---	---	---	---	---	---	---	---	---	1.5	4.7
5	---	---	---	---	---	---	---	---	---	---	2.0	1.9
6	---	---	---	---	---	---	---	---	---	---	6.6	1.5
7	---	---	---	---	---	---	---	---	---	---	3.3	1.2
8	---	---	---	---	---	---	---	---	---	---	2.6	1.0
9	---	---	---	---	---	---	---	---	---	---	2.2	1.8
10	---	---	---	---	---	---	---	---	---	---	1.9	1.6
11	---	---	---	---	---	---	---	---	---	---	1.6	1.1
12	---	---	---	---	---	---	---	---	---	---	1.6	.98
13	---	---	---	---	---	---	---	---	---	---	14	.89
14	---	---	---	---	---	---	---	---	---	---	4.7	.80
15	---	---	---	---	---	---	---	---	---	---	3.3	9.5
16	---	---	---	---	---	---	---	---	---	---	2.6	5.3
17	---	---	---	---	---	---	---	---	---	---	2.0	3.6
18	---	---	---	---	---	---	---	---	---	---	1.9	3.3
19	---	---	---	---	---	---	---	---	---	---	1.8	2.2
20	---	---	---	---	---	---	---	---	---	---	1.7	2.3
21	---	---	---	---	---	---	---	---	---	---	1.4	2.2
22	---	---	---	---	---	---	---	---	---	---	1.3	1.8
23	---	---	---	---	---	---	---	---	---	---	1.1	19
24	---	---	---	---	---	---	---	---	---	---	1.1	13
25	---	---	---	---	---	---	---	---	---	---	1.2	50
26	---	---	---	---	---	---	---	---	---	---	2.3	14
27	---	---	---	---	---	---	---	---	---	---	2.6	7.4
28	---	---	---	---	---	---	---	---	---	---	3.0	5.1
29	---	---	---	---	---	---	---	---	---	---	2.6	4.0
30	---	---	---	---	---	---	---	---	---	---	2.7	3.3
31	---	---	---	---	---	---	---	---	---	---	2.5	---
TOTAL	---	---	---	---	---	---	---	---	---	---	81.6	177.67
MEAN	---	---	---	---	---	---	---	---	---	---	2.63	5.92
MAX	---	---	---	---	---	---	---	---	---	---	14	50
MIN	---	---	---	---	---	---	---	---	---	---	1.1	.80
CFSM	---	---	---	---	---	---	---	---	---	---	.05	.12
IN.	---	---	---	---	---	---	---	---	---	---	.06	.13

CUMBERLAND RIVER BASIN

03431599 WHITES CREEK NEAR BORDEAUX, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.5	11	56	89	90	150	158	10	18	5.6	15
2	3.7	6.1	10	48	68	602	111	58	9.3	14	4.4	15
3	5.2	6.2	23	45	53	327	100	164	8.0	12	3.8	12
4	4.0	5.8	1700	45	45	197	81	146	6.8	9.4	3.9	9.7
5	3.2	6.3	508	37	40	133	295	80	6.3	7.7	174	11
6	2.9	5.2	169	35	35	97	904	52	17	7.0	32	13
7	2.7	4.9	84	460	31	78	323	74	26	6.2	19	9.8
8	2.6	4.4	52	197	29	116	202	70	16	5.8	14	7.9
9	2.6	4.5	172	110	264	3110	139	45	181	5.1	11	6.5
10	3.4	4.1	768	73	332	789	385	34	91	8.1	8.3	5.9
11	4.1	3.9	191	55	2000	367	554	26	30	5.3	7.2	6.0
12	4.2	4.5	96	46	732	249	299	22	18	4.6	6.1	5.7
13	3.6	5.0	61	40	519	198	200	19	13	5.3	6.6	5.5
14	3.5	48	185	36	294	159	133	285	9.4	5.7	186	4.9
15	3.4	112	122	29	200	123	2500	420	7.5	9.4	87	4.9
16	30	38	76	28	137	98	808	193	6.2	9.6	29	5.4
17	67	44	55	41	97	82	344	87	89	11	23	9.8
18	20	34	43	46	74	71	214	51	29	15	16	8.7
19	119	25	36	46	59	61	140	37	13	7.8	12	7.0
20	35	25	54	46	71	54	91	28	8.7	9.7	69	6.2
21	19	20	65	45	665	51	67	22	6.6	14	217	5.7
22	14	16	54	44	1740	45	53	18	6.0	18	47	5.2
23	9.8	13	43	45	1150	41	44	15	4.8	13	28	32
24	7.7	12	37	95	372	98	36	12	4.5	7.5	20	46
25	6.7	11	32	524	223	188	30	10	20	5.2	16	14
26	5.3	11	27	358	148	154	26	307	402	102	13	9.7
27	5.1	18	24	1020	109	1940	23	98	159	47	11	9.1
28	4.8	16	175	1060	86	1050	21	40	57	20	9.5	7.1
29	4.9	14	195	347	---	391	89	25	35	12	8.5	5.7
30	6.7	12	103	200	---	260	217	17	24	8.3	7.8	4.9
31	7.4	---	67	130	---	206	---	13	---	6.7	30	---
TOTAL	414.3	537.4	5238	5387	9662	11425	8579	2626	1314.1	430.4	1125.7	309.3
MEAN	13.4	17.9	169	174	345	369	286	84.7	43.8	13.9	36.3	10.3
MAX	119	112	1700	1060	2000	3110	2500	420	402	102	217	46
MIN	2.6	3.9	10	28	29	41	21	10	4.5	4.6	3.8	4.9
CFSM	.26	.35	3.29	3.39	6.73	7.18	5.57	1.65	.85	.27	.71	.20
IN.	.30	.39	3.80	3.91	7.01	8.28	6.22	1.90	.95	.31	.82	.22

CUMBERLAND RIVER BASIN

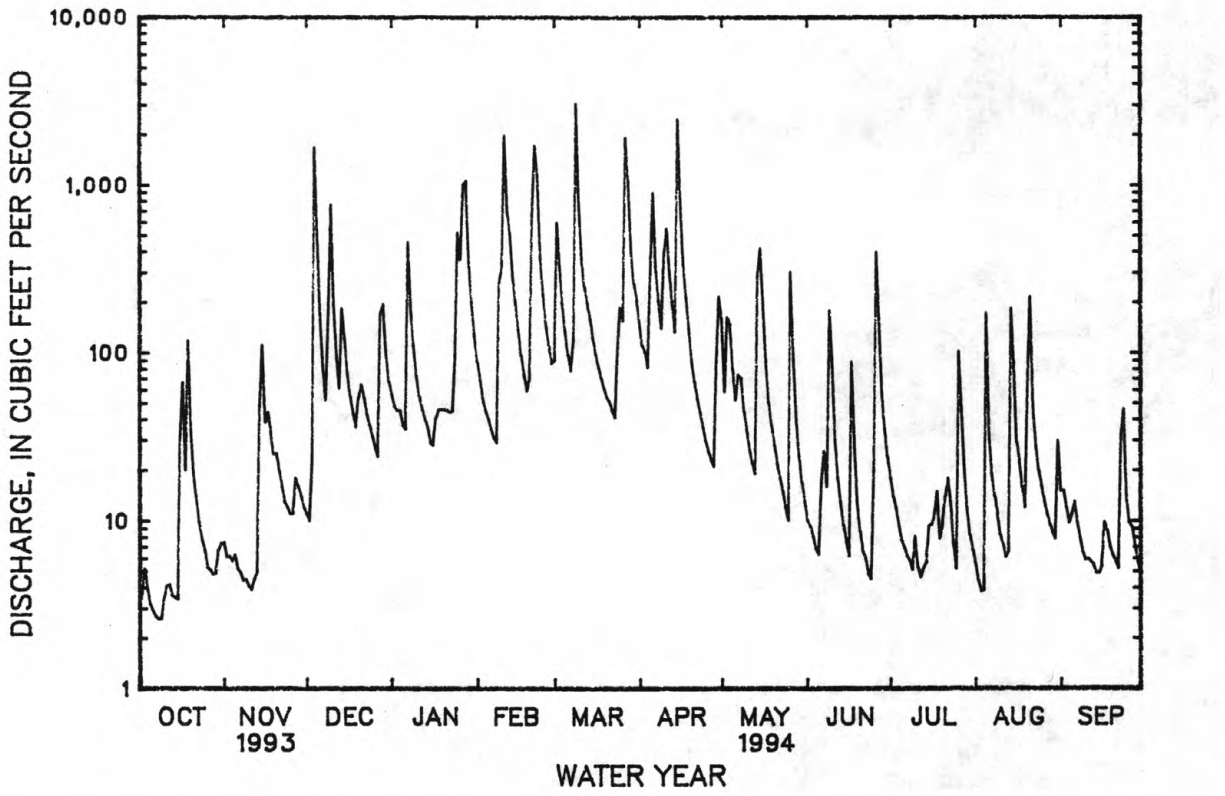
03431599 WHITES CREEK NEAR BORDEAUX, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1994, BY WATER YEAR (WY)

MEAN	8.92	49.7	115	129	169	197	137	75.7	31.2	14.7	20.9	16.3
MAX	20.4	138	286	288	369	530	286	200	154	48.3	87.2	122
(WY)	1975	1973	1973	1974	1975	1975	1994	1967	1974	1967	1972	1974
MIN	2.05	6.60	8.18	25.2	36.3	46.0	18.8	20.2	4.70	1.11	2.26	1.24
(WY)	1970	1966	1966	1966	1968	1966	1967	1969	1966	1966	1968	1968

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1965 - 1994	
ANNUAL TOTAL	47048.2			
ANNUAL MEAN	129		75.5	
HIGHEST ANNUAL MEAN			129	1994
LOWEST ANNUAL MEAN			35.2	1966
HIGHEST DAILY MEAN	3110	Mar 9	5100	Feb 23 1975
LOWEST DAILY MEAN	2.6	Oct 8	.30	Jul 6 1966
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 4	.42	Aug 28 1968
INSTANTANEOUS PEAK FLOW	10100	Apr 15	a12200	Feb 23 1975
INSTANTANEOUS PEAK STAGE	19.04	Apr 15	b17.06	Feb 23 1975
INSTANTANEOUS LOW FLOW	c2.4	Oct 1	d.20	Jul 6 1966
ANNUAL RUNOFF (CFSM)	2.51		1.47	
ANNUAL RUNOFF (INCHES)	34.12		19.99	
10 PERCENT EXCEEDS	297		180	
50 PERCENT EXCEEDS	32		21	
90 PERCENT EXCEEDS	5.2		2.4	

a From rating curve extended above 6,900 ft³/s on basis of contracted-opening measurement of peak flow.
b Site and datum then in use.
c Also occurred Oct. 2, 8, 9.
d Also occurred Sept. 15, 1968.



THIS IS A BLANK PAGE

CUMBERLAND RIVER BASIN

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN

LOCATION.--Lat 36°09'04", long 86°51'16", Davidson County, Hydrologic Unit 05130202, near right bank downstream end of pier of Charlotte Avenue bridge on U.S. Highway 70, 4.0 mi southwest of the State Capitol in Nashville, and at mile 3.6.

DRAINAGE AREA.--24.3 mi².

PERIOD OF RECORD.--July 1964 to September 1990, August 1993 to September 1994.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 409.56 ft above sea level.

REMARKS.--Records good, except those below 5.0 ft³/s which are fair. Diversions above station used for irrigation of golf courses and water supply. Periodic observations of water temperature are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 22	2045	2,150	6.83	Aug. 20	1945	1,600	5.81
Apr. 15	1500	4,300	10.08	June 26	Unknown	*5,250	*11.38

Minimum daily discharge 1.3 ft³/s, Aug. 24, Sept. 1, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	2.0	1.3
2	---	---	---	---	---	---	---	---	---	---	1.8	1.7
3	---	---	---	---	---	---	---	---	---	---	1.4	18
4	---	---	---	---	---	---	---	---	---	---	3.4	4.4
5	---	---	---	---	---	---	---	---	---	---	11	2.5
6	---	---	---	---	---	---	---	---	---	---	11	1.9
7	---	---	---	---	---	---	---	---	---	---	3.5	1.7
8	---	---	---	---	---	---	---	---	---	---	3.0	1.3
9	---	---	---	---	---	---	---	---	---	---	2.8	29
10	---	---	---	---	---	---	---	---	---	---	2.2	4.2
11	---	---	---	---	---	---	---	---	---	---	2.1	2.8
12	---	---	---	---	---	---	---	---	---	---	2.1	2.3
13	---	---	---	---	---	---	---	---	---	---	32	1.8
14	---	---	---	---	---	---	---	---	---	---	5.0	2.1
15	---	---	---	---	---	---	---	---	---	---	4.0	11
16	---	---	---	---	---	---	---	---	---	---	3.0	4.7
17	---	---	---	---	---	---	---	---	---	---	2.7	3.3
18	---	---	---	---	---	---	---	---	---	---	2.6	2.8
19	---	---	---	---	---	---	---	---	---	---	2.2	2.4
20	---	---	---	---	---	---	---	---	---	---	2.0	3.1
21	---	---	---	---	---	---	---	---	---	---	2.1	2.8
22	---	---	---	---	---	---	---	---	---	---	2.1	2.6
23	---	---	---	---	---	---	---	---	---	---	2.0	12
24	---	---	---	---	---	---	---	---	---	---	1.3	6.3
25	---	---	---	---	---	---	---	---	---	---	3.2	31
26	---	---	---	---	---	---	---	---	---	---	2.8	18
27	---	---	---	---	---	---	---	---	---	---	7.4	7.9
28	---	---	---	---	---	---	---	---	---	---	4.0	5.5
29	---	---	---	---	---	---	---	---	---	---	2.9	4.5
30	---	---	---	---	---	---	---	---	---	---	2.6	4.0
31	---	---	---	---	---	---	---	---	---	---	2.2	---
TOTAL	---	---	---	---	---	---	---	---	---	---	132.4	196.9
MEAN	---	---	---	---	---	---	---	---	---	---	4.27	6.56
MAX	---	---	---	---	---	---	---	---	---	---	32	31
MIN	---	---	---	---	---	---	---	---	---	---	1.3	1.3
CFSM	---	---	---	---	---	---	---	---	---	---	.18	.27
IN.	---	---	---	---	---	---	---	---	---	---	.20	.30

CUMBERLAND RIVER BASIN

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.4	5.2	28	47	47	74	25	8.0	14	8.9	32
2	2.9	4.1	5.3	22	37	132	59	17	6.9	11	7.2	22
3	3.2	3.8	21	25	30	86	60	53	6.8	8.4	6.6	16
4	2.8	3.7	459	26	25	67	46	34	5.9	7.0	7.3	13
5	2.3	5.1	123	21	22	51	176	23	7.5	5.7	89	20
6	2.4	4.1	62	18	19	41	271	19	17	5.2	19	16
7	2.1	3.7	37	168	16	34	128	75	50	4.8	13	12
8	2.2	3.7	25	77	17	47	94	56	14	4.5	9.9	9.8
9	2.6	3.7	53	50	49	663	73	34	11	3.8	7.9	8.5
10	2.6	3.7	151	37	94	251	209	24	8.8	3.6	6.5	7.4
11	2.5	3.7	65	30	551	137	195	20	7.4	3.3	5.8	6.6
12	2.6	4.5	40	25	257	102	124	17	6.3	3.3	4.3	5.7
13	2.3	4.0	32	21	167	82	93	15	5.5	3.5	4.5	5.3
14	1.9	46	52	19	120	67	72	76	4.8	3.0	30	4.9
15	2.2	50	37	15	97	53	747	87	4.6	2.2	10	4.6
16	24	24	27	14	76	42	259	47	4.3	2.5	8.4	4.6
17	18	29	22	39	65	35	146	30	3.9	6.7	7.0	7.0
18	8.7	18	18	35	50	29	110	22	3.9	15	8.8	4.9
19	46	15	15	35	36	24	85	18	3.3	5.1	8.6	4.8
20	11	13	38	34	46	21	67	16	2.3	45	121	4.2
21	9.3	9.9	34	34	289	19	53	13	2.8	47	81	4.0
22	6.4	8.0	25	28	528	16	42	12	2.5	29	e30	3.7
23	5.3	7.1	20	31	330	14	34	10	2.3	15	e26	43
24	4.8	6.3	16	38	144	53	28	8.3	3.7	10	e19	24
25	4.6	5.9	14	115	102	47	22	11	27	7.8	15	11
26	4.2	7.3	12	93	77	48	19	85	e595	106	11	12
27	3.8	11	10	236	60	674	21	31	e280	49	9.9	10
28	3.3	7.5	84	240	47	353	20	18	47	23	8.8	7.7
29	3.6	6.6	76	114	---	169	24	14	29	16	7.7	6.5
30	5.2	5.9	45	81	---	120	27	11	19	12	10	5.8
31	5.8	---	32	61	---	96	---	9.3	---	10	160	---
TOTAL	201.5	322.7	1655.5	1810	3398	3620	3378	930.6	1190.5	482.4	762.1	337.0
MEAN	6.50	10.8	53.4	58.4	121	117	113	30.0	39.7	15.6	24.6	11.2
MAX	46	50	459	240	551	674	747	87	595	106	160	43
MIN	1.9	3.7	5.2	14	16	14	19	8.3	2.3	2.2	4.3	3.7
CFSM	.27	.44	2.20	2.40	4.99	4.81	4.63	1.24	1.63	.64	1.01	.46
IN.	.31	.49	2.53	2.77	5.20	5.54	5.17	1.42	1.82	.74	1.17	.52

e Estimated

CUMBERLAND RIVER BASIN

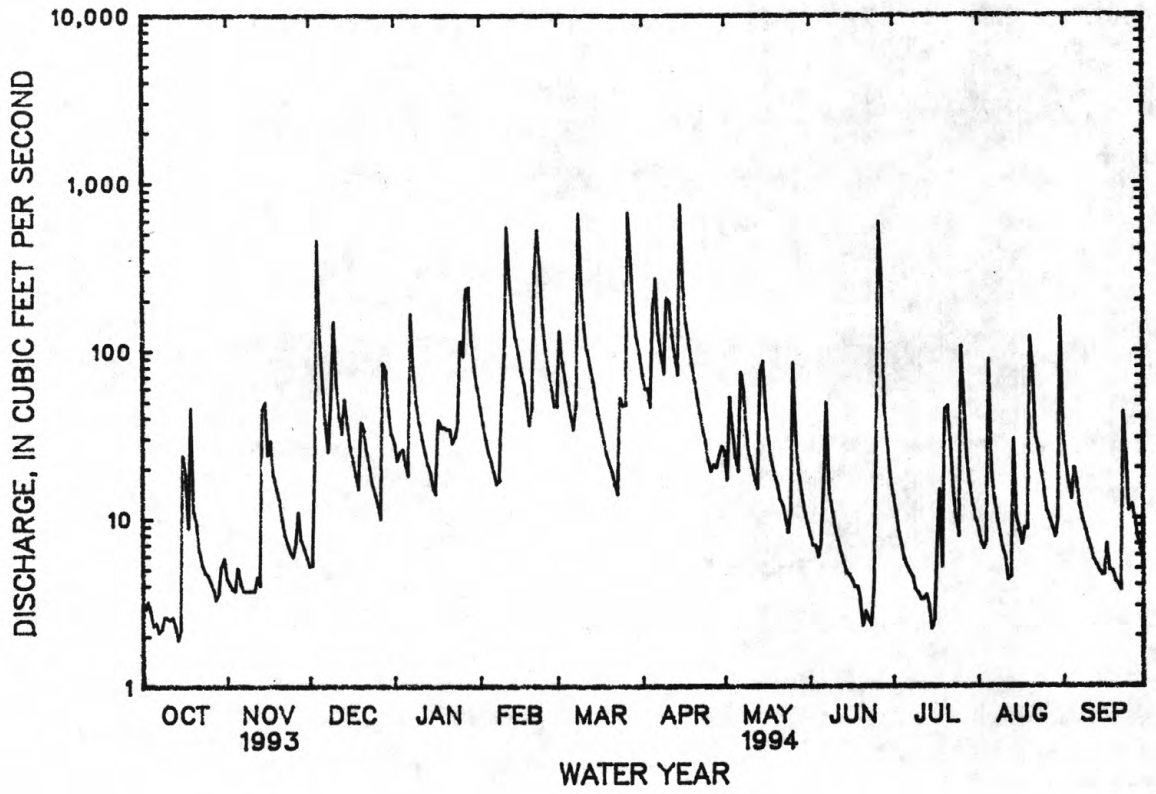
03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

MEAN	10.7	32.1	58.5	52.1	59.0	64.2	47.3	36.6	18.4	11.3	7.82	12.5
MAX	53.0	89.8	247	151	205	208	146	131	77.6	42.0	24.6	127
(WY)	1976	1987	1965	1974	1989	1975	1979	1984	1974	1979	1994	1979
MIN	.41	1.79	2.57	3.96	10.3	18.2	5.76	5.06	1.33	1.34	1.18	.92
(WY)	1966	1972	1966	1986	1968	1966	1986	1977	1988	1966	1980	1980

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1964 - 1994	
ANNUAL TOTAL	18088.3			
ANNUAL MEAN	49.6		34.2	
HIGHEST ANNUAL MEAN			71.3	1979
LOWEST ANNUAL MEAN			13.6	1966
HIGHEST DAILY MEAN	747	Apr 15	7020	Nov 2 1990
LOWEST DAILY MEAN	1.9	Oct 14	.05	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 5	.23	Oct 8 1965
INSTANTANEOUS PEAK FLOW	5250	Jun 27	9470	Sep 13 1979
INSTANTANEOUS PEAK STAGE	11.38	Jun 27	15.13	Sep 13 1979
INSTANTANEOUS LOW FLOW			a.05	Oct 7 1980
ANNUAL RUNOFF (CFSM)	2.04		1.41	
ANNUAL RUNOFF (INCHES)	27.69		19.10	
10 PERCENT EXCEEDS	114		76	
50 PERCENT EXCEEDS	19		10	
90 PERCENT EXCEEDS	3.7		1.4	

a Also occurred Oct. 8-9, 1980.



THIS IS A BLANK PAGE

CUMBERLAND RIVER BASIN

03432350 HARPETH RIVER AT FRANKLIN, TN

LOCATION.--Lat 35°55'14", long 86°51'56", Williamson County, Hydrologic Unit 05130204, on left bank 15 ft downstream from State Highway 96 bridge, 0.4 mi southeast of the courthouse in Franklin, and at mile 88.1.

DRAINAGE AREA.--191 mi², includes 15 mi² without surface drainage.

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

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 604.42 ft above sea level.

REMARKS.--Records good except those below 5.0 ft³/s, which are poor. The Franklin Utility District diverts part of its municipal water supply from the river above the gage. This water along with other water is returned to the river through the sewage treatment plant 2.7 mi below gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	0330	5,140	19.43	Mar. 28	0200	*10,500	*26.94
Jan. 28	1100	4,700	18.56	Apr. 6	1200	3,900	16.73
Feb. 11	2130	7,130	22.63	Apr. 11	1330	3,520	15.80
Feb. 23	0930	5,060	19.29	Apr. 16	0230	4,450	18.00
Mar. 10	0400	7,130	22.63	June 27	0530	3,860	16.63
Mar. 25	0700	5,370	19.83				

Minimum daily discharge, 0.80 ft³/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	1.5	17	276	530	440	590	220	33	85	19	29
2	2.4	1.5	11	247	430	657	396	164	42	58	25	26
3	1.6	1.3	9.0	221	366	805	364	192	37	50	28	22
4	1.1	1.3	1960	236	328	566	347	258	36	42	30	15
5	1.0	1.4	3700	227	300	444	384	205	28	29	87	13
6	1.0	1.2	719	200	269	372	3120	181	28	19	66	20
7	1.0	1.1	370	860	239	332	e1170	172	35	17	42	25
8	1.0	1.1	254	1070	208	300	e670	259	39	23	23	24
9	.99	1.1	218	584	881	2800	e440	194	35	26	20	20
10	.95	1.1	1970	412	1480	5580	349	161	33	28	25	17
11	.95	1.2	1040	397	5490	1290	2460	143	25	19	21	11
12	.91	1.0	497	519	4240	807	e850	138	17	12	18	4.5
13	.81	1.0	338	480	1810	580	e550	145	15	14	17	4.3
14	.80	7.0	559	384	1190	450	e500	151	22	22	11	9.3
15	.84	35	568	313	878	357	1290	224	21	22	6.4	11
16	.81	56	391	252	668	293	2920	176	15	22	6.3	10
17	1.0	43	297	710	536	240	960	121	97	21	17	12
18	1.2	75	255	769	444	209	607	95	30	30	22	13
19	1.2	41	225	393	384	174	446	69	20	24	17	8.3
20	1.1	27	212	268	356	142	357	60	22	14	33	5.8
21	1.0	26	274	202	682	125	311	59	33	18	167	5.0
22	1.1	21	247	172	1090	119	281	53	71	66	101	11
23	1.1	13	217	241	4460	104	256	41	51	42	50	50
24	1.2	5.7	179	293	1720	1640	232	33	20	37	43	203
25	1.2	5.0	153	712	1030	4110	209	39	39	23	34	96
26	1.1	13	134	1590	741	1110	197	94	633	68	29	55
27	.95	15	128	2080	580	6250	193	106	e1980	104	25	49
28	1.0	15	386	3730	483	8910	194	75	e425	88	15	46
29	1.1	8.1	1090	1500	---	2480	176	53	e120	55	12	42
30	1.3	11	544	934	---	1110	198	43	112	42	12	36
31	1.5	---	353	678	---	918	---	37	---	28	34	---
TOTAL	37.21	432.6	17315.0	20950	31813	43714	21017	3961	4114	1148	1055.7	893.2
MEAN	1.20	14.4	559	676	1136	1410	701	128	137	37.0	34.1	29.8
MAX	4.0	75	3700	3730	5490	8910	3120	259	1980	104	167	203
MIN	.80	1.0	9.0	172	208	104	176	33	15	12	6.3	4.3
CFSM	.01	.08	2.92	3.54	5.95	7.38	3.67	.67	.72	.19	.18	.16
IN.	.01	.08	3.37	4.08	6.20	8.51	4.09	.77	.80	.22	.21	.17

e Estimated

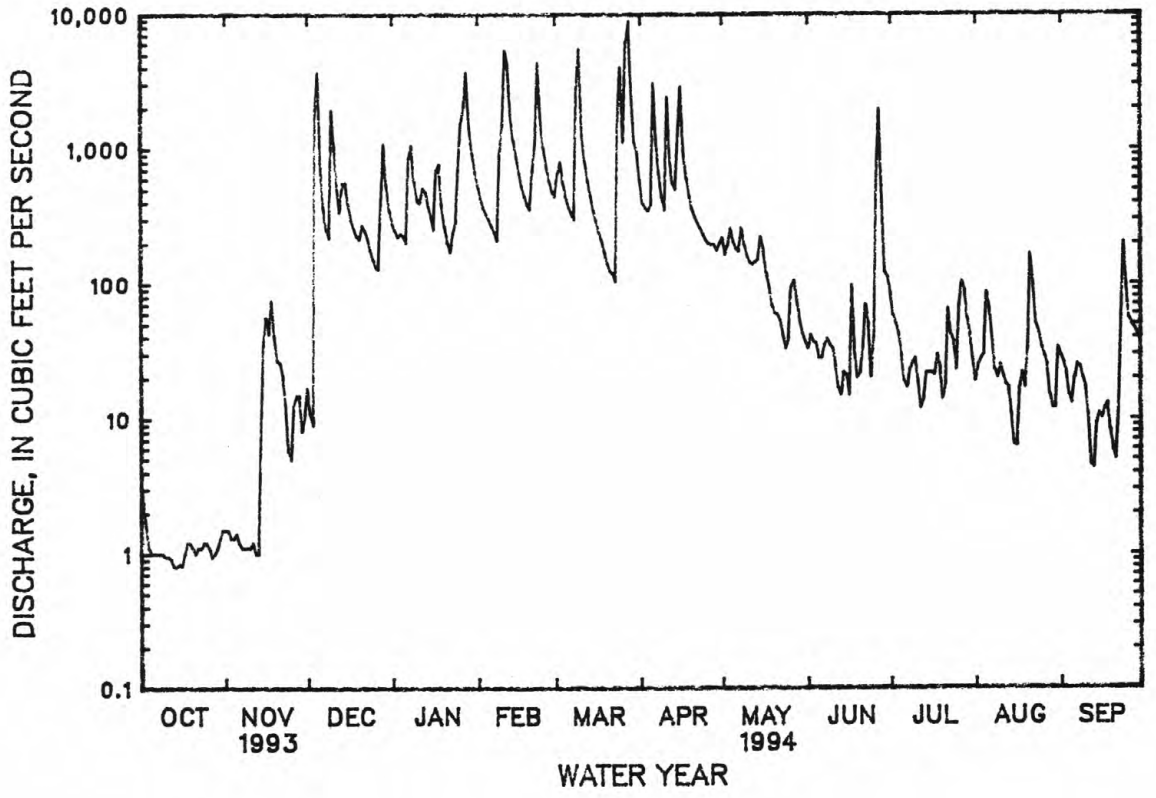
CUMBERLAND RIVER BASIN

03432350 HARPETH RIVER AT FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1994, BY WATER YEAR (WY)

MEAN	94.4	285	500	509	562	661	377	324	97.7	62.6	25.9	83.3
MAX	610	778	1172	1472	1358	1945	1066	1489	530	431	104	971
(WY)	1976	1980	1991	1979	1990	1975	1979	1984	1989	1989	1984	1979
MIN	.52	4.08	16.2	14.4	139	159	62.2	21.8	1.25	1.44	1.58	1.17
(WY)	1981	1981	1981	1986	1978	1985	1986	1988	1988	1988	1988	1980

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1975 - 1994	
ANNUAL TOTAL	69093.01		146450.71			
ANNUAL MEAN	189		401		298	
HIGHEST ANNUAL MEAN					522	1979
LOWEST ANNUAL MEAN					68.7	1981
HIGHEST DAILY MEAN	3700	Dec 5	8910	Mar 28	18500	Mar 13 1975
LOWEST DAILY MEAN	.80	Oct 14	.80	Oct 14	.30	Oct 14 1980
ANNUAL SEVEN-DAY MINIMUM	.87	Oct 10	.87	Oct 10	.32	Oct 20 1980
INSTANTANEOUS PEAK FLOW			10500	Mar 28	20200	Mar 13 1975
INSTANTANEOUS PEAK STAGE			26.94	Mar 28	33.65	Mar 13 1975
INSTANTANEOUS LOW FLOW					.30	Oct 14 1980
ANNUAL RUNOFF (CFSM)	.99		2.10		1.56	
ANNUAL RUNOFF (INCHES)	13.46		28.52		21.17	
10 PERCENT EXCEEDS	470		944		648	
50 PERCENT EXCEEDS	73		75		91	
90 PERCENT EXCEEDS	1.2		1.3		2.6	



CUMBERLAND RIVER BASIN

03432400 HARPETH RIVER BELOW FRANKLIN, TN

LOCATION.--Lat 35°56'53", long 86°52'54", Williamson County, Hydrologic Unit 05130204, on right bank 0.1 mi below bridge on U.S. Highway 431, 1.2 mi downstream from Spence Creek, 1.8 mi northwest of the courthouse in Franklin, and at mile 84.3.

DRAINAGE AREA.--210 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--August 1988 to current year, discharge for stage of 6.00 ft and below only.

GAGE.--Data collection platform.

REMARKS.--No estimated daily discharges. Records good. Flow is affected by Franklin sewage treatment plant outflow 1.1 mi upstream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum stage, 28.97 ft, Feb. 4, 1990; minimum discharge, 3.0 ft³/s, Aug. 19, 1988; minimum daily, 4.1 ft³/s, Aug. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum stage, 28.18 ft, Mar. 28; minimum discharge, 4.2 ft³/s, Sept. 22; minimum daily, 5.8 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.4	22	368	---	436	---	372	36	112	23	47
2	8.2	7.7	19	331	449	---	---	225	42	68	24	48
3	8.0	7.2	18	314	399	---	---	270	38	55	31	36
4	7.0	7.4	---	342	366	---	---	355	34	46	39	27
5	6.7	9.3	---	317	339	431	---	279	27	32	146	23
6	7.0	7.7	---	285	311	383	---	238	33	18	93	38
7	6.5	7.9	---	---	278	352	---	227	46	14	58	41
8	6.7	7.7	355	---	244	334	---	337	44	21	31	40
9	6.2	7.1	317	---	---	---	---	254	39	24	23	31
10	6.1	6.9	---	481	---	---	---	199	35	32	27	25
11	6.2	7.0	---	403	---	---	---	167	26	20	24	18
12	7.0	7.5	---	450	---	---	---	154	16	12	19	6.4
13	6.9	8.2	433	434	---	---	---	144	12	11	18	5.8
14	6.1	34	---	365	---	---	---	134	19	22	23	8.0
15	6.2	75	---	308	---	491	---	217	18	23	14	13
16	9.0	73	---	252	---	429	---	243	14	22	7.5	13
17	13	81	395	---	---	378	---	158	99	28	15	18
18	9.4	93	349	---	465	347	---	123	30	48	21	22
19	9.2	58	307	---	421	309	---	90	14	33	16	12
20	8.3	39	299	365	405	271	473	75	16	14	24	7.9
21	8.2	36	365	296	---	248	416	75	27	14	305	6.8
22	8.8	30	334	263	---	236	370	67	73	83	156	9.9
23	7.7	22	296	334	---	209	335	57	55	49	84	81
24	7.9	13	248	399	---	---	304	46	20	39	66	299
25	6.9	12	208	---	---	---	276	49	31	40	53	133
26	7.6	18	177	---	---	---	256	155	---	91	43	75
27	7.6	27	166	---	---	---	250	138	---	167	36	64
28	6.4	24	---	---	468	---	251	88	316	123	26	59
29	6.9	15	---	---	---	---	223	63	172	71	15	56
30	8.3	14	---	---	---	---	---	49	140	53	19	48
31	8.2	---	439	---	---	---	---	40	---	37	53	---
TOTAL	238.2	764.0	---	---	---	---	---	5088	---	1422	1532.5	1311.8
MEAN	7.68	25.5	---	---	---	---	---	164	---	45.9	49.4	43.7
MAX	13	93	---	---	---	---	---	372	---	167	305	299
MIN	6.1	6.9	---	---	---	---	---	40	---	11	7.5	5.8

THIS IS A BLANK PAGE

CUMBERLAND RIVER BASIN

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 upstream from bridge on State Highway 100, 0.1 mi downstream from Little Harpeth River, 0.9 mi southeast of Bellevue, and at mile 62.1.

DRAINAGE AREA.--408 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--April 1920 to current year. Monthly discharge only November 1929 to December 1931, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1920-30, 1932-35. WSP 1386: 1948. WSP 1556: Drainage area. WSP 1910: 1960.

GAGE.--Data collection platform. Datum of gage is 541.04 ft above sea level (levels by U.S. Army Corps of Engineers). Apr. 11, 1920, to Oct. 31, 1929, Jan. 1, 1932, to Sept. 30, 1933, nonrecording gage at site 2.8 mi downstream at datum 7.85 ft lower.

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

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

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	1500	7,760	12.40	Mar. 28	1530	*17,100	*18.94
Feb. 12	0300	10,500	15.13	Apr. 6	1530	8,920	13.64
Feb. 23	1000	9,810	14.49	Apr. 11	1630	7,650	12.27
Mar. 3	1330	11,300	15.77	Apr. 16	0830	8,880	13.52

Minimum discharge, 14 ft³/s, part of each day, Oct. 9-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	24	44	679	1090	994	1990	650	102	202	73	99
2	21	24	51	595	909	1190	1590	371	94	145	58	99
3	19	24	64	540	772	1400	1410	359	93	118	55	91
4	18	24	3540	652	677	1140	1340	592	86	100	61	73
5	17	24	5640	584	615	964	1450	453	80	88	232	65
6	16	23	1490	521	547	845	7330	359	89	73	198	72
7	15	26	797	1720	488	775	4210	342	108	58	132	88
8	15	25	567	2230	430	766	2190	564	115	52	96	81
9	14	24	542	1280	710	4980	1530	468	100	55	68	72
10	14	22	3500	955	2530	10800	1400	340	90	58	57	62
11	14	22	2250	766	7680	4550	5610	275	84	69	56	54
12	14	24	1090	775	8850	2230	3880	241	73	56	52	48
13	14	23	793	766	4290	1640	2190	215	61	47	47	37
14	15	52	964	633	2700	1340	1470	242	54	46	122	29
15	16	171	1100	527	1890	1110	3120	342	56	53	128	27
16	18	160	847	431	1430	940	7100	563	53	54	69	31
17	23	156	672	876	1160	811	2880	329	51	64	50	38
18	27	153	568	1480	983	729	1680	254	118	110	46	44
19	39	140	486	1080	859	633	1220	204	63	112	50	47
20	33	99	486	1080	831	564	944	172	48	85	76	42
21	27	78	616	806	1460	514	781	157	47	84	833	34
22	23	70	572	440	3410	485	656	148	66	80	348	27
23	21	62	497	594	9060	436	557	137	110	121	207	55
24	22	54	415	850	4200	1800	489	122	80	104	141	282
25	21	46	355	1600	2200	6750	428	113	83	94	115	254
26	20	45	302	2880	1550	2920	380	213	1320	122	97	151
27	19	51	276	4630	1270	8060	359	348	2840	241	81	109
28	19	59	576	6960	1090	15500	347	215	602	224	71	100
29	20	57	1980	3430	---	10000	316	165	322	153	61	90
30	21	48	1180	1960	---	3120	301	133	213	112	49	79
31	21	---	838	1400	---	2530	---	114	---	92	76	---
TOTAL	621	1810	33098	43720	63681	90516	59148	9200	7301	3072	3805	2380
MEAN	20.0	60.3	1068	1410	2274	2920	1972	297	243	99.1	123	79.3
MAX	39	171	5640	6960	9060	15500	7330	650	2840	241	833	282
MIN	14	22	44	431	430	436	301	113	47	46	46	27
CFSM	.05	.15	2.62	3.46	5.57	7.16	4.83	.73	.60	.24	.30	.19
IN.	.06	.17	3.02	3.99	5.81	8.25	5.39	.84	.67	.28	.35	.22

CUMBERLAND RIVER BASIN

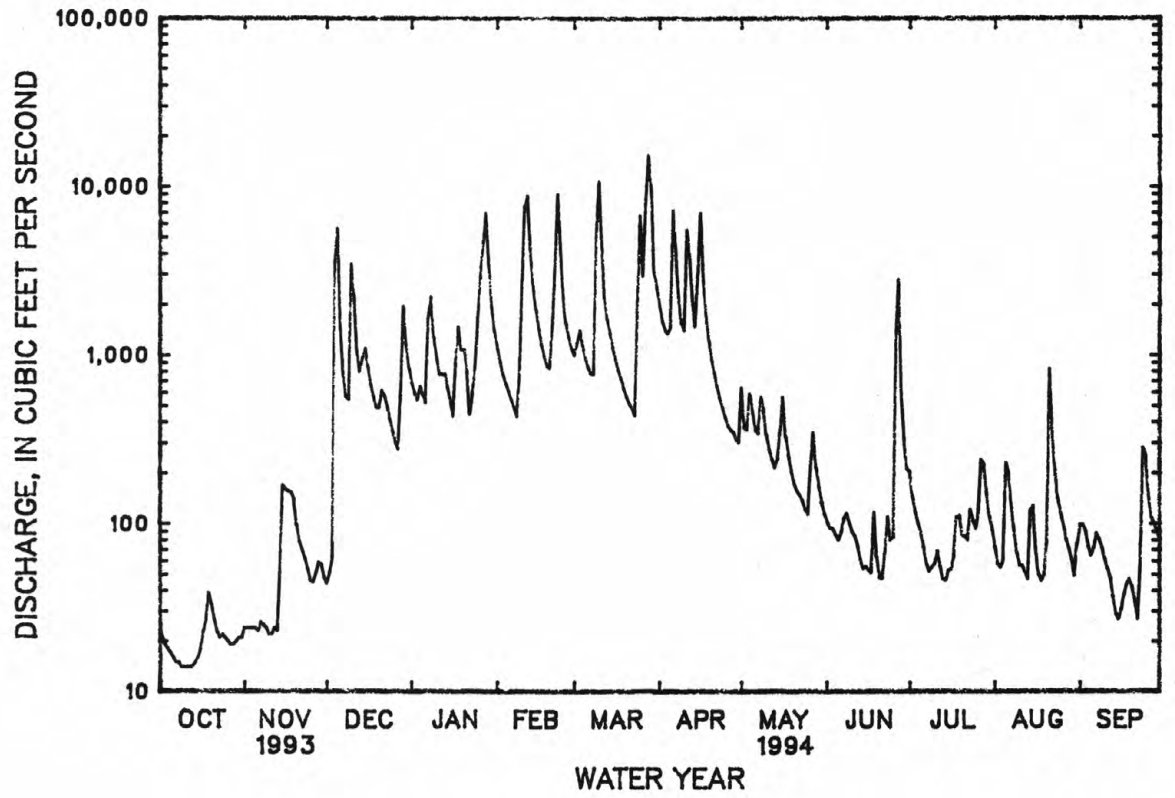
03433500 HARPETH RIVER AT BELLEVUE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1994, BY WATER YEAR (WY)

MEAN	106	361	835	1158	1307	1332	890	563	258	143	107	120
MAX	953	1678	3952	4305	3606	4263	2579	3232	1834	827	663	1685
(WY)	1976	1987	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	1.90	10.4	32.3	40.5	90.2	167	138	38.7	13.1	15.6	5.76	1.28
(WY)	1932	1940	1940	1940	1941	1941	1967	1941	1988	1954	1954	1948

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1920 - 1994	
ANNUAL TOTAL	170141		318352			
ANNUAL MEAN	466		872		595	
HIGHEST ANNUAL MEAN					1157	1973
LOWEST ANNUAL MEAN					137	1941
HIGHEST DAILY MEAN	11000	May 4	15500	Mar 28	32400	Mar 13 1975
LOWEST DAILY MEAN	13	Sep 14	14	Oct 9	.00	Oct 5 1922
ANNUAL SEVEN-DAY MINIMUM	14	Oct 7	14	Oct 7	.07	Oct 4 1922
INSTANTANEOUS PEAK FLOW			17100	Mar 28	40000	Feb 13 1948
INSTANTANEOUS PEAK STAGE			18.94	Mar 28	a24.34	Feb 13 1948
INSTANTANEOUS LOW FLOW			b14	Oct 9	c.00	Oct 5 1922
ANNUAL RUNOFF (CFSM)	1.14		2.14		1.46	
ANNUAL RUNOFF (INCHES)	15.51		29.03		19.80	
10 PERCENT EXCEEDS	1080		2210		1380	
50 PERCENT EXCEEDS	166		204		181	
90 PERCENT EXCEEDS	18		24		16	

a From floodmarks.
b Also occurred Oct. 10-13.
c Also occurred Oct. 6-10, 1922.



CUMBERLAND RIVER BASIN

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, Hydrologic Unit 05130204, on right bank 400 ft upstream from bridge on U.S. Highway 70, 1.7 mi northeast of Kingston Springs, 3.0 mi downstream from Turnbull Creek, and at mile 32.4.

DRAINAGE AREA.--681 mi², includes 15 mi² without surface drainage.

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

REVISED RECORDS.--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M). WSP 1706: 1945(P). WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 447.04 ft above sea level. July 8, 1925, to Jan. 22, 1939, nonrecording gage at site 150 ft downstream, and Jan. 22, 1939, to July 26, 1988, water-stage recorder at present site at datum 1.0 ft higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Jan. 7, 1946. Flood of March 1902 reached a stage about 3 ft lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 12	2100	11,100	14.78	Mar. 28	0500	*20,900	*22.06
Feb. 23	0530	16,000	19.03	Apr. 6	2200	10,200	13.92
Mar. 9	2200	15,600	18.69	Apr. 15	2200	12,300	15.95

Minimum discharge, 63 ft³/s, Oct. 11, 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	92	127	1080	1700	1410	2820	1160	291	319	187	291
2	93	86	117	951	1400	1600	2230	932	275	306	165	256
3	89	87	132	845	1200	1920	1890	846	272	249	144	220
4	84	90	4200	852	1050	1710	1760	1140	245	223	138	188
5	78	93	7310	861	953	1420	1730	1020	241	201	498	169
6	72	94	3600	777	868	1230	8530	817	233	184	385	194
7	70	91	1430	2080	775	1100	6760	794	284	170	305	185
8	68	86	992	3150	709	1100	3470	1060	352	153	239	178
9	67	86	792	2100	788	8640	2520	1000	289	149	198	163
10	66	87	3000	1480	2390	12600	2310	765	253	141	162	148
11	66	87	3910	1190	6280	8310	4850	632	228	140	143	136
12	67	88	1860	1080	8520	3410	e6020	552	210	152	134	125
13	68	98	1260	1090	7140	2520	3420	500	187	157	128	117
14	66	120	1250	977	4360	2040	2480	935	170	159	122	106
15	65	422	1540	822	3040	1720	5020	3820	158	144	270	96
16	82	390	1340	679	2300	1460	9900	1620	150	139	214	92
17	189	343	1060	805	1840	1250	4860	1080	185	151	166	96
18	155	323	896	1820	1550	1120	2810	778	194	261	133	107
19	214	283	777	1480	1350	1000	2100	622	213	476	116	109
20	233	259	748	1100	1210	895	1680	521	157	243	118	106
21	147	202	933	838	2860	817	1400	452	136	258	777	104
22	124	170	936	705	4160	752	1210	407	134	305	765	97
23	107	157	817	717	13000	686	1060	370	145	276	399	104
24	97	145	698	1220	8340	1330	949	342	195	263	285	152
25	92	137	615	1920	3630	6920	851	311	182	217	229	377
26	90	134	540	3660	2500	4820	772	558	528	296	200	293
27	89	132	485	6310	1880	10100	727	856	3920	397	176	239
28	85	147	685	9360	1580	19400	692	584	1490	410	158	189
29	80	138	2160	6330	---	19000	778	438	625	328	148	170
30	83	135	2010	3170	---	5520	1070	367	411	257	136	159
31	93	---	1340	2230	---	3450	---	320	---	214	266	---
TOTAL	3076	4802	47560	61679	87373	129250	86669	25599	12353	7338	7504	4966
MEAN	99.2	160	1534	1990	3120	4169	2889	826	412	237	242	166
MAX	233	422	7310	9360	13000	19400	9900	3820	3920	476	777	377
MIN	65	86	117	679	709	686	692	311	134	139	116	92
CFSM	.15	.24	2.25	2.92	4.58	6.12	4.24	1.21	.60	.35	.36	.24
IN.	.17	.26	2.60	3.37	4.77	7.06	4.73	1.40	.67	.40	.41	.27

e Estimated

CUMBERLAND RIVER BASIN

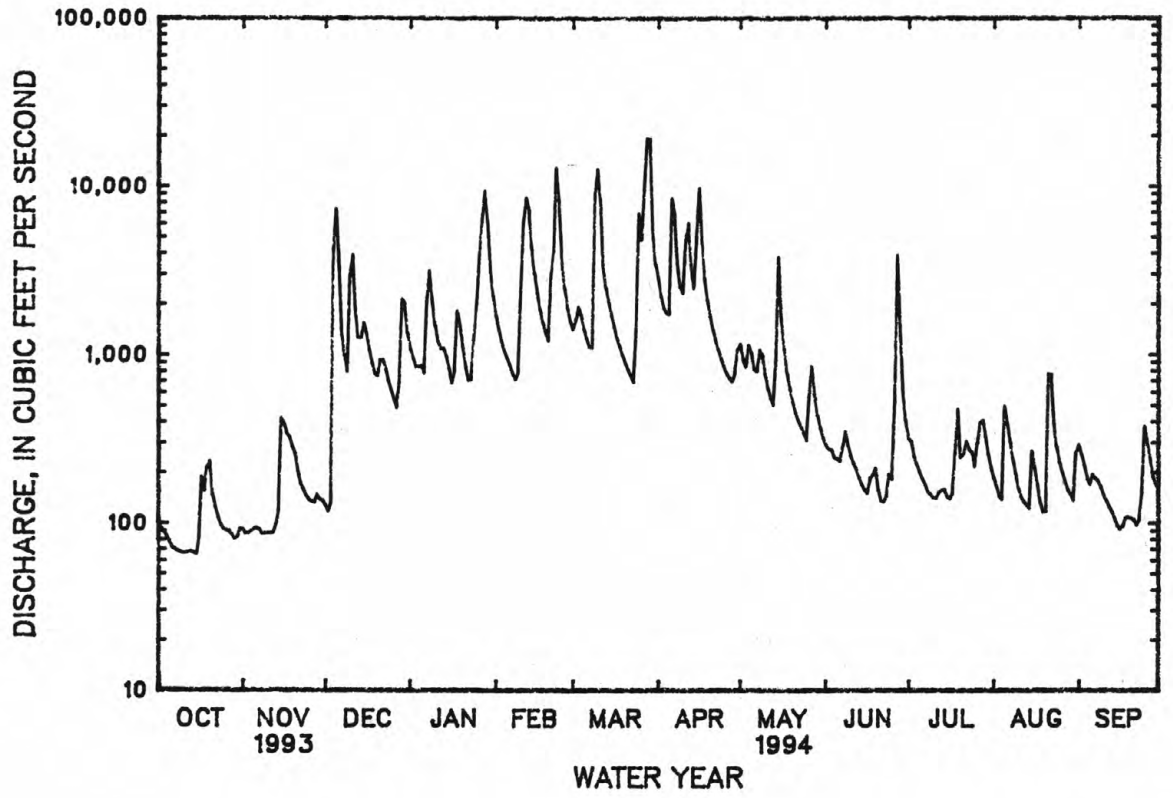
03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1994, BY WATER YEAR (WY)

MEAN	219	609	1306	1868	2098	2152	1506	1012	477	266	202	214
MAX	1516	2761	6274	6975	6077	6806	3941	5107	2849	1071	1099	2530
(WY)	1976	1980	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	28.9	63.2	94.9	116	187	279	269	99.3	59.0	62.7	38.5	25.0
(WY)	1932	1955	1936	1940	1941	1941	1967	1941	1988	1954	1954	1939

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1925 - 1994	
ANNUAL TOTAL	277193		478169			
ANNUAL MEAN	759		1310		989	
HIGHEST ANNUAL MEAN					2000	1973
LOWEST ANNUAL MEAN					249	1941
HIGHEST DAILY MEAN	12200	May 4	19400	Mar 28	43100	Feb 14 1948
LOWEST DAILY MEAN	65	Oct 15	65	Oct 15	16	Sep 28 1939
ANNUAL SEVEN-DAY MINIMUM	66	Oct 9	66	Oct 9	18	Sep 22 1939
INSTANTANEOUS PEAK FLOW			20900	Mar 28	60000	Jan 7 1946
INSTANTANEOUS PEAK STAGE			22.06	Mar 28	a32.20	Jan 7 1946
INSTANTANEOUS LOW FLOW			b63	Oct 11	12	Sep 18 1939
ANNUAL RUNOFF (CFSM)	1.12		1.92		1.45	
ANNUAL RUNOFF (INCHES)	15.14		26.12		19.74	
10 PERCENT EXCEEDS	1720		3430		2240	
50 PERCENT EXCEEDS	348		411		339	
90 PERCENT EXCEEDS	85		96		69	

a From high-water mark in gage house.
b Also occurred Oct. 15, 16.



CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°19'22", long 87°13'42", Cheatham County, Hydrologic Unit 05130205, on left bank 0.4 mi downstream from Cheatham Dam, 2.0 mi southwest of Neptune, 2.6 mi upstream from Half Pone Creek, 9.7 mi west of Ashland City, and at mile 148.4.

DRAINAGE AREA.--14,163 mi².

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1993 to current year.
pH: February 1993 to current year.
WATER TEMPERATURE: February 1993 to current year.
DISSOLVED OXYGEN: February 1993 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cheatham Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 272 microsiemens, Mar. 16, 1993; minimum, 161 microsiemens, Mar. 29, 30, 1994
pH: Maximum, 8.9 units, May 16, 17, 18, 1993; minimum, 6.0 units, June 13, 1993.
WATER TEMPERATURE: Maximum, 28.3°C, July 15, 20, 21, 1993; minimum, 3.6°C, Jan. 20, 1994.
DISSOLVED OXYGEN: Maximum, 13.6 mg/L, Feb. 21, 1993; minimum, 3.7 mg/L, June 29, 1994.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 267 microsiemens, Nov. 29, 30; minimum, 161 microsiemens, Mar. 29, 30.
pH: Maximum, 8.4 units, May 22, 25, 26; minimum, 6.5 units, July 13, 14.
WATER TEMPERATURE: Maximum, 26.6°C, July 13; minimum, 3.6°C, Jan. 20.
DISSOLVED OXYGEN: Maximum, 12.2 mg/L, Dec. 10; minimum, 3.7 mg/L, June 29.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	242	215	228	256	248	252	218	217	218
2	---	---	---	236	232	233	260	253	256	223	218	220
3	---	---	---	243	228	235	254	250	253	223	219	219
4	---	---	---	244	237	243	262	246	254	224	220	221
5	---	---	---	240	237	240	255	231	247	229	220	226
6	---	---	---	245	230	239	231	216	223	230	226	228
7	---	---	---	231	210	227	228	224	228	231	226	227
8	---	---	---	254	231	237	229	228	229	231	223	227
9	---	---	---	258	243	251	230	229	229	228	223	224
10	---	---	---	247	243	244	233	230	230	233	224	228
11	---	---	---	248	237	240	241	233	238	234	229	231
12	---	---	---	244	237	240	241	236	237	230	230	230
13	209	201	204	238	234	235	236	236	236	231	226	229
14	209	201	205	246	234	241	236	236	236	231	223	226
15	210	205	206	250	239	248	236	231	232	223	215	219
16	222	210	217	255	247	252	235	231	234	220	212	217
17	218	210	215	255	244	250	235	235	235	216	208	212
18	211	203	208	252	245	249	235	230	231	225	208	217
19	219	199	209	261	252	255	230	230	230	225	217	221
20	223	199	216	257	253	254	234	230	233	225	217	218
21	220	212	213	253	247	249	233	229	233	222	217	219
22	216	208	210	255	247	251	233	226	230	226	218	221
23	232	216	224	263	248	252	226	215	221	227	219	223
24	233	224	228	256	244	249	216	212	215	231	227	228
25	237	229	232	252	245	249	217	213	215	232	227	229
26	237	233	235	253	245	249	217	213	216	232	220	228
27	234	226	230	251	242	245	218	213	215	220	212	217
28	226	218	220	262	251	256	215	211	213	213	197	210
29	234	226	230	267	262	265	220	211	214	197	189	192
30	227	215	220	267	252	261	220	216	219	198	189	195
31	215	215	215	---	---	---	221	213	215	198	198	198
MONTH	237	199	218	267	210	246	262	211	231	234	189	220

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	198	198	198	171	170	171	173	172	173	170	170	170
2	199	198	199	175	171	173	172	168	170	170	166	167
3	203	199	202	176	175	175	168	168	168	166	165	165
4	203	196	200	176	176	176	168	168	168	173	165	168
5	196	196	196	177	176	176	168	168	168	169	169	169
6	196	192	195	177	177	177	168	167	168	169	169	169
7	193	192	193	177	177	177	167	163	165	172	168	169
8	193	193	193	178	177	178	171	167	169	172	172	172
9	194	190	193	178	170	174	179	171	174	173	168	172
10	194	191	191	171	166	168	179	175	175	177	173	174
11	191	183	186	171	171	171	179	171	175	181	173	175
12	184	176	179	175	171	172	178	174	174	181	173	177
13	180	176	177	180	175	177	178	178	178	181	177	178
14	176	172	174	180	176	178	182	178	179	186	178	182
15	177	173	177	176	176	176	186	178	182	189	178	184
16	178	177	177	176	176	176	182	177	178	182	178	180
17	178	178	178	176	175	175	181	177	179	186	178	181
18	182	178	178	175	175	175	185	181	181	189	178	184
19	183	179	182	175	175	175	185	181	184	189	182	184
20	183	179	182	175	171	172	185	180	184	197	182	189
21	184	179	183	175	171	172	184	180	181	189	183	187
22	184	180	183	175	170	173	180	176	179	187	183	184
23	180	172	175	174	170	172	176	176	176	187	183	186
24	177	172	175	174	170	171	176	171	174	190	187	187
25	177	177	177	174	170	173	175	171	171	210	187	189
26	182	177	177	174	170	173	175	171	171	190	183	189
27	182	178	178	174	169	172	171	171	171	198	183	191
28	178	170	173	169	165	167	175	170	171	202	190	195
29	---	---	---	165	161	163	170	166	169	207	198	202
30	---	---	---	169	161	164	170	170	170	203	199	202
31	---	---	---	173	169	170	---	---	---	199	195	198
MONTH	203	170	185	180	161	173	186	163	174	210	165	181
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	203	199	200	214	206	212	202	190	198	191	184	186
2	203	195	200	214	206	210	198	190	194	199	191	194
3	199	191	196	222	202	209	198	179	192	199	195	196
4	199	195	196	210	198	206	198	186	192	199	195	195
5	203	195	197	218	206	210	202	186	194	195	195	195
6	203	196	199	210	210	210	197	189	192	195	190	192
7	200	196	200	217	197	205	201	193	196	190	186	190
8	200	196	200	217	193	197	205	193	202	190	186	189
9	204	196	203	209	193	200	205	189	193	190	190	190
10	204	196	201	209	197	200	189	185	189	194	190	194
11	200	192	196	205	201	202	193	189	192	194	194	194
12	204	196	200	225	201	204	201	189	195	194	194	194
13	212	196	200	205	197	202	197	189	194	194	190	192
14	204	196	201	221	189	202	193	185	190	190	189	190
15	204	199	202	197	186	194	189	185	187	189	185	189
16	199	195	198	194	190	193	193	182	189	193	189	191
17	211	191	196	194	183	191	193	185	190	193	189	190
18	203	195	199	194	183	190	189	185	189	189	185	187
19	199	191	197	190	186	188	197	182	187	189	185	186
20	203	176	195	190	186	189	185	178	183	189	185	186
21	203	199	201	190	186	187	185	178	181	185	185	185
22	203	180	195	202	190	195	197	185	188	189	184	186
23	207	195	203	198	186	193	189	182	187	188	184	185
24	207	203	204	198	186	192	192	182	188	188	188	188
25	219	203	207	198	186	194	192	188	192	196	188	194
26	215	202	209	194	186	192	192	188	192	200	196	196
27	210	186	201	190	179	186	192	192	192	200	196	199
28	206	194	201	190	183	188	192	188	190	204	200	202
29	214	202	208	198	175	190	191	187	191	208	200	204
30	214	210	212	206	190	196	191	184	186	200	192	195
31	---	---	---	198	190	195	184	184	184	---	---	---
MONTH	219	176	201	225	175	197	205	178	191	208	184	192

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.4	7.3	8.0	7.7	8.1	7.8	7.7	7.6	7.6	7.2
2	---	---	7.4	7.2	8.0	7.7	7.8	7.8	7.6	7.6	7.4	7.3
3	---	---	7.5	7.1	7.9	7.7	7.8	7.8	7.6	7.6	7.5	7.4
4	---	---	7.3	7.1	8.1	7.5	7.8	7.8	7.7	7.6	7.5	7.4
5	---	---	7.3	7.2	7.8	7.7	7.8	7.7	7.6	7.5	7.6	7.3
6	---	---	7.5	7.3	7.8	7.7	7.8	7.8	7.6	7.5	7.5	7.1
7	---	---	7.5	7.3	7.8	7.7	7.8	7.8	7.5	7.5	7.2	7.2
8	---	---	7.5	7.4	7.7	7.6	7.8	7.7	7.5	7.4	7.2	7.1
9	---	---	7.7	7.4	7.7	7.6	7.7	7.7	7.4	7.3	7.6	7.1
10	---	---	7.7	7.4	7.7	7.4	7.7	7.7	7.4	7.3	7.6	7.4
11	---	---	7.5	7.2	7.5	7.4	7.7	7.6	7.7	7.3	7.6	7.4
12	---	---	7.5	7.2	7.6	7.4	7.6	7.6	7.5	7.3	7.5	7.3
13	---	---	7.7	7.4	7.7	7.5	7.7	7.6	7.6	7.3	7.5	7.4
14	8.2	8.0	7.5	7.3	7.7	7.6	7.7	7.6	7.5	7.3	7.5	7.3
15	8.1	7.9	7.5	7.3	7.7	7.6	7.7	7.6	7.4	7.3	7.4	7.0
16	8.0	7.8	7.5	7.3	7.7	7.6	7.7	7.6	7.4	7.4	7.2	7.1
17	7.9	7.4	7.5	7.3	7.7	7.6	7.7	7.6	7.5	7.4	7.4	7.1
18	7.9	7.7	7.5	7.3	7.6	7.6	7.7	7.7	7.4	7.3	7.3	7.0
19	7.7	7.7	7.5	7.3	7.7	7.6	7.7	7.7	7.4	7.3	7.5	6.9
20	7.7	7.5	7.5	7.4	7.8	7.7	7.8	7.7	7.5	7.3	7.5	7.4
21	7.6	7.4	7.9	7.4	7.8	7.7	7.8	7.8	7.4	7.3	---	---
22	7.6	7.5	7.6	7.4	7.7	7.6	7.8	7.8	7.4	7.3	---	---
23	7.5	7.4	7.6	7.5	7.7	7.7	7.8	7.8	7.5	7.3	---	---
24	7.9	7.5	7.7	7.5	7.8	7.7	7.8	7.8	7.5	7.4	---	---
25	7.6	7.4	7.7	7.5	7.8	7.7	7.9	7.8	7.5	7.4	---	---
26	7.6	7.4	7.6	7.4	7.9	7.8	7.8	7.7	7.6	7.4	---	---
27	7.6	7.4	7.7	7.5	7.9	7.8	7.8	7.7	7.7	7.5	---	---
28	7.5	7.4	7.7	7.6	7.9	7.8	7.7	7.6	7.7	7.3	---	---
29	7.5	7.2	8.0	7.6	7.9	7.9	7.8	7.6	---	---	---	---
30	7.5	7.4	8.0	7.8	7.9	7.9	7.8	7.7	---	---	---	---
31	7.5	7.3	---	---	7.9	7.9	7.7	7.6	---	---	---	---
MONTH	8.2	7.2	8.0	7.1	8.1	7.4	8.1	7.6	7.7	7.3	7.6	6.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	7.9	7.6	7.4	7.3	7.3	7.2	7.4	7.1
2	---	---	---	---	8.0	7.8	7.5	7.2	7.4	7.3	7.2	7.1
3	---	---	---	---	7.9	7.8	7.5	7.4	7.5	7.3	7.2	7.0
4	---	---	---	---	8.3	7.8	7.5	7.4	7.5	7.3	7.1	7.0
5	---	---	---	---	8.2	7.8	7.5	7.4	7.4	7.3	7.1	7.0
6	---	---	---	---	7.9	7.7	7.5	7.5	7.4	7.2	7.1	7.0
7	---	---	---	---	7.8	7.5	7.6	7.4	7.4	7.2	7.1	7.1
8	---	---	---	---	7.7	7.5	7.6	7.4	7.3	7.2	7.2	7.1
9	---	---	---	---	7.6	7.4	7.6	7.4	7.6	7.2	7.2	7.0
10	---	---	7.5	7.3	7.5	7.3	7.6	7.4	7.8	7.4	7.2	7.0
11	---	---	7.4	7.3	7.5	7.3	7.5	7.4	7.6	7.4	7.2	7.1
12	---	---	7.4	7.3	7.5	7.2	7.5	6.8	7.5	7.4	7.2	7.1
13	---	---	7.4	7.3	7.4	7.2	6.8	6.5	7.5	7.3	7.2	7.0
14	---	---	7.9	7.3	7.4	7.3	6.7	6.5	7.6	7.4	7.2	7.0
15	---	---	7.8	7.4	7.5	7.4	6.7	6.6	7.7	7.4	7.2	7.0
16	---	---	7.8	7.4	7.5	7.4	6.9	6.7	7.5	7.4	7.2	7.0
17	---	---	7.6	7.3	7.5	7.3	7.2	6.9	7.5	7.2	7.1	7.0
18	---	---	7.6	7.4	7.4	7.2	7.3	7.1	7.5	7.2	7.2	7.0
19	---	---	7.9	7.5	7.3	7.2	7.4	7.3	7.5	7.3	7.5	7.1
20	---	---	8.0	7.6	7.3	7.2	7.3	7.1	7.5	7.2	7.2	7.1
21	---	---	8.3	7.8	7.4	7.3	7.2	7.0	7.4	7.2	7.3	7.1
22	---	---	8.4	8.0	7.4	7.2	7.1	7.0	7.3	7.1	7.3	7.1
23	---	---	8.3	8.1	7.4	7.3	7.1	6.9	7.3	7.2	7.3	7.1
24	---	---	8.3	8.0	7.4	7.3	7.2	6.8	7.5	7.1	7.3	7.1
25	---	---	8.4	8.1	7.3	7.2	7.3	7.1	7.5	7.4	7.4	7.1
26	---	---	8.4	8.0	7.4	7.2	7.3	7.2	7.5	7.3	7.2	7.1
27	---	---	8.1	7.8	7.4	7.2	7.3	7.2	7.5	7.3	7.3	7.1
28	---	---	8.0	7.7	7.4	7.2	7.4	7.3	7.5	7.4	7.4	7.2
29	---	---	7.9	7.6	7.4	7.2	7.4	7.3	7.5	7.3	7.5	7.2
30	---	---	7.8	7.6	7.4	7.2	7.4	7.3	7.5	7.2	7.4	7.2
31	---	---	7.8	7.6	---	---	7.4	7.2	7.4	7.2	---	---
MONTH	---	---	8.4	7.3	8.3	7.2	7.6	6.5	7.8	7.1	7.5	7.0

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	14.8	13.8	14.3	10.7	9.7	10.3	7.0	6.6	6.9
2	---	---	---	14.4	13.6	14.1	10.3	10.0	10.2	6.8	6.6	6.6
3	---	---	---	14.3	13.6	14.1	10.2	10.0	10.1	6.8	6.6	6.6
4	---	---	---	14.7	14.3	14.5	10.4	10.0	10.1	6.6	6.3	6.5
5	---	---	---	14.9	14.1	14.6	11.0	10.4	10.7	6.7	6.3	6.4
6	---	---	---	14.2	13.2	13.7	10.8	10.4	10.6	6.5	6.4	6.4
7	---	---	---	13.4	12.3	13.1	10.4	10.1	10.2	6.6	6.2	6.3
8	---	---	---	13.0	11.9	12.5	10.3	10.1	10.1	6.4	6.1	6.2
9	---	---	---	12.8	12.3	12.5	10.3	10.1	10.1	6.1	5.9	5.9
10	---	---	---	12.8	12.1	12.4	10.5	9.9	10.1	5.9	5.5	5.6
11	---	---	---	12.4	11.8	12.1	10.7	10.5	10.5	6.0	5.6	5.8
12	---	---	---	12.2	11.8	11.9	10.5	9.7	10.0	7.5	6.0	6.5
13	---	---	---	12.5	11.8	12.0	9.7	9.3	9.4	7.4	7.4	7.4
14	19.6	19.2	19.5	12.9	12.4	12.6	9.5	9.3	9.4	7.5	7.1	7.2
15	19.4	18.8	19.2	12.9	12.5	12.7	9.5	9.1	9.3	7.1	6.3	6.7
16	18.8	18.4	18.6	13.0	12.7	12.9	9.6	9.3	9.4	6.3	5.7	6.0
17	19.1	18.1	18.7	13.2	13.0	13.2	9.6	9.6	9.6	5.9	4.8	5.4
18	19.1	18.7	19.0	13.4	13.2	13.3	9.6	9.4	9.5	4.8	4.2	4.4
19	19.1	18.9	19.0	13.4	12.8	13.1	9.4	9.2	9.3	4.2	3.8	4.1
20	19.3	18.9	19.3	12.8	12.4	12.7	9.2	8.8	9.1	4.0	3.6	3.8
21	19.3	18.7	19.1	12.6	12.1	12.3	8.8	8.6	8.7	3.9	3.7	3.8
22	18.7	17.9	18.3	12.5	11.6	11.9	10.0	8.6	9.2	3.9	3.7	3.8
23	18.3	17.7	18.0	12.2	11.4	11.7	9.8	9.3	9.5	4.1	3.9	4.0
24	18.4	17.5	17.9	11.8	11.4	11.6	9.3	8.9	9.0	4.4	4.0	4.2
25	18.4	17.6	18.0	12.0	11.8	11.8	9.1	8.2	8.6	5.0	4.2	4.6
26	18.4	17.3	17.9	12.0	11.2	11.8	8.2	7.8	8.0	6.0	5.0	5.5
27	17.8	17.1	17.5	11.5	10.9	11.2	8.0	7.8	7.9	6.7	6.0	6.2
28	17.3	16.5	17.0	11.3	10.5	10.9	7.8	7.5	7.7	7.0	6.7	7.0
29	16.9	16.1	16.6	11.1	10.3	10.6	7.7	7.3	7.5	7.0	6.7	6.8
30	16.3	15.0	15.7	10.7	9.9	10.4	7.3	7.0	7.2	6.7	6.5	6.6
31	15.4	14.6	15.1	---	---	---	7.0	6.9	7.0	6.7	6.4	6.5
MONTH	19.6	14.6	18.0	14.9	9.9	12.5	11.0	6.9	9.3	7.5	3.6	5.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.4	6.0	6.2	6.7	6.3	6.6	10.8	10.4	10.6	16.9	16.1	16.6
2	6.0	5.6	5.8	6.6	5.9	6.2	10.8	10.5	10.6	16.1	15.5	15.7
3	5.7	5.5	5.6	6.4	5.9	6.0	10.5	10.3	10.4	15.5	14.9	15.1
4	5.7	5.5	5.6	6.4	5.9	6.1	10.5	10.1	10.3	15.2	14.8	15.0
5	5.9	5.7	5.8	6.8	6.4	6.7	10.6	10.1	10.3	15.2	14.4	14.7
6	6.1	5.7	5.9	7.3	6.7	7.1	10.8	10.4	10.6	15.3	14.5	14.8
7	6.0	5.8	5.8	7.7	7.3	7.5	10.6	10.2	10.4	15.1	14.7	14.9
8	6.6	6.0	6.2	7.9	7.7	7.8	10.9	10.1	10.5	15.2	14.7	15.0
9	6.7	6.4	6.6	7.9	7.0	7.6	11.5	10.7	11.0	17.8	14.6	15.9
10	6.6	5.7	6.1	7.4	6.8	7.1	11.9	11.3	11.5	17.1	16.6	16.8
11	5.7	4.9	5.2	7.6	7.2	7.4	12.7	11.9	12.3	19.2	17.0	18.0
12	5.5	4.9	5.3	8.0	7.4	7.7	13.3	12.7	12.9	19.4	18.1	18.7
13	5.5	5.4	5.4	8.1	7.9	8.0	13.6	12.9	13.3	18.6	17.9	18.2
14	5.6	5.4	5.5	8.1	7.7	8.0	14.4	13.4	13.9	18.0	17.6	17.8
15	5.8	5.4	5.6	8.5	7.9	8.2	14.9	14.4	14.6	18.4	17.8	18.1
16	6.0	5.6	5.7	8.8	8.2	8.5	15.7	14.9	15.2	18.0	17.6	17.8
17	6.1	5.7	5.8	9.2	8.6	8.9	15.5	15.2	15.4	18.0	17.5	17.8
18	6.3	5.9	6.1	9.7	9.0	9.3	16.0	15.2	15.6	18.5	17.7	18.1
19	6.6	6.3	6.5	10.7	9.7	10.2	16.3	15.8	15.9	18.4	17.7	18.0
20	6.9	6.6	6.8	10.7	10.2	10.4	16.8	16.3	16.5	18.3	17.9	18.1
21	7.5	6.7	7.1	10.2	10.0	10.2	17.0	16.5	16.8	18.7	18.0	18.4
22	7.7	7.1	7.4	10.4	9.8	10.0	16.7	16.4	16.6	19.1	18.6	18.8
23	8.3	7.5	8.0	10.5	9.8	10.1	16.4	15.9	16.1	19.5	18.7	19.2
24	8.2	7.8	7.9	10.5	10.3	10.4	15.9	15.3	15.6	19.8	19.1	19.4
25	8.0	7.4	7.7	11.2	10.5	10.9	16.3	15.7	15.9	20.6	19.2	20.1
26	7.4	7.0	7.2	11.3	10.8	11.0	16.3	16.0	16.1	19.7	19.1	19.4
27	7.1	6.7	6.9	11.0	10.6	10.8	16.9	16.2	16.4	20.8	19.4	19.9
28	6.7	6.5	6.7	11.0	10.3	10.6	17.2	16.6	16.9	20.3	19.0	19.7
29	---	---	---	10.9	10.1	10.5	17.2	16.8	17.0	20.3	19.0	19.9
30	---	---	---	10.5	10.1	10.2	17.3	16.9	17.1	20.1	19.1	19.7
31	---	---	---	10.6	9.9	10.3	---	---	---	20.0	18.9	19.5
MONTH	8.3	4.9	6.3	11.3	5.9	8.7	17.3	10.1	13.9	20.8	14.4	17.7

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	19.2	20.0	25.3	24.5	24.9	24.1	23.7	23.8	25.9	25.2	25.5
2	21.4	19.7	20.8	24.9	23.9	24.4	24.5	23.9	24.2	25.3	24.7	25.0
3	21.4	20.3	21.2	24.9	24.3	24.6	25.2	24.4	24.8	25.2	24.7	24.9
4	22.0	21.1	21.4	25.3	24.7	25.0	25.2	24.4	24.9	24.7	24.1	24.4
5	22.3	21.4	21.9	25.1	24.7	24.9	24.8	24.4	24.6	24.5	24.4	24.4
6	22.2	21.2	21.8	25.1	24.7	24.9	25.1	24.3	24.6	24.5	24.2	24.3
7	21.8	21.1	21.4	25.9	24.7	25.3	25.1	24.5	24.7	24.5	24.1	24.3
8	22.4	21.5	21.9	26.1	25.7	25.9	24.7	23.9	24.1	24.6	24.0	24.3
9	22.5	21.3	22.1	26.1	25.1	25.6	25.4	24.0	24.8	24.5	23.7	24.1
10	---	---	---	25.7	24.9	25.2	25.7	25.2	25.3	24.3	23.8	24.0
11	23.9	22.4	23.1	25.9	25.3	25.6	25.5	25.0	25.2	24.1	23.5	23.8
12	23.7	23.3	23.6	26.2	23.4	25.1	25.1	24.7	24.9	24.0	23.4	23.7
13	24.1	23.3	23.7	26.6	23.7	24.5	25.3	24.7	25.0	24.0	23.7	23.9
14	24.5	23.7	24.1	25.3	24.1	24.5	25.6	24.9	25.2	24.0	23.6	23.8
15	24.7	24.1	24.5	24.3	23.8	24.1	25.6	24.6	25.1	24.0	23.6	23.8
16	25.1	24.5	24.8	24.9	23.9	24.3	25.8	24.6	25.1	23.8	23.5	23.6
17	25.1	24.5	24.9	25.4	24.5	25.0	25.6	24.5	24.9	23.5	23.0	23.3
18	25.3	24.9	25.0	25.5	24.8	25.2	25.1	24.1	24.6	23.2	22.6	22.9
19	25.1	24.9	25.0	25.0	24.4	24.6	25.5	24.7	25.0	23.4	22.2	22.7
20	25.7	24.9	25.2	25.2	24.9	25.0	25.3	24.6	24.8	23.3	22.4	22.8
21	26.1	25.3	25.7	25.0	24.7	24.9	24.8	24.4	24.5	23.7	22.3	22.8
22	26.1	25.7	25.8	24.9	24.2	24.7	24.8	24.4	24.5	22.8	22.1	22.4
23	26.3	25.7	26.0	24.2	23.8	23.9	24.7	24.3	24.4	24.9	22.4	23.3
24	26.3	25.7	26.1	24.0	23.6	23.8	26.5	24.1	25.2	22.8	21.9	22.3
25	25.9	25.5	25.7	24.5	23.6	23.9	26.4	26.0	26.1	22.6	21.9	22.2
26	25.7	24.5	25.0	24.5	23.9	24.2	26.1	25.7	25.8	21.9	20.7	21.1
27	24.7	23.7	24.0	24.1	23.5	23.9	26.1	25.4	25.7	22.5	20.4	21.4
28	24.1	23.9	24.0	24.0	23.1	23.5	26.0	25.5	25.8	21.4	20.3	21.0
29	24.9	24.1	24.6	23.4	23.0	23.2	26.0	25.3	25.6	20.9	19.7	20.5
30	25.5	24.5	24.9	23.8	23.2	23.4	26.0	25.0	25.5	20.7	20.0	20.5
31	---	---	---	24.1	23.2	23.6	26.0	25.3	25.6	---	---	---
MONTH	26.3	19.2	23.7	26.6	23.0	24.6	26.5	23.7	25.0	25.9	19.7	23.2

OXYGEN, DISSOLVED (DO, MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	8.4	8.1	8.3	11.7	10.6	11.0	10.2	10.0	10.1
2	---	---	---	8.5	7.8	8.0	11.3	10.6	10.9	10.0	9.9	9.9
3	---	---	---	8.2	6.5	7.5	11.7	11.1	11.4	10.0	9.8	9.9
4	---	---	---	7.6	6.2	7.0	11.4	10.9	11.2	10.0	9.9	10.0
5	---	---	---	8.3	6.3	7.7	11.1	9.4	10.0	10.0	9.8	9.9
6	---	---	---	8.6	8.1	8.4	9.8	8.6	9.1	9.9	9.7	9.8
7	---	---	---	9.3	8.6	9.0	9.6	8.5	9.2	10.2	9.8	9.9
8	---	---	---	9.5	7.9	8.9	9.6	9.0	9.3	10.2	9.8	9.9
9	---	---	---	8.9	7.9	8.6	9.6	9.2	9.5	10.6	10.0	10.4
10	---	---	---	9.2	8.5	8.9	12.2	9.4	10.3	10.7	10.1	10.5
11	---	---	---	9.8	8.5	9.3	11.9	10.1	11.0	10.1	9.7	9.9
12	---	---	---	9.6	8.8	9.3	10.2	9.8	10.0	9.7	9.5	9.7
13	8.9	7.4	8.2	9.9	9.2	9.6	10.2	9.5	9.9	9.7	9.6	9.6
14	8.6	7.9	8.2	10.1	8.4	9.7	10.8	9.7	10.3	9.7	9.6	9.6
15	8.1	7.5	7.7	9.5	8.4	9.3	11.7	10.5	11.1	9.6	9.4	9.5
16	8.0	6.6	7.2	9.6	8.7	9.3	---	---	---	9.8	9.6	9.7
17	7.4	6.9	7.1	9.5	8.7	9.2	---	---	---	10.0	9.8	9.9
18	7.6	7.0	7.3	9.2	8.7	8.9	---	---	---	10.3	10.0	10.1
19	7.3	6.4	6.8	9.2	8.8	8.9	---	---	---	10.4	10.1	10.3
20	7.2	6.1	6.4	9.5	8.8	9.3	---	---	---	10.5	9.7	10.4
21	7.2	6.7	7.0	10.1	9.3	9.6	---	---	---	10.6	10.3	10.4
22	7.6	6.8	7.1	9.9	9.4	9.6	---	---	---	10.6	10.3	10.4
23	7.2	6.4	6.7	10.2	9.4	9.8	9.3	9.1	9.2	10.5	10.1	10.3
24	8.2	7.2	7.6	10.7	9.8	10.0	9.4	9.1	9.3	11.7	10.2	10.3
25	7.7	7.0	7.4	10.3	9.8	10.0	9.5	9.0	9.4	10.5	10.1	10.2
26	7.4	6.7	7.0	10.1	9.8	10.0	9.7	9.5	9.6	10.1	9.8	9.9
27	8.2	7.4	7.8	10.9	10.0	10.4	10.0	9.5	9.7	10.9	9.8	10.1
28	8.1	7.7	7.8	10.7	10.2	10.5	11.8	9.7	10.3	10.1	9.5	9.8
29	8.3	7.2	7.6	11.2	10.5	10.8	10.0	9.9	10.0	10.1	9.6	10.0
30	8.8	8.3	8.5	11.4	10.5	10.9	10.0	9.8	10.0	10.4	9.8	10.0
31	8.7	8.4	8.6	---	---	---	10.3	10.0	10.1	9.9	9.7	9.8
MONTH	8.9	6.1	7.5	11.4	6.2	9.2	12.2	8.5	10.1	11.7	9.4	10.0

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.7	9.4	9.5	9.7	9.4	9.5	10.1	9.8	9.9	10.5	10.1	10.3
2	9.5	9.4	9.4	9.7	9.7	9.7	10.4	10.1	10.3	10.6	10.1	10.4
3	9.6	9.3	9.5	9.9	9.7	9.8	10.5	10.4	10.5	10.6	10.2	10.5
4	9.7	9.4	9.5	10.0	9.8	9.9	10.7	10.5	10.6	10.6	10.0	10.3
5	9.5	9.3	9.4	10.0	9.8	9.9	10.6	10.5	10.6	10.2	10.0	10.1
6	9.4	9.3	9.4	9.9	9.7	9.8	10.6	10.2	10.4	10.4	10.1	10.2
7	9.5	9.3	9.4	9.9	9.6	9.8	10.8	10.4	10.5	10.3	9.3	10.0
8	10.6	9.1	9.4	9.6	9.3	9.5	11.0	10.8	10.8	10.0	8.7	9.8
9	9.5	9.1	9.4	9.5	8.8	9.1	11.0	10.5	10.7	10.6	8.2	9.9
10	9.8	9.1	9.3	9.3	8.8	9.1	10.8	10.7	10.8	10.2	9.9	10.1
11	10.3	9.8	10.0	9.4	9.2	9.3	10.7	10.4	10.6	10.4	9.9	10.2
12	10.1	9.8	9.9	9.4	9.0	9.2	10.8	10.6	10.7	10.2	9.8	10.0
13	10.0	9.8	9.9	9.3	9.1	9.2	10.7	10.6	10.7	10.1	9.7	9.9
14	10.1	9.7	9.8	9.3	9.0	9.1	11.4	10.5	11.0	10.1	9.6	9.9
15	9.9	9.7	9.8	9.2	8.7	9.0	11.3	10.6	11.0	9.9	9.2	9.5
16	9.9	9.7	9.8	9.1	8.5	8.9	10.7	10.0	10.4	10.5	9.1	9.6
17	10.0	9.7	9.8	9.3	8.6	9.1	10.9	10.5	10.7	9.7	8.1	9.4
18	10.2	9.5	9.8	9.4	9.0	9.2	10.9	10.7	10.9	9.9	9.0	9.5
19	9.8	9.4	9.6	9.4	9.2	9.3	11.1	10.7	11.0	10.4	9.4	9.9
20	9.6	9.2	9.4	9.5	9.2	9.3	11.0	10.6	10.8	10.6	9.0	9.8
21	9.5	9.1	9.3	9.5	8.8	9.3	11.1	10.6	10.8	11.2	9.4	10.4
22	9.5	8.9	9.1	9.5	9.3	9.4	11.4	11.0	11.1	11.3	9.9	10.7
23	9.0	8.6	8.8	9.7	9.2	9.4	11.4	10.8	11.2	10.8	10.1	10.4
24	9.1	8.7	8.9	9.8	9.4	9.6	11.4	11.1	11.3	10.9	9.3	10.1
25	9.1	8.7	8.9	9.4	9.1	9.2	11.5	11.1	11.3	10.9	9.2	9.9
26	9.5	8.9	9.2	9.6	9.1	9.3	11.5	11.1	11.3	10.3	8.2	9.2
27	9.6	9.4	9.5	9.8	9.0	9.4	11.4	10.9	11.2	9.7	8.1	9.0
28	9.5	9.4	9.4	9.5	9.1	9.4	11.3	10.8	11.0	9.5	7.7	8.5
29	---	---	---	9.5	9.3	9.4	11.3	10.3	11.0	9.2	7.4	8.3
30	---	---	---	9.8	9.5	9.6	10.9	9.9	10.4	8.4	7.1	7.7
31	---	---	---	9.8	8.5	9.7	---	---	---	8.8	6.4	7.7
MONTH	10.6	8.6	9.5	10.0	8.5	9.4	11.5	9.8	10.8	11.3	6.4	9.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	7.5	8.2	7.8	5.3	5.9	6.5	5.4	6.2	7.6	5.1	6.3
2	9.1	7.7	8.3	6.4	5.0	5.9	7.1	5.6	6.5	5.9	4.7	5.3
3	8.9	7.7	8.4	7.1	5.7	6.5	7.7	6.8	7.1	6.0	4.6	5.3
4	9.1	8.1	8.6	7.5	5.7	6.8	7.5	6.7	7.2	5.1	4.2	4.6
5	9.6	7.7	8.6	6.9	5.4	6.5	7.2	6.5	6.8	6.6	4.5	5.4
6	8.5	7.4	8.0	6.9	5.5	6.3	7.1	5.9	6.6	6.0	5.0	5.5
7	8.7	6.9	7.8	6.9	5.8	6.4	7.0	5.5	6.3	7.6	5.7	6.8
8	8.3	6.4	7.3	7.4	5.5	6.6	6.4	4.9	5.7	8.9	6.7	7.8
9	6.7	5.5	6.2	6.7	4.9	6.1	8.7	5.3	7.5	8.3	6.8	7.6
10	6.6	4.7	5.8	6.9	5.4	6.3	9.0	7.3	8.1	8.3	6.5	7.3
11	7.1	5.1	6.0	6.8	5.0	6.0	9.3	7.6	8.1	8.3	6.9	7.3
12	7.0	5.3	6.1	6.5	5.3	5.9	8.3	6.9	7.6	7.6	6.5	6.9
13	6.7	5.1	6.0	6.5	4.8	5.7	8.3	6.7	7.4	7.6	6.9	7.0
14	7.1	5.5	6.1	7.0	5.3	6.1	8.3	7.3	7.9	7.2	6.6	6.9
15	7.0	5.5	6.4	6.6	5.4	6.2	9.0	7.5	8.2	7.8	6.1	7.0
16	7.0	5.2	6.2	6.7	5.7	6.3	9.7	7.0	8.3	7.0	5.6	6.4
17	6.5	5.1	5.9	6.7	4.9	5.8	8.5	6.7	7.7	6.5	5.3	5.8
18	6.7	5.1	5.9	6.9	5.6	6.1	8.4	7.1	7.7	6.4	5.3	5.9
19	6.7	5.0	6.0	6.6	5.3	6.2	8.7	7.6	8.2	7.5	5.5	6.6
20	7.0	5.2	5.9	7.2	5.7	6.6	8.7	7.3	8.1	8.0	6.5	6.9
21	7.1	5.5	6.3	7.4	6.0	6.8	8.4	7.4	8.0	7.0	6.3	6.7
22	6.8	5.1	5.9	6.9	6.0	6.6	7.4	5.8	7.0	7.6	6.6	6.9
23	7.6	5.2	6.2	6.9	5.7	6.4	7.9	6.8	7.4	7.6	5.8	6.8
24	7.3	5.4	6.5	6.8	4.9	6.0	8.5	6.6	7.2	7.3	6.1	6.9
25	6.8	5.2	6.3	6.6	5.6	6.2	7.2	5.3	6.5	7.0	6.0	6.5
26	6.3	5.0	5.6	7.1	5.4	6.5	7.1	4.5	6.0	6.2	5.8	6.0
27	6.4	4.8	5.8	6.9	6.0	6.5	7.0	4.6	5.8	6.3	5.7	6.0
28	5.7	4.2	4.9	6.5	5.3	5.9	7.0	4.7	5.9	6.2	5.8	6.1
29	5.8	3.7	4.6	6.5	4.2	5.3	7.0	5.4	6.0	7.2	6.3	6.6
30	6.8	4.6	5.4	6.6	5.0	5.9	8.4	5.1	6.6	7.4	6.7	7.1
31	---	---	---	6.9	5.0	6.2	7.6	5.5	6.6	---	---	---
MONTH	9.6	3.7	6.5	7.8	4.2	6.2	9.7	4.5	7.1	8.9	4.2	6.5

CUMBERLAND RIVER BASIN

03436420 PINEY FORK AT FORT CAMPBELL, KY-TN

LOCATION.--Lat 36°36'59", long 87°30'51", Montgomery County, Hydrologic Unit 05130206, on right downstream end of bridge pier on Boiling Spring road, 0.4 mi above Noahs Spring Branch, 0.5 mi southeast of intersection of Mabry and Boiling Spring roads, 6.6 mi northeast of Oakwood.

DRAINAGE AREA.--50.2 mi².

PERIOD OF RECORD.--August 1993 to September 1994.

GAGE.--Water-stage recorder. Elevation of gage is 433 ft above sea level from topographic map.

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

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 27	1615	2,000	12.50	Mar. 9	1815	2,100	12.63
Feb. 9	0945	1,020	9.83	Mar. 27	0830	*3,110	*13.57
Feb. 20	2145	1,020	9.78	Apr. 11	1130	1,950	12.42
Feb. 23	0115	2,770	13.32				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.00	.00
2	---	---	---	---	---	---	---	---	---	---	.00	.00
3	---	---	---	---	---	---	---	---	---	---	.00	.00
4	---	---	---	---	---	---	---	---	---	---	.00	.00
5	---	---	---	---	---	---	---	---	---	---	.00	.00
6	---	---	---	---	---	---	---	---	---	---	.00	.00
7	---	---	---	---	---	---	---	---	---	---	.00	.00
8	---	---	---	---	---	---	---	---	---	---	.00	.00
9	---	---	---	---	---	---	---	---	---	---	.00	.00
10	---	---	---	---	---	---	---	---	---	---	.00	.00
11	---	---	---	---	---	---	---	---	---	---	.00	.00
12	---	---	---	---	---	---	---	---	---	---	.00	.00
13	---	---	---	---	---	---	---	---	---	---	.00	.00
14	---	---	---	---	---	---	---	---	---	---	.00	.00
15	---	---	---	---	---	---	---	---	---	---	.00	.00
16	---	---	---	---	---	---	---	---	---	---	.00	.00
17	---	---	---	---	---	---	---	---	---	---	.00	.00
18	---	---	---	---	---	---	---	---	---	---	.00	.00
19	---	---	---	---	---	---	---	---	---	---	.00	.00
20	---	---	---	---	---	---	---	---	---	---	.00	.00
21	---	---	---	---	---	---	---	---	---	---	.00	.00
22	---	---	---	---	---	---	---	---	---	---	.00	.00
23	---	---	---	---	---	---	---	---	---	---	.00	.00
24	---	---	---	---	---	---	---	---	---	---	.00	.00
25	---	---	---	---	---	---	---	---	---	---	.00	.00
26	---	---	---	---	---	---	---	---	---	---	.00	.00
27	---	---	---	---	---	---	---	---	---	---	.00	.00
28	---	---	---	---	---	---	---	---	---	---	.00	.00
29	---	---	---	---	---	---	---	---	---	---	.00	.00
30	---	---	---	---	---	---	---	---	---	---	.00	.00
31	---	---	---	---	---	---	---	---	---	---	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	0.00	0.00
MEAN	---	---	---	---	---	---	---	---	---	---	.000	.000
MAX	---	---	---	---	---	---	---	---	---	---	.00	.00
MIN	---	---	---	---	---	---	---	---	---	---	.00	.00
CFSM	---	---	---	---	---	---	---	---	---	---	.00	.00
IN.	---	---	---	---	---	---	---	---	---	---	.00	.00

CUMBERLAND RIVER BASIN

03436420 PINEY FORK AT FORT CAMPBELL, KY-TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	15	111	66	121	36	.05	4.9	.00	.00
2	.00	.00	.00	17	89	100	96	26	.00	3.2	.00	.00
3	.00	.00	.00	16	71	93	93	20	.00	1.9	.00	.00
4	.00	.00	507	14	59	66	115	18	.00	.50	.00	.00
5	.00	.00	375	11	51	52	130	17	.00	.00	.00	.00
6	.00	.00	101	9.2	44	40	385	13	.00	.00	.00	.00
7	.00	.00	44	371	36	35	228	78	.00	.00	.00	.00
8	.00	.00	26	155	33	104	147	142	.00	.00	.00	.00
9	.00	.00	20	65	621	1250	109	77	.00	.00	.00	.00
10	.00	.00	276	42	304	709	410	45	.00	.00	.00	.00
11	.00	.00	95	33	478	359	1260	30	.00	.00	.00	.00
12	.00	.00	44	47	610	198	446	22	.00	.00	.00	.00
13	.00	.00	29	45	627	144	300	17	.00	.00	.00	.00
14	.00	.00	44	35	388	122	207	14	.00	.00	.00	.00
15	.00	8.5	43	30	312	96	353	13	.00	.00	.00	.00
16	.00	4.9	30	28	228	74	354	53	.00	.00	.00	.00
17	.00	45	22	23	178	59	201	22	.00	.00	.00	.00
18	.00	23	16	26	145	51	150	12	.00	.00	.00	.00
19	.00	7.8	13	27	119	44	115	8.3	.00	.00	.00	.00
20	.00	4.9	11	26	414	35	88	7.2	.00	.00	.00	.00
21	.00	2.4	9.6	26	550	31	67	5.6	.00	.00	.00	.00
22	.00	.45	8.3	20	720	28	52	4.6	.00	.00	.00	.00
23	.00	.00	7.1	18	1300	24	41	3.9	.00	.00	.00	.00
24	.00	.00	6.6	161	277	22	33	3.1	.00	.00	.00	.00
25	.00	.00	5.8	482	164	30	27	2.6	.00	.00	.00	.00
26	.00	.00	5.1	318	114	40	27	2.7	85	.00	.00	.00
27	.00	.00	4.3	1060	88	2060	20	1.9	114	.00	.00	.00
28	.00	.00	8.0	695	70	912	19	1.3	22	.00	.00	.00
29	.00	.00	40	313	---	312	18	.69	10	.00	.00	.00
30	.00	.00	30	210	---	209	20	.30	7.2	.00	.00	.00
31	.00	---	22	153	---	156	---	.52	---	.00	.00	---
TOTAL	0.00	96.95	1842.80	4491.2	8201	7521	5632	697.71	238.25	10.50	0.00	0.00
MEAN	.000	3.23	59.4	145	293	243	188	22.5	7.94	.34	.000	.000
MAX	.00	45	507	1060	1300	2060	1260	142	114	4.9	.00	.00
MIN	.00	.00	.00	9.2	33	22	18	.30	.00	.00	.00	.00
CFSM	.00	.06	1.18	2.89	5.83	4.83	3.74	.45	.16	.01	.00	.00
IN.	.00	.07	1.37	3.33	6.08	5.57	4.17	.52	.18	.01	.00	.00

CUMBERLAND RIVER BASIN

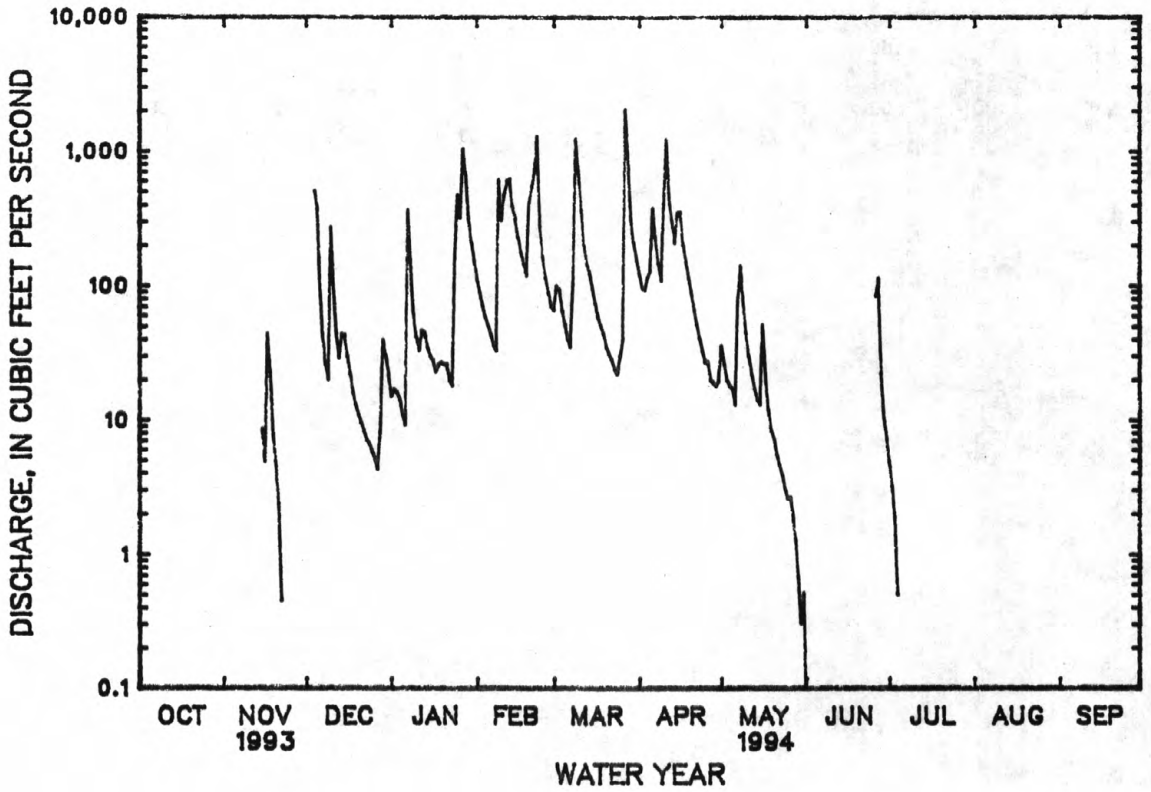
03436420 PINEY FORK AT FORT CAMPBELL, KY-TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	.000	3.23	59.4	145	293	243	188	22.5	7.94	.34	.000	.000
MAX	.000	3.23	59.4	145	293	243	188	22.5	7.94	.34	.000	.000
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1993	1993
MIN	.000	3.23	59.4	145	293	243	188	22.5	7.94	.34	.000	.000
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1993	1993

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	28731.41			
ANNUAL MEAN	78.7		78.7	
HIGHEST ANNUAL MEAN			78.7	1994
LOWEST ANNUAL MEAN			78.7	1994
HIGHEST DAILY MEAN	2060	Mar 27	2060	Mar 27 1994
LOWEST DAILY MEAN	.00	Oct 1	.00	Jul 13 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1	.00	Jul 13 1993
INSTANTANEOUS PEAK FLOW	3110	Mar 27	3110	Mar 27 1994
INSTANTANEOUS PEAK STAGE	13.57	Mar 27	13.57	Mar 27 1994
INSTANTANEOUS LOW FLOW			a.00	Aug 1 1993
ANNUAL RUNOFF (CFSM)	1.57		1.57	
ANNUAL RUNOFF (INCHES)	21.29		21.31	
10 PERCENT EXCEEDS	217		158	
50 PERCENT EXCEEDS	3.9		.00	
90 PERCENT EXCEEDS	.00		.00	

a Many days each year.



CUMBERLAND RIVER BASIN

03436426 LITTLE WEST FORK NEAR FORT CAMPBELL, KY-TN

LOCATION.--Lat 36°36'37", long 87°28'11", Montgomery County, Hydrologic Unit 05130206, on right downstream wingwall of Eastend road bridge, 2.6 mi downstream from confluence of Piney Fork Creek and Noah Spring Branch, 3.0 mi northwest of Ringgold.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--August 1993 to September 1994.

GAGE.--Data logger. Elevation of gage is 412 ft above sea level from topographic map.

REMARKS.--Records good. Flow is effected by Ft. Campbell diverting an average of about 10.0 ft³/s from Boiling Spring for water supply above the gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT PERIOD.--August 1993 to September 1994: Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 27	2400	2,980	13.57	Mar. 7	1300	*4,680	*16.55
Feb. 12	0045	1,900	11.34	Mar. 9	2045	3,370	14.35
Feb. 21	0100	2,170	11.93	Mar. 27	1245	3,690	14.90
Feb. 23	0400	3,660	14.85	Apr. 11	1515	3,150	13.91
Mar. 6	1815	2,580	12.76				

Minimum discharge, 7.1 ft³/s, several days in September and October 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR AUGUST 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	e11	21
2	---	---	---	---	---	---	---	---	---	---	e11	28
3	---	---	---	---	---	---	---	---	---	---	12	10
4	---	---	---	---	---	---	---	---	---	---	12	9.2
5	---	---	---	---	---	---	---	---	---	---	12	9.0
6	---	---	---	---	---	---	---	---	---	---	14	8.6
7	---	---	---	---	---	---	---	---	---	---	15	7.8
8	---	---	---	---	---	---	---	---	---	---	14	7.9
9	---	---	---	---	---	---	---	---	---	---	13	8.2
10	---	---	---	---	---	---	---	---	---	---	12	7.9
11	---	---	---	---	---	---	---	---	---	---	11	8.2
12	---	---	---	---	---	---	---	---	---	---	12	8.2
13	---	---	---	---	---	---	---	---	---	---	18	8.0
14	---	---	---	---	---	---	---	---	---	---	14	7.8
15	---	---	---	---	---	---	---	---	---	---	14	15
16	---	---	---	---	---	---	---	---	---	---	13	9.5
17	---	---	---	---	---	---	---	---	---	---	12	8.3
18	---	---	---	---	---	---	---	---	---	---	12	8.3
19	---	---	---	---	---	---	---	---	---	---	11	8.4
20	---	---	---	---	---	---	---	---	---	---	9.4	8.2
21	---	---	---	---	---	---	---	---	---	---	10	8.0
22	---	---	---	---	---	---	---	---	---	---	11	7.5
23	---	---	---	---	---	---	---	---	---	---	11	16
24	---	---	---	---	---	---	---	---	---	---	11	12
25	---	---	---	---	---	---	---	---	---	---	11	25
26	---	---	---	---	---	---	---	---	---	---	12	11
27	---	---	---	---	---	---	---	---	---	---	11	9.9
28	---	---	---	---	---	---	---	---	---	---	11	9.6
29	---	---	---	---	---	---	---	---	---	---	11	9.5
30	---	---	---	---	---	---	---	---	---	---	11	9.5
31	---	---	---	---	---	---	---	---	---	---	9.9	---
TOTAL	---	---	---	---	---	---	---	---	---	---	372.3	325.5
MEAN	---	---	---	---	---	---	---	---	---	---	12.0	10.8
MAX	---	---	---	---	---	---	---	---	---	---	18	28
MIN	---	---	---	---	---	---	---	---	---	---	9.4	7.5
CFSM	---	---	---	---	---	---	---	---	---	---	.09	.09
IN.	---	---	---	---	---	---	---	---	---	---	.11	.10

e Estimated

CUMBERLAND RIVER BASIN

03436426 LITTLE WEST FORK NEAR FORT CAMPBELL, KY-TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	12	e24	61	317	319	394	172	67	74	28	18
2	10	11	23	64	273	345	338	145	62	68	28	19
3	9.7	11	24	63	238	324	318	131	59	62	26	19
4	8.6	11	534	60	214	275	323	126	58	58	27	18
5	8.6	10	1060	55	185	238	319	119	57	51	28	20
6	8.1	9.4	285	53	166	376	741	110	55	46	27	18
7	7.9	10	164	476	149	538	498	216	58	44	26	17
8	8.2	9.6	127	391	143	295	354	356	54	42	24	15
9	8.3	9.4	108	172	996	2240	302	216	52	40	20	15
10	9.9	9.5	401	127	524	1990	744	166	50	38	18	15
11	11	9.6	272	111	962	1110	2610	143	49	36	17	16
12	9.2	11	151	117	1400	684	1280	130	48	36	17	15
13	9.3	20	124	129	1380	534	808	119	46	35	17	15
14	8.8	50	128	113	923	e440	553	114	44	32	26	14
15	8.4	57	138	98	750	e375	758	113	43	35	20	13
16	8.9	e45	118	81	593	e325	952	131	42	42	19	12
17	9.6	e200	100	89	476	e275	522	109	57	56	19	17
18	9.0	e100	89	95	401	e260	399	97	48	39	19	20
19	17	e70	80	85	351	232	335	92	40	34	20	17
20	16	e65	75	75	813	207	287	89	58	32	21	16
21	13	e60	71	67	1380	190	252	85	152	31	23	14
22	13	e50	66	64	1200	173	225	81	54	33	20	14
23	12	e45	62	66	2800	161	200	77	49	33	19	21
24	12	e35	59	227	967	154	182	77	61	32	18	20
25	12	31	57	581	658	154	167	75	50	32	18	17
26	12	e30	53	814	472	163	160	74	231	39	18	16
27	12	e28	52	1220	384	3060	149	69	333	36	16	18
28	12	e26	55	1980	337	2300	195	67	112	32	14	14
29	11	e25	85	817	---	946	172	66	93	30	17	13
30	12	e25	74	515	---	665	150	65	81	30	16	13
31	13	---	63	390	---	481	---	63	---	29	18	---
TOTAL	329.4	1085.5	4722	9256	19452	19829	14687	3693	2263	1257	644	489
MEAN	10.6	36.2	152	299	695	640	490	119	75.4	40.5	20.8	16.3
MAX	17	200	1060	1980	2800	3060	2610	356	333	74	28	21
MIN	7.9	9.4	23	53	143	154	149	63	40	29	14	12
CFSM	.08	.28	1.20	2.35	5.47	5.04	3.85	.94	.59	.32	.16	.13
IN.	.10	.32	1.38	2.71	5.70	5.81	4.30	1.08	.66	.37	.19	.14

e Estimated

CUMBERLAND RIVER BASIN

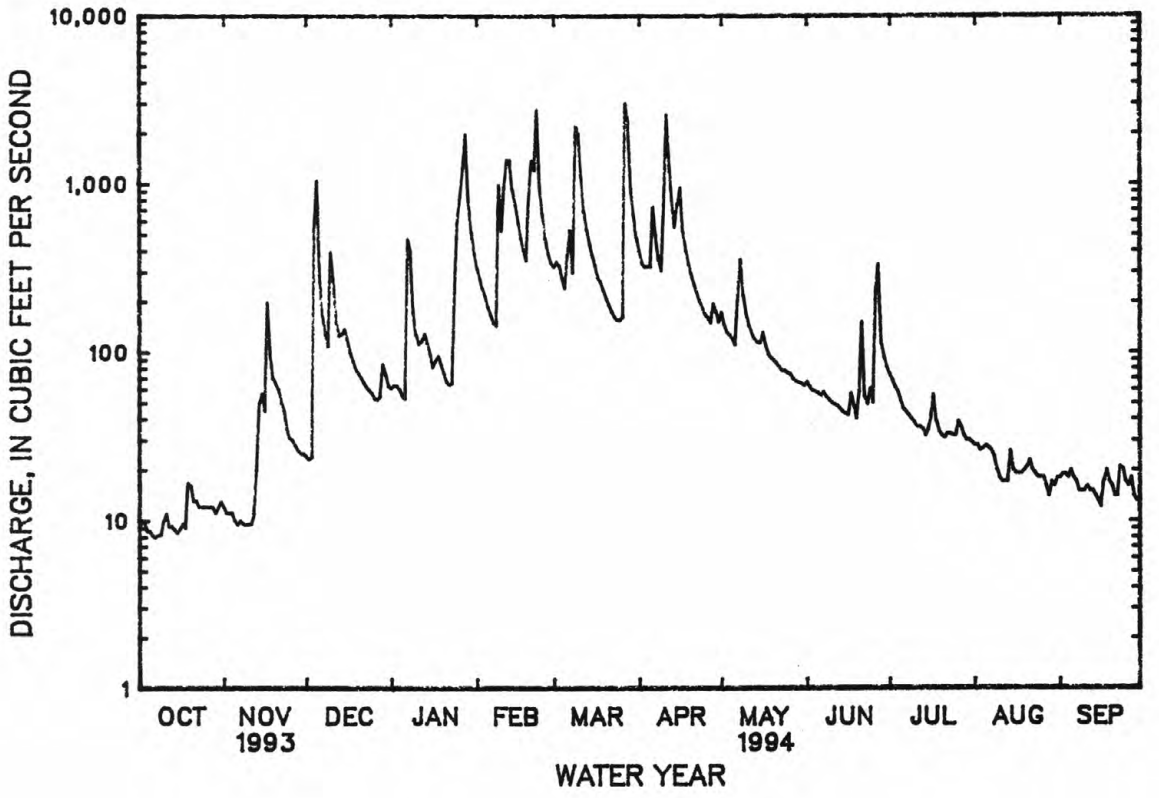
03436426 LITTLE WEST FORK NEAR FORT CAMPBELL, KY-TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	10.6	36.2	152	299	695	640	490	119	75.4	40.5	16.4	13.6
MAX	10.6	36.2	152	299	695	640	490	119	75.4	40.5	20.8	16.3
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994
MIN	10.6	36.2	152	299	695	640	490	119	75.4	40.5	12.0	10.8
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1993	1993

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	77706.9			
ANNUAL MEAN	213		213	
HIGHEST ANNUAL MEAN			213	1994
LOWEST ANNUAL MEAN			213	1994
HIGHEST DAILY MEAN	3060	Mar 27	3060	Mar 27 1994
LOWEST DAILY MEAN	7.9	Oct 7	7.5	Sep 22 1993
ANNUAL SEVEN-DAY MINIMUM	8.5	Oct 3	8.0	Sep 7 1993
INSTANTANEOUS PEAK FLOW	4680	Mar 7	4680	Mar 7 1994
INSTANTANEOUS PEAK STAGE	16.55	Mar 7	16.55	Mar 7 1994
INSTANTANEOUS LOW FLOW	a7.1	Oct 6	b7.1	Sep 8 1993
ANNUAL RUNOFF (CFSM)	1.68		1.68	
ANNUAL RUNOFF (INCHES)	22.76		22.78	
10 PERCENT EXCEEDS	536		486	
50 PERCENT EXCEEDS	62		50	
90 PERCENT EXCEEDS	12		9.8	

a Also occurred Oct. 7.
b Also occurred several days in September.



CUMBERLAND RIVER BASIN

RESERVOIRS IN CUMBERLAND RIVER BASIN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russell County, KY, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi². PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft higher.

REVISIONS.--WSP 1556: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor gates, each 37 ft high by 50 ft wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft top of gates, is 3,070,000 cfs-days, of which 1,056,000 cfs-days above elevation 723.00 ft, crest of spillway, are reserved for flood control and 1,080,000 cfs-days between elevation 673.00 ft, minimum power pool, and 723.00 ft are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days below elevation 673.00 ft is dead storage. Reservoir is used for flood control, power, navigation, and recreation.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,811,000 cfs-days, May 13, 1984, elevation, 751.70 ft; minimum, after first filling, 934,400 cfs-days, Jan. 1, 1956, elevation, 673.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,611,300 cfs-days, Apr. 18, elevation, 744.99 ft; minimum, 1,310,700 cfs-days, Nov. 14, elevation, 692.43 ft.

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3.0 mi east of Celina, and 7.3 mi upstream from mouth. DRAINAGE AREA, 936 mi². PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

REVISIONS.--WSP 1306: 1944. WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft high by 60 ft wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft, top of gates, is 859,800 cfs-days of which 177,500 cfs-days between elevations 663.00 ft and 651.00 ft, crest of spillway, are reserved for flood control, and 250,200 cfs-days between elevations 651.00 ft and 631.00 ft, ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days below elevation 631.00 ft is dead storage. Reservoir is used for flood control, navigation, and power.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 828,600 cfs-days, Mar. 15, 1975, elevation, 660.98 ft; minimum, after first filling, 428,000 cfs-days, Sept. 11, 1944, elevation, 630.63 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 745,500 cfs-days, Apr. 17, elevation, 655.43 ft; minimum, 505,900 cfs-days, Nov. 13, elevation, 637.41 ft.

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam on Cumberland River, 2.7 mi north of Carthage, and at mile 313.5. DRAINAGE AREA, 8,095 mi². PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft, maximum surcharge pool, is 156,700 cfs-days, of which 53,400 cfs-days is controlled storage between elevations 508.0 ft and 499.0 ft, ordinary minimum pool. Contents of 5,000 cfs-days between elevation of 499.0 ft and 500.0 ft full winter pool, is available for power production. Contents of 48,400 cfs-days above 500.0 ft is available for flood control during the winter, and 26,100 cfs-days above 504.0 ft, full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days below elevation 499.0 ft is dead storage. Reservoir is used for navigation, power, and flood control.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 156,700 cfs-days, Mar. 13, 1975, May 8, 1984, elevation, 508.00 ft; minimum, after first filling to ordinary minimum pool, 96,700 cfs-days, Apr. 18, 1974, elevation, 497.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 135,600 cfs-days, Sept. 30, elevation, 504.80 ft; minimum, 103,500 cfs-days, Jan. 19, elevation, 499.05 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03413500 LAKE CUMBERLAND			03416500 DALE HOLLOW LAKE			03418400 CORDELL HULL RESERVOIR		
Sept. 30...	696.97	1,406,300	-	638.51	519,200	-	504.24	132,100	-
Oct. 31...	694.48	1,353,500	-52,800	637.81	510,700	-8,500	501.97	118,900	-13,200
Nov. 30...	694.92	1,362,700	9,200	637.83	511,000	+300	500.06	108,600	-10,300
Dec. 31...	704.45	1,570,500	+207,800	640.78	547,100	+36,100	500.97	113,400	+4,800
CAL YR 1993	-	-	-99,300	-	-	+6,200	-	-	+2,900
Jan. 31...	716.76	1,858,800	+288,300	646.57	621,800	+74,700	499.55	106,000	-7,400
Feb. 28...	734.62	2,319,200	+460,400	651.82	693,800	+72,000	501.05	113,800	+7,800
Mar. 31...	740.12	2,471,800	+152,600	654.36	730,000	+36,200	501.41	115,800	+2,000
Apr. 30...	734.53	2,316,700	-155,100	651.05	683,000	-47,000	504.04	130,900	+15,100
May 31...	723.19	2,018,700	-298,000	650.68	677,900	-5,100	503.90	130,000	-900
June 30...	719.95	1,937,300	-81,400	649.13	656,400	-21,500	504.09	131,200	+1,200
July 31...	716.22	1,845,700	-91,600	646.99	627,400	-29,000	504.18	131,700	+500
Aug. 31...	707.60	1,642,200	-203,500	642.81	572,800	-54,600	504.17	131,700	-
Sept. 30...	700.01	1,472,100	-170,100	639.75	534,400	-38,400	504.27	132,300	+600
WTR YR 1994	-	-	+65,800	-	-	+15,200	-	-	+200

RESERVOIRS IN CUMBERLAND RIVER BASIN--Continued

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at pen-stock inlet on Collins River, 700 ft southwest of powerhouse of Tennessee Valley Authority, 1.5 mi northwest of Rock Island, 1.8 mi upstream from mouth of Collins River, and 2.0 mi upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi². PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is sea level.

REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft high by 25 ft wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft top of gates, is 25,900 cfs-days, of which 18,700 cfs-days are controlled storage above elevation 780.0 ft, normal minimum pool. Contents of 1,500 cfs-days below elevation 762.0 ft is dead storage. Reservoir is used primarily for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight elevation, 817.48 ft, Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days, Aug. 19, 1918, elevation, 756.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,600 cfs-days, Feb. 11, elevation, 807.36 ft; minimum, 13,000 cfs-days, Nov. 24, elevation, 790.01 ft.

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi north of Smithville, 14 mi southeast of Carthage, and at mile 26.6. DRAINAGE AREA, 2,174 mi². PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft upstream at same datum.

REVISIONS.--WSP 1910: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft high by 50 ft wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft, top of gates, is 1,054,800 cfs-days, of which 384,500 cfs-days between 685.0 ft and 648.0 ft, crest of spillway, are reserved for flood control, and 248,000 cfs-days between elevations 648.0 ft and 618.0 ft, ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days below 618.0 ft is dead storage. Reservoir is used for flood control, navigation, and power.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,014,600 cfs-days, May 10, 1984, elevation, 681.52 ft; minimum, after first filling, 171,000 cfs-days, Dec. 1, 2, 1949, elevation, 576.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 924,400 cfs-days, Apr. 17, elevation, 673.38 ft; minimum, 495,900 cfs-days, Nov. 10, elevation, 627.62 ft.

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2. DRAINAGE AREA, 11,673 mi². PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum.

REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft, maximum surcharge pool, 274,600 cfs-days of which 63,000 cfs-days between elevations 450.0 ft and 445.0 ft, normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days between elevations 445.0 ft and 442.0 ft, ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days below elevation 442.0 ft, is dead storage. Reservoir is used for navigation and power.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 277,200 cfs-days, May 9, 1984, elevation, 450.18 ft; minimum, after first filling to ordinary minimum pool, 179,400 cfs-days, Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 239,400 cfs-days, Mar. 29, elevation, 447.33 ft; minimum, 185,300 cfs-days, Oct. 22, elevation, 442.55 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03422000	GREAT FALLS LAKE		03424000	CENTER HILL LAKE		03426300	OLD HICKORY LAKE	
Sept. 30...	797.26	18,200	-	631.39	526,200	-	444.80	209,400	-
Oct. 31...	790.42	13,200	-5,000	629.76	513,000	-13,200	443.07	190,600	-18,800
Nov. 30...	790.36	13,200	0	628.81	505,400	-7,600	444.62	207,300	+16,700
Dec. 31...	804.93	24,900	+11,700	635.23	558,000	+52,600	444.86	210,000	+2,700
CAL YR 1993	-	-	-1,300	-	-	-92,500	-	-	+3,600
Jan. 31...	806.13	26,200	+1,300	642.42	620,000	+62,000	444.64	207,600	-2,400
Feb. 28...	805.69	25,700	-500	656.07	746,600	+126,600	444.85	209,900	+2,300
Mar. 31...	805.63	25,700	0	669.61	884,100	+137,500	444.95	211,000	+1,100
Apr. 30...	799.81	20,300	-5,400	650.73	695,600	-188,500	444.66	207,800	-3,200
May 31...	794.89	16,400	-3,900	647.09	662,000	-33,600	444.75	208,800	+1,000
June 30...	805.42	25,400	+9,000	648.09	671,100	+9,100	444.59	207,000	-1,800
July 31...	805.56	25,600	+200	644.80	641,200	-29,900	444.24	203,100	-3,900
Aug. 31...	799.83	20,300	-5,300	635.85	563,200	-78,000	444.60	207,100	+4,000
Sept. 30...	799.53	20,100	-200	630.43	518,400	-44,800	444.65	207,700	+600
WTR YR 1994	-	-	+1,900	-	-	-7,800	-	-	-1,700

CUMBERLAND RIVER BASIN

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi east of Donelson, and 6.8 mi above mouth. DRAINAGE AREA, 892 mi². PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft high by 45 ft wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft, maximum controlled pool, is 328,700 cfs-days of which 193,600 cfs-days is controlled storage between elevations 504.5 ft and 480.0 ft, ordinary minimum pool. Contents of 17,200 cfs-days between elevations 480.0 ft and 483.0 ft, full winter pool, is available for power production. Contents of 176,400 cfs-days above 483.0 ft is available for flood control during the winter, and 131,100 cfs-days above 490.0 ft, full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days below elevation 480.0 ft is dead storage. Reservoir is used for flood control, power, recreation, and wildlife.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 336,600 cfs-days, May 9, 1984, elevation, 505.18 ft; minimum, after first filling to ordinary minimum pool, 109,500 cfs-days, Dec. 5, 1968, elevation, 474.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 284,000 cfs-days, Mar. 30, elevation, 500.32 ft; minimum, 147,800 cfs-days, Jan. 22, elevation, 482.25 ft.

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi west of Ashland City, 16 mi southeast of the courthouse in Clarksville, and at mile 148.7. DRAINAGE AREA, 14,159 mi².

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft high by 60 ft wide. Total capacity at elevation 385.0 ft, normal pool, is 52,200 cfs-days, of which 9,800 cfs-days are controlled storage. Records of contents not published herein.

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, KY, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi northeast of Grand Rivers, KY, and at mile 30.6. DRAINAGE AREA, 17,598 mi². PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is sea level, (levels by U.S. Army Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft upstream from Barkley Dam at same datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates, each 50 ft high by 55 ft wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft, top of gates, is 1,049,600 cfs-days, of which 742,000 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Contents of 130,500 cfs-days between ordinary minimum pool elevation, 354.0 ft, and full pool elevation, 359.0 ft, is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft, contents 171,000 cfs-days. Reservoir is used for navigation, flood control, power, and recreation.
Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 370.04 ft, May 13, 1984; minimum after reaching permanent pool elevation, 353.20 ft, Dec. 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 683,700 cfs-days, Apr. 23, elevation, 366.36 ft; minimum contents, 297,600 cfs-days, Jan. 4, minimum elevation, 353.55 ft. Contents based on backwater profile.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03430050 J. PERCY PRIEST LAKE			*03438210 LAKE BARKLEY		
Sept. 30.....	489.86	196,600	-	356.42	-	-
Oct. 31.....	487.41	179,700	-16,900	355.52	343,000	-
Nov. 30.....	483.93	157,600	-22,100	354.50	318,800	-24,200
Dec. 31.....	483.97	157,800	+200	354.67	332,800	+14,000
CAL YR 1993	-	-	-5,200	-	-	-
Jan. 31.....	487.28	178,900	+21,100	355.30	379,000	+46,200
Feb. 28.....	489.55	194,400	+15,500	355.98	413,700	+34,700
Mar. 31.....	499.62	277,000	+82,600	355.27	464,600	+50,900
Apr. 30.....	490.28	199,600	-77,400	359.90	403,600	-61,000
May 31.....	490.23	199,300	-300	359.17	441,900	+38,300
June 30.....	492.05	212,700	+13,400	359.06	-	-
July 31.....	490.36	200,200	-12,500	358.75	433,700	-
Aug. 31.....	490.34	200,100	-100	356.65	377,600	-56,100
Sept. 30.....	490.11	198,400	-1,700	355.90	-	-
WTR YR 1994	-	-	+1,800	-	-	-

* Contents based on backwater profile.

THIS IS A BLANK PAGE

Map number	Station number	Station name	Page
73	03455000	FRENCH BROAD RIVER NEAR NEWPORT	128-129
74	03461230	CANEY CREEK NEAR COSBY	314
75	03465500	NOLICHUCKY RIVER AT EMBREEVILLE	130-131
76	03465607	CHEROKEE CREEK NEAR EMBREEVILLE	314
77	03465780	CLEAR FORK NEAR FAIRVIEW	314
78	03466228	SINKING CREEK AT AFTON	132-133
79	03466890	LICK CREEK NEAR ALBANY	315
80	03467480	BENT CREEK AT TAYLOR GAP	315
81	03467992	CARTER BRANCH NEAR WHITE PINE	315
82	03467993	CEDAR CREEK NEAR VALLEY HOME	315
83	03467998	SINKING FORK AT WHITE PINE	315
84	03469175	LITTLE PIGEON RIVER ABOVE SEVIERVILLE	134-136
85	03470215	DUMPLIN CREEK AT MT. HAREB	315
86	03476960	INDIAN CREEK AT CHILDRESS	315
87	03478615	EVANS CREEK NEAR BLOUNTVILLE	316
88	03486305	SINKING CREEK AT SINKING CREEK ROAD AT JOHNSON CITY	294
89	03486311	SINKING CREEK AT HWY 67 AT JOHNSON CITY	295
90	03486312	CATBIRD CREEK AT MIAMI DRIVE AT JOHNSON CITY	296
91	03486485	BRUSH CREEK AT STATE OF FRANKLIN RD AT JOHNSON CITY	297
92	03486494	BRUSH CREEK AT JOHNSON CITY	298
93	03486508	BRUSH CREEK AT PINEY GROVE AT JOHNSON CITY	299
94	03486657	KNOB CREEK AT CLAUDE SIMMONS ROAD AT JOHNSON CITY	300
95	03486659	KNOB CREEK TRIB AT KNOB CREEK ROAD	301
96	03486665	KNOB CREEK AT WAYFIELD DRIVE AT JOHNSON CITY	302
97	03486670	COBB CREEK AT EAST OAKLAND AVE AT JOHNSON CITY	303
98	03487550	REEDY CREEK AT OREBANK	316
99	03490522	FORGERY CREEK AT ZION HILL	316
100	03491000	BIG CREEK NEAR ROGERSVILLE	138-139,338
101	03491490	DODSON CREEK TRIB NEAR ROGERSVILLE	316
102	03491540	ROBERTSON CREEK NEAR PERSIA	316
103	03491544	CROCKETT CREEK BELOW ROGERSVILLE	140-141,338
104	03494714	DRY LAND CREEK TRIB NEAR NEW MARKET	316
105	03494990	FLAT CREEK AT LUTTRELL	316
106	03495547	LOVE CREEK AT I-40 AT KNOXVILLE	304
107	03495957	WHITE CREEK AT NORA ROAD AT KNOXVILLE	305
108	03497300	LITTLE RIVER AT TOWNSEND	142-145
109	03498500	LITTLE RIVER NEAR MARYVILLE	146-147
110	03498850	LITTLE RIVER NEAR ALCOA	148-149
111	03519610	BAKER CREEK TRIB NEAR BINFIELD	317
112	03519640	BAKER CREEK NEAR GREENBACK	317
113	03527800	BIG WAR CREEK AT LUTHER	317
114	03528000	CLINCH RIVER ABOVE TAZEWELL	150-151,338
115	03528390	CROOKED CREEK NEAR MAYNARDVILLE	317
116	03534000	COAL CREEK AT LAKE CITY	317
117	03535180	WILLOW FORK NEAR HALLS CROSSROAD	317
118	03536320	WHITEOAK CREEK NEAR MELTON HILL	152-153,338
119	03536380	WHITEOAK CREEK NEAR WHEAT	154-155,338
120	03536440	NORTHWEST TRIBUTARY NEAR OAK RIDGE	156-157
121	03536450	FIRST CREEK NEAR OAK RIDGE	158-159
122	03536550	WHITEOAK CREEK BELOW MELTON VALLEY DR NR OAK RIDGE	160-161
123	03537100	MELTON BRANCH NEAR MELTON HILL NR OAK RIDGE	162-163
124	03538231	EAST FORK POPLAR CREEK AT Y-12 AT OAK RIDGE	164-165
125	03538235	EAST FORK POPLAR CREEK AT BEAR CR RD AT OAK RIDGE	166-167
126	03538256	BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE	168-170,339
127	03538260	BEAR CREEK AT COUNTY LINE NEAR OAK RIDGE	172-173
128	03538270	BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE	174-175
129	03538600	OBED RIVER AT CROSSVILLE	176-177,339
130	03540500	EMORY RIVER AT OAKDALE	178-179,339
131	03543500	SEWEE CREEK NEAR DECATUR	180-181
132	03560500	DAVIS MILL CREEK AT COPPERHILL	182-183
133	03563000	OCOEE RIVER AT EMF	184-185
134	03564500	OCOEE RIVER AT PRAKSVILLE	186-187
135	03566000	HIWASSEE RIVER AT CHARLESTON	188-189
136	035661285	NORTH MOUSE CR NR ROCKY MTN. HOLLOW NR ATHENS	190-191
137	03566420	WOLFTEVER CREEK NEAR OOLTEWAH	318
138	03566599	NORTH CHICKAMAUGA CREEK AT GREENS MILL NEAR HIXSON	318
139	03567500	SOUTH CHICKAMAUGA NEAR CHICKAMAUGA	192-193
140	03568000	TENNESSEE RIVER AT CHATTANOOGA	194-195
141	03569168	STRINGERS BRANCH AT LEAWOOD DRIVE AT RED BANK	318
142	03571000	SEQUATCHIE RIVER NEAR WHITWELL	196-197,339
143	03571500	LITTLE SEQUATCHIE RIVER AT SEQUATCHIE	318
144	03571730	STANDIFER BRANCH AT JASPER	318

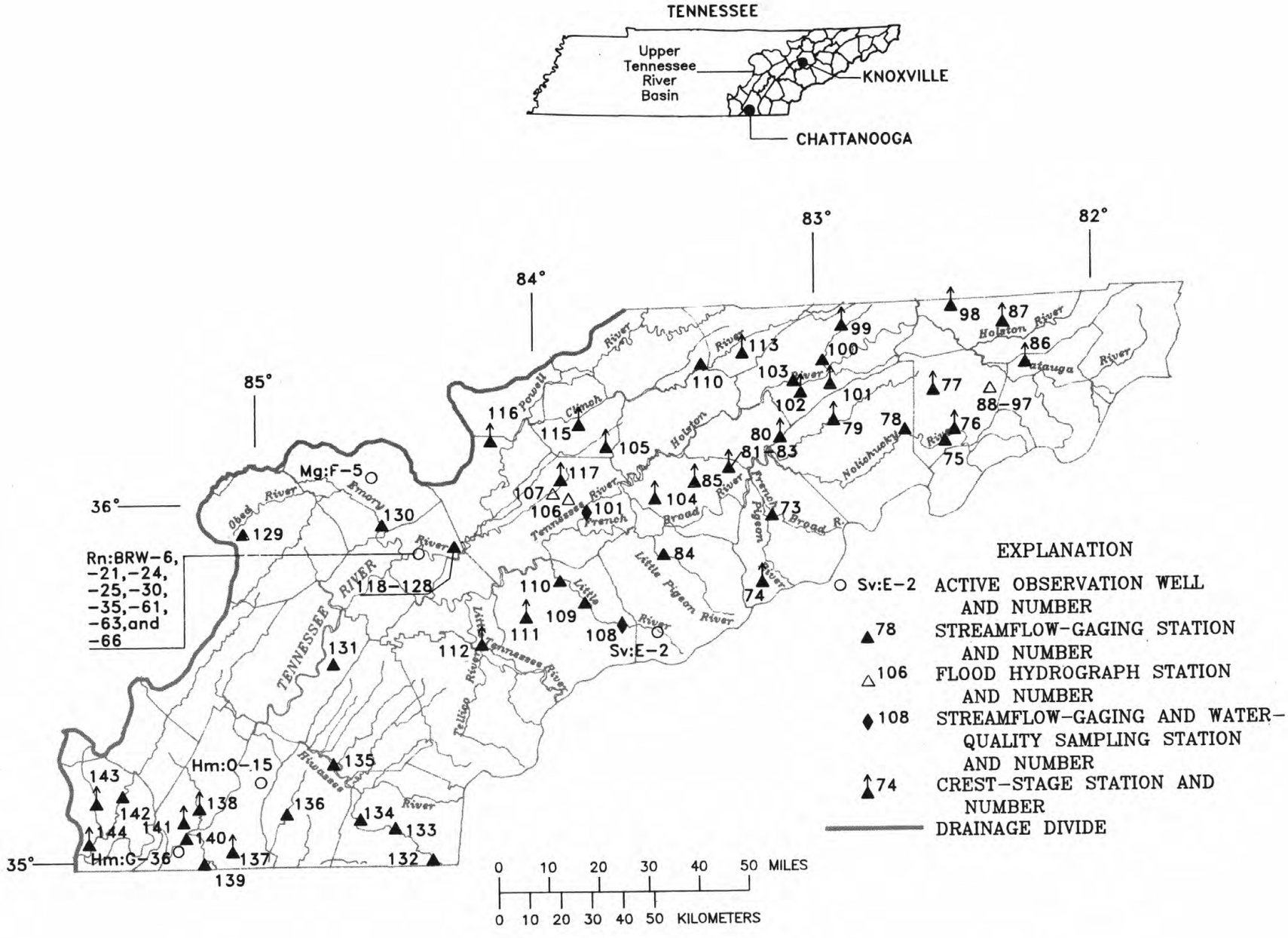


Figure 5.--Location of gaging sites in the upper Tennessee River Basin.

TENNESSEE RIVER BASIN

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft upstream from bridge on U.S. Highway 321, 1.0 mi northeast of Newport city limits, 3.7 mi upstream from Pigeon River, and at mile 77.5.

DRAINAGE AREA.--1,858 mi².

PERIOD OF RECORD.--September to December 1900, February to August 1901, October to November 1901, November 1902 to December 1905, September to December 1907, October 1920 to September 1994 (discontinued). Monthly discharge only October to November 1920, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1933-34. WSP 823: Drainage area. WSP 893: 1928(M). WSP 1306: 1900-1908. WSP 1336: 1903(M), 1921-22(M), 1923, 1925(M), 1927(M), 1928, 1932. WSP 1706: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft above sea level. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--Records good. Diurnal fluctuation during low flow caused by powerplants above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft, present datum, discharge, estimated, 110,000 ft³/s, has not been exceeded since that date. From the same reports, other outstanding floods occurred Feb. 28, 1902, gage height, 23.0 ft present datum, discharge, estimated, 101,000 ft³/s; and July 17, 1916, gage height, 22.5 ft, present datum, discharge, estimated, 97,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 11	2145	20,500	9.43	Apr. 11	1245	23,900	10.41
Feb. 23	2145	20,600	9.47	Aug. 17	1430	33,900	12.87
Mar. 28	0600	*61,000	*17.56				

Minimum discharge, 528 ft³/s, Oct. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	720	1220	1630	2320	3870	3830	9070	3380	1720	3940	2120	2270
2	646	1150	1360	2000	3260	4320	6360	3220	1700	2910	2000	3150
3	718	876	1160	1860	2900	8440	5370	3030	1610	2490	2060	4170
4	691	857	1260	2360	2640	7600	4830	3360	1540	2250	2080	3500
5	675	956	9060	3070	2650	6090	e4500	3560	1710	2130	2570	3030
6	660	1340	6330	2660	2770	5010	e5000	3250	2040	2100	3770	2790
7	616	1340	3620	2850	2640	4300	e6000	2970	2200	2280	2450	2800
8	616	1160	2400	6820	2450	3900	e5500	3090	3140	2080	2240	2650
9	616	959	1930	e4680	2870	3680	e5000	3060	3180	1900	2200	2610
10	644	873	1800	e3360	5050	3940	e4800	2880	4840	1840	1890	2830
11	684	847	2340	2710	12700	4120	e11500	2660	3530	1810	1700	2430
12	681	797	2120	4240	13100	3700	10200	2510	4060	2040	1730	2260
13	757	791	1830	7070	7790	3310	8800	2440	3140	2150	1860	2170
14	605	807	1530	5130	5410	3200	9540	2380	2710	2360	1660	2040
15	658	810	1690	e3500	4290	3090	7740	2410	3120	2200	3350	2000
16	645	919	2080	e2800	3650	2850	11100	2780	2980	2430	3440	1950
17	623	887	2020	e3000	3230	2730	10000	2570	2620	2460	22600	1960
18	663	875	1790	e3500	2930	2580	7630	2320	2400	2570	23100	2340
19	680	868	1640	e3000	2730	2510	6030	2220	2070	2630	17800	2530
20	681	1050	1580	e2800	2530	2420	5190	2150	2260	2410	15100	2200
21	682	928	2010	e2700	2490	2390	4610	2050	2100	2330	10500	2030
22	738	841	2030	e2500	2440	2530	4220	2030	1880	2340	7610	1880
23	714	792	1810	2470	8420	2410	3940	2030	1850	3920	5160	1850
24	695	772	1600	2460	16600	2240	3670	1960	1950	3030	3760	1900
25	643	752	1480	2890	11200	3200	3460	2150	1940	2980	3250	2110
26	617	774	1390	5970	8410	3900	3320	2140	1730	2850	2940	3400
27	660	2230	1320	5600	5660	13800	3440	2740	4870	2990	2810	3140
28	631	5450	1430	6110	4310	47000	3680	2180	7170	6010	2770	2400
29	657	4050	4480	9370	---	25400	3580	1960	9130	5150	2560	2110
30	713	2200	4220	7240	---	16900	3790	1850	6150	3380	2390	1970
31	949	---	e2950	5340	---	12600	---	1770	---	2500	2200	---
TOTAL	20978	38171	73890	122380	148990	213990	181870	79100	91340	84460	161670	74470
MEAN	677	1272	2384	3948	5321	6903	6062	2552	3045	2725	5215	2482
MAX	949	5450	9060	9370	16600	47000	11500	3560	9130	6010	23100	4170
MIN	605	752	1160	1860	2440	2240	3320	1770	1540	1810	1660	1850
CFSM	.36	.68	1.28	2.12	2.86	3.72	3.26	1.37	1.64	1.47	2.81	1.34
IN.	.42	.76	1.48	2.45	2.98	4.28	3.64	1.58	1.83	1.69	3.24	1.49

e Estimated

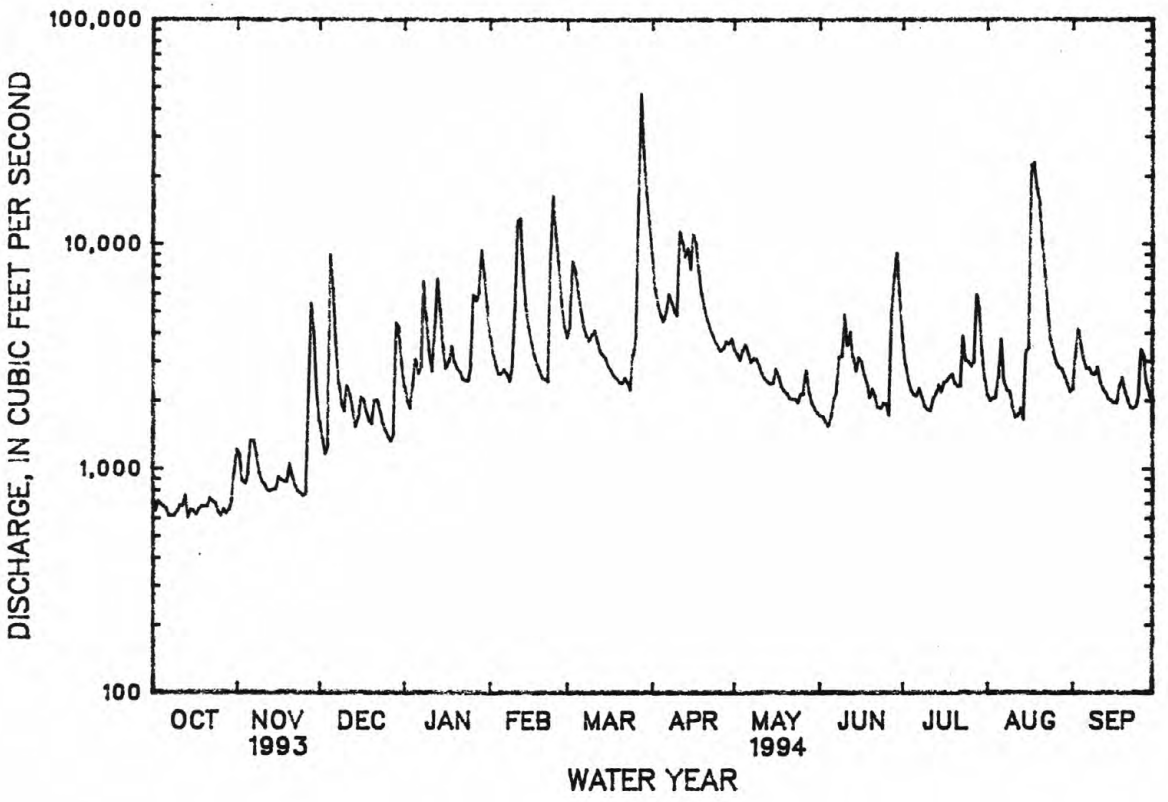
TENNESSEE RIVER BASIN

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1994, BY WATER YEAR (WY)

MEAN	1908	2161	2887	3549	4231	4869	4363	3378	2628	2247	2349	1778
MAX	9875	7249	7478	9533	8814	12710	11650	9448	6148	7620	14640	6358
(WY)	1965	1980	1962	1937	1990	1903	1903	1901	1901	1905	1901	1928
MIN	508	713	819	968	1450	1399	1362	1252	722	711	380	421
(WY)	1955	1932	1940	1956	1941	1988	1986	1941	1988	1986	1925	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1901 - 1994	
ANNUAL TOTAL	1059769		1291309			
ANNUAL MEAN	2903		3538		2969	
HIGHEST ANNUAL MEAN					4641	1973
LOWEST ANNUAL MEAN					1348	1988
HIGHEST DAILY MEAN	20000	Mar 24	47000	Mar 28	62200	Apr 8 1903
LOWEST DAILY MEAN	605	Oct 14	605	Oct 14	240	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM	644	Oct 5	644	Oct 5	276	Aug 25 1925
INSTANTANEOUS PEAK FLOW			61000	Mar 28	76300	Aug 30 1940
INSTANTANEOUS PEAK STAGE			17.56	Mar 28	19.25	Aug 30 1940
INSTANTANEOUS LOW FLOW			528	Oct 28	208	Oct 23 1952
ANNUAL RUNOFF (CFSM)	1.56		1.90		1.60	
ANNUAL RUNOFF (INCHES)	21.22		25.85		21.71	
10 PERCENT EXCEEDS	6100		6540		5500	
50 PERCENT EXCEEDS	1830		2510		2290	
90 PERCENT EXCEEDS	770		803		976	



TENNESSEE RIVER BASIN

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft upstream from bridge on State Highway 81, 3 mi northwest of Erwin, 5.2 mi downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi².

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 above sea level. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

REMARKS.--No estimated daily discharge. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft³/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	1100	14,000	6.11	Apr. 11	1500	10,500	5.27
Feb. 11	1800	15,200	6.39	Apr. 13	1630	9,630	5.06
Feb. 23	2400	11,400	5.51	Aug. 17	1230	*41,200	*11.63
Mar. 28	0500	37,500	10.92				

Minimum discharge, 300 ft³/s, Oct. 6, 7, 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	547	605	1350	1970	1980	4120	2250	862	1690	973	971
2	326	453	541	1220	1650	2450	3340	1920	831	1360	1010	1710
3	328	415	504	1130	1440	3620	2860	1740	781	1140	1070	2510
4	321	413	669	1410	1330	2940	2550	2090	746	1080	1060	1790
5	313	696	9260	1270	1390	2790	2260	2050	724	1020	1050	1420
6	305	916	3760	1090	1550	2440	2780	1880	753	931	1450	1310
7	302	691	1860	1310	1350	2160	3080	1690	870	895	1130	1210
8	305	524	1300	3990	1250	1990	2590	1720	1360	799	981	1080
9	306	453	1060	2580	1610	1880	2290	1590	1130	793	933	1030
10	338	420	1070	1730	3680	1860	2210	1440	1270	787	819	966
11	335	400	1500	1430	10700	1720	8120	1340	1760	757	1090	896
12	355	390	1310	3940	9100	1530	6150	1270	1240	772	1270	841
13	374	383	1050	4300	4850	1450	7500	1210	1020	822	1280	792
14	351	380	977	2800	3410	1540	6290	1180	978	868	1020	756
15	330	392	992	2060	2670	1450	4400	1230	1030	781	997	730
16	318	404	998	1430	2220	1350	6800	1310	1130	781	1560	713
17	317	392	918	1610	1910	1250	4970	1190	1040	843	19900	715
18	327	385	872	2330	1710	1230	3750	1050	1010	944	9480	864
19	328	383	844	1510	1550	1200	3120	1000	872	871	4430	822
20	322	382	822	1340	1430	1110	2690	970	919	984	3110	716
21	333	371	1010	1280	1380	1120	2370	949	1020	1080	2580	665
22	368	359	883	1190	1340	1420	2160	923	983	1060	2270	639
23	349	349	823	1140	4260	1300	2010	881	991	1350	1830	629
24	332	348	752	1240	8280	1190	1830	850	1450	1000	1580	682
25	320	348	682	1450	4620	1420	1720	1090	1110	805	1430	726
26	318	349	669	3000	3280	1600	1660	1170	948	811	1320	862
27	317	1590	663	3820	2550	7310	1880	2010	4040	1130	1250	723
28	312	2020	949	5060	2160	27100	2000	1380	4180	2050	1170	635
29	308	977	3220	4560	---	13000	2350	1100	4170	1950	1110	592
30	362	723	2900	3070	---	7580	3500	983	2460	1490	1030	560
31	501	---	1750	2390	---	5300	---	903	---	1130	962	---
TOTAL	10354	16853	45213	68030	84640	106280	103350	42359	41678	32774	71145	28555
MEAN	334	562	1458	2195	3023	3428	3445	1366	1389	1057	2295	952
MAX	501	2020	9260	5060	10700	27100	8120	2250	4180	2050	19900	2510
MIN	302	348	504	1090	1250	1110	1660	850	724	757	819	560
CFSM	.41	.70	1.81	2.73	3.76	4.26	4.28	1.70	1.73	1.31	2.85	1.18
IN.	.48	.78	2.09	3.14	3.91	4.91	4.78	1.96	1.93	1.51	3.29	1.32

TENNESSEE RIVER BASIN

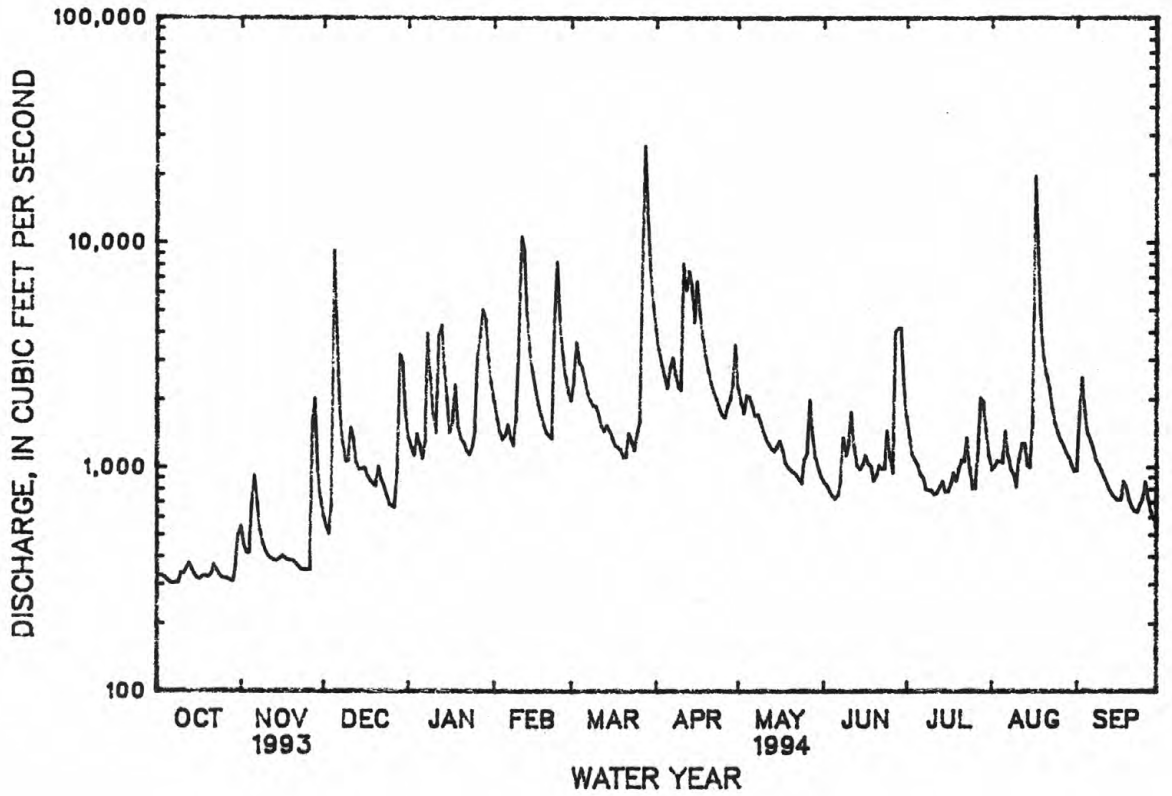
03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1994, BY WATER YEAR (WY)

MEAN	817	1026	1307	1651	2029	2342	2027	1575	1118	941	924	778
MAX	2630	4720	3073	3765	4494	5102	4169	3171	3196	2525	4876	2648
(WY)	1930	1978	1962	1937	1957	1963	1983	1984	1992	1949	1940	1928
MIN	246	294	353	382	635	649	699	597	376	351	182	187
(WY)	1954	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1920 - 1994	
ANNUAL TOTAL	519748		651231			
ANNUAL MEAN	1424		1784		1374	
HIGHEST ANNUAL MEAN					1948	1974
LOWEST ANNUAL MEAN					694	1988
HIGHEST DAILY MEAN	14000	Mar 24	27100	Mar 28	50800	Nov 6 1977
LOWEST DAILY MEAN	302	Oct 7	302	Oct 7	88	Sep 8 1925
ANNUAL SEVEN-DAY MINIMUM	311	Oct 3	311	Oct 3	121	Sep 3 1925
INSTANTANEOUS PEAK FLOW			41200	Aug 17	a110000	Nov 6 1977
INSTANTANEOUS PEAK STAGE			11.63	Aug 17	21.52	Nov 6 1977
INSTANTANEOUS LOW FLOW			b300	Oct 6	c85	Sep 8 1925
ANNUAL RUNOFF (CFSM)	1.77		2.22		1.71	
ANNUAL RUNOFF (INCHES)	24.02		30.09		23.18	
10 PERCENT EXCEEDS	2920		3550		2570	
50 PERCENT EXCEEDS	918		1170		1000	
90 PERCENT EXCEEDS	355		378		403	

a From rating curve extended above 48,000 ft³/s on basis of contracted opening and slope-area measurements of peak flow.
b Also occurred on Oct. 7, 8, 9.
c Also occurred on Sept. 9, 1925.



TENNESSEE RIVER BASIN

03466228 SINKING CREEK AT AFTON, TN

LOCATION.--Lat 36°11'55", long 82°44'31", Greene County, Hydrologic Unit 06010108, on left bank 300 ft upstream from bridge on county road, 0.4 mi northwest of Afton, and at mile 3.1.

DRAINAGE AREA.--13.7 mi².

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,459.36 ft above sea level.

REMARKS.--Records good, except for estimated days which were fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 9	1900	197	3.32	Mar. 27	Unknown	*850	*5.83
Feb. 11	Unknown	794	5.67	Apr. 11	1845	243	3.58
Feb. 23	1700	187	3.26				

Minimum discharge, 2.6 ft³/s, Oct. 20, 21, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.2	4.5	15	18	33	54	e20	13	14	8.0	8.1
2	3.3	3.2	4.2	14	18	52	46	e19	12	13	8.0	11
3	3.0	3.2	3.9	14	17	50	42	e18	12	13	8.0	9.8
4	3.0	3.2	20	26	16	48	40	e18	12	12	7.6	8.3
5	3.0	4.0	65	22	19	41	37	e17	12	12	9.0	7.8
6	3.0	4.6	21	18	24	36	46	e16	12	11	8.9	7.7
7	3.0	3.9	14	46	20	33	42	e16	12	11	8.0	7.6
8	3.0	3.4	12	64	19	35	36	e15	15	10	7.8	7.1
9	3.0	3.2	10	32	84	40	33	e15	12	10	7.7	7.1
10	2.8	3.2	11	27	e120	38	44	e14	18	10	7.3	6.8
11	2.8	3.0	13	24	e450	33	173	e14	14	10	7.1	6.7
12	3.2	3.0	11	51	e100	30	81	e14	12	9.7	7.4	6.6
13	3.2	3.0	9.7	36	e65	29	e140	e13	12	9.9	7.4	6.3
14	3.2	3.0	9.0	28	e50	29	e95	e13	47	10	6.9	6.2
15	3.0	2.9	8.7	23	e42	27	e50	e13	17	9.0	6.9	6.2
16	3.0	3.0	8.5	20	40	25	e65	e18	14	9.1	7.3	6.2
17	3.0	3.0	7.7	19	35	24	e55	e16	13	13	16	6.3
18	3.0	3.0	7.4	19	32	23	e45	e15	12	11	11	6.4
19	3.0	3.0	7.2	19	30	23	e40	e14	12	9.3	8.8	6.2
20	2.9	3.0	6.8	17	28	22	e37	e14	11	9.0	8.7	5.7
21	3.3	3.0	11	16	29	22	e35	e14	11	11	22	5.6
22	3.5	2.8	12	16	28	24	e33	e14	11	9.7	13	5.6
23	3.2	2.8	11	16	106	22	e30	e13	10	9.0	11	5.6
24	2.9	2.8	9.4	19	62	21	e28	e13	10	8.6	9.5	5.6
25	2.8	2.8	8.8	26	43	22	e26	e13	10	8.4	9.3	5.8
26	2.8	3.5	8.2	36	38	21	e25	e18	9.6	8.9	8.8	6.2
27	2.8	17	7.7	29	34	e300	e24	20	29	10	8.4	6.1
28	2.8	9.2	17	26	31	e280	e23	15	22	9.7	8.3	5.6
29	2.7	6.2	42	23	---	e120	e22	14	32	9.1	8.0	5.6
30	2.9	5.0	22	21	---	77	e21	14	17	8.4	7.9	5.6
31	3.0	---	17	20	---	65	---	13	---	8.3	7.6	---
TOTAL	93.5	120.1	420.7	782	1598	1645	1468	473	455.6	317.1	281.6	201.4
MEAN	3.02	4.00	13.6	25.2	57.1	53.1	48.9	15.3	15.2	10.2	9.08	6.71
MAX	3.5	17	65	64	450	300	173	20	47	14	22	11
MIN	2.7	2.8	3.9	14	16	21	21	13	9.6	8.3	6.9	5.6
CFSM	.22	.29	.99	1.84	4.17	3.87	3.57	1.11	1.11	.75	.66	.49
IN.	.25	.33	1.14	2.12	4.34	4.47	3.99	1.28	1.24	.86	.76	.55

e Estimated

TENNESSEE RIVER BASIN

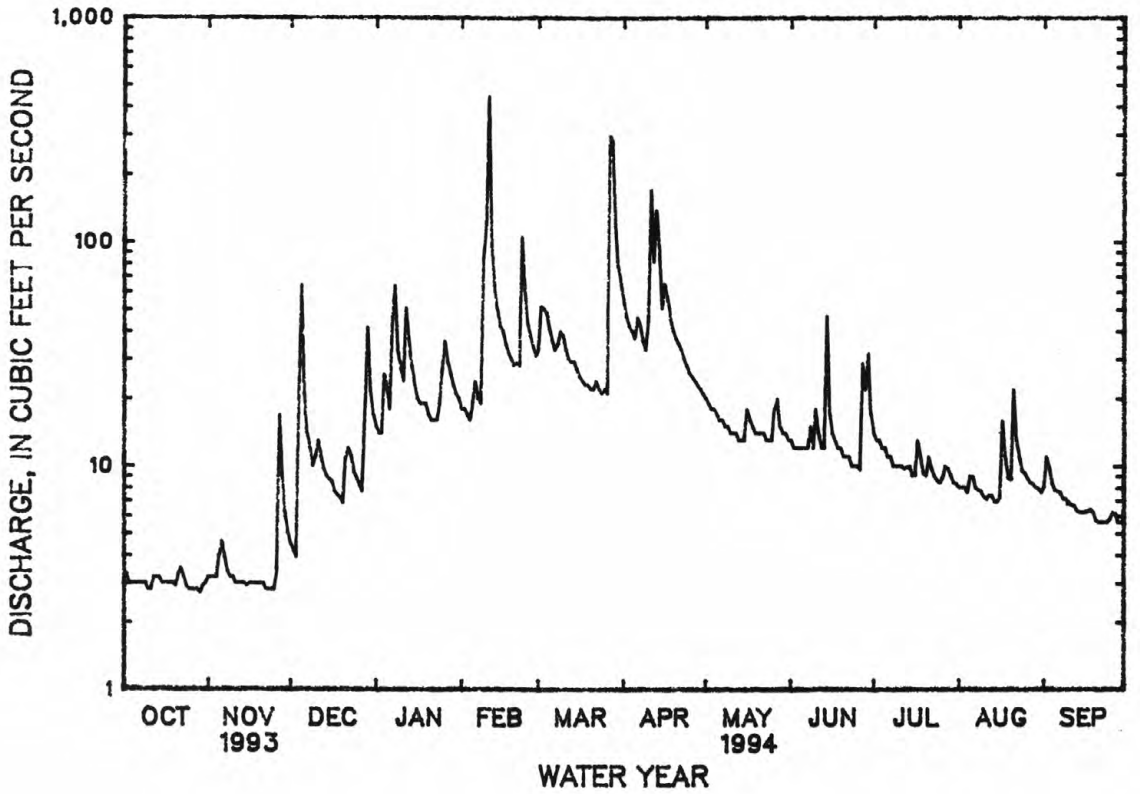
03466228 SINKING CREEK AT AFTON, TN

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1994, BY WATER YEAR (WY)

MEAN	4.77	6.77	11.8	17.8	24.9	24.1	18.0	14.5	11.2	10.7	6.86	5.76
MAX	10.5	26.0	32.6	34.3	57.1	53.1	48.9	50.6	20.9	32.5	14.6	18.5
(WY)	1990	1978	1992	1978	1994	1994	1994	1984	1989	1979	1984	1982
MIN	1.28	2.16	3.04	3.23	10.7	5.96	4.13	3.49	2.11	1.86	1.68	1.49
(WY)	1989	1987	1988	1981	1981	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1977 - 1994	
ANNUAL TOTAL	4655.3		7856.0			
ANNUAL MEAN	12.8		21.5		13.0	
HIGHEST ANNUAL MEAN					21.5	1994
LOWEST ANNUAL MEAN					3.62	1988
HIGHEST DAILY MEAN	75	Mar 24	450	Feb 11	561	May 7 1984
LOWEST DAILY MEAN	2.7	Oct 29	2.7	Oct 29	1.1	Sep 22 1988
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 24	2.8	Oct 24	1.1	Oct 20 1988
INSTANTANEOUS PEAK FLOW			850	Mar 27	1510	Jul 21 1979
INSTANTANEOUS PEAK STAGE			a5.83	Mar 27	7.79	Jul 21 1979
INSTANTANEOUS LOW FLOW			b2.6	Oct 20	.90	Jul 9 1988
ANNUAL RUNOFF (CFSM)	.93		1.57		.95	
ANNUAL RUNOFF (INCHES)	12.64		21.33		12.90	
10 PERCENT EXCEEDS	28		42		25	
50 PERCENT EXCEEDS	8.4		12		8.4	
90 PERCENT EXCEEDS	3.0		3.0		2.9	

a From floodmarks.
b Also occurred on Oct. 21, 29, 30.



TENNESSEE RIVER BASIN

03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN

LOCATION.--Lat 35°51'55", long 83°32'01", Sevier County, Hydrologic Unit 06010107, on left bank of county road, 1.2 mi downstream from East Fork, 1.2 mi upstream from West Prong, 0.8 mi east of Sevierville, and at mi 7.5.

DRAINAGE AREA.-- 184 mi².

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder and encoder. Datum of gage is 898.08 ft above sea level.

REMARKS.--Records good. The town of Sevierville diverts an average of about 1.5 ft³/s (1.0 MGD) for municipal supply.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	1000	2,880	6.11	Feb. 23	1400	7,120	10.75
Dec. 5	0130	6,280	9.98	Mar. 28	0200	*19,700	*17.50
Jan. 28	0900	4,690	8.37	Apr. 11	1030	10,000	13.00
Feb. 11	1430	6,430	10.12				

Minimum discharge 47 ft³/s, Oct. 9, 10 and 21.

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in WDR-TN reports for 1989, 1990 and 1991.

Water year	Date	Discharge (ft³/s)	Gage height (ft)
1989	Sept. 22, 1989	14,500	15.22
1990	Mar. 17, 1990	10,900	13.48
1991	Mar. 29, 1991	6,440	10.13

The peak discharges, peak base, and annual maximum (*) reported for water years 1992 and 1993, have been revised as shown in the following table. They supersede figures published in WDR-TN for 1992 and 1993. Peak discharges greater than base discharge of 4,600 ft³/s.

Water year	Date	Time	Discharge (ft³/s)	Gage height (ft)
1992	Nov. 22, 1991	1130	*6,910	*10.56
1992	Dec. 2, 1991	0130	5,680	9.39
1992	Dec. 3, 1991	1400	6,080	9.79
1992	Feb. 26, 1992	1000	4,620	8.29
1993	Dec. 20, 1992	1500	*4,900	* 8.59

TENNESSEE RIVER BASIN

03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	105	199	440	491	486	1210	526	151	242	284	101
2	85	86	168	378	397	1090	939	471	142	208	428	172
3	77	77	148	382	347	1510	762	427	131	197	391	157
4	69	76	957	795	303	1170	705	533	122	225	310	157
5	62	275	4500	620	434	913	611	491	114	168	791	135
6	58	263	1450	493	516	702	1380	455	145	148	1110	136
7	53	162	687	1310	429	588	1310	386	161	134	590	165
8	50	124	449	2980	376	578	998	473	608	122	405	135
9	49	105	334	1270	810	651	743	428	395	120	310	119
10	55	94	379	753	2100	2220	967	354	337	114	248	113
11	66	87	599	549	5500	1330	6950	306	291	122	268	106
12	67	82	389	1440	2370	871	2400	277	621	122	237	97
13	72	77	310	1120	1360	651	2130	254	496	139	329	91
14	60	73	270	800	888	568	1460	229	609	173	224	87
15	56	153	284	567	663	474	1270	238	545	135	209	83
16	52	161	291	e380	539	413	2500	283	777	135	269	80
17	51	120	283	e420	457	355	1420	235	534	266	1960	87
18	54	117	286	e550	398	328	982	206	380	311	1100	391
19	52	109	283	e480	358	303	740	190	280	181	576	236
20	50	103	277	e408	324	272	598	179	311	202	391	153
21	51	101	684	353	363	260	503	168	546	246	352	126
22	139	91	518	e310	402	287	440	157	359	294	375	112
23	96	86	387	e270	3550	248	395	147	286	305	281	106
24	77	82	300	e325	2180	258	356	140	469	236	231	108
25	68	77	260	626	1220	1390	325	199	384	183	198	109
26	61	97	223	1720	808	1390	302	242	293	183	174	183
27	58	1710	203	1530	590	6440	369	577	991	1930	158	148
28	54	708	343	2780	490	10900	466	289	635	1620	139	121
29	52	364	1780	1470	---	3940	389	226	392	732	126	109
30	66	254	1010	915	---	2070	618	188	296	459	121	100
31	116	---	594	636	---	1550	---	166	---	331	109	---
TOTAL	2072	6019	18845	27070	28663	44206	34238	9440	11801	9983	12694	4023
MEAN	66.8	201	608	873	1024	1426	1141	305	393	322	409	134
MAX	139	1710	4500	2980	5500	10900	6950	577	991	1930	1960	391
MIN	49	73	148	270	303	248	302	140	114	114	109	80
CFSM	.36	1.09	3.30	4.75	5.56	7.75	6.20	1.65	2.14	1.75	2.23	.73
IN.	.42	1.22	3.81	5.47	5.79	8.94	6.92	1.91	2.39	2.02	2.57	.81

e Estimated

TENNESSEE RIVER BASIN

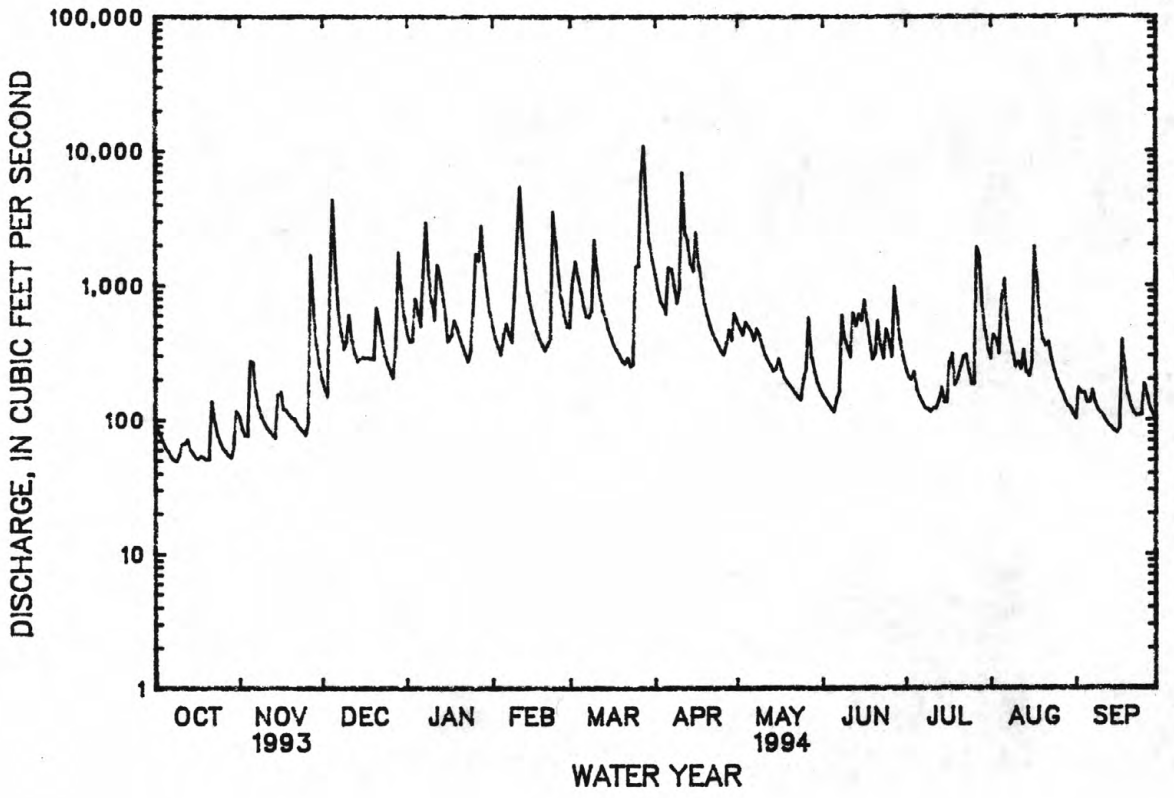
03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

MEAN	163	231	495	559	651	831	472	370	328	237	212	192
MAX	335	374	743	873	1024	1426	1141	576	552	412	409	530
(WY)	1990	1990	1992	1994	1994	1994	1994	1989	1989	1989	1994	1989
MIN	54.8	101	135	317	240	578	232	227	121	90.7	89.4	86.0
(WY)	1992	1991	1989	1991	1993	1992	1990	1993	1990	1993	1990	1990

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1988 - 1994	
ANNUAL TOTAL	112124		209054			
ANNUAL MEAN	307		573		396	
HIGHEST ANNUAL MEAN					573	1994
LOWEST ANNUAL MEAN					337	1993
HIGHEST DAILY MEAN	4500	Dec 5	10900	Mar 28	10900	Mar 28 1994
LOWEST DAILY MEAN	38	Aug 2	49	Oct 9	35	Sep 7 1990
ANNUAL SEVEN-DAY MINIMUM	52	Oct 15	52	Oct 15	39	Nov 1 1991
INSTANTANEOUS PEAK FLOW			19700	Mar 28	19700	Mar 28 1994
INSTANTANEOUS PEAK STAGE			17.50	Mar 28	17.50	Mar 28 1994
INSTANTANEOUS LOW FLOW			a47	Oct 9	33	Sep 7 1990
ANNUAL RUNOFF (CFSM)	1.67		3.11		2.15	
ANNUAL RUNOFF (INCHES)	22.67		42.27		29.25	
10 PERCENT EXCEEDS	687		1320		858	
50 PERCENT EXCEEDS	190		306		237	
90 PERCENT EXCEEDS	59		86		70	

a Also occurred on Oct. 10, 21.



THIS IS A BLANK PAGE

TENNESSEE RIVER BASIN

03491000 BIG CREEK NEAR ROGERSVILLE, TN

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, Hydrologic Unit 06010104, on left bank 300 ft upstream from county road bridge, 3 mi northeast of Rogersville, and at mile 2.0.

DRAINAGE AREA.--47.3 mi².

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, encoder, and crest-stage gage. Datum of gage is 1,128.9 ft above sea level (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

REMARKS.--Records good, except for periods of estimated record, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	12	34	64	95	105	208	44	23	34	25	25
2	5.6	9.9	28	58	79	484	172	39	22	28	36	24
3	5.2	8.3	24	66	69	516	144	38	20	24	59	22
4	5.1	7.4	e450	260	61	247	126	49	18	21	32	21
5	5.0	13	e1650	160	86	177	107	42	17	19	200	20
6	4.8	27	287	111	152	137	257	37	16	17	109	20
7	4.5	18	157	174	110	114	227	34	18	16	62	21
8	4.3	12	112	377	93	106	165	38	19	15	46	19
9	4.6	8.8	86	173	1760	104	130	35	18	15	37	18
10	5.4	7.5	82	122	1060	556	149	31	18	14	32	16
11	8.2	6.7	96	99	e4000	273	337	28	22	15	28	15
12	9.2	6.2	81	191	785	171	260	26	17	16	25	15
13	11	6.0	65	172	311	134	538	25	14	18	23	14
14	9.7	5.7	56	129	213	119	240	24	13	22	21	14
15	7.8	5.9	51	97	170	103	213	24	13	21	20	13
16	6.7	8.6	45	76	138	89	298	37	21	41	21	13
17	6.1	10	39	78	116	77	190	27	19	62	333	14
18	5.7	12	36	76	100	71	146	22	15	72	151	20
19	5.9	13	34	66	86	64	120	20	12	38	80	21
20	5.9	11	33	62	80	58	102	19	12	101	58	16
21	7.2	9.3	70	49	94	56	88	19	12	45	77	14
22	11	8.0	73	45	109	64	79	18	36	89	84	13
23	12	7.2	58	44	e2300	54	70	17	18	92	58	13
24	9.1	6.7	48	46	461	51	63	16	14	47	46	13
25	7.2	6.4	43	113	241	51	57	15	13	34	40	13
26	6.4	6.8	38	222	183	49	53	330	14	28	36	13
27	5.9	275	34	198	142	e2400	50	269	396	78	33	15
28	5.5	137	42	426	119	e3400	45	66	111	85	30	14
29	5.1	67	162	243	---	995	42	42	60	50	28	13
30	6.6	45	112	154	---	379	49	32	45	36	27	12
31	12	---	80	116	---	262	---	26	---	30	25	---
TOTAL	214.8	777.4	4206	4267	13213	11466	4725	1489	1066	1223	1882	494
MEAN	6.93	25.9	136	138	472	370	157	48.0	35.5	39.5	60.7	16.5
MAX	12	275	1650	426	4000	3400	538	330	396	101	333	25
MIN	4.3	5.7	24	44	61	49	42	15	12	14	20	12
CFSM	.15	.55	2.87	2.91	9.98	7.82	3.33	1.02	.75	.83	1.28	.35
IN.	.17	.61	3.31	3.36	10.39	9.02	3.72	1.17	.84	.96	1.48	.39

e Estimated

TENNESSEE RIVER BASIN

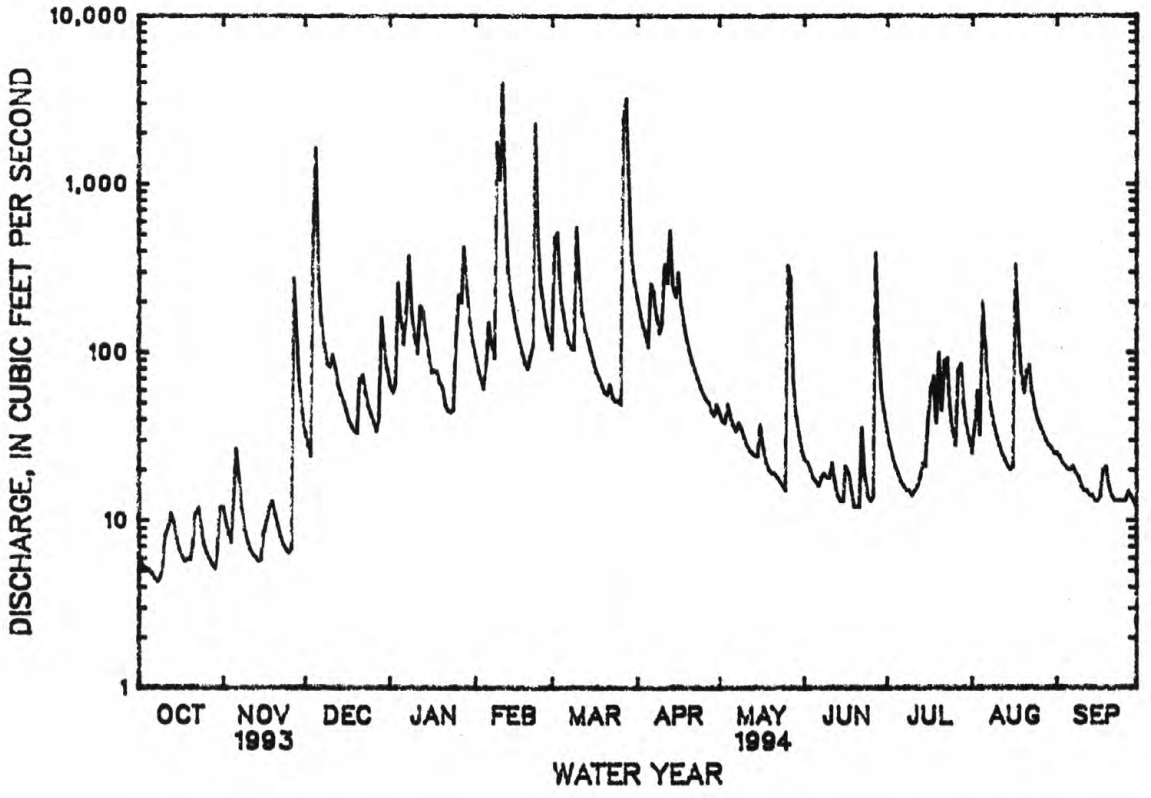
03491000 BIG CREEK NEAR ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1994, BY WATER YEAR (WY)

MEAN	15.4	31.0	74.8	103	136	132	87.6	56.8	30.2	23.0	17.1	12.4
MAX	109	124	258	331	472	366	220	206	150	96.5	67.1	58.7
(WY)	1972	1974	1992	1974	1994	1963	1977	1958	1989	1960	1942	1989
MIN	3.53	4.43	5.06	9.33	34.4	27.4	15.4	10.7	7.61	4.35	2.45	3.38
(WY)	1989	1988	1966	1981	1968	1983	1986	1985	1941	1988	1988	1984

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1941 - 1994	
ANNUAL TOTAL	22327.8		44823.2			
ANNUAL MEAN	61.2		123		59.5	
HIGHEST ANNUAL MEAN					123	1994
LOWEST ANNUAL MEAN					20.9	1988
HIGHEST DAILY MEAN	1650	Dec 5	a,e4000	Feb 11	a,e4000	Feb 11 1994
LOWEST DAILY MEAN	4.3	Oct 8	4.3	Oct 8	1.4	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	4.8	Oct 3	4.8	Oct 3	1.8	Aug 14 1988
INSTANTANEOUS PEAK FLOW			4200	Mar 27	a5760	Mar 12 1963
INSTANTANEOUS PEAK STAGE			b,c12.14	Mar 27	b,c12.14	Mar 27 1994
INSTANTANEOUS LOW FLOW					1.3	Sep 23 1955
ANNUAL RUNOFF (CFSM)	1.29		2.60		1.26	
ANNUAL RUNOFF (INCHES)	17.56		35.25		17.09	
10 PERCENT EXCEEDS	142		232		127	
50 PERCENT EXCEEDS	24		39		24	
90 PERCENT EXCEEDS	5.8		8.3		5.5	

a From rating curve extended above 3,000 ft³/s on basis of contracted-opening measurement of peak flow.
b Due to backwater from log jam.
c From floodmarks.
e Estimated



TENNESSEE RIVER BASIN

03491544 CROCKETT CREEK BELOW ROGERSVILLE, TN

LOCATION.--Lat 36°22'47", long 83°02'48", Hawkins County, Hydrologic Unit 06010104, on right bank at Rogersville sewage treatment plant, 3.0 mi southwest of Rogersville, and at mile 1.2.

DRAINAGE AREA.--4.67 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1092.53 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1845	337	3.43	Mar. 27	0800	281	3.19
Feb. 9	0500	296	3.26	Mar. 27	2100	*640	*4.47
Feb. 11	0045	355	3.50	Apr. 15	2215	265	3.12
Feb. 23	0945	325	3.38				

Minimum discharge, 0.58 ft³/s, Oct. 6, 7, 8, 9, 19, 20, 21, 27, 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	1.2	4.3	5.3	7.0	17	14	3.9	1.2	2.8	2.2	2.8
2	.86	1.1	3.6	5.2	6.1	61	12	3.0	1.2	2.4	2.0	5.1
3	.79	.99	3.3	12	5.5	29	10	5.4	1.1	2.1	1.8	2.6
4	.73	1.4	131	36	4.9	18	8.6	4.0	1.0	1.9	1.7	2.3
5	.68	8.7	70	14	11	13	8.0	3.0	.98	1.7	20	2.1
6	.70	2.7	19	9.9	8.5	11	31	2.6	1.1	1.5	4.4	2.2
7	.61	2.0	11	36	7.0	8.9	16	2.7	1.4	1.5	3.3	1.8
8	.61	1.6	8.5	27	8.7	10	12	3.1	1.9	1.4	2.6	1.7
9	.86	1.4	6.8	14	150	19	9.5	2.0	1.3	1.4	2.1	1.6
10	1.3	1.2	13	10	104	43	24	2.2	1.5	1.4	1.8	1.6
11	1.3	1.1	7.9	9.5	182	18	45	2.0	1.3	1.9	1.7	1.6
12	1.4	1.1	6.4	21	58	13	28	1.9	1.9	1.8	1.6	1.4
13	.88	1.0	5.5	13	31	11	49	1.8	1.1	7.2	1.4	1.4
14	.74	.91	5.0	9.5	17	9.2	22	1.8	1.0	2.4	2.5	1.2
15	.71	1.9	4.3	7.6	12	8.0	47	3.6	12	5.2	1.9	1.2
16	.66	1.4	3.5	6.4	9.7	7.3	67	2.7	4.2	4.1	2.5	1.1
17	.73	1.4	3.2	9.6	8.2	6.6	27	1.8	2.6	10	44	7.2
18	.67	1.3	2.9	6.2	7.1	6.3	22	1.7	2.1	3.7	8.4	2.8
19	.63	1.1	2.7	5.4	6.2	5.7	17	1.6	1.8	3.2	6.2	2.1
20	.61	1.1	3.9	4.9	5.7	5.3	14	1.5	4.7	2.8	8.4	1.7
21	3.8	1.0	6.7	4.6	10	9.7	12	1.4	4.1	3.4	11	1.5
22	1.2	.92	4.4	4.4	12	5.7	10	1.3	2.5	3.4	7.4	1.5
23	.88	.87	3.9	4.8	118	4.9	7.7	1.3	2.0	2.3	5.3	1.5
24	.77	.84	3.3	5.2	33	4.8	6.5	1.2	1.7	2.0	4.2	1.5
25	.71	.81	3.1	13	19	4.4	5.9	1.2	1.5	1.8	3.7	1.4
26	.66	22	2.8	15	14	4.1	4.2	6.1	21	4.6	3.5	1.4
27	.64	50	2.5	13	11	223	4.0	2.5	34	17	2.7	1.1
28	.63	10	11	22	9.0	138	3.3	1.8	6.1	5.0	2.3	1.1
29	.62	7.4	13	13	---	53	3.5	1.5	4.4	3.6	2.2	1.1
30	3.0	5.6	8.1	10	---	28	4.0	1.5	3.3	2.9	2.1	1.1
31	1.5	---	6.3	8.4	---	22	---	1.3	---	2.5	2.1	---
TOTAL	30.85	134.04	380.9	375.9	875.6	817.9	544.2	73.4	125.98	108.9	167.0	58.7
MEAN	1.00	4.47	12.3	12.1	31.3	26.4	18.1	2.37	4.20	3.51	5.39	1.96
MAX	3.8	50	131	36	182	223	67	6.1	34	17	44	7.2
MIN	.61	.81	2.5	4.4	4.9	4.1	3.3	1.2	.98	1.4	1.4	1.1
CFSM	.21	.96	2.63	2.60	6.70	5.65	3.88	.51	.90	.75	1.15	.42
IN.	.25	1.07	3.03	2.99	6.97	6.52	4.33	.58	1.00	.87	1.33	.47

TENNESSEE RIVER BASIN

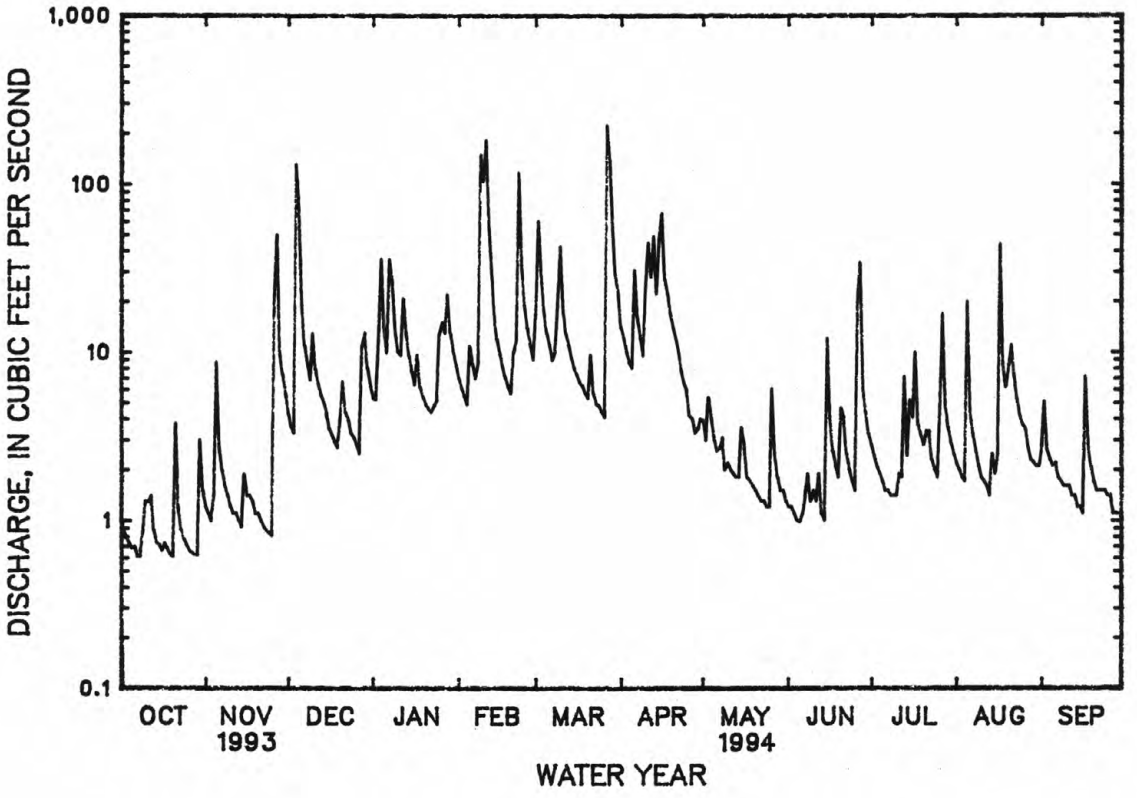
03491544 CROCKETT CREEK BELOW ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1994, BY WATER YEAR (WY)

MEAN	1.75	3.17	9.28	9.53	15.5	12.7	7.55	4.66	5.05	2.54	3.17	2.85
MAX	3.75	4.69	18.7	12.1	31.3	26.4	18.1	6.89	9.95	3.51	5.39	7.63
(WY)	1990	1990	1992	1994	1994	1994	1994	1989	1989	1994	1994	1989
MIN	.53	1.37	2.70	7.30	6.73	6.38	2.99	2.37	1.01	.59	1.70	.80
(WY)	1989	1991	1989	1991	1992	1992	1992	1994	1993	1993	1992	1992

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1989 - 1994	
ANNUAL TOTAL	2026.04		3693.37			
ANNUAL MEAN	5.55		10.1		6.43	
HIGHEST ANNUAL MEAN					10.1	1994
LOWEST ANNUAL MEAN					4.94	1992
HIGHEST DAILY MEAN	131	Dec 4	223	Mar 27	223	Mar 27 1994
LOWEST DAILY MEAN	.35	Jul 24	.61	Oct 7	.31	Oct 20 1988
ANNUAL SEVEN-DAY MINIMUM	.48	Jul 18	.68	Oct 14	.34	Oct 14 1988
INSTANTANEOUS PEAK FLOW			640	Mar 27	Unknown	Sep 15 1989
INSTANTANEOUS PEAK STAGE			4.47	Mar 27	5.10	Sep 15 1989
INSTANTANEOUS LOW FLOW			a.58	Oct 6	b.31	Oct 20 1988
ANNUAL RUNOFF (CFSM)	1.19		2.17		1.38	
ANNUAL RUNOFF (INCHES)	16.14		29.42		18.71	
10 PERCENT EXCEEDS	12		21		13	
50 PERCENT EXCEEDS	2.6		3.5		3.1	
90 PERCENT EXCEEDS	.62		1.1		.86	

a Also occurred Oct. 7, 8, 9, 19, 20, 21, 27, 28, 29.
b Also occurred July 24, 25, 1993.



TENNESSEE RIVER BASIN

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 U.S. Highway 321, 0.3 mi upstream from Rush Branch, 0.4 mi southeast of Park entrance, 2.2 mi southeast of Townsend, and at mile 35.3.

DRAINAGE AREA.--106 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Data logger and crest-stage gage. Datum of gage is 1,106.92 ft above sea level.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	2345	5,190	7.06	Mar. 27	Unknown	*27,100	*15.75
Jan. 28	0645	3,920	6.20	Apr. 11	0830	3,810	6.12
Feb. 11	1200	4,700	6.74	Apr. 16	0200	3,270	5.72
Feb. 23	1045	6,620	7.90	July 27	1745	4,580	6.66

Minimum discharge, 35 ft³/s, Oct. 9, 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	61	172	407	461	460	833	e330	88	245	332	166
2	46	54	150	365	386	740	684	e290	86	210	327	210
3	43	55	134	417	339	746	597	e320	84	190	306	209
4	41	59	1020	569	303	648	543	e390	78	211	263	176
5	40	323	3400	476	488	623	481	e330	79	168	454	159
6	38	194	1100	429	469	550	999	e280	105	159	436	179
7	37	123	602	1000	406	483	973	e250	158	137	361	167
8	36	95	420	1620	376	548	796	e270	730	124	310	145
9	36	82	325	862	594	622	649	e250	325	131	266	125
10	42	74	375	606	974	1920	612	e220	274	121	307	113
11	44	67	364	489	3600	1040	2780	e190	228	129	370	103
12	55	63	304	1030	1680	714	1470	174	213	131	314	97
13	45	60	274	793	985	561	1920	164	244	155	314	89
14	40	59	262	633	699	498	1270	155	344	233	265	86
15	37	173	283	484	556	415	1080	204	544	163	257	84
16	37	123	273	403	462	361	2100	213	430	180	340	81
17	37	110	266	643	398	318	1200	165	405	176	1630	112
18	40	115	275	693	353	300	844	150	1330	206	929	269
19	38	98	271	501	318	269	648	138	594	178	600	132
20	37	94	289	432	291	247	526	131	516	177	448	101
21	44	86	407	361	326	252	442	124	471	230	508	90
22	66	79	337	319	294	304	385	118	397	205	444	84
23	47	74	304	296	2600	242	339	111	398	270	362	82
24	41	71	260	314	1530	272	300	106	417	189	325	103
25	39	68	239	354	900	654	275	101	352	157	295	95
26	38	78	213	639	636	623	256	131	291	237	265	93
27	37	882	204	767	491	8300	276	202	683	3120	242	79
28	36	415	392	2310	412	e9000	265	121	469	1630	221	68
29	35	270	1030	1180	---	e2600	e320	107	374	779	203	65
30	62	209	681	768	---	e1600	e380	98	297	519	191	59
31	81	---	497	577	---	e1150	---	93	---	392	174	---
TOTAL	1344	4314	15123	20737	21327	37060	24243	5926	11004	11152	12059	3621
MEAN	43.4	144	488	669	762	1195	808	191	367	360	389	121
MAX	81	882	3400	2310	3600	9000	2780	390	1330	3120	1630	269
MIN	35	54	134	296	291	242	256	93	78	121	174	59
CFSM	.41	1.36	4.60	6.31	7.19	11.3	7.62	1.80	3.46	3.39	3.67	1.14
IN.	.47	1.51	5.31	7.28	7.48	13.01	8.51	2.08	3.86	3.91	4.23	1.27

e Estimated

TENNESSEE RIVER BASIN

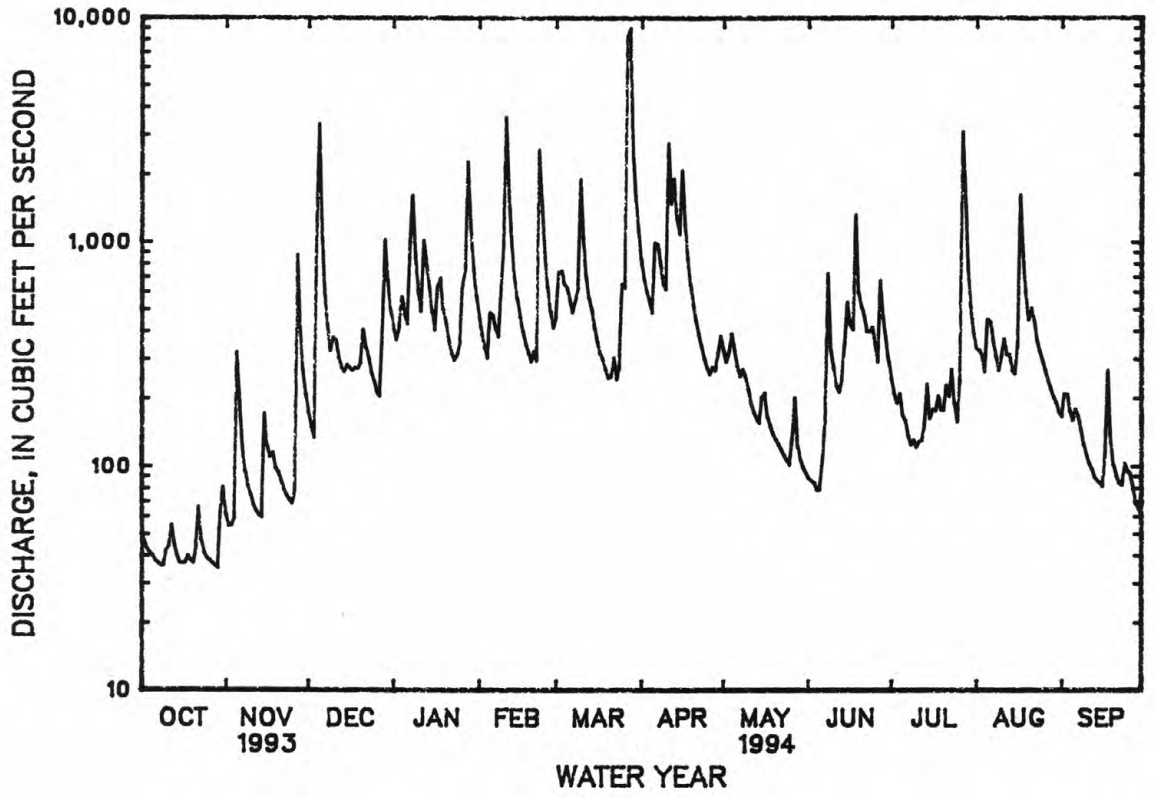
03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued
(Hydrologic bench-mark station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

MEAN	130	209	357	401	449	525	389	278	216	200	181	122
MAX	373	436	725	785	857	1195	808	774	648	815	530	492
(WY)	1973	1967	1992	1974	1990	1994	1994	1984	1989	1971	1966	1989
MIN	28.9	36.0	58.8	72.7	191	185	141	124	50.4	63.8	40.5	43.2
(WY)	1988	1988	1966	1981	1978	1988	1986	1986	1988	1993	1987	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1964 - 1994	
ANNUAL TOTAL	92357		167910			
ANNUAL MEAN	253		460		287	
HIGHEST ANNUAL MEAN					460	1994
LOWEST ANNUAL MEAN					141	1988
HIGHEST DAILY MEAN	3400	Dec 5	9000	Mar 28	9000	Mar 28 1994
LOWEST DAILY MEAN	33	Aug 1	35	Oct 29	23	Oct 18 1987
ANNUAL SEVEN-DAY MINIMUM	37	Jul 27	38	Oct 14	25	Oct 14 1987
INSTANTANEOUS PEAK FLOW			27100	Mar 27	27100	Mar 27 1994
INSTANTANEOUS PEAK STAGE			15.75	Mar 27	a15.75	Mar 27 1994
INSTANTANEOUS LOW FLOW			b35	Oct 9	c21	Jan 18 1981
ANNUAL RUNOFF (CFSM)	2.39		4.34		2.71	
ANNUAL RUNOFF (INCHES)	32.41		58.93		36.84	
10 PERCENT EXCEEDS	483		912		561	
50 PERCENT EXCEEDS	173		280		197	
90 PERCENT EXCEEDS	47		63		62	

a Maximum stage from floodmarks in gage house.
b Also occurred on Oct. 28, 29.
c Results of freeze-up.



TENNESSEE RIVER BASIN

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1982, 1986 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to September 1981.

INSTRUMENTATION.--Temperature recorder from October 1963 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: 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 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT 28...	1105	80020	36	21	24	7.1	8.0	10.5	732	0.30	10.8	101
DEC 30...	1210	80020	670	12	16	7.2	7.1	3.0	723	0.40	12.8	100
FEB 28...	1350	80020	440	11	15	6.8	7.9	5.0	738	0.20	12.2	99
APR 26...	1140	80020	258	18	19	6.9	6.7	14.5	--	0.20	9.9	100
JUN 29...	1115	80020	388	17	18	6.8	6.7	17.0	--	0.50	9.8	107
AUG 24...	1027	80020	340	--	18	7.3	6.5	16.5	738	0.20	11.0	116

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
OCT 28...	K2	23	7	0	1.9	0.56	1.3	26	0.2	0.70	8	11
DEC 30...	K5	K2	5	1	1.3	0.32	0.80	26	0.2	0.40	4	3.6
FEB 28...	K2	--	4	0	0.96	0.28	0.80	30	0.2	0.40	4	4.0
APR 26...	K6	K8	5	0	1.4	0.40	0.90	25	0.2	0.50	5	8.0
JUN 29...	K14	99	5	2	1.4	0.41	0.70	21	0.1	0.50	3	5.5
AUG 24...	K8	75	5	1	1.4	0.39	0.80	23	0.2	0.50	5	6.0

DATE	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 28...	2.2	0.60	<0.10	7.2	22	21	0.03	2.16	<0.010	--	--
DEC 30...	2.4	0.60	<0.10	5.7	10	15	0.01	18.1	<0.010	--	0.150
FEB 28...	1.7	0.40	<0.10	5.2	14	12	0.02	16.6	<0.010	--	0.150
APR 26...	1.6	0.40	<0.10	5.7	14	14	0.02	9.75	0.010	0.03	--
JUN 29...	2.0	0.40	<0.10	5.2	15	13	0.02	15.7	<0.010	--	0.150
AUG 24...	1.2	0.50	<0.10	6.2	14	14	0.02	12.9	<0.010	--	0.120

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

TENNESSEE RIVER BASIN

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)
OCT 28...	<0.050	0.03	0.020	<0.20	0.030	<0.010	<0.010	10	9	<3	41
DEC 30...	0.150	--	<0.010	<0.20	0.020	<0.010	<0.010	--	--	--	--
FEB 28...	0.150	--	<0.010	<0.20	<0.010	<0.010	<0.010	40	6	<3	6
APR 26...	<0.050	0.01	0.010	<0.20	<0.010	<0.010	<0.010	10	6	<3	8
JUN 29...	0.150	--	<0.010	<0.20	<0.010	<0.010	0.010	20	7	<3	7
AUG 24...	0.120	0.03	0.020	<0.20	<0.010	<0.010	<0.010	--	--	--	--

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	<4	2	<10	<1	<1	<1.0	12	<6	1	0.10	100
DEC 30...	--	--	--	--	--	--	--	--	5	9.0	54
FEB 28...	<4	<1	<10	<1	<1	<1.0	7	<6	1	1.2	100
APR 26...	<4	<1	<10	<1	<1	<1.0	10	<6	--	--	--
JUN 29...	<4	<1	10	<1	<1	<1.0	8	<6	2	2.1	95
AUG 24...	--	--	--	--	--	--	--	--	2	1.8	100

TENNESSEE RIVER BASIN

03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on left bank 200 ft above bridge on U.S. Highway 411, 0.8 mi downstream from Crooked Creek, 5.0 mi east of Maryville, and at mile 17.3.

DRAINAGE AREA.--269 mi².

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Data-collection platform and crest-stage gage. Datum of gage is 850.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverted an average of about 4.0 ft³/s (2.6 MGD) for municipal supply 100 ft upstream from gage.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft, discharge, 50,000 ft³/s, and flood of April 1, 1896, reached a stage of 26 ft, discharge, 36,000 ft³/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	0400	10,900	15.45	Mar. 28	0300	*42,100	*27.95
Jan. 8	0200	6,970	13.04	Apr. 11	1300	15,200	17.44
Feb. 11	0830	15,700	18.11	Apr. 16	0530	8,200	13.94
Feb. 23	1600	12,800	16.53	July 27	2015	6,240	12.75

Minimum discharge, 60 ft³/s, Oct. 8, 9, and 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	135	268	599	677	1060	1500	634	213	367	479	231
2	86	108	235	555	595	2260	1230	545	207	325	447	256
3	81	96	219	552	545	2560	1060	577	205	294	436	300
4	76	95	1410	912	497	1770	970	805	196	311	383	251
5	72	333	7150	746	742	1460	864	629	189	272	680	225
6	67	348	1690	656	832	1250	1890	544	221	261	788	225
7	65	216	834	1820	662	1090	1750	491	246	232	569	238
8	62	169	603	4390	598	1060	1350	534	935	222	468	208
9	61	144	491	1560	892	1100	1100	474	536	223	402	199
10	64	131	548	981	2300	2810	1170	431	521	211	353	192
11	76	120	596	753	12500	1830	10600	403	428	212	506	182
12	86	111	491	1610	4410	1350	3350	380	360	224	400	173
13	89	102	438	1300	2170	1130	2870	364	324	224	438	165
14	75	93	402	979	1520	1030	1960	346	405	322	366	160
15	67	231	420	747	1230	905	1970	367	665	264	362	155
16	65	245	420	596	1050	812	5450	421	575	311	420	151
17	64	183	399	801	913	728	2140	351	461	284	1700	173
18	64	183	388	1170	816	686	1420	322	1310	363	1200	529
19	66	166	384	759	740	636	1120	304	876	291	801	291
20	63	155	395	658	678	582	939	291	631	282	649	214
21	67	147	838	578	853	571	818	280	593	305	679	188
22	99	135	622	519	807	677	731	270	565	317	682	174
23	96	126	525	491	6030	558	656	256	485	342	521	176
24	81	121	448	531	3610	604	596	246	528	287	445	204
25	70	114	406	683	1890	1670	552	237	478	241	392	189
26	65	123	367	1310	1390	1610	514	294	417	279	357	192
27	64	1090	339	1260	1120	12900	502	447	896	3950	327	175
28	63	618	451	2890	972	23100	544	288	657	2540	301	164
29	62	413	1730	1750	---	5500	613	253	511	1100	280	156
30	102	323	1060	1120	---	2760	787	235	429	757	266	149
31	156	---	729	833	---	1980	---	222	---	570	245	---
TOTAL	2365	6574	25296	34109	51039	78039	51016	12241	15063	16183	16342	6285
MEAN	76.3	219	816	1100	1823	2517	1701	395	502	522	527	209
MAX	156	1090	7150	4390	12500	23100	10600	805	1310	3950	1700	529
MIN	61	93	219	491	497	558	502	222	189	211	245	149
CFSM	.28	.81	3.03	4.09	6.78	9.36	6.32	1.47	1.87	1.94	1.96	.78
IN.	.33	.91	3.50	4.72	7.06	10.79	7.05	1.69	2.08	2.24	2.26	.87

TENNESSEE RIVER BASIN

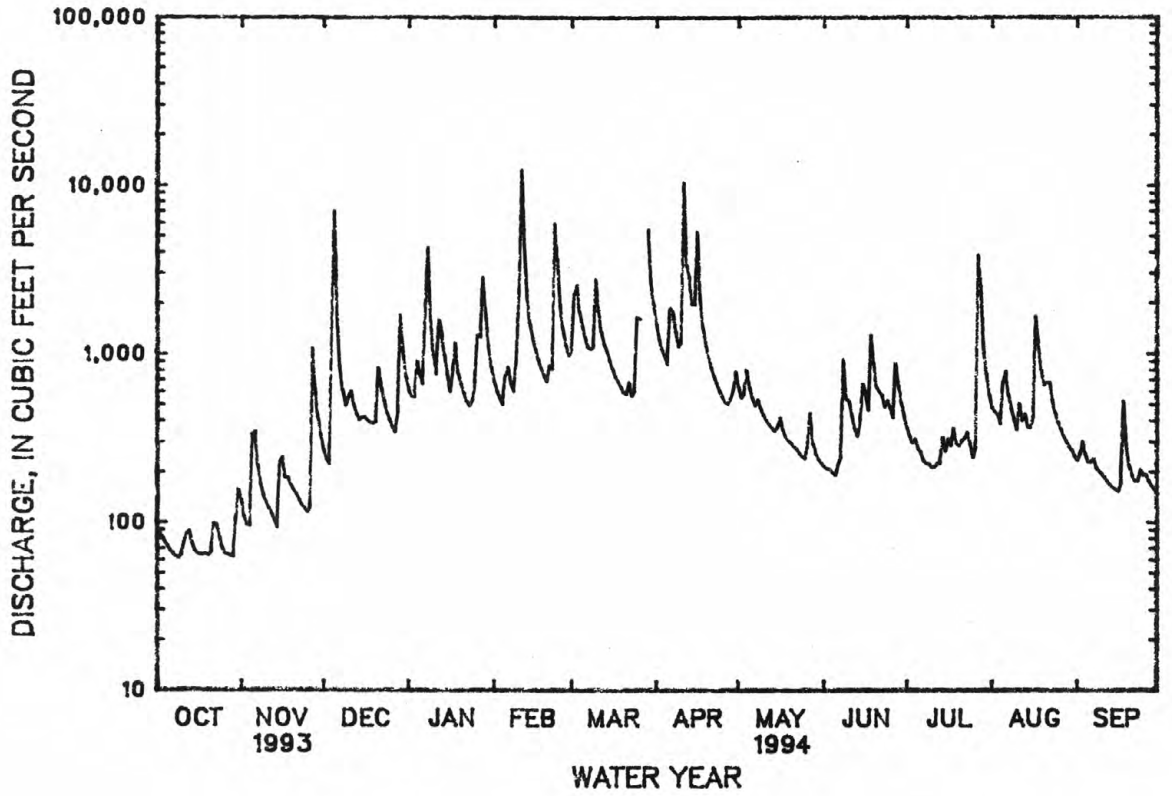
03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1994, BY WATER YEAR (WY)

MEAN	203	346	648	793	957	1027	754	488	362	322	262	183
MAX	830	1160	1679	1792	2254	2517	1701	1782	1261	1391	867	1019
(WY)	1973	1958	1962	1974	1957	1994	1994	1984	1989	1971	1971	1989
MIN	50.7	65.4	103	121	308	385	224	208	86.1	100	78.1	55.6
(WY)	1988	1988	1966	1981	1954	1988	1986	1986	1988	1952	1987	1954

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1951 - 1994	
ANNUAL TOTAL	163453		314552			
ANNUAL MEAN	448		862		527	
HIGHEST ANNUAL MEAN					862	1994
LOWEST ANNUAL MEAN					220	1988
HIGHEST DAILY MEAN	7150	Dec 5	23100	Mar 28	23100	Mar 28 1994
LOWEST DAILY MEAN	55	Aug 1	61	Oct 9	43	Oct 19 1987
ANNUAL SEVEN-DAY MINIMUM	62	Jul 27	65	Oct 15	45	Oct 14 1987
INSTANTANEOUS PEAK FLOW			a42100	Mar 28	a42100	Mar 28 1994
INSTANTANEOUS PEAK STAGE			27.95	Mar 28	27.95	Mar 28 1994
INSTANTANEOUS LOW FLOW			b60	Oct 8	32	Aug 27 1956
ANNUAL RUNOFF (CFSM)	1.66		3.20		1.96	
ANNUAL RUNOFF (INCHES)	22.60		43.50		26.62	
10 PERCENT EXCEEDS	936		1680		1050	
50 PERCENT EXCEEDS	316		451		316	
90 PERCENT EXCEEDS	81		113		101	

a Extended above 14,800 ft³/s on the basis of a contracted opening measurement and road overflow computations.
b Also occurred on Oct. 9, 29.



TENNESSEE RIVER BASIN

03498850 LITTLE RIVER NEAR ALCOA, TN

LOCATION.--Lat 35°48'32", long 83°55'36", Blount County, Hydrologic Unit 06010201, at Singleton Bend on left bank, 3.0 mi northeast of Alcoa, and at mile 9.7.

DRAINAGE AREA.--300 mi².

PERIOD OF RECORD.--October 1986 to current year, discharge for stage 14.7 and below only.

GAGE.--Water-stage recorder. Datum of gage is 814.22 ft above sea level.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverts an average of about 4.0 ft³/s (2.6 MGD) for municipal supply 7.6 mi upstream from gage and the town of Alcoa at the gage diverts about 17.2 ft³/s (11.1 MGD).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, Mar. 28, gage height 23.63 ft; minimum 48 ft³/s, Oct. 9, 18, 19, 20, 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	128	254	679	820	934	1870	712	221	385	577	236
2	84	99	221	621	705	2390	1450	615	213	321	509	240
3	79	91	195	600	627	2880	1180	580	214	310	506	306
4	74	90	1200	1080	557	1860	1080	926	210	307	453	258
5	71	266	6820	903	784	1420	943	699	194	271	687	228
6	67	374	2110	756	1000	1150	2220	583	220	263	939	219
7	65	202	971	1760	805	996	2150	538	258	243	666	238
8	63	153	684	4810	704	923	1570	586	975	215	526	208
9	57	125	544	1930	954	986	1240	528	613	213	463	199
10	61	119	599	1160	2570	2660	1410	471	572	206	380	203
11	63	105	702	906	e14000	1870	e12000	440	518	215	546	184
12	76	95	541	1840	5210	1270	4510	415	382	228	451	170
13	79	95	471	1560	2410	998	3630	399	334	221	484	160
14	75	92	437	1160	1550	898	2590	374	442	309	383	155
15	67	185	450	906	1210	808	2290	393	693	318	366	151
16	66	249	471	691	995	710	5920	459	697	332	407	147
17	66	167	432	845	844	632	2840	379	515	306	1830	159
18	62	153	409	1380	735	591	1790	337	1440	382	1430	525
19	59	146	421	898	670	555	1330	322	1040	303	899	331
20	58	136	402	769	622	513	1080	313	708	277	735	205
21	67	131	944	662	771	497	941	299	675	315	742	187
22	81	119	731	562	780	591	827	279	645	332	794	171
23	93	105	584	534	e6700	496	750	269	573	350	602	169
24	75	108	504	592	4190	499	684	255	560	304	517	194
25	69	103	441	779	2010	1390	627	251	533	248	431	192
26	62	106	404	1570	1340	1610	579	315	466	287	378	184
27	50	1040	354	1510	1020	e15000	564	539	1050	3770	342	175
28	66	712	419	3160	869	e28000	620	319	804	3380	316	160
29	65	434	1920	2140	---	6450	610	259	579	1300	280	162
30	89	311	1260	1310	---	3580	935	243	498	880	269	142
31	134	---	845	1000	---	2540	---	243	---	690	249	---
TOTAL	2222	6239	26740	39073	55452	85697	60230	13340	16842	17481	18157	6258
MEAN	71.7	208	863	1260	1980	2764	2008	430	561	564	586	209
MAX	134	1040	6820	4810	14000	28000	12000	926	1440	3770	1830	525
MIN	50	90	195	534	557	496	564	243	194	206	249	142

e Estimated

TENNESSEE RIVER BASIN

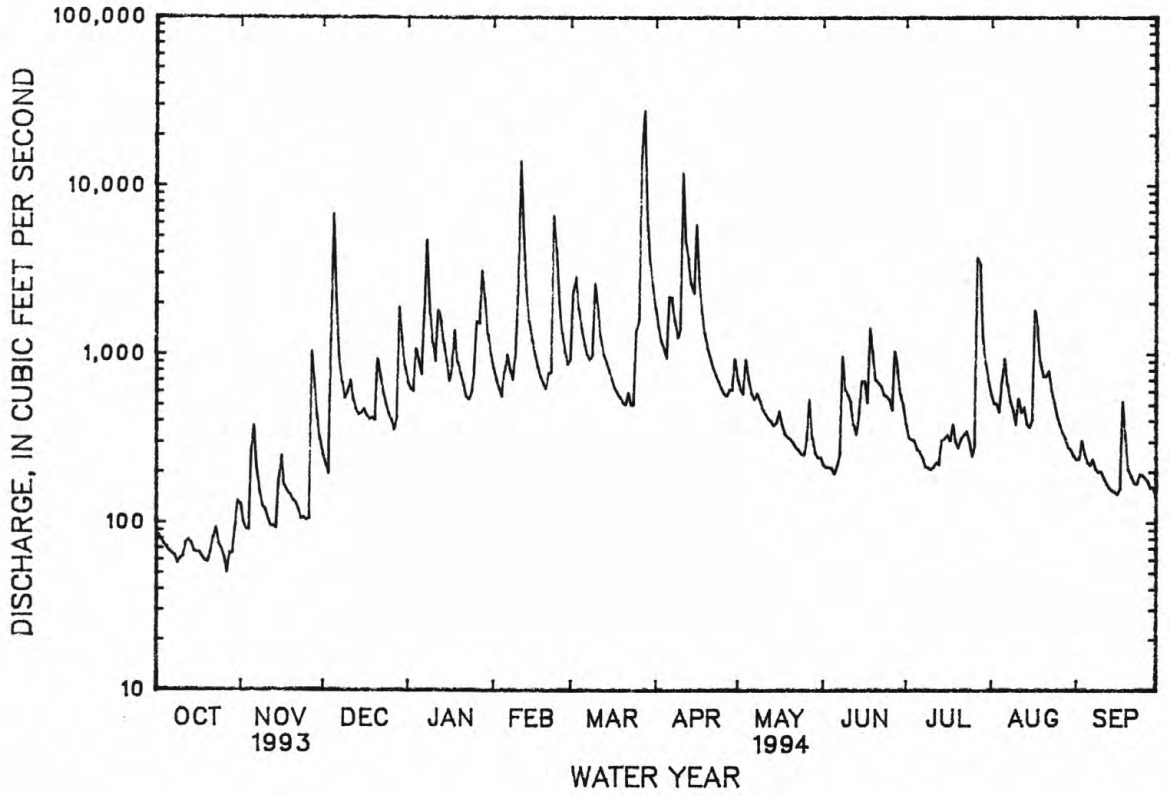
03498850 LITTLE RIVER NEAR ALCOA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	213	313	764	899	1104	1231	788	486	445	318	253	269
MAX	779	783	1624	1391	1980	2764	2008	989	1335	775	586	1123
(WY)	1990	1990	1992	1990	1994	1994	1994	1989	1989	1989	1994	1989
MIN	43.4	60.6	176	432	435	403	352	199	73.6	106	69.0	64.1
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1987	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	167224		347731			
ANNUAL MEAN	458		953		588	
HIGHEST ANNUAL MEAN					953	1994
LOWEST ANNUAL MEAN					220	1988
HIGHEST DAILY MEAN	6820	Dec 5	e28000	Mar 28	e28000	Mar 28 1994
LOWEST DAILY MEAN	50	Oct 27	50	Oct 27	28	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	62	Jul 28	64	Oct 15	35	Oct 14 1987
INSTANTANEOUS PEAK FLOW			NOT DETERMINED	Mar 28	NOT DETERMINED	Mar 28 1994
INSTANTANEOUS PEAK STAGE			25.63	Mar 28	25.63	Mar 28 1994
INSTANTANEOUS LOW FLOW			a48	Oct 9	23	Jul 10 1988
10 PERCENT EXCEEDS	955		1850		1190	
50 PERCENT EXCEEDS	320		509		347	
90 PERCENT EXCEEDS	76		101		83	

a Also occurred on Oct 18, 19, 20, 26, 27.
e Estimated



TENNESSEE RIVER BASIN

03528000 CLINCH RIVER ABOVE TAZEWELL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi upstream from Grissom Island, 4.6 mi downstream from Big War Creek, 10 mi east of Tazewell, and at mile 159.8.

DRAINAGE AREA.--1,474 mi².

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 above sea level. April 1, 1919, to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi downstream at datum 102.7 ft lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi downstream at datum 47.2 ft lower. Water-stage recorder at present site and datum since July 29, 1935.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft, present site and datum, from information by local resident; discharge, about 66,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	2330	23,400	12.98	Mar. 29	0030	*42,500	*18.46
Dec. 12	0830	41,800	18.27	Mar. 31	0830	15,800	10.23
Feb. 24	1030	23,100	12.88	Apr. 14	0500	14,500	9.71

Minimum discharge, 195 ft³/s, Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	439	301	1460	3370	3860	3460	9080	2020	682	658	1230	711
2	394	333	1070	2580	3090	5220	6930	2810	638	558	903	681
3	320	357	858	2260	2560	10700	5580	2580	601	495	893	658
4	271	353	4080	4360	2200	9880	4680	2390	572	452	1030	614
5	243	404	18300	5880	2090	6710	3990	2530	546	417	1590	618
6	226	503	19400	4380	2260	5240	4480	2520	559	388	1250	586
7	214	534	9080	3620	2140	4430	4670	2260	568	363	1050	552
8	204	497	4330	7300	2040	3860	4270	2560	562	341	922	524
9	203	442	2790	12300	5870	3910	3860	3170	556	330	781	488
10	222	398	2290	7510	21700	8640	3540	3240	753	326	669	456
11	227	370	2200	4440	35400	11400	5120	2620	1050	328	622	429
12	250	341	1920	4140	40800	7490	6840	2160	843	330	522	403
13	290	317	1680	5630	32100	5340	9210	1840	761	333	466	381
14	287	301	1490	5830	14400	4320	12500	1610	681	376	437	361
15	308	329	1340	4590	7400	3690	7560	1460	770	389	470	347
16	308	363	1270	3430	5370	3190	7430	1510	747	502	438	344
17	288	387	1320	2660	4290	2740	5600	1500	652	684	2220	357
18	263	574	1680	2550	3590	2420	4350	1330	656	1210	6880	412
19	251	558	1680	2580	3020	2210	3570	1170	639	984	5060	373
20	238	544	1500	2370	2590	2020	3070	1050	544	1010	2930	355
21	234	522	1520	1920	2550	1880	2670	973	517	945	2330	363
22	260	505	1600	1960	3170	2030	2370	916	549	955	2360	389
23	275	465	1620	1920	9500	2620	2150	861	530	914	2170	362
24	273	418	1460	1760	21200	2370	1960	813	571	701	1610	336
25	285	382	1290	1980	13100	2150	1800	772	554	569	1240	336
26	276	364	1170	4430	7710	2000	1650	859	565	516	1000	397
27	270	2510	1050	6330	5420	6180	1540	1640	1460	831	859	411
28	252	6780	1040	7700	4090	33900	1480	1110	1150	1370	830	421
29	236	3510	2210	9280	---	39300	1560	992	1000	1900	784	388
30	250	2200	4080	7340	---	28100	2080	850	805	2100	720	366
31	283	---	4650	5120	---	14800	---	746	---	1770	686	---
TOTAL	8340	25862	101428	141520	263510	242200	135590	52862	21081	23045	44952	13419
MEAN	269	862	3272	4565	9411	7813	4520	1705	703	743	1450	447
MAX	439	6780	19400	12300	40800	39300	12500	3240	1460	2100	6880	711
MIN	203	301	858	1760	2040	1880	1480	746	517	326	437	336
CFSM	.18	.58	?.22	3.10	6.38	5.30	3.07	1.16	.48	.50	.98	.30
IN.	.21	.65	2.56	3.57	6.65	6.11	3.42	1.33	.53	.58	1.13	.34

TENNESSEE RIVER BASIN

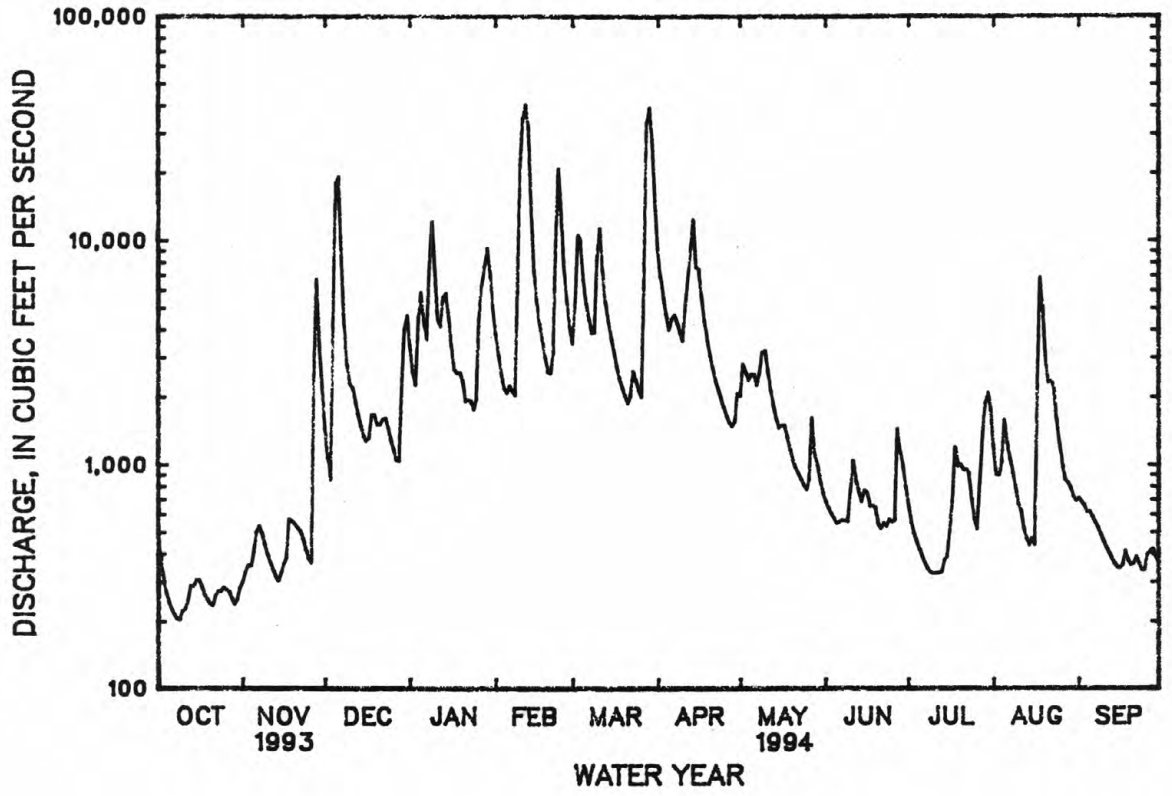
03528000 CLINCH RIVER ABOVE TAZEWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1994, BY WATER YEAR (WY)

MEAN	675	1117	2381	3450	4166	4284	3081	2269	1276	970	866	544
MAX	2871	4794	9107	9500	9426	11950	8860	6382	3865	3251	4411	2939
(WY)	1990	1978	1927	1937	1957	1963	1977	1929	1989	1938	1942	1989
MIN	145	159	217	285	571	990	711	547	301	239	169	136
(WY)	1964	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1955

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1919 - 1994	
ANNUAL TOTAL	700287		1073809			
ANNUAL MEAN	1919		2942		2081	
HIGHEST ANNUAL MEAN					3269	1927
LOWEST ANNUAL MEAN					850	1941
HIGHEST DAILY MEAN	20300	Mar 25	40800	Feb 12	83300	Apr 5 1977
LOWEST DAILY MEAN	177	Sep 15	203	Oct 9	108	Sep 11 1925
ANNUAL SEVEN-DAY MINIMUM	192	Sep 12	220	Oct 5	116	Sep 17 1955
INSTANTANEOUS PEAK FLOW			42500	Mar 29	98100	Apr 5 1977
INSTANTANEOUS PEAK STAGE			18.46	Mar 29	a29.32	Apr 5 1977
INSTANTANEOUS LOW FLOW			195	Oct 9	108	Sep 11 1925
ANNUAL RUNOFF (CFSM)	1.30		2.00		1.41	
ANNUAL RUNOFF (INCHES)	17.67		27.10		19.18	
10 PERCENT EXCEEDS	4490		6800		4670	
50 PERCENT EXCEEDS	841		1270		1110	
90 PERCENT EXCEEDS	251		330		272	

a From floodmarks.



TENNESSEE RIVER BASIN

03536320 WHITEOAK CREEK NEAR MELTON HILL, TN

LOCATION.--Lat 35°55'56", long 84°18'20", Roane County, Hydrologic unit 06010207, on right bank 1.8 mi upstream from Melton Branch, 5.5 mi southwest of Oak Ridge, and at mile 3.4.

DRAINAGE AREA.--1.31 mi².

PERIOD OF RECORD.--April 1987 to current year.

REVISED RECORD.--WDR TN-90-1: 1988, 1989 (M).

GAGE.--Water-stage recorder. Datum of gage is 807.57 ft above sea level.

REMARKS.--Records fair. Periodic observations of water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1600	161	2.56	Apr. 12	2215	*265	*3.46
Feb. 10	2345	216	2.99	Apr. 15	2040	157	2.51
Mar. 27	0635	260	3.40				

Minimum discharge, 0.02 ft³/s, Sept. 10, 11, gage height, 0.33 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.09	.09	.56	1.4	8.9	4.1	.31	.08	.11	.07	.10
2	.11	.07	.07	.38	1.1	24	3.0	.15	.21	.09	.07	.07
3	.05	.05	.10	2.3	.85	12	2.6	1.2	.09	.08	.11	.05
4	.04	.18	40	2.8	.65	6.3	2.0	.40	.08	.08	.12	.05
5	.03	1.1	11	1.7	.90	3.8	4.2	.22	.08	.07	.90	.05
6	.03	.15	2.3	1.3	.53	2.6	18	.18	.26	.07	.11	.09
7	.03	.09	1.0	5.2	.35	2.1	8.3	.22	.24	.06	.08	.04
8	.03	.07	.53	3.8	.63	1.8	5.0	.18	.24	.11	.07	.04
9	.20	.06	.20	e2.2	11	3.1	3.3	.14	.33	.08	.06	.04
10	.06	.05	3.5	e1.2	41	3.9	6.5	.13	1.0	.07	.05	.03
11	.12	.05	1.3	e2.5	73	2.6	26	.12	.16	.24	.04	.03
12	.07	.05	.87	e7.0	16	2.1	35	.12	.12	.40	.04	.04
13	.05	.04	.50	e1.7	7.4	1.8	34	.11	.19	.57	.04	.04
14	.04	1.0	.51	e1.3	4.3	1.6	10	.11	.11	.26	1.5	.05
15	.05	.99	.52	e1.1	2.9	1.3	26	.43	.37	.28	.25	.05
16	.17	.19	.22	e1.0	2.0	1.0	22	.16	.17	.69	.54	.06
17	.11	.42	.16	e3.0	1.6	.73	8.7	.11	.31	.26	.14	.79
18	.10	.17	.13	e1.5	1.3	.59	5.1	.10	.28	.15	.09	1.2
19	.08	.11	.11	e1.0	1.0	.36	3.4	.10	.11	.10	.45	.14
20	.07	.08	.65	e.80	.76	.18	2.4	.09	.09	.09	.62	.07
21	.82	.07	.77	.64	7.0	.40	1.9	.09	.96	.08	.90	.05
22	.11	.06	.41	.56	5.6	.21	1.5	.08	.19	.07	.21	.05
23	.07	.06	.28	.35	52	.18	1.3	.08	.11	.07	.11	.32
24	.06	.05	.15	.24	12	3.4	1.0	.08	.31	.06	.08	.26
25	.05	.05	.14	3.5	6.0	3.2	.78	.08	.14	.07	.06	.10
26	.05	.55	.11	3.2	3.6	2.6	.53	.96	7.8	.18	.06	.07
27	.04	.99	.10	5.5	2.4	86	.51	.20	2.3	.93	.09	.06
28	.04	.27	1.5	14	1.8	36	.25	.12	.37	.30	.05	.05
29	.10	.16	1.5	4.8	---	13	.17	.10	.20	.12	.05	.05
30	.62	.11	.99	2.8	---	6.7	.16	.09	.13	.09	.04	.04
31	.17	---	.76	1.9	---	6.6	---	.08	---	.07	.41	---
TOTAL	3.62	7.38	70.47	79.83	259.07	239.05	237.70	6.54	17.03	5.90	7.41	4.08
MEAN	.12	.25	2.27	2.58	9.25	7.71	7.92	.21	.57	.19	.24	.14
MAX	.82	1.1	40	14	73	86	35	1.2	7.8	.93	1.5	1.2
MIN	.03	.04	.07	.24	.35	.18	.16	.08	.08	.06	.04	.03
CFSM	.09	.19	1.74	1.97	7.06	5.89	6.05	.16	.43	.15	.18	.10
IN.	.10	.21	2.00	2.27	7.36	6.79	6.75	.19	.48	.17	.21	.12

e Estimated

TENNESSEE RIVER BASIN

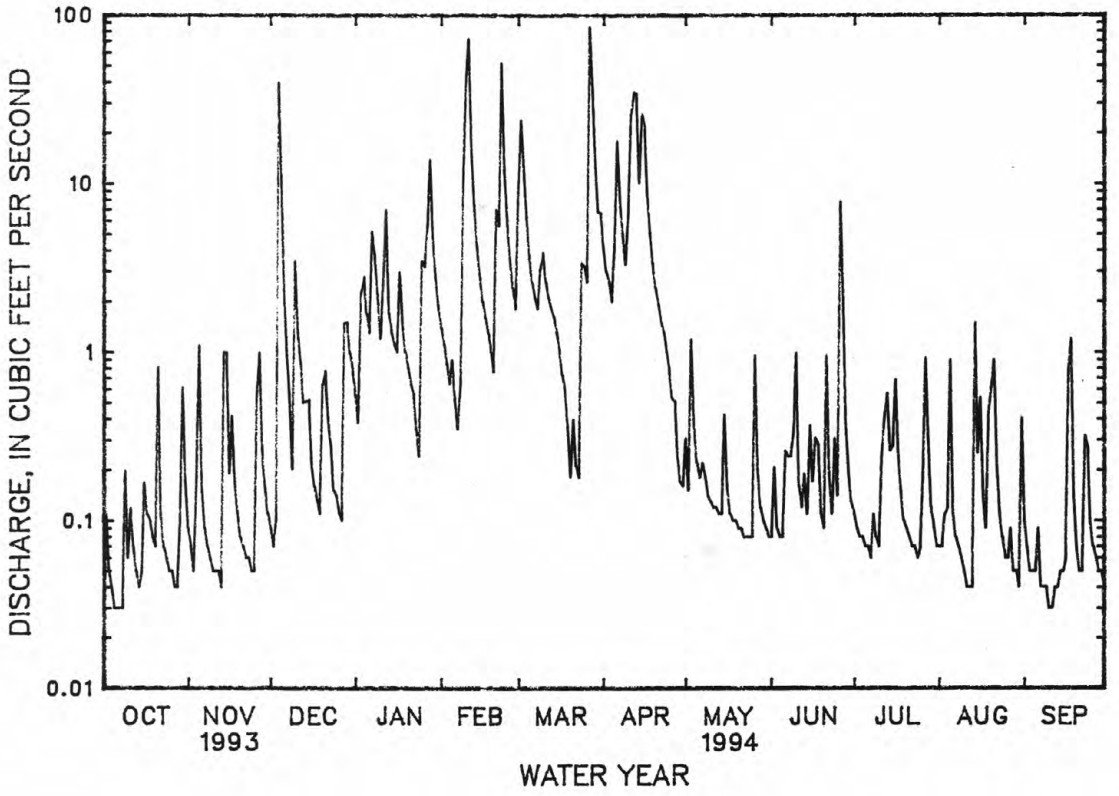
03536320 WHITEOAK CREEK NEAR MELTON HILL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	.38	.74	2.83	2.51	4.12	3.49	1.91	.68	1.07	.46	.36	.45
MAX	1.87	2.63	7.72	4.67	9.25	7.71	7.92	2.27	3.93	1.13	1.77	2.36
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1990	1989
MIN	.058	.13	.22	1.44	.56	1.26	.24	.12	.034	.078	.047	.10
(WY)	1988	1988	1988	1988	1988	1988	1992	1988	1988	1993	1987	1990

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	395.23		938.08			
ANNUAL MEAN	1.08		2.57		1.61	
HIGHEST ANNUAL MEAN					2.57	1994
LOWEST ANNUAL MEAN					.42	1988
HIGHEST DAILY MEAN	40	Dec 4	86	Mar 27	86	Mar 27 1994
LOWEST DAILY MEAN	.01	Jul 30	.03	Oct 5	b.01	Sep 5 1987
ANNUAL SEVEN-DAY MINIMUM	.02	Jul 28	.04	Sep 7	.02	Jun 16 1988
INSTANTANEOUS PEAK FLOW			a265	Apr 12	a327	Aug 9 1990
INSTANTANEOUS PEAK STAGE			3.46	Apr 12	4.12	Aug 9 1990
INSTANTANEOUS LOW FLOW			c.02	Sep 10	d.00	Jun 25 1988
ANNUAL RUNOFF (CFSM)	.83		1.96		1.23	
ANNUAL RUNOFF (INCHES)	11.22		26.64		16.66	
10 PERCENT EXCEEDS	2.5		5.1		3.3	
50 PERCENT EXCEEDS	.16		.22		.20	
90 PERCENT EXCEEDS	.03		.05		.05	

a From rating curve extended above 80 ft³/s.
b Also occurred on June 18, 19, 28, July 9, 10, 1988; July 30, 1993.
c Also occurred on Sept. 11.
d Also occurred on July 9, 10, 11, 1988.



TENNESSEE RIVER BASIN

03536380 WHITEOAK CREEK NEAR WHEAT, TN

LOCATION.--Lat 35°55'30", long 84°18'52", Roane County, Hydrologic Unit 06010207, on left bank, 1.1 mi upstream from Melton Branch, 6.2 mi southwest of Oak Ridge, and at mile 2.7.

DRAINAGE AREA.--2.10 mi².

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

REVISED RECORD.--WDR TN-90-1: 1988-89 (M).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 775.44 ft above sea level.

REMARKS.--No estimated daily discharge. Records good below 75 ft³/s, fair above. Flow regulated by Oak Ridge National Laboratory.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1715	208	4.70	Apr. 12	2145	*312	*5.57
Feb. 10	2315	235	4.95	Apr. 15	2045	199	4.61
Feb. 23	0245	182	4.44	June 26	2200	190	4.52
Mar. 27	0630	303	5.50				

Minimum discharge, 1.6 ft³/s, Oct. 6, 7, gage height, 0.28 ft; minimum daily, 1.7 ft³/s, Oct. 6, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.2	2.2	4.2	6.0	20	11	4.1	2.4	2.8	2.4	2.0
2	2.2	2.0	2.2	3.9	5.1	43	9.1	3.4	3.5	2.5	2.4	2.0
3	1.9	2.0	2.2	9.7	4.5	24	8.7	6.5	2.6	2.4	2.5	2.0
4	1.8	2.3	76	9.8	4.1	14	7.4	3.8	2.3	2.3	2.6	2.0
5	1.8	6.4	25	6.8	5.3	10	13	3.4	2.3	2.3	5.1	2.0
6	1.7	2.6	9.0	5.7	4.1	8.2	36	3.4	2.9	2.3	2.5	2.3
7	1.8	2.2	5.9	15	3.7	7.1	18	3.5	3.0	2.3	2.4	2.3
8	1.7	2.1	4.6	11	4.8	6.2	12	3.2	2.9	2.5	2.3	2.1
9	2.6	2.1	3.9	7.7	26	9.5	9.8	3.1	3.3	2.3	2.4	2.0
10	1.8	2.0	13	6.0	62	11	17	3.0	5.6	2.3	2.4	2.0
11	2.0	2.0	6.4	9.5	105	7.9	47	2.9	2.8	2.9	2.4	2.0
12	1.9	2.0	5.0	21	28	6.8	49	2.8	2.6	3.5	2.1	2.0
13	1.8	1.9	4.1	11	16	6.3	55	2.7	3.2	3.8	1.9	2.1
14	1.8	4.7	4.5	8.0	11	5.8	19	2.6	2.8	3.0	6.6	2.1
15	1.8	6.9	4.5	6.0	8.8	5.4	45	3.7	4.2	3.0	3.0	2.1
16	2.2	3.1	3.7	4.9	7.3	4.9	38	2.9	3.6	4.6	3.8	2.1
17	1.9	3.9	3.4	10	6.4	4.5	17	2.6	3.4	3.7	2.6	4.7
18	1.9	2.9	3.3	7.0	5.6	4.4	12	2.5	3.3	3.2	2.2	7.1
19	1.9	2.6	3.0	5.6	5.0	3.9	9.5	2.4	2.5	2.7	3.9	2.5
20	2.0	2.2	4.9	5.0	4.7	3.8	7.8	2.4	2.4	2.6	4.2	2.2
21	4.7	2.1	5.5	4.6	18	4.6	6.7	2.3	3.7	2.4	5.3	2.1
22	2.1	2.0	4.1	4.3	14	3.6	6.1	2.3	2.7	2.4	3.0	2.0
23	1.9	2.0	3.7	4.0	81	3.5	5.4	2.4	2.4	2.2	2.3	2.9
24	1.8	2.0	3.4	3.8	23	12	4.9	2.4	3.2	2.2	2.1	2.5
25	1.9	1.9	3.3	13	14	11	4.6	2.4	2.4	2.3	2.0	2.1
26	2.0	3.6	3.0	12	9.9	8.4	4.2	6.1	20	2.7	2.0	2.0
27	1.9	5.9	2.9	15	7.7	126	4.4	2.8	9.7	5.5	2.0	2.1
28	2.0	3.4	7.6	29	6.7	62	3.9	2.4	4.2	3.4	1.9	2.1
29	2.2	2.8	7.4	13	---	23	3.7	2.4	3.6	2.7	2.1	2.1
30	4.1	2.4	5.3	9.3	---	15	3.6	2.3	3.2	2.5	2.0	2.1
31	2.5	---	4.6	7.2	---	16	---	2.3	---	2.4	3.5	---
TOTAL	65.5	86.2	237.6	283.0	497.7	491.8	488.8	95.0	116.7	87.7	87.9	71.6
MEAN	2.11	2.87	7.66	9.13	17.8	15.9	16.3	3.06	3.89	2.83	2.84	2.39
MAX	4.7	6.9	76	29	105	126	55	6.5	20	5.5	6.6	7.1
MIN	1.7	1.9	2.2	3.8	3.7	3.5	3.6	2.3	2.3	2.2	1.9	2.0

TENNESSEE RIVER BASIN

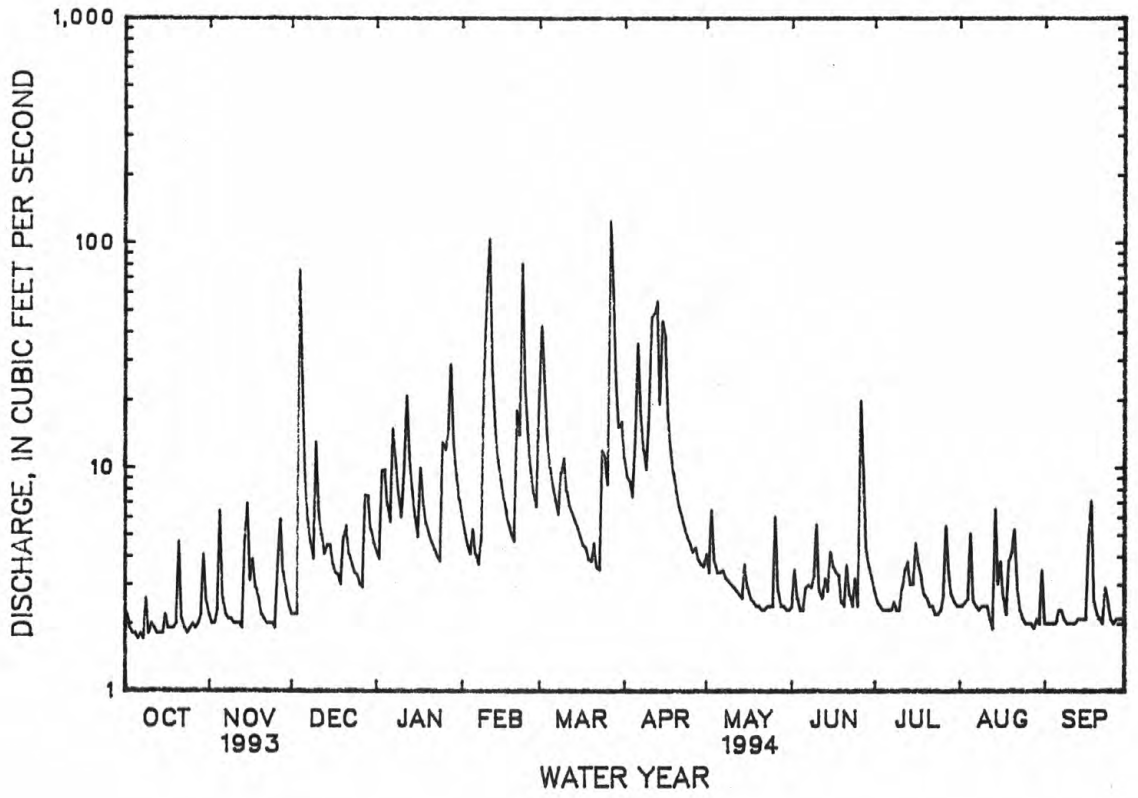
03536380 WHITEOAK CREEK NEAR WHEAT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	3.16	4.44	8.09	8.29	10.4	9.48	6.81	4.37	4.79	3.89	3.32	3.39
MAX	6.46	8.65	15.7	12.0	17.8	15.9	16.3	8.24	12.0	6.18	6.15	7.90
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1990	1989
MIN	2.11	2.87	3.33	5.94	4.71	5.59	3.73	2.52	2.50	2.24	2.42	2.39
(WY)	1994	1994	1988	1988	1988	1988	1992	1992	1993	1993	1993	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	1788.9		2609.5			
ANNUAL MEAN	4.90		7.15		6.03	
HIGHEST ANNUAL MEAN					7.29	1989
LOWEST ANNUAL MEAN					3.77	1988
HIGHEST DAILY MEAN	76	Dec 4	126	Mar 27	126	Mar 27 1994
LOWEST DAILY MEAN	1.6	Sep 6	1.7	Oct 6	1.6	Sep 6 1993
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 2	1.8	Oct 2	1.8	Oct 2 1993
INSTANTANEOUS PEAK FLOW			312	Apr 12	a384	Dec 23 1990
INSTANTANEOUS PEAK STAGE			5.57	Apr 12	b6.09	Dec 23 1990
INSTANTANEOUS LOW FLOW			c1.6	Oct 6	1.5	Sep 7 1993
10 PERCENT EXCEEDS	9.3		13		11	
50 PERCENT EXCEEDS	3.1		3.4		3.6	
90 PERCENT EXCEEDS	1.9		2.0		2.2	

a From rating curve extended above 75 ft³/s based on theoretical parshall flume rating.
b From floodmarks.
c Also occurred Oct. 7.



TENNESSEE RIVER BASIN

03536440 NORTHWEST TRIBUTARY NEAR OAK RIDGE, TN

LOCATION.--Lat 35°55'18", long 84°19'13", Roane County, Hydrologic Unit 06010207, on left bank 750 ft upstream of Lagoon Road, 6 mi southwest of Oak Ridge, and at mile 0.2.

DRAINAGE AREA.--0.67 mi².

PERIOD OF RECORD.--May 1987 to current year.

REVISED RECORD.--WDR TN-89-1: 1987-88 (M).

GAGE.--Data logger and concrete V-notch weir. Datum of gage is 774.36 ft above sea level.

REMARKS.--Records fair. Flow regulated at times by Oak Ridge National Laboratory.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1700	90	3.01	Apr. 12	2200	*147	*3.56
Feb. 10	2345	97	3.10	Apr. 15	2100	83	2.91
Mar. 27	0645	138	3.51				

Minimum discharge, 0.11 ft³/s, Sept. 16, 17, gage height, 0.21 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.20	.30	.51	.77	e7.0	2.1	.36	.26	.36	.34	.36
2	.20	.19	.30	.46	.62	e13	1.5	.31	.36	.33	.33	.33
3	.19	.17	.34	1.9	.49	5.7	1.3	.78	.30	.31	.32	.30
4	.17	.20	24	1.8	.50	2.9	1.1	.59	.26	.30	.34	.29
5	.17	.65	6.2	1.0	.73	1.9	2.2	.42	.29	.29	.66	.31
6	.17	.29	1.7	.74	.65	1.4	11	.40	.31	.29	.36	.31
7	.16	.22	1.1	3.2	.58	1.1	4.5	.35	.32	.29	.32	.28
8	.18	.20	.72	2.2	.70	.96	2.5	.33	.32	.31	.27	.30
9	.21	.20	.63	1.2	6.1	1.5	1.7	.32	.31	.29	.22	.29
10	.17	.19	.55	.83	22	3.1	3.4	.32	.83	.29	.30	.28
11	.19	.18	2.7	1.5	30	1.7	14	.26	.39	.36	.29	.28
12	.19	.19	1.2	6.0	6.1	1.3	16	.25	.31	.41	.31	.30
13	.16	.17	.79	2.1	2.8	1.0	14	.24	.36	.42	.27	.30
14	.16	.45	.60	1.3	e1.5	.89	4.1	.23	.32	.36	.74	.28
15	.17	1.4	.62	.89	e1.1	.83	13	.33	.40	.39	.53	.29
16	.20	.44	.87	e.65	e.90	.72	10	.26	.41	.87	.54	.15
17	.17	.46	.64	1.6	e.75	.66	3.6	.24	.49	.65	.37	.19
18	.17	.42	.53	e1.2	e.65	.65	2.0	.21	.49	.87	.33	1.4
19	.17	.34	.45	e.80	e.55	.59	1.5	.20	.33	.55	.47	.24
20	.16	.28	.57	e.60	e.50	.56	1.1	.22	.28	.44	.53	.19
21	.39	.26	1.1	.53	e5.0	.62	.89	.19	.22	.36	.83	.19
22	.21	.24	.59	.45	e4.0	.55	.72	.20	.28	.36	.53	.16
23	.17	.24	.45	.41	e24	.53	.56	.20	.32	.32	.42	.25
24	.16	.25	.37	.40	e4.5	4.8	.48	.21	.28	.30	.35	.22
25	.16	.23	.33	2.9	e2.5	4.4	.44	.20	.30	.29	.33	.16
26	.17	.39	.28	2.8	e1.5	2.5	.45	.99	4.4	.34	.34	.22
27	.16	1.0	.26	3.4	e1.2	45	.44	.46	2.8	.67	.31	.17
28	.16	.63	1.0	8.3	e.90	18	.37	.28	.82	.42	.29	.17
29	.19	.41	1.6	2.6	---	5.6	.38	.25	.55	.40	.30	.14
30	.37	.35	.81	1.5	---	3.0	.32	.22	.43	.37	.33	.16
31	.22	---	.60	1.0	---	3.3	---	.22	---	.35	.49	---
TOTAL	5.93	10.84	52.20	54.77	121.59	135.76	115.65	10.04	17.74	12.56	12.36	8.51
MEAN	.19	.36	1.68	1.77	4.34	4.38	3.85	.32	.59	.41	.40	.28
MAX	.39	1.4	24	8.3	30	45	16	.99	4.4	.87	.83	1.4
MIN	.16	.17	.26	.40	.49	.53	.32	.19	.22	.29	.22	.14

e Estimated

TENNESSEE RIVER BASIN

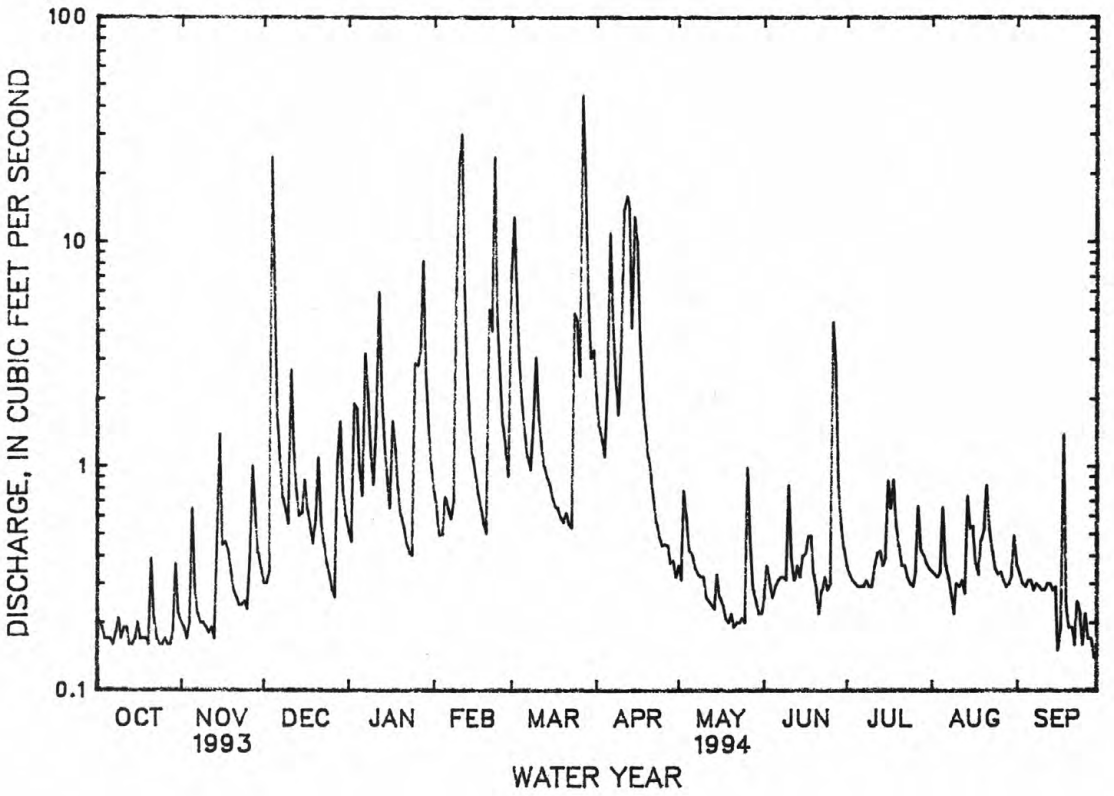
03536440 NORTHWEST TRIBUTARY NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	.54	.82	1.89	1.79	2.50	2.27	1.35	.77	.85	.68	.51	.59
MAX	1.33	1.78	3.82	3.07	4.34	4.38	3.85	1.95	3.09	1.24	.77	1.51
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1990	1989
MIN	.19	.36	.70	1.09	.98	1.08	.64	.30	.26	.24	.33	.28
(WY)	1994	1994	1988	1991	1988	1992	1992	1993	1993	1993	1992	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	301.46		557.95			
ANNUAL MEAN	.83		1.53		1.21	
HIGHEST ANNUAL MEAN					1.62	1989
LOWEST ANNUAL MEAN					.82	1988
HIGHEST DAILY MEAN	24	Dec 4	45	Mar 27	45	Mar 27 1994
LOWEST DAILY MEAN	.16	Oct 7	.14	Sep 29	.14	Sep 29 1994
ANNUAL SEVEN-DAY MINIMUM	.17	Oct 23	.17	Oct 23	.17	Oct 23 1993
INSTANTANEOUS PEAK FLOW			a147	Apr 12	a182	Dec 23 1990
INSTANTANEOUS PEAK STAGE			3.56	Apr 12	3.73	Dec 23 1990
INSTANTANEOUS LOW FLOW			b.11	Sep 16	b.11	Sep 16 1994
10 PERCENT EXCEEDS	1.6		2.9		2.1	
50 PERCENT EXCEEDS	.33		.41		.61	
90 PERCENT EXCEEDS	.20		.19		.28	

a From rating curve extended above 22 ft^3/s based on theoretical weir formula.
b Also occurred on Sept. 17.



TENNESSEE RIVER BASIN

03536450 FIRST CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°55'21", long 84°19'10", Roane County, Hydrologic Unit 06010207, on left bank, 5.9 mi southwest of Oak Ridge, and at mile 0.1.

DRAINAGE AREA.--0.33 mi².

PERIOD OF RECORD.--February 1987 to current year.

REVISED RECORDS.--WDR TN-89-1: 1987-88 (M).

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 772.78 ft above sea level.

REMARKS.--Records fair. Flow regulated at times by Oak Ridge National Laboratory.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1545	45	2.71	Apr. 12	2145	89	3.10
Feb. 10	2330	50	2.76	Apr. 15	2040	38	2.61
Feb. 23	0230	38	2.62	June 26	2145	36	2.59
Mar. 24	1430	66	2.92	Sept. 18	0055	34	2.54
Mar. 27	0705	*119	*3.29				

Minimum discharge, 0.18 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.30	.30	.88	1.5	3.9	2.2	.55	.30	.49	.28	.52
2	.32	.28	.28	.76	1.2	8.1	1.9	.50	.49	.43	.29	.37
3	.27	.30	.29	1.9	1.0	4.8	1.8	.96	.30	.41	.30	.27
4	.26	.36	13	1.9	.84	3.0	1.5	.58	.29	.39	.32	.27
5	.27	1.2	4.4	1.4	.83	2.3	2.5	.50	.29	.37	.77	.27
6	.26	.48	2.1	1.2	.67	1.9	6.2	.45	.34	.38	.31	.28
7	.25	.38	1.3	2.9	.53	1.6	3.5	.44	.39	.38	.30	.25
8	.25	.33	.96	2.1	.67	1.4	2.5	.42	.36	.41	.30	.24
9	.37	.30	.70	1.7	4.2	2.1	2.0	.40	.39	.40	.30	.25
10	.25	.28	2.4	1.4	12	2.2	3.3	.39	.99	.39	.31	.24
11	.28	.27	1.3	2.0	17	1.7	8.2	.38	.35	.47	.30	.25
12	.25	.26	1.1	3.7	5.9	1.6	10	.38	.32	.51	.44	.26
13	.24	.25	.83	2.3	3.4	1.4	9.4	.36	.41	.57	.53	.26
14	.25	1.8	.81	1.9	2.4	1.3	4.2	.36	.33	.47	1.6	.28
15	.24	.75	.80	1.4	2.1	1.2	8.5	.51	.50	.47	.86	.28
16	.30	.62	.63	1.1	1.7	1.1	7.4	.37	.55	.95	.74	.31
17	.25	.67	.54	2.1	1.5	.88	3.8	.34	.48	.56	.52	.50
18	.25	e.43	.50	1.5	1.3	.78	2.6	.33	.46	.56	.52	1.9
19	.25	e.38	.44	1.3	1.1	.71	2.1	.32	.34	.46	.85	.42
20	.26	.34	.81	1.1	.98	.64	1.8	.31	.35	.40	.73	.36
21	.72	.29	1.1	1.0	3.3	.70	1.5	.30	.42	.36	1.0	.34
22	.32	.26	.91	.88	2.7	.59	1.3	.30	.33	.33	.64	.33
23	.28	.25	.80	.74	14	.54	1.1	.30	.23	.31	.60	.44
24	.28	.23	.67	.70	4.9	e3.5	.90	.30	.42	.30	.56	.39
25	.28	.23	.61	2.7	3.0	2.3	.80	.30	.27	.30	.54	.34
26	.27	.53	.50	2.3	2.3	2.0	.73	1.2	3.4	.32	.53	.32
27	.34	1.0	.42	2.7	1.9	24	.70	.41	1.8	.73	.52	.32
28	.25	.58	1.3	5.8	1.6	12	.62	.32	.97	.38	.51	.31
29	.27	.43	1.5	3.4	---	5.0	.59	.30	.71	.30	.52	.30
30	.64	.35	1.2	2.3	---	3.2	.54	.30	.57	.27	.50	.30
31	.34	---	1.0	1.9	---	3.1	---	.30	---	.26	.83	---
TOTAL	9.36	14.13	43.50	58.96	94.52	99.54	94.18	13.18	17.35	13.33	17.32	11.17
MEAN	.30	.47	1.40	1.90	3.38	3.21	3.14	.43	.58	.43	.56	.37
MAX	.72	1.8	13	5.8	17	24	10	1.2	3.4	.95	1.6	1.9
MIN	.24	.23	.28	.70	.53	.54	.54	.30	.23	.26	.28	.24

e Estimated

TENNESSEE RIVER BASIN

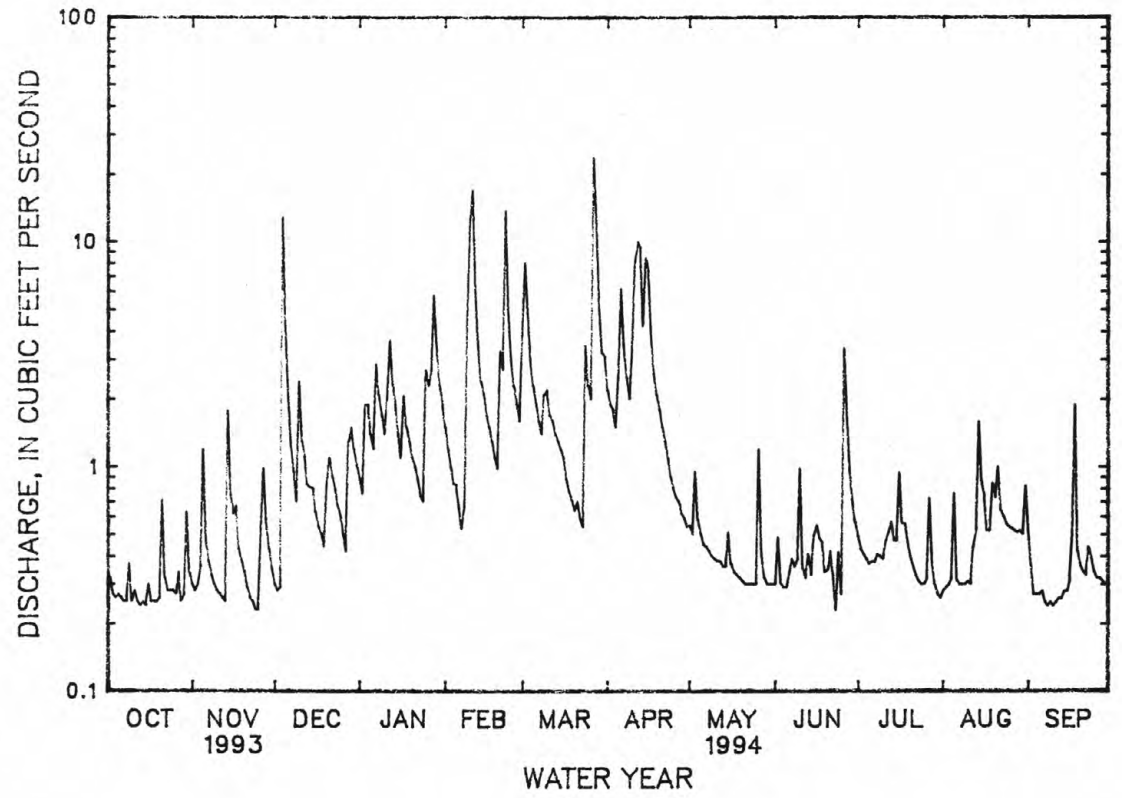
03536450 FIRST CREEK NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	.37	.63	1.43	1.58	1.84	1.78	1.26	.66	.64	.51	.38	.40
MAX	1.01	1.44	2.90	2.33	3.38	3.21	3.14	1.65	2.14	.94	.56	.96
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1990	1989
MIN	.20	.23	.28	.83	.75	.97	.72	.32	.32	.27	.27	.22
(WY)	1988	1988	1988	1988	1988	1988	1988	1992	1988	1993	1992	1990

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	314.81		486.54			
ANNUAL MEAN	.86		1.33		.98	
HIGHEST ANNUAL MEAN					1.33	1994
LOWEST ANNUAL MEAN					.49	1988
HIGHEST DAILY MEAN	13	Dec 4	24	Mar 27	26	Dec 23 1990
LOWEST DAILY MEAN	.15	Sep 11	.23	Nov 24	.14	Dec 2 1987
ANNUAL SEVEN-DAY MINIMUM	.17	Aug 26	.25	Sep 7	.15	Dec 1 1987
INSTANTANEOUS PEAK FLOW			a119	Mar 27	a295	Dec 23 1990
INSTANTANEOUS PEAK STAGE			3.29	Mar 27	4.10	Dec 23 1990
INSTANTANEOUS LOW FLOW			.18	Sep 10	.09	Sep 13 1991
10 PERCENT EXCEEDS	1.8		2.8		1.9	
50 PERCENT EXCEEDS	.49		.53		.49	
90 PERCENT EXCEEDS	.22		.27		.22	

a From rating curve extended above 10 ft^3/s on the basis of theoretical weir formula.



TENNESSEE RIVER BASIN

03536550 WHITEOAK CREEK BELOW MELTON VALLEY DRIVE NEAR OAK RIDGE, TN

LOCATION.--Lat 35°55'10", long 84°19'02", Roane County, Hydrologic Unit 06010207, on right bank 200 ft downstream of bridge on Melton Valley Drive at Oak Ridge National Laboratory, 6.7 mi southwest of Oak Ridge, and at mile 2.2.

DRAINAGE AREA.--3.28 mi².

PERIOD OF RECORD.--April 1985 to current year.

GAGE.--Water-stage recorder, crest-stage gage, data collection platform, and sharp-crested weir. Datum of gage is 766.35 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Oak Ridge National Laboratory. The control structure's weir plate and dam were modified June 14, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1615	346	5.48	Apr. 12	2215	*560	*6.13
Feb. 10	2345	427	5.74	Apr. 15	2115	334	5.44
Feb. 23	0330	304	5.33	June 26	2215	223	4.96
Mar. 27	0700	*560	*6.13				

Minimum discharge, 3.8 ft³/s, Oct. 6, 11, 19 and Sept. 10, gage height 2.57 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.7	5.2	7.7	11	32	20	7.7	5.4	7.0	5.4	5.2
2	4.7	4.3	4.8	7.4	9.4	66	16	6.1	7.3	6.1	5.5	4.8
3	4.3	4.5	5.0	17	8.3	39	16	11	5.7	5.9	6.0	4.7
4	4.1	5.3	116	17	7.5	25	13	7.9	5.2	5.6	5.9	4.8
5	4.1	12	38	12	9.7	18	20	7.0	5.2	5.7	10	4.5
6	4.2	5.9	16	11	8.1	15	56	7.0	6.4	5.9	5.7	5.2
7	4.3	5.2	11	25	6.9	13	31	6.8	6.4	6.0	5.4	5.0
8	4.4	4.6	8.9	19	8.7	11	22	6.4	7.0	6.3	5.4	4.5
9	5.6	4.7	7.9	13	38	16	17	5.8	7.1	6.0	5.3	4.9
10	4.3	4.5	22	11	97	21	26	6.2	11	6.1	5.8	4.2
11	4.3	4.4	12	15	161	15	72	5.9	6.5	7.0	5.4	4.5
12	4.3	4.6	9.2	36	45	13	84	5.8	6.1	7.9	5.5	4.7
13	4.1	4.8	8.1	20	27	12	84	5.5	7.2	8.1	5.6	4.8
14	4.1	8.8	8.6	15	19	11	33	5.4	6.8	7.2	12	4.6
15	4.2	14	8.7	12	16	10	71	7.3	8.4	7.5	8.1	4.7
16	5.1	6.7	7.2	9.5	13	9.2	59	5.8	8.1	10	8.6	4.8
17	4.3	8.0	6.7	19	12	8.4	30	5.6	7.1	8.2	6.5	8.1
18	4.6	6.3	6.2	14	10	8.8	21	5.3	8.1	8.4	6.2	14
19	4.2	5.6	5.8	11	9.0	7.8	17	5.5	6.0	6.6	7.7	5.6
20	4.4	5.0	8.7	9.5	8.5	7.3	14	5.3	6.3	6.6	9.8	5.1
21	8.7	4.6	11	8.4	30	8.9	13	5.1	7.7	6.2	11	5.2
22	4.8	4.5	8.2	7.8	24	7.4	12	5.1	6.4	5.9	7.3	4.7
23	4.5	4.8	7.4	6.9	128	7.0	10	5.2	5.5	5.5	6.0	5.9
24	4.1	4.8	6.2	6.8	39	24	9.4	5.4	7.5	5.4	5.8	5.5
25	4.3	4.5	6.0	21	25	22	8.9	5.4	6.2	5.9	5.8	4.9
26	4.7	6.9	5.9	21	17	17	8.4	11	30	6.3	5.7	4.5
27	4.3	11	5.6	25	14	202	8.4	6.7	21	11	5.3	4.5
28	4.2	7.1	13	47	12	90	7.9	5.6	9.9	7.3	5.0	4.5
29	4.4	6.0	14	23	---	39	7.1	5.2	8.2	6.0	5.2	4.5
30	7.5	5.3	9.6	16	---	26	7.0	5.1	7.5	5.6	5.2	4.6
31	5.0	---	8.5	13	---	27	---	5.2	---	5.6	8.0	---
TOTAL	144.4	183.4	411.4	497.0	814.1	828.8	814.1	194.3	247.2	208.8	206.1	157.5
MEAN	4.66	6.11	13.3	16.0	29.1	26.7	27.1	6.27	8.24	6.74	6.65	5.25
MAX	8.7	14	116	47	161	202	84	11	30	11	12	14
MIN	4.1	4.3	4.8	6.8	6.9	7.0	7.0	5.1	5.2	5.4	5.0	4.2

TENNESSEE RIVER BASIN

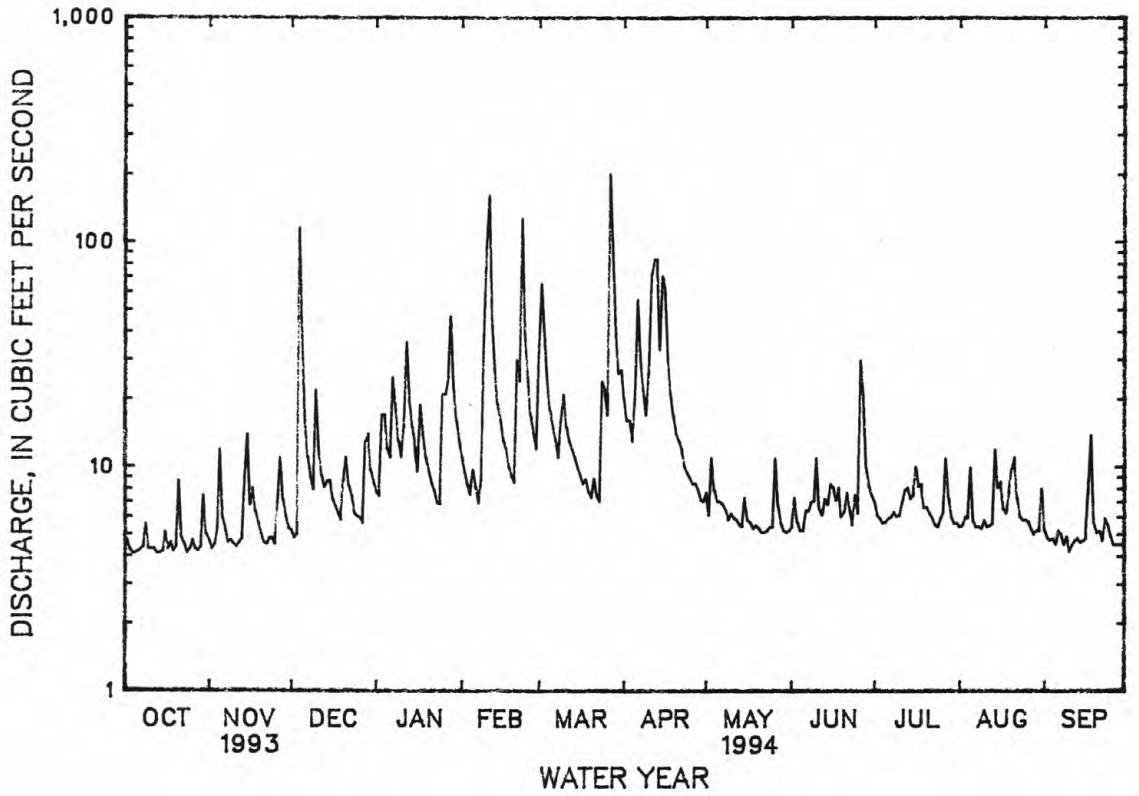
03536550 WHITEOAK CREEK BELOW MELTON VALLEY DRIVE NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1994, BY WATER YEAR (WY)

MEAN	6.47	8.39	13.2	13.8	17.1	15.8	11.4	8.33	8.89	7.84	7.63	6.90
MAX	11.2	14.8	25.4	19.8	29.1	26.7	27.1	15.5	21.9	11.9	13.6	13.9
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1985	1989
MIN	4.66	5.94	6.39	7.10	8.84	10.4	6.96	6.09	5.76	5.57	5.62	5.25
(WY)	1994	1988	1988	1986	1988	1988	1986	1992	1992	1993	1992	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1985 - 1994	
ANNUAL TOTAL	3363.6		4707.1			
ANNUAL MEAN	9.22		12.9		10.4	
HIGHEST ANNUAL MEAN					12.9	1994
LOWEST ANNUAL MEAN					7.47	1988
HIGHEST DAILY MEAN	116	Dec 4	202	Mar 27	202	Mar 27 1994
LOWEST DAILY MEAN	4.0	Sep 12	4.1	Oct 4	3.8	Oct 25 1992
ANNUAL SEVEN-DAY MINIMUM	4.3	Oct 1	4.3	Oct 1	4.1	Oct 19 1992
INSTANTANEOUS PEAK FLOW			a,b560	Mar 27	a711	Dec 23 1990
INSTANTANEOUS PEAK STAGE			b6.13	Mar 27	6.51	Dec 23 1990
INSTANTANEOUS LOW FLOW			c3.8	Oct 6	3.4	Oct 25 1992
10 PERCENT EXCEEDS	16		24		17	
50 PERCENT EXCEEDS	6.2		7.1		7.1	
90 PERCENT EXCEEDS	4.5		4.6		5.2	

a From rating curve extended above 100 ft^3/s on the basis of theoretical weir formula.
b Also occurred on Apr. 12.
c Also occurred on Oct. 11, 19, and Sept. 10.



TENNESSEE RIVER BASIN

03537100 MELTON BRANCH NEAR MELTON HILL, NEAR OAK RIDGE, TN

LOCATION.--Lat 35°54'59", long 84°17'53", Roane County, Hydrologic Unit 06010207, on left bank 1.0 mi southeast of the Oak Ridge National Laboratory, 6.0 mi south of Oak Ridge, and at mile 1.2.

DRAINAGE AREA.--0.52 mi².

PERIOD OF RECORD.--April 1985 to current year.

REVISED RECORDS.--WDR TN-91-1: 1986-90.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 784.06 ft above sea level.

REMARKS.--Records fair between 0.2 and 30 ft³/s, and poor above and below.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1545	68	9.58	Mar. 27	0700	*135	*10.10
Feb. 10	2400	89	9.77	Apr. 12	2215	120	10.00
Feb. 11	0815	32	9.15	Apr. 15	2130	53	9.43
Feb. 23	0330	68	9.58				

Minimum discharge, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.05	.52	.73	4.3	1.6	.17	.02	.01	e.00	.00
2	.00	.01	.04	.51	.60	9.6	1.2	.09	.04	.00	e.00	.00
3	.00	.01	.04	1.7	.52	3.8	1.1	.62	.03	.00	e.01	.00
4	.00	.00	20	2.0	.48	1.9	.94	.51	.02	.00	e.01	.00
5	.00	.23	3.8	1.1	.82	1.4	1.4	.22	.02	.00	e.20	.00
6	.00	.03	1.0	.78	.66	1.1	8.3	.11	.06	.00	e.01	.00
7	.00	.00	.53	2.8	.52	.87	3.3	.08	.03	.00	e.00	.00
8	.00	.00	.35	1.9	.64	.76	1.7	.09	.04	.00	e.00	.00
9	.00	.00	.26	1.1	5.0	1.1	1.3	.07	.02	.00	e.00	.00
10	.00	.00	2.1	.81	18	2.5	2.9	.08	.25	.00	e.00	.00
11	.00	.00	1.0	1.1	21	1.2	12	e.08	.07	.00	e.00	.00
12	.00	.00	.63	5.1	3.3	.93	14	e.07	.02	.00	e.00	.00
13	.00	.00	.43	1.5	1.7	.89	9.4	e.07	e.02	.01	e.00	.00
14	.00	.03	.46	1.1	1.2	.76	2.6	e.05	e.08	.02	e.70	.00
15	.00	.67	.72	1.0	.97	.66	7.8	e.25	e.09	.07	e.30	.00
16	.00	.14	.49	.99	.80	.57	6.1	e.12	e.06	.35	e.10	.00
17	.00	.16	.38	1.5	.63	.52	2.2	e.09	e.04	.54	e.04	.00
18	.00	.13	.31	e1.6	.52	.52	1.5	e.08	e.15	.13	e.02	.04
19	.00	.06	.26	e1.1	.51	.48	1.2	e.07	e.08	.04	.00	.00
20	.00	.03	.46	e.95	.44	.44	.96	e.07	e.06	.01	.09	.00
21	.00	.01	1.2	e.80	3.9	.62	.70	e.06	e.20	.00	.43	.00
22	.01	.00	.74	e.70	2.2	.54	.52	e.05	e.09	.00	.18	.00
23	.00	.00	.49	e.65	20	.43	.42	e.04	e.03	.00	.04	.00
24	.00	.00	.39	e.60	3.1	3.8	.34	e.03	e.06	.00	.01	.00
25	.00	.00	.33	2.8	1.8	3.0	.25	e.02	e.06	.00	.01	.00
26	.00	.09	.29	2.7	1.3	1.5	.21	e.54	2.0	.00	.00	.00
27	.00	.78	.24	3.1	1.0	33	.25	.25	2.1	.22	.00	.00
28	.00	.37	.96	6.8	.82	11	.23	.08	.32	.08	.00	.00
29	.00	.17	1.7	1.8	---	3.3	.15	.04	.14	e.03	.00	.00
30	.02	.08	.99	1.2	---	2.0	.10	.02	.04	e.00	.00	.00
31	.03	---	.58	.90	---	2.5	---	.02	---	e.00	.00	---
TOTAL	0.06	3.02	41.22	51.21	93.16	95.99	84.67	4.14	6.24	1.51	2.15	0.04
MEAN	.002	.10	1.33	1.65	3.33	3.10	2.82	.13	.21	.049	.069	.001
MAX	.03	.78	20	6.8	21	33	14	.62	2.1	.54	.70	.04
MIN	.00	.00	.04	.51	.44	.43	.10	.02	.02	.00	.00	.00
CFSM	.00	.19	2.56	3.18	6.40	5.95	5.43	.26	.40	.09	.13	.00
IN.	.00	.22	2.95	3.66	6.66	6.87	6.06	.30	.45	.11	.15	.00

e Estimated

TENNESSEE RIVER BASIN

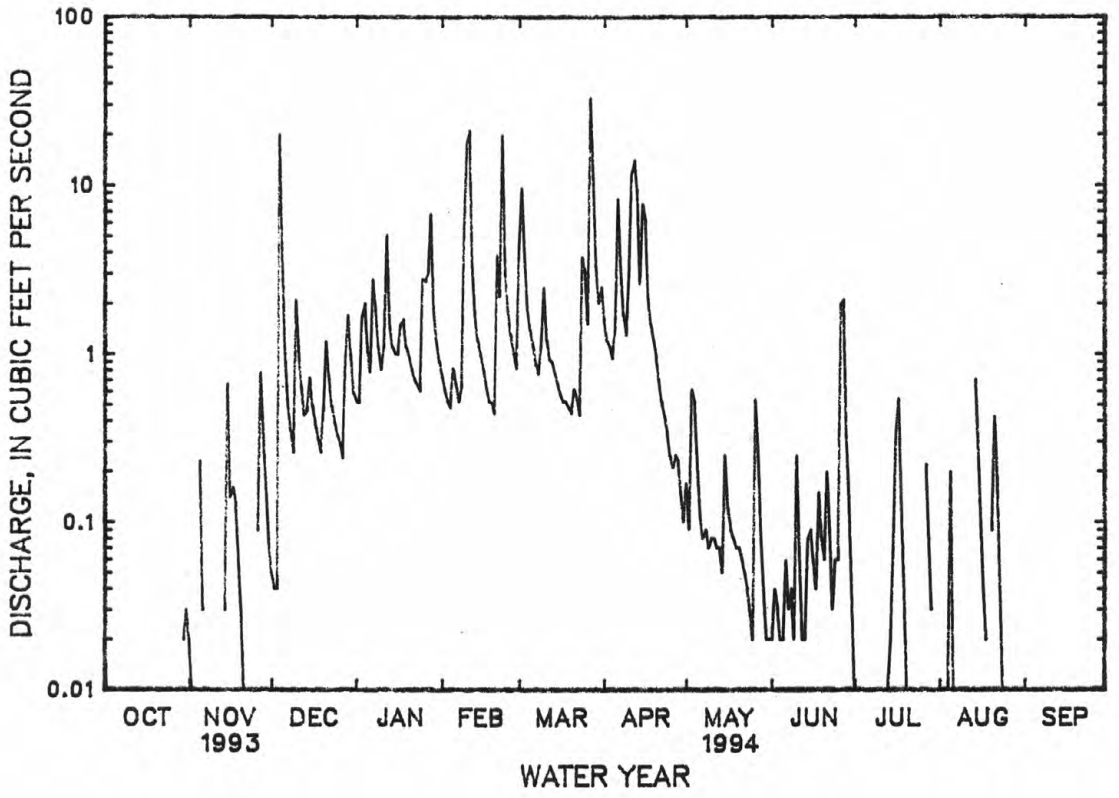
03537100 MELTON BRANCH NEAR MELTON HILL, NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1994, BY WATER YEAR (WY)

MEAN	.12	.39	1.20	1.25	1.75	1.51	.81	.33	.28	.12	.12	.094
MAX	.71	1.17	2.94	2.22	3.33	3.10	2.82	1.52	1.44	.41	.87	.86
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1985	1989
MIN	.000	.000	.039	.31	.44	.73	.15	.045	.000	.003	.000	.000
(WY)	1988	1988	1988	1986	1988	1988	1986	1988	1988	1993	1986	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1985 - 1994	
ANNUAL TOTAL	200.98		383.41			
ANNUAL MEAN	.55		1.05		.66	
HIGHEST ANNUAL MEAN					1.05	1994
LOWEST ANNUAL MEAN					.21	1988
HIGHEST DAILY MEAN	20	Dec 4	33	Mar 27	33	Mar 27 1994
LOWEST DAILY MEAN	.00	Jun 9	a.00	Oct 1	b.00	Jun 5 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 24	.00	Oct 1	.00	Jun 21 1986
INSTANTANEOUS PEAK FLOW			c135	Mar 27	c238	Dec 23 1990
INSTANTANEOUS PEAK STAGE			10.10	Mar 27	10.64	Dec 23 1990
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00	Jun 3 1985
ANNUAL RUNOFF (CFSM)	1.06		2.02		1.27	
ANNUAL RUNOFF (INCHES)	14.38		27.43		17.27	
10 PERCENT EXCEEDS	1.3		2.1		1.4	
50 PERCENT EXCEEDS	.09		.09		.11	
90 PERCENT EXCEEDS	.00		.00		.00	

a Occurred many days.
b Occurred many days each year.
c From rating curve extended above 30 ft³/s.



TENNESSEE RIVER BASIN

03538231 EAST FORK POPLAR CREEK AT Y-12 AT OAK RIDGE, TN

LOCATION.--Lat 35°59'11", long 84°15'02", Anderson County, Hydrologic Unit 06010207, on the downstream end of culvert, 1.5 miles south of Oak Ridge, and at mile 15.5.

DRAINAGE AREA.--0.81 mi².

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

GAGE.--Water-stage recorder, crest-stage gage, and flume. Datum of gage is 930 ft above sea level, from topographic map.

REMARKS.--Records good below 40 ft³/s, fair above. Flow affected by operations of the Department of Energy Y-12 Plant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 472 ft³/s, Apr. 12, gage height, 6.29 ft; minimum, 3.8 ft³/s, Oct. 1, 2, and Nov. 13, gage height 1.56 ft; minimum daily, 4.0 ft³/s, Nov. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.6	4.3	5.2	5.2	20	6.9	5.9	4.8	5.0	4.9	5.2
2	4.9	4.7	4.4	4.9	5.0	24	6.7	5.2	5.0	5.1	5.1	5.1
3	4.1	4.6	4.5	11	5.0	11	7.9	10	4.6	5.1	5.2	4.8
4	4.2	5.2	66	7.7	4.9	8.1	6.6	5.7	4.4	5.7	5.3	4.8
5	4.4	10	10	5.6	5.4	7.0	13	5.2	4.5	5.1	9.1	4.8
6	4.5	4.4	5.7	5.1	4.7	6.6	21	5.0	5.4	5.1	4.8	5.2
7	4.4	4.1	5.2	15	4.9	6.4	8.7	6.7	12	5.3	4.6	5.3
8	4.4	4.2	4.9	6.5	5.9	6.8	7.5	5.3	7.9	5.5	4.8	5.0
9	5.7	4.6	5.0	5.6	25	12	6.4	5.1	7.4	5.0	4.9	4.8
10	4.3	4.5	14	5.3	39	8.7	18	5.1	16	5.0	4.9	4.6
11	4.8	4.4	5.7	11	38	6.6	24	5.0	5.9	7.6	4.8	4.7
12	4.7	4.5	5.1	12	11	6.2	e46	5.0	5.2	6.4	4.8	4.7
13	4.5	4.0	5.0	6.0	7.7	5.9	e20	4.9	6.1	8.9	4.8	5.0
14	4.3	7.8	5.9	5.5	6.8	6.3	8.5	5.1	5.3	6.1	9.7	5.0
15	4.4	8.9	5.5	5.4	6.6	6.4	e37	e11	5.1	9.8	5.4	4.8
16	4.9	5.2	4.9	5.1	6.2	6.3	11	5.5	5.2	7.5	7.5	4.9
17	4.6	9.2	4.8	12	5.9	6.2	7.4	5.2	5.9	6.0	5.4	9.2
18	4.5	4.9	4.8	6.0	5.7	6.2	6.8	5.0	5.1	6.4	5.1	13
19	4.7	4.7	4.7	5.4	5.5	6.0	6.5	5.0	4.9	5.8	5.3	4.9
20	4.7	4.5	8.1	5.1	5.5	6.0	6.1	5.1	5.0	5.4	8.2	5.0
21	6.0	4.5	6.3	4.9	17	7.3	5.9	4.8	6.2	5.3	9.6	4.7
22	4.4	4.5	5.1	5.0	11	6.1	5.7	4.8	5.3	5.5	5.4	4.8
23	4.2	4.4	5.0	4.8	37	6.0	5.6	5.0	5.1	5.1	5.4	6.1
24	4.1	4.3	4.7	4.9	11	12	5.3	4.9	8.6	5.1	5.3	5.9
25	4.2	4.2	4.6	13	8.8	7.9	5.5	4.8	5.1	5.2	5.1	4.6
26	4.6	7.8	4.7	7.0	7.6	7.6	5.6	7.4	28	6.1	5.4	4.6
27	4.6	8.1	4.6	12	7.0	56	6.6	4.9	8.9	12	5.5	4.5
28	4.6	5.0	12	14	6.9	22	5.5	4.5	6.0	15	5.0	4.4
29	4.7	4.6	6.3	6.0	---	10	5.2	4.6	5.5	5.4	5.1	4.5
30	7.3	4.5	5.2	5.3	---	8.1	5.0	4.6	5.1	4.9	5.2	4.5
31	4.8	---	4.9	5.3	---	11	---	4.7	---	4.8	7.3	---
TOTAL	144.6	160.9	241.9	227.6	310.2	326.7	331.9	171.0	209.5	196.2	178.9	159.4
MEAN	4.66	5.36	7.80	7.34	11.1	10.5	11.1	5.52	6.98	6.33	5.77	5.31
MAX	7.3	10	66	15	39	56	46	11	28	15	9.7	13
MIN	4.1	4.0	4.3	4.8	4.7	5.9	5.0	4.5	4.4	4.8	4.6	4.4

e Estimated

TENNESSEE RIVER BASIN

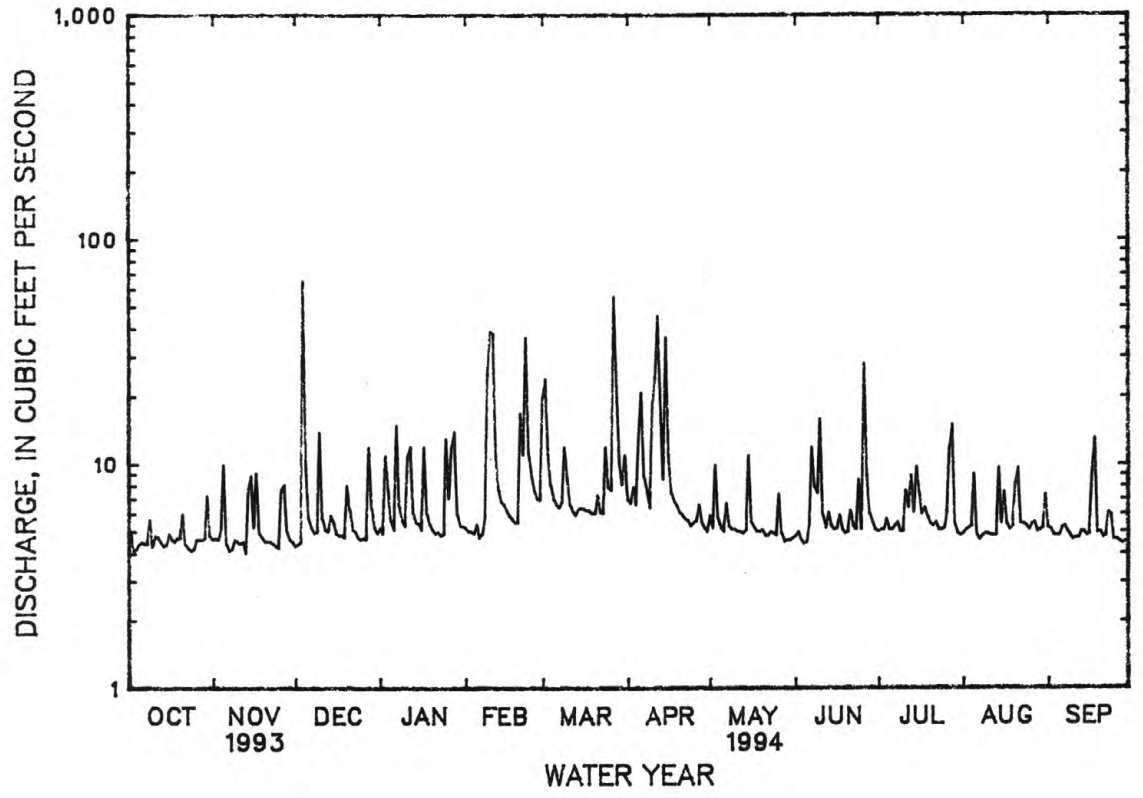
03538231 EAST FORK POPLAR CREEK AT Y-12 AT OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	4.66	5.36	7.20	6.50	8.59	9.00	8.43	5.42	5.93	5.62	5.40	5.43
MAX	4.66	5.36	7.80	7.34	11.1	10.5	11.1	5.52	6.98	6.33	5.77	5.55
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1993
MIN	4.66	5.36	6.61	5.65	6.10	7.47	5.80	5.33	4.89	4.92	5.03	5.31
(WY)	1994	1994	1993	1993	1993	1993	1993	1993	1993	1993	1993	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994		
ANNUAL TOTAL	2085.3		2658.8				
ANNUAL MEAN	5.71		7.28		7.28		
HIGHEST ANNUAL MEAN					7.28		1994
LOWEST ANNUAL MEAN					7.28		1994
HIGHEST DAILY MEAN	66	Dec 4	66	Dec 4	66	Dec 4	1993
LOWEST DAILY MEAN	3.8	Sep 11	4.0	Nov 13	a3.8	Sep 11	1993
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 8	4.3	Nov 7	4.2	Sep 8	1993
INSTANTANEOUS PEAK FLOW			b472	Apr 12	b472	Apr 12	1994
INSTANTANEOUS PEAK STAGE			c6.29	Apr 12	c6.29	Apr 12	1994
INSTANTANEOUS LOW FLOW			d3.8	Oct 1	f3.6	Sep 11	1993
10 PERCENT EXCEEDS	7.9		11		9.8		
50 PERCENT EXCEEDS	4.7		5.3		5.0		
90 PERCENT EXCEEDS	4.2		4.5		4.3		

a Also occurred Sept. 12 and 19, 1993.
b From rating curve extended above 57 ft^3/s based on a theoretical culvert computation.
c From crest-stage gage.
d Also occurred Oct. 2, and Nov. 13.
f Also occurred Sept. 12, 1993.



TENNESSEE RIVER BASIN

03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN

LOCATION.--Lat 35°59'48", Long 84°14'25", Anderson County, Hydrologic Unit 06010207, on left bank upstream from bridge on Bear Creek Road, 0.5 mi south of Oak Ridge, and at mile 14.4.

DRAINAGE AREA.--1.69 mi².

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

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 890 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good below 100 ft³/s, fair above. Flow affected by operations of the Department of Energy, Y-12 Plant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,200 ft³/s, gage height, 6.65 ft, Apr. 12; minimum, 4.1 ft³/s, gage height, 1.25 ft, several days; minimum daily, 4.2 ft³/s, several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	5.0	4.9	5.8	6.8	26	9.2	6.7	4.7	5.6	5.4	5.8
2	5.6	5.2	4.9	6.2	6.4	38	8.4	5.5	5.0	5.6	5.6	5.1
3	5.5	5.1	4.7	15	6.4	15	9.6	13	4.5	5.6	5.9	4.8
4	4.9	5.8	163	11	6.1	10	8.1	7.0	4.2	6.6	5.8	4.6
5	5.3	15	20	7.0	7.1	8.7	16	5.7	4.2	5.8	12	4.8
6	5.5	5.5	8.7	6.3	5.9	8.0	37	5.5	5.7	5.7	5.3	5.3
7	5.3	4.8	6.8	22	5.9	7.3	12	7.5	17	5.9	4.8	5.3
8	5.4	4.8	6.2	9.8	7.2	7.4	9.4	6.7	13	6.4	4.9	4.9
9	6.8	5.2	5.8	7.1	46	12	7.8	5.3	8.6	5.4	5.2	4.7
10	5.4	5.1	21	6.6	84	13	24	5.4	26	5.4	5.3	4.3
11	5.5	5.0	8.0	12	83	7.5	45	5.1	7.2	9.1	5.1	4.4
12	5.7	5.0	6.3	22	17	6.7	97	5.2	5.8	7.3	5.3	4.5
13	5.3	4.5	6.0	8.7	11	6.2	36	4.9	6.8	11	5.0	4.8
14	5.0	8.7	7.1	7.5	9.3	6.5	13	5.2	6.2	8.4	11	5.0
15	5.2	15	7.3	6.7	8.7	6.6	78	16	5.5	12	7.4	4.7
16	6.1	6.5	5.7	6.5	7.9	6.4	21	7.3	5.4	9.7	8.8	4.8
17	5.3	13	5.5	17	7.2	6.2	12	5.5	5.7	7.1	6.1	10
18	5.6	6.4	5.3	8.6	6.8	6.3	10	5.1	6.6	9.3	5.4	19
19	5.8	5.6	5.2	6.8	6.4	6.0	9.1	4.9	4.9	7.9	5.5	5.0
20	5.8	5.0	9.3	6.3	6.1	6.0	8.4	5.0	5.2	6.3	11	5.3
21	7.7	4.9	9.4	6.0	25	7.5	7.6	4.8	6.5	6.0	12	4.8
22	5.3	4.9	6.1	5.9	13	6.3	7.0	4.7	6.1	6.1	6.0	4.7
23	4.8	5.0	5.7	5.8	78	6.0	6.8	4.9	5.6	5.4	5.8	7.0
24	4.7	4.7	5.3	6.0	14	13	6.2	5.0	10	5.4	5.7	6.9
25	4.8	4.6	5.0	18	9.9	9.8	6.3	4.7	6.4	5.5	5.4	4.7
26	5.4	9.1	5.0	11	8.1	7.3	6.5	8.4	71	6.6	5.6	4.4
27	5.3	12	5.0	17	7.1	129	8.0	5.2	18	14	6.5	4.4
28	5.2	6.3	15	26	6.5	36	6.3	4.2	7.5	41	5.2	4.2
29	5.1	5.3	10	9.5	---	15	5.9	4.2	6.6	6.7	5.3	4.2
30	9.5	5.2	6.5	7.9	---	11	5.6	4.3	5.7	5.5	5.5	4.3
31	5.6	---	5.9	7.1	---	15	---	4.4	---	5.2	8.5	---
TOTAL	173.3	198.2	390.6	319.1	506.8	465.7	537.2	187.3	295.6	253.5	202.3	166.7
MEAN	5.59	6.61	12.6	10.3	18.1	15.0	17.9	6.04	9.85	8.18	6.53	5.56
MAX	9.5	15	163	26	84	129	97	16	71	41	12	19
MIN	4.7	4.5	4.7	5.8	5.9	6.0	5.6	4.2	4.2	5.2	4.8	4.2

TENNESSEE RIVER BASIN

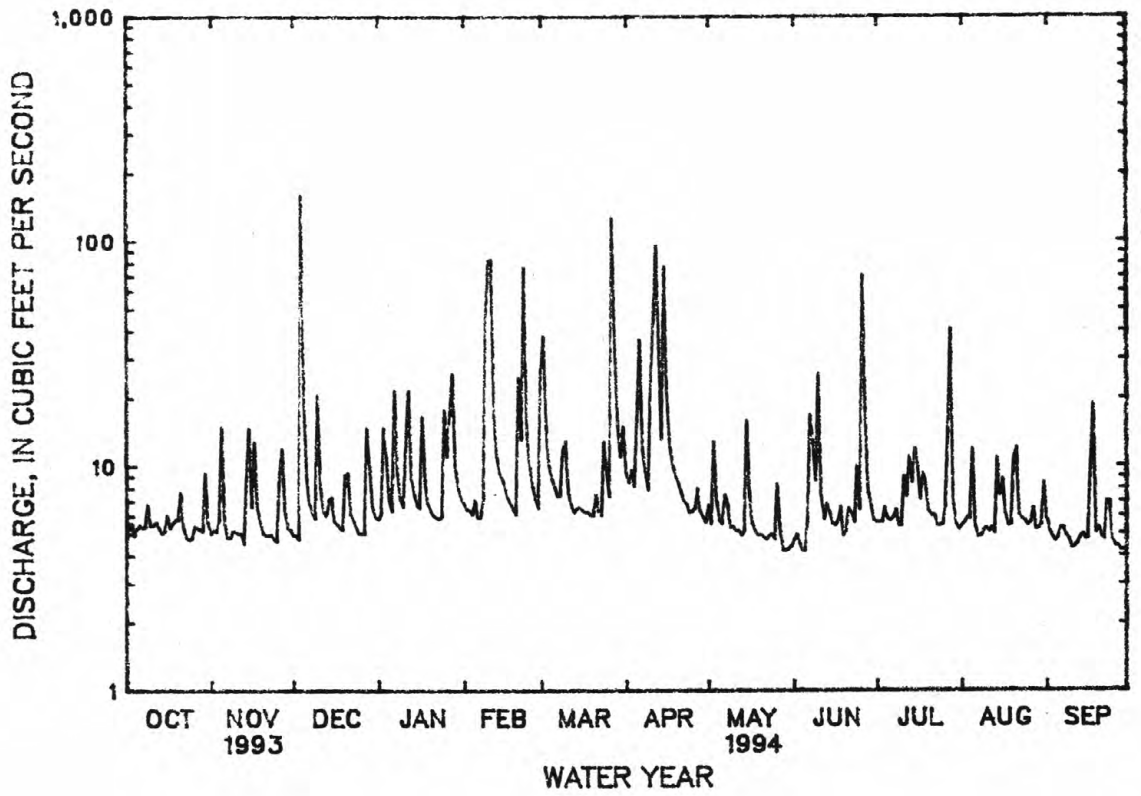
03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	5.59	6.61	10.8	8.93	13.4	12.8	12.8	6.54	7.94	7.18	6.50	6.50
MAX	5.59	6.61	12.6	10.3	18.1	15.0	17.9	7.03	9.85	8.18	6.53	7.45
(WY)	1994	1994	1994	1994	1994	1994	1994	1993	1994	1994	1994	1993
MIN	5.59	6.61	9.04	7.56	8.65	10.6	7.63	6.04	6.02	6.17	6.48	5.56
(WY)	1994	1994	1993	1993	1993	1993	1993	1994	1993	1993	1993	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994		
ANNUAL TOTAL	2811.7		3696.3				
ANNUAL MEAN	7.70		10.1		10.1		
HIGHEST ANNUAL MEAN					10.1		1994
LOWEST ANNUAL MEAN					10.1		1994
HIGHEST DAILY MEAN	163	Dec 4	163	Dec 4	163	Dec 4	1993
LOWEST DAILY MEAN	4.5	Nov 13	a4.2	May 28	a4.2	May 28	1994
ANNUAL SEVEN-DAY MINIMUM	4.9	Nov 7	4.5	May 28	4.5	May 28	1994
INSTANTANEOUS PEAK FLOW			b1200	Apr 12	b1200	Apr 12	1994
INSTANTANEOUS PEAK STAGE			6.65	Apr 12	6.65	Apr 12	1994
INSTANTANEOUS LOW FLOW			c4.1	May 28	4.0	Sep 4	1993
10 PERCENT EXCEEDS	10		15		13		
50 PERCENT EXCEEDS	5.8		6.2		6.0		
90 PERCENT EXCEEDS	5.1		4.8		5.0		

a Also occurred several other days during the year.
b From rating curve extended above 102 ft^3/s.
c Also occurred several other days during the year.



TENNESSEE RIVER BASIN

03538256 BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE, TN

LOCATION.--Lat 35°58'17", long 84°16'49", Anderson County, Hydrologic Unit 06010207, on right bank 2.8 mi southwest of Scarboro Road, 1.5 mi northwest of county line, and at mile 7.4.

DRAINAGE AREA.--0.42 mi².

PERIOD OF RECORD.--February 1993 to September 1994.

GAGE.--Water-stage recorder. Datum of gage is 960 ft above sea level, from topographic map.

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

EXTREMES FOR CURRENT PERIOD.--February 1993 to September 1994: Maximum discharge, 118 ft³/s, April 12, gage height, 2.80 ft, extended above 42 ft³/s; minimum, 0.01 ft³/s, many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft³/s, April 12, gage height, 2.80 ft, extended above 42 ft³/s; minimum, 0.01 ft³/s, several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR FEBRUARY 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e.25	e.34	e1.6	.21	.21	.04	.03	.02
2	---	---	---	---	e.20	e.30	e.80	.20	.12	.01	.03	.02
3	---	---	---	---	e.18	e.50	e.60	.18	.10	.01	.03	.24
4	---	---	---	---	e.15	e3.0	e.50	.50	.09	.01	.03	2.0
5	---	---	---	---	e.15	e1.5	e1.0	.19	.09	.01	.02	.16
6	---	---	---	---	.16	e.80	e.53	.15	.07	.01	1.7	.06
7	---	---	---	---	.17	e.50	e.47	.15	.06	.01	.13	.12
8	---	---	---	---	.16	e.40	e1.0	.14	.07	.01	.05	.09
9	---	---	---	---	.15	.30	e1.4	.16	.07	.01	.03	.04
10	---	---	---	---	.15	.29	e1.1	.12	.07	.01	.03	.03
11	---	---	---	---	.43	.25	e.60	.10	.06	.01	.03	.03
12	---	---	---	---	.49	.25	e.40	.09	.04	.01	.24	.03
13	---	---	---	---	.26	.44	e.30	.11	.10	.04	.48	.03
14	---	---	---	---	.21	.63	e.28	.14	.10	.05	.11	.02
15	---	---	---	---	.19	.72	e.70	.19	.31	.04	.04	.52
16	---	---	---	---	1.7	1.0	e.48	.18	.09	.03	.03	1.4
17	---	---	---	---	.48	2.0	e.30	.17	.06	.07	.03	.21
18	---	---	---	---	.30	.91	e.20	.32	.07	.06	.04	.09
19	---	---	---	---	e.20	.59	e.17	.92	.19	.47	.03	.05
20	---	---	---	---	e.15	.48	e1.0	.23	.07	.23	.03	.04
21	---	---	---	---	e4.5	.44	.91	.26	.06	.08	.03	.02
22	---	---	---	---	e2.5	.44	.46	.15	.06	.06	.03	.02
23	---	---	---	---	e1.5	10	.40	.11	.04	.06	.03	.27
24	---	---	---	---	e.80	1.5	.32	.08	.03	.04	.03	.10
25	---	---	---	---	e.50	.79	.30	.08	.01	.02	.02	.29
26	---	---	---	---	e.60	.86	1.5	.10	.01	.02	.02	1.1
27	---	---	---	---	e.45	2.6	.50	.08	.01	.94	.02	1.1
28	---	---	---	---	e.38	1.0	.34	.10	.01	.13	.02	.15
29	---	---	---	---	---	.71	.30	.10	.01	.07	.02	.08
30	---	---	---	---	---	.68	.24	.12	.02	.05	.02	.07
31	---	---	---	---	---	e1.4	---	.66	---	.04	.02	---
TOTAL	---	---	---	---	17.36	35.62	18.70	6.29	2.30	2.65	3.40	8.40
MEAN	---	---	---	---	.62	1.15	.62	.20	.077	.085	.11	.28
MAX	---	---	---	---	4.5	10	1.6	.92	.31	.94	1.7	2.0
MIN	---	---	---	---	.15	.25	.17	.08	.01	.01	.02	.02
CFSM	---	---	---	---	1.48	2.74	1.48	.48	.18	.20	.26	.67
IN.	---	---	---	---	1.54	3.15	1.66	.56	.20	.23	.30	.74

e Estimated

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

MEAN	---	---	---	---	.62	1.15	.62	.20	.077	.085	.11	.28
MAX	---	---	---	---	.62	1.15	.62	.20	.077	.085	.11	.28
(WY)	---	---	---	---	1993	1993	1993	1993	1993	1993	1993	1993
MIN	---	---	---	---	.62	1.15	.62	.20	.077	.085	.11	.28
(WY)	---	---	---	---	1993	1993	1993	1993	1993	1993	1993	1993

TENNESSEE RIVER BASIN

03538256 BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.09	.12	.35	.51	3.0	.58	.19	.05	.12	.11	.26
2	.11	.10	.11	.43	.45	5.0	.44	.14	.06	.07	.11	.11
3	.09	.07	.11	1.7	.39	1.1	.51	.77	.07	.05	.14	.07
4	.09	.10	21	1.4	.41	.58	.43	.41	.05	.04	.18	.07
5	.08	2.0	2.4	.72	.45	.37	1.5	.20	.05	.03	1.1	.06
6	.06	.28	.85	.53	.37	.25	4.9	.16	.07	.05	.27	.09
7	.04	.15	.59	2.8	.35	.21	.95	.22	.42	.05	.19	.07
8	.05	.12	.26	1.2	.45	.17	.60	.24	.71	.04	.18	.04
9	.10	.12	.21	.74	5.9	.69	.48	.32	.35	.04	.14	.03
10	.07	.11	2.4	.61	10	1.1	2.6	.25	2.8	.03	.12	.03
11	.19	.10	.78	1.3	12	.35	6.2	.10	.75	.16	.10	.02
12	.07	.10	.48	3.1	1.3	.22	11	.06	.29	.11	.11	.02
13	.05	.10	.44	1.0	.68	.17	4.6	.04	.23	.42	.13	.02
14	.08	.63	.45	.75	.50	.23	.84	.05	.15	.31	1.2	.02
15	.08	2.0	.62	.53	.48	.21	8.4	.98	.11	.82	.53	.02
16	.08	.29	.34	.36	.41	.18	2.4	.62	.12	.65	.46	.02
17	.07	1.5	.25	1.2	.27	.14	.79	.20	.08	.29	.25	.48
18	.08	.36	.23	.66	.21	.13	.61	.12	.09	.20	.16	2.2
19	.06	.14	.20	.47	.17	.12	.49	.09	.07	.11	.10	.08
20	.06	.12	.60	.40	.14	.12	.43	.07	.08	.08	.65	.15
21	.17	.11	.95	.29	2.9	.16	.39	.06	.41	.08	1.4	.05
22	.08	.10	.48	.30	1.1	.13	.36	.06	.18	.07	.42	.04
23	.06	.09	.33	.24	10	.10	.32	.07	.08	.05	.28	.10
24	.06	.09	.26	.32	.98	.67	.26	.06	.55	.05	.17	.19
25	.06	.08	.26	2.3	.52	.69	.21	.06	.28	.04	.16	.08
26	.05	.49	.26	1.4	.31	.33	.18	.22	7.4	.08	.21	.07
27	.04	1.4	.24	1.9	.19	17	.25	.14	2.3	.64	.17	.08
28	.04	.37	1.3	3.6	.16	4.4	.20	.07	.49	3.0	.16	.06
29	.05	.25	1.3	1.0	---	1.1	.15	.06	.25	.39	.18	.05
30	.35	.14	.58	.76	---	.59	.10	.07	.16	.19	.15	.05
31	.12	---	.39	.61	---	1.2	---	.06	---	.14	.51	---
TOTAL	2.66	11.60	38.79	32.97	51.60	40.71	51.17	6.16	18.70	8.40	10.04	4.63
MEAN	.086	.39	1.25	1.06	1.84	1.31	1.71	.20	.62	.27	.32	.15
MAX	.35	2.0	21	3.6	12	17	11	.98	7.4	3.0	1.4	2.2
MIN	.04	.07	.11	.24	.14	.10	.10	.04	.05	.03	.10	.02
CFSM	.20	.92	2.98	2.53	4.39	3.13	4.06	.47	1.48	.65	.77	.37
IN.	.24	1.03	3.44	2.92	4.57	3.61	4.53	.55	1.66	.74	.89	.41

TENNESSEE RIVER BASIN

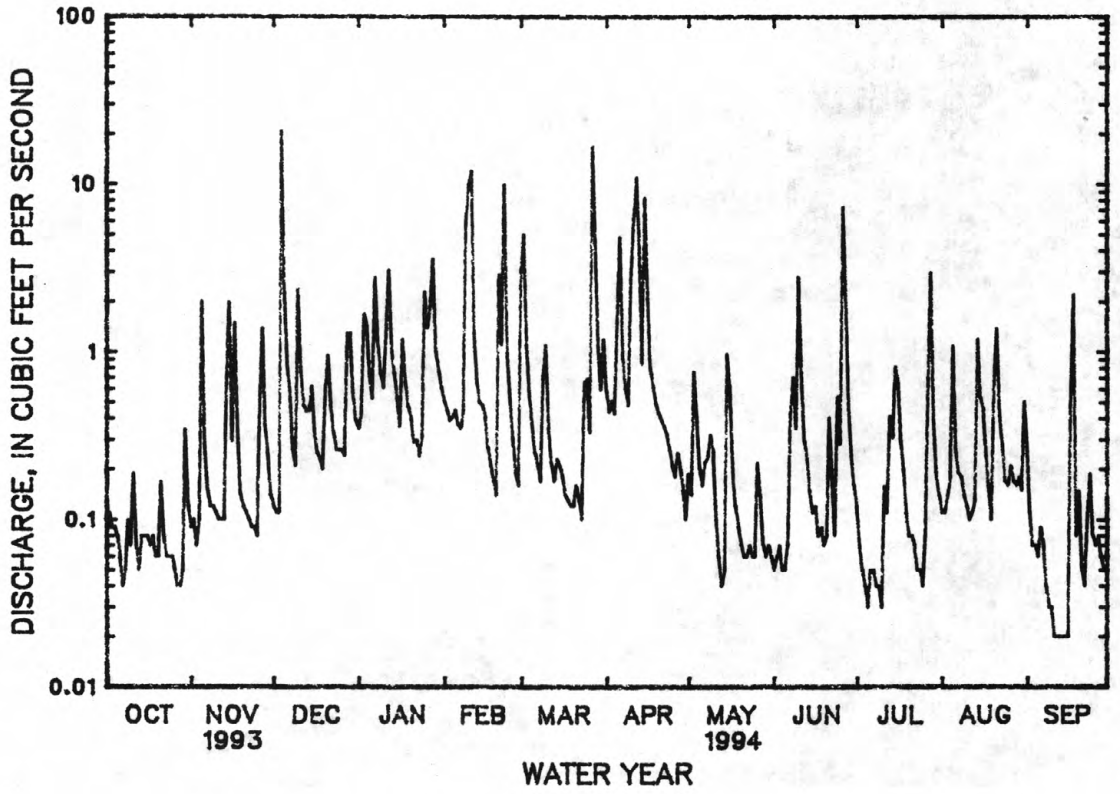
03538256 BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	.086	.39	1.25	1.06	1.23	1.23	1.16	.20	.35	.18	.22	.22
MAX	.086	.39	1.25	1.06	1.84	1.31	1.71	.20	.62	.27	.32	.28
(WY)	1994	1994	1994	1994	1994	1994	1994	1993	1994	1994	1994	1993
MIN	.086	.39	1.25	1.06	.62	1.15	.62	.20	.077	.085	.11	.15
(WY)	1994	1994	1994	1994	1993	1993	1993	1994	1993	1993	1993	1994

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	277.43			
ANNUAL MEAN	.76		.76	
HIGHEST ANNUAL MEAN			.76	1994
LOWEST ANNUAL MEAN			.76	1994
HIGHEST DAILY MEAN	21	Dec 4	21	Dec 4 1993
LOWEST DAILY MEAN	.02	Sep 11	a.01	Jun 25 1993
ANNUAL SEVEN-DAY MINIMUM	.02	Sep 10	.01	Jul 2 1993
INSTANTANEOUS PEAK FLOW	b118	Apr 12	b118	Apr 12 1994
INSTANTANEOUS PEAK STAGE	2.80	Apr 12	2.80	Apr 12 1994
INSTANTANEOUS LOW FLOW	c.01	Sep 15	d.01	Jun 25 1993
ANNUAL RUNOFF (CFSM)	1.81		1.81	
ANNUAL RUNOFF (INCHES)	24.57		24.59	
10 PERCENT EXCEEDS	1.4		1.2	
50 PERCENT EXCEEDS	.21		.19	
90 PERCENT EXCEEDS	.06		.03	

a Occurred several days in 1993 water year.
b From rating curve extended above 42 ft^3/s.
c Occurred several days.
d Occurred several days in 1993 and 1994 water years.



THIS IS A BLANK PAGE

TENNESSEE RIVER BASIN

03538260 BEAR CREEK AT COUNTY LINE NEAR OAK RIDGE, TN

LOCATION.--Lat 35°57'26", long 84°18'03", Anderson County, Hydrologic Unit 06010207, on right bank upstream of Bear Creek Road, at Anderson/Roane County line, and at mile 5.6.

DRAINAGE AREA.--1.57 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 882.17 ft above sea level.

REMARKS.--Records fair above 0.2 ft³/s, poor below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 398 ft³/s, April 12, gage height, 5.55 ft; minimum, no flow, several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.41	.24	1.2	1.6	14	4.8	.96	.07	.91	.45	.23
2	.09	.31	.20	1.3	1.3	30	3.6	.76	.08	.79	.40	.15
3	.07	.26	.20	6.5	1.1	11	3.5	2.3	.12	.76	.42	.14
4	.05	.23	118	6.2	.98	5.6	3.0	1.3	.06	.68	.42	.14
5	.05	4.3	15	2.8	1.2	3.7	5.7	.89	.00	.64	2.4	.16
6	.05	.56	3.9	1.9	1.0	2.7	27	.69	.07	.63	.59	.28
7	.04	.28	2.3	12	.82	2.0	8.0	.65	.09	.67	.40	.22
8	.03	.22	1.4	6.2	1.1	1.7	4.6	.91	1.5	.78	.39	.13
9	.08	.18	1.0	3.0	28	3.5	3.2	.66	.58	.83	.26	.06
10	.19	.15	10	2.0	58	6.7	10	.64	7.2	.77	.23	.01
11	.10	.10	3.1	4.2	109	2.8	38	.45	1.1	.79	.32	.00
12	.19	.08	1.7	16	13	2.0	49	.40	.37	.62	.42	.00
13	.13	.06	1.3	4.8	5.8	1.8	47	.40	.39	1.1	.40	.00
14	.06	.40	1.4	3.0	3.5	1.6	8.2	.38	.35	1.1	3.2	.00
15	.04	5.5	1.9	1.9	2.5	1.4	43	2.3	.31	2.8	1.1	.00
16	.15	.59	1.1	1.8	1.8	1.2	22	1.1	.20	2.3	.73	.00
17	.13	3.1	.89	5.1	1.3	1.1	7.6	.42	.13	1.6	.41	.80
18	.14	.94	.76	e2.0	1.1	1.0	4.9	.31	.19	2.1	.23	8.2
19	.10	.40	.65	e1.6	.95	.93	3.8	.25	.12	.87	.23	.03
20	.07	.29	1.9	e1.5	.84	.85	2.9	.20	.06	.66	1.3	.00
21	.41	.24	3.7	e1.5	13	.93	2.2	.22	.44	.61	4.3	.00
22	.39	.20	1.6	1.4	6.6	.88	1.9	.23	.25	.55	.94	.01
23	.26	.18	1.2	1.0	70	.69	1.6	.20	.06	.48	.49	.13
24	.13	.17	.98	1.2	10	3.5	1.4	.20	.81	.43	.26	.32
25	.07	.14	.84	9.2	5.5	4.3	1.3	.19	.44	.33	.19	.18
26	.05	.62	.61	6.9	3.6	2.4	1.2	.48	28	.53	.17	.17
27	.04	4.1	.52	8.6	2.5	121	1.3	.38	16	2.2	.17	.19
28	.03	1.1	4.1	22	1.9	38	1.1	.23	2.1	10	.27	.13
29	.03	.51	5.0	5.5	---	11	.94	.19	1.4	1.2	.43	.08
30	.87	.34	2.1	3.4	---	6.4	.83	.18	1.1	.84	.50	.07
31	.58	---	1.4	2.3	---	8.7	---	.13	---	.57	.87	---
TOTAL	4.76	25.96	188.99	148.0	347.99	293.38	313.57	18.60	63.59	39.14	22.89	11.83
MEAN	.15	.87	6.10	4.77	12.4	9.46	10.5	.60	2.12	1.26	.74	.39
MAX	.87	5.5	118	22	109	121	49	2.3	28	10	4.3	8.2
MIN	.03	.06	.20	1.0	.82	.69	.83	.13	.00	.33	.17	.00
CFSM	.10	.55	3.88	3.04	7.92	6.03	6.66	.38	1.35	.80	.47	.25
IN.	.11	.62	4.48	3.51	8.25	6.95	7.43	.44	1.51	.93	.54	.28

e Estimated

TENNESSEE RIVER BASIN

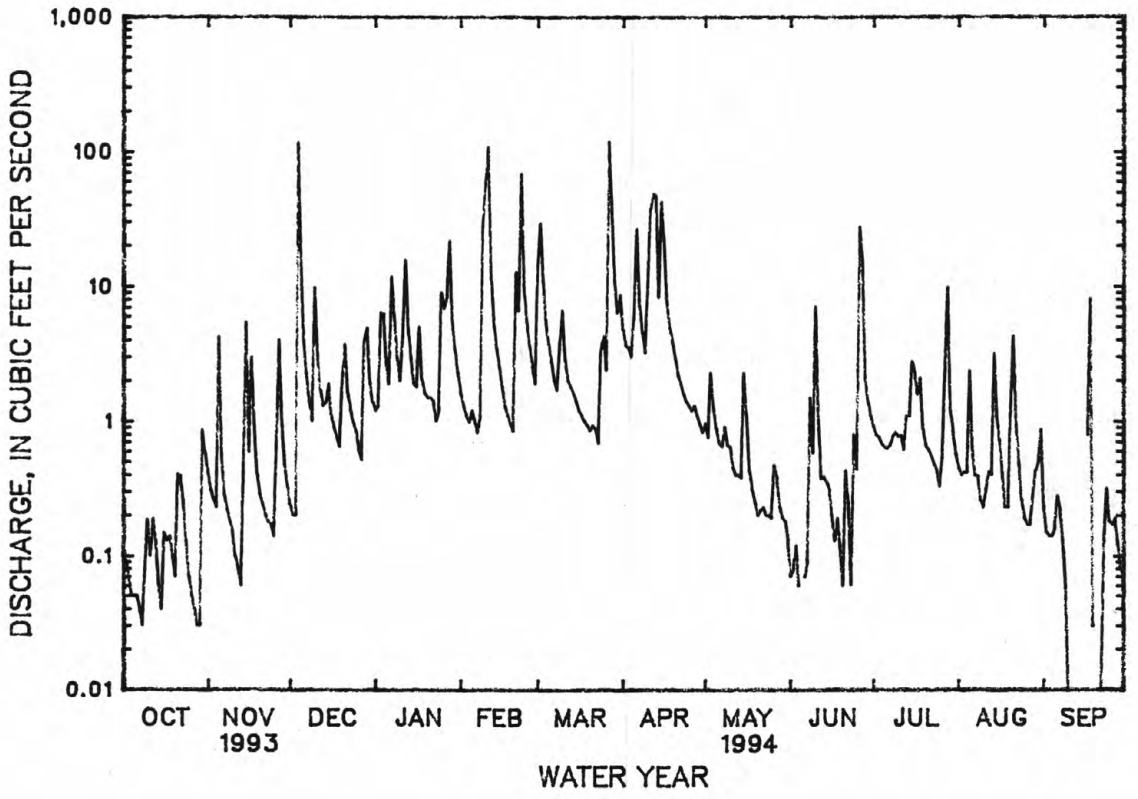
03538260 BEAR CREEK AT COUNTY LINE NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

MEAN	.15	.87	6.10	4.77	12.4	9.46	10.5	.60	1.17	.70	.46	.46
MAX	.15	.87	6.10	4.77	12.4	9.46	10.5	.60	2.12	1.26	.74	.53
(WY)	1994	1994	1994	1994	1994	1994	1994	1993	1994	1994	1994	1993
MIN	.15	.87	6.10	4.77	12.4	9.46	10.5	.60	.21	.13	.19	.39
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1993	1993	1993	1994

SUMMARY STATISTICS	FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	1478.70			
ANNUAL MEAN	4.05		4.05	
HIGHEST ANNUAL MEAN			4.05	1994
LOWEST ANNUAL MEAN			4.05	1994
HIGHEST DAILY MEAN	121	Mar 27	121	Mar 27 1994
LOWEST DAILY MEAN	a.00	Jun 5	b.00	Jul 12 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 10	.00	Aug 27 1993
INSTANTANEOUS PEAK FLOW	c398	Apr 12	c398	Apr 12 1994
INSTANTANEOUS PEAK STAGE	5.55	Apr 12	5.55	Apr 12 1994
INSTANTANEOUS LOW FLOW	a.00	Jun 5	a.00	Jul 12 1993
ANNUAL RUNOFF (CFSM)	2.58		2.58	
ANNUAL RUNOFF (INCHES)	35.04		35.06	
10 PERCENT EXCEEDS	7.4		5.0	
50 PERCENT EXCEEDS	.84		.43	
90 PERCENT EXCEEDS	.08		.03	

a Occurred several days.
b Occurred several days each year.
c From rating curve extended above 83 ft³/s.



TENNESSEE RIVER BASIN

03538270 BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE, TN

LOCATION.--Lat 35°56'14", long 84°20'22", Roane County, Hydrologic Unit 06010207, on right bank upstream from bridge on State Hwy 95, in triangle formed by intersection of Highway 95 and Bear Creek Road, 6.8 mi southwest of Oak Ridge, and at mile 2.8.

DRAINAGE AREA.--4.34 mi².

PERIOD OF RECORD.--April 1959 to June 1964 (discharge measurements only), March 1985 to current year.

REVISED RECORDS.--WDR TN-87-1: Drainage area. WDR TN-89-1: 1985-88 (M).

GAGE.--Water-stage recorder and Cippolletti-weir. Datum of gage is 801.15 ft above sea level.

REMARKS.--Records fair, except for discharges less than 2.0 ft³/s which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1745	631	3.67	Apr. 11	0700	219	2.58
Feb. 9	1300	173	2.36	Apr. 13	0030	664	3.72
Feb. 11	0100	*707	*3.78	Apr. 15	2345	355	3.09
Feb. 23	0800	411	3.25	June 27	0200	250	2.71
Mar. 27	0915	442	3.32				

Minimum discharge, 0.51 ft³/s, Sept. 12, 13, 14, 15, 16, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	1.2	2.0	7.0	11	30	20	6.3	1.5	2.5	1.8	2.1
2	.82	1.0	1.7	6.6	9.6	88	16	6.0	1.4	2.1	1.6	1.4
3	.76	.91	1.6	14	8.3	46	14	7.1	1.3	1.8	1.5	1.2
4	.72	.89	225	20	7.4	25	13	6.2	1.2	1.5	1.4	1.0
5	.68	6.6	62	14	7.4	18	13	4.6	1.4	1.4	4.9	.99
6	.63	2.8	17	11	7.1	14	81	3.9	1.3	1.2	2.2	1.2
7	.59	1.7	11	26	6.2	11	34	3.5	1.3	1.2	1.6	1.1
8	.59	1.4	7.6	25	6.3	10	21	3.5	3.3	1.2	1.4	1.0
9	.58	1.2	5.9	15	66	10	16	3.5	2.4	1.0	1.2	.86
10	.68	1.1	21	12	117	22	21	3.2	10	1.1	1.0	.63
11	.68	.99	13	12	329	14	114	3.0	4.7	1.7	.89	.59
12	.68	.91	9.2	46	60	12	72	2.7	2.6	2.3	.80	.55
13	.68	.89	7.2	22	31	11	176	2.5	2.0	2.3	.78	.51
14	.64	.89	6.3	16	21	9.7	35	2.5	2.6	3.2	2.9	.52
15	.58	9.9	7.6	12	16	8.8	82	3.4	2.1	3.9	5.6	.51
16	.70	3.7	6.2	9.2	13	7.7	97	5.4	2.2	7.6	2.7	.52
17	.74	5.4	5.6	14	11	6.8	32	2.8	1.7	6.2	2.3	1.4
18	.74	5.0	4.7	e14	9.4	6.3	21	2.3	1.4	5.8	1.6	14
19	.70	2.8	3.9	e11	8.2	5.8	16	2.2	1.4	3.3	1.4	2.9
20	.66	2.1	4.9	e9.0	7.5	5.6	13	2.0	1.4	2.5	2.6	2.0
21	.89	1.7	11	7.7	35	5.5	11	1.9	1.2	2.2	9.3	1.6
22	1.1	1.5	8.1	6.9	26	5.5	9.5	1.9	2.2	1.9	4.9	1.3
23	.97	1.4	6.8	6.4	202	4.9	8.4	1.8	1.4	1.9	2.9	1.3
24	.94	1.3	5.8	6.1	45	9.5	7.4	1.7	1.9	1.6	2.1	1.7
25	.84	1.1	5.3	17	24	16	6.7	1.6	5.9	1.6	1.8	1.7
26	.68	1.3	4.0	24	17	13	6.0	1.6	14	1.3	1.5	1.3
27	.65	8.0	3.5	24	13	272	5.7	1.5	53	4.5	1.3	1.4
28	.63	5.9	7.1	68	11	144	5.7	1.7	8.4	15	1.1	1.2
29	.60	3.2	16	28	---	46	5.4	1.6	4.9	4.3	1.0	.91
30	1.2	2.4	10	19	---	26	5.2	1.8	3.3	2.8	.99	.82
31	1.5	---	8.3	14	---	27	---	1.5	---	2.1	1.4	---
TOTAL	23.74	79.18	509.3	536.9	1125.4	931.1	978.0	95.2	143.4	93.0	68.46	48.21
MEAN	.77	2.64	16.4	17.3	40.2	30.0	32.6	3.07	4.78	3.00	2.21	1.61
MAX	1.5	9.9	225	68	329	272	176	7.1	53	15	9.3	14
MIN	.58	.89	1.6	6.1	6.2	4.9	5.2	1.5	1.2	1.0	.78	.51
CFSM	.18	.61	3.79	3.99	9.26	6.92	7.51	.71	1.10	.69	.51	.37
IN.	.20	.68	4.37	4.60	9.65	7.98	8.38	.82	1.23	.80	.59	.41

e Estimated.

TENNESSEE RIVER BASIN

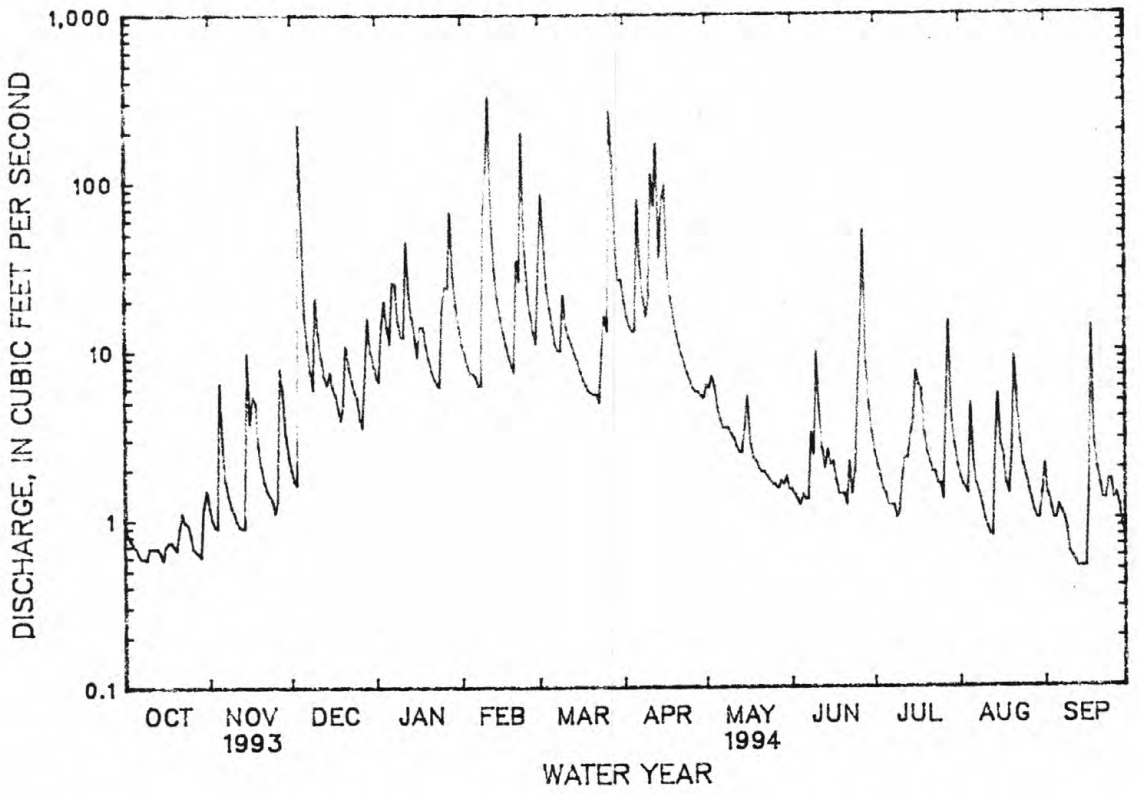
03538270 BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1994, BY WATER YEAR (WY)

MEAN	2.12	4.33	12.8	12.9	18.1	14.0	9.41	4.32	4.47	2.67	2.65	1.95
MAX	10.3	12.9	34.8	24.2	40.2	30.0	32.6	13.1	19.3	5.79	8.92	9.26
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1990	1989
MIN	.43	.62	1.54	2.85	4.67	5.52	2.41	1.26	.32	.86	.31	.55
(WY)	1988	1988	1988	1986	1988	1985	1986	1988	1988	1993	1987	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1985 - 1994	
ANNUAL TOTAL	2508.75		4631.89			
ANNUAL MEAN	6.87		12.7		7.54	
HIGHEST ANNUAL MEAN					12.7	1994
LOWEST ANNUAL MEAN					2.57	1988
HIGHEST DAILY MEAN	225	Dec 4	329	Feb 11	329	Feb 11 1994
LOWEST DAILY MEAN	.37	Sep 3	.51	Sep 13	.19	Sep 4 1987
ANNUAL SEVEN-DAY MINIMUM	.40	Aug 28	.55	Sep 10	.21	Sep 1 1987
INSTANTANEOUS PEAK FLOW			a707	Feb 11	a783	Dec 23 1990
INSTANTANEOUS PEAK STAGE			3.78	Feb 11	3.88	Dec 23 1990
INSTANTANEOUS LOW FLOW			c.51	Sep 12	b.18	Sep 3 1987
ANNUAL RUNOFF (CFSM)	1.58		2.92		1.74	
ANNUAL RUNOFF (INCHES)	21.50		39.70		23.60	
10 PERCENT EXCEEDS	14		24		15	
50 PERCENT EXCEEDS	2.8		3.5		2.7	
90 PERCENT EXCEEDS	.58		.89		.51	

a From rating curve extended above 120 ft³/s based on indirect measurement of peak flow.
b Also occurred Sept. 4, 1987.
c Also occurred Sept. 13, 14, 15, 16, 17.



TENNESSEE RIVER BASIN

03538600 OBED RIVER AT CROSSVILLE, TN

LOCATION.--Lat 35°57'27", long 85°03'00", Cumberland County, Hydrologic Unit 06010208, on right bank downstream wingwall of bridge on Sparta Drive, 0.4 mi downstream from Town Branch, and at mile 38.8.

DRAINAGE AREA.--12.0 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1950-51; crest-stage partal record, water years 1955-85; December 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1717.40 ft above sea level.

REMARKS.--Records good. Periodic observations of water temperature are published in this report as miscellaneous water-quality data. Flow affected at times by a small lake upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 11	0430	*892	*8.45	Mar. 27	2015	742	7.51
Mar. 27	0630	521	6.02	Apr. 11	0345	641	6.85

Minimum discharge, 0.45 ft³/s, Nov. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.72	.86	39	61	77	61	3.2	1.8	12	11	2.0
2	1.3	.71	.76	34	28	142	53	2.9	1.4	8.8	8.3	4.4
3	1.4	.63	.94	36	4.6	113	48	10	1.8	6.3	5.9	2.6
4	1.3	.98	186	44	4.2	73	43	6.9	2.0	4.4	4.5	e2.4
5	1.3	1.7	50	38	4.6	54	62	4.9	2.8	3.3	22	e2.3
6	1.2	1.0	15	34	4.0	46	149	5.2	3.9	2.2	15	e2.2
7	1.4	.75	8.3	83	3.4	39	109	5.0	7.2	1.6	11	e2.1
8	1.1	.71	5.2	73	4.6	35	78	5.5	11	1.7	8.5	e2.0
9	2.0	.75	5.3	61	23	47	62	5.1	7.7	8.1	5.9	e1.9
10	1.3	.72	63	51	172	48	82	3.9	31	4.9	3.9	e1.8
11	1.1	.79	21	59	686	43	368	3.2	35	46	2.9	e1.7
12	1.2	.87	10	78	356	38	230	2.8	27	23	2.1	e1.6
13	.99	.73	7.1	65	193	34	177	2.3	20	23	1.5	e1.6
14	.99	5.8	6.0	55	89	31	66	2.6	16	21	1.6	e1.5
15	1.2	11	6.2	45	25	27	116	10	11	17	1.7	e1.5
16	1.1	2.2	6.8	36	22	17	148	8.2	9.6	28	1.5	e1.6
17	1.3	2.8	3.9	38	21	7.9	110	5.9	49	42	1.4	e2.5
18	1.4	1.8	3.5	33	20	3.8	42	4.6	47	34	1.1	e3.0
19	1.1	1.3	3.3	31	18	3.1	10	3.5	36	29	1.3	e2.0
20	1.1	1.2	7.1	29	28	2.8	9.6	3.0	31	41	6.3	1.8
21	2.4	.88	16	23	121	11	11	2.2	13	34	36	1.6
22	1.1	.85	6.1	17	159	25	10	2.0	9.2	27	6.7	1.7
23	.95	.61	4.6	14	224	11	9.7	1.9	7.3	23	4.4	2.2
24	.94	.55	3.9	13	152	29	8.6	1.9	7.0	15	3.6	5.4
25	.93	.58	3.5	46	65	32	7.5	2.1	5.3	10	3.0	2.5
26	1.0	.84	3.1	83	46	43	7.2	11	33	25	2.7	2.3
27	.83	2.4	3.3	99	39	471	38	4.5	50	46	2.2	3.0
28	.95	1.6	47	213	35	571	19	2.8	25	40	2.1	2.0
29	.91	1.1	70	135	---	287	3.0	2.2	23	29	1.9	1.9
30	2.0	.98	57	101	---	122	2.7	1.9	18	21	1.7	1.6
31	.94	---	47	80	---	70	---	1.7	---	15	2.4	---
TOTAL	38.13	47.55	671.76	1786	2608.4	2553.6	2140.3	132.9	543.0	642.3	184.1	66.7
MEAN	1.23	1.58	21.7	57.6	93.2	82.4	71.3	4.29	18.1	20.7	5.94	2.22
MAX	2.4	11	186	213	686	571	368	11	50	46	36	5.4
MIN	.83	.55	.76	13	3.4	2.8	2.7	1.7	1.4	1.6	1.1	1.5
CFSM	.10	.13	1.81	4.80	7.76	6.86	5.95	.36	1.51	1.73	.49	.19
IN.	.12	.15	2.08	5.54	8.09	7.92	6.63	.41	1.68	1.99	.57	.21

e Estimated

TENNESSEE RIVER BASIN

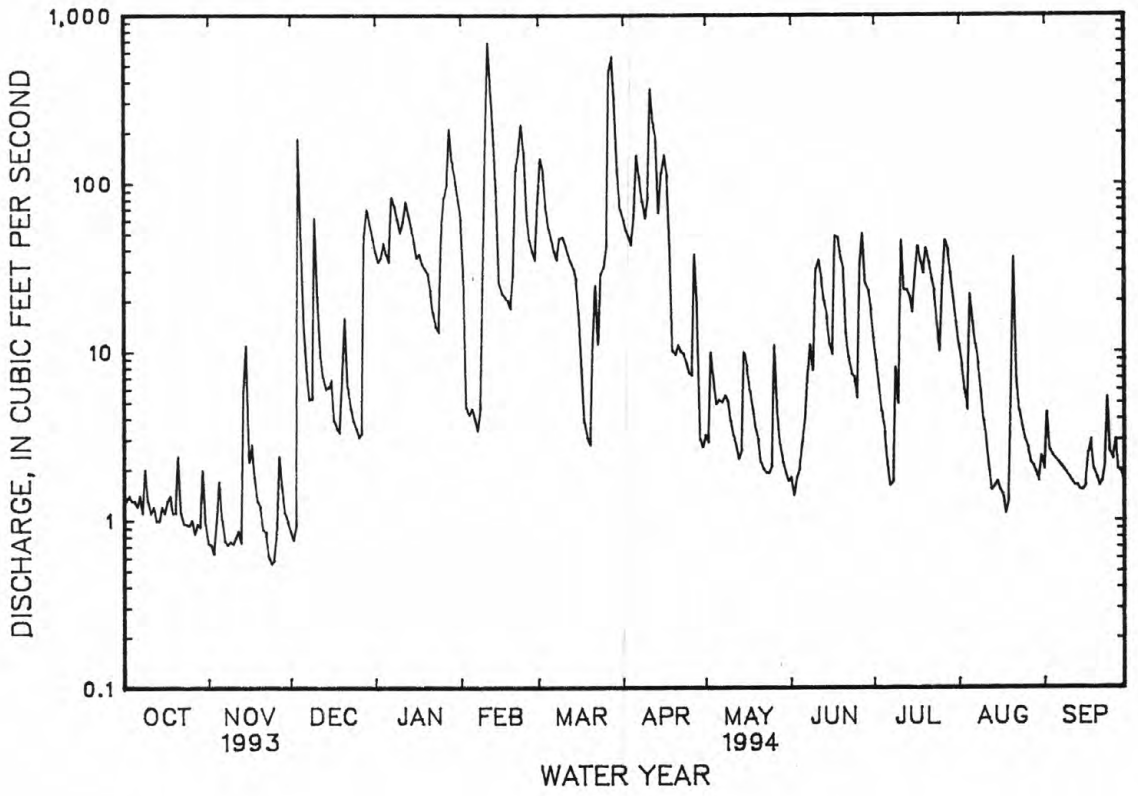
03538600 OBED RIVER AT CROSSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

MEAN	3.59	25.4	46.6	41.3	43.2	60.9	35.4	7.31	16.7	12.3	4.87	7.20
MAX	5.95	49.2	77.5	57.6	93.2	82.4	71.3	11.0	30.6	20.7	8.06	18.4
(WY)	1993	1993	1992	1994	1994	1994	1994	1992	1992	1994	1992	1992
MIN	1.23	1.58	21.7	32.3	15.0	20.1	7.19	4.29	1.43	1.15	.61	.97
(WY)	1994	1994	1994	1993	1992	1992	1992	1994	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1992 - 1994		
ANNUAL TOTAL	6036.54		11414.74				
ANNUAL MEAN	16.5		31.3		26.9		
HIGHEST ANNUAL MEAN					31.3		1994
LOWEST ANNUAL MEAN					22.5		1993
HIGHEST DAILY MEAN	450	Mar 23	686	Feb 11	686	Feb 11	1994
LOWEST DAILY MEAN	.13	Aug 28	.55	Nov 24	.13	Aug 28	1993
ANNUAL SEVEN-DAY MINIMUM	.28	Aug 28	.76	Nov 7	.28	Aug 28	1993
INSTANTANEOUS PEAK FLOW			892	Feb 11	892	Feb 11	1994
INSTANTANEOUS PEAK STAGE			8.45	Feb 11	8.45	Feb 11	1994
INSTANTANEOUS LOW FLOW			a.45	Nov 3	b.09	Aug 4	1992
ANNUAL RUNOFF (CFSM)	1.38		2.61		2.24		
ANNUAL RUNOFF (INCHES)	18.71		35.39		30.42		
10 PERCENT EXCEEDS	54		73		65		
50 PERCENT EXCEEDS	2.4		6.9		6.0		
90 PERCENT EXCEEDS	.56		1.1		.78		

a Also occurred on Nov. 4.
b Also occurred on Aug. 29 and Sept. 22, 1993.



TENNESSEE RIVER BASIN

03540500 EMORY RIVER AT OAKDALE, TN

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, Hydrologic Unit 06010208, on left bank, at Oakdale, 1,000 ft downstream from highway bridge, 1,100 ft downstream from Mud Lick Creek, and at mile 18.3.

DRAINAGE AREA.--764 mi².

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emery River at Harriman and October 1929 to September 1934 as Emery River at Oakdale.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

GAGE.--Data collection platform and data logger. Datum of gage is 761.38 ft above sea level. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi downstream at datum 43.60 ft lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	2400	39,700	22.10	Mar. 28	0600	*66,700	*27.30
Jan. 28	1300	19,000	16.41	Apr. 6	1300	22,200	17.52
Feb. 11	0700	61,900	26.37	Apr. 11	1500	27,400	19.10
Feb. 23	1200	38,000	21.73	Apr. 16	0430	35,300	21.14

Minimum discharge, 11 ft³/s, Oct. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	23	251	1910	2240	2100	4570	949	110	1210	737	194
2	56	22	204	1580	1770	10500	3330	844	93	732	731	160
3	47	22	172	1410	1470	10600	2590	752	85	583	607	134
4	37	22	6470	3120	1240	5670	2320	1350	81	431	474	175
5	29	38	22700	3550	1140	3720	2000	1520	79	311	515	167
6	25	81	6030	2540	1120	2710	13100	1260	121	245	905	141
7	21	77	2720	4840	1000	2130	9570	1040	265	191	723	123
8	18	73	1690	9680	898	1810	5120	1060	703	190	523	104
9	17	75	1220	4610	1670	1920	3430	1040	888	283	479	123
10	22	67	4180	2900	6810	4590	2740	836	1950	926	347	157
11	20	60	6840	2190	46300	3850	16500	679	1640	1120	e270	98
12	21	52	3390	7230	20300	2790	10800	556	986	2220	e250	81
13	18	46	2100	5940	7440	2200	11000	455	654	1460	e230	68
14	15	42	1570	3690	4390	1860	6370	381	526	1400	e200	60
15	13	99	1450	2540	3070	1580	4580	439	633	1460	e250	51
16	12	269	1460	1750	2320	1330	21400	776	547	2000	e200	46
17	11	422	1330	1960	1870	1120	7500	698	783	6020	150	46
18	12	438	1140	2800	1570	977	4280	517	891	3870	120	106
19	12	388	988	1830	1360	859	2900	400	659	5490	97	121
20	12	316	867	1650	1190	750	2130	322	441	3240	89	133
21	14	242	1210	1450	5110	699	1640	272	386	1900	205	112
22	16	189	1610	1170	7660	791	1330	233	415	1870	720	89
23	19	151	1410	1110	23600	805	1120	199	681	1520	494	77
24	17	127	1180	1150	11500	870	928	166	485	1130	311	75
25	20	110	1020	2310	5400	3330	783	142	462	799	222	74
26	19	104	897	7990	3430	3610	674	131	352	851	194	66
27	22	152	770	6530	2480	23000	733	154	2920	1700	205	64
28	29	385	767	13300	1960	51300	1320	325	2340	2660	171	72
29	24	379	3950	8320	---	13500	1080	241	1400	1620	167	66
30	23	318	4070	4440	---	6230	826	176	1370	1360	141	58
31	22	---	2600	3000	---	5240	---	136	---	973	132	---
TOTAL	713	4789	86256	118490	170308	172441	146664	18049	22946	49765	10859	3041
MEAN	23.0	160	2782	3822	6082	5563	4889	582	765	1605	350	101
MAX	70	438	22700	13300	46300	51300	21400	1520	2920	6020	905	194
MIN	11	22	172	1110	898	699	674	131	79	190	89	46
CFSM	.03	.21	3.64	5.00	7.96	7.28	6.40	.76	1.00	2.10	.46	.13
IN.	.03	.23	4.20	5.77	8.29	8.40	7.14	.88	1.12	2.42	.53	.15

e Estimated

TENNESSEE RIVER BASIN

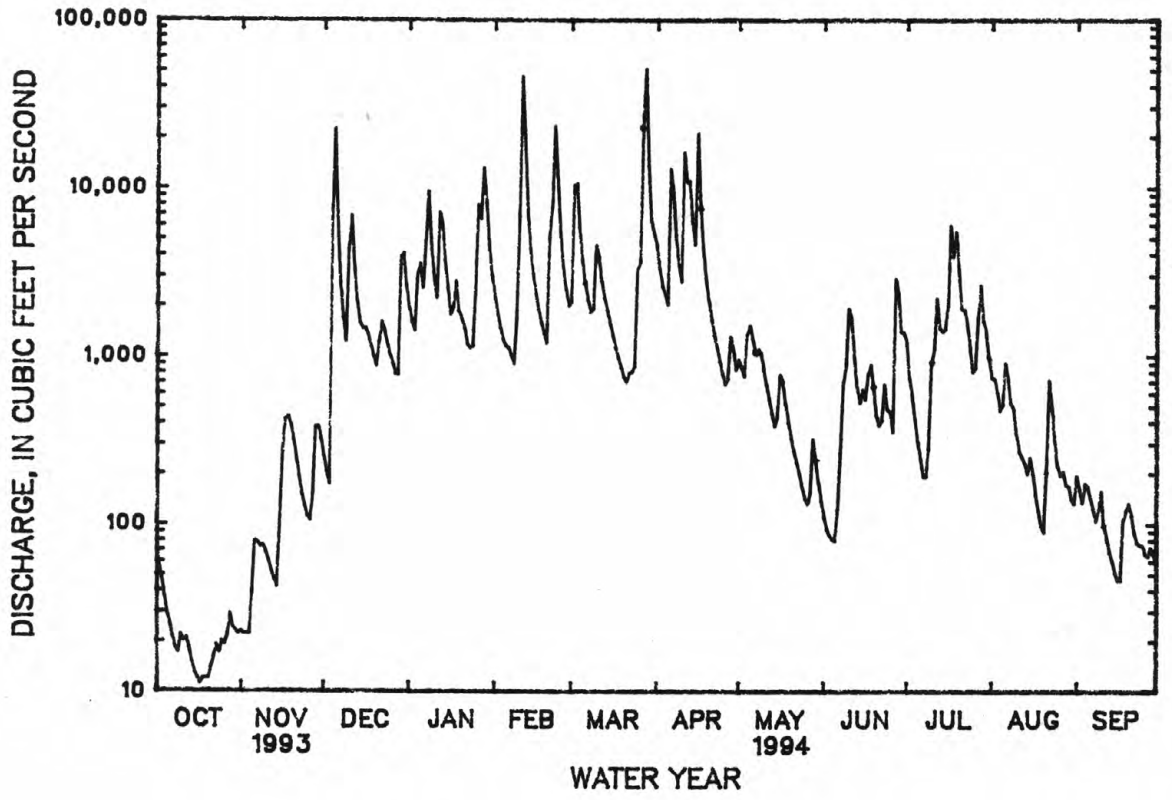
03540500 EMORY RIVER AT OAKDALE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1994, BY WATER YEAR (WY)

MEAN	291	1087	2279	2788	3043	3190	2174	1303	647	493	289	244
MAX	1971	6214	7938	7941	8136	8962	5808	5804	6731	3694	2107	1562
(WY)	1976	1958	1991	1937	1939	1975	1977	1973	1989	1967	1942	1944
MIN	.57	.37	42.1	97.8	422	946	374	140	16.3	5.55	7.70	.91
(WY)	1954	1954	1940	1981	1941	1985	1986	1962	1936	1944	1930	1954

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1927 - 1994	
ANNUAL TOTAL	467319.3		804321			
ANNUAL MEAN	1280		2204		1478	
HIGHEST ANNUAL MEAN					2653	1973
LOWEST ANNUAL MEAN					670	1981
HIGHEST DAILY MEAN	37200	Mar 23	51300	Mar 28	103000	Dec 23 1990
LOWEST DAILY MEAN	9.4	Aug 2	11	Oct 17	a.00	Aug 13 1944
ANNUAL SEVEN-DAY MINIMUM	12	Jul 30	12	Oct 15	.00	Nov 7 1953
INSTANTANEOUS PEAK FLOW			66500	Mar 28	b195000	Mar 23 1929
INSTANTANEOUS PEAK STAGE			27.30	Mar 28	c41.20	Mar 23 1929
INSTANTANEOUS LOW FLOW			11	Oct 17	a.00	Aug 13 1944
ANNUAL RUNOFF (CFSM)	1.68		2.88		1.94	
ANNUAL RUNOFF (INCHES)	22.75		39.16		26.29	
10 PERCENT EXCEEDS	3410		5300		3420	
50 PERCENT EXCEEDS	243		791		551	
90 PERCENT EXCEEDS	16		46		20	

a Also occurred Aug. 14, 15, 1944; Nov. 7, 8, 9, 1952.
b From rating curve extended above 85,000 ft^3/s.
c Maximum stage from floodmarks and flood profile, present site and datum, 61.1 ft at site and datum then in use.



TENNESSEE RIVER BASIN

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 downstream from bridge on State Highway 58, 0.5 mi downstream from Dry Fork, 5.0 mi north of Decatur, and at mile 5.7.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--May 1934 to September 1994 (discontinued). 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 above sea level.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 11	1300	*9,740	*17.30	Apr. 11	0700	9,570	17.15
Feb. 23	1900	3,950	9.50	Apr. 13	1100	2,470	6.68
Mar. 2	2130	2,670	7.10	Apr. 16	0400	4,260	10.00
Mar. 28	0500	7,410	14.61				

Minimum discharge, 23 ft³/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	50	43	137	281	529	579	152	66	86	203	74
2	26	43	39	141	242	2250	456	134	74	77	190	65
3	25	42	39	176	212	1630	389	151	131	88	214	61
4	25	43	740	401	189	773	350	197	70	86	176	57
5	26	79	1390	278	233	542	359	150	72	69	913	55
6	27	89	331	227	222	408	1500	130	78	65	350	56
7	27	56	226	816	189	335	815	124	68	62	225	54
8	27	48	172	947	175	293	542	127	86	69	180	50
9	28	45	133	410	282	281	421	117	78	73	152	49
10	30	45	353	302	1030	715	1220	111	274	66	130	47
11	31	47	309	310	7570	392	7810	104	108	92	115	45
12	35	49	213	1580	2240	313	1850	96	86	119	105	45
13	36	58	169	667	873	277	1980	95	74	149	97	44
14	37	67	144	430	584	255	873	92	81	197	92	42
15	37	192	147	310	446	228	1530	125	67	138	113	42
16	37	86	129	249	357	206	2980	156	62	121	115	42
17	37	56	109	548	306	184	938	107	58	313	107	48
18	37	49	99	556	269	173	633	96	229	394	87	111
19	36	41	92	322	237	161	483	91	87	185	80	70
20	37	37	94	266	213	149	386	88	72	252	76	57
21	40	32	189	225	489	149	327	86	65	163	143	49
22	44	29	159	203	481	161	288	83	60	153	133	45
23	45	28	136	186	2710	132	258	79	56	128	95	47
24	43	29	113	176	1480	305	232	76	56	130	83	57
25	44	27	104	215	675	672	213	78	60	103	78	56
26	43	30	92	457	475	424	197	84	66	95	73	47
27	42	65	84	439	363	3480	204	88	632	900	69	46
28	42	89	88	1580	310	5770	230	76	166	516	66	42
29	45	65	256	706	---	1520	178	72	122	492	63	40
30	70	51	200	460	---	818	162	69	101	337	62	38
31	65	---	162	342	---	805	---	66	---	238	60	---
TOTAL	1151	1667	6554	14062	23133	24330	28383	3300	3305	5956	4645	1581
MEAN	37.1	55.6	211	454	826	785	946	106	110	192	150	52.7
MAX	70	192	1390	1580	7570	5770	7810	197	632	900	913	111
MIN	25	27	39	137	175	132	162	66	56	62	60	38
CFSM	.32	.47	1.81	3.88	7.06	6.71	8.09	.91	.94	1.64	1.28	.45
IN.	.37	.53	2.08	4.47	7.36	7.74	9.02	1.05	1.05	1.89	1.48	.50

TENNESSEE RIVER BASIN

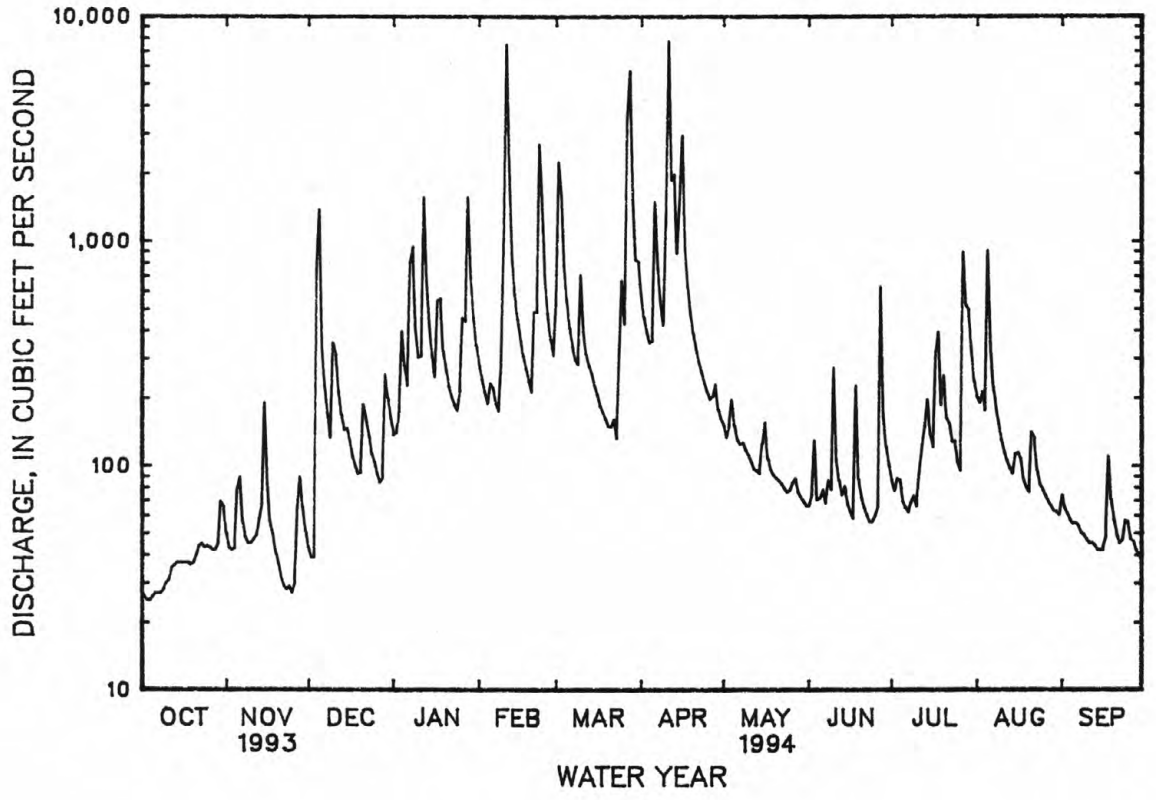
03543500 SEWEE CREEK NEAR DECATUR, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1994, BY WATER YEAR (WY)

MEAN	56.8	120	248	346	399	401	278	159	95.4	94.9	56.2	53.9
MAX	334	684	795	969	1058	1074	946	962	846	648	272	439
(WY)	1990	1949	1943	1946	1939	1963	1994	1984	1989	1967	1942	1957
MIN	16.3	17.9	25.6	27.2	49.9	90.4	55.8	32.0	12.9	15.8	17.0	15.8
(WY)	1988	1988	1988	1981	1941	1988	1986	1988	1988	1986	1956	1935

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1934 - 1994	
ANNUAL TOTAL	58341		118067			
ANNUAL MEAN	160		323		191	
HIGHEST ANNUAL MEAN					a323	1994
LOWEST ANNUAL MEAN					61.5	1988
HIGHEST DAILY MEAN	1810	Mar 27	7810	Apr 11	12900	Mar 12 1963
LOWEST DAILY MEAN	23	Sep 19	25	Oct 3	8.1	Jun 29 1988
ANNUAL SEVEN-DAY MINIMUM	25	Sep 2	26	Oct 1	9.2	Jun 26 1988
INSTANTANEOUS PEAK FLOW			9740	Feb 11	b23900	Jan 7 1946
INSTANTANEOUS PEAK STAGE			17.30	Feb 11	c23.97	Jan 7 1946
INSTANTANEOUS LOW FLOW			23	Oct 2	6.3	Jun 28 1988
ANNUAL RUNOFF (CFSM)	1.37		2.76		1.64	
ANNUAL RUNOFF (INCHES)	18.55		37.54		22.23	
10 PERCENT EXCEEDS	348		669		408	
50 PERCENT EXCEEDS	73		124		77	
90 PERCENT EXCEEDS	27		42		24	

a Also occurred 1974.
b From rating curve extended above 11,300 ft³/s on basis of slope-area measurement of peak flow at gage-height.
c From floodmarks.



TENNESSEE RIVER BASIN

03560500 DAVIS MILL CREEK AT COPPERHILL, TN

LOCATION.--Lat 34°59'43", long 84°22'56", Polk County, Hydrologic Unit 06020203, on right bank 100 ft upstream from bridge on State Highway 68, 0.1 mi upstream from mouth, 0.4 mi northwest of CSX Railroad station, and 0.8 mi northwest of Post Office at Copperhill.

DRAINAGE AREA.--5.16 mi².

PERIOD OF RECORD.--July 1940 to September 1941 (published as Mill Creek at Copperhill), December 1948 to December 1977, July 1986 to current year.

REVISED RECORDS.--WSP 1206: Drainage area. WSP 2110: 1949-65 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,451.06 ft above sea level. July 16, 1940, to Sept. 30, 1941, water-stage recorder and sharp-crested weir at site 145 ft upstream at datum of 1.58 ft higher. Oct. 1, 1941, to Aug. 12, 1971, water-stage recorder and concrete San Dimas flume and dam at present site and datum.

REMARKS.-- Records fair. Flow is predominately process water for BIT Manufacturing Company, Inc. plant that is with-drawn from Ocoee River upstream from Davis Mill Creek and discharged to Davis Mill Creek upstream from the gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564 ft³/s, Mar. 27, gage height, 2.05 ft; minimum daily, 6 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	e38	31	30	e34	40	50	41	17	12	13	13
2	42	e40	30	30	e36	43	48	41	18	11	13	13
3	42	36	30	35	29	38	49	44	17	11	24	11
4	42	37	33	36	28	36	51	42	15	10	24	10
5	43	43	35	32	32	35	61	41	16	10	16	11
6	41	37	31	32	30	33	70	41	17	10	13	11
7	42	37	29	36	28	32	55	41	13	10	12	11
8	42	33	31	35	29	33	50	42	13	11	11	9.5
9	42	30	30	31	29	38	47	40	13	10	11	8.0
10	42	32	36	28	34	39	47	39	15	10	11	7.6
11	43	32	33	30	56	32	55	47	12	11	12	7.4
12	43	31	32	37	36	34	52	50	12	19	11	7.2
13	43	30	31	33	32	35	64	50	11	17	11	7.2
14	43	29	32	34	30	35	50	50	11	12	11	6.9
15	43	40	31	32	30	32	63	54	13	11	11	7.0
16	43	32	30	31	30	33	68	29	13	10	15	6.8
17	41	30	29	41	29	33	53	18	12	10	12	9.3
18	40	27	30	35	29	37	52	20	20	25	11	7.4
19	e40	26	31	34	29	41	50	14	25	26	11	7.4
20	e40	26	36	34	28	40	49	14	39	35	12	7.0
21	e40	25	37	34	31	41	48	13	23	20	18	6.7
22	e40	27	35	36	32	39	45	22	13	27	14	6.7
23	e40	26	37	32	41	43	43	32	11	17	12	8.0
24	e40	33	34	31	36	43	43	21	12	13	12	8.4
25	e40	29	32	32	34	45	43	13	12	12	12	6.7
26	e40	34	32	36	33	42	42	14	13	14	12	6.6
27	e40	36	32	40	31	154	41	15	28	61	12	6.6
28	e40	32	33	50	32	81	41	19	20	25	12	6.3
29	e38	31	37	37	---	64	41	19	17	16	12	6.1
30	e38	31	33	35	---	58	41	18	13	14	13	6.0
31	e38	---	32	32	---	54	---	18	---	14	13	---
TOTAL	1278	970	1005	1061	908	1383	1512	962	484	514	407	246.8
MEAN	41.2	32.3	32.4	34.2	32.4	44.6	50.4	31.0	16.1	16.6	13.1	8.23
MAX	47	43	37	50	56	154	70	54	39	61	24	13
MIN	38	25	29	28	28	32	41	13	11	10	11	6.0

e Estimated

TENNESSEE RIVER BASIN

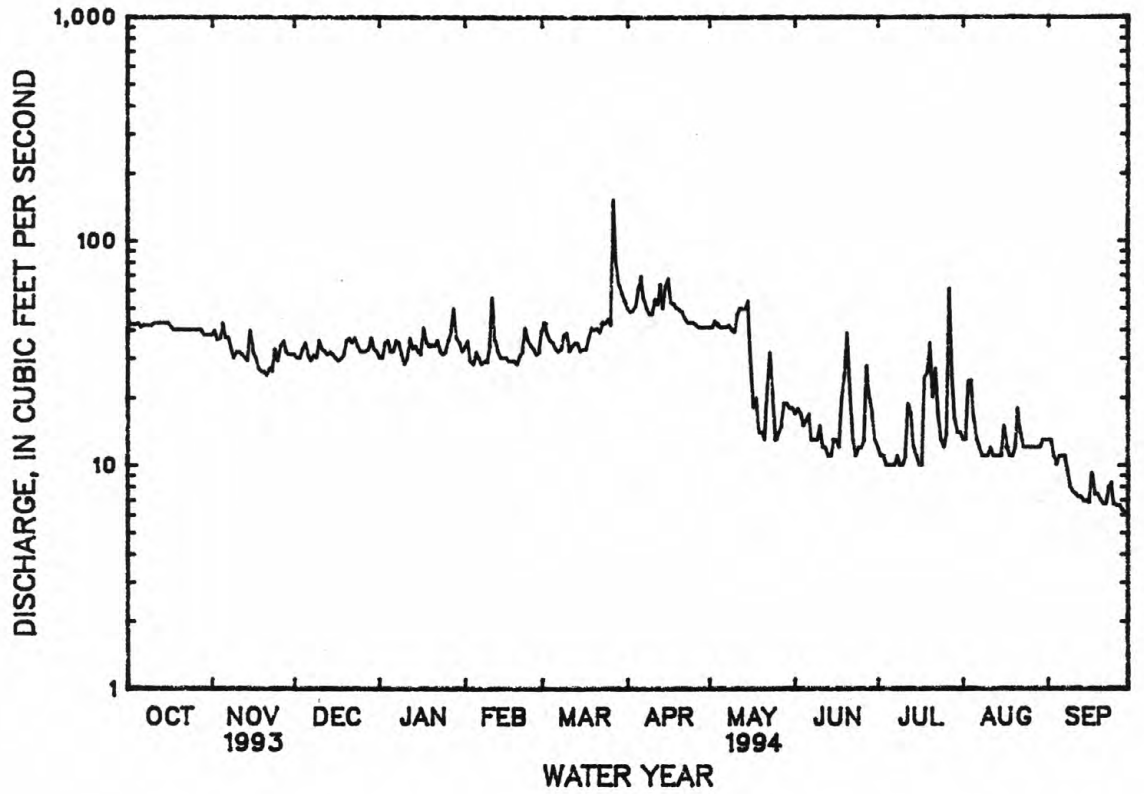
03560500 DAVIS MILL CREEK AT COPPERHILL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1994, BY WATER YEAR (WY)

MEAN	58.0	53.2	50.5	48.3	50.0	54.2	55.3	54.6	56.1	58.2	57.0	57.6
MAX	156	158	149	131	121	147	124	129	143	164	154	146
(WY)	1976	1976	1976	1976	1975	1977	1977	1976	1974	1974	1974	1974
MIN	6.35	7.03	7.65	6.85	5.53	6.44	6.37	5.72	6.40	9.97	8.56	6.39
(WY)	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1940

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1940 - 1994	
ANNUAL TOTAL	16064		10730.8			
ANNUAL MEAN	44.0		29.4		54.5	
HIGHEST ANNUAL MEAN					134	1976
LOWEST ANNUAL MEAN					6.99	1941
HIGHEST DAILY MEAN	72	Aug 3	154	Mar 27	950	Feb 16 1990
LOWEST DAILY MEAN	19	May 11	6.0	Sep 30	4.0	May 2 1941
ANNUAL SEVEN-DAY MINIMUM	27	Nov 17	6.7	Sep 24	4.6	Aug 1 1940
INSTANTANEOUS PEAK FLOW			564	Mar 27	a3520	Oct 6 1949
INSTANTANEOUS PEAK STAGE			2.05	Mar 27	b10.82	Feb 16 1990
10 PERCENT EXCEEDS	56		45		109	
50 PERCENT EXCEEDS	43		31		44	
90 PERCENT EXCEEDS	32		11		26	

a From rating curve extended above 150 ft³/s on basis of critical-depth measurement of peak flow at gage height 6.02 ft in gage well, 8.5 ft from floodmarks.
b Caused by backwater from flooding on Ocoee River.



TENNESSEE RIVER BASIN

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 downstream from Tennessee Valley Authority powerplant, 0.8 mi upstream from former village of Emf, 2.0 mi downstream from Goforth Creek, and at mile 19.6.

DRAINAGE AREA.--524 mi².

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 above sea level.

REMARKS.--Records fair. Flow regulated by Blue Ridge Lake (station 03558500), in Water Resources Data for Georgia, Ocoee No. 3 Lake (station 03562500) (see p. 267), and by powerplant above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 62,000 ft³/s, was the greatest known since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,100 ft³/s, Mar. 27, gage height 11.03 ft; minimum, 29 ft³/s, Nov. 19, gage height 2.47 ft; minimum daily 60 ft³/s, Nov. 3, 4, 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	1430	539	e700	e1100	1240	1960	2620	1060	2090	1670	1640
2	1240	237	393	e700	1170	1900	1960	2110	809	2180	1680	1520
3	1240	e60	354	e850	1160	2480	2690	1630	1160	1650	1550	1400
4	1020	e60	753	971	969	1500	2460	1630	920	1620	2020	1640
5	1250	e200	861	972	671	1230	3230	1610	974	1610	2920	1470
6	1430	e400	807	718	687	1130	3560	1510	1360	1210	3030	1210
7	1110	e400	553	963	855	1410	2630	1380	1660	1610	2760	702
8	875	e400	744	1130	875	1250	2800	1310	1660	1510	2190	687
9	764	e400	393	1100	899	1100	2740	1410	1450	1620	1640	1270
10	733	e400	678	884	1360	1630	2710	1500	1610	1630	1630	1620
11	964	e300	661	e850	3530	1130	2280	1240	1620	1470	1640	1550
12	957	e400	665	e1500	2400	1220	2790	795	1610	1700	1630	937
13	1020	e800	489	e950	1310	1130	4330	1230	1610	1670	1620	963
14	490	e400	548	e1000	1220	1120	3010	1210	1610	1650	1620	1620
15	1040	e500	685	e1150	1210	1080	3070	1260	1240	1620	1650	1610
16	1080	e400	622	e1150	1030	938	5580	1410	1900	1480	1650	1600
17	1060	e60	624	e1200	846	995	3970	1270	1420	1520	1670	1610
18	1130	e60	639	e1850	987	912	3510	1090	1830	1630	1650	1610
19	1060	227	616	e1750	796	731	3510	1140	1890	1670	1930	1590
20	1130	350	714	e2200	735	724	3250	1150	1650	1650	1640	1600
21	1150	321	1230	e2050	757	778	3200	860	1620	1730	1670	1600
22	1060	361	974	e1100	720	963	3130	785	1540	1640	1670	1600
23	1110	381	787	e850	2100	740	2940	697	1570	1630	1000	1610
24	1140	364	692	e550	1910	852	2790	823	1310	1600	967	1600
25	1240	281	725	e750	1270	1270	2780	768	1390	1590	1620	1570
26	1210	275	713	e850	1140	1330	2780	1080	1380	1620	1580	1580
27	1130	1070	652	e800	1110	8540	2780	1040	3840	3120	1630	1580
28	1400	672	891	e2500	1100	9410	2780	1170	2440	2400	1620	1590
29	1420	408	e1000	e1700	---	3490	2740	849	2770	1700	1630	1610
30	1480	527	e650	e900	---	2460	2630	733	2700	1670	1010	1600
31	1270	---	e650	e1000	---	2050	---	1010	---	1660	1580	---
TOTAL	34273	12144	21302	35638	33917	56733	90590	38320	49603	53150	53767	43789
MEAN	1106	405	687	1150	1211	1830	3020	1236	1653	1715	1734	1460
MAX	1480	1430	1230	2500	3530	9410	5580	2620	3840	3120	3030	1640
MIN	490	60	354	550	671	724	1960	697	809	1210	967	687
(†)	-20200	+6500	+5100	+8200	+14400	+30000	+2000	+7500	+2100	-1000	-5000	-11600
MEAN‡	454	621	852	1414	1726	2798	3086	1478	1723	1682	1573	1073
CFSM‡	0.87	1.19	1.63	2.70	3.29	5.34	5.89	2.82	3.29	3.21	3.00	2.05
IN‡	1.00	1.32	1.87	3.11	3.43	6.16	6.57	3.25	3.67	3.67	3.46	2.28

CAL YR 1993 MEAN‡ 1159 CFSM‡ 2.21 IN.‡ 30.01
WTR YR 1994 MEAN‡ 1538 CFSM‡ 2.94 IN.‡ 39.83

e Estimated
† Change in contents, in cfs-days, in Blue Ridge Lake (Georgia).
‡ Adjusted for change in contents in lakes or reservoirs listed above.
NOTE.--Contents (cfs-days) for adjustment furnished by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

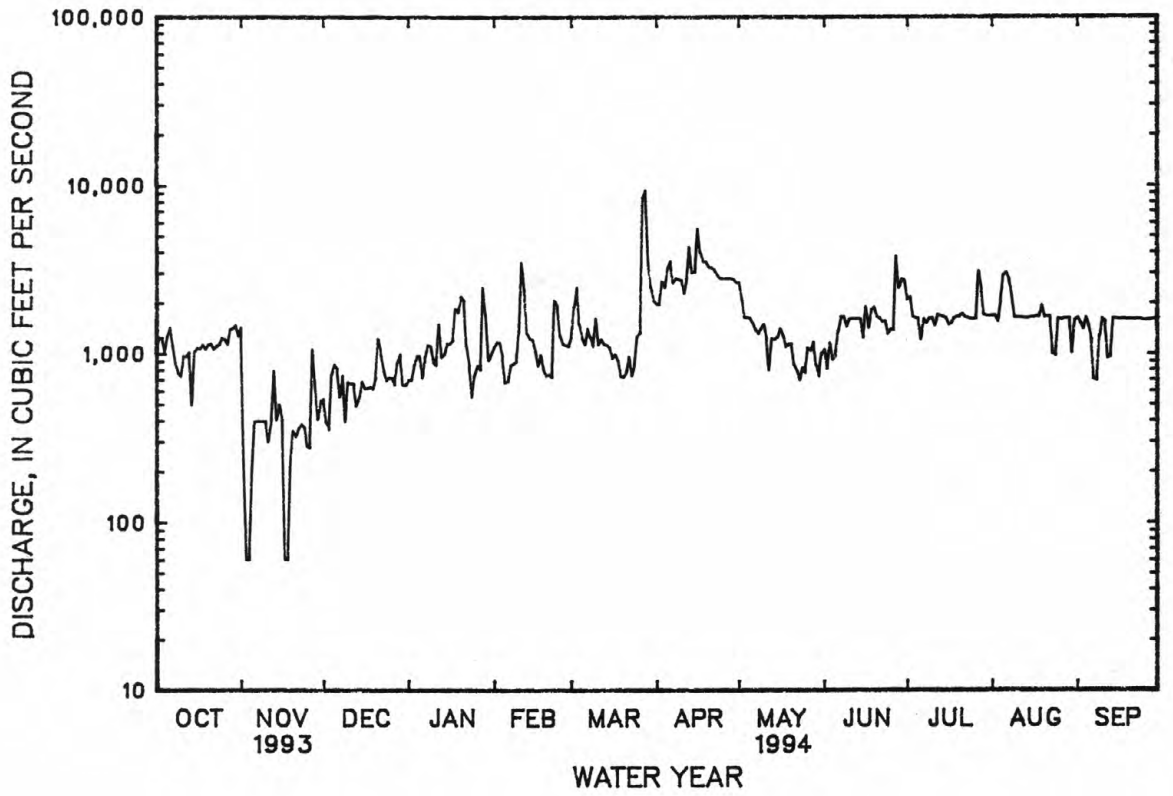
03563000 OCOEE RIVER AT EMF, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1994, BY WATER YEAR (WY)

MEAN	1044	990	1117	1274	1403	1467	1534	1315	1166	1122	1114	1076
MAX	2312	1677	3415	2780	4687	4111	4040	2786	2272	2439	2014	1604
(WY)	1965	1990	1933	1933	1990	1990	1936	1946	1973	1938	1967	1949
MIN	410	260	278	448	356	381	351	328	436	432	459	472
(WY)	1931	1988	1988	1931	1934	1988	1941	1988	1940	1940	1986	1986

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1931 - 1994	
ANNUAL TOTAL	464366		523226			
ANNUAL MEAN	1272		1433		1218	
HIGHEST ANNUAL MEAN					1868	1990
LOWEST ANNUAL MEAN					570	1988
HIGHEST DAILY MEAN	3300	Jan 26	9410	Mar 28	24000	Feb 16 1990
LOWEST DAILY MEAN	60	Nov 3	60	Nov 3	4.6	Sep 14 1962
ANNUAL SEVEN-DAY MINIMUM	251	Nov 2	251	Nov 2	6.0	Jul 27 1944
INSTANTANEOUS PEAK FLOW			18100	Mar 27	a51400	Feb 16 1990
INSTANTANEOUS PEAK STAGE			11.03	Mar 27	b17.06	Feb 16 1990
INSTANTANEOUS LOW FLOW			29	Nov 19	3.4	Sep 20 1962
10 PERCENT EXCEEDS	2250		2630		1740	
50 PERCENT EXCEEDS	1210		1250		1070	
90 PERCENT EXCEEDS	620		620		582	

a From rating curve extended above 17,000 ft³/s.
b From high water mark in gage house.



TENNESSEE RIVER BASIN

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 downstream from Lake Ocoee Dam and Ocoee No. 1 powerplant of Tennessee Valley Authority at Parksville, and at mile 11.5.

DRAINAGE AREA.--595 mi².

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 above sea level.

REMARKS.--No estimated daily discharge. Records good. Flow regulated by Blue Ridge Lake (station 03558500) in Water Resources Data for Georgia, Ocoee No. 3 Lake (station 03562500), and Lake Ocoee (station 03564000) (see p. 267).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 65,000 ft³/s, was the greatest known flood since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,000 ft³/s, Mar. 27, gage height 22.36 ft; minimum, 10 ft³/s,Apr. 28, May 2, 3; minimum daily 245 ft³/s, Nov. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	1790	627	476	1580	2370	1800	2020	1000	2380	1530	1320
2	924	449	610	491	1260	1210	1640	1540	829	1770	1580	1360
3	848	361	698	697	1500	1920	3320	1700	1010	1750	1900	1090
4	1090	353	435	1390	1310	2740	3310	1580	715	1450	1840	1200
5	1340	355	424	1020	419	1680	3340	1680	1180	1620	2740	1010
6	1360	474	967	994	299	1520	3370	1400	1340	1540	2700	1100
7	1030	560	899	1040	1030	1520	3370	1270	1110	1410	2820	1050
8	805	635	1060	646	860	1430	2860	1600	1740	1660	2260	1000
9	524	404	972	2110	864	1370	2250	1230	1760	1330	1660	856
10	485	580	1290	1730	2080	1160	2180	1510	2120	1290	1570	1250
11	1000	597	919	845	1800	1410	2230	1100	899	1430	1510	1210
12	967	579	845	796	2280	1490	3090	895	976	1390	1700	1090
13	1090	259	824	1610	2900	1310	2920	1430	1260	1840	1490	1370
14	956	245	794	1360	1900	1350	3300	917	1590	1650	967	1420
15	371	360	686	1590	1640	1150	3290	978	1770	1810	1360	1390
16	1010	445	740	1530	1640	1010	3260	1040	1780	1320	1830	1380
17	880	826	747	1200	1600	656	3300	1130	1230	1300	2680	1300
18	1260	703	801	1070	1120	950	3130	1010	1370	1580	1270	1300
19	1130	723	478	2620	700	502	3030	1010	1400	1550	1100	1530
20	1140	445	731	2190	719	477	3190	1340	2020	1710	972	1540
21	1150	466	498	1820	842	802	3140	874	1550	1640	1330	1520
22	1150	662	1180	1170	879	683	3260	826	1500	1730	1270	1520
23	817	668	1460	997	2910	754	2840	664	1400	1420	1270	1140
24	911	661	1410	629	1920	756	2450	726	1230	1400	1530	1200
25	1150	303	965	440	1990	837	2480	1000	1130	1610	1500	1440
26	1150	283	518	731	2000	538	2290	961	1300	1440	1840	1490
27	1150	1410	572	747	2380	9550	1980	1010	2610	2330	1300	1500
28	1370	1050	586	1320	2430	23300	2340	874	3150	3170	1300	1520
29	1320	579	609	1640	---	5850	2780	742	3150	2740	1410	1440
30	1090	641	1020	1460	---	3580	2180	866	2420	1710	1420	1650
31	770	---	998	1470	---	3270	---	989	---	1510	1470	---
TOTAL	31083	17866	25363	37829	42852	77145	83920	35912	46539	52480	51119	39186
MEAN	1003	596	818	1220	1530	2489	2797	1158	1551	1693	1649	1306
MAX	1370	1790	1460	2620	2910	23300	3370	2020	3150	3170	2820	1650
MIN	371	245	424	440	299	477	1640	664	715	1290	967	856

CAL YR 1993 MEAN‡ 1238 CFSM‡ 2.08 IN.‡ 28.24
WTR YR 1994 MEAN‡ 1586 CFSM‡ 2.67 IN.‡ 36.18

‡ Adjusted for change in contents in Blue Ridge Lake (Georgia) and Lake Ocoee.
NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

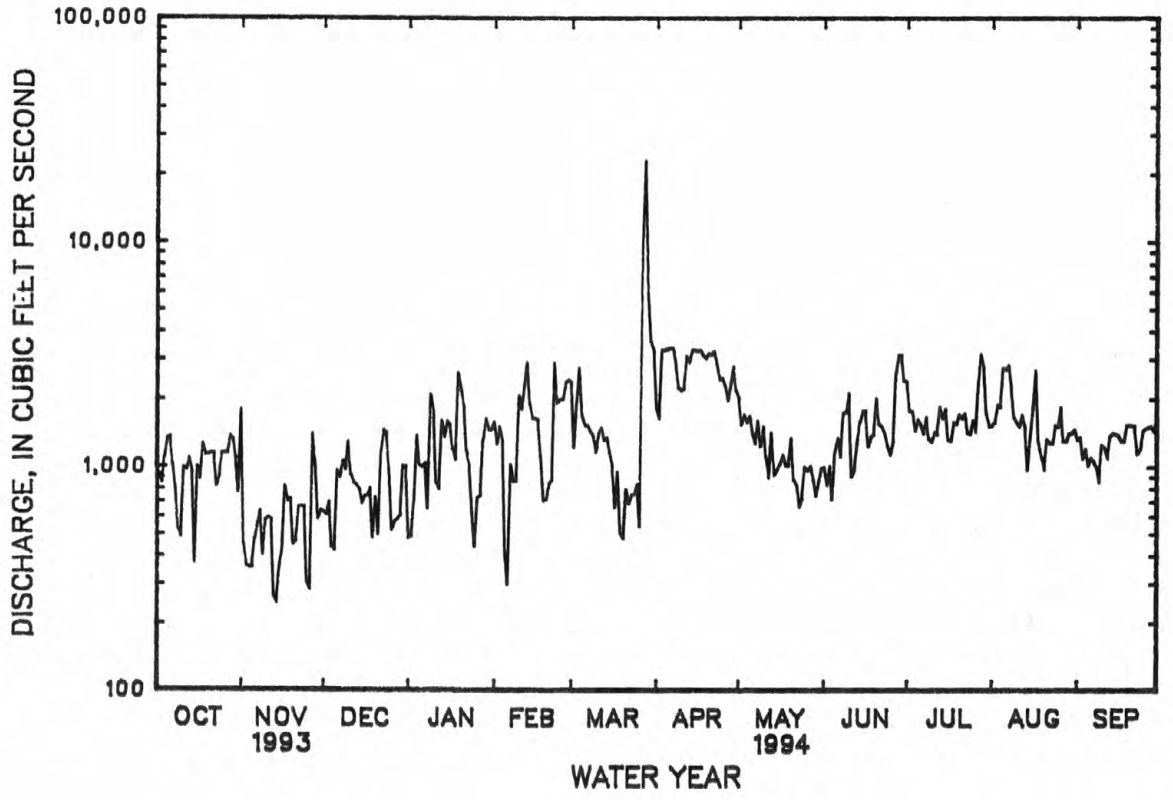
03564500 OCOEE RIVER AT PARKSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1994, BY WATER YEAR (WY)

MEAN	1031	1109	1287	1523	1607	1747	1682	1450	1232	1163	1081	1039
MAX	2579	2507	3762	3136	5382	4591	4214	4243	2530	2790	2294	2238
(WY)	1990	1930	1933	1933	1990	1990	1936	1929	1989	1916	1967	1928
MIN	228	348	329	544	212	370	295	283	354	409	242	225
(WY)	1927	1988	1931	1931	1934	1988	1941	1988	1931	1914	1925	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1911 - 1994	
ANNUAL TOTAL	497078		541294			
ANNUAL MEAN	1362		1483		1330	
HIGHEST ANNUAL MEAN					2214	1990
LOWEST ANNUAL MEAN					586	1988
HIGHEST DAILY MEAN	3470	Mar 24	23300	Mar 28	28000	Feb 16 1990
LOWEST DAILY MEAN	245	Nov 14	245	Nov 14	10	Oct 28 1925
ANNUAL SEVEN-DAY MINIMUM	432	Nov 9	432	Nov 9	54	Oct 17 1925
INSTANTANEOUS PEAK FLOW			a42000	Mar 27	a61800	Feb 16 1990
INSTANTANEOUS PEAK STAGE			22.36	Mar 27	b24.76	Feb 16 1990
INSTANTANEOUS LOW FLOW			c10	Apr 28	NOT DETERMINED	
10 PERCENT EXCEEDS	2410		2610		2210	
50 PERCENT EXCEEDS	1240		1300		1200	
90 PERCENT EXCEEDS	604		593		340	

a From rating curve extended above 15,000 ft³/s on basis of contracted-opening measurement of peak flow.
b From high water mark in house.
c Also occurred May 2, 3.



TENNESSEE RIVER BASIN

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 upstream from Norfolk Southern Railway bridge, 0.3 mi upstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.9.

DRAINAGE AREA.--2,298 mi².

PERIOD OF RECORD.--November 1898 to April 1899, November 1899 to April 1903, October 1919 to January 1940, January 1963 to January 1977, September 1979 to December 1981 (vane lost), August 1987 to current year. Gage-height records collected at this station during the period December 1884 to December 1889 are contained in the United States War Department Stages of Ohio River and Principal Tributaries, 1858-89, Part 1, and during period January 1890 to December 1943 in reports of the U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1436: 1902, 1922(M), 1928, 1936(M).

GAGE.--Water-stage recorder and velocity recorder. Datum of gage is 665.56 ft above sea level. Prior to July 18, 1925, nonrecording gages, and July 18, 1925, to Sept. 6, 1926, water-stage recorder, at Southern Railway bridge, 250 ft downstream at datum 1.50 ft 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. 261) and Water Resources Data for Georgia and North Carolina). Daily discharge figures computed using areas as determined from a stage-area curve and velocities as determined from a velocity curve. Reverse flow has occurred 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, present datum, discharge about 70,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3160	2830	3580	3840	5510	6060	e11000	5190	2810	7110	5880	4810
2	2720	3090	3670	3400	5960	8690	e10000	4470	2680	4430	5290	4790
3	2560	2700	2790	2990	5740	9030	e12000	4460	2310	4010	5700	4690
4	2760	2190	2690	5140	5530	10100	e12000	4780	2760	3720	5420	4610
5	3240	2390	5090	5790	4170	8830	e10000	4150	2650	4030	5930	4610
6	3190	2170	4030	5100	3840	6870	e14000	4200	3390	4030	6030	4680
7	3250	2290	3940	4870	3690	6310	e12000	3740	2630	4480	6090	4510
8	3140	2410	3970	6530	4450	6220	e13000	3760	3600	4520	5600	4380
9	2730	2460	3430	6040	e4300	6280	e12000	3370	4510	4360	5100	4390
10	2570	2360	3920	6220	e8400	6540	e15000	3140	5090	4440	4810	4510
11	3370	2370	4890	5250	e22000	6240	e20000	3160	4240	4560	4860	4540
12	3360	2360	4590	6910	e12000	6130	e15000	2930	4230	5960	4980	4350
13	3090	2080	4480	7540	e9900	5950	e17000	3260	4060	5880	4630	4540
14	3030	1890	3980	6830	e7500	5760	e14000	2900	4330	5910	4410	4600
15	3070	2320	4160	6540	e6600	5130	e15000	2790	3930	5660	4410	4750
16	2680	2470	3880	6190	e6200	4620	e17000	2940	3920	4730	4720	4770
17	3120	2460	3900	5910	e5900	4290	13700	2990	3850	4790	6000	4860
18	3630	2480	3550	7330	5980	4450	14500	2850	4170	4990	4750	4740
19	3660	2460	3370	8090	5310	3790	13400	2820	4640	5050	5020	4960
20	3620	2420	3330	8010	5280	3020	12600	3140	4760	4830	4970	4640
21	3600	2210	4340	8020	5270	3020	11800	3120	4040	5230	5630	4720
22	3540	2110	5110	6070	5300	3040	11500	2980	3430	5260	6140	4710
23	3150	1910	5350	5530	e19000	2910	11100	2600	3780	4840	5500	4700
24	2500	1810	5340	5340	e12000	e2800	9890	2580	3660	5010	5310	4840
25	2590	1740	4580	4170	9180	e4700	10100	2600	3460	4890	5170	5010
26	2730	1660	3890	3970	8060	e21000	6940	2650	3660	4580	5260	4930
27	2860	1970	3260	3710	7530	e28000	6250	2800	5190	8700	5100	4890
28	3130	3600	2970	5980	7610	e50000	5890	2790	6890	14400	4910	3900
29	3390	3040	3130	6990	---	e14000	6460	2680	6960	9690	4920	3530
30	2920	2950	4420	4940	---	e13000	5310	2600	8110	7360	4970	4860
31	2300	---	4660	4970	---	e14000	---	2580	---	6060	4850	---
TOTAL	94660	71200	124290	178210	212210	280780	358440	101020	123740	173510	162360	138820
MEAN	3054	2373	4009	5749	7579	9057	11950	3259	4125	5597	5237	4627
MAX	3660	3600	5350	8090	22000	50000	20000	5190	8110	14400	6140	5010
MIN	2300	1660	2690	2990	3690	2800	5310	2580	2310	3720	4410	3530

e Estimated

TENNESSEE RIVER BASIN

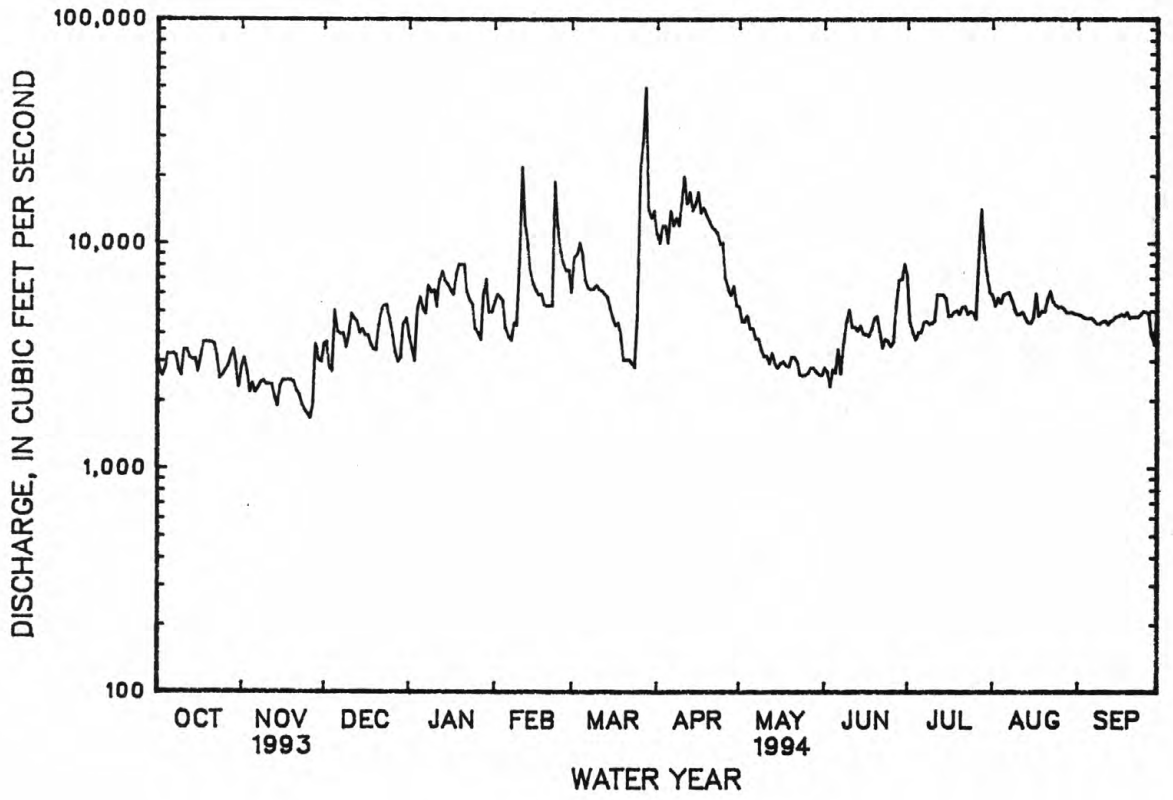
03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

MEAN	3898	4295	5441	6124	6502	6177	4607	3639	3798	3894	3908	3595
MAX	9332	8638	12980	13060	16270	13860	11950	6457	8897	6975	6201	5118
(WY)	1990	1968	1968	1974	1990	1990	1994	1964	1989	1967	1967	1967
MIN	1442	1681	2070	2601	2680	1866	1110	971	1395	1750	1810	1747
(WY)	1989	1982	1988	1981	1988	1988	1988	1988	1988	1988	1988	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1964 - 1994	
ANNUAL TOTAL	1519630		2019240			
ANNUAL MEAN	4163		5532		4680	
HIGHEST ANNUAL MEAN					6891	1990
LOWEST ANNUAL MEAN					1940	1988
HIGHEST DAILY MEAN	11900	Jan 1	e50000	Mar 28	54000	Mar 17 1973
LOWEST DAILY MEAN	1660	Nov 26	1660	Nov 26	524	May 24 1981
ANNUAL SEVEN-DAY MINIMUM	1920	Nov 21	1920	Nov 21	817	Oct 29 1988
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		57000	Mar 17 1973
INSTANTANEOUS PEAK STAGE			29.42	Mar 28	29.42	Mar 28 1994
10 PERCENT EXCEEDS	6960		9940		7610	
50 PERCENT EXCEEDS	3500		4620		4030	
90 PERCENT EXCEEDS	2480		2640		2140	

e Estimated



TENNESSEE RIVER BASIN

035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN

LOCATION.--Lat 35°26'55", long 84°39'23", McMinn County, Hydrologic Unit 06020002, on right bank at downstream end of county road culvert, 1.5 miles west of Athens.

DRAINAGE AREA.--

PERIOD OF RECORD.--October 1993 to September 1994.

GAGE.--Water-stage recorder. Datum of gage is 775 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 11	0745	3,120	14.73	Apr. 11	0430	*5,790	*15.74
Feb. 23	1400	1,060	12.00	Apr. 15	2100	3,740	15.02
Mar. 27	2315	2,980	14.66	July 27	1200	1,480	12.84

Minimum discharge, 12 ft³/s, Oct. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	18	48	103	224	250	98	49	48	106	48
2	16	15	18	48	92	715	206	90	49	46	95	47
3	16	14	17	59	85	549	182	106	53	69	90	45
4	15	15	151	92	78	299	165	105	48	54	82	43
5	15	34	223	67	97	226	162	89	47	47	299	42
6	15	19	71	60	88	186	362	83	57	45	152	43
7	15	15	54	160	76	162	254	81	50	44	102	42
8	15	14	47	170	72	146	198	86	67	45	90	39
9	14	13	42	106	101	140	172	76	e50	44	83	38
10	15	13	93	90	325	175	362	73	e100	51	77	37
11	15	14	67	115	1890	134	2580	71	e70	85	72	35
12	15	14	53	327	599	122	569	69	e60	140	67	36
13	14	14	48	168	327	116	512	67	e45	141	64	34
14	14	14	45	135	236	111	311	66	e60	138	62	34
15	14	72	48	111	196	106	1290	69	e55	90	76	33
16	15	27	44	95	168	101	1350	65	e50	81	90	33
17	15	24	40	232	150	96	457	62	e45	113	68	37
18	15	24	37	196	136	93	309	61	e90	98	61	39
19	14	21	35	122	124	88	243	60	e55	74	60	35
20	14	19	44	105	115	84	205	60	e50	72	56	34
21	16	18	74	94	188	89	178	59	e45	72	93	33
22	16	18	53	86	159	89	161	57	e42	77	76	32
23	15	18	48	79	687	78	147	56	e40	64	64	34
24	14	18	44	74	379	111	135	55	e40	60	59	37
25	14	17	41	82	239	161	126	54	e45	56	56	32
26	15	18	38	111	192	129	118	59	e50	55	54	30
27	15	24	37	112	163	1740	119	56	e250	830	52	30
28	13	22	42	295	146	1590	113	53	e90	312	50	29
29	13	19	92	170	---	634	103	52	e60	178	49	28
30	23	19	58	137	---	362	97	51	e50	162	49	27
31	17	---	51	117	---	341	---	49	---	120	48	---
TOTAL	469	601	1773	3863	7211	9197	11436	2138	1862	3511	2502	1086
MEAN	15.1	20.0	57.2	125	258	297	381	69.0	62.1	113	80.7	36.2
MAX	23	72	223	327	1890	1740	2580	106	250	830	299	48
MIN	13	13	17	48	72	78	97	49	40	44	48	27

e Estimated

TENNESSEE RIVER BASIN

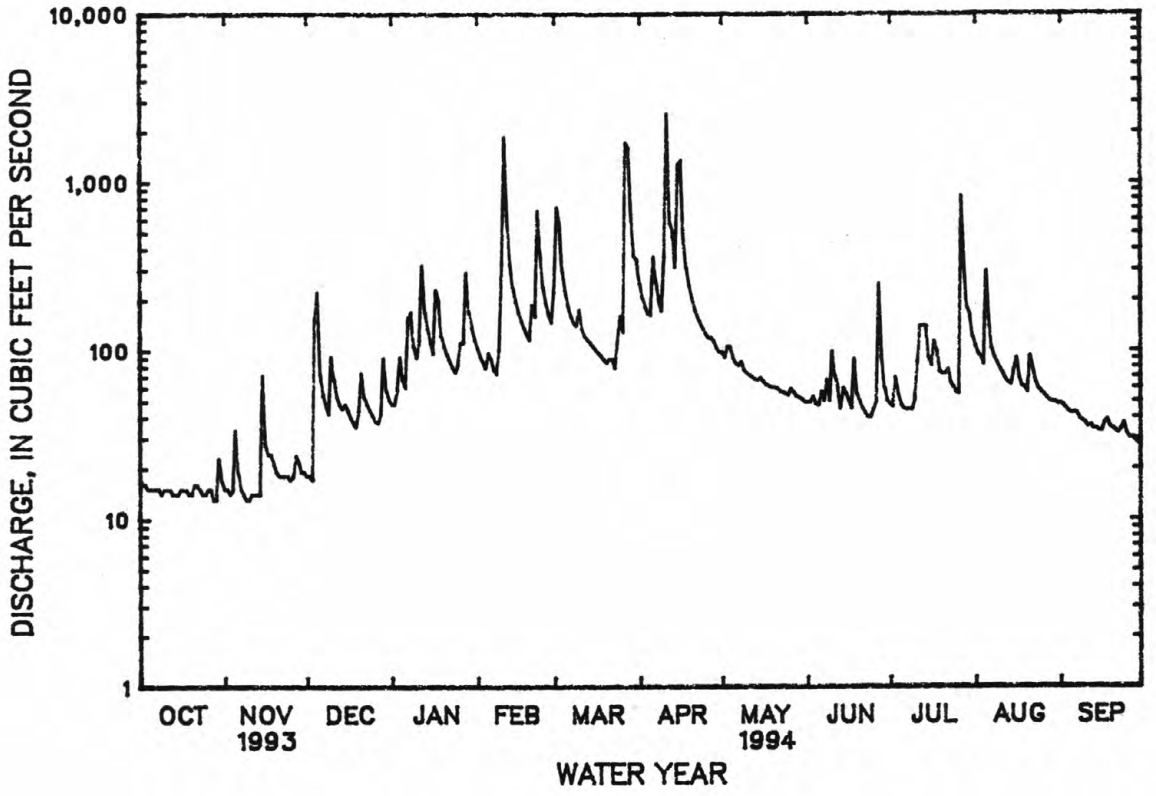
035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1994, BY WATER YEAR (WY)

MEAN	15.1	20.0	57.2	125	258	297	381	69.0	62.1	113	80.7	36.2
MAX	15.1	20.0	57.2	125	258	297	381	69.0	62.1	113	80.7	36.2
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994
MIN	15.1	20.0	57.2	125	258	297	381	69.0	62.1	113	80.7	36.2
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 WATER YEAR	
ANNUAL TOTAL	45649	
ANNUAL MEAN	125	
HIGHEST DAILY MEAN	2580	Apr 11
LOWEST DAILY MEAN	13	Oct 28
ANNUAL SEVEN-DAY MINIMUM	14	Nov 8
INSTANTANEOUS PEAK FLOW	5790	Apr 11
INSTANTANEOUS PEAK STAGE	15.74	Apr 11
INSTANTANEOUS LOW FLOW	a12	Oct 28
10 PERCENT EXCEEDS	228	
50 PERCENT EXCEEDS	64	
90 PERCENT EXCEEDS	16	

a Also occurred Oct. 29.



TENNESSEE RIVER BASIN

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 upstream from bridge on U.S. Highway 11, 1.5 mi south of Chickamauga, 6.0 mi east of the city hall in Chattanooga, and at mile 12.2.

DRAINAGE AREA.--428 mi².

PERIOD OF RECORD.--October 1928 to September 1978, October 1980 to September 1994 (discontinued). Monthly discharge only for December 1930, published in WSP 1306. Gage-height records 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.--Data logger, data collection platform, and crest-stage gage. Datum of gage is 644.12 ft above sea level. Prior to Oct. 7, 1930, nonrecording gage. Oct. 7, 1930, to Oct. 29, 1980, water-stage recorder at site 1,000 ft upstream at datum 7.00 ft higher.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³s)	Gage height (ft)	Date	Time	Discharge (ft³s)	Gage height (ft)
Jan. 12	1630	5,570	14.96	Mar. 29	0130	*24,700	*27.54
Feb. 12	0300	7,090	16.52	Apr. 16	0530	6,340	15.78
Feb. 24	1230	13,000	20.86	July 28	0030	6,480	15.92
Mar. 3	0230	7,620	17.02				

Minimum discharge, 85 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	132	122	327	785	1590	2110	334	176	259	446	362
2	102	114	118	293	647	6160	1760	318	183	228	390	214
3	106	109	115	285	563	7100	1480	407	211	217	385	211
4	103	127	338	467	494	4300	1310	529	184	208	486	179
5	102	202	661	556	e520	1850	1120	429	172	229	696	154
6	100	170	297	395	e600	1260	3060	349	208	227	612	156
7	101	135	217	527	e550	1010	3260	331	192	199	444	148
8	98	121	176	1410	503	874	1730	333	216	225	349	187
9	99	123	157	867	582	834	1200	309	e210	233	295	183
10	98	111	241	555	1020	2000	1000	289	210	255	257	144
11	96	109	338	706	6340	1530	907	276	183	472	232	124
12	96	109	262	5090	6650	1010	914	264	170	1190	213	115
13	101	108	204	3640	4350	855	952	255	158	990	190	102
14	102	107	183	1310	1710	786	808	247	191	732	188	107
15	103	269	206	864	1110	704	1060	379	165	404	381	98
16	106	219	201	649	916	627	5650	418	179	386	538	98
17	114	180	156	1060	778	552	2810	324	214	543	374	162
18	117	167	131	2110	680	510	1410	273	286	371	424	157
19	117	156	125	1100	599	475	1040	250	295	391	283	133
20	117	144	217	742	538	440	814	235	210	587	505	114
21	112	131	911	599	728	434	695	226	177	329	873	102
22	105	127	618	518	805	444	618	219	155	405	581	93
23	101	117	365	464	5640	402	551	213	187	363	366	217
24	101	113	269	437	11900	587	498	209	218	286	287	562
25	102	114	211	426	6560	1010	458	204	176	250	241	452
26	105	123	175	765	2340	881	426	212	e500	316	214	286
27	107	149	148	1970	1230	7440	435	239	e2000	3840	195	229
28	100	157	150	3180	979	20000	419	228	e900	4110	176	185
29	104	139	746	2770	---	21500	387	207	376	1010	160	162
30	158	128	776	1330	---	8760	351	195	311	715	150	143
31	158	---	434	966	---	3410	---	185	---	513	161	---
TOTAL	3334	4210	9268	36378	60117	99335	39233	8886	9013	20483	11092	5579
MEAN	108	140	299	1173	2147	3204	1308	287	300	661	358	186
MAX	158	269	911	5090	11900	21500	5650	529	2000	4110	873	562
MIN	96	107	115	285	494	402	351	185	155	199	150	93
CFSM	.25	.33	.70	2.74	5.02	7.49	3.06	.67	.70	1.54	.84	.43
IN.	.29	.37	.81	3.16	5.23	8.63	3.41	.77	.78	1.78	.96	.48

e Estimated

TENNESSEE RIVER BASIN

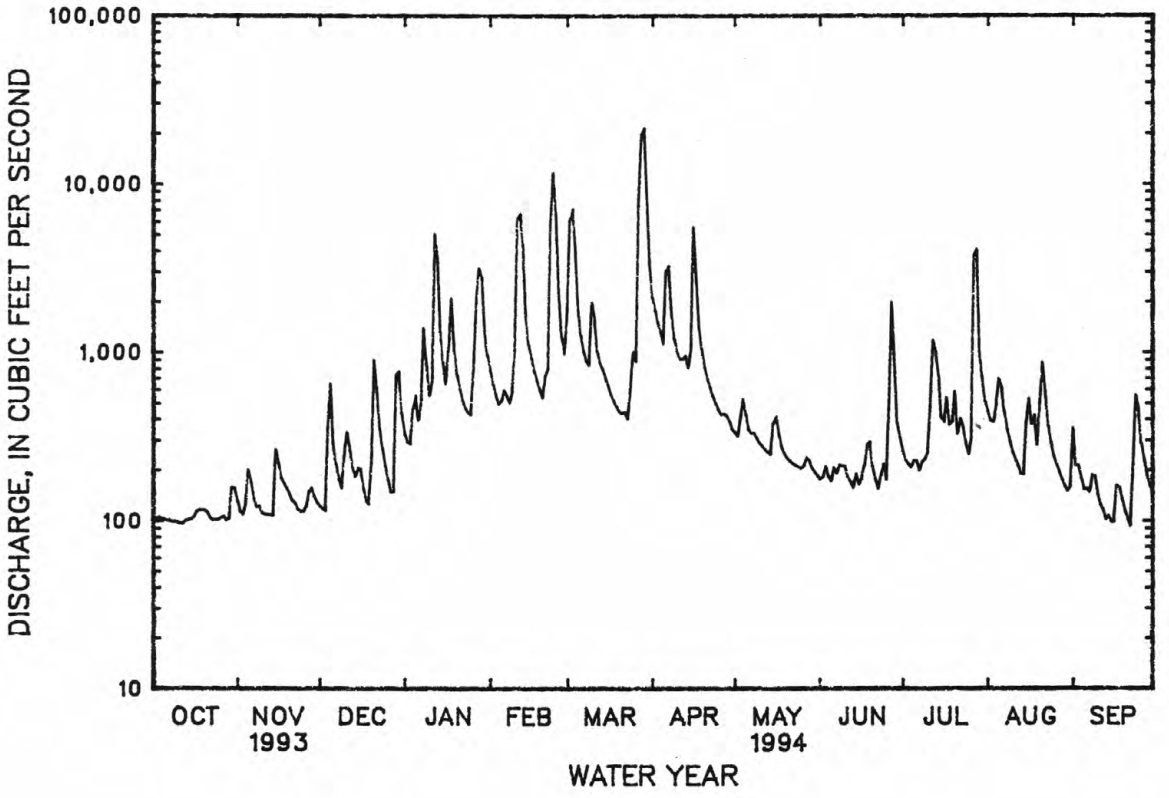
03567500 SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

MEAN	270	498	831	1247	1452	1430	943	590	342	351	232	274
MAX	1525	2709	3269	3752	3952	3785	2834	2093	1453	1575	654	2960
(WY)	1990	1930	1933	1947	1990	1929	1936	1929	1989	1967	1984	1950
MIN	84.0	98.9	119	160	246	311	172	132	75.4	83.9	85.6	82.7
(WY)	1988	1940	1940	1940	1941	1988	1986	1988	1988	1986	1986	1954

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1929 - 1994	
ANNUAL TOTAL	225938		306928			
ANNUAL MEAN	619		841		702	
HIGHEST ANNUAL MEAN					1197	1990
LOWEST ANNUAL MEAN					258	1986
HIGHEST DAILY MEAN	7870	Mar 24	21500	Mar 29	26500	Mar 17 1973
LOWEST DAILY MEAN	96	Oct 11	93	Sep 22	64	Oct 18 1954
ANNUAL SEVEN-DAY MINIMUM	98	Oct 6	98	Oct 6	67	Jun 26 1988
INSTANTANEOUS PEAK FLOW			24700	Mar 29	a30000	Mar 17 1973
INSTANTANEOUS PEAK STAGE			27.54	Mar 29	b30.75	Mar 17 1973
INSTANTANEOUS LOW FLOW			c85	Sep 13	61	Oct 8 1941
ANNUAL RUNOFF (CFSM)	1.45		1.96		1.64	
ANNUAL RUNOFF (INCHES)	19.64		26.68		22.27	
10 PERCENT EXCEEDS	1370		1500		1480	
50 PERCENT EXCEEDS	230		297		299	
90 PERCENT EXCEEDS	111		112		124	

a Maximum discharge 30,000 ft³/s, gage height 28.70 ft.
b From floodmarks (backwater from Tennessee River).
c Caused by unknown regulation upstream.



TENNESSEE RIVER BASIN

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 downstream from South Chickamauga Creek, 3.0 mi downstream from Chickamauga Dam, 3.5 mi upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6.

DRAINAGE AREA.--21,400 mi², 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 above sea level. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi upstream from Chattanooga to Hales Bar Dam 33 mi downstream at or within 0.2 ft of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi downstream from base gage at same datum.

REMARKS.--Records good. Flow regulated since 1936 by many upstream reservoirs (see p. 261 and Water Resources Data for adjoining states).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft³/s, Mar. 1, 1875, gage height, 53.8 ft, present datum, at Walnut Street, from rating curve extended above 250,000 ft³/s; minimum daily, 1,200 ft³/s, Nov. 1, 1953; minimum gage height, 0.0 ft, Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft, Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 202,000 ft³/s, Mar. 28; maximum gage height, 32.60 ft, Mar. 28; minimum daily discharge, 9,290 ft³/s, May 28; minimum gage height, 11.39 ft, June 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e27200	e27900	40800	43300	68600	108000	163000	33700	21400	46400	46600	43500
2	e25500	e27100	38400	44800	63600	115000	166000	32500	26000	31500	42100	43300
3	e10100	e18900	38900	44800	55300	131000	158000	32500	25900	31100	42300	41500
4	e24700	e19800	26000	44900	53000	123000	156000	33100	16000	30800	42200	42700
5	e23400	e21900	46000	44000	49900	115000	127000	33600	13100	30800	42000	43000
6	e23400	e11700	54000	45400	49800	103000	102000	34100	21400	30300	42300	42400
7	e26200	e11900	68700	45800	49200	93400	126000	28000	22600	30900	42200	42800
8	e26000	e27300	68600	49000	48900	94300	119000	33400	26200	31400	42400	42400
9	e12200	28400	67200	55100	44100	92000	98300	33600	29500	32200	42100	41700
10	e11800	23800	66600	55000	47200	86700	89900	30100	31400	32100	42500	42300
11	e18300	23500	65900	55000	107000	72700	121000	27000	29100	32600	43000	40200
12	e18500	21300	57000	67000	159000	66400	150000	27100	31500	38000	43400	35500
13	e17600	10600	49700	78300	155000	66400	144000	25800	30500	36100	35000	38500
14	e17500	9910	45300	75900	137000	62100	131000	20200	30200	36500	25200	39400
15	e23300	25800	44900	74900	126000	50000	115000	21700	31500	39300	32800	39400
16	e12300	31600	44500	73900	125000	42600	137000	18600	36500	36900	38600	39600
17	e10900	27800	44400	73000	117000	42300	148000	21300	34400	28500	41100	38100
18	e17700	27700	37400	74000	114000	39400	146000	22100	31400	37700	40600	36400
19	e19400	30700	27400	72800	104000	35000	128000	22300	30700	36100	41500	42500
20	e26000	17500	34100	71900	92100	29700	100000	26000	33300	39500	41100	40400
21	e19300	16500	37300	67600	76800	26600	91000	18300	39900	37900	43900	39700
22	e18500	27600	44800	60400	72000	30200	82800	15700	37400	36700	43800	38200
23	e15500	25000	44500	57200	96900	29000	65600	15700	32300	32400	42800	40900
24	e15300	17300	40100	44400	130000	32300	65300	23000	32500	32300	43400	33700
25	e21500	10500	38900	39500	130000	22500	63200	16300	20800	31700	44200	33700
26	e13500	10600	23300	42600	129000	14100	59700	13000	23000	31200	44200	36500
27	e14400	11700	22600	51500	124000	59500	54700	14400	37900	41800	44300	41300
28	e19400	11600	25400	63600	119000	179000	48200	9290	45600	50200	44400	41100
29	e20400	38700	36200	73100	---	182000	43500	9890	52200	51400	43500	42400
30	e16000	40300	42500	70900	---	176000	33300	9550	53200	55300	42800	42500
31	e10000	---	45700	69400	---	166000	---	22800	---	49800	43000	---
TOTAL	575800	654910	1367100	1829000	2643400	2485200	3232500	724630	927400	1139400	1289300	1205600
MEAN	18570	21830	44100	59000	94410	80170	107700	23380	30910	36750	41590	40190
MAX	27200	40300	68700	78300	159000	182000	166000	34100	53200	55300	46600	43500
MIN	10000	9910	22600	39500	44100	14100	33300	9290	13100	28500	25200	33700

e Estimated

TENNESSEE RIVER BASIN

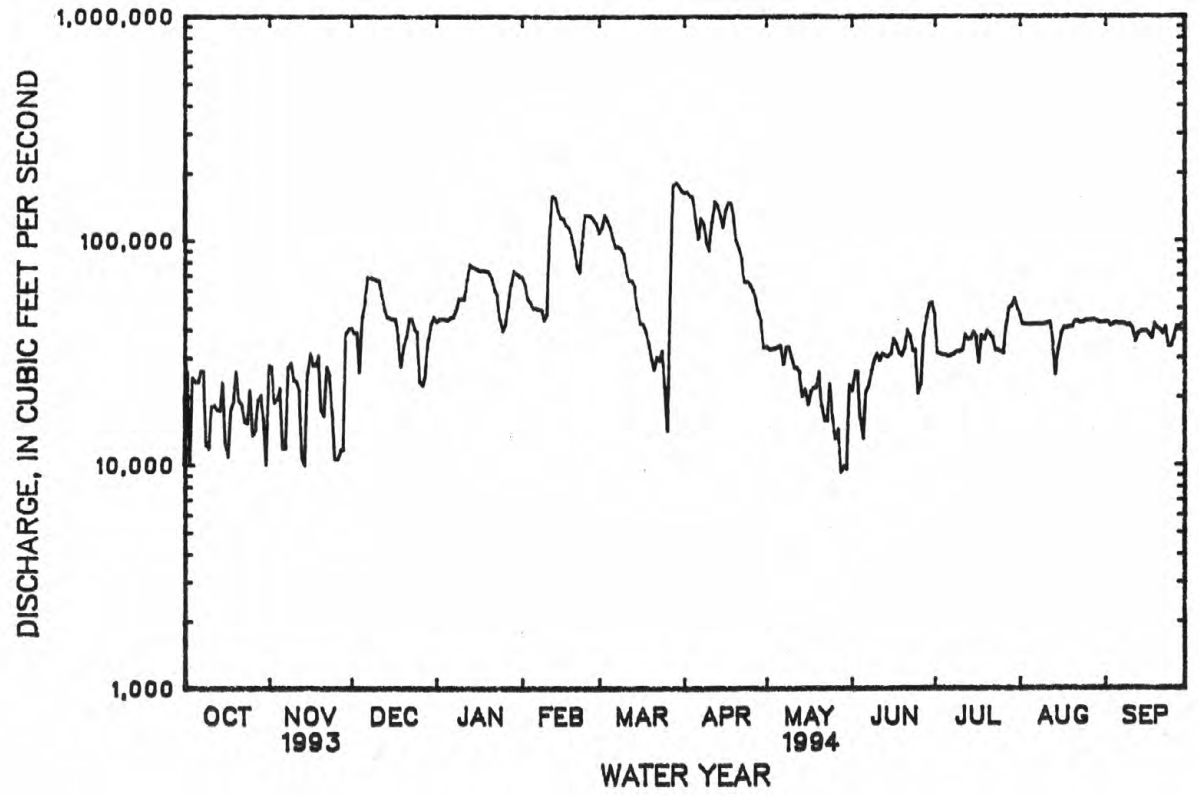
03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1994, BY WATER YEAR (WY)

MEAN	28590	33980	44970	48700	49960	47110	29180	28600	29350	29850	31270	28520
MAX	63270	68330	94270	127900	132800	98850	107700	87890	65280	49670	41590	42140
(WY)	1990	1958	1973	1974	1957	1963	1994	1984	1989	1989	1994	1967
MIN	16690	16340	13660	17370	22570	14380	7503	7805	11310	11230	12740	14090
(WY)	1984	1988	1988	1986	1986	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1954 - 1994	
ANNUAL TOTAL	12517430		18074240			
ANNUAL MEAN	34290		49520		35790	
HIGHEST ANNUAL MEAN					53260	1973
LOWEST ANNUAL MEAN					15070	1988
HIGHEST DAILY MEAN	112000	Mar 30	182000	Mar 29	251000	Mar 18 1973
LOWEST DAILY MEAN	7870	May 30	9290	May 28	1200	Nov 1 1953
ANNUAL SEVEN-DAY MINIMUM	16300	Nov 22	13600	May 25	6790	May 29 1986
INSTANTANEOUS PEAK FLOW			202000	Mar 28	267000	Mar 18 1973
INSTANTANEOUS PEAK STAGE			32.60	Mar 28	38.98	Mar 18 1973
10 PERCENT EXCEEDS	62500		110000		57500	
50 PERCENT EXCEEDS	28400		40100		31200	
90 PERCENT EXCEEDS	14400		18100		16200	

* Regulated period only.



TENNESSEE RIVER BASIN

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, Hydrologic Unit 06020004, on right bank 250 ft upstream from county road bridge, 1.5 mi east of Whitwell, 3.0 mi upstream from bridge on State Highway 283, 4.5 mi downstream from Griffith Creek, and at mile 25.1.

DRAINAGE AREA.--402 mi², includes 18 mi² without surface drainage.

PERIOD OF RECORD.--October 1920 to September 1994 (discontinued). 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.--Data collection platform. Datum of gage is 632.73 ft above sea level (levels by Tennessee Valley Authority). Prior to Sept. 18, 1927, nonrecording gage at same site at datum 0.03 ft higher. Sept. 18, 1927, to Sept. 30, 1930, nonrecording gage at bridge 15 ft upstream at present datum.

REMARKS.--Records good. Prior to 1950, some diurnal fluctuation caused by small mills above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of about 19 ft from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 29	0030	5,770	12.98	Apr. 7	0700	7,200	13.56
Feb. 11	1930	*25,100	*16.68	Apr. 12	0130	8,880	14.02
Feb. 24	0100	11,600	14.62	Apr. 13	2300	7,820	13.74
Mar. 3	1030	6,210	13.18	Apr. 16	0900	10,800	14.45
Mar. 28	1200	21,400	16.23				

Minimum discharge, 42 ft³/s, Oct. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	51	83	839	1730	1840	3380	564	178	489	549	196
2	53	48	88	704	1360	4010	2840	538	164	350	476	323
3	53	47	86	635	1120	5950	2440	527	174	278	e455	341
4	52	48	587	902	950	4500	2120	693	173	238	e425	321
5	50	67	2530	1060	883	3000	1770	714	170	213	401	275
6	49	76	1700	999	871	2260	4650	661	176	194	e610	251
7	47	65	1140	1470	792	1800	6620	569	186	181	543	233
8	46	60	693	3100	736	1510	5290	650	200	577	447	218
9	45	59	467	2260	805	1340	3200	578	216	480	400	206
10	45	58	759	1660	1940	1600	2440	507	224	344	385	190
11	45	57	1430	1390	17300	1550	5570	426	232	1190	349	179
12	45	56	1250	2730	17700	1430	7530	386	222	2780	318	170
13	45	55	895	2760	12600	1260	6850	365	e210	1610	290	162
14	45	54	689	2260	7130	1140	6550	332	e198	2040	272	155
15	45	140	609	1670	3270	1010	5270	366	190	1510	540	149
16	48	163	568	e1260	2570	908	10000	372	230	1070	405	144
17	51	153	506	1330	2140	809	7370	343	219	852	305	143
18	50	225	451	e1480	1840	740	4580	322	221	1400	264	140
19	48	200	401	e1220	1560	676	2870	300	209	1210	242	134
20	46	166	370	e1060	1190	615	2160	275	182	937	227	130
21	45	141	454	921	2060	583	1710	260	170	747	257	127
22	45	123	562	797	3650	607	1450	247	164	588	339	133
23	45	109	570	722	7490	573	1260	234	170	695	335	134
24	45	99	501	679	9860	837	1070	235	159	570	308	155
25	45	94	446	708	6190	2720	934	230	153	443	e268	152
26	45	90	389	1090	3490	2840	839	231	183	384	241	145
27	47	89	342	2170	2440	6240	731	254	e1350	784	224	147
28	45	89	322	4250	1860	19400	707	226	e1630	e2000	212	141
29	42	87	784	5170	---	14900	666	216	769	1400	204	137
30	47	83	1180	3500	---	10100	592	207	674	862	194	129
31	50	---	1070	2430	---	5330	---	191	---	660	185	---
TOTAL	1462	2852	21922	53226	115527	102078	103459	12019	9396	27076	10670	5460
MEAN	47.2	95.1	707	1717	4126	3293	3449	388	313	873	344	182
MAX	53	225	2530	5170	17700	19400	10000	714	1630	2780	610	341
MIN	42	47	83	635	736	573	592	191	153	181	185	127
CFSM	.12	.24	1.76	4.27	10.3	8.19	8.58	.96	.78	2.17	.86	.45
IN.	.14	.26	2.03	4.93	10.69	9.45	9.57	1.11	.87	2.51	.99	.51

e Estimated

TENNESSEE RIVER BASIN

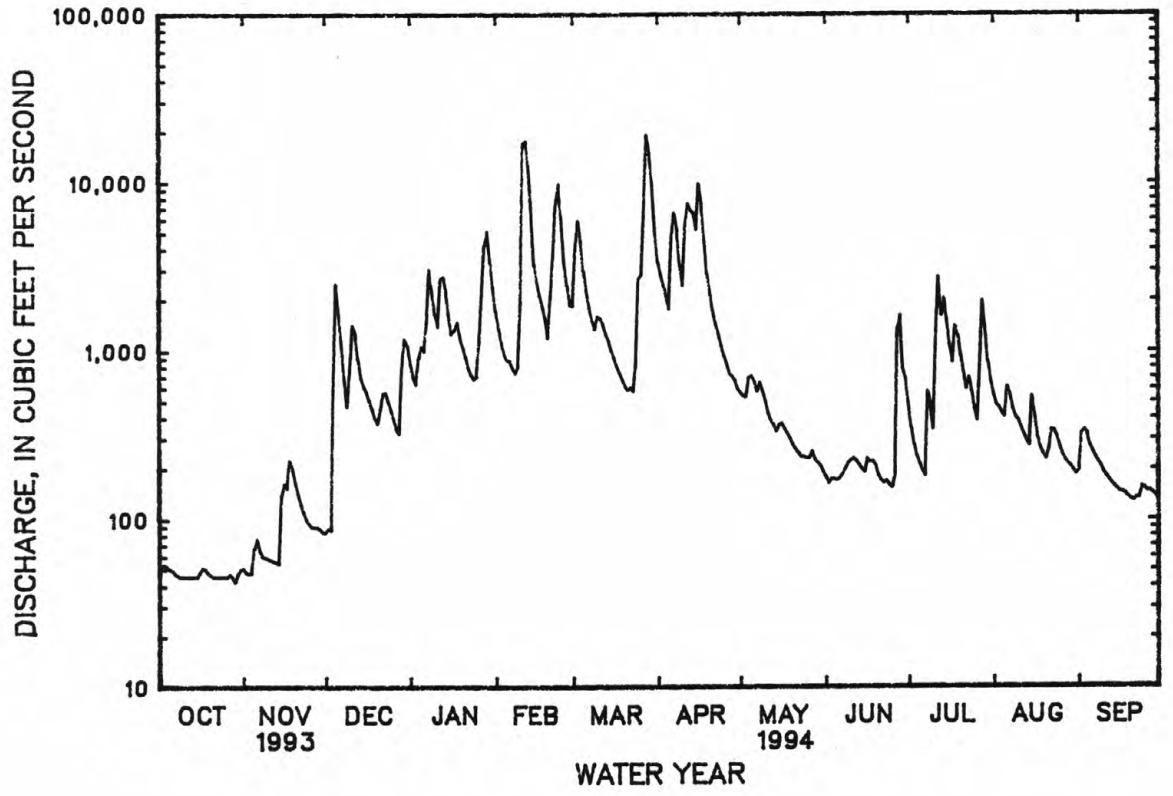
03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1994, BY WATER YEAR (WY)

MEAN	184	469	1019	1358	1562	1631	1231	673	364	284	208	171
MAX	1626	3471	3935	3736	4126	3508	3449	2795	2381	1770	863	1152
(WY)	1990	1958	1991	1937	1994	1973	1994	1984	1928	1989	1926	1950
MIN	27.1	32.4	51.9	74.0	271	364	228	179	71.6	68.6	46.9	23.1
(WY)	1932	1932	1940	1981	1941	1988	1986	1941	1988	1986	1957	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1921 - 1994	
ANNUAL TOTAL	269479		465147			
ANNUAL MEAN	738		1274		759	
HIGHEST ANNUAL MEAN					1284	1973
LOWEST ANNUAL MEAN					305	1981
HIGHEST DAILY MEAN	18400	Mar 24	19400	Mar 28	32300	Dec 23 1990
LOWEST DAILY MEAN	42	Oct 29	42	Oct 29	16	Sep 6 1925
ANNUAL SEVEN-DAY MINIMUM	45	Oct 23	45	Oct 23	18	Sep 6 1925
INSTANTANEOUS PEAK FLOW			25100	Feb 11	35400	Dec 23 1990
INSTANTANEOUS PEAK STAGE			16.68	Feb 11	18.02	Dec 23 1990
INSTANTANEOUS LOW FLOW			a42	Oct 28	16	Sep 6 1925
ANNUAL RUNOFF (CFSM)	1.84		3.17		1.89	
ANNUAL RUNOFF (INCHES)	24.94		43.04		25.66	
10 PERCENT EXCEEDS	1650		2920		1770	
50 PERCENT EXCEEDS	285		454		339	
90 PERCENT EXCEEDS	52		55		62	

a Also occurred Oct. 29.



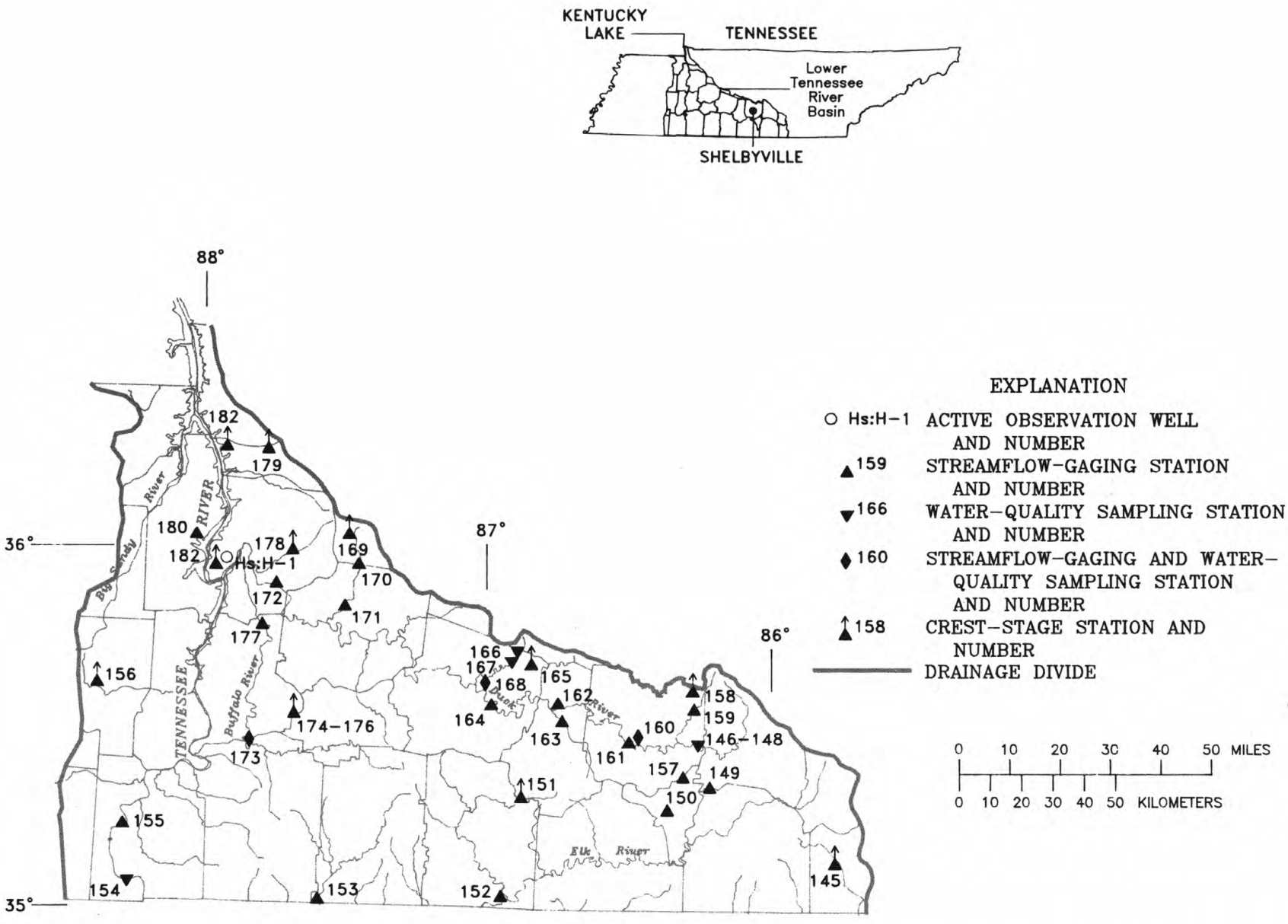


Figure 6.--Location of gaging sites in the lower Tennessee River Basin.

TENNESSEE RIVER BASIN

03578455 BRADLEY CREEK TRIBUTARY AT AEDC NEAR MANCHESTER, TN

LOCATION.--Lat 35°23'27", long 86°02'16", Coffee County, Hydrologic Unit 06030003, on right bank 0.4 mi northeast of fire station, 0.8 mi northwest of entrance gate to Arnold Engineering Development Center, 7.1 mi southwest of Manchester.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1993 to September 1994.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1064.36 ft above sea level.

REMARKS.--Records good, except those above 50 ft^3/s and estimated discharges which are fair. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--April 1993 to September 1994: Maximum discharge, 226 ft^3/s, at 2115 hours April 10, 1994 gage height 9.31 ft; minimum daily discharge, 0.65 ft^3/s, Sept. 4, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e3.4	2.7	2.6	3.4	4.3	4.6
2	---	---	---	---	---	---	e3.4	2.7	2.6	3.3	4.7	5.0
3	---	---	---	---	---	---	e3.3	8.6	2.6	3.0	4.5	4.8
4	---	---	---	---	---	---	e3.2	20	2.7	3.1	4.7	4.2
5	---	---	---	---	---	---	e3.8	3.5	2.6	3.2	4.5	3.9
6	---	---	---	---	---	---	e3.5	3.1	2.3	3.2	8.9	3.8
7	---	---	---	---	---	---	e3.4	2.8	2.5	3.3	1.7	4.2
8	---	---	---	---	---	---	e4.5	2.8	2.7	3.5	2.9	4.3
9	---	---	---	---	---	---	e3.5	3.1	2.7	3.5	4.1	4.3
10	---	---	---	---	---	---	e3.3	3.1	2.8	7.1	4.4	4.1
11	---	---	---	---	---	---	e3.2	3.0	2.7	4.0	4.5	3.6
12	---	---	---	---	---	---	e3.1	3.2	2.8	5.5	4.5	3.5
13	---	---	---	---	---	---	3.2	3.2	2.7	4.5	5.0	3.9
14	---	---	---	---	---	---	3.2	2.9	2.7	4.6	4.6	4.1
15	---	---	---	---	---	---	3.2	2.7	3.1	4.7	4.6	5.1
16	---	---	---	---	---	---	3.0	2.9	2.6	4.6	4.7	3.7
17	---	---	---	---	---	---	3.0	3.0	2.8	4.5	4.9	3.8
18	---	---	---	---	---	---	2.9	8.3	3.1	4.7	5.3	3.4
19	---	---	---	---	---	---	3.2	3.9	2.9	4.9	4.9	3.3
20	---	---	---	---	---	---	4.3	2.6	2.9	4.7	5.7	3.7
21	---	---	---	---	---	---	2.8	2.5	3.5	4.6	4.7	3.8
22	---	---	---	---	---	---	2.8	2.4	3.1	4.8	4.6	3.4
23	---	---	---	---	---	---	2.8	2.4	3.2	4.8	4.7	3.6
24	---	---	---	---	---	---	2.7	2.9	3.3	4.8	4.9	3.6
25	---	---	---	---	---	---	8.2	2.9	3.7	4.6	5.0	3.9
26	---	---	---	---	---	---	4.0	2.7	3.1	4.8	4.9	4.0
27	---	---	---	---	---	---	2.8	2.5	3.1	4.9	4.7	3.2
28	---	---	---	---	---	---	2.7	2.3	3.1	4.9	2.4	3.0
29	---	---	---	---	---	---	2.8	1.2	3.1	4.8	4.0	3.1
30	---	---	---	---	---	---	2.8	1.9	3.3	4.5	4.6	3.0
31	---	---	---	---	---	---	---	7.1	---	4.3	4.7	---
TOTAL	---	---	---	---	---	---	102.0	118.9	86.9	135.1	142.6	115.9
MEAN	---	---	---	---	---	---	3.40	3.84	2.90	4.36	4.60	3.86
MAX	---	---	---	---	---	---	8.2	20	3.7	7.1	8.9	5.1
MIN	---	---	---	---	---	---	2.7	1.2	2.3	3.0	1.7	3.0

e Estimated

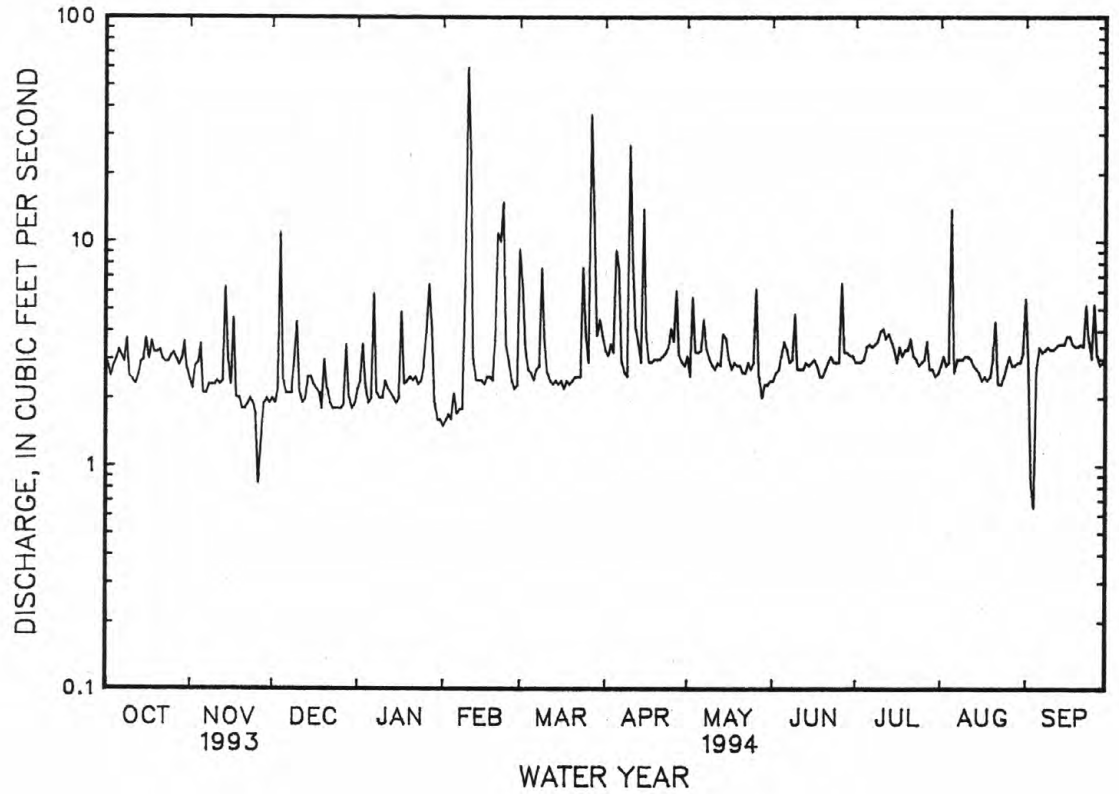
TENNESSEE RIVER BASIN

03578455 BRADLEY CREEK TRIBUTARY AT AEDC NEAR MANCHESTER, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.4	2.0	2.2	1.5	9.3	3.3	3.1	2.4	2.9	2.8	5.6
2	2.8	2.2	1.9	2.4	1.6	6.5	3.1	2.5	2.6	2.9	3.1	2.9
3	2.5	2.8	2.2	3.5	1.7	3.3	3.5	5.7	2.7	2.9	2.8	.84
4	2.8	2.9	11	2.2	1.6	2.7	3.2	3.2	3.1	3.0	2.9	.65
5	3.0	3.5	2.4	1.9	2.1	2.6	9.2	3.2	3.6	3.4	14	2.8
6	3.3	2.1	2.1	2.0	1.7	2.4	7.4	3.3	3.3	3.5	2.6	3.4
7	3.1	2.1	2.1	5.9	1.8	2.7	2.9	4.5	2.9	3.4	3.0	3.2
8	2.9	2.3	2.1	2.1	1.8	2.8	2.6	3.3	3.0	3.5	3.0	3.3
9	3.7	2.3	3.0	2.0	5.8	7.6	2.5	3.0	4.8	3.6	3.0	3.4
10	2.5	2.3	4.4	2.0	e60	3.6	27	2.8	2.7	4.0	3.1	3.3
11	2.4	2.4	2.1	2.4	25	2.6	8.2	2.7	2.7	4.1	3.1	3.3
12	2.3	2.3	1.9	2.2	3.0	2.4	4.1	2.9	2.7	3.7	3.0	3.4
13	2.5	2.4	2.0	2.1	2.4	2.3	3.5	2.8	2.9	3.9	2.8	3.5
14	2.9	6.3	2.5	2.0	2.4	2.4	2.9	3.9	2.8	3.6	2.7	3.5
15	3.0	3.1	2.5	1.9	2.4	2.3	14	3.7	2.9	3.3	2.6	3.5
16	3.7	2.3	2.3	2.0	2.3	2.4	3.9	3.0	3.0	2.9	2.4	3.8
17	3.0	4.6	2.2	4.9	2.5	2.2	2.9	2.7	2.8	3.4	2.5	3.8
18	3.6	2.0	2.1	2.3	2.5	2.4	2.9	2.9	2.5	3.1	2.4	3.5
19	3.2	2.0	1.8	2.4	2.4	2.3	3.0	2.8	2.5	3.3	2.5	3.4
20	3.2	1.8	3.0	2.5	3.6	2.4	3.0	2.8	2.7	3.3	3.0	3.4
21	3.3	1.8	2.2	2.4	11	2.5	3.0	2.6	2.9	3.7	4.4	3.5
22	3.0	1.9	1.9	2.5	10	2.5	3.1	2.6	3.1	3.1	2.3	3.4
23	2.9	2.0	1.8	2.3	15	2.5	3.2	2.9	2.9	3.0	2.3	5.2
24	2.9	1.9	1.8	2.4	3.4	7.7	3.4	2.7	2.9	2.8	2.5	3.6
25	3.1	1.7	1.8	2.8	2.9	3.9	4.1	2.9	2.9	2.9	2.8	3.0
26	3.2	.83	1.8	4.0	2.4	2.9	3.6	6.2	6.6	3.0	3.1	5.3
27	3.0	1.3	1.9	6.5	2.2	37	6.1	2.5	3.2	3.6	2.8	3.1
28	2.8	1.9	3.5	4.2	2.3	13	3.1	2.0	3.2	2.7	2.8	2.8
29	3.0	2.0	2.0	1.9	---	3.8	2.9	2.3	3.1	2.7	2.9	2.9
30	3.6	1.9	1.8	1.6	---	4.5	2.8	2.3	3.1	2.5	2.9	2.8
31	2.7	---	1.9	1.6	---	3.8	---	2.4	---	2.6	3.2	---
TOTAL	92.9	71.33	78.0	83.1	177.3	151.3	148.4	96.2	92.5	100.3	99.3	100.09
MEAN	3.00	2.38	2.52	2.68	6.33	4.88	4.95	3.10	3.08	3.24	3.20	3.34
MAX	3.7	6.3	11	6.5	60	37	27	6.2	6.6	4.1	14	5.6
MIN	2.3	.83	1.8	1.6	1.5	2.2	2.5	2.0	2.4	2.5	2.3	.65

e Estimated



03578455 BRADLEY CREEK TRIBUTARY AT AEDC NEAR MANCHESTER, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1993 to current year.
pH: April 1993 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1993.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.8°C, June 17, 1993; minimum, 0.8°C, Jan. 17, 1994.
pH: Maximum, 9.9 units, April 14, 1994; minimum, 5.2 units, Sept. 15, 1993.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 30.1°C, June 30; minimum, 0.8°C, Jan 17.
pH: Maximum, 9.9 units, April 14; minimum, 5.9 units, Oct. 6.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.6	19.1	21.7	18.2	13.1	14.6	16.9	11.8	13.9	12.9	9.2	11.5
2	25.4	20.9	22.4	17.0	12.5	14.5	15.9	13.1	14.6	15.8	12.3	13.4
3	24.6	19.5	21.2	16.8	14.6	15.5	17.0	14.4	16.0	14.1	6.5	10.9
4	24.2	17.9	20.6	17.9	16.0	16.9	15.6	12.3	13.9	8.9	7.2	8.1
5	25.2	19.7	22.0	19.4	15.3	17.4	14.8	12.5	13.8	12.2	7.8	9.7
6	25.4	21.1	22.8	15.5	12.3	13.6	16.2	12.1	13.7	12.1	9.3	10.9
7	26.4	21.5	23.4	16.4	12.1	13.3	16.0	11.1	13.0	12.7	6.8	9.4
8	24.8	21.1	22.5	18.0	11.3	14.0	16.2	11.9	13.6	9.3	5.8	6.8
9	23.6	20.7	21.8	16.9	13.8	15.3	17.4	10.7	13.7	11.1	5.8	7.8
10	21.1	18.3	19.5	18.6	13.2	15.1	15.6	11.9	13.9	12.2	7.7	9.3
11	19.5	17.0	18.5	18.0	13.3	15.2	13.6	10.0	11.7	11.2	8.4	9.4
12	21.9	16.2	18.4	16.6	14.9	15.8	13.5	8.8	10.7	10.2	9.4	9.8
13	23.4	16.8	19.0	18.3	15.8	17.0	14.3	10.2	12.4	10.9	9.5	10.2
14	22.0	17.9	19.3	19.7	17.2	18.4	13.1	10.2	11.9	10.7	7.9	9.0
15	21.7	18.2	20.1	18.8	17.2	18.0	12.9	11.4	12.4	9.5	6.3	7.5
16	22.2	17.7	20.5	19.4	17.3	18.5	13.1	12.0	12.4	10.0	5.3	7.4
17	22.2	20.4	21.2	20.0	16.5	18.5	13.1	11.8	12.4	9.0	.8	5.1
18	23.6	20.8	22.0	19.1	15.8	16.9	12.9	9.9	11.7	7.8	3.4	5.0
19	24.8	21.1	22.9	16.8	15.6	16.0	12.7	8.7	10.1	9.9	4.8	6.6
20	24.7	22.6	23.5	17.0	12.5	14.1	12.5	8.9	10.4	11.4	6.2	8.5
21	23.5	18.0	20.8	17.7	11.5	13.7	13.2	9.1	10.6	12.2	6.7	8.6
22	20.2	16.3	17.6	18.6	12.4	14.5	12.9	9.5	11.2	12.8	6.5	8.0
23	19.9	15.5	17.8	18.6	12.8	15.1	12.3	9.5	10.9	10.1	7.5	8.8
24	20.7	16.6	18.3	18.6	13.5	15.7	12.4	8.1	10.0	11.6	8.5	9.7
25	21.1	17.5	19.2	17.4	13.2	14.8	10.8	7.9	9.7	10.4	8.6	9.5
26	22.0	17.4	19.4	13.6	11.1	13.0	12.9	7.6	9.7	11.6	9.0	9.9
27	21.0	16.6	18.6	12.9	7.3	9.3	14.5	10.6	12.0	11.8	8.4	10.5
28	20.1	15.8	17.3	14.9	9.0	11.3	13.1	9.1	11.6	11.8	8.4	9.9
29	19.3	16.4	17.9	16.5	10.6	12.9	11.4	8.8	10.2	9.5	7.7	8.7
30	16.8	14.2	15.0	16.1	11.2	12.8	11.5	7.6	8.7	11.9	7.7	8.9
31	17.1	14.7	15.9	---	---	---	13.2	7.6	9.5	10.5	7.0	8.7
MONTH	26.4	14.2	20.0	20.0	7.3	15.1	17.4	7.6	11.9	15.8	.8	9.0

TENNESSEE RIVER BASIN

03578455 BRADLEY CREEK TRIBUTARY AT AEDC NEAR MANCHESTER, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.3	7.0	8.6	13.4	8.0	10.7	16.9	9.6	12.6	20.6	15.9	17.6
2	13.1	7.2	9.1	9.8	7.8	8.7	17.8	11.6	14.3	21.8	15.3	17.6
3	14.4	8.2	10.0	12.9	7.5	9.5	14.2	12.6	13.6	17.6	14.5	16.2
4	11.3	8.7	10.2	15.7	8.4	11.1	17.4	11.1	13.4	18.2	15.5	16.9
5	13.3	9.9	11.3	16.6	10.5	12.4	13.8	12.1	12.8	21.2	15.9	18.2
6	14.7	9.8	11.6	17.6	9.5	12.3	13.8	11.6	12.8	20.8	16.9	18.5
7	15.6	9.0	12.0	17.9	11.5	13.9	17.4	10.8	13.0	21.6	17.7	19.4
8	15.0	12.7	14.0	13.7	11.8	12.8	19.2	11.2	14.2	20.9	16.0	17.7
9	15.4	7.7	11.8	12.9	7.1	10.7	20.4	13.9	16.4	23.2	16.6	19.2
10	---	---	---	12.8	7.6	9.7	18.7	15.2	17.0	21.7	18.1	19.6
11	8.1	4.1	6.7	15.0	8.1	10.8	21.7	15.0	17.6	23.8	17.0	19.6
12	11.1	8.1	9.6	16.4	8.7	11.3	19.0	16.6	17.6	23.4	18.3	20.2
13	10.5	8.8	9.9	15.6	10.1	12.1	21.1	15.8	17.6	21.7	17.6	19.3
14	13.5	8.2	10.0	17.7	11.1	13.3	23.7	15.3	18.5	23.8	18.9	20.6
15	12.4	9.0	10.3	18.4	11.2	13.4	19.3	16.4	17.9	22.1	19.5	20.6
16	15.1	8.6	11.1	16.7	10.4	12.3	20.2	14.5	16.9	25.5	19.4	21.3
17	14.9	9.2	11.1	16.7	9.6	12.3	21.9	14.6	17.3	24.5	18.0	20.2
18	16.5	9.8	12.5	17.8	11.8	13.7	23.3	15.1	18.4	23.3	17.6	19.8
19	16.5	11.2	13.5	19.0	11.6	14.5	22.9	16.8	19.4	23.7	17.5	19.6
20	15.7	13.1	14.3	18.2	13.3	15.2	23.5	17.6	19.6	23.5	17.1	19.5
21	15.5	11.8	13.4	17.1	13.5	15.9	23.5	16.7	19.3	24.0	17.4	19.8
22	13.6	12.3	12.9	18.8	11.6	14.3	22.7	17.1	18.8	24.8	17.6	20.2
23	15.2	12.3	13.2	19.6	12.2	14.9	22.4	15.9	18.5	24.8	18.1	21.1
24	14.0	10.5	11.8	16.5	13.5	15.1	22.5	16.9	19.5	25.2	19.5	22.0
25	16.0	10.3	12.2	16.9	12.0	13.6	23.0	18.5	20.5	24.8	20.3	22.2
26	14.0	8.7	10.4	15.9	11.4	13.5	22.3	19.9	21.1	21.7	19.3	21.0
27	15.2	8.5	10.8	15.7	12.2	13.8	23.4	18.1	20.3	24.6	18.5	20.7
28	15.4	10.1	12.3	12.7	10.8	11.8	24.9	17.5	20.6	25.2	17.2	20.1
29	---	---	---	16.5	11.2	13.4	24.5	20.0	21.7	25.1	17.7	20.6
30	---	---	---	14.1	10.2	12.5	22.4	19.2	20.6	23.3	19.6	20.9
31	---	---	---	13.1	11.2	12.1	---	---	---	25.7	18.8	21.6
MONTH	16.5	4.1	11.3	19.6	7.1	12.6	24.9	9.6	17.4	25.7	14.5	19.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.3	19.8	22.2	28.8	23.0	25.1	27.7	23.3	25.4	27.4	23.0	25.6
2	25.1	20.4	21.9	28.6	23.3	25.1	27.7	24.7	25.8	24.8	22.8	24.0
3	25.7	20.0	21.8	28.2	23.1	25.1	27.8	24.9	25.8	24.9	20.2	22.7
4	24.9	20.0	22.0	27.3	22.9	24.5	28.0	25.1	25.9	24.1	19.2	21.7
5	25.7	21.0	22.5	27.0	23.2	24.8	25.8	21.5	24.2	25.1	22.4	23.7
6	25.9	21.4	23.3	27.6	23.6	25.2	26.0	23.8	24.7	26.7	24.1	25.2
7	25.3	23.1	23.7	24.8	22.8	23.9	27.2	23.6	25.2	26.8	22.7	24.3
8	27.1	22.7	24.5	25.6	23.4	24.7	28.3	24.4	26.0	26.0	21.1	23.6
9	25.5	20.4	23.5	26.2	23.4	24.5	28.1	25.0	26.3	26.0	23.2	24.4
10	27.1	22.7	24.1	25.8	23.4	24.7	28.7	25.2	26.7	26.0	21.7	23.4
11	25.9	22.4	23.7	25.8	23.4	24.5	28.7	24.8	26.6	26.7	22.6	24.4
12	27.3	22.6	24.3	26.3	23.1	24.5	28.4	25.3	26.8	27.5	23.3	25.1
13	27.1	22.9	24.4	25.3	24.1	24.7	28.8	25.7	26.9	27.3	24.7	25.8
14	26.9	23.1	24.3	26.9	24.7	25.4	28.0	25.9	26.9	27.4	24.3	25.9
15	27.8	22.7	24.7	27.5	24.9	25.7	28.2	25.7	26.8	27.6	24.2	25.6
16	28.1	23.1	24.9	27.3	25.1	25.8	27.3	25.3	26.0	26.5	24.4	25.7
17	27.8	22.8	24.4	29.0	24.9	26.2	28.8	24.7	26.1	27.5	24.5	25.7
18	27.4	22.1	24.3	29.0	24.7	26.4	28.2	23.9	25.8	24.8	21.7	23.6
19	27.0	21.9	24.1	28.7	25.2	26.9	28.6	24.5	26.0	24.6	20.5	22.8
20	27.6	22.7	24.8	29.5	25.8	27.2	27.3	24.5	25.7	25.0	21.5	23.1
21	27.9	23.6	25.2	29.5	25.6	26.7	26.7	22.9	24.4	26.1	21.1	23.4
22	28.2	23.4	25.2	28.0	25.4	26.3	27.5	22.6	24.7	25.7	23.1	24.2
23	28.0	23.5	25.2	29.2	24.7	26.2	27.5	22.9	25.1	24.3	20.8	22.8
24	26.9	23.9	25.2	28.8	24.5	26.1	27.7	24.1	25.6	24.3	20.0	21.8
25	27.5	22.6	24.4	28.4	24.5	26.1	27.8	24.3	25.7	23.2	18.9	21.0
26	25.5	21.0	23.0	28.4	25.3	26.2	27.5	24.1	25.5	23.6	18.5	20.5
27	28.8	21.8	24.4	26.1	23.1	24.8	27.5	23.7	25.3	25.6	20.9	23.2
28	27.6	23.1	25.3	27.3	23.1	24.7	26.9	23.9	25.3	24.5	18.7	21.8
29	26.6	24.0	25.4	28.4	23.1	25.1	28.6	24.1	26.0	24.9	20.6	22.4
30	30.1	23.8	26.5	28.8	22.9	25.3	28.4	24.5	26.2	25.7	19.6	22.2
31	---	---	---	26.9	23.9	25.1	28.6	25.3	26.3	---	---	---
MONTH	30.1	19.8	24.1	29.5	22.8	25.4	28.8	21.5	25.8	27.6	18.5	23.7

TENNESSEE RIVER BASIN

03578455 BRADLEY CREEK TRIBUTARY AT AEDC NEAR MANCHESTER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.4	8.2	7.7	8.8	7.8	9.1	8.2	8.1	7.3	8.1	7.0
2	8.3	7.7	8.4	7.7	8.9	7.8	9.1	8.1	8.5	7.4	7.3	7.0
3	7.9	7.7	8.1	7.9	8.9	7.9	8.3	7.8	9.0	7.6	7.5	7.3
4	8.1	7.7	8.4	8.0	8.4	7.9	---	---	8.6	7.8	7.6	7.4
5	7.9	6.0	8.5	8.1	8.4	8.0	---	---	8.9	7.8	7.5	7.3
6	7.7	5.9	8.8	8.1	8.5	8.1	---	---	9.2	7.8	7.5	7.4
7	7.9	6.1	9.0	8.4	8.5	8.1	8.5	7.3	9.1	7.9	7.7	7.5
8	7.7	6.1	9.0	8.4	8.4	8.1	8.2	7.4	8.6	7.9	8.6	7.2
9	8.1	6.0	8.9	8.5	8.4	7.9	8.4	7.7	8.7	7.8	7.6	7.4
10	8.0	6.6	8.7	7.7	8.3	7.9	8.5	7.7	---	---	7.8	7.6
11	8.1	7.9	8.8	7.8	8.4	7.9	8.1	7.7	8.2	7.4	8.0	7.8
12	8.3	7.9	8.8	7.8	8.5	7.9	8.0	7.7	7.8	7.5	8.1	8.0
13	8.2	7.8	9.0	7.8	8.1	7.8	8.1	7.6	8.0	7.5	8.3	8.1
14	8.1	7.6	8.8	7.8	7.8	7.6	8.5	7.6	8.1	7.4	8.6	8.3
15	---	---	8.0	7.7	7.7	7.4	8.6	7.7	7.9	7.7	8.8	8.6
16	---	---	8.2	7.8	7.6	7.4	8.8	7.7	8.0	7.8	9.1	7.5
17	---	---	8.7	7.8	7.6	7.3	8.3	7.5	8.0	8.0	9.2	7.4
18	---	---	8.5	8.1	7.5	7.1	8.1	7.6	8.1	8.0	9.3	7.4
19	---	---	8.4	8.1	7.4	7.1	8.4	7.7	8.0	7.9	9.4	7.4
20	8.5	8.0	8.8	8.0	7.3	7.1	8.4	7.7	8.0	7.8	9.3	7.4
21	8.2	8.0	8.8	8.2	7.4	7.0	8.3	7.8	8.0	7.8	8.2	7.4
22	8.4	7.9	8.8	8.2	8.6	7.4	8.6	7.8	7.9	7.8	9.1	7.4
23	8.3	7.7	8.7	8.1	8.8	7.9	8.5	7.9	7.9	7.9	9.1	7.3
24	8.2	7.6	8.6	8.0	9.0	8.0	8.5	7.5	8.0	7.9	8.3	7.3
25	7.9	7.5	8.6	7.9	8.7	8.0	7.9	7.5	7.9	7.8	7.6	7.3
26	7.5	6.7	7.9	7.5	9.0	8.2	7.9	7.2	8.0	7.9	8.1	7.4
27	7.6	6.9	8.1	7.5	9.4	8.2	8.4	7.3	8.1	7.9	8.3	7.0
28	7.7	7.1	8.5	7.9	8.6	8.3	7.9	7.1	8.1	8.0	7.2	7.0
29	8.1	7.3	8.5	7.7	8.9	7.9	7.7	7.3	---	---	7.6	7.2
30	7.8	7.4	8.6	7.7	9.0	7.9	8.1	7.5	---	---	7.7	7.3
31	8.1	7.5	---	---	9.3	8.0	7.9	7.4	---	---	7.6	7.3
MONTH	8.5	5.9	9.0	7.5	9.4	7.0	9.1	7.1	9.2	7.3	9.4	7.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.1	7.3	8.2	7.6	8.1	7.7	8.0	7.5	7.6	6.9	7.9	7.5
2	8.5	7.6	8.2	7.8	8.1	7.7	8.1	7.5	7.7	6.9	7.8	7.6
3	8.1	7.6	8.0	7.5	8.1	7.8	7.8	7.4	7.7	7.1	7.7	7.4
4	9.3	7.6	8.6	8.0	7.9	7.6	7.9	7.4	7.6	7.1	8.1	7.5
5	8.2	7.5	8.8	8.3	8.1	7.6	7.6	7.3	7.9	7.3	8.0	7.6
6	7.6	7.3	8.7	8.3	7.9	7.5	7.7	7.3	7.6	7.2	7.9	7.6
7	7.9	7.5	8.5	8.1	7.5	7.4	7.6	7.5	7.5	7.3	7.9	7.7
8	7.9	7.5	8.1	7.9	7.9	7.5	7.7	7.4	7.6	7.3	7.9	7.7
9	8.5	7.5	8.0	7.6	8.7	7.7	7.6	7.3	7.7	7.3	7.9	7.7
10	8.5	7.4	7.6	7.2	8.3	7.8	7.4	7.3	7.7	7.4	8.0	7.7
11	7.4	7.3	7.2	7.0	8.1	7.7	7.5	7.2	7.9	7.6	8.0	7.8
12	7.9	7.3	7.9	7.2	8.0	7.6	7.4	7.2	7.9	7.6	8.0	7.8
13	8.9	7.2	8.2	7.4	8.4	7.6	7.5	7.3	8.0	7.6	8.0	7.8
14	9.9	7.4	8.5	7.6	8.2	7.7	7.5	7.2	7.9	7.6	8.0	7.8
15	8.7	7.5	8.0	7.6	7.9	7.3	7.4	7.2	8.2	7.4	8.1	7.8
16	8.0	7.5	8.3	7.6	7.3	6.9	7.6	7.3	7.8	7.4	7.9	7.5
17	8.2	7.9	8.3	7.8	7.9	7.0	7.7	7.3	7.6	7.3	7.6	7.3
18	8.6	8.1	8.0	7.6	8.5	7.8	7.5	7.2	7.6	7.3	7.4	7.1
19	8.8	8.3	8.1	7.7	8.6	7.9	7.5	7.1	7.6	7.3	7.4	7.1
20	9.2	8.0	7.9	7.5	8.5	7.8	7.2	6.9	7.5	7.3	7.5	7.2
21	9.4	8.0	7.8	7.4	8.6	7.6	7.4	7.1	7.5	7.4	7.4	7.1
22	9.0	8.1	7.7	7.1	8.6	7.6	7.8	7.1	7.4	7.3	7.4	7.1
23	8.9	8.1	7.2	6.9	8.4	7.7	7.7	7.0	7.6	7.3	7.4	7.2
24	8.7	8.2	7.0	6.7	8.0	7.6	7.8	6.9	7.6	7.4	7.7	7.2
25	8.6	8.2	7.5	6.7	8.0	7.6	7.5	7.0	7.8	7.4	7.7	7.4
26	8.7	8.4	8.2	7.4	8.2	7.7	7.2	6.7	7.7	7.5	7.7	7.3
27	8.8	8.5	7.7	7.5	8.0	7.8	7.2	6.9	7.7	7.5	7.7	7.3
28	9.1	7.9	7.6	7.4	7.9	7.6	7.4	7.0	7.8	7.5	7.5	7.2
29	8.0	7.6	8.0	7.4	8.1	7.8	7.8	7.0	7.8	7.5	7.5	7.3
30	7.7	7.5	8.2	7.7	7.9	7.6	8.0	7.0	7.6	7.5	7.7	7.4
31	---	---	8.1	7.7	---	---	7.7	7.2	7.7	7.5	---	---
MONTH	9.9	7.2	8.8	6.7	8.7	6.9	8.1	6.7	8.2	6.9	8.1	7.1

TENNESSEE RIVER BASIN

03578600 BRUMALOW CREEK AT AEDC NEAR MANCHESTER, TN

LOCATION.--Lat 35°22'20", long 86°02'33", Coffee County, Hydrologic Unit 06030003, on right bank 200 ft upstream from culvert under Avenue C, at Arnold Engineering Development Center, 7.1 mi southwest of Manchester.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1993 to September 1994.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1080.10 ft above sea level.

REMARKS.--Record good except for those above 5 ft^3/s and estimated daily discharges which are poor. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--April 1993 to September 1994: Maximum discharge, 130 ft^3/s, at 2110 hours April 10, 1994, gage height, 3.75 ft; minimum daily discharge, 0.30 ft^3/s, Sept. 4, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e2.1	2.1	1.0	1.3	1.7	1.1
2	---	---	---	---	---	---	e2.1	1.7	1.2	1.4	1.8	1.8
3	---	---	---	---	---	---	e2.0	4.9	1.1	2.8	1.8	2.3
4	---	---	---	---	---	---	e2.2	5.7	.91	3.3	1.9	1.3
5	---	---	---	---	---	---	e2.7	1.9	2.3	2.4	2.6	1.0
6	---	---	---	---	---	---	e2.2	2.2	1.3	1.2	3.3	.96
7	---	---	---	---	---	---	e2.2	1.9	1.5	1.5	.48	1.2
8	---	---	---	---	---	---	e3.2	1.7	1.6	2.6	.94	1.3
9	---	---	---	---	---	---	e2.3	1.9	1.5	3.7	1.1	1.0
10	---	---	---	---	---	---	e2.1	1.8	1.6	4.7	1.5	1.2
11	---	---	---	---	---	---	e1.9	1.9	1.5	3.8	1.8	.93
12	---	---	---	---	---	---	e1.9	1.8	1.5	3.2	1.9	.92
13	---	---	---	---	---	---	e1.9	2.2	1.1	1.8	1.9	1.2
14	---	---	---	---	---	---	e1.9	1.9	1.4	1.8	1.7	1.7
15	---	---	---	---	---	---	e2.0	3.6	1.5	1.6	1.3	2.2
16	---	---	---	---	---	---	2.1	1.9	1.6	1.1	1.3	2.0
17	---	---	---	---	---	---	1.9	1.7	1.8	1.1	1.2	2.9
18	---	---	---	---	---	---	1.4	5.0	1.7	1.3	1.8	2.8
19	---	---	---	---	---	---	1.7	2.1	1.4	1.2	1.3	2.8
20	---	---	---	---	---	---	2.8	1.6	1.1	1.4	1.8	3.9
21	---	---	---	---	---	---	2.2	1.8	1.8	1.6	1.2	4.4
22	---	---	---	---	---	---	2.1	1.5	1.8	1.8	4.7	2.8
23	---	---	---	---	---	---	2.2	.98	1.9	1.6	2.7	3.0
24	---	---	---	---	---	---	2.6	1.2	2.0	1.6	1.1	2.0
25	---	---	---	---	---	---	4.4	2.0	2.0	1.0	2.5	2.1
26	---	---	---	---	---	---	2.3	2.0	1.7	1.5	1.3	1.1
27	---	---	---	---	---	---	2.6	5.0	1.3	1.7	1.0	1.4
28	---	---	---	---	---	---	1.9	6.5	2.9	1.6	2.9	1.7
29	---	---	---	---	---	---	2.2	1.8	1.5	1.4	.89	1.6
30	---	---	---	---	---	---	2.1	.80	1.2	1.1	.86	1.2
31	---	---	---	---	---	---	---	2.6	---	1.5	.95	---
TOTAL	---	---	---	---	---	---	67.2	75.68	46.71	59.6	53.22	55.81
MEAN	---	---	---	---	---	---	2.24	2.44	1.56	1.92	1.72	1.86
MAX	---	---	---	---	---	---	4.4	6.5	2.9	4.7	4.7	4.4
MIN	---	---	---	---	---	---	1.4	.80	.91	1.0	.48	.92

e Estimated

TENNESSEE RIVER BASIN

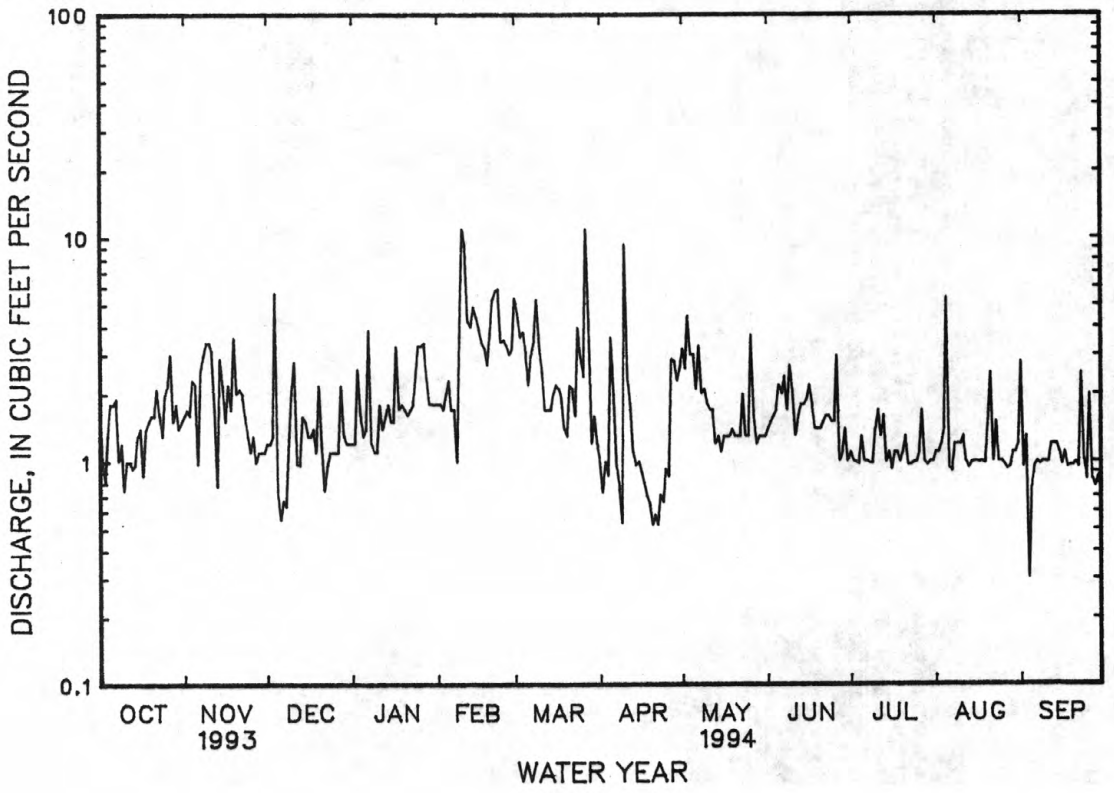
03578600 BRUMALOW CREEK AT AEDC NEAR MANCHESTER, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	1.2	1.2	1.8	5.4	.96	3.2	1.4	1.1	1.1	2.8
2	1.0	1.7	1.2	1.2	1.8	4.5	.73	2.6	1.5	1.0	1.1	.94
3	.81	1.6	1.3	2.6	1.7	3.6	1.0	4.5	1.6	.99	1.2	1.3
4	1.3	2.3	5.7	1.6	2.0	3.8	.87	3.0	1.7	.97	1.4	.30
5	1.8	2.2	.73	1.3	2.3	3.1	3.6	3.0	2.2	1.3	5.4	.77
6	1.8	.97	.55	1.4	1.7	2.2	2.0	2.1	2.0	1.0	.93	.96
7	1.9	2.6	.67	3.9	1.7	3.0	.96	3.3	2.4	1.0	.90	1.0
8	1.0	3.0	.63	1.2	.99	3.5	.78	2.0	1.7	.98	1.2	.97
9	1.2	3.4	1.2	1.1	3.6	5.3	.53	2.1	2.7	.98	1.2	1.0
10	.74	3.4	2.0	1.1	11	3.3	9.4	1.8	2.1	1.4	1.2	1.0
11	1.0	3.1	2.8	1.8	9.2	2.5	2.4	1.7	1.3	1.7	1.3	.99
12	1.0	1.7	.97	1.4	4.2	1.7	1.8	1.7	1.6	1.3	1.0	1.2
13	.93	.77	.96	1.6	4.0	1.7	1.1	1.2	1.8	1.6	.93	1.2
14	.97	2.9	1.6	1.8	4.9	1.7	.96	1.3	1.8	.99	.99	1.2
15	1.3	2.2	1.5	1.5	4.4	2.0	e1.0	1.1	1.9	1.1	1.0	1.1
16	1.4	1.5	1.3	1.5	3.9	2.2	e.90	1.3	2.2	.92	1.0	.97
17	.86	2.2	1.3	3.3	3.4	2.1	e.80	1.3	1.8	1.1	.99	1.1
18	1.4	1.7	1.4	1.7	3.2	1.9	e.70	1.3	1.4	1.1	1.0	.94
19	1.5	3.6	1.1	1.8	2.7	1.4	.65	1.4	1.4	1.0	.98	.96
20	1.6	2.0	2.2	1.7	3.6	1.3	.52	1.3	1.4	1.1	1.5	.96
21	1.6	2.1	1.2	1.6	5.3	2.2	.58	1.3	1.5	1.3	2.5	.99
22	2.1	2.0	.74	1.7	5.8	2.1	.52	1.3	1.6	.96	1.0	.94
23	1.6	1.6	.96	1.8	5.9	1.6	.71	2.0	1.6	.97	1.5	2.5
24	1.3	1.3	1.1	2.4	3.4	4.0	.66	1.3	1.5	.99	1.0	1.0
25	2.0	1.1	1.1	3.3	3.5	2.9	.93	1.3	1.5	1.0	1.0	.83
26	2.2	1.3	1.1	3.3	3.3	2.4	.86	3.7	3.0	1.1	.96	2.0
27	3.0	.99	1.1	3.4	3.0	11	2.9	1.6	1.0	1.7	.92	.83
28	1.5	1.1	2.2	2.4	3.2	4.3	2.8	1.2	1.1	.99	.95	.77
29	1.8	1.1	1.3	1.8	---	1.2	2.3	1.3	1.4	.96	1.1	.85
30	1.4	1.1	1.2	1.8	---	1.6	2.6	1.3	1.0	1.0	1.1	.90
31	1.5	---	1.2	1.8	---	1.2	---	1.3	---	1.0	1.2	---
TOTAL	45.11	58.13	43.51	60.0	105.49	90.7	46.52	58.8	51.1	34.60	39.55	33.27
MEAN	1.46	1.94	1.40	1.94	3.77	2.93	1.55	1.90	1.70	1.12	1.28	1.11
MAX	3.0	3.6	5.7	3.9	11	11	9.4	4.5	3.0	1.7	5.4	2.8
MIN	.74	.77	.55	1.1	.99	1.2	.52	1.1	1.0	.92	.90	.30

WTR YR 1994 TOTAL 666.78 MEAN 1.83 MAX 11 MIN .30

e Estimated



TENNESSEE RIVER BASIN

03578600 BRUMALOW CREEK AT AEDC, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1993 to current year.
pH: April 1993 to cuurent year.

INSTRUMENTATION.--Water-quality monitor since April 1993.

REMARKS.--Interruptions in the record were due to instrument malfunctions. A pH value greater than 10 was observed on April 9, by field personnel.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.6°C, Aug. 10, 1994; minimum, 3.3°C, Jan. 17, 1994.
pH: Maximum, 11.1 units, Aug. 20, 1994; minimum, 3.1 units, April 9, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.6°C, Aug. 10; minimum, 3.3°C, Jan. 17.
pH: Maximum, 11.1 units, Aug. 20; minimum, 3.1 units, April 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	23.2	24.2	22.3	19.2	15.7	17.6	16.1	13.1	15.0	16.8	15.6	16.2
2	21.5	24.0	22.8	19.6	16.1	17.5	19.4	15.1	16.8	17.3	16.1	16.4
3	19.6	18.6	19.2	18.6	16.9	17.6	19.4	14.8	18.1	16.7	10.8	14.3
4	22.4	17.8	19.6	20.4	17.3	19.4	16.0	12.5	14.3	18.4	13.7	16.4
5	23.7	19.2	21.7	20.1	14.4	18.6	15.6	13.0	15.1	19.6	15.3	18.0
6	24.3	21.8	23.0	14.4	12.3	13.3	16.6	14.8	15.6	18.4	15.9	17.2
7	24.9	21.2	23.0	16.6	12.4	14.9	16.4	14.4	15.4	18.9	9.5	14.3
8	24.1	19.4	20.7	20.2	14.6	17.4	19.3	14.4	16.3	16.0	14.4	15.1
9	21.8	19.2	20.5	21.2	15.5	18.2	18.5	12.5	16.0	16.4	14.8	15.7
10	20.6	17.0	18.6	20.6	16.9	18.7	20.3	12.5	16.8	16.6	14.2	15.8
11	17.2	14.6	16.2	21.0	18.8	19.5	16.8	10.6	12.7	14.6	11.7	13.4
12	17.5	14.2	16.1	19.2	14.1	17.2	14.3	11.4	13.0	16.6	13.4	13.9
13	17.5	15.8	16.7	18.2	17.3	17.6	17.8	12.0	15.3	21.3	11.3	15.0
14	19.4	17.3	18.3	19.8	17.5	18.7	17.4	10.2	13.7	22.4	14.5	18.1
15	21.2	17.8	19.4	20.6	17.5	19.2	18.2	13.7	15.6	21.4	18.2	20.1
16	20.0	17.6	19.3	22.9	18.0	20.5	17.4	14.7	15.6	23.3	18.0	20.4
17	20.8	19.4	20.1	23.3	17.5	19.8	15.9	12.9	14.7	22.4	3.3	13.6
18	21.8	19.8	20.6	19.4	16.3	18.1	17.1	10.2	13.2	21.2	16.9	18.7
19	24.5	20.2	22.2	19.0	14.3	15.9	12.3	10.9	11.5	21.2	17.3	18.8
20	24.9	21.4	23.2	18.9	13.0	17.1	17.5	9.1	12.7	20.6	18.2	19.2
21	23.5	16.7	20.3	18.7	14.8	16.2	18.3	11.1	14.0	21.1	17.2	19.3
22	23.1	14.9	17.6	19.9	12.5	16.6	16.5	12.6	15.3	19.5	13.8	17.2
23	24.7	15.5	19.3	17.2	12.5	15.7	17.5	14.7	16.3	18.9	11.3	14.9
24	21.2	16.5	17.7	19.7	15.0	17.3	16.6	14.9	15.9	15.2	12.0	13.9
25	26.7	18.4	20.6	20.1	15.6	17.2	17.0	14.4	15.7	15.7	12.6	14.2
26	21.0	16.9	19.1	15.6	13.4	14.7	16.8	15.0	15.9	15.5	12.9	14.3
27	19.4	17.8	18.5	14.4	9.9	12.6	17.7	16.6	17.2	19.4	9.4	15.4
28	19.1	17.4	18.0	13.6	12.7	13.0	18.0	12.0	15.5	18.0	10.2	15.2
29	20.3	15.2	18.7	17.1	12.7	14.7	16.7	15.1	15.8	17.4	14.6	16.1
30	16.2	14.4	15.0	15.9	12.6	14.2	16.6	14.9	15.8	18.7	12.8	15.3
31	20.1	16.2	18.0	---	---	---	16.6	15.6	16.0	19.5	15.0	16.9
MONTH	26.7	14.2	19.6	23.3	9.9	17.0	20.3	9.1	15.2	23.3	3.3	16.2

TENNESSEE RIVER BASIN

03578600 BRUMALOW CREEK AT AEDC, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	21.1	16.9	18.9	21.4	10.0	15.8	17.5	11.6	14.6	23.1	14.9	18.2
2	20.2	17.6	18.9	18.2	11.2	14.5	18.8	11.6	16.6	20.4	16.1	18.1
3	21.6	16.5	19.2	17.6	12.9	15.1	18.1	11.3	16.2	20.0	14.6	17.1
4	20.2	15.9	17.5	20.0	13.3	16.7	18.5	12.5	15.0	20.7	17.4	18.3
5	19.4	16.9	18.1	20.0	14.3	15.8	18.7	12.8	16.6	20.9	17.2	19.5
6	18.2	14.3	17.1	16.7	13.5	14.7	17.5	13.8	15.7	20.9	16.8	18.5
7	20.4	14.3	17.8	17.6	14.5	16.3	18.8	14.7	16.6	22.3	18.3	20.4
8	19.2	16.9	17.8	17.3	14.3	16.5	20.0	13.7	16.6	19.7	17.0	18.5
9	18.6	12.4	15.1	17.3	9.0	14.3	19.2	12.7	16.2	20.7	18.3	19.2
10	15.9	3.9	10.7	17.7	11.2	14.4	13.9	10.1	12.6	19.9	18.3	19.3
11	14.5	5.3	11.5	18.7	10.3	14.7	22.1	10.1	15.6	19.9	17.9	18.8
12	17.8	13.1	14.9	14.4	12.1	13.0	20.6	18.7	19.4	21.4	18.8	19.9
13	18.6	14.5	16.4	14.2	12.5	13.2	19.6	17.6	18.7	20.6	18.6	19.2
14	17.3	13.1	15.7	16.7	12.9	14.2	21.6	18.4	20.3	21.0	18.8	19.8
15	19.6	14.1	16.9	16.1	12.4	13.8	---	---	---	20.6	19.0	19.8
16	20.6	14.5	17.7	16.3	12.9	14.6	---	---	---	22.4	19.8	21.2
17	16.5	12.4	14.2	16.7	13.3	14.8	---	---	---	21.6	19.8	20.4
18	22.7	18.3	19.7	18.1	13.9	16.1	---	---	---	20.2	19.2	19.6
19	22.2	16.9	18.8	20.3	16.4	18.3	---	---	---	19.4	18.6	18.9
20	23.3	17.5	20.5	19.7	16.8	17.5	20.7	18.9	19.9	20.0	17.8	19.1
21	21.8	13.7	17.5	21.3	17.6	19.5	22.0	19.0	20.4	20.8	18.8	19.7
22	22.0	14.3	18.9	19.1	13.6	15.6	21.0	18.4	19.6	21.0	19.4	20.1
23	19.6	14.5	16.8	19.4	14.1	17.3	21.4	17.8	19.7	23.3	19.6	21.1
24	19.6	13.9	15.8	20.6	15.7	18.0	23.7	18.8	21.2	22.9	21.2	21.8
25	20.0	12.9	17.1	19.0	12.6	16.9	23.0	21.3	22.1	22.6	21.4	22.2
26	20.8	12.9	18.7	16.9	11.8	15.2	23.6	20.9	22.0	22.0	19.8	21.1
27	20.0	16.5	18.3	16.4	12.7	14.5	24.0	19.9	21.7	21.2	20.0	20.7
28	20.2	16.1	18.1	15.4	10.9	13.8	26.1	19.9	23.1	21.2	19.4	20.3
29	---	---	---	19.9	14.6	17.1	25.1	21.8	23.2	21.4	19.6	20.5
30	---	---	---	17.9	12.2	15.7	23.9	21.0	22.4	21.6	20.6	21.0
31	---	---	---	16.5	13.0	15.0	---	---	---	21.4	19.6	20.4
MONTH	23.3	3.9	17.1	21.4	9.0	15.6	26.1	10.1	18.6	23.3	14.6	19.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.6	18.8	19.5	26.9	24.1	25.2	27.7	22.9	25.1	27.2	23.6	25.6
2	20.0	19.0	19.4	27.1	25.1	25.7	26.3	24.3	25.4	24.4	23.8	24.2
3	21.4	18.8	20.0	26.7	24.9	26.0	26.3	24.5	25.3	23.8	22.0	22.7
4	23.5	20.6	22.0	26.3	23.3	24.0	26.2	24.4	25.2	23.9	21.0	22.0
5	23.9	22.6	23.3	26.3	23.3	24.8	26.2	21.5	23.8	24.3	23.5	23.9
6	25.7	23.5	24.3	26.5	24.7	25.9	25.2	23.0	24.2	24.9	23.7	24.3
7	25.7	24.5	25.2	25.5	23.7	24.7	26.6	23.8	25.4	24.5	22.0	23.3
8	26.1	24.3	25.1	26.7	25.1	25.7	26.4	24.4	25.4	23.5	20.6	22.1
9	25.1	21.6	24.1	26.9	24.1	25.2	28.2	24.5	26.6	23.6	22.3	23.1
10	25.1	24.1	24.6	26.1	24.1	25.4	29.6	27.1	28.0	23.0	21.3	22.2
11	24.7	23.7	24.1	26.5	24.1	25.5	28.0	25.5	26.4	25.6	22.5	24.2
12	26.1	24.3	24.9	27.7	24.3	26.1	27.6	24.9	26.2	26.8	23.8	25.2
13	26.1	23.7	24.8	26.9	24.9	26.1	27.3	25.2	26.0	27.2	25.2	26.2
14	26.3	22.7	24.6	26.5	25.3	25.8	28.3	25.6	26.5	27.1	25.3	26.2
15	27.5	22.4	25.5	25.9	24.7	25.2	27.3	25.4	26.5	26.5	24.3	25.6
16	26.5	23.7	25.5	25.7	24.9	25.1	27.3	24.9	25.7	26.4	24.3	25.3
17	26.5	23.1	24.7	26.7	24.9	25.9	26.3	24.3	25.3	27.0	24.1	25.7
18	25.5	22.9	24.5	26.1	24.5	25.1	25.1	24.3	24.8	24.5	22.2	23.4
19	25.3	23.5	24.4	27.5	25.1	26.4	25.1	23.7	24.4	---	---	---
20	27.7	24.7	26.0	28.6	25.3	26.6	26.7	23.9	25.2	---	---	---
21	26.5	24.1	25.1	26.9	25.5	26.3	26.5	22.9	23.8	---	---	---
22	28.4	24.3	26.8	26.5	25.1	25.8	24.1	22.6	23.4	---	---	---
23	26.7	25.5	26.1	27.1	25.1	26.0	24.7	22.2	23.9	---	---	---
24	25.7	24.3	25.1	26.1	24.9	25.5	26.4	24.4	25.2	22.0	20.0	21.0
25	25.3	23.1	24.3	26.3	24.5	25.5	25.8	24.2	25.2	20.8	19.2	20.2
26	24.5	21.2	23.2	27.3	25.3	26.1	25.6	24.2	24.9	21.2	18.4	19.5
27	26.1	22.9	24.7	26.5	23.3	25.1	26.6	24.8	25.6	21.6	20.0	21.2
28	26.9	24.1	25.5	24.3	23.3	23.9	25.6	24.8	25.3	21.7	18.8	20.6
29	26.7	23.9	25.1	26.7	23.7	24.9	28.1	24.6	26.4	22.5	19.9	21.1
30	26.9	24.5	25.8	26.3	24.1	25.2	27.2	25.6	26.2	22.6	20.3	21.5
31	---	---	---	25.3	23.5	24.5	27.0	25.4	26.2	---	---	---
MONTH	28.4	18.8	24.3	28.6	23.3	25.5	29.6	21.5	25.4	27.2	18.4	23.2

TENNESSEE RIVER BASIN

03578600 BRUMALOW CREEK AT AEDC, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.7	7.4	7.3	7.6	7.5	7.7	7.7	8.0	7.8	7.4	7.1
2	7.7	7.7	7.4	7.3	7.6	7.5	7.7	7.7	8.0	7.8	7.5	7.2
3	7.7	7.7	7.4	7.3	7.5	7.4	8.1	7.7	8.0	7.9	7.5	7.3
4	7.7	7.6	7.4	7.2	7.6	7.4	8.2	7.8	8.1	7.6	7.6	7.2
5	7.7	7.6	7.5	7.4	7.6	7.6	8.3	8.1	7.7	6.9	7.6	7.5
6	7.6	7.6	7.6	7.5	7.9	7.6	8.3	8.0	6.9	6.7	7.5	7.4
7	7.6	7.5	7.6	7.6	7.6	7.6	8.7	7.9	7.0	6.8	7.6	7.4
8	8.4	7.3	7.7	7.6	7.6	7.6	8.5	8.3	6.9	6.7	7.4	6.7
9	7.9	7.7	7.8	7.6	7.6	7.5	8.5	8.4	7.2	6.6	7.6	7.1
10	7.8	7.8	7.9	7.8	7.6	7.4	8.6	8.4	7.5	7.1	7.6	7.2
11	7.8	7.8	7.9	7.7	7.4	7.3	8.6	8.4	7.6	7.3	7.8	7.5
12	7.8	7.8	7.7	7.6	7.3	7.3	8.5	8.2	7.4	7.3	7.9	7.7
13	7.8	7.8	7.6	7.6	7.4	7.3	8.3	8.0	7.4	7.2	8.0	7.9
14	7.8	7.7	8.0	7.6	7.4	7.3	8.0	7.7	7.7	7.3	8.0	7.8
15	7.7	7.5	8.0	7.9	7.4	7.3	7.8	7.5	7.3	7.0	7.8	7.7
16	7.7	7.5	7.9	7.8	7.4	7.3	7.8	7.5	7.0	6.8	8.0	7.6
17	7.7	7.6	8.0	7.8	7.4	7.3	8.8	7.6	6.8	6.6	8.0	7.5
18	7.7	7.5	7.9	7.8	7.5	7.3	8.9	8.8	6.6	6.3	8.1	7.5
19	7.6	7.4	8.0	7.1	7.5	7.5	8.9	8.4	6.3	6.2	8.1	7.4
20	7.5	7.3	7.9	7.8	7.5	7.4	8.5	8.1	6.3	6.2	7.6	7.0
21	7.4	7.3	7.9	7.8	7.5	7.5	8.2	7.7	6.9	6.3	7.5	6.6
22	7.4	7.2	7.9	7.8	7.6	7.5	7.7	7.5	6.9	6.6	8.0	7.5
23	7.3	7.2	7.8	7.7	7.6	7.5	7.6	7.4	6.9	6.4	8.1	7.3
24	7.3	7.2	7.8	7.7	7.6	7.5	7.4	7.3	6.7	6.4	7.9	7.2
25	7.3	7.1	7.9	7.7	7.7	7.5	7.4	7.3	6.7	6.6	7.7	7.4
26	7.3	7.1	7.9	7.7	7.7	7.6	7.4	7.2	6.7	6.5	7.9	7.3
27	7.4	7.2	7.7	7.7	7.6	7.6	7.6	6.9	6.5	6.2	8.1	7.3
28	7.4	7.3	7.7	7.7	7.7	7.6	7.8	7.6	7.5	6.2	7.8	7.2
29	7.5	7.3	7.8	7.6	7.7	7.6	7.8	7.6	---	---	8.0	7.2
30	7.4	7.3	7.6	7.6	7.6	7.6	8.0	7.7	---	---	7.4	7.1
31	7.4	7.4	---	---	7.8	7.6	8.0	7.8	---	---	7.4	7.0
MONTH	8.4	7.1	8.0	7.1	7.9	7.3	8.9	6.9	8.1	6.2	8.1	6.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.0	7.8	7.7	7.2	6.7	8.3	7.6	7.7	7.4	8.4	7.4
2	7.6	7.3	8.0	7.7	7.5	6.6	7.8	7.4	7.6	7.3	7.8	7.8
3	7.6	7.3	7.9	7.6	7.4	7.3	7.4	7.0	7.6	7.3	7.8	7.6
4	9.7	7.4	7.9	7.7	7.5	7.4	7.5	7.0	7.5	7.4	7.7	7.6
5	9.1	7.7	7.9	7.8	7.5	7.2	7.7	7.5	8.3	7.2	7.9	7.7
6	8.4	7.4	7.9	7.8	7.4	7.0	7.8	7.6	7.6	7.4	7.9	7.7
7	7.7	7.4	8.0	7.8	7.2	6.8	8.0	7.8	7.6	7.5	8.0	7.8
8	7.6	7.4	7.8	7.7	7.3	6.7	8.0	7.6	7.6	7.4	8.0	7.9
9	10.0	3.1	8.0	7.8	8.1	7.0	7.9	7.7	7.7	7.5	7.9	7.8
10	9.6	7.1	8.0	7.9	7.4	7.3	8.1	7.7	7.8	7.5	7.8	7.7
11	7.9	7.2	8.0	7.9	7.3	7.3	8.0	7.4	7.8	7.7	7.8	7.6
12	7.4	7.0	8.0	7.8	7.4	7.2	7.7	7.1	7.7	7.5	7.9	7.6
13	7.4	7.2	7.8	7.4	7.8	7.3	8.3	6.6	7.6	7.4	7.9	7.8
14	7.6	7.3	8.0	7.0	7.8	7.6	8.0	7.8	7.7	7.4	7.9	7.8
15	---	---	7.8	7.2	8.1	7.7	7.8	7.2	8.0	7.6	7.9	7.8
16	---	---	7.5	7.1	8.1	7.9	7.2	6.7	7.7	7.6	8.0	7.8
17	---	---	7.6	7.4	8.1	7.9	7.8	6.5	7.7	7.5	8.3	7.9
18	---	---	7.7	7.5	8.3	8.0	7.5	7.2	7.6	7.5	8.3	8.1
19	---	---	7.8	7.7	8.4	8.2	7.2	6.6	7.6	7.5	8.2	7.9
20	---	---	7.9	7.7	8.4	8.3	7.9	6.7	11.1	3.7	7.9	7.5
21	7.9	7.6	7.8	7.7	8.4	8.3	8.0	7.4	9.1	7.4	8.0	7.6
22	8.0	7.7	7.8	7.6	8.5	8.3	7.7	7.4	7.6	7.5	8.0	7.9
23	8.0	7.8	8.4	7.5	8.4	8.2	7.6	7.4	7.8	7.5	8.0	7.8
24	8.0	7.8	7.7	7.1	8.5	8.4	7.6	7.5	7.7	7.5	8.0	7.9
25	8.0	7.8	7.3	6.9	8.7	8.4	7.7	7.5	7.5	7.1	7.9	7.9
26	7.8	7.8	9.0	6.9	9.2	8.5	7.6	7.5	7.3	7.1	7.9	7.7
27	8.5	7.7	7.8	7.3	8.8	8.7	7.6	7.4	7.5	7.3	7.9	7.8
28	7.9	7.6	7.4	7.1	8.9	8.6	7.6	7.5	7.6	7.4	7.8	7.5
29	7.8	7.6	7.2	7.0	9.1	8.4	7.7	7.5	7.8	7.6	7.7	7.5
30	7.8	7.6	7.0	6.8	9.0	8.3	7.7	7.5	7.7	7.5	7.6	7.5
31	---	---	7.2	6.7	---	---	7.6	7.4	7.6	7.3	---	---
MONTH	10.0	3.1	9.0	6.7	9.2	6.6	8.3	6.5	11.1	3.7	8.4	7.4

TENNESSEE RIVER BASIN

03578970 ROWLAND CREEK AT AEDC NEAR MANCHESTER, TN

LOCATION.--Lat 35°22'11", long 86°03'32", Coffee County, Hydrologic Unit 06030003, on right bank 100 ft above bridge on South Sixth Street, at Arnold Engineering Development Center, 7.2 mi southwest of Manchester.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1993 to September 1994.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1065.17 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--March 1993 to September 1994: Maximum discharge, 483 ft^3/s, at 1230 hours May 18, 1993, gage height, 6.54 ft; minimum daily discharge, 0.12 ft^3/s, Sept. 4, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR MARCH 1993 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	34	95	91	103	65	20	120
2	---	---	---	---	---	52	87	126	109	146	38	111
3	---	---	---	---	---	29	85	74	114	49	14	146
4	---	---	---	---	---	31	64	32	124	54	96	153
5	---	---	---	---	---	150	98	66	109	43	11	125
6	---	---	---	---	---	97	23	77	46	47	35	122
7	---	---	---	---	---	62	126	157	123	49	e50	245
8	---	---	---	---	---	61	185	109	126	170	e60	159
9	---	---	---	---	---	78	158	88	182	120	e60	98
10	---	---	---	---	---	115	97	70	141	43	e90	93
11	---	---	---	---	---	56	71	131	151	37	88	116
12	---	---	---	---	---	55	48	75	169	63	31	43
13	---	---	---	---	---	76	158	46	11	113	160	139
14	---	---	---	---	---	67	118	135	172	85	64	107
15	---	---	---	---	---	92	58	185	131	62	10	209
16	---	---	---	---	---	62	11	47	211	51	48	98
17	---	---	---	---	---	47	85	66	115	11	162	76
18	---	---	---	---	---	55	88	229	127	13	87	143
19	---	---	---	---	---	51	113	107	25	19	101	43
20	---	---	---	---	---	30	62	104	14	19	144	155
21	---	---	---	---	---	29	92	69	101	176	30	91
22	---	---	---	---	---	64	13	150	85	141	67	101
23	---	---	---	---	---	87	38	49	155	176	57	113
24	---	---	---	---	---	54	35	124	151	16	64	100
25	---	---	---	---	---	44	18	132	30	15	147	104
26	---	---	---	---	---	32	27	42	50	25	124	26
27	---	---	---	---	---	115	59	168	35	59	217	35
28	---	---	---	---	---	83	5.1	224	45	36	31	107
29	---	---	---	---	---	53	54	35	16	150	17	185
30	---	---	---	---	---	55	91	21	23	51	83	211
31	---	---	---	---	---	106	---	26	---	48	176	---
TOTAL	---	---	---	---	---	2022	2262.1	3055	2994	2152	2382	3574
MEAN	---	---	---	---	---	65.2	75.4	98.5	99.8	69.4	76.8	119
MAX	---	---	---	---	---	150	185	229	211	176	217	245
MIN	---	---	---	---	---	29	5.1	21	11	11	10	26

e Estimated

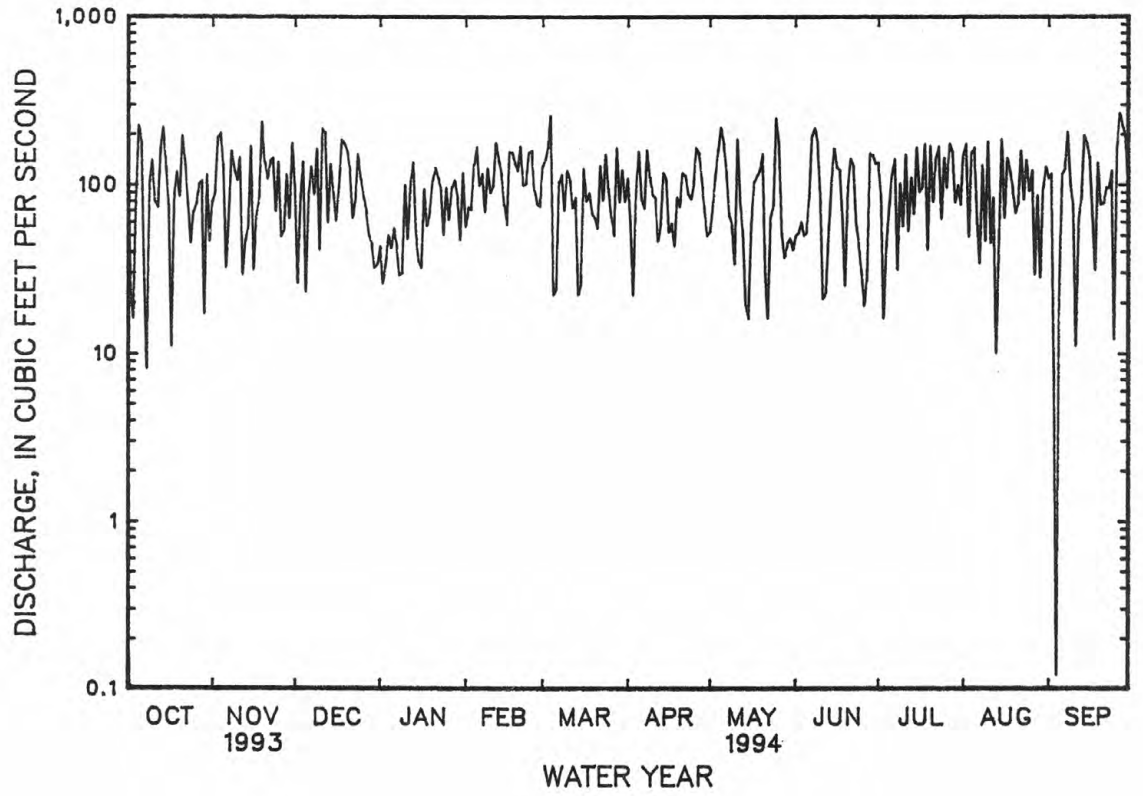
TENNESSEE RIVER BASIN

03578970 ROWLAND CREEK AT AEDC NEAR MANCHESTER, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	80	96	43	56	128	109	53	50	135	152	109
2	25	91	26	26	74	142	59	74	52	88	175	116
3	16	193	85	33	71	174	22	111	60	16	49	7.7
4	79	203	137	50	131	258	89	160	50	43	156	.12
5	226	131	23	42	168	22	158	219	52	75	166	26
6	177	32	89	55	99	24	81	174	85	117	62	117
7	31	67	128	43	116	104	72	119	198	142	34	125
8	8.1	160	88	29	69	115	163	65	218	31	132	207
9	103	121	165	30	127	70	111	57	177	103	46	101
10	140	106	41	100	90	122	87	34	88	57	182	76
11	79	145	216	47	99	106	83	189	21	152	45	11
12	73	29	203	100	178	73	46	82	23	53	84	62
13	162	47	59	136	139	84	59	51	49	111	10	82
14	220	57	134	53	116	22	119	19	101	67	48	198
15	127	171	89	35	76	26	107	16	165	168	189	176
16	75	31	61	32	58	126	52	59	126	90	63	146
17	11	66	95	95	158	80	59	105	122	98	145	67
18	87	86	187	57	154	89	43	113	62	175	120	31
19	119	237	176	70	133	67	85	123	25	41	93	136
20	85	137	157	106	121	63	74	153	96	171	68	76
21	198	108	122	126	170	55	118	31	143	79	78	78
22	141	139	63	110	99	131	113	16	129	145	161	96
23	77	145	85	93	102	81	88	66	57	169	81	96
24	45	69	153	50	156	153	82	76	44	62	140	121
25	69	138	109	97	160	95	101	251	30	146	92	12
26	77	49	83	62	93	64	167	184	19	96	122	161
27	101	54	70	97	77	50	154	52	28	176	29	266
28	105	116	50	107	74	167	110	37	155	156	87	222
29	17	63	44	84	---	79	72	45	148	78	28	195
30	115	178	32	47	---	123	50	48	134	99	96	103
31	46	---	34	119	---	80	---	41	---	76	128	---
TOTAL	2976.1	3249	3100	2174	3164	2973	2733	2823	2707	3215	3061	3219.82
MEAN	96.0	108	100	70.1	113	95.9	91.1	91.1	90.2	104	98.7	107
MAX	226	237	216	136	178	258	167	251	218	176	189	266
MIN	8.1	29	23	26	56	22	22	16	19	16	10	.12

WTR YR 1994 TOTAL 35394.92 MEAN 97.0 MAX 266 MIN .12



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: March 1993 to current year.
pH: March 1993 to current year.

INSTRUMENTATION.--Water-quality monitor since March 1993.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 32.5°C, Aug. 12, 1994; minimum, 1.9°C, Jan. 19, 1994
pH: Maximum, 8.6 units, Mar. 14, 1993; minimum, 6.4 units, May 21, 1993, Feb. 3, 18, 28, Mar. 1, 2, Aug. 1, 5, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 32.5°C, Aug. 12; minimum, 1.9°C, Jan. 19.
pH: Maximum, 8.5 units, Oct. 23; minimum, 6.4 units, Feb. 3, 18, 28, Mar. 1, 2, Aug. 1, 5.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.1	22.0	24.0	20.4	13.5	16.5	17.5	11.6	13.7	5.3	4.9	5.1
2	26.7	21.1	22.7	19.0	14.3	16.3	18.2	11.8	13.3	7.0	5.1	6.1
3	23.0	20.3	21.7	18.6	14.5	16.4	16.5	11.8	13.5	11.8	6.0	6.9
4	25.4	20.7	22.0	18.4	14.7	16.2	17.5	11.6	13.6	10.8	5.3	6.7
5	24.6	21.3	22.8	18.2	14.3	15.6	13.5	11.4	12.3	11.0	5.3	6.3
6	25.8	22.5	24.2	15.1	13.2	14.0	18.4	11.6	12.6	13.3	5.5	7.7
7	26.6	21.3	23.9	14.8	12.6	13.4	15.7	11.0	12.5	8.2	5.9	6.9
8	25.2	20.1	22.3	16.6	12.5	13.9	16.7	10.6	11.9	6.1	5.1	5.6
9	22.5	21.1	21.6	16.7	12.7	14.4	16.9	10.8	13.9	6.5	4.9	5.4
10	21.3	18.5	19.6	20.0	12.4	14.5	14.3	10.8	12.2	11.4	5.1	6.5
11	22.8	16.8	19.5	16.1	13.1	14.1	13.2	9.9	11.7	11.4	5.1	7.9
12	24.0	14.6	18.7	16.9	12.6	13.8	12.1	9.9	11.3	9.2	5.5	6.6
13	25.8	19.1	21.1	19.2	12.9	15.5	15.8	8.1	11.1	10.0	5.5	7.0
14	23.7	18.1	20.0	19.0	14.1	15.4	16.0	9.9	13.1	11.3	5.8	7.0
15	22.2	18.0	18.9	18.1	13.9	16.3	16.4	10.5	12.8	6.0	4.6	5.4
16	23.5	18.6	20.5	16.6	14.2	15.0	13.4	10.1	11.0	5.4	4.6	4.9
17	21.7	20.1	20.7	18.9	14.6	16.1	15.0	9.9	12.6	7.9	3.2	4.8
18	22.3	19.5	20.9	18.7	13.8	15.8	15.0	10.5	12.3	5.4	2.3	3.7
19	23.4	19.9	21.6	19.1	13.2	15.9	13.4	9.1	11.5	2.8	1.9	2.4
20	22.1	19.6	20.4	13.2	10.9	12.4	13.6	8.5	11.2	5.4	2.3	3.3
21	23.1	19.6	21.4	13.0	10.9	11.8	13.6	8.9	10.9	7.7	3.2	4.9
22	22.9	17.1	18.1	16.2	12.7	14.1	14.2	8.6	10.1	4.8	3.2	4.2
23	18.6	15.9	17.0	20.1	12.7	14.5	14.1	6.2	8.8	4.8	3.8	4.3
24	18.5	14.1	16.1	16.8	12.2	13.4	6.2	5.4	5.9	6.1	4.0	4.9
25	18.7	16.2	17.3	14.7	12.2	12.9	5.8	4.6	5.3	7.6	4.4	5.3
26	23.3	16.6	19.0	12.9	11.0	12.1	5.7	4.3	4.9	8.5	4.4	6.3
27	21.6	18.4	20.2	12.2	9.6	10.6	6.5	4.9	5.7	7.5	4.7	5.7
28	21.2	18.4	19.6	12.2	11.6	11.9	7.4	6.3	6.9	11.8	5.9	7.0
29	21.8	18.0	19.8	17.1	9.4	11.2	6.8	5.8	6.3	9.3	5.8	6.4
30	20.6	16.9	18.3	17.1	10.4	13.1	7.0	5.2	6.0	7.1	5.9	6.4
31	17.1	14.3	16.1	---	---	---	6.9	5.1	5.7	9.3	6.1	7.6
MONTH	26.7	14.1	20.3	20.4	9.4	14.2	18.4	4.3	10.5	13.3	1.9	5.8

TENNESSEE RIVER BASIN

03578970 ROWLAND CREEK AT AEDC NEAR MANCHESTER, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.9	5.9	6.9	16.5	9.9	12.0	16.1	11.7	13.5	18.0	16.3	16.8
2	11.2	5.9	7.6	14.3	10.2	12.5	16.7	12.6	14.6	21.2	16.1	18.5
3	13.1	6.3	7.6	19.6	10.2	13.0	13.1	12.2	12.6	21.6	15.9	18.4
4	15.7	5.1	8.1	19.6	10.0	15.8	15.9	12.0	13.7	19.1	16.3	17.9
5	7.1	5.3	5.7	12.7	10.4	11.2	16.9	13.7	15.3	24.0	17.6	20.6
6	7.1	5.5	6.1	12.7	10.2	11.1	19.0	13.1	17.6	23.0	17.6	20.0
7	11.8	6.3	8.1	17.3	10.4	12.4	15.5	12.0	13.0	19.6	17.8	18.6
8	10.5	7.7	8.3	14.5	10.4	11.5	17.5	12.0	13.5	20.8	17.1	18.8
9	13.2	8.1	10.1	16.5	10.2	13.1	18.4	12.2	14.4	21.6	17.5	19.1
10	13.2	6.2	7.6	14.7	9.8	11.4	16.7	14.1	15.2	20.4	17.5	18.6
11	7.9	5.2	7.1	14.1	9.6	11.5	18.0	15.3	16.4	23.2	17.7	20.6
12	7.2	6.4	6.7	14.7	10.0	11.3	17.6	15.5	16.3	22.5	17.9	20.0
13	7.7	6.0	7.2	12.9	10.4	11.0	20.4	14.2	16.3	24.8	17.4	19.0
14	11.1	6.8	8.5	17.5	10.8	12.1	22.9	15.3	17.4	22.5	17.9	19.4
15	12.1	7.4	9.2	13.5	10.8	11.6	19.0	15.6	17.2	20.2	18.0	19.0
16	15.2	7.2	9.6	15.5	10.6	12.1	18.9	15.6	16.9	23.7	18.2	20.2
17	13.5	7.3	9.8	13.1	10.6	11.6	21.6	15.9	17.4	22.2	18.2	20.2
18	19.1	7.4	9.9	15.5	10.4	11.8	21.8	16.2	18.4	23.2	17.5	19.8
19	16.0	8.1	10.3	18.6	11.2	13.5	24.2	16.6	20.1	20.3	18.1	19.2
20	13.3	9.3	10.6	16.5	12.4	13.4	23.9	17.5	19.4	22.5	18.0	19.8
21	19.6	10.4	12.1	18.4	12.4	13.5	22.0	16.9	18.3	21.5	18.3	20.2
22	21.9	12.4	14.5	15.9	11.6	13.0	21.0	18.8	19.8	21.7	17.9	19.1
23	15.2	10.7	12.2	14.7	11.6	12.9	23.3	17.5	19.6	24.3	17.8	20.4
24	15.3	10.4	12.8	19.3	13.0	15.8	23.1	17.6	20.1	24.5	18.8	20.3
25	16.5	11.1	13.7	17.6	12.1	14.1	22.4	18.2	19.5	27.0	19.4	21.6
26	11.1	7.9	9.1	13.6	11.7	12.5	23.7	18.4	21.1	25.2	19.1	20.7
27	10.4	7.4	8.8	15.6	12.8	13.8	22.2	17.5	18.9	24.3	18.4	20.0
28	14.1	10.0	11.7	17.4	12.3	14.2	23.1	17.2	19.2	20.4	18.2	19.0
29	---	---	---	16.0	12.7	14.4	24.0	17.0	19.8	19.7	18.1	18.8
30	---	---	---	16.2	12.5	13.9	22.0	17.0	18.0	19.8	18.5	19.1
31	---	---	---	15.6	12.8	14.0	---	---	---	21.4	18.6	19.6
MONTH	21.9	5.1	9.3	19.6	9.6	12.8	24.2	11.7	17.1	27.0	15.9	19.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.4	18.8	19.3	27.3	20.9	23.5	28.2	22.2	25.1	26.1	23.3	24.7
2	20.1	18.7	19.2	28.4	20.0	23.5	28.2	22.6	25.4	25.4	23.1	24.4
3	20.3	18.5	19.2	24.3	21.2	22.3	27.8	22.9	24.8	27.4	21.8	24.2
4	19.9	18.5	19.1	23.7	20.5	21.3	27.3	22.4	23.5	26.1	22.1	23.9
5	20.0	18.5	19.1	30.5	20.5	24.3	27.5	21.8	24.4	24.0	21.7	23.1
6	25.3	18.8	20.8	27.2	20.9	22.6	27.3	23.9	25.4	26.5	23.1	24.6
7	25.3	20.2	23.1	26.6	20.9	22.6	29.2	22.6	24.9	27.1	22.9	24.5
8	25.9	19.2	22.3	24.2	20.5	22.1	27.1	23.3	24.9	27.8	23.9	25.3
9	25.9	19.8	21.9	28.6	21.1	24.6	30.0	23.5	26.0	27.1	23.5	24.8
10	27.1	20.4	25.6	27.8	22.0	24.7	27.8	23.7	26.3	28.0	22.9	24.4
11	25.4	19.9	22.2	27.6	22.7	25.1	30.6	23.9	27.3	27.3	23.3	25.0
12	25.0	19.9	21.9	27.3	21.4	23.7	32.5	23.5	26.2	28.0	23.9	25.7
13	26.5	20.7	23.2	27.3	21.8	23.6	28.9	24.0	25.8	26.1	23.3	24.9
14	26.9	23.1	25.4	27.1	21.4	24.2	32.3	24.4	28.5	27.8	23.7	25.6
15	25.5	21.0	22.8	30.5	21.5	25.6	30.1	24.2	26.8	30.2	24.3	25.8
16	25.1	20.4	21.7	26.4	24.4	25.7	31.0	24.3	26.9	28.2	24.9	26.7
17	27.1	20.6	24.2	25.6	22.1	24.5	28.6	23.7	25.4	27.8	24.1	25.6
18	28.2	20.2	23.2	27.7	21.3	23.4	28.2	22.6	24.3	25.9	23.1	24.6
19	23.3	20.0	21.7	27.7	22.4	24.8	29.6	23.7	26.2	28.4	22.9	25.0
20	24.1	20.4	21.2	25.9	21.8	23.7	32.2	25.9	28.9	26.7	23.5	25.0
21	26.7	21.0	23.8	26.5	22.0	24.2	31.0	22.7	24.2	26.9	23.7	25.1
22	23.8	20.4	21.5	27.8	22.3	24.9	26.5	22.6	24.5	29.6	22.7	25.6
23	24.0	20.1	22.2	27.8	23.1	25.6	27.1	22.7	24.9	27.9	23.5	25.5
24	22.1	19.9	20.9	27.0	22.0	23.9	27.3	22.7	25.1	27.8	23.4	24.9
25	22.5	19.7	20.7	26.2	22.0	23.9	27.7	24.5	25.9	24.7	21.2	23.1
26	22.5	19.9	20.6	27.3	23.0	25.3	28.4	22.7	25.5	29.4	22.3	24.5
27	23.6	19.9	21.1	27.3	22.9	24.8	27.1	22.9	24.9	28.6	24.5	25.8
28	26.0	20.1	22.9	25.7	22.0	23.4	27.3	23.7	26.0	27.4	23.4	25.1
29	26.4	21.3	23.4	27.5	23.3	25.5	27.7	24.1	25.5	26.6	24.0	25.3
30	26.6	20.3	22.7	26.5	22.6	24.7	27.5	23.3	25.3	28.1	21.7	23.5
31	---	---	---	26.7	24.1	25.5	26.9	24.3	25.1	---	---	---
MONTH	28.2	18.5	21.9	30.5	20.0	24.1	32.5	21.8	25.6	30.2	21.2	24.9

TENNESSEE RIVER BASIN

03578970 ROWLAND CREEK AT AEDC NEAR MANCHESTER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.1	7.4	7.7	7.3	8.2	6.8	8.3	8.2	7.4	6.6	6.8	6.4
2	8.1	7.7	7.7	7.4	8.3	7.7	8.2	8.0	7.3	6.5	6.7	6.4
3	7.9	7.5	7.7	7.3	8.3	7.6	8.1	7.9	7.4	6.4	7.0	6.6
4	7.8	7.5	7.7	7.3	8.2	7.0	8.1	8.0	7.5	6.5	7.1	6.9
5	7.8	7.4	7.6	7.0	8.0	7.4	8.2	8.0	7.7	7.5	7.2	7.1
6	8.2	7.7	7.8	7.3	8.1	7.2	8.1	7.9	7.7	7.5	7.2	7.1
7	8.0	7.5	8.1	7.4	8.1	7.2	8.0	7.9	7.6	6.6	7.2	7.2
8	7.8	7.6	8.1	7.4	8.1	7.8	8.2	7.9	7.7	6.7	7.4	7.0
9	8.2	7.7	8.1	7.4	8.0	7.2	8.1	8.0	7.6	6.8	7.4	6.9
10	8.3	8.0	8.2	7.1	7.8	6.9	8.0	6.7	7.4	6.8	7.3	6.9
11	8.1	7.7	8.3	7.2	7.9	7.5	8.0	7.9	7.5	7.2	7.5	6.9
12	8.1	7.6	8.3	7.5	7.9	7.5	8.0	6.9	7.6	7.2	7.5	7.1
13	8.0	7.5	8.2	7.6	7.8	7.1	7.9	7.0	7.5	7.1	7.3	6.9
14	7.9	7.1	8.2	7.6	7.7	7.1	7.9	7.2	7.3	6.7	6.9	6.7
15	8.0	7.8	8.1	7.5	7.6	6.8	7.8	7.8	7.3	6.9	6.9	6.8
16	7.8	7.3	8.0	7.6	7.6	7.3	7.8	7.8	7.4	7.2	7.5	6.9
17	7.7	7.6	8.2	7.4	7.4	7.0	7.8	7.0	7.4	6.5	7.6	7.4
18	7.9	7.6	8.1	7.8	7.5	7.0	7.8	7.7	7.7	6.4	7.5	7.3
19	7.9	7.4	8.3	7.6	7.9	7.2	7.9	7.8	7.8	7.3	7.5	7.3
20	8.0	7.6	8.1	7.8	7.8	7.3	7.8	7.3	7.8	7.4	7.3	7.2
21	8.1	7.6	8.0	7.6	7.7	7.2	7.8	7.0	7.5	6.9	7.2	7.1
22	8.3	7.5	7.8	7.4	7.7	7.1	7.7	7.6	7.3	7.1	7.4	7.0
23	8.5	7.5	7.7	7.4	7.9	7.3	7.7	7.5	7.3	7.0	7.9	6.9
24	8.4	7.6	8.0	7.4	7.9	7.8	7.6	7.4	7.1	6.8	8.1	7.1
25	8.4	7.7	8.0	7.8	8.1	7.9	7.6	6.8	7.0	6.7	8.0	7.8
26	8.2	7.1	7.9	7.7	8.1	8.0	7.6	6.8	7.0	6.9	8.0	7.8
27	7.5	6.8	8.3	7.8	8.2	7.8	7.5	7.0	6.9	6.7	8.2	7.5
28	7.8	7.1	8.3	8.0	8.2	8.1	7.5	6.7	6.8	6.4	7.7	7.2
29	7.6	7.3	8.3	8.0	8.2	8.1	7.6	6.7	---	---	7.4	7.1
30	7.7	7.1	8.2	7.1	8.3	8.1	7.5	7.2	---	---	7.4	7.1
31	7.7	7.3	---	---	8.3	8.1	7.4	6.5	---	---	7.4	7.0
MONTH	8.5	6.8	8.3	7.0	8.3	6.8	8.3	6.5	7.8	6.4	8.2	6.4
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.0	7.7	7.7	7.5	7.3	7.5	7.2	7.0	6.4	7.4	7.2
2	7.7	7.4	7.7	7.3	7.4	7.1	7.6	7.1	7.0	6.6	7.4	7.1
3	7.9	7.6	7.8	7.0	7.4	7.2	7.4	7.1	6.8	6.6	7.3	6.9
4	7.9	7.7	7.7	7.5	7.4	7.4	7.4	7.2	6.9	6.5	7.1	6.9
5	8.0	7.9	7.8	7.2	7.5	7.4	7.3	7.2	6.9	6.4	7.2	6.7
6	8.0	7.6	8.0	7.2	7.5	7.4	7.3	6.9	6.8	6.6	7.4	6.5
7	7.9	7.6	8.2	7.9	7.5	7.4	7.3	7.0	7.1	6.7	7.6	7.3
8	7.9	7.7	8.3	7.9	7.6	7.3	7.4	7.0	7.3	6.8	7.6	6.9
9	8.0	7.5	7.9	7.5	7.3	7.0	7.3	7.0	8.1	7.0	7.0	6.5
10	8.2	7.3	7.7	7.3	7.4	6.8	7.3	7.1	7.3	7.0	7.4	6.7
11	8.3	7.2	7.8	7.0	7.4	6.8	7.3	7.1	7.5	7.0	7.3	6.9
12	8.0	7.2	7.7	7.4	7.5	6.8	7.3	7.1	7.6	6.8	7.8	7.1
13	7.8	7.5	7.6	7.4	7.5	6.8	7.3	7.1	7.4	6.9	7.4	7.1
14	7.8	7.1	7.5	6.9	7.6	7.4	7.5	7.2	7.4	7.0	7.3	6.9
15	7.9	7.5	7.2	6.9	7.6	7.3	7.4	7.0	7.4	6.9	7.4	6.9
16	7.6	7.4	7.2	6.7	7.4	7.1	7.4	7.3	8.2	7.3	7.4	7.0
17	7.5	7.2	7.3	7.1	7.4	7.3	7.3	7.1	7.7	6.9	7.5	7.3
18	7.3	7.2	7.4	6.9	7.7	7.4	7.4	7.1	7.0	6.7	7.5	7.3
19	7.3	7.0	7.5	7.1	7.5	7.4	7.5	7.3	7.5	6.6	7.5	7.2
20	7.6	7.0	7.5	7.1	7.7	7.1	7.4	7.1	7.3	7.0	7.7	7.3
21	7.9	7.2	7.6	7.2	7.6	7.1	7.3	7.1	7.1	6.9	7.8	7.5
22	7.9	7.6	7.5	7.4	7.6	7.2	7.4	6.8	7.1	6.8	7.9	7.3
23	7.7	7.5	7.4	7.3	7.7	7.1	7.7	6.8	7.3	6.9	7.8	7.4
24	7.6	7.3	7.4	7.2	7.7	7.6	7.5	6.8	7.3	7.1	7.7	7.3
25	7.3	7.1	7.6	6.9	7.7	7.2	7.4	6.8	7.2	7.1	7.4	7.2
26	7.2	7.1	7.6	7.1	7.6	7.2	7.3	6.9	7.2	7.0	7.6	6.5
27	7.5	7.1	7.5	7.1	7.6	7.2	7.1	6.8	7.2	7.1	7.7	6.7
28	8.0	7.2	7.5	7.2	7.7	7.2	7.1	6.9	7.3	7.2	7.0	6.5
29	8.0	7.8	7.5	7.3	7.6	7.2	7.1	6.9	7.5	7.2	8.0	6.6
30	8.0	7.7	7.6	7.3	7.5	7.2	7.1	7.0	7.4	7.2	8.1	7.4
31	---	---	7.6	7.5	---	---	7.0	6.8	7.4	7.2	---	---
MONTH	8.3	7.0	8.3	6.7	7.7	6.8	7.7	6.8	8.2	6.4	8.1	6.5

THIS IS A BLANK PAGE

TENNESSEE RIVER BASIN

03579620 ROCK CREEK AT TULLAHOMA, TN

LOCATION.--Lat 35°21'34", long 86°12'47", Coffee County, Hydrologic Unit 06040002, on downstream side of bridge on Lincoln Street, 0.2 mi southwest of intersection of US Highway 41A and Lincoln Street, 0.9 mi downstream from the confluence of North Fork and West Fork Rock Creek and at mile 12.3.

DRAINAGE AREA.--12.3 mi².

PERIOD OF RECORD.--October 1991 to current year. Occasional low-flow measurements, water years 1960, 1966-67, 1969-70.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1013.00 ft above sea level.

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

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	0015	817	6.99	Mar. 9	1845	902	7.25
Feb. 10	2130	2,110	10.22	Mar. 27	1945	1,690	9.30
Feb. 23	0115	1,240	8.19	Apr. 10	2315	*2,350	*10.70

Minimum daily discharge, .82 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.92	1.0	5.0	13	143	27	8.7	2.8	2.3	2.1	2.9
2	.85	.89	1.0	5.0	11	163	16	7.9	2.8	5.7	2.0	2.3
3	.89	.84	1.3	5.2	9.8	49	18	16	2.7	2.5	2.0	1.4
4	.94	1.0	146	6.4	9.3	22	19	13	2.7	2.7	4.1	1.3
5	.96	4.4	15	6.0	15	17	114	8.9	12	2.3	76	1.3
6	1.0	1.4	5.0	5.7	13	15	282	7.2	7.0	2.1	5.2	1.3
7	.94	1.2	3.3	71	10	13	38	12	3.1	2.1	3.4	1.3
8	.95	1.2	2.7	25	11	13	20	22	2.6	2.1	3.0	1.3
9	2.3	1.2	3.6	11	87	271	17	10	2.5	2.6	2.7	1.2
10	1.4	1.1	24	9.9	589	179	249	7.8	2.2	2.7	2.5	1.2
11	1.0	1.1	5.8	14	884	34	481	6.4	2.1	3.5	2.4	1.2
12	1.1	1.1	5.3	18	84	21	84	5.4	2.0	3.3	2.3	1.3
13	.99	1.7	4.2	11	42	18	68	4.9	2.0	2.7	2.3	1.2
14	.97	16	6.2	9.8	29	16	26	4.8	2.0	2.4	2.3	1.2
15	1.8	5.9	5.9	9.3	23	14	71	5.4	2.0	2.3	2.6	1.3
16	4.8	1.3	5.6	9.2	18	13	54	4.2	1.8	2.0	2.7	1.3
17	1.4	3.4	5.0	59	15	12	22	3.4	1.9	3.8	2.3	1.4
18	2.0	1.6	4.2	e17	14	12	16	3.4	3.6	2.5	2.2	1.4
19	1.2	1.2	3.4	e13	13	12	13	3.4	1.9	2.2	2.8	1.4
20	1.0	1.1	5.3	e12	14	12	11	3.3	1.7	2.0	3.4	1.4
21	.97	1.0	8.0	e11	179	13	10	2.9	1.6	6.5	4.7	1.4
22	.94	.96	5.7	e10	127	12	9.3	2.7	1.7	2.8	1.7	1.4
23	.95	.94	5.4	10	662	12	8.6	2.7	2.0	2.2	1.4	5.0
24	.98	.99	4.5	13	62	151	8.1	2.7	1.9	2.1	1.2	5.1
25	1.0	.96	4.3	30	29	123	7.6	2.8	3.5	1.9	1.1	1.4
26	1.0	.94	3.6	105	18	34	7.0	10	4.3	2.5	1.1	4.6
27	.98	1.7	3.2	130	15	1110	15	5.9	3.3	7.0	1.1	5.0
28	.90	1.1	7.5	287	14	465	11	3.7	2.4	2.6	1.1	1.5
29	.97	1.0	9.1	36	---	54	8.4	3.0	2.3	2.2	1.1	1.2
30	2.7	1.0	5.6	23	---	42	7.0	2.9	2.3	2.1	1.1	1.1
31	1.1	---	5.3	16	---	53	---	2.8	---	2.1	2.5	---
TOTAL	39.80	59.14	316.0	993.5	3010.1	3118	1738.0	200.2	86.7	87.8	146.4	56.3
MEAN	1.28	1.97	10.2	32.0	108	101	57.9	6.46	2.89	2.83	4.72	1.88
MAX	4.8	16	146	287	884	1110	481	22	12	7.0	76	5.1
MIN	.82	.84	1.0	5.0	9.3	12	7.0	2.7	1.6	1.9	1.1	1.1
CFSM	.10	.16	.83	2.61	8.74	8.18	4.71	.53	.23	.23	.38	.15
IN.	.12	.18	.96	3.00	9.10	9.43	5.26	.61	.26	.27	.44	.17

e Estimated

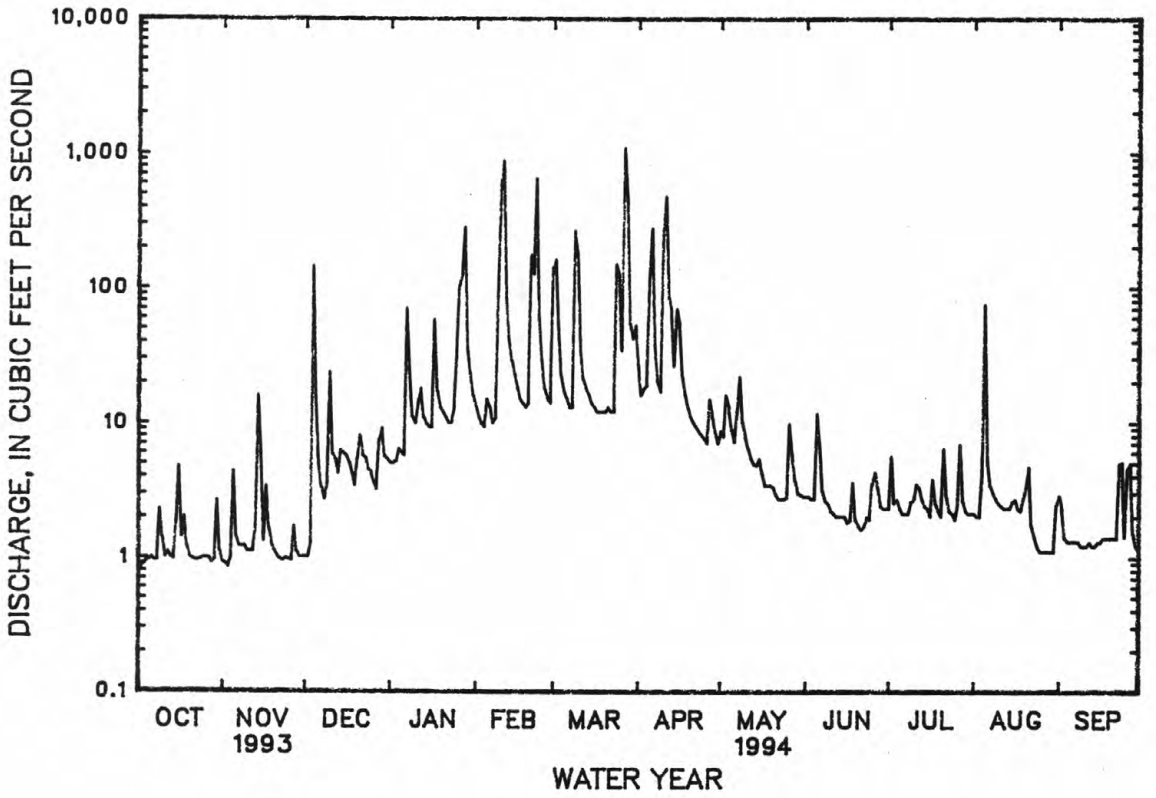
TENNESSEE RIVER BASIN

03579620 ROCK CREEK AT TULLAHOMA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

MEAN	2.23	12.2	45.9	30.9	46.7	57.6	35.4	13.8	6.66	2.30	4.42	9.45
MAX	4.15	26.9	93.5	37.5	108	101	57.9	31.4	11.7	2.83	6.12	25.1
(WY)	1993	1993	1992	1992	1994	1994	1994	1993	1992	1994	1992	1992
MIN	1.25	1.97	10.2	23.3	16.0	28.9	20.9	3.44	2.89	1.74	2.42	1.41
(WY)	1992	1994	1994	1993	1993	1992	1992	1992	1994	1993	1993	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1992 - 1994	
ANNUAL TOTAL	5058.06		9851.94			
ANNUAL MEAN	13.9		27.0		22.2	
HIGHEST ANNUAL MEAN					27.0	1994
LOWEST ANNUAL MEAN					18.2	1993
HIGHEST DAILY MEAN	536	Mar 23	1110	Mar 27	1110	Mar 27 1994
LOWEST DAILY MEAN	.82	Oct 1	.82	Oct 1	.82	Oct 1 1993
ANNUAL SEVEN-DAY MINIMUM	.87	Sep 28	.91	Oct 1	.87	Sep 28 1993
INSTANTANEOUS PEAK FLOW			2350	Apr 10	2350	Apr 10 1994
INSTANTANEOUS PEAK STAGE			10.70	Apr 10	10.70	Apr 10 1994
ANNUAL RUNOFF (CFSM)	1.13		2.19		1.80	
ANNUAL RUNOFF (INCHES)	15.30		29.80		24.51	
10 PERCENT EXCEEDS	29		40		39	
50 PERCENT EXCEEDS	4.4		3.6		5.1	
90 PERCENT EXCEEDS	1.0		1.1		1.2	



TENNESSEE RIVER BASIN

03580995 EAST FORK MULBERRY CREEK BELOW JACK DANIEL DISTILLERY AT LYNCHBURG, TN

LOCATION.--Lat 35°16'56", long 86°22'17", Moore County, Hydrologic Unit 06030003, on right bank 160 ft above county road bridge, 0.2 mi below State Highway 55 bridge, 1.4 mi above Price Branch, and at mile 13.2

DRAINAGE AREA.--23.4 mi².

PERIOD OF RECORD.--October 1987 to September 1994 (discontinued). Miscellaneous low-flow measurements made in vicinity since 1932.

GAGE.--Data collection platform and crest-stage gage. Elevation of the gage is 774.31 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for the period Dec. 26 to Feb. 3 which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1345	1,040	5.66	Mar. 27	0530	1,730	6.92
Jan. 28	0015	1,320	6.33	Mar. 27	1400	2,570	7.86
Feb. 10	2115	*3,080	*8.43	Apr. 10	2245	1,050	5.69
Feb. 23	0615	2,000	7.23	June 5	1830	860	5.13
Mar. 9	1745	934	5.36	Aug. 5	0400	1,240	6.17

Minimum discharge, 3.5 ft³/s, Oct. 1, 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	7.6	6.4	40	60	159	116	23	12	10	17	10
2	4.7	7.7	6.9	37	50	234	94	21	12	9.5	15	10
3	4.5	8.7	7.3	40	37	189	80	27	11	9.4	14	8.8
4	4.8	9.1	426	40	28	137	66	25	10	9.1	17	8.2
5	5.1	13	155	39	29	98	140	22	93	9.0	222	7.9
6	5.0	9.2	60	36	26	72	463	20	63	8.2	64	9.1
7	4.9	7.8	36	132	22	59	196	26	29	7.9	40	8.5
8	5.0	7.6	27	132	24	50	132	37	21	7.8	30	8.1
9	5.0	7.9	22	90	139	281	98	27	17	8.3	25	8.0
10	5.7	7.8	68	65	840	333	184	24	14	16	21	7.5
11	6.9	7.7	54	53	1560	168	256	21	13	14	17	7.5
12	6.1	7.9	35	50	374	113	174	20	12	16	15	7.6
13	6.3	7.8	31	52	203	88	156	18	11	13	13	7.9
14	5.6	12	36	44	137	71	119	18	11	11	13	7.6
15	5.1	31	38	32	104	60	130	20	11	28	13	7.7
16	8.2	11	32	32	80	48	128	17	11	23	13	7.7
17	8.7	11	27	100	65	41	103	15	10	28	12	8.5
18	8.6	10	23	97	55	39	81	14	10	25	11	8.5
19	8.8	8.3	21	69	48	34	66	14	9.5	18	12	7.9
20	8.3	7.2	23	58	45	32	53	14	9.4	14	16	7.4
21	8.0	6.6	34	46	207	33	45	14	9.3	15	25	7.6
22	7.5	6.5	30	43	236	28	40	14	9.1	15	15	7.7
23	6.6	6.2	27	40	1100	27	35	13	8.3	12	12	17
24	6.4	6.4	21	39	283	57	32	12	8.5	11	11	22
25	6.2	6.1	20	49	166	93	30	12	37	9.8	11	10
26	7.1	5.0	21	140	111	74	29	23	29	23	11	10
27	7.1	6.4	32	260	82	1630	32	19	28	125	10	17
28	6.7	6.4	37	687	66	1040	29	14	15	57	9.6	11
29	6.6	6.2	73	190	---	273	26	13	13	34	9.5	9.5
30	9.8	6.0	59	117	---	171	24	12	11	25	9.3	8.5
31	9.0	---	53	79	---	148	---	12	---	21	9.4	---
TOTAL	202.8	262.1	1541.6	2928	6177	5880	3157	581	558.1	633.0	732.8	284.7
MEAN	6.54	8.74	49.7	94.5	221	190	105	18.7	18.6	20.4	23.6	9.49
MAX	9.8	31	426	687	1560	1630	463	37	93	125	222	22
MIN	4.5	5.0	6.4	32	22	27	24	12	8.3	7.8	9.3	7.4
CFSM	.28	.37	2.13	4.04	9.43	8.11	4.50	.80	.80	.87	1.01	.41
IN.	.32	.42	2.45	4.65	9.82	9.35	5.02	.92	.89	1.01	1.16	.45

TENNESSEE RIVER BASIN

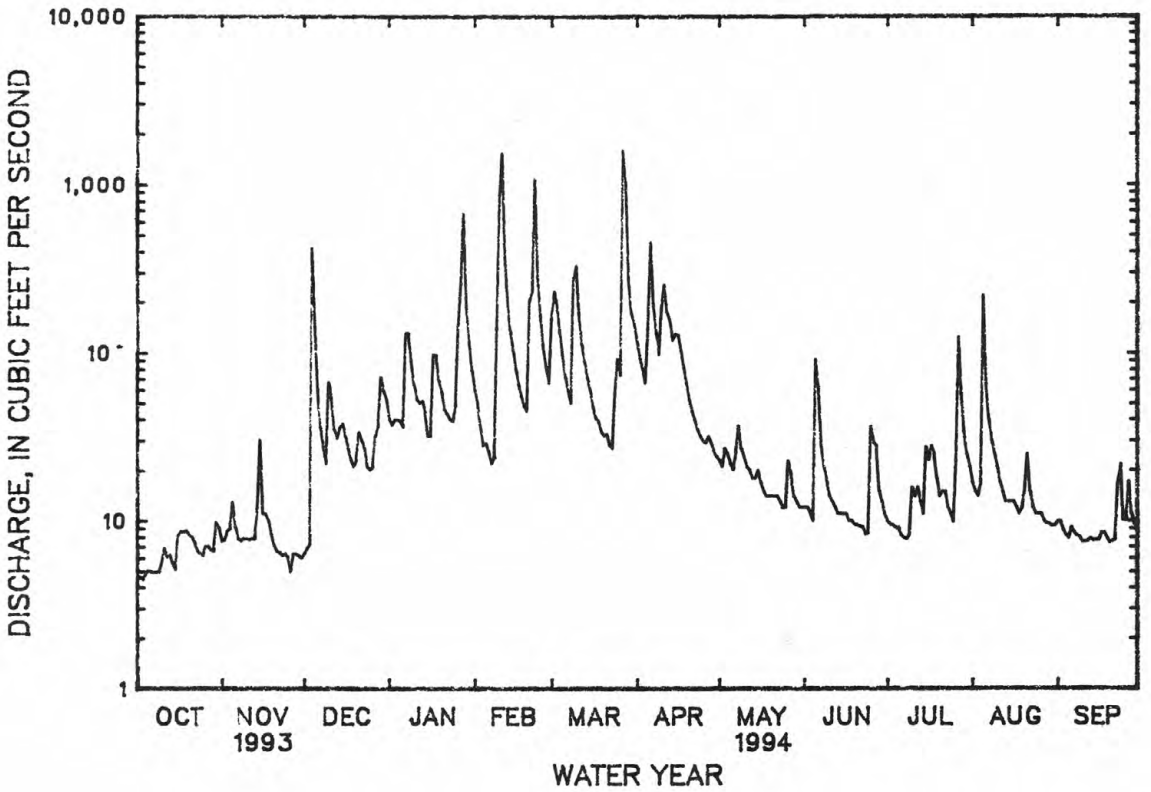
03580995 EAST FORK MULBERRY CREEK BELOW JACK DANIEL DISTILLERY AT LYNCHBURG, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

MEAN	18.2	25.0	96.0	80.4	116	98.8	54.6	32.2	32.7	18.9	10.6	20.1
MAX	80.1	59.9	282	112	233	190	105	73.1	112	63.7	23.6	50.5
(WY)	1990	1993	1991	1989	1991	1994	1994	1991	1989	1989	1994	1992
MIN	3.22	6.54	15.3	45.0	29.6	15.1	23.4	9.59	3.88	6.23	4.35	4.30
(WY)	1988	1988	1988	1988	1988	1988	1990	1988	1988	1988	1991	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1988 - 1994	
ANNUAL TOTAL	12862.2		22938.1			
ANNUAL MEAN	35.2		62.8		50.0	
HIGHEST ANNUAL MEAN					78.2	1991
LOWEST ANNUAL MEAN					16.1	1988
HIGHEST DAILY MEAN	775	Mar 23	1630	Mar 27	2570	Dec 22 1990
LOWEST DAILY MEAN	3.4	Sep 12	4.5	Oct 1	1.7	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 17	4.8	Oct 1	2.1	Jul 5 1988
INSTANTANEOUS PEAK FLOW			3080	Feb 10	5370	Dec 23 1990
INSTANTANEOUS PEAK STAGE			8.43	Feb 10	10.01	Dec 23 1990
INSTANTANEOUS LOW FLOW			a3.5	Oct 1	1.6	Jul 10 1988
ANNUAL RUNOFF (CFSM)	1.51		2.69		2.13	
ANNUAL RUNOFF (INCHES)	20.45		36.47		29.00	
10 PERCENT EXCEEDS	70		137		103	
50 PERCENT EXCEEDS	21		21		19	
90 PERCENT EXCEEDS	5.5		7.4		4.7	

a Also occurred Oct. 8, 9.



TENNESSEE RIVER BASIN

03584600 ELK RIVER AT PROSPECT, TN

LOCATION.--Lat 35°00'51", long 86°59'41", Giles County, Hydrologic Unit 06030004, on right bank 25 ft upstream from county road bridge, 800 ft above abandoned L and N Railroad bridge, 0.4 mi above Ford Creek, 0.8 mi south of Prospect, 2.9 mi upstream from Tennessee-Alabama State line, and at mile 36.5.

DRAINAGE AREA.--1,805 mi².

PERIOD OF RECORD.--July 1904 to February 1908, January 1919 to September 1994 (discontinued). Published as "near Elkmont, Ala." 1904-8, 1919-34. Record for both sites published January to March 1934. Published as "near Prospect, Tenn." 1935-89.

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 and crest-stage gage. Datum of gage is 558.70 ft above sea level. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934; nonrecording gage 6.9 mi downstream at datum 8.93 ft lower. January 1934 to September 1989, water-stage recorder at site 5.0 mi upstream at datum 4.59 ft higher.

REMARKS.--No estimated daily discharges. 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. Tennessee Valley Authority satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage of 40.9 ft, site and datum then in use, discharge, 130,000 ft³/s, and may have been equaled by a flood in March 1897, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54,900 ft³/s, Mar. 28, gage height 29.48 ft; minimum, 192 ft³/s, Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	431	414	535	3940	4520	12100	12500	2440	1000	2150	570	1900
2	318	321	429	2710	5230	13800	11300	1360	592	2160	500	2240
3	287	713	392	1840	5550	11400	10300	1410	506	1690	1230	1640
4	275	971	5120	1990	4940	10800	9810	2550	475	554	1250	1360
5	265	1850	14400	2830	5100	8940	9930	2350	455	411	1800	535
6	216	1680	7460	2900	3580	6970	17400	2150	1670	367	2480	437
7	207	1470	3960	4790	2250	6510	20500	2020	1660	860	1630	422
8	201	467	3740	9030	2570	5960	13200	3370	1140	943	681	763
9	212	494	3150	6380	3680	7890	10900	2880	1260	948	570	847
10	222	1680	4160	4110	9980	20000	10000	2060	1690	930	1350	808
11	228	1800	5940	4430	30200	18600	8230	2080	1420	671	1480	772
12	216	1790	4050	5130	42600	10800	7010	1670	1330	907	1380	384
13	544	1830	3050	5580	36400	8590	9030	1490	613	1250	1520	290
14	499	1250	3900	4250	21500	7640	8800	1390	569	1790	1220	266
15	583	990	5140	3320	13200	5810	10500	1410	1360	1250	443	251
16	497	1950	4880	3030	12600	4700	13200	1070	833	1270	350	240
17	565	2980	4380	5080	12000	3650	9290	935	933	1210	332	1060
18	395	3390	4050	7450	11200	3040	8180	839	795	1140	755	374
19	291	2800	2730	5440	10600	2630	7280	771	695	948	768	280
20	447	2930	1480	6350	10100	2230	6710	912	462	1290	888	256
21	570	2280	1890	6130	11200	1700	6320	715	368	1370	1680	318
22	646	2290	3970	5130	14300	1660	6050	664	564	1820	655	392
23	510	2760	3550	3540	23900	2460	5780	632	749	1750	626	512
24	620	2870	3350	1930	27600	2130	3860	609	790	1470	1040	642
25	296	2840	3260	1830	23900	3880	2390	592	658	529	1010	531
26	580	1970	2710	8170	12200	4700	2400	612	702	524	984	467
27	1260	1060	2570	16800	11200	16500	2360	839	758	2030	1060	434
28	1230	1200	2220	25300	11000	42900	4080	1030	1450	2470	1060	437
29	918	1160	4770	25600	---	44800	4130	768	2070	1600	505	489
30	611	996	4630	11100	---	33700	3340	644	2390	1260	419	420
31	574	---	4550	5420	---	17800	---	592	---	1360	1010	---
TOTAL	14714	51196	120416	201530	383100	344290	254780	42854	29957	38922	31246	19767
MEAN	475	1707	3884	6501	13680	11110	8493	1382	999	1256	1008	659
MAX	1260	3390	14400	25600	42600	44800	20500	3370	2390	2470	2480	2240
MIN	201	321	392	1830	2250	1660	2360	592	368	367	332	240

CAL YR 1993 MEAN‡ 2454 CFSM‡ 1.35 IN.‡ 18.45
WTR YR 1994 MEAN‡ 4217 CFSM‡ 2.34 IN.‡ 31.71

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.
NOTE.--Contents (cfs-days) for adjustments furnished by Arnold Engineering Development Center and Tennessee Valley Authority.

TENNESSEE RIVER BASIN

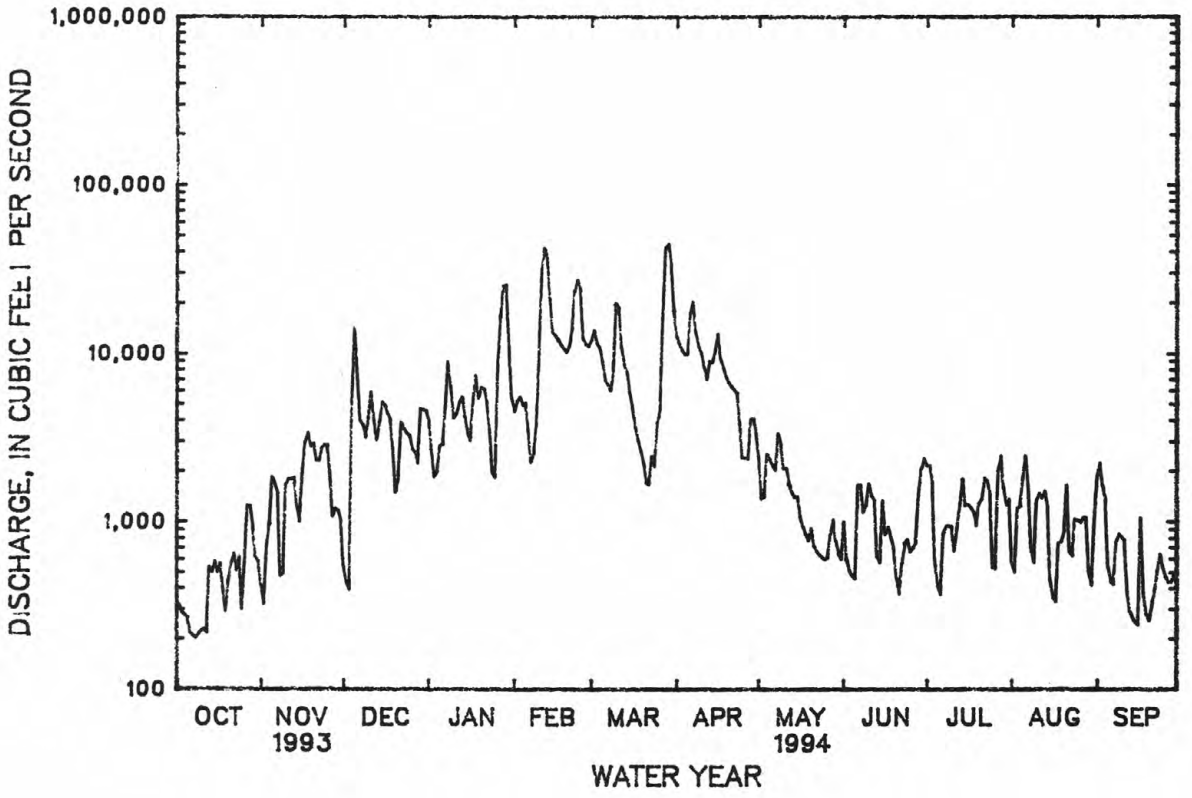
03584600 ELK RIVER AT PROSPECT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1994, BY WATER YEAR (WY)

MEAN	1753	3162	5763	6024	5590	6423	4122	2874	1797	1136	777	1144
MAX	8699	8888	15320	17290	13680	17700	10220	9806	8011	6260	1739	4389
(WY)	1976	1978	1991	1974	1994	1973	1983	1983	1989	1989	1972	1979
MIN	209	619	1256	799	2017	1464	728	445	201	341	241	339
(WY)	1988	1988	1981	1981	1981	1985	1986	1988	1988	1988	1987	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1972 - 1994	
ANNUAL TOTAL	916851		1532772			
ANNUAL MEAN	2512		4199		3373	
HIGHEST ANNUAL MEAN					5214	1973
LOWEST ANNUAL MEAN					1013	1981
HIGHEST DAILY MEAN	23100	Mar 24	44800	Mar 29	105000	Mar 17 1973
LOWEST DAILY MEAN	201	Oct 8	201	Oct 8	132	Sep 4 1987
ANNUAL SEVEN-DAY MINIMUM	215	Oct 6	215	Oct 6	153	Jun 13 1988
INSTANTANEOUS PEAK FLOW			54900	Mar 28	a117000	Mar 17 1973
INSTANTANEOUS PEAK STAGE			29.48	Mar 28	40.12	Mar 17 1973
INSTANTANEOUS LOW FLOW			192	Oct 8	b78	Sep 29 1961
10 PERCENT EXCEEDS	5810		11000		7440	
50 PERCENT EXCEEDS	1610		1700		1730	
90 PERCENT EXCEEDS	344		430		420	

* Regulated period only.
a From rating curve extended above 63,000 ft³/s on basis of slope-area measurement of gage height 38.17 ft and contracted-opening measurement at gage height 38.96 ft, site and datum then in use.
b Caused by highway construction.



TENNESSEE RIVER BASIN

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 downstream from Holly Creek, 1,350 ft upstream from Louisville and Nashville Railroad bridge, 1,350 ft northeast of Iron City Post Office, and at mile 22.3.

DRAINAGE AREA.--348 mi².

PERIOD OF RECORD.--July 1925 to September 1994 (discontinued).

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 above sea level. Prior to Feb. 25, 1931, nonrecording gage at railroad bridge, 1,350 ft downstream at datum 0.85 ft lower. Feb. 25, 1931, to Sept. 30, 1933, nonrecording gage at site 825 ft downstream and Oct. 1, 1933, to Sept. 30, 1957, water-stage recorder at site 750 ft downstream at datum 0.69 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height at present site and datum, 24.4 ft, from high water profile. Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage about 3 ft higher than that of Mar. 21, 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	2215	9,400	12.57	Mar. 27	2245	*27,400	*19.10
Jan. 28	1215	8,640	12.14	Apr. 6	1000	10,400	13.11
Feb. 11	1530	16,100	15.53	Apr. 16	0615	6,900	10.59
Feb. 23	1045	9,280	12.50	June 9	1700	10,000	12.90
Mar. 10	0215	14,600	14.96				

Minimum discharge, 175 ft³/s, Nov. 11, 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	187	179	650	913	1110	1530	977	357	727	297	255
2	210	183	178	605	803	1640	1300	892	349	521	276	667
3	206	183	186	553	710	1610	1190	1010	340	432	267	335
4	200	183	3920	564	635	1360	1100	1260	334	385	260	275
5	196	191	3740	517	605	1130	1300	1040	329	364	275	256
6	191	186	1280	495	556	990	7280	935	558	353	265	307
7	187	179	826	944	509	919	3160	1790	455	345	254	324
8	185	178	640	1560	482	870	2000	3150	460	330	248	273
9	185	178	531	996	889	4430	1550	1670	5450	326	245	252
10	191	178	745	822	2290	8190	1280	1030	2740	512	238	236
11	184	175	754	715	12400	2570	1120	809	1100	489	232	225
12	183	175	598	662	5980	1710	1130	679	739	449	229	216
13	183	177	539	599	3170	1360	1240	593	580	439	226	212
14	182	189	802	546	2180	1150	1020	562	502	443	224	208
15	178	549	784	487	1670	1020	1770	750	440	413	223	204
16	185	412	660	441	1310	938	4940	661	411	389	221	200
17	193	325	563	942	1070	874	2200	563	392	429	225	200
18	204	321	501	1300	971	840	1530	508	402	384	218	206
19	234	273	458	909	905	795	1190	480	367	379	226	199
20	206	248	461	774	865	745	1020	456	344	354	235	195
21	196	226	533	651	952	762	936	438	381	331	336	190
22	198	214	491	572	1380	766	883	416	346	366	278	189
23	189	204	469	537	6850	707	839	400	368	330	245	244
24	188	199	444	515	2930	831	807	392	363	314	232	262
25	187	195	434	525	1800	1210	773	391	371	300	224	229
26	185	190	412	1630	1350	1170	789	482	434	307	218	215
27	183	200	398	3360	1070	15400	1070	487	1310	358	215	223
28	182	194	489	6750	968	15600	2820	409	669	346	210	214
29	181	186	1290	2910	---	4000	1400	389	1350	304	206	203
30	191	182	934	1700	---	2440	1020	375	1470	288	203	196
31	198	---	762	1140	---	1880	---	369	---	279	266	---
TOTAL	5983	6660	25001	35371	56213	79017	50187	24363	23711	11986	7517	7410
MEAN	193	222	806	1141	2008	2549	1673	786	790	387	242	247
MAX	234	549	3920	6750	12400	15600	7280	3150	5450	727	336	667
MIN	178	175	178	441	482	707	773	369	329	279	203	189
CFSM	.55	.64	2.32	3.28	5.77	7.32	4.81	2.26	2.27	1.11	.70	.71
IN.	.64	.71	2.67	3.78	6.01	8.45	5.36	2.60	2.53	1.28	.80	.79

TENNESSEE RIVER BASIN

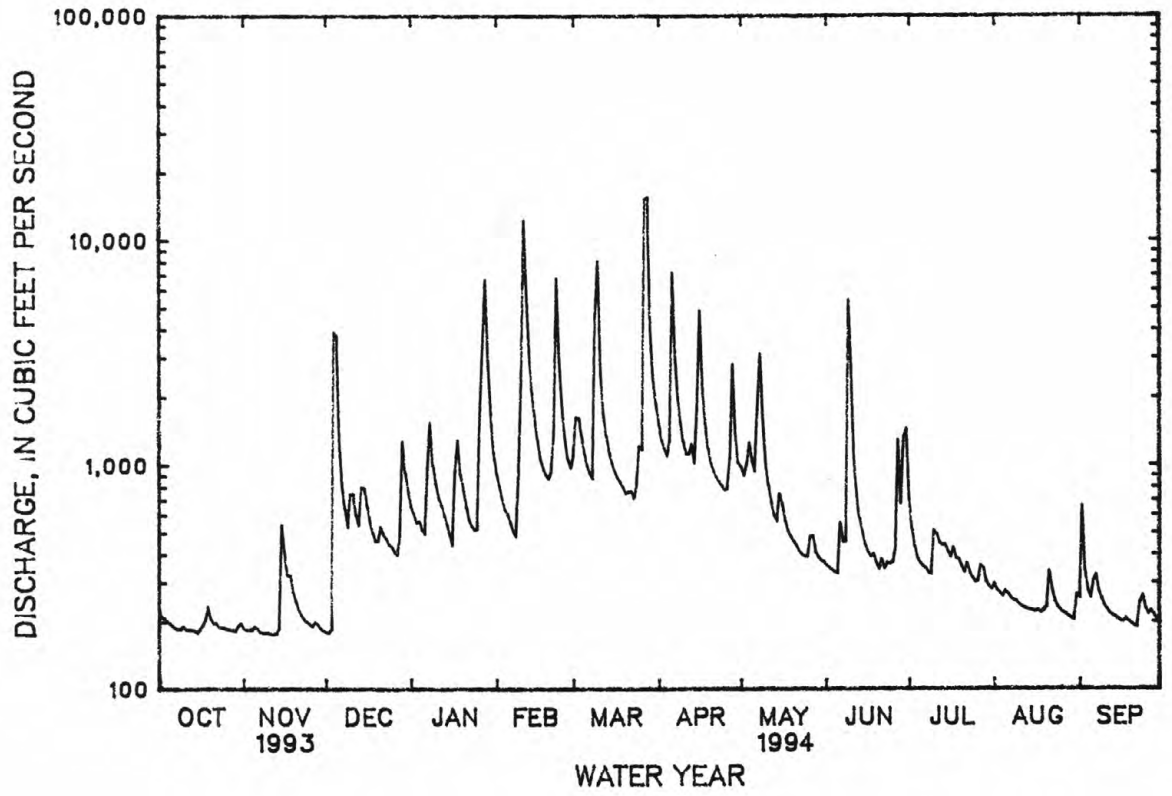
03588500 SHOAL CREEK AT IRON CITY, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1994, BY WATER YEAR (WY)

MEAN	230	436	766	1039	1210	1317	996	734	380	295	222	221
MAX	1290	1894	2968	3604	3562	3626	2227	3425	1876	1131	615	1295
(WY)	1933	1978	1927	1974	1948	1975	1964	1991	1928	1932	1926	1979
MIN	69.4	123	165	170	273	373	222	169	118	105	94.8	64.8
(WY)	1932	1955	1964	1981	1941	1966	1986	1936	1988	1943	1988	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1925 - 1994	
ANNUAL TOTAL	196713		333419			
ANNUAL MEAN	539		913		652	
HIGHEST ANNUAL MEAN					1178	1973
LOWEST ANNUAL MEAN					281	1981
HIGHEST DAILY MEAN	6250	May 4	15600	Mar 28	44000	Feb 13 1948
LOWEST DAILY MEAN	159	Sep 13	175	Nov 11	41	Sep 22 1925
ANNUAL SEVEN-DAY MINIMUM	164	Sep 12	177	Nov 7	55	Sep 3 1925
INSTANTANEOUS PEAK FLOW			27400	Mar 27	a132000	Mar 21 1955
INSTANTANEOUS PEAK STAGE			19.10	Mar 27	b27.25	Mar 21 1955
INSTANTANEOUS LOW FLOW			c175	Nov 11	38	Aug 31 1943
ANNUAL RUNOFF (CFSM)	1.55		2.62		1.87	
ANNUAL RUNOFF (INCHES)	21.03		35.64		25.45	
10 PERCENT EXCEEDS	904		1650		1300	
50 PERCENT EXCEEDS	402		456		313	
90 PERCENT EXCEEDS	182		190		129	

a From rating curve extended above 50,000 ft³/s on basis of slope-area measurement.
b Site and datum then in use (see REMARKS).
c Also occurred Nov. 12, 13.



TENNESSEE RIVER BASIN

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 upstream from Savannah, and at mile 206.7.

DRAINAGE AREA.--32,820 mi², 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 microsiemens, Sept. 18, 19, 1978; minimum, 116 microsiemens, 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 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
NOV 18...	1045	80020	41800	194	192	8.6	7.3	14.5	774	1.7	9.0	87
MAR 17...	1000	80020	77000	143	145	7.5	7.7	11.0	762	9.3	11.8	107
JUN 16...	1100	80020	57000	135	133	7.8	7.2	26.0	774	3.2	6.7	82
SEP 01...	0945	80020	33600	157	154	7.8	7.4	28.0	770	0.70	6.4	81

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
NOV 18...	22	K12	70	9	20	4.8	8.2	20	0.4	1.8	61	65
MAR 17...	130	K13	62	8	19	3.4	2.8	9	0.2	1.5	54	53
JUN 16...	57	<1	55	9	17	3.0	3.7	12	0.2	1.6	46	48
SEP 01...	4500	35	60	5	18	3.7	5.2	15	0.3	1.8	55	56

DATE	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
NOV 18...	17	8.2	0.10	5.6	119	106	0.16	13400	0.020	0.310	0.330
MAR 17...	9.5	3.8	<0.10	4.7	89	80	0.12	18500	0.040	0.670	0.710
JUN 16...	9.2	3.7	<0.10	3.1	80	70	0.11	12300	<0.010	0.160	0.160
SEP 01...	10	5.9	<0.10	4.6	84	83	0.11	7610	0.020	0.039	0.059

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

TENNESSEE RIVER BASIN

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued
(National stream-quality accounting network station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)
NOV 18...	0.03	0.020	0.20	0.060	0.050	0.12	0.040	30	20	<3	10
MAR 17...	0.12	0.090	0.20	0.070	0.030	0.12	0.040	130	20	<3	54
JUN 16...	0.04	0.030	0.30	0.020	0.020	--	<0.010	40	22	<3	26
SEP 01...	0.05	0.040	0.30	0.040	<0.010	0.03	0.010	<10	20	<3	9

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 18...	<4	<1	<10	<1	<1	<1.0	65	<6	15	1660	52
MAR 17...	<4	5	<10	<1	<1	<1.0	49	<6	16	3260	76
JUN 16...	<4	2	<10	<1	<1	<1.0	49	<6	13	1960	63
SEP 01...	<4	<1	<10	<1	<1	<1.0	54	<6	--	--	--

TENNESSEE RIVER BASIN

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 downstream from Pickwick Landing Dam, and at mile 189.9.

DRAINAGE AREA.--33,140 mi² approximately.

PERIOD OF RECORD.--September 1930 to current year. Gage-height records collected in this vicinity since June 1905, are in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1306: 1936 (monthly runoff). WSP 2110: 1966. WRD TN-74-1: 1973. WRD TN-85-1: 1973. WRD TN-90-1: 1989.

GAGE.--Data collection platform. Datum of gage is 350.06 ft above sea level (levels by Tennessee Valley Authority). Prior to Oct. 1, 1992, at datum 50.06 ft lower, prior to Apr. 7, 1945, at datum 8.45 ft lower. Oct. 1, 1948 to Apr. 13, 1978 and Oct. 1, 1989 to present, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam. Apr. 13, 1978 to Sept. 30, 1989, auxiliary water- stage recorder over tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, both sites 16.8 mi. upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi downstream from base gage at same datum.

REMARKS.--Records fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 261) and Water Resources Data for adjoining states.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft, Mar. 21, 1897, datum then in use, from floodmarks, discharge, 450,000 ft³/s, from rating curve extended above 320,000 ft³/s. Flood of Jan. 2, 1927, reached a stage of 92.7 ft datum then in use, discharge, 349,000 ft³/s. Minimum stage since 1905, 38.8 ft datum then in use, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 328,000 ft³/s, Mar. 29; maximum gage height, 36.10 ft, Apr. 1; minimum daily discharge, 7,810 ft³/s, May 29, minimum gage height, 4.36 ft, Nov. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25900	29200	44100	49300	134000	198000	311000	54200	41200	90200	47400	48400
2	16200	38100	41200	44200	122000	202000	301000	44800	35900	41600	56500	49500
3	15800	23800	36800	62500	105000	198000	288000	37100	14400	25200	53700	45100
4	22700	20800	38300	67500	97500	194000	280000	46300	13000	29200	54100	43900
5	29600	23200	78900	68000	92500	185000	260000	49500	9750	39700	70400	72900
6	35600	19000	86600	67500	86700	181000	235000	46400	24300	43200	52500	60100
7	29700	15900	87000	70200	86000	179000	228000	42400	32800	49100	38700	36100
8	19100	42500	86200	68400	85800	170000	225000	51900	40600	35700	47300	42400
9	18100	44200	85800	58900	79900	160000	195000	55800	75100	29600	47400	57900
10	15000	28200	88700	76200	77700	170000	169000	62100	92800	25100	53700	64300
11	20400	20300	87300	78500	157000	161000	160000	59200	56800	35000	49000	45700
12	18700	19200	80300	92400	250000	127000	157000	52100	21900	55000	42200	34600
13	19800	16400	58200	103000	268000	107000	158000	39700	52600	46200	36700	46800
14	18200	16000	65600	104000	273000	99900	162000	24000	56100	65000	29000	50400
15	15900	44900	63200	98300	268000	97600	167000	18000	56500	73200	38100	48200
16	13000	49300	66500	79200	266000	85200	182000	28900	55100	49900	42000	38900
17	12700	47000	60100	94000	261000	84800	190000	36400	46400	34700	48200	29400
18	25000	42400	32800	e105000	248000	72200	197000	37700	13600	71500	48200	22300
19	26900	42900	38400	e105000	223000	49400	200000	37200	12400	68000	44500	39700
20	40200	21100	53100	106000	194000	43300	197000	28400	39300	49900	29500	41100
21	27400	18600	60300	108000	173000	38400	165000	13200	36000	53000	25500	46400
22	26300	39600	65200	109000	148000	37200	114000	10600	36000	49800	43500	44200
23	15900	42600	64500	100000	157000	36000	93100	22600	37900	25800	50300	51600
24	12000	25400	61300	82600	187000	35200	92700	18900	40700	24100	50800	36900
25	24600	18500	52300	81300	195000	48700	80500	21700	23900	41500	e51000	33000
26	22400	18700	35300	82000	200000	37200	78400	16900	22500	42100	e58000	50600
27	22800	17700	30500	96000	201000	71300	72600	29100	46900	73500	34100	49700
28	29300	21500	31900	136000	197000	275000	68400	13600	58100	89100	31700	49500
29	22900	46200	45900	156000	---	320000	78600	7810	77700	84800	49800	48600
30	16800	44200	65300	155000	---	316000	64300	7930	89900	81500	46900	49100
31	9370	---	68700	148000	---	315000	---	37500	---	61700	46200	---
TOTAL	668270	897400	1860300	2852000	4833100	4294400	5169600	1051940	1260150	1583900	1416900	1377300
MEAN	21560	29910	60010	92000	172600	138500	172300	33930	42000	51090	45710	45910
MAX	40200	49300	88700	156000	273000	320000	311000	62100	92800	90200	70400	72900
MIN	9370	15900	30500	44200	77700	35200	64300	7810	9750	24100	25500	22300

e Estimated

TENNESSEE RIVER BASIN

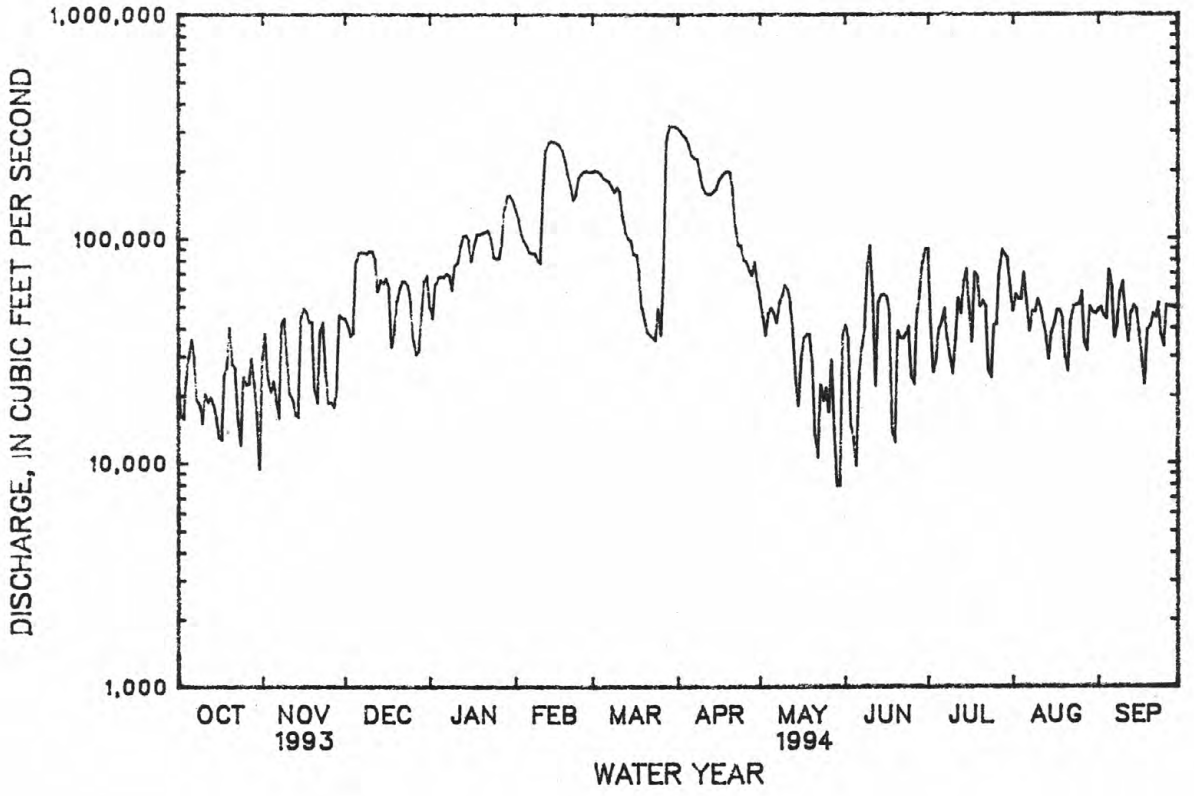
03593500 TENNESSEE RIVER AT SAVANNAH, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1994, BY WATER YEAR (WY)

MEAN	35800	46990	73380	88610	94440	85960	56790	48700	39990	38930	37420	35070
MAX	97010	147000	160100	223100	228100	179600	172300	140400	103100	84810	64740	71700
(WY)	1990	1958	1992	1974	1957	1973	1994	1984	1989	1989	1967	1950
MIN	18820	20510	26850	23710	39170	19840	11150	8977	10490	12910	15910	15800
(WY)	1955	1954	1981	1986	1988	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1946 - 1994	
ANNUAL TOTAL	17939740		27265260			
ANNUAL MEAN	49150		74700		56690	
HIGHEST ANNUAL MEAN					86040	1973
LOWEST ANNUAL MEAN					23090	1988
HIGHEST DAILY MEAN	203000	Mar 27	320000	Mar 29	554000	Mar 17 1973
LOWEST DAILY MEAN	8670	May 23	7810	May 29	60	Apr 23 1966
ANNUAL SEVEN-DAY MINIMUM	17000	Oct 11	16600	May 24	5890	May 20 1986
INSTANTANEOUS PEAK FLOW			328000	Mar 29	507000	Mar 18 1973
INSTANTANEOUS PEAK STAGE			36.10	Apr 1	96.11	Mar 20 1973
INSTANTANEOUS LOW FLOW			7810	May 29	60	Apr 23 1966
10 PERCENT EXCEEDS	90700		183000		107000	
50 PERCENT EXCEEDS	39100		49500		42500	
90 PERCENT EXCEEDS	18900		19600		22900	

* Regulated period only.



TENNESSEE RIVER BASIN

03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN

LOCATION.--Lat 35°30'42", long 86°19'26", Bedford County, Hydrologic Unit 06040002, on right bank 0.3 mi above L&N Railroad bridge, 0.6 mi below Knob Creek, 1.2 mi southeast of Wartrace, and at mile 3.2.

DRAINAGE AREA.--85.5 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 769.30 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Periodic regulation by a small powerplant, 6.8 miles upstream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1815	*9,280	*16.12	Mar. 24	1800	3,390	11.04
Jan. 28	0215	4,200	11.86	Mar. 27	2345	8,440	15.50
Feb. 11	0830	8,620	15.64	Apr. 6	0300	7,580	14.83
Feb. 21	0630	3,900	11.57	Apr. 10	2345	6,050	13.56
Feb. 23	0430	6,220	13.71	July 26	1145	3,570	11.23
Mar. 9	2045	4,540	12.18				

Minimum discharge, 4.9 ft³/s, Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	10	19	117	149	439	332	103	28	34	36	19
2	9.0	10	19	107	121	989	255	76	27	27	42	20
3	9.9	10	19	98	101	696	219	113	26	23	61	19
4	9.6	10	4010	185	88	383	186	150	25	21	60	16
5	8.8	10	1110	154	84	251	882	111	156	19	129	15
6	7.7	11	332	134	76	190	3640	89	196	21	71	16
7	7.4	11	172	594	68	156	760	89	113	18	46	16
8	7.1	10	116	471	64	137	416	120	140	17	35	14
9	6.5	9.4	87	243	350	1490	279	95	74	17	28	13
10	6.0	8.8	583	165	1670	1420	1040	79	88	18	24	12
11	5.7	8.7	295	136	5710	520	2490	68	54	22	21	12
12	5.5	8.7	170	186	1150	297	708	62	42	43	19	11
13	5.4	8.7	121	167	695	220	432	56	34	47	17	11
14	5.4	12	109	145	427	186	285	54	30	37	20	11
15	5.1	114	114	112	294	155	415	105	27	30	59	11
16	8.0	62	105	86	216	131	621	69	24	25	24	11
17	13	76	90	218	174	111	353	55	22	27	21	35
18	12	73	79	204	147	104	248	49	20	24	20	78
19	11	43	69	145	130	92	195	44	19	22	13	26
20	10	32	72	120	123	84	158	41	17	19	15	17
21	8.9	25	165	95	1610	93	134	39	16	18	173	14
22	7.9	22	136	83	861	90	117	36	20	24	96	13
23	7.9	20	109	86	3320	79	101	34	19	20	50	55
24	7.9	18	85	116	773	1060	91	33	16	22	34	200
25	7.8	17	76	379	390	1010	83	32	16	19	27	83
26	7.4	17	63	705	245	428	77	51	30	880	23	55
27	6.9	21	56	755	186	6060	196	61	484	576	20	74
28	6.2	25	190	1880	153	3830	175	39	97	174	18	51
29	6.0	22	376	547	---	828	107	34	67	88	16	38
30	7.8	20	211	292	---	483	85	31	45	58	15	30
31	9.8	---	147	198	---	481	---	29	---	44	15	---
TOTAL	245.9	745.3	9305	8923	19375	22493	15080	2047	1972	2434	1248	996
MEAN	7.93	24.8	300	288	692	726	503	66.0	65.7	78.5	40.3	33.2
MAX	13	114	4010	1880	5710	6060	3640	150	484	880	173	200
MIN	5.1	8.7	19	83	64	79	77	29	16	17	13	11
CFSM	.09	.29	3.51	3.37	8.09	8.49	5.88	.77	.77	.92	.47	.39
IN.	.11	.32	4.05	3.88	8.43	9.79	6.56	.89	.86	1.06	.54	.43

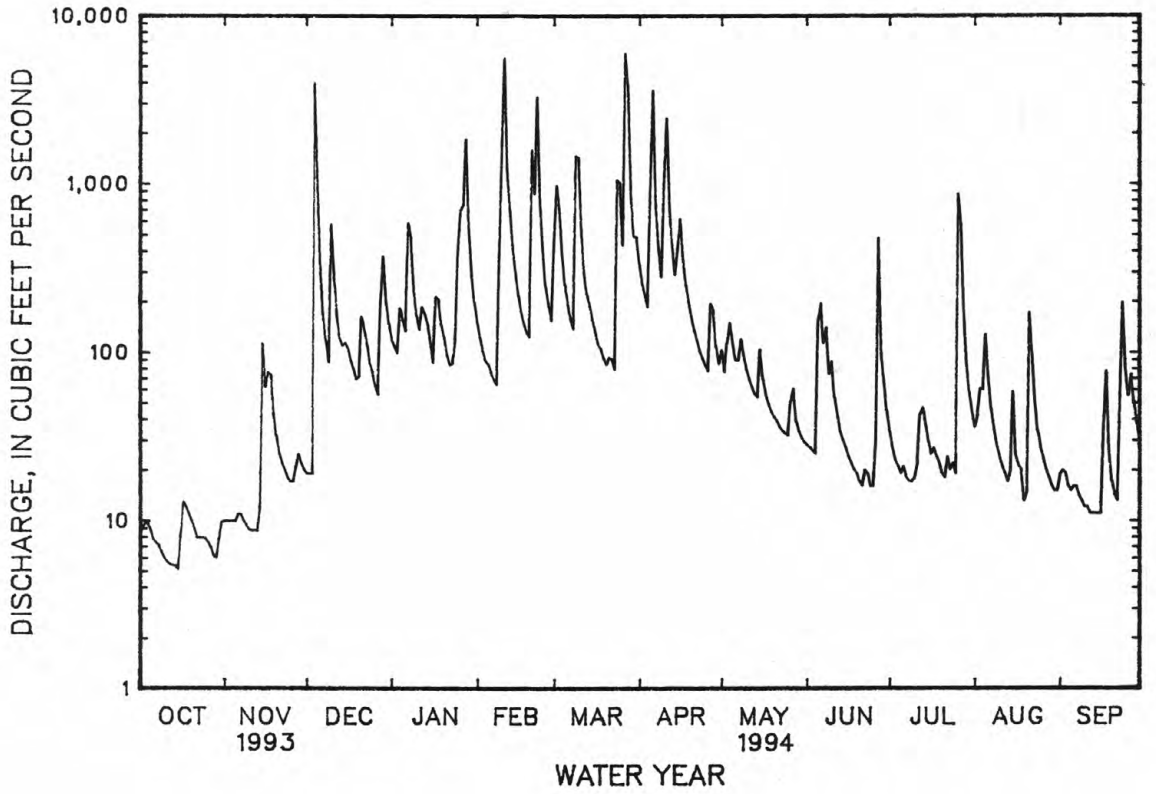
TENNESSEE RIVER BASIN

03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

MEAN	53.3	93.3	446	268	433	376	210	104	54.7	41.3	25.6	63.6
MAX	179	189	825	335	793	726	503	179	88.1	78.5	58.7	240
(WY)	1990	1993	1991	1990	1991	1994	1994	1993	1991	1994	1992	1992
MIN	7.93	24.8	121	209	117	195	84.1	30.8	19.5	13.9	8.76	9.92
(WY)	1994	1994	1990	1991	1993	1992	1992	1992	1990	1993	1990	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	44775.7		84864.2			
ANNUAL MEAN	123		233		180	
HIGHEST ANNUAL MEAN					233	1994
LOWEST ANNUAL MEAN					136	1993
HIGHEST DAILY MEAN	4010	Dec 4	6060	Mar 27	7390	Dec 22 1990
LOWEST DAILY MEAN	5.1	Oct 15	5.1	Oct 15	2.2	Sep 2 1990
ANNUAL SEVEN-DAY MINIMUM	5.7	Oct 9	5.7	Oct 9	4.8	Aug 23 1990
INSTANTANEOUS PEAK FLOW			9280	Dec 4	9800	Dec 22 1990
INSTANTANEOUS PEAK STAGE			16.12	Dec 4	16.45	Dec 22 1990
INSTANTANEOUS LOW FLOW			4.9	Oct 15	2.2	Sep 2 1990
ANNUAL RUNOFF (CFSM)	1.43		2.72		2.10	
ANNUAL RUNOFF (INCHES)	19.48		36.92		28.53	
10 PERCENT EXCEEDS	271		483		350	
50 PERCENT EXCEEDS	52		64		56	
90 PERCENT EXCEEDS	7.9		10		9.4	



TENNESSEE RIVER BASIN

03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN

LOCATION.--Lat 35°31'38", long 86°20'25", Bedford County, Hydrologic Unit 06040002, on right bank 300 ft below county road bridge, 0.4 mi upstream from Louisville and Nashville Railroad bridge, 0.4 mi west of Wartrace, and at mile 2.3.

DRAINAGE AREA.--35.7 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 781.66 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1600	*6,240	*13.55	Mar. 24	1945	3,050	10.64
Jan. 28	0330	2,950	10.49	Mar. 27	1515	4,030	11.82
Feb. 11	0600	3,720	11.48	Apr. 6	0200	4,920	12.62
Feb. 23	0315	3,440	11.17	Apr. 11	0015	2,860	10.35
Mar. 9	1945	2,670	10.08				

No flow Oct. 14, 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.08	2.2	43	52	262	93	18	1.8	4.3	6.3	35
2	.21	.10	1.9	44	43	552	67	12	1.6	3.2	5.1	34
3	.16	.10	1.9	41	37	190	59	27	1.5	15	4.4	17
4	.11	.10	2240	99	32	97	54	42	1.4	4.6	70	10
5	.08	.10	425	68	32	65	601	25	7.3	3.7	115	7.2
6	.06	.11	98	53	29	49	1780	18	20	3.0	37	9.1
7	.05	.10	55	469	25	40	222	20	12	2.1	20	28
8	.04	.10	38	166	25	35	115	36	18	1.7	12	12
9	.02	.10	31	82	248	977	77	23	9.8	1.8	9.9	7.8
10	.02	.10	411	59	819	461	502	18	36	1.6	6.3	5.4
11	.02	.09	106	51	2200	136	1040	14	15	1.7	4.4	4.1
12	.02	.09	58	107	534	81	235	11	8.7	4.5	3.6	3.3
13	.01	.10	41	77	293	61	194	9.0	6.1	4.3	2.9	2.8
14	.00	.52	49	62	139	51	96	9.4	4.3	3.2	8.6	2.5
15	.00	9.7	63	46	92	41	296	13	3.7	4.4	33	2.2
16	.02	11	54	37	66	33	282	9.0	2.9	3.7	8.1	1.8
17	.03	17	41	145	52	28	111	6.3	2.4	2.3	5.3	2.1
18	.06	13	34	97	42	26	73	4.9	1.8	1.7	3.8	2.3
19	.07	6.7	28	58	36	22	53	4.2	1.5	1.3	2.9	2.7
20	.08	4.5	33	44	37	20	40	3.6	1.2	1.0	2.3	2.3
21	.09	3.3	89	35	853	24	31	3.5	1.1	.95	230	1.7
22	.08	2.7	56	32	412	22	26	3.2	.98	1.8	49	1.5
23	.08	2.1	42	37	1410	19	22	2.6	1.2	1.7	23	7.8
24	.07	1.7	33	61	195	888	19	2.5	1.6	1.6	14	36
25	.06	1.6	29	323	97	373	17	2.3	1.2	1.1	9.4	17
26	.05	1.4	24	407	63	118	20	7.1	2.4	179	6.4	11
27	.05	2.5	22	389	48	3080	29	12	40	381	4.9	31
28	.04	3.2	189	1070	39	1360	34	4.7	25	46	3.9	17
29	.04	3.0	192	164	---	237	19	3.4	16	22	3.1	11
30	.07	2.7	79	94	---	141	14	2.8	7.1	14	2.7	7.4
31	.07	---	53	67	---	159	---	2.2	---	8.5	36	---
TOTAL	2.00	87.89	4619.0	4527	7950	9648	6221	369.7	253.58	726.75	743.3	333.0
MEAN	.065	2.93	149	146	284	311	207	11.9	8.45	23.4	24.0	11.1
MAX	.24	17	2240	1070	2200	3080	1780	42	40	381	230	36
MIN	.00	.08	1.9	32	25	19	14	2.2	.98	.95	2.3	1.5
CFSM	.00	.08	4.17	4.09	7.95	8.72	5.81	.33	.24	.66	.67	.31
IN.	.00	.09	4.81	4.72	8.28	10.05	6.48	.39	.26	.76	.77	.35

TENNESSEE RIVER BASIN

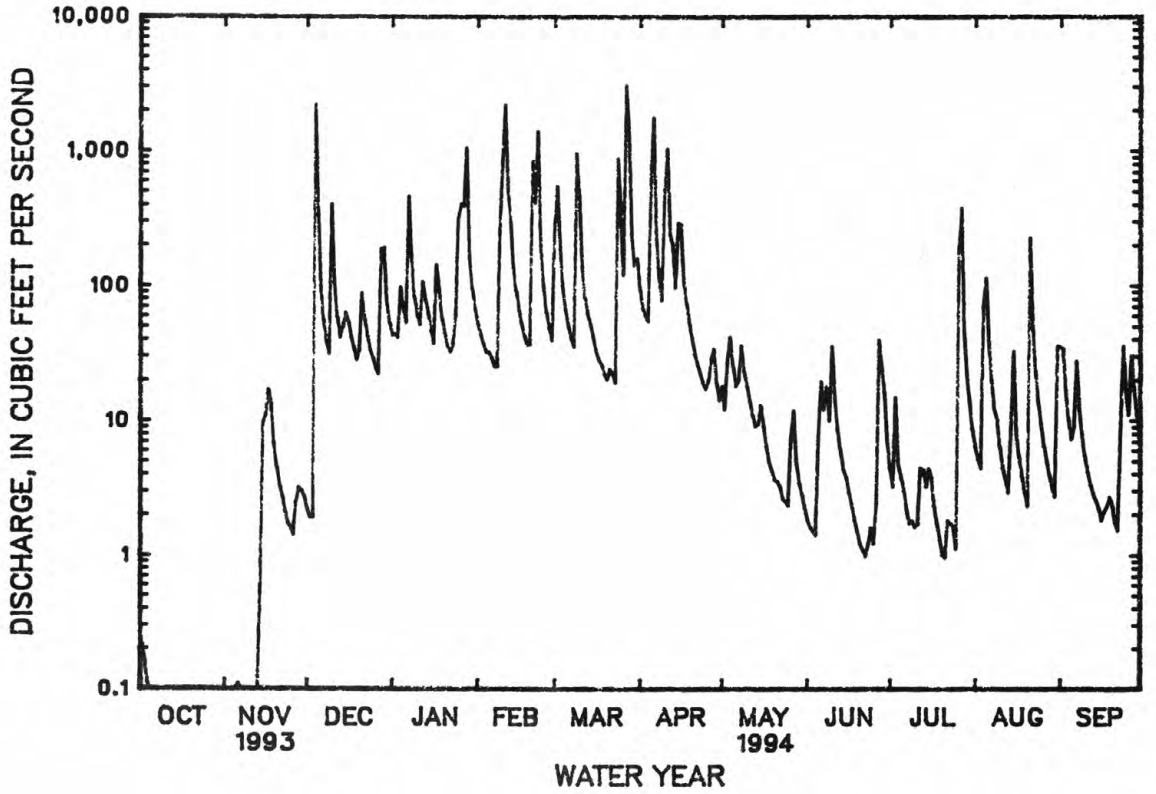
03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1994, BY WATER YEAR (WY)

MEAN	23.2	47.0	199	118	179	152	78.9	31.1	10.8	13.1	20.8	30.5
MAX	96.0	110	350	147	326	311	207	62.2	19.4	23.7	79.5	167
(WY)	1990	1993	1991	1990	1991	1994	1994	1991	1993	1992	1992	1992
MIN	.065	2.93	55.4	91.6	51.2	78.8	20.4	2.23	1.57	2.17	.012	.002
(WY)	1994	1994	1990	1992	1992	1992	1992	1992	1990	1993	1991	1989

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1989 - 1994	
ANNUAL TOTAL	16823.63		35481.22			
ANNUAL MEAN	46.1		97.2		75.3	
HIGHEST ANNUAL MEAN					97.2	1994
LOWEST ANNUAL MEAN					52.9	1993
HIGHEST DAILY MEAN	2240	Dec 4	3080	Mar 27	4000	Sep 22 1992
LOWEST DAILY MEAN	.00	Aug 31	a.00	Oct 14	b.00	Aug 31 1989
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 18	.01	Oct 9	.00	Aug 31 1989
INSTANTANEOUS PEAK FLOW			6240	Dec 4	8690	Sep 22 1992
INSTANTANEOUS PEAK STAGE			13.55	Dec 4	15.12	Sep 22 1992
ANNUAL RUNOFF (CFSM)	1.29		2.72		2.11	
ANNUAL RUNOFF (INCHES)	17.53		36.97		28.66	
10 PERCENT EXCEEDS	101		194		127	
50 PERCENT EXCEEDS	14		17		15	
90 PERCENT EXCEEDS	.04		.10		.08	

a Also occurred on Oct 15.
b No flow many days most years.



TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN

LOCATION.--Lat 35°28'51", long 86°27'45", Bedford County, Hydrologic Unit 06040002, on right bank 125 ft upstream from U.S. Highway 231 bridge, one block west of the southwest corner of the public square, and at mile 221.4.

DRAINAGE AREA.--425 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year, discharge for stage of 12.00 ft and below only. Continuous stage records were collected by Tennessee Valley Authority from December 1981 to September 1991.

GAGE.--Data collection platform. Datum of gage is 680.00 ft above sea level. Prior to Oct. 10, 1991 datum 10.00 ft higher.

REMARKS.--Records good. Flow regulated by Normandy Reservoir (station 03596460) since January 1976.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 33.13 ft, March 28, 1994; minimum discharge, 129 ft³/s, May 20, 1992; minimum daily 131 ft³/s, May 20, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 33.13 ft, Mar. 28; minimum discharge, 147 ft³/s, Dec. 2, 3, minimum daily, 149 ft³/s, Dec. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	178	199	536	---	---	---	667	215	214	235	263
2	175	176	178	511	---	---	---	552	211	197	225	257
3	185	178	149	477	---	---	---	294	207	197	222	232
4	191	182	---	---	---	---	---	455	163	191	217	218
5	195	186	---	---	---	---	---	498	194	183	443	209
6	189	183	---	718	---	---	---	449	---	179	365	210
7	177	181	---	---	---	---	---	452	451	176	276	223
8	162	174	---	---	334	---	---	579	407	195	244	215
9	164	172	---	---	---	---	---	493	343	203	232	203
10	166	173	---	---	---	---	---	438	353	217	208	199
11	164	225	---	---	---	---	---	403	312	223	199	197
12	164	229	---	---	---	---	---	375	284	270	192	196
13	166	228	---	---	---	---	---	280	267	262	186	194
14	167	258	---	---	---	---	---	270	227	247	191	189
15	164	447	---	686	---	---	---	319	215	210	272	188
16	171	379	574	615	---	---	---	294	206	202	220	191
17	178	455	500	---	---	382	---	260	199	195	201	200
18	177	484	469	---	---	337	---	228	197	193	191	348
19	175	404	431	---	---	304	---	212	195	194	206	236
20	170	373	431	730	---	276	485	204	190	183	189	209
21	168	354	687	655	---	281	380	201	184	182	---	200
22	168	343	645	612	---	303	332	198	184	197	---	199
23	171	334	562	611	---	254	295	190	191	209	268	281
24	173	333	493	667	---	---	265	182	186	212	236	570
25	172	331	456	---	---	---	243	176	201	206	217	404
26	169	324	419	---	---	---	225	e240	223	---	218	305
27	168	267	392	---	---	---	---	e330	---	---	217	391
28	163	258	---	---	---	---	---	e265	319	547	214	322
29	165	250	---	---	---	---	630	e230	291	348	207	272
30	175	196	---	---	---	---	585	e220	234	283	205	246
31	176	---	621	---	---	---	---	e220	---	255	205	---
TOTAL	5329	8255	---	---	---	---	---	10174	---	---	---	7567
MEAN	172	275	---	---	---	---	---	328	---	---	---	252
MAX	195	484	---	---	---	---	---	667	---	---	---	570
MIN	161	172	---	---	---	---	---	176	---	---	---	188

e Estimated

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1991 to current year.
DISSOLVED OXYGEN: October 1991 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1991.

REMARKS.--Records good. Interruptions in the record were due to equipment malfunctions.

EXTREME FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.7°C, June 10, 1993; minimum, 0.9°C, Jan. 19, 1994.
DISSOLVED OXYGEN: Maximum, 14.2 mg/L, Mar. 15, 1993; minimum 5.8 mg/L, Sept. 22, 1992.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.6°C, June 23; minimum, 0.9°C, Jan. 19.
DISSOLVED OXYGEN: Maximum, 13.4 mg/L, Jan. 19, 20; minimum, 7.3 mg/L, Dec. 4, 5.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.4	15.2	15.6	9.1	7.9	8.5	8.1	7.3	7.7	5.1	4.5	4.7
2	15.8	15.0	15.4	7.9	7.3	7.7	8.5	7.5	8.0	6.5	5.1	5.6
3	16.4	15.4	15.8	8.5	7.5	7.9	9.5	8.5	8.9	7.1	6.5	6.8
4	16.9	15.6	16.1	9.9	8.5	9.1	12.1	9.5	11.0	7.1	5.7	6.4
5	16.7	15.7	16.1	11.5	9.9	10.8	12.6	11.3	11.8	5.7	5.1	5.4
6	17.4	15.9	16.5	11.7	11.5	11.6	11.3	10.3	10.6	6.9	5.7	6.1
7	18.2	16.7	17.2	11.5	9.9	10.8	10.3	9.5	9.8	8.2	6.9	7.7
8	18.6	17.2	17.8	9.9	8.5	9.2	10.3	9.9	10.1	7.6	5.5	6.4
9	18.2	17.8	18.0	8.5	7.7	8.0	10.1	9.7	9.8	5.5	4.7	5.0
10	17.8	16.3	17.0	8.5	7.7	8.2	11.3	10.1	10.9	5.1	4.7	5.0
11	16.3	14.1	15.3	9.3	8.3	8.8	11.3	9.3	10.5	5.8	5.1	5.5
12	14.1	13.1	13.7	9.9	8.9	9.5	9.3	7.9	8.3	7.0	5.8	6.5
13	13.5	12.5	13.1	11.5	9.9	10.7	8.5	7.7	8.2	7.0	6.8	6.9
14	14.5	12.9	13.7	14.2	11.5	12.9	8.9	8.5	8.8	6.8	5.2	6.2
15	14.9	14.1	14.5	15.6	14.2	15.2	8.9	8.7	8.9	5.2	2.6	3.9
16	15.7	14.9	15.4	15.2	14.4	14.7	8.9	8.7	8.7	2.6	1.9	2.0
17	16.7	15.7	16.2	14.8	14.4	14.7	8.7	8.7	8.7	2.6	2.1	2.3
18	17.0	16.5	16.6	14.6	13.0	13.7	8.9	8.7	8.7	2.3	1.7	2.0
19	17.3	16.8	17.0	13.0	11.9	12.3	8.7	7.9	8.3	1.7	.9	1.2
20	17.7	17.0	17.3	11.9	10.7	11.4	7.9	7.2	7.4	1.9	1.1	1.4
21	17.5	17.1	17.4	10.7	9.3	10.0	7.2	7.0	7.0	2.6	1.9	2.2
22	17.1	15.8	16.6	9.7	9.1	9.4	7.0	6.4	6.6	2.6	2.3	2.5
23	15.8	14.0	14.7	9.9	9.3	9.7	6.6	6.2	6.4	4.0	2.6	3.3
24	14.0	13.0	13.4	10.5	9.7	10.3	6.4	5.7	5.9	5.6	4.0	4.6
25	13.6	12.8	13.2	11.3	10.5	11.0	5.7	5.3	5.5	6.4	5.6	6.1
26	14.4	13.2	13.8	11.7	11.3	11.5	5.3	4.5	4.7	8.3	6.0	7.0
27	14.4	14.0	14.2	11.5	10.3	11.1	5.9	4.5	5.1	9.3	8.3	8.9
28	14.4	13.4	13.9	10.3	8.5	9.6	7.6	5.9	7.0	9.5	8.5	8.8
29	13.4	12.2	12.8	8.5	7.5	8.1	7.6	6.7	7.0	9.0	6.3	7.4
30	12.2	10.7	11.4	7.9	7.3	7.6	6.7	5.3	5.9	6.3	5.7	5.9
31	10.7	9.1	9.9	---	---	---	5.3	4.5	4.7	5.7	4.5	5.0
MONTH	18.6	9.1	15.1	15.6	7.3	10.5	12.6	4.5	8.1	9.5	.9	5.1

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	3.7	4.0	8.8	7.8	8.2	12.4	10.5	11.3	20.0	14.5	16.4
2	3.9	3.3	3.6	8.8	7.6	8.5	13.2	11.3	12.3	14.6	13.4	13.9
3	4.1	3.5	3.8	8.8	7.6	8.2	13.2	11.7	12.1	14.4	14.0	14.2
4	4.3	3.9	4.1	9.5	8.1	8.7	12.8	11.3	12.0	14.4	14.0	14.3
5	5.5	4.1	4.8	9.5	8.3	8.9	12.8	11.9	12.2	15.4	14.0	14.6
6	6.1	5.5	5.7	9.9	8.3	9.1	12.8	12.3	12.6	16.8	15.4	16.2
7	5.9	5.5	5.6	10.4	8.7	9.7	12.5	10.9	11.6	17.1	16.8	17.0
8	7.8	5.7	6.6	10.4	9.0	9.9	13.3	11.6	12.4	16.8	16.2	16.4
9	10.0	7.8	9.2	9.0	6.9	8.2	14.3	12.7	13.4	17.4	16.5	16.9
10	9.0	2.7	6.1	9.6	6.7	7.9	16.5	14.1	14.5	18.2	17.4	17.8
11	7.2	2.3	4.1	9.6	8.0	8.7	16.5	15.3	16.1	18.6	17.8	18.1
12	9.4	7.2	8.3	9.7	8.3	9.1	15.3	14.1	14.5	18.7	17.8	18.3
13	9.4	5.9	7.2	9.9	8.7	9.4	14.9	14.1	14.5	18.9	18.1	18.6
14	6.3	4.9	5.6	10.1	8.7	9.5	15.9	13.3	14.6	19.5	17.9	18.5
15	6.3	5.1	5.6	11.1	10.1	10.6	15.9	14.7	15.4	20.1	18.3	19.3
16	6.1	4.9	5.6	11.1	10.1	10.6	15.5	14.9	15.2	20.7	19.5	20.2
17	6.7	5.3	6.0	10.1	9.3	9.7	15.8	14.0	15.0	21.5	20.1	20.7
18	7.5	5.7	6.6	11.3	9.7	10.5	16.2	14.6	15.4	21.1	19.9	20.5
19	8.1	6.6	7.4	12.6	10.7	11.8	17.5	16.0	16.7	20.5	19.1	19.9
20	8.3	7.3	7.8	13.6	11.9	12.8	18.7	17.5	18.0	19.9	18.7	19.4
21	12.1	8.3	10.8	14.3	12.9	13.7	18.7	18.3	18.5	20.1	18.5	19.3
22	12.1	10.9	11.5	14.7	13.7	14.0	19.1	18.1	18.7	20.3	18.7	19.5
23	12.6	11.5	12.3	14.5	13.3	13.9	19.3	17.9	18.4	21.9	19.3	20.3
24	12.1	8.5	9.4	14.3	13.5	14.0	19.5	17.5	18.5	22.4	20.1	21.2
25	8.5	7.3	8.0	14.1	12.7	13.1	20.5	18.1	19.2	23.0	20.9	21.9
26	8.4	6.7	7.2	12.7	11.4	11.7	21.1	19.1	20.0	---	---	---
27	7.4	6.1	6.8	14.9	11.8	13.6	---	---	---	---	---	---
28	8.4	6.9	7.5	13.7	11.6	12.2	---	---	---	---	---	---
29	---	---	---	12.0	10.8	11.4	20.6	19.6	20.0	---	---	---
30	---	---	---	11.9	10.9	11.2	20.8	20.0	20.3	---	---	---
31	---	---	---	11.3	10.7	11.0	---	---	---	---	---	---
MONTH	12.6	2.3	6.8	14.9	6.7	10.6	21.1	10.5	15.5	23.0	13.4	18.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.9	21.2	22.1	25.2	22.8	24.0	22.9	21.4	22.0	23.7	23.1	23.5
2	23.7	22.0	22.9	26.0	23.6	24.6	23.5	21.6	22.4	23.1	21.8	22.2
3	23.9	22.7	23.4	26.0	24.2	25.0	24.1	22.1	22.9	21.8	21.0	21.2
4	24.3	22.9	23.6	26.2	24.4	25.2	24.1	22.5	23.2	21.6	20.4	21.0
5	25.1	23.5	23.9	26.0	24.6	25.2	23.3	22.1	22.9	21.2	20.6	20.9
6	---	---	---	26.2	25.0	25.4	22.7	22.0	22.3	21.6	20.8	21.1
7	---	---	---	25.2	24.6	24.8	23.3	21.8	22.4	21.8	20.6	21.1
8	22.1	21.8	21.9	24.6	23.8	24.3	23.5	21.8	22.6	22.1	20.6	21.2
9	22.6	21.9	22.1	23.8	23.4	23.6	24.1	22.1	23.1	22.0	20.8	21.4
10	22.2	21.7	22.0	23.4	22.4	23.0	24.7	23.1	24.0	22.1	21.0	21.6
11	22.3	21.5	21.8	22.4	21.9	22.0	25.5	23.7	24.5	22.3	21.0	21.7
12	23.9	21.8	22.7	21.9	21.1	21.4	25.9	24.1	24.9	22.3	21.2	21.7
13	24.1	22.5	23.2	21.5	20.7	21.0	25.7	24.1	24.8	22.7	21.4	21.9
14	24.4	22.6	23.3	22.4	20.9	21.5	25.9	24.1	24.6	22.6	21.7	22.1
15	24.2	22.6	23.3	22.8	21.5	22.2	24.7	23.9	24.3	23.4	21.9	22.4
16	24.8	23.0	23.8	23.6	22.2	22.8	23.9	23.1	23.3	22.8	22.1	22.3
17	25.0	23.2	24.0	23.8	22.6	23.2	23.9	22.9	23.4	23.0	22.1	22.3
18	25.6	23.6	24.5	24.6	23.0	23.6	23.9	22.7	23.3	22.2	21.3	21.9
19	26.0	24.0	24.8	25.2	23.4	24.3	24.5	22.9	23.5	21.7	20.9	21.2
20	25.6	24.2	24.8	26.2	24.2	25.0	23.9	22.7	23.3	21.5	20.3	20.9
21	26.2	24.4	25.0	25.6	24.6	25.0	23.1	22.1	22.8	21.1	19.9	20.5
22	25.6	24.6	25.0	25.2	24.4	24.8	22.3	21.4	21.8	21.1	19.7	20.3
23	26.6	24.6	25.3	24.6	23.6	24.1	22.7	21.6	22.0	20.3	19.5	19.9
24	25.0	24.2	24.5	25.0	23.2	23.9	23.1	21.6	22.3	19.5	18.1	18.5
25	24.4	23.2	23.9	25.4	23.4	24.2	23.5	22.0	22.7	18.5	17.9	18.2
26	23.2	21.9	22.5	24.5	22.0	23.7	23.7	22.3	22.9	18.7	17.5	18.1
27	21.9	20.5	21.2	22.0	20.6	21.1	24.1	22.5	23.2	17.9	17.3	17.6
28	22.8	21.7	22.1	20.8	20.2	20.6	24.3	22.5	23.2	18.1	17.2	17.4
29	24.0	22.0	22.9	21.6	20.6	20.9	23.7	22.5	23.1	18.4	17.3	17.7
30	24.4	22.4	23.4	22.3	20.8	21.4	24.7	22.9	23.6	19.4	17.4	18.2
31	---	---	---	22.5	21.0	21.7	24.3	22.9	23.5	---	---	---
MONTH	26.6	20.5	23.4	26.2	20.2	23.3	25.9	21.4	23.2	23.7	17.2	20.7

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	9.4	9.6	11.8	11.4	11.6	11.1	10.7	10.9	11.9	11.3	11.6
2	9.8	9.6	9.6	12.0	11.5	11.8	11.1	10.6	10.9	11.6	11.2	11.3
3	9.6	9.2	9.5	12.0	11.6	11.8	10.8	10.2	10.5	11.3	10.7	11.0
4	9.6	9.2	9.4	11.8	11.0	11.3	10.2	7.3	8.9	11.2	10.6	10.9
5	9.6	9.3	9.5	11.0	10.5	10.7	9.0	7.3	8.3	11.7	11.1	11.5
6	9.7	9.4	9.5	10.5	10.2	10.4	9.7	9.0	9.4	11.7	11.3	11.5
7	9.5	9.2	9.3	10.8	10.3	10.5	10.0	9.6	9.8	11.3	10.1	10.7
8	9.3	9.0	9.2	11.4	10.7	11.0	10.0	9.7	9.9	11.5	10.1	10.9
9	9.2	9.0	9.1	11.6	11.4	11.5	10.1	9.8	10.0	12.2	11.4	11.9
10	9.5	9.2	9.4	11.6	11.2	11.4	9.9	8.8	9.2	12.2	11.8	12.0
11	10.0	9.4	9.7	11.4	11.1	11.2	10.0	8.9	9.5	12.1	11.8	11.9
12	10.4	10.0	10.2	11.1	10.7	10.9	10.5	9.9	10.3	12.1	11.2	11.5
13	10.6	10.3	10.5	10.7	10.2	10.5	10.6	10.3	10.4	11.5	11.2	11.3
14	10.6	10.2	10.4	10.2	9.4	9.8	10.3	9.9	10.1	12.1	11.2	11.5
15	10.3	10.1	10.2	9.5	8.9	9.2	10.2	9.9	10.0	12.9	11.7	12.2
16	10.1	9.8	10.0	9.3	9.0	9.1	10.3	10.0	10.2	12.9	12.3	12.6
17	9.8	9.6	9.7	9.5	9.3	9.4	10.3	10.1	10.2	12.9	12.1	12.5
18	9.7	9.4	9.5	9.7	9.5	9.6	10.3	10.0	10.2	13.0	12.0	12.5
19	9.6	9.4	9.5	9.7	9.5	9.6	10.5	10.2	10.3	13.4	12.6	13.0
20	9.5	9.4	9.5	10.1	9.6	9.9	10.7	10.4	10.5	13.4	12.7	13.0
21	9.6	9.2	9.4	10.6	10.0	10.3	10.9	10.5	10.7	13.2	12.3	12.8
22	9.7	9.5	9.6	10.7	10.4	10.6	11.0	10.7	10.8	13.1	12.3	12.6
23	10.3	9.6	10.0	10.6	10.3	10.5	11.2	10.9	11.0	12.7	12.0	12.4
24	10.7	10.3	10.5	10.5	10.1	10.3	11.3	11.0	11.1	12.3	11.9	12.1
25	10.7	10.5	10.6	10.3	9.9	10.1	11.3	11.1	11.2	12.1	10.9	11.4
26	10.5	10.1	10.4	10.0	9.8	9.9	11.6	11.3	11.5	11.1	10.1	10.6
27	10.6	10.2	10.3	10.1	9.8	9.9	11.8	11.3	11.6	10.2	9.8	10.0
28	10.5	10.2	10.3	10.6	9.9	10.3	11.3	10.7	11.0	10.2	9.5	9.8
29	10.7	10.3	10.5	11.0	10.4	10.8	11.0	10.5	10.6	11.2	10.1	10.6
30	11.0	10.6	10.8	11.3	10.8	11.0	11.6	10.8	11.2	11.7	11.0	11.3
31	11.5	10.8	11.2	---	---	---	11.9	11.5	11.7	12.1	11.3	11.7
MONTH	11.5	9.0	9.9	12.0	8.9	10.5	11.9	7.3	10.4	13.4	9.5	11.6

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

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.8	8.4	8.6	7.9	7.6	7.8	8.8	8.6	8.7	8.1	7.9	8.0
2	8.8	8.4	8.6	7.8	7.6	7.7	9.0	8.6	8.7	8.3	7.9	8.1
3	8.8	8.5	8.6	7.8	7.5	7.7	8.8	8.5	8.7	8.7	8.2	8.4
4	8.8	8.4	8.5	7.9	7.6	7.7	8.8	8.5	8.6	8.7	8.4	8.5
5	8.5	8.3	8.4	7.9	7.6	7.7	8.8	8.5	8.7	8.7	8.4	8.6
6	8.5	8.1	8.3	7.9	7.5	7.7	8.9	8.6	8.7	8.6	8.4	8.5
7	8.3	8.1	8.2	7.8	7.6	7.7	8.9	8.6	8.8	8.7	8.4	8.6
8	8.4	8.1	8.3	7.9	7.6	7.8	9.1	8.7	8.9	8.8	8.5	8.7
9	8.4	8.2	8.3	8.1	7.9	8.0	9.1	8.7	8.9	9.0	8.6	8.8
10	8.5	8.3	8.4	8.2	8.0	8.1	9.1	8.7	8.8	9.0	8.7	8.9
11	8.6	8.3	8.5	8.3	8.1	8.2	9.0	8.6	8.7	9.0	8.8	8.9
12	8.5	8.1	8.3	8.4	8.2	8.3	8.9	8.5	8.7	9.1	8.9	9.0
13	8.4	8.1	8.2	8.5	8.2	8.3	8.9	8.5	8.7	9.1	9.0	9.1
14	8.4	8.1	8.3	8.4	8.2	8.3	8.8	8.5	8.6	9.2	9.0	9.1
15	8.3	7.9	8.1	8.4	8.1	8.2	8.9	8.5	8.7	9.3	9.0	9.1
16	8.2	7.9	8.0	8.2	7.9	8.1	9.0	8.6	8.8	9.2	9.1	9.2
17	8.0	7.8	7.9	8.1	7.9	8.0	8.8	8.5	8.7	9.3	9.1	9.2
18	8.0	7.6	7.9	8.1	7.8	7.9	8.8	8.6	8.7	9.5	9.3	9.4
19	8.0	7.6	7.8	8.1	7.7	7.9	9.0	8.7	8.9	9.5	9.3	9.4
20	8.0	7.6	7.8	8.1	7.6	7.9	9.2	8.8	9.0	9.7	9.3	9.5
21	7.9	7.6	7.7	8.1	7.8	7.9	9.3	8.9	9.1	10.0	9.6	9.8
22	7.9	7.6	7.7	8.1	7.8	7.9	9.4	9.0	9.2	10.1	9.6	9.9
23	7.8	7.6	7.7	8.1	7.9	8.0	9.4	8.9	9.1	10.5	9.8	9.9
24	7.8	7.5	7.6	8.2	8.0	8.1	9.2	8.8	9.0	10.6	9.9	10.3
25	7.8	7.6	7.7	8.3	7.8	8.1	8.9	8.5	8.7	10.5	10.2	10.3
26	8.0	7.7	7.8	8.3	7.8	8.0	9.0	8.6	8.8	10.6	10.3	10.4
27	8.4	7.9	8.1	8.7	8.0	8.4	8.7	8.3	8.6	11.0	10.4	10.6
28	7.9	7.6	7.8	8.8	8.6	8.7	8.6	8.3	8.4	11.4	10.5	10.7
29	7.9	7.7	7.8	8.9	8.7	8.8	8.3	7.9	8.1	11.0	10.3	10.7
30	7.9	7.7	7.8	8.9	8.7	8.8	8.0	7.7	7.9	10.8	10.4	10.6
31	---	---	---	9.0	8.6	8.8	8.4	7.7	8.0	---	---	---
MONTH	8.8	7.5	8.1	9.0	7.5	8.1	9.4	7.7	8.7	11.4	7.9	9.3

THIS IS A BLANK PAGE

TENNESSEE RIVER BASIN

03598000 DUCK RIVER NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, Hydrologic Unit 06040002, on right bank 150 ft downstream from Sims Bridge, 2.1 mi upstream from Sugar Creek, 2.2 mi west of Shelbyville, 2.9 mi downstream from Flat Creek, and at mile 216.2.

DRAINAGE AREA.--481 mi².

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1934. WSP 853: Drainage area.

GAGE.--Data collection platform. Datum of gage is 683.51 ft above sea level. Prior to Sept. 2, 1966, at datum 2.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge prior to regulation, 62,900 ft³/s, Feb. 13, 1948, gage height, 38.40 ft, present datum, from floodmarks, from rating curve extended above 35,000 ft³/s on basis of slope-area measurement of peak flow. Prior to 1948, diurnal fluctuation caused by powerplant upstream. Flow regulated by Normandy Reservoir (station 03596460) since January 1976. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft present datum, discharge, about 70,000 ft³/s, from high-water profile by Tennessee Valley Authority. Flood in March 1902 reached a stage about 2.0 ft higher than that in March 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,500 ft³/s, at 0730 hours Mar. 28, gage height 27.83 ft; minimum, 145 ft³/s, Dec. 3; minimum daily, 147 ft³/s, Dec. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	187	187	618	1520	3170	3910	761	241	219	263	283
2	194	184	176	585	1340	4100	3450	650	238	204	244	297
3	204	185	147	549	1230	4200	3110	393	233	202	236	261
4	199	186	4410	738	1130	3980	2720	555	193	199	231	241
5	194	189	7500	899	979	3470	2920	567	247	192	436	230
6	195	188	2370	800	946	3080	10600	529	746	188	412	231
7	189	185	1600	1790	866	2790	4650	529	540	186	296	238
8	179	183	1330	2230	443	1440	3720	699	451	198	257	234
9	178	182	1030	1230	1050	2910	2210	593	394	206	238	222
10	179	180	2280	940	3080	7070	2650	527	384	245	218	217
11	181	220	1790	974	16200	4030	12200	484	347	245	204	212
12	180	228	1160	1020	8710	2890	8230	447	310	297	198	209
13	180	226	958	1240	4870	2450	6510	337	287	286	194	206
14	180	248	950	1120	4310	2130	3450	321	253	266	198	205
15	179	547	974	777	4160	1320	3090	372	234	227	278	205
16	185	432	698	684	3670	1150	4050	347	223	213	249	203
17	191	500	596	1290	3350	566	3070	305	214	209	231	212
18	192	550	554	1470	3010	496	2490	272	205	211	219	365
19	189	431	513	1020	2710	449	831	248	202	213	230	267
20	186	379	504	861	2360	408	637	238	197	201	223	230
21	185	350	786	749	5820	414	518	234	188	196	511	218
22	184	334	753	690	3580	440	449	231	188	216	604	214
23	184	323	650	688	10900	376	396	224	193	220	308	317
24	184	319	571	737	5840	869	357	215	189	221	260	627
25	184	317	531	1100	3640	4200	323	211	214	214	238	479
26	182	311	493	2360	3280	2430	299	272	270	676	233	343
27	180	265	456	3110	2860	10800	570	366	668	1350	235	462
28	178	250	528	7610	2600	20000	957	298	359	682	229	383
29	178	240	1420	3450	---	10100	724	269	297	406	222	312
30	190	197	892	2280	---	4780	658	256	242	320	217	277
31	190	---	724	1800	---	4580	---	246	---	283	219	---
TOTAL	5755	8516	37531	45409	104454	111088	89749	11996	8947	9191	8331	8400
MEAN	186	284	1211	1465	3730	3583	2992	387	298	296	269	280
MAX	204	550	7500	7610	16200	20000	12200	761	746	1350	604	627
MIN	178	180	147	549	443	376	299	211	188	186	194	203
(†)	-3300	-4700	+100	+2200	+6600	+9100	-3600	+1000	500	-700	-1500	-1900
MEAN‡	79.2	127	1214	1536	3966	3877	2872	419	315	274	220	217
CFSM‡	.16	.26	2.52	3.19	8.25	8.06	5.97	.87	.65	.57	.46	.45
IN.‡	.19	.30	2.91	3.68	8.59	9.29	6.66	1.00	.73	.66	.53	.50

CAL YR 1993 MEAN‡ 673 CFSM‡ 1.40 IN.‡ 18.99
WTR YR 1994 MEAN‡ 1242 CFSM‡ 2.58 IN.‡ 35.06

† Change in contents, in cfs-days, in Normandy Lake.
‡ Adjusted for change in contents.
NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

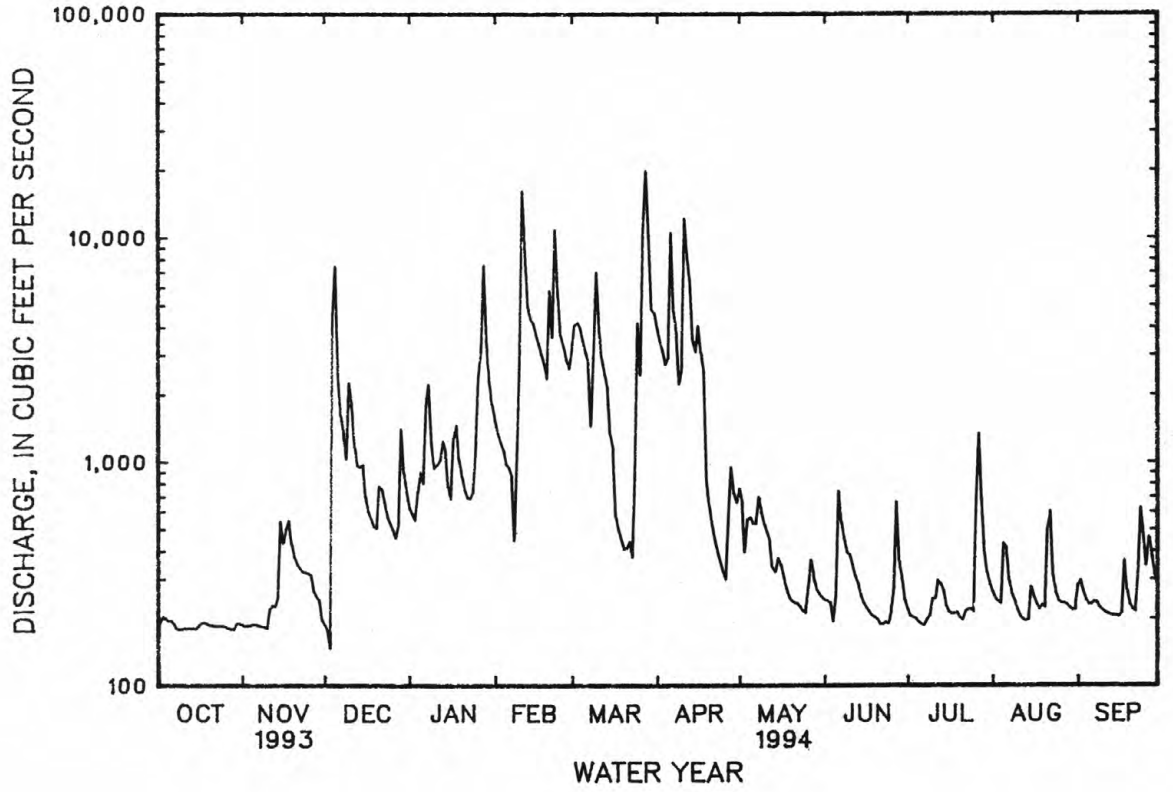
03598000 DUCK RIVER NEAR SHELBYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1994, BY WATER YEAR (WY)

MEAN	367	960	1433	1245	1344	1429	952	748	463	340	257	318
MAX	1314	2277	4132	2873	3730	3649	2992	2753	2151	1670	728	1036
(WY)	1990	1987	1992	1979	1994	1980	1994	1983	1989	1989	1982	1992
MIN	157	170	337	175	339	308	165	137	166	166	154	163
(WY)	1988	1988	1981	1986	1978	1988	1986	1988	1988	1987	1983	1980

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1977 - 1994	
ANNUAL TOTAL	245527		449367			
ANNUAL MEAN	673		1231		819	
HIGHEST ANNUAL MEAN					1253	1991
LOWEST ANNUAL MEAN					257	1981
HIGHEST DAILY MEAN	7500	Dec 5	20000	Mar 28	21700	Dec 23 1990
LOWEST DAILY MEAN	147	Dec 3	147	Dec 3	72	Oct 1 1982
ANNUAL SEVEN-DAY MINIMUM	178	Sep 8	180	Oct 8	88	Sep 25 1982
INSTANTANEOUS PEAK FLOW			21500	Mar 28	26100	Dec 23 1990
INSTANTANEOUS PEAK STAGE			27.83	Mar 28	29.88	Dec 23 1990
INSTANTANEOUS LOW FLOW			145	Dec 3	71	Sep 30 1982
10 PERCENT EXCEEDS	1540		3450		2050	
50 PERCENT EXCEEDS	350		366		292	
90 PERCENT EXCEEDS	184		189		167	

* Regulated period only.



TENNESSEE RIVER BASIN

03598173 FALL CREEK NEAR DEASON, TN

LOCATION.--Lat 35°35'01", long 86°29'17", Bedford County, Hydrologic Unit 06040002, on right downstream wingwall of bridge on Milligan Road, 2.2 mi south of Vannatta, 3.2 mi southwest of Deason.

DRAINAGE AREA.--16.4 mi².

PERIOD OF RECORD.--April to September 1994.

GAGE.--Data logger and crest-stage gage. Elevation of gage is 722 ft above sea level from topographic map.

REMARKS.--Records good except for estimated daily discharges which are poor. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT PERIOD.--April to September 1994: Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 6	0015	*1,660	*10.38	Apr. 15	2100	655	7.78
Apr. 11	0200	1,150	9.23	July 27	0430	858	8.43
Apr. 12	2130	786	8.21				

Minimum daily discharge, 0.08 ft³/s, July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1994 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e45	6.0	.70	e.16	8.3	15
2	---	---	---	---	---	---	e33	4.2	.66	e.16	7.3	16
3	---	---	---	---	---	---	e30	14	.67	e.17	6.1	8.9
4	---	---	---	---	---	---	e27	18	.63	e.16	5.2	5.1
5	---	---	---	---	---	---	e225	11	.83	e.15	16	4.0
6	---	---	---	---	---	---	e600	7.4	1.8	e.14	12	92
7	---	---	---	---	---	---	86	8.7	2.1	e.12	7.2	59
8	---	---	---	---	---	---	48	18	2.0	e.10	4.8	21
9	---	---	---	---	---	---	34	11	1.9	e.09	3.4	14
10	---	---	---	---	---	---	102	7.4	4.3	e.08	2.6	10
11	---	---	---	---	---	---	415	5.4	1.8	2.6	2.1	7.3
12	---	---	---	---	---	---	218	3.8	1.1	5.7	1.9	4.5
13	---	---	---	---	---	---	147	3.1	.76	1.9	1.7	3.2
14	---	---	---	---	---	---	51	3.2	.61	1.8	19	2.5
15	---	---	---	---	---	---	155	4.3	.49	5.5	25	2.0
16	---	---	---	---	---	---	139	3.0	.36	2.1	5.7	1.8
17	---	---	---	---	---	---	46	2.1	.29	1.5	3.1	2.1
18	---	---	---	---	---	---	32	1.7	.23	1.2	2.0	2.5
19	---	---	---	---	---	---	24	1.6	.21	.93	1.5	1.9
20	---	---	---	---	---	---	20	1.6	.20	.76	1.4	1.6
21	---	---	---	---	---	---	16	1.4	.18	.75	32	1.4
22	---	---	---	---	---	---	14	1.3	e.15	.87	13	1.2
23	---	---	---	---	---	---	12	1.2	e.13	.73	5.4	55
24	---	---	---	---	---	---	11	1.0	e.12	.63	3.0	38
25	---	---	---	---	---	---	9.3	1.0	.20	.55	2.1	18
26	---	---	---	---	---	---	8.3	2.0	.27	26	1.6	19
27	---	---	---	---	---	---	8.3	4.1	.24	206	1.4	47
28	---	---	---	---	---	---	11	1.9	.19	26	1.2	19
29	---	---	---	---	---	---	6.6	1.2	e.17	23	1.1	13
30	---	---	---	---	---	---	4.9	.96	e.16	13	1.3	9.4
31	---	---	---	---	---	---	---	.86	---	9.7	15	---
TOTAL	---	---	---	---	---	---	2578.4	152.42	23.45	332.55	213.4	495.4
MEAN	---	---	---	---	---	---	85.9	4.92	.78	10.7	6.88	16.5
MAX	---	---	---	---	---	---	600	18	4.3	206	32	92
MIN	---	---	---	---	---	---	4.9	.86	.12	.08	1.1	1.2
CFSM	---	---	---	---	---	---	5.24	.30	.05	.65	.42	1.01
IN.	---	---	---	---	---	---	5.85	.35	.05	.75	.48	1.12

e Estimated

TENNESSEE RIVER BASIN

03598179 FALL CREEK NEAR HALLS MILL, TN

LOCATION.--Lat 35°33'09", long 86°32'14", Bedford County, Hydrologic Unit 06040002, on right bank at downstream end of bridge on Old Unionville road, 2.5 mi east of Halls Mill, and at mile 1.1.

DRAINAGE AREA.--39.0 mi².

PERIOD OF RECORD.--April to September 1994.

GAGE.--Data logger and crest-stage gage. Elevation of gage is 682 ft above sea level from topographic map.

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

EXTREMES FOR CURRENT PERIOD.--April to September 1994: Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 15	1815	*1,170	*6.66				

Minimum daily discharge, 0.05 ft³/s, June 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1994 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e80	16	1.1	.23	16	30
2	---	---	---	---	---	---	e60	13	.82	.22	13	22
3	---	---	---	---	---	---	e50	36	.68	.23	9.8	17
4	---	---	---	---	---	---	e150	39	.58	.22	6.2	9.8
5	---	---	---	---	---	---	e500	26	.58	.22	25	4.9
6	---	---	---	---	---	---	e900	20	1.0	.18	24	63
7	---	---	---	---	---	---	e350	28	7.0	.13	15	112
8	---	---	---	---	---	---	e100	49	3.4	.09	9.1	32
9	---	---	---	---	---	---	e160	30	3.0	.08	5.0	22
10	---	---	---	---	---	---	e300	24	7.6	.07	3.1	17
11	---	---	---	---	---	---	e600	21	6.8	.20	2.1	13
12	---	---	---	---	---	---	e350	18	2.6	10	1.5	9.8
13	---	---	---	---	---	---	236	15	1.4	6.1	1.1	6.1
14	---	---	---	---	---	---	108	13	.87	3.7	21	4.0
15	---	---	---	---	---	---	389	16	.70	18	131	2.8
16	---	---	---	---	---	---	218	13	.61	5.4	25	2.0
17	---	---	---	---	---	---	98	10	.47	2.4	16	2.0
18	---	---	---	---	---	---	64	7.5	.34	1.8	8.9	2.1
19	---	---	---	---	---	---	48	5.6	.29	1.2	4.2	2.2
20	---	---	---	---	---	---	38	4.9	.23	.94	2.5	1.7
21	---	---	---	---	---	---	32	4.3	.17	.79	128	1.4
22	---	---	---	---	---	---	28	3.5	.12	.73	59	1.2
23	---	---	---	---	---	---	25	3.0	.07	.70	25	95
24	---	---	---	---	---	---	22	2.3	.05	.54	15	90
25	---	---	---	---	---	---	20	1.8	.09	.38	9.8	42
26	---	---	---	---	---	---	19	2.3	.27	32	5.4	29
27	---	---	---	---	---	---	19	9.4	.37	331	3.3	95
28	---	---	---	---	---	---	22	8.5	.39	51	2.1	44
29	---	---	---	---	---	---	17	3.8	.29	42	1.6	29
30	---	---	---	---	---	---	15	2.2	.24	21	1.4	21
31	---	---	---	---	---	---	---	1.4	---	14	15	---
TOTAL	---	---	---	---	---	---	5018	447.5	42.13	545.55	605.1	823.0
MEAN	---	---	---	---	---	---	167	14.4	1.40	17.6	19.5	27.4
MAX	---	---	---	---	---	---	900	49	7.6	331	131	112
MIN	---	---	---	---	---	---	15	1.4	.05	.07	1.1	1.2
CFSM	---	---	---	---	---	---	4.29	.37	.04	.45	.50	.70
IN.	---	---	---	---	---	---	4.79	.43	.04	.52	.58	.79

e Estimated

TENNESSEE RIVER BASIN

03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN

LOCATION.--Lat 35°35'06", long 86°35'45", Bedford County, Hydrologic Unit 06040002, on left bank 25 ft downstream from State Highway 270 bridge, 1.2 mi downstream from Weakly Creek, 0.8 mi northwest of Poplins Crossroads, and at mile 3.4.

DRAINAGE AREA.--71.9 mi².

PERIOD OF RECORD.--April to September 1994.

GAGE.--Data logger. Elevation of gage is 662 ft above sea level from topographic map.

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

EXTREMES FOR CURRENT PERIOD.--April to September 1994: Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 16	0115	*2,080	*9.94	No other peak greater than base discharge.			

Minimum discharge, 0.44 ft³/s, June 21, 22, Aug. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1994 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e250	39	1.7	3.3	7.6	36
2	---	---	---	---	---	---	e200	32	1.5	2.1	36	20
3	---	---	---	---	---	---	e150	93	1.4	1.5	14	11
4	---	---	---	---	---	---	e100	135	1.3	1.2	36	3.9
5	---	---	---	---	---	---	e1000	71	1.1	.96	478	2.2
6	---	---	---	---	---	---	e2500	52	2.1	.78	132	2.2
7	---	---	---	---	---	---	e500	47	3.1	.64	52	213
8	---	---	---	---	---	---	e200	71	3.8	.56	30	33
9	---	---	---	---	---	---	e150	51	2.4	.51	19	13
10	---	---	---	---	---	---	e600	39	2.0	.50	12	6.8
11	---	---	---	---	---	---	e1600	31	1.6	.53	8.1	4.0
12	---	---	---	---	---	---	e600	26	1.2	1.5	5.3	3.9
13	---	---	---	---	---	---	e450	21	.98	1.9	3.4	2.8
14	---	---	---	---	---	---	180	19	.84	1.4	2.5	2.0
15	---	---	---	---	---	---	493	19	1.0	30	1.8	1.7
16	---	---	---	---	---	---	1120	17	1.1	16	2.8	1.4
17	---	---	---	---	---	---	208	14	.91	8.2	2.9	1.3
18	---	---	---	---	---	---	127	11	.73	5.0	1.6	1.3
19	---	---	---	---	---	---	93	9.1	.61	3.1	1.5	1.5
20	---	---	---	---	---	---	72	7.7	.50	2.1	.90	1.2
21	---	---	---	---	---	---	59	6.8	.46	1.6	27	1.0
22	---	---	---	---	---	---	50	5.9	.52	1.3	46	.81
23	---	---	---	---	---	---	43	5.0	.76	1.1	9.7	.71
24	---	---	---	---	---	---	38	e4.2	.90	.95	3.8	36
25	---	---	---	---	---	---	34	e3.7	.91	.76	2.2	137
26	---	---	---	---	---	---	31	e3.4	3.9	1.0	1.5	44
27	---	---	---	---	---	---	52	8.5	16	349	1.1	22
28	---	---	---	---	---	---	98	5.5	12	80	.79	78
29	---	---	---	---	---	---	45	3.4	10	32	.59	43
30	---	---	---	---	---	---	36	2.5	6.4	16	.46	23
31	---	---	---	---	---	---	---	2.0	---	9.6	1.5	---
TOTAL	---	---	---	---	---	---	11079	855.7	81.72	575.09	942.04	747.72
MEAN	---	---	---	---	---	---	369	27.6	2.72	18.6	30.4	24.9
MAX	---	---	---	---	---	---	2500	135	16	349	478	213
MIN	---	---	---	---	---	---	31	2.0	.46	.50	.46	.71
CFSM	---	---	---	---	---	---	5.14	.38	.04	.26	.42	.35
IN.	---	---	---	---	---	---	5.73	.44	.04	.30	.49	.39

e Estimated

THIS IS A BLANK PAGE

TENNESSEE RIVER BASIN

03599500 DUCK RIVER AT COLUMBIA, TN

LOCATION.--Lat 35°37'05", long 87°01'56", Maury County, Hydrologic Unit 06040003, on right bank 4 ft downstream from bridge on former U.S. Highway 31, 2 blocks north of public square in Columbia, 2.4 mi upstream from Rutherford Creek, and at mile 132.8.

DRAINAGE AREA.--1,208 mi².

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau. Discharge records furnished by Tennessee Valley Authority, 1983-1991.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Data collection platform. Datum of gage is 535.33 ft above sea level, supplementary adjustment of 1955. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft higher prior to Oct. 1, 1933.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Maximum discharge prior to regulation, 61,500 ft³/s, Mar. 17, 1973; maximum gage height, 51.75 ft Feb. 14, 1948; minimum no flow Oct. 22, 1922, caused by regulation by power plant .75 mi upstream. Flow regulated by Normandy Lake (station 03596460) since January 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 30, 1902, reached a stage of 48.0 ft, present datum, discharge, 50,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39,300 ft³/s, at 0430 hours March 29, gage height, 41.02 ft; minimum, 147 ft³/s, Nov. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	170	401	2290	4220	4260	8940	1590	332	390	404	235
2	235	175	336	1960	3350	6420	6890	1450	310	312	344	295
3	217	172	312	1820	2810	8890	5820	1580	293	274	321	351
4	215	169	8390	1740	2450	7540	5170	2010	279	255	311	361
5	231	175	18900	1900	2200	6090	5850	1980	305	228	316	306
6	227	168	18900	2020	1950	5190	19800	1550	294	219	586	275
7	217	169	7540	3510	1800	4460	22700	1380	548	197	718	256
8	212	165	3720	7830	1670	4020	15000	1590	901	189	532	392
9	203	162	2730	6400	2130	9740	7440	1950	666	183	376	383
10	187	158	5140	3790	6580	19600	5670	1620	580	222	307	286
11	171	154	7280	2730	19400	18200	14400	1290	494	229	269	241
12	171	152	4990	2700	26500	9400	19900	1080	457	254	242	225
13	172	174	3070	3160	27500	6030	16300	939	423	269	217	208
14	170	249	2800	2990	16900	4770	11700	841	364	338	201	192
15	170	483	3510	2600	8730	4030	8420	721	334	336	196	182
16	170	884	3190	2020	6920	2990	11900	660	365	344	237	177
17	178	1240	2470	2400	5900	2410	9680	658	460	438	332	190
18	181	1230	1910	4590	5090	1810	6290	594	415	440	287	180
19	190	1220	1640	4190	4470	1380	4870	518	303	300	242	177
20	193	922	1470	2730	4000	1190	3010	457	262	278	221	281
21	187	720	1630	2120	5180	1060	2080	408	251	281	282	268
22	177	610	2260	1800	11500	965	1750	378	248	303	395	217
23	169	541	2080	1670	17200	964	1490	353	231	267	892	229
24	168	499	1750	1710	18900	4080	1270	335	300	252	642	280
25	169	473	1520	2420	13500	13800	1110	320	266	245	389	681
26	168	465	1330	8460	7050	10800	978	352	359	237	297	819
27	167	472	1170	12400	5410	22600	940	371	464	300	257	638
28	161	483	1400	17100	4570	38200	1160	426	564	1790	232	552
29	158	472	4250	18500	---	39100	1920	527	826	1430	227	652
30	166	442	4980	10600	---	33900	1460	432	503	758	216	493
31	160	---	3200	5710	---	18100	---	365	---	519	207	---
TOTAL	5829	13568	124269	145860	237880	311989	223908	28725	12397	12077	10695	10022
MEAN	188	452	4009	4705	8496	10060	7464	927	413	390	345	334
MAX	269	1240	18900	18500	27500	39100	22700	2010	901	1790	892	819
MIN	158	152	312	1670	1670	964	940	320	231	183	196	177
(†)	-3300	-4700	+100	+2200	+6600	+9100	-3600	+1000	+500	-700	-1500	-1900
MEAN‡	81.6	296	4012	4776	8731	10360	7344	959	430	367	297	271
CFSM‡	.07	.25	3.36	3.95	7.23	8.58	6.08	.79	.36	.30	.25	.22
IN.‡	.08	.27	3.83	4.56	7.53	9.89	6.78	.92	.40	.35	,28	.25

CAL YR 1993 MEAN‡ 1587 CFSM‡ 1.31 IN.‡ 17.84
WTR YR 1994 MEAN‡ 3126 CFSM‡ 2.59 IN.‡ 35.13

† Change in contents, in cfs-days, in Normandy Lake.
‡ Adjusted for change in contents.
NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

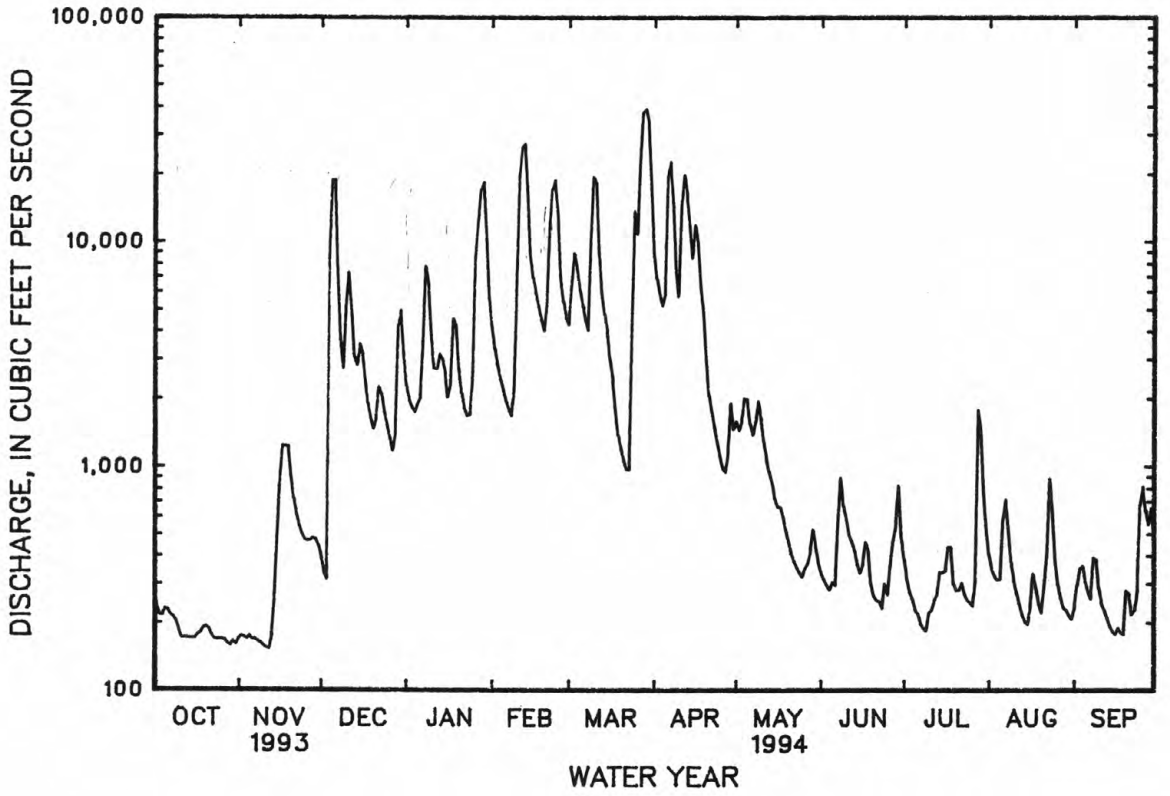
03599500 DUCK RIVER AT COLUMBIA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1994, BY WATER YEAR (WY)

MEAN	796	2255	3775	3443	3765	4096	2773	2166	858	686	391	679
MAX	3642	5925	10360	8513	9901	10090	7464	9105	4117	4740	938	3832
(WY)	1990	1987	1991	1979	1991	1980	1994	1983	1989	1989	1982	1979
MIN	180	236	418	273	953	1104	325	244	167	220	185	163
(WY)	1988	1981	1981	1986	1978	1985	1986	1988	1988	1988	1991	1984

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1977 - 1994	
ANNUAL TOTAL	579220		1137219			
ANNUAL MEAN	1587		3116		2133	
HIGHEST ANNUAL MEAN					3282	1989
LOWEST ANNUAL MEAN					553	1981
HIGHEST DAILY MEAN	18900	Dec 5	39100	Mar 29	52300	Feb 20 1991
LOWEST DAILY MEAN	149	Sep 14	152	Nov 12	86	Oct 4 1982
ANNUAL SEVEN-DAY MINIMUM	158	Sep 10	161	Nov 6	100	Sep 28 1982
INSTANTANEOUS PEAK FLOW			39300	Mar 29	52300	Feb 20 1991
INSTANTANEOUS PEAK STAGE			41.02	Mar 29	45.82	Feb 20 1991
INSTANTANEOUS LOW FLOW			147	Nov 12		
10 PERCENT EXCEEDS	3720		8790		4950	
50 PERCENT EXCEEDS	760		642		756	
90 PERCENT EXCEEDS	171		185		187	

* Regulated period only.



TENNESSEE RIVER BASIN

03600085 CARTERS CREEK AT PETTY LANE NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'39", long 86°59'19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mile north of Carters Creek, and at mile 4.7.

DRAINAGE AREA.--16.6 mi².

PERIOD OF RECORD.--October 1986 to current year

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	TEMPERATURE WATER (DEG C)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
OCT 19...	0930	80020	0.54	450	455	16.5	7.4	7.2	750	4.2
FEB 09...	0915	80020	105	224	235	10.5	7.9	7.3	745	10.0
APR 19...	0900	80020	54	289	292	13.5	---	7.5	750	10.5
JUL 13...	0915	80020	1.6	350	382	20.5	7.4	7.5	750	5.9

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 19...	44	530	390	1	<100	<1	<1	<1	<1	<0.10
FEB 09...	91	K18000	K1300	1	<100	<1	7	3	7	<0.10
APR 19...	102	350	--	<1	<100	<1	<1	5	1	0.10
JUL 13...	67	460	3300	<1	<100	<1	<1	1	<1	<0.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 19...	2	<1	<1	<10	<0.010	<1	<1	--	100
FEB 09...	5	<1	<1	20	<0.010	<1	283	79	99
APR 19...	<1	<1	<1	20	<0.010	<1	11	1.6	85
JUL 13...	2	<1	<1	<10	<0.010	<1	9	0.04	100

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

TENNESSEE RIVER BASIN

03600086 CARTERS CREEK TRIBUTARY NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'34", long 86°59'19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mile north of Carters Creek.

DRAINAGE AREA.--2.94 mi².

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	TEMPERATURE WATER (DEG C)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
OCT										
19...	1130	80020	0.63	745	724	19.0	7.5	7.3	750	5.4
FEB										
09...	1130	80020	23	426	424	9.5	---	7.6	745	9.8
APR										
19...	1040	80020	11	500	501	16.0	7.3	7.7	750	10.5
JUL										
13...	1045	80020	1.7	500	504	22.5	7.7	7.6	750	5.5

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT										
19...	59	340	650	<1	<100	<1	<1	<1	<1	<0.10
FEB										
09...	88	K17000	480	1	<100	<1	3	3	4	0.10
APR										
19...	108	35	--	<1	<100	<1	<1	<1	<1	<0.10
JUL										
13...	65	160	700	<1	<100	<1	1	1	<1	0.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
19...	3	<1	<1	<10	<0.010	<1	9	0.02	89
FEB									
09...	2	<1	<1	10	<0.010	<1	126	8.0	99
APR									
19...	<1	<1	<1	<10	<0.010	<1	12	0.35	80
JUL									
13...	2	<1	<1	<10	<0.010	<1	4	0.02	100

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

TENNESSEE RIVER BASIN

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN

LOCATION.--Lat 35°43'02", long 86°59'45", Maury County, Hydrologic Unit 06040003, on left bank at end of Butler road bridge, 0.1 mi west of Carters Creek, 0.3 mi upstream from Ferrell Branch, 3.7 mi upstream from Rutherford Creek, and at mile 3.7.

DRAINAGE AREA.--20.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to current year. Occasional low-flow measurements, water year 1986.

GAGE.--Data logger, crest-stage gage and concrete weir. Datum of gage is 605.94 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation caused by industrial development upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 4	1245	*1,490	*9.65	Mar. 27	0300	1,420	9.41
Jan. 28	0045	1,040	8.07	Apr. 5	2300	1,270	8.90
Feb. 22	2045	1,270	8.91	Apr. 11	0215	1,300	8.99
Mar. 9	1130	949	7.75	Apr. 15	1830	1,430	9.45
Mar. 24	1345	1,430	9.43				

Minimum discharge, 0.41 ft³/s, Oct. 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.82	1.7	34	52	39	71	20	3.5	5.6	4.1	5.1
2	1.2	.77	1.7	32	41	43	59	14	3.2	4.7	3.8	5.3
3	1.2	.76	2.0	32	34	43	54	23	3.0	4.2	3.2	3.9
4	1.0	.76	363	41	30	38	47	25	2.7	4.5	3.3	3.1
5	.91	.82	84	33	28	32	229	19	3.7	3.9	5.7	2.9
6	.76	.78	41	30	25	29	359	14	6.2	3.1	4.4	3.8
7	.69	.71	27	116	21	25	130	20	5.3	2.8	3.5	3.4
8	.63	.66	19	85	20	25	93	30	4.6	2.7	2.9	2.8
9	.60	.66	38	56	103	524	70	21	4.3	3.0	2.6	2.3
10	.53	.66	256	42	186	230	101	16	4.7	4.1	2.3	2.0
11	.46	.66	76	37	583	123	365	12	4.0	3.7	2.1	1.8
12	.46	.66	46	40	221	88	126	10	3.5	4.0	2.0	1.6
13	.46	.71	36	36	145	65	89	8.7	3.2	3.3	1.8	1.4
14	.46	2.0	51	32	103	56	65	13	3.0	2.9	1.7	1.3
15	.42	12	45	26	80	44	356	27	2.7	10	1.7	1.3
16	.50	8.0	37	23	62	37	195	24	2.5	5.0	1.7	1.2
17	1.1	7.2	30	70	49	30	104	15	3.4	32	1.6	1.6
18	1.2	6.8	25	61	41	28	76	11	3.6	14	1.5	2.3
19	1.2	4.6	21	41	36	24	59	9.1	2.7	7.6	1.4	1.9
20	1.2	3.5	24	33	47	21	45	7.8	2.6	5.6	1.4	1.7
21	1.0	2.8	31	27	80	21	37	6.8	3.2	7.6	7.3	1.4
22	.93	2.3	28	26	309	19	31	6.2	12	8.2	5.4	1.3
23	.81	2.1	23	37	345	17	27	5.5	5.6	6.3	3.7	2.2
24	.74	1.9	19	37	131	502	24	5.0	10	5.3	2.8	3.2
25	.71	1.8	17	121	93	189	21	4.7	26	4.4	2.4	2.7
26	.71	1.8	14	193	68	113	19	6.7	29	7.1	2.1	2.5
27	.64	2.4	13	260	52	1050	17	7.3	17	16	1.9	3.2
28	.57	2.3	81	336	42	435	17	5.6	12	9.0	1.6	2.8
29	.56	2.0	90	128	---	167	15	4.7	9.0	7.2	1.4	2.4
30	.67	1.8	54	91	---	118	16	4.2	6.7	5.7	1.4	2.1
31	.78	---	39	69	---	94	---	3.7	---	4.8	6.1	---
TOTAL	24.50	74.73	1633.4	2225	3027	4269	2917	400.0	202.9	208.3	88.8	74.5
MEAN	.79	2.49	52.7	71.8	108	138	97.2	12.9	6.76	6.72	2.86	2.48
MAX	1.4	12	363	336	583	1050	365	30	29	32	7.3	5.3
MIN	.42	.66	1.7	23	20	17	15	3.7	2.5	2.7	1.4	1.2
CFSM	.04	.12	2.62	3.57	5.38	6.85	4.84	.64	.34	.33	.14	.12
IN.	.05	.14	3.02	4.12	5.60	7.90	5.40	.74	.38	.39	.16	.14

TENNESSEE RIVER BASIN

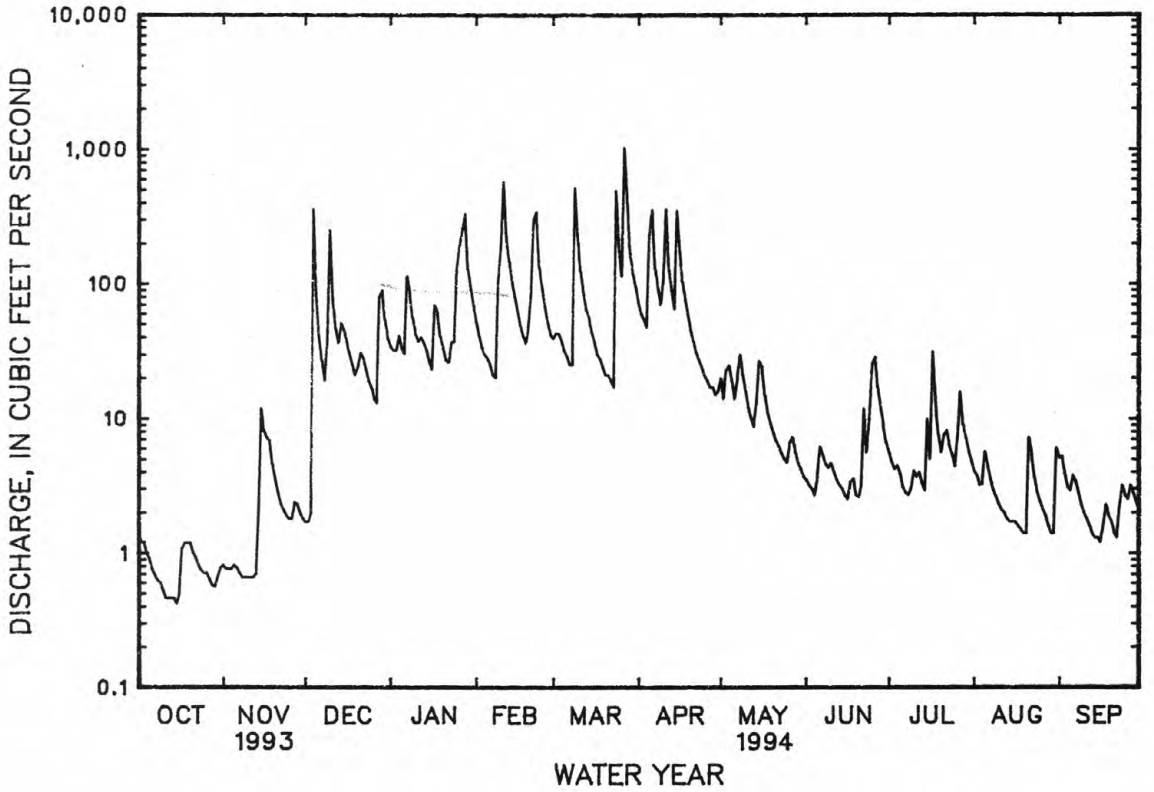
03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

MEAN	7.52	30.2	64.5	57.1	86.1	65.5	40.8	28.1	12.9	11.7	3.05	5.93
MAX	44.8	64.7	126	93.4	146	138	97.2	93.4	42.0	45.5	6.09	20.3
(WY)	1990	1989	1991	1989	1990	1994	1994	1991	1989	1989	1989	1989
MIN	.51	2.49	18.7	33.6	29.3	20.5	13.9	3.11	.51	.54	.47	.99
(WY)	1988	1994	1990	1987	1988	1988	1992	1988	1988	1988	1987	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	9388.37		15145.13			
ANNUAL MEAN	25.7		41.5		34.2	
HIGHEST ANNUAL MEAN					50.0	1989
LOWEST ANNUAL MEAN					17.4	1988
HIGHEST DAILY MEAN	445	May 4	1050	Mar 27	1430	Feb 3 1990
LOWEST DAILY MEAN	.42	Oct 15	.42	Oct 15	.12	Aug 15 1987
ANNUAL SEVEN-DAY MINIMUM	.47	Oct 10	.47	Oct 10	.15	Jun 25 1988
INSTANTANEOUS PEAK FLOW			1490	Dec 4	2990	Feb 3 1990
INSTANTANEOUS PEAK STAGE			9.65	Dec 4	14.83	Feb 3 1990
INSTANTANEOUS LOW FLOW			a.41	Oct 15	b.11	Aug 15 1987
ANNUAL RUNOFF (CFSM)	1.28		2.06		1.70	
ANNUAL RUNOFF (INCHES)	17.38		28.03		23.11	
10 PERCENT EXCEEDS	61		97		71	
50 PERCENT EXCEEDS	8.9		7.8		12	
90 PERCENT EXCEEDS	.70		1.0		.70	

a Also occurred Oct. 16.
b Also occurred Aug. 16, 1987, June 26, 1988.



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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	TEMPERATURE WATER (DEG C)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
OCT 19...	1245	80020	1.5	702	694	18.5	7.7	7.4	750	6.2
FEB 09...	1300	80020	133	249	255	9.0	---	7.5	745	10.6
APR 19...	1230	80020	58	323	324	16.0	7.9	8.0	750	11.4
JUL 13...	1150	80020	3.3	442	447	22.0	7.9	7.8	750	7.0

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 19...	67	53	260	<1	<100	<1	<1	<1	<1	<0.10
FEB 09...	93	K24000	K17000	1	100	<1	2	2	3	<0.10
APR 19...	118	140	--	<1	<100	<1	<1	<1	<1	0.10
JUL 13...	82	230	530	<1	<100	<1	2	1	<1	<0.10

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 19...	3	<1	<1	<10	<0.010	<1	10	0.04	68
FEB 09...	2	<1	<1	<10	<0.010	<1	107	38	99
APR 19...	<1	<1	<1	<10	<0.010	<1	8	1.2	85
JUL 13...	2	<1	<1	<10	<0.010	<1	3	0.03	100

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

TENNESSEE RIVER BASIN

03602219 PINEY RIVER AT CEDAR HILL, TN

LOCATION.--Lat 35°59'43", long 87°26'22", Dickson County, Hydrologic Unit 06040003, on right bank 300 ft upstream of Interstate Highway 40 bridge, 0.2 mi southeast of Cedar Hill, 0.5 mi upstream from Double Branch, and at mile 22.

DRAINAGE AREA.--46.6 mi².

PERIOD OF RECORD.--October 1987 to current year, discharge for stage of 7.00 ft and below only.

GAGE.--Data collection platform. Datum of gage is 552.20 ft above sea level.

REMARKS.--Records good except for estimated discharger which are fair. The City of Dickson diverts water for municipal water supply at confluence of West Piney River, 1.6 mi upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 19.78 ft, May 27, 1991; minimum discharge, 7.6 ft³/s, Sept. 4, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 11.55 ft, Mar. 9; minimum discharge, 11 ft³/s, many days in Oct., Nov. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	e18	63	110	89	175	126	69	26	22	23
2	13	13	e40	60	92	88	142	97	63	26	21	26
3	13	13	e60	56	77	77	129	100	57	27	21	21
4	13	13	e80	54	66	68	124	115	53	25	22	19
5	12	13	e130	50	58	61	136	106	50	25	72	21
6	12	13	e80	49	51	54	439	98	47	27	33	23
7	12	13	e70	184	45	50	447	96	84	25	28	20
8	12	12	e65	139	42	73	364	116	67	29	25	18
9	12	12	e60	e115	69	---	186	96	56	36	24	17
10	12	12	e100	e83	106	---	237	87	52	27	22	17
11	12	12	e90	e66	---	373	---	78	48	24	22	16
12	12	11	e80	e81	---	262	402	72	45	25	21	15
13	12	12	e65	73	461	209	316	66	42	48	20	15
14	12	23	e50	67	314	179	231	90	41	36	43	15
15	12	47	e90	e118	234	154	264	---	38	32	47	15
16	13	36	81	e379	174	133	294	245	37	29	28	15
17	22	e25	70	e212	137	118	222	161	36	31	24	17
18	16	e22	62	e88	112	110	179	122	34	34	22	17
19	32	e20	55	e58	97	101	150	100	32	27	21	16
20	24	e19	59	e53	91	96	127	88	31	25	21	16
21	20	e18	58	25	155	91	110	77	31	29	29	15
22	18	e18	55	25	---	85	100	69	31	31	22	15
23	16	e18	51	30	---	81	92	63	32	38	20	19
24	15	e18	47	43	329	92	86	58	30	31	19	18
25	15	e18	45	119	211	94	79	55	30	28	19	16
26	14	e18	42	176	144	90	74	303	40	41	18	16
27	13	e18	40	---	110	---	70	208	34	31	18	16
28	13	e18	65	---	94	---	70	131	30	27	17	15
29	13	e18	91	346	---	---	74	102	29	25	17	15
30	14	e18	78	216	---	330	87	88	27	24	17	15
31	14	---	68	147	---	269	---	77	---	23	24	---
TOTAL	456	534	2045	---	---	---	---	---	1296	912	779	522
MEAN	14.7	17.8	66.0	---	---	---	---	---	43.2	29.4	25.1	17.4
MAX	32	47	130	---	---	---	---	---	84	48	72	26
MIN	12	11	18	---	---	---	---	---	27	23	17	15
CFSM	.32	.38	1.42	---	---	---	---	---	.93	.63	.54	.37
IN.	.36	.43	1.63	---	---	---	---	---	1.03	.73	.62	.42

e Estimated

TENNESSEE RIVER BASIN

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 downstream from Tumbling Creek, 1.3 mi upstream from bridge on State Highway 13, 3.6 mi southeast of Hurricane Mills, and at mile 26.0.

DRAINAGE AREA.--2,557 mi².

PERIOD OF RECORD.--July 1925 to September 1994 (discontinued). 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 above sea level. Prior to Feb. 21, 1934, nonrecording gage and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder at bridge 5.6 mi downstream at datum 8.80 ft lower.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge prior to regulation, 122,000 ft³/s, Feb. 14, 1948, gage height, 30.70 ft, from floodmark in gage house, present site and datum. 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,400 ft³/s, at 0030 hours March 30, gage height, 23.65 ft; minimum, 575 ft³/s, Oct. 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	636	962	5830	12500	9240	41900	3480	1700	1760	1470	914
2	850	629	933	4540	9430	8550	23400	3460	1590	1520	1300	1070
3	759	619	923	3910	7860	8930	11600	3390	1510	1380	1170	1250
4	699	623	2510	3470	6870	11000	9580	3450	1440	1280	1110	1120
5	659	636	16700	3300	6160	11200	8460	4000	1400	1200	1210	1050
6	634	639	24100	3230	5640	10000	16500	3960	1520	1270	1500	1080
7	630	631	24500	3470	5150	8840	30400	3540	2520	1190	1330	1100
8	633	628	15000	6500	4720	7930	33300	3470	2290	1140	1330	1020
9	630	616	6700	10300	4490	11500	30000	3620	2370	1140	1380	943
10	618	612	6460	9180	4870	27100	15200	3550	2260	1140	1250	945
11	609	610	9490	6500	12800	33100	15600	3440	1980	1080	1110	1010
12	599	618	10300	5210	28800	31300	24400	2990	1790	1130	1010	905
13	590	631	8250	4770	35200	20400	26300	2700	1640	1200	951	840
14	583	664	6210	4930	37300	11500	26000	2550	1560	1280	906	800
15	578	896	5640	4700	37000	8990	19200	3350	1510	1600	894	776
16	585	1310	5830	4180	22500	7620	20000	4240	1430	2070	897	756
17	684	1480	5540	3800	13300	6380	23700	3460	1450	1550	848	748
18	709	1680	4710	4650	11100	5400	17400	2850	1510	1440	825	766
19	740	1900	3820	6590	9640	4640	11900	2570	1490	1670	901	770
20	737	1850	3320	6340	8590	3830	9120	2270	1410	1540	901	767
21	739	1690	3080	4920	8070	3390	6820	2080	1300	1340	1300	739
22	704	1450	3050	4040	8540	3140	5100	1880	1250	1340	1710	752
23	677	1280	3390	4010	20300	2890	4280	1770	1320	1410	1300	847
24	655	1170	3530	4150	28000	3540	3680	1680	1390	1370	1180	858
25	638	1100	3150	3920	28600	15800	3350	1610	1370	1270	1410	877
26	626	1050	2800	5430	25500	21700	3020	1790	1550	1240	1270	882
27	624	1010	2500	15900	14500	21600	2910	3110	2010	1200	1080	1200
28	615	997	2420	27400	10700	34600	2870	2630	2350	1280	960	1360
29	610	995	3160	28900	---	48800	2970	2140	1930	1580	890	1230
30	622	981	6150	28500	---	51700	3310	1900	1780	2370	844	1140
31	632	---	7280	23200	---	46700	---	1820	---	1830	839	---
TOTAL	20678	29631	202408	255770	428130	501310	452270	88750	50620	43810	35076	28515
MEAN	667	988	6529	8251	15290	16170	15080	2863	1687	1413	1131	950
MAX	1010	1900	24500	28900	37300	51700	41900	4240	2520	2370	1710	1360
MIN	578	610	923	3230	4490	2890	2870	1610	1250	1080	825	739

CAL YR 1993 MEAN‡ 3211 CFSM‡ 1.26 IN.‡ 17.05
WTR YR 1994 MEAN‡ 5865 CFSM‡ 2.29 IN.‡ 31.14

‡ Adjusted for change in contents in Normandy Lake.
NOTE.--Contents (cfs-days)for adjustments furnished by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

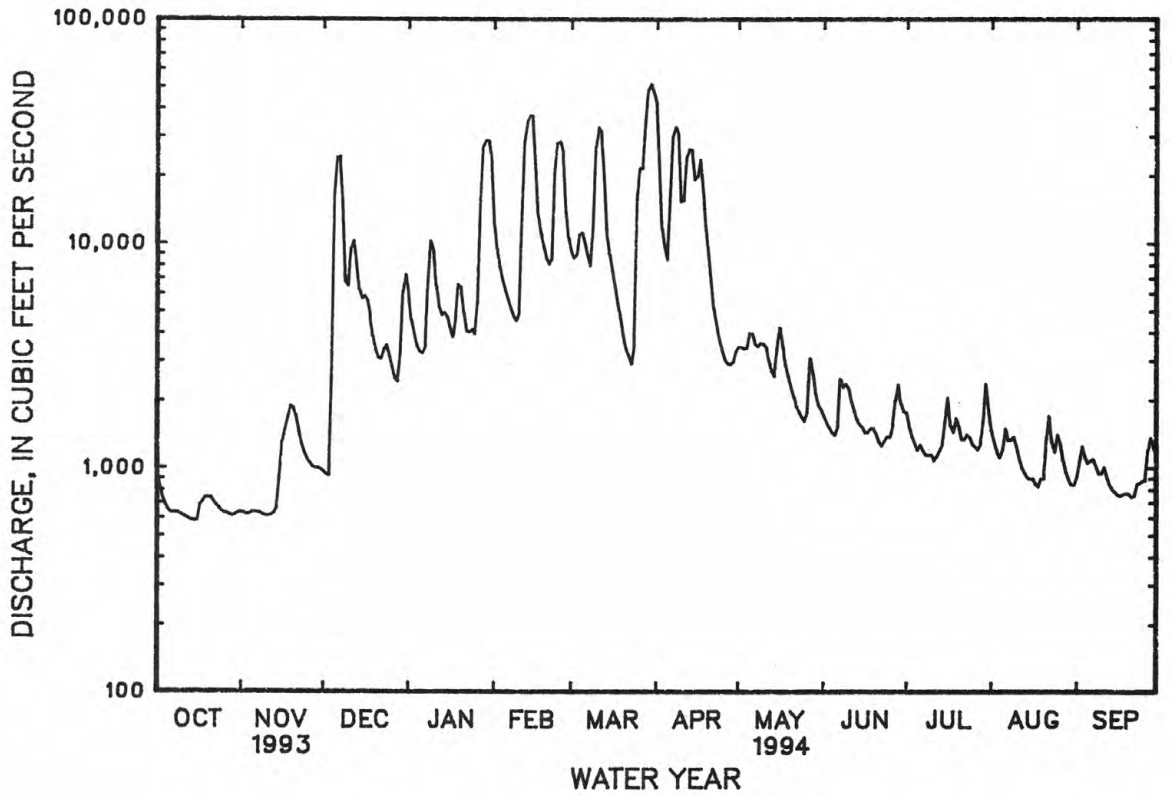
03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1994, BY WATER YEAR (WY)

MEAN	1608	3766	7071	6381	7300	8070	6341	5381	2164	1633	1017	1453
MAX	5684	10120	16340	15490	16510	19430	15080	18140	6475	7116	1668	7207
(WY)	1990	1980	1992	1979	1990	1980	1994	1983	1989	1989	1984	1979
MIN	580	955	1190	958	2997	2235	1373	1058	574	667	575	606
(WY)	1988	1981	1981	1986	1978	1981	1986	1987	1988	1988	1987	1987

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		*WATER YEARS 1977 - 1994	
ANNUAL TOTAL	1171929		2136968			
ANNUAL MEAN	3211		5855		4336	
HIGHEST ANNUAL MEAN					6546	1979
LOWEST ANNUAL MEAN					1646	1981
HIGHEST DAILY MEAN	24500	Dec 7	51700	Mar 30	72300	May 28 1991
LOWEST DAILY MEAN	538	Sep 14	578	Oct 15	428	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	568	Sep 11	595	Oct 10	455	Aug 31 1987
INSTANTANEOUS PEAK FLOW			53400	Mar 30	89700	May 27 1991
INSTANTANEOUS PEAK STAGE			23.65	Mar 30	27.71	May 27 1991
INSTANTANEOUS LOW FLOW			a575	Oct 15	412	Jul 7 1988
10 PERCENT EXCEEDS	6770		18100		9640	
50 PERCENT EXCEEDS	1810		1900		2060	
90 PERCENT EXCEEDS	630		693		716	

* Regulated period only.
a Also occurred on Oct. 16.



TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, Hydrologic Unit 06040004, on right bank 0.4 mi downstream from Little Opossum Creek, 0.5 mi downstream from bridge on State Highway 13, 1.3 mi north of Flat Woods, 3.9 mi upstream from Sinking Creek, and at mile 58.7.

DRAINAGE AREA.--447 mi².

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-71: 1970.

GAGE.--Water-stage recorder. Datum of gage is 513.58 ft above sea level. Prior to May 27, 1934, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of May 27, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 5	0200	12,500	16.12	Mar. 28	1100	*22,200	*22.33
Jan. 28	1730	7,070	11.67	Apr. 6	1630	14,100	17.28
Feb. 12	0100	12,600	16.25	Apr. 11	1330	6,300	10.90
Feb. 23	2230	7,410	12.01	Apr. 16	0900	8,400	13.00
Mar. 10	0800	12,700	16.29	June 9	2130	5,150	9.75

Minimum discharge, 225 ft³/s, Oct. 10, 11, 14, 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	258	256	774	1190	1040	1580	900	457	652	355	444
2	261	249	254	733	1060	1340	1310	849	440	581	347	698
3	260	242	264	679	910	1320	1160	814	428	534	339	560
4	255	238	4090	650	801	1180	1080	1040	417	500	330	431
5	245	241	9050	614	735	1060	1190	1010	429	472	444	373
6	240	267	2520	573	668	946	11100	899	1100	466	514	440
7	234	279	1440	674	601	863	6710	877	1160	483	412	737
8	229	280	1050	1350	562	821	2760	1220	984	450	365	545
9	229	280	861	1160	660	3380	1990	1180	2000	426	346	448
10	228	281	1130	954	1250	11600	1710	997	2300	468	328	386
11	226	281	1230	834	7800	4100	4810	867	1040	454	314	349
12	228	277	967	779	10400	2210	2820	778	764	562	302	324
13	228	276	830	719	4220	1610	2030	724	660	612	294	307
14	228	286	1000	659	2760	1310	1560	716	606	692	288	297
15	226	539	1040	600	2000	1130	1890	1020	561	906	286	288
16	235	645	904	551	1520	999	7140	1130	523	670	291	280
17	254	533	784	771	1260	905	3340	1010	618	623	313	276
18	255	442	700	1230	1100	827	2040	858	574	567	279	323
19	266	398	638	1030	932	762	1580	754	557	520	271	298
20	265	368	598	891	857	713	1270	689	539	547	295	279
21	255	346	631	778	972	683	1120	646	490	597	438	270
22	249	327	614	690	1090	652	999	604	479	694	422	264
23	242	315	579	646	5570	604	904	567	504	599	336	288
24	237	308	547	627	4650	939	832	541	517	517	304	339
25	236	300	517	672	2340	2400	776	516	648	473	291	329
26	236	279	494	1120	1630	2130	740	551	624	447	282	302
27	235	273	472	3190	1270	6230	718	609	2920	459	275	299
28	232	274	506	6110	1090	19600	882	542	1970	462	269	296
29	230	267	949	4520	---	7070	957	491	957	417	265	283
30	241	261	1050	2230	---	2820	847	477	763	386	261	272
31	257	---	878	1530	---	2000	---	478	---	367	355	---
TOTAL	7516	9610	36843	38338	59898	83244	67845	24354	26029	16603	10211	11025
MEAN	242	320	1188	1237	2139	2685	2261	786	868	536	329	367
MAX	274	645	9050	6110	10400	19600	11100	1220	2920	906	514	737
MIN	226	238	254	551	562	604	718	477	417	367	261	264
CFSM	.54	.72	2.66	2.77	4.79	6.01	5.06	1.76	1.94	1.20	.74	.82
IN.	.63	.80	3.07	3.19	4.98	6.93	5.65	2.03	2.17	1.38	.85	.92

TENNESSEE RIVER BASIN

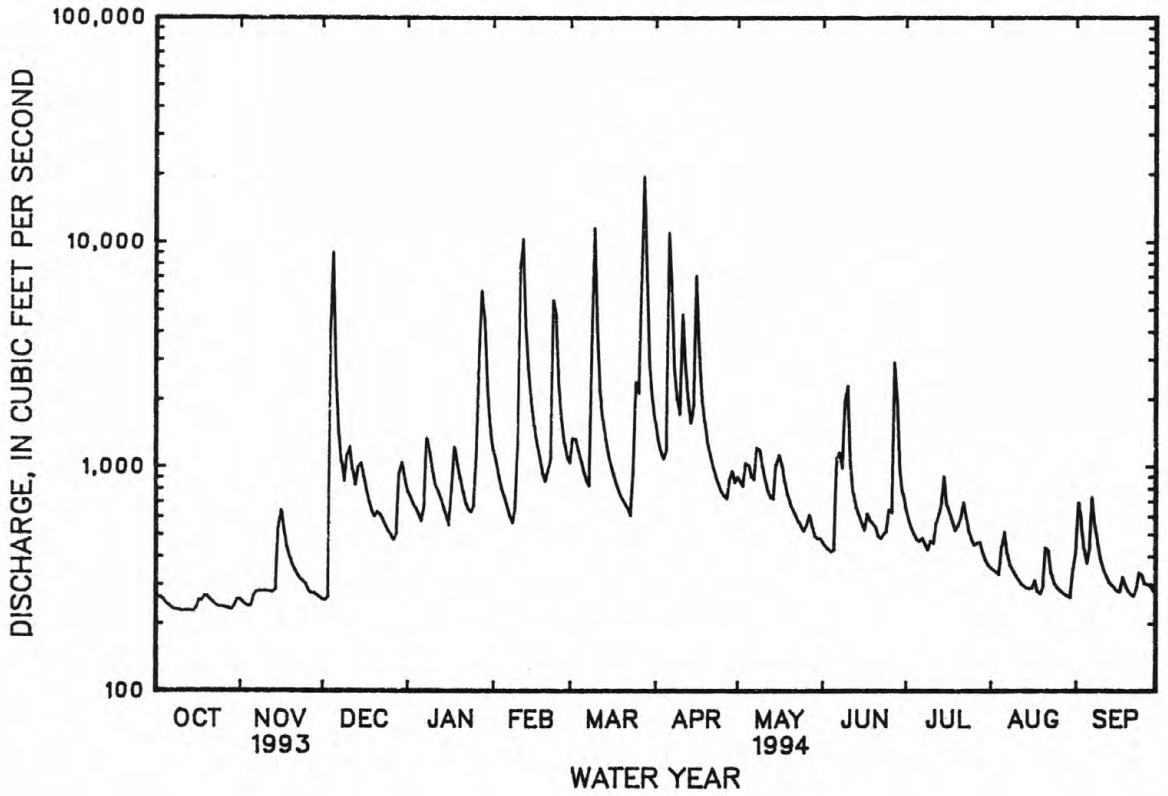
03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued
(Hydrologic bench-mark station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1994, BY WATER YEAR (WY)

MEAN	278	515	926	1200	1388	1471	1194	895	451	349	279	267
MAX	1418	2554	3568	3854	4901	4405	3034	5227	1642	1824	1008	1286
(WY)	1933	1958	1927	1937	1948	1973	1964	1991	1974	1932	1923	1979
MIN	112	174	213	234	316	458	303	210	146	121	117	94.2
(WY)	1932	1925	1964	1940	1926	1966	1986	1942	1941	1943	1925	1925

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1920 - 1994	
ANNUAL TOTAL	239015		391516			
ANNUAL MEAN	655		1073		764	
HIGHEST ANNUAL MEAN					1583	1973
LOWEST ANNUAL MEAN					323	1942
HIGHEST DAILY MEAN	9050	Dec 5	19600	Mar 28	75800	May 27 1991
LOWEST DAILY MEAN	209	Sep 14	226	Oct 11	65	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM	219	Sep 9	228	Oct 9	71	Sep 5 1925
INSTANTANEOUS PEAK FLOW			22200	Mar 28	a96300	May 27 1991
INSTANTANEOUS PEAK STAGE			22.33	Mar 28	a32.19	May 27 1991
INSTANTANEOUS LOW FLOW			b225	Oct 10	65	Sep 9 1925
ANNUAL RUNOFF (CFSM)	1.46		2.40		1.71	
ANNUAL RUNOFF (INCHES)	19.89		32.58		23.23	
10 PERCENT EXCEEDS	1130		2000		1460	
50 PERCENT EXCEEDS	452		606		385	
90 PERCENT EXCEEDS	236		261		176	

a Maximum discharge and gage height from high water mark in gage house and rating extended above 50,000 ft³/s on basis of slope-area and contracted opening measurments and rainfall-runoff study.
b Also occurred on Oct. 11, 14, 15, 16.



TENNESSEE RIVER BASIN

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 TEMPERATURE: June 1964 to January 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.0°C, July 13-15, 1966; minimum, 0.0°C, many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT												
20...	1000	80020	275	98	99	7.2	7.6	19.0	750	1.5	6.8	74
FEB												
08...	1030	80020	510	81	86	7.3	7.4	10.0	745	1.2	10.8	98
APR												
20...	1000	80020	1150	64	70	7.2	7.2	16.0	754	1.5	9.5	98
JUL												
12...	1045	80020	578	88	89	7.1	7.3	23.0	753	2.8	7.2	85

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
OCT												
20...	66	140	48	5	16	2.0	1.2	5	0.1	0.80	43	45
FEB												
08...	K16	35	37	5	12	1.6	1.2	6	0.1	0.80	31	32
APR												
20...	76	49	29	4	9.4	1.3	1.0	7	0.1	0.80	25	26
JUL												
12...	200	460	37	0	12	1.6	1.1	6	0.1	0.80	37	39

DATE	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT											
20...	3.0	1.8	0.20	6.7	54	59	0.07	40.1	<0.010	0.120	0.120
FEB											
08...	4.4	2.3	<0.10	5.1	51	49	0.07	70.2	<0.010	0.530	0.530
APR											
20...	4.6	1.5	<0.10	6.2	47	42	0.06	146	<0.010	0.310	0.310
JUL											
12...	3.1	1.7	<0.10	6.1	52	51	0.07	81.2	<0.010	0.190	0.190

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

TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)
OCT 20...	0.03	0.020	<0.20	--	0.020	<0.010	0.010	20	17	<3	26
FEB 08...	0.01	0.010	<0.20	--	0.020	0.020	0.010	50	15	<3	42
APR 20...	0.01	0.010	<0.20	--	0.010	0.020	0.010	50	16	<3	43
JUL 12...	0.01	0.010	0.20	0.39	0.020	0.010	0.010	30	18	<3	63

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 20...	<4	6	<10	<1	<1	<1.0	55	<6	6	4.4	100
FEB 08...	<4	5	<10	<1	<1	<1.0	40	<6	7	9.5	97
APR 20...	<4	6	<10	<1	<1	<1.0	34	<6	13	40	97
JUL 12...	<4	9	<10	<1	<1	<1.0	45	<6	13	20	99

DATE	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L
OCT 20...	<0.6	<0.6	0.22	0.15	0.34	0.9	<0.6	0.48

DATE	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L)	GROSS BETA, DISSOLVED (PCI/L AS SR/Y-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/Y-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L)	RA-226 2 SIGMA WATER, DISS, (PCI/L)
OCT 20...	0.44	0.8	<0.6	0.04	0.03	<1.0	0.020

TENNESSEE RIVER BASIN

03604400 BUFFALO RIVER BELOW LOBELVILLE, TN

LOCATION.--Lat 35°48'44", long 87°46'44", Perry County, Hydrologic Unit 06040004, on left bank at downstream end of bridge on State Highway 13, 1.1 mi downstream from Lost Creek, 1.4 mi above Standing Rock bridge, 2.8 mi north of Lobelville, and at mile 19.1.

DRAINAGE AREA.--702 mi².

PERIOD OF RECORD.--October 1927 to September 1989 (published as "near Lobelville"), October 1989 to September 1994 (discontinued). 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 and crest-stage gage. Datum of gage is 405.25 ft above sea level. Nov. 1, 1927, to May 31, 1934, nonrecording gage. June 1, 1934, to September 30, 1989, water-stage recorder at Standing Rock bridge 1.4 mi downstream at datum 2.23 ft lower.

REMARKS.--Records good. Minimum natural discharge 142 ft³/s Oct. 1-8, 1931. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, 25.99 ft, Feb. 14, 1948. Flood of March 1902 reached a stage of about 24.0 ft, present datum, discharge not determined, from flood profile by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 6	0615	12,800	14.87	Mar. 29	0815	*26,000	*18.46
Jan. 28	1400	9,780	13.48	Apr. 7	1645	17,100	16.19
Feb. 13	0415	16,500	15.99	Apr. 11	1545	9,280	13.21
Feb. 24	1815	8,900	12.96	Apr. 17	0845	9,950	13.57
Mar. 11	1000	15,800	15.80	June 9	1900	6,170	11.15
Mar. 25	0600	9,080	13.08				

Minimum discharge, 353 ft³/s, Oct. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	487	439	488	1490	2450	1840	3020	1420	877	1270	688	557
2	444	437	485	1380	2030	1850	2510	1400	850	1080	658	725
3	421	432	496	1290	1780	2030	2200	1340	825	957	635	878
4	409	430	2330	1210	1600	1970	1970	1350	807	871	622	801
5	404	438	8580	1140	1450	1810	1990	1460	792	805	806	682
6	393	445	8930	1080	1340	1660	7320	1420	938	766	795	634
7	381	459	e4000	1170	1220	1530	15100	1360	1460	763	799	700
8	373	477	2400	1380	1150	1430	8470	1570	1560	749	711	899
9	368	472	1760	1860	1140	3630	3930	1750	3590	750	653	783
10	362	475	1970	1700	1420	10500	2950	1650	4420	743	620	679
11	356	477	2130	1520	4430	14300	6870	1460	2570	730	595	617
12	360	483	1950	1400	12300	5530	7740	1330	1700	736	575	577
13	360	495	1660	1310	14100	3260	4390	1220	1350	878	559	548
14	368	517	1660	1210	6190	2560	3240	1210	1150	992	545	528
15	368	714	1740	1120	3980	2160	2740	1810	1030	1530	540	513
16	372	844	1670	1050	2970	1870	5810	2050	941	1550	530	502
17	434	964	1500	1140	2440	1670	8620	1920	940	1270	530	502
18	443	889	1360	1550	2100	1530	4230	1650	977	1100	544	541
19	454	780	1230	1780	1860	1410	2860	1430	930	969	519	531
20	449	710	1160	1610	1640	1320	2350	1280	883	872	510	516
21	456	656	1130	1450	1580	1260	1960	1180	858	902	807	495
22	446	617	1110	1320	1830	1200	1720	1110	782	1120	762	483
23	431	590	1080	1230	4720	1150	1550	1050	810	1840	695	493
24	422	572	1020	1170	8100	2550	1420	1000	815	1240	620	517
25	415	564	975	1230	5600	7520	1330	964	829	984	573	534
26	415	554	934	1610	3220	4930	1260	987	1150	1890	547	542
27	409	534	904	4450	2470	5360	1210	1090	2700	1230	529	536
28	410	518	964	9310	2070	15300	1300	1030	3810	977	515	515
29	408	509	1350	9180	---	23500	1380	962	2210	870	505	506
30	413	498	1680	5750	---	9260	1400	912	1550	786	498	493
31	425	---	1670	3240	---	4080	---	900	---	727	500	---
TOTAL	12656	16989	60316	67330	97180	139970	112840	41265	44104	31947	18985	17827
MEAN	408	566	1946	2172	3471	4515	3761	1331	1470	1031	612	594
MAX	487	964	8930	9310	14100	23500	15100	2050	4420	1890	807	899
MIN	356	430	485	1050	1140	1150	1210	900	782	727	498	483
CFSM	.58	.81	2.77	3.09	4.94	6.43	5.36	1.90	2.09	1.47	.87	.85
IN.	.67	.90	3.20	3.57	5.15	7.42	5.98	2.19	2.34	1.69	1.01	.94

e Estimated

TENNESSEE RIVER BASIN

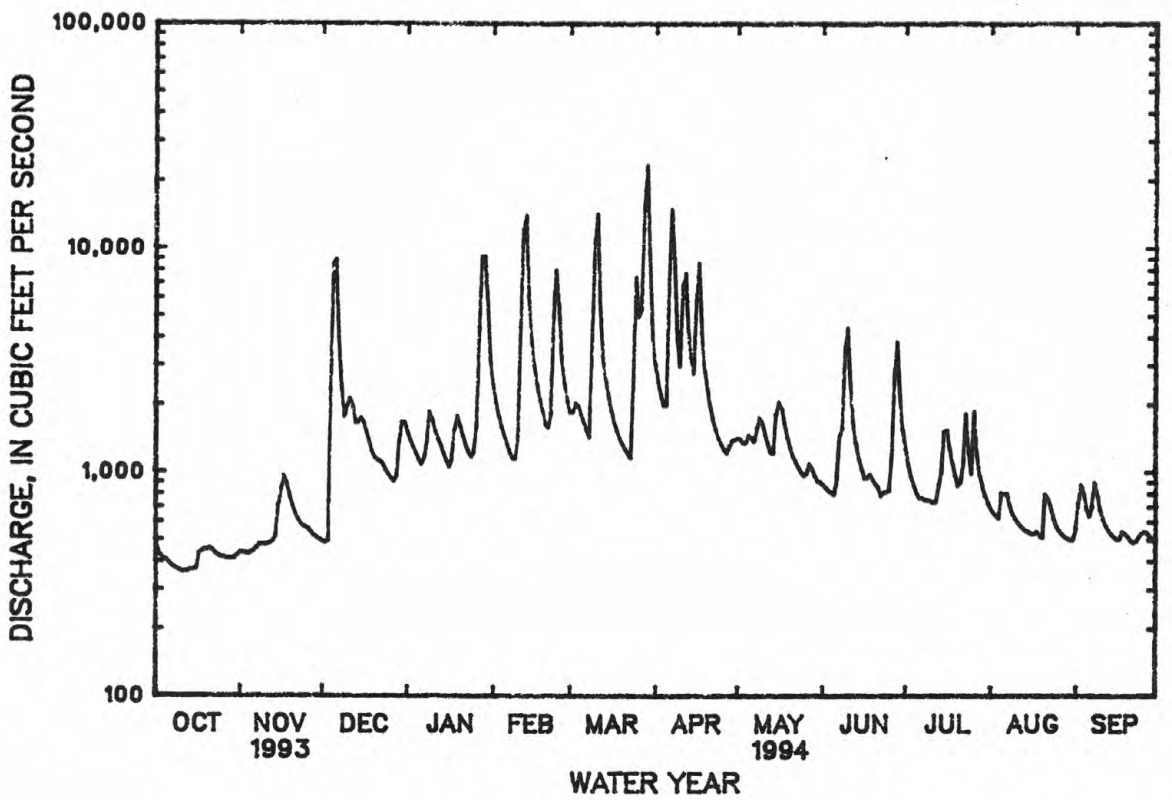
03604400 BUFFALO RIVER BELOW LOBELVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

MEAN	458	792	1424	1963	2170	2259	1884	1448	741	577	417	425
MAX	2107	3195	4790	7029	7231	6161	4659	7547	3320	2201	925	1989
(WY)	1933	1958	1992	1937	1948	1975	1964	1991	1974	1932	1967	1979
MIN	159	285	331	359	530	666	479	320	233	198	233	180
(WY)	1932	1955	1936	1940	1934	1941	1966	1942	1941	1943	1936	1941

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1928 - 1994	
ANNUAL TOTAL	383487		661409			
ANNUAL MEAN	1051		1812		1209	
HIGHEST ANNUAL MEAN					2410	1973
LOWEST ANNUAL MEAN					523	1941
HIGHEST DAILY MEAN	8930	Dec 6	23500	Mar 29	82100	Feb 14 1948
LOWEST DAILY MEAN	342	Sep 14	356	Oct 11	142	Oct 1 1931
ANNUAL SEVEN-DAY MINIMUM	357	Sep 10	363	Oct 9	142	Oct 1 1931
INSTANTANEOUS PEAK FLOW			26000	Mar 29	a100000	Feb 14 1948
INSTANTANEOUS PEAK STAGE			18.46	Mar 29	b25.99	Feb 14 1948
INSTANTANEOUS LOW FLOW			c353	Oct 11	d135	Aug 18 1953
ANNUAL RUNOFF (CFSM)	1.50		2.58		1.72	
ANNUAL RUNOFF (INCHES)	20.32		35.05		23.40	
10 PERCENT EXCEEDS	1770		3860		2380	
50 PERCENT EXCEEDS	790		1110		640	
90 PERCENT EXCEEDS	398		458		285	

a From rating curve extended above 40,000 ft³/s on basis of slope-area measurement of peak flow.
b Present datum, from high-water mark in gage house at previous site.
c Also occurred Oct. 12.
d Caused by unknown regulation (see REMARKS).



TENNESSEE RIVER BASIN

03605078 CYPRESS CREEK AT CAMDEN, TN

LOCATION.--Lat 36°02'49", long 88°04'33", Benton County, Hydrologic Unit 06040005, on left bank, adjacent to southwest corner of third sewage lagoon at Camden Sewage Treatment Plant, 1.5 mi southeast of Camden and 1.4 mi upstream from Kentucky Lake.

DRAINAGE AREA.--27.3 mi².

PERIOD OF RECORD.--January 1992 to current year, discharge for stage of 4.30 and below only.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft above sea level.

REMARKS.--Records fair except for estimated period, September 20-30, which is poor. Station operated as hydrograph release for City of Camden sewage treatment facility.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 9.74 ft, Jan. 27; minimum discharge, 2.0 ft³/s, Oct. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.8	e4.7	e7.6	22	30	36	36	---	9.8	9.1	7.7	11
2	e5.6	e5.0	e11	22	27	---	32	40	8.2	7.6	6.7	15
3	e7.2	e5.2	---	20	24	48	37	34	8.3	7.4	5.9	6.1
4	e4.8	e7.4	---	18	23	37	31	29	9.0	7.4	5.4	e6.6
5	e5.2	e8.8	---	15	23	31	---	23	10	12	---	7.0
6	e4.7	e6.6	43	15	20	27	---	19	29	---	13	7.8
7	e4.6	e6.1	28	---	18	27	---	21	22	---	9.1	5.4
8	e4.7	e7.5	24	47	21	---	45	23	---	63	6.9	4.4
9	e4.6	e8.6	---	30	---	---	37	17	---	---	5.5	4.1
10	e4.9	e7.2	---	25	---	---	---	14	46	---	4.7	3.9
11	e5.2	e8.0	41	24	---	---	---	12	24	---	4.1	3.7
12	e8.0	e8.8	30	26	---	57	---	10	20	---	3.5	3.5
13	e5.0	e25	31	22	---	45	---	11	14	19	3.3	3.1
14	e3.5	---	40	19	---	41	35	13	13	29	8.3	3.0
15	e3.1	---	27	15	---	33	---	---	10	---	11	2.8
16	3.0	---	22	13	59	26	---	39	24	---	4.1	2.8
17	2.6	---	19	---	44	23	36	18	27	38	3.5	3.4
18	2.2	---	20	50	38	22	---	13	11	23	3.3	3.1
19	5.4	e20	19	24	32	19	---	11	8.7	17	3.0	2.9
20	9.8	e14	22	19	---	19	---	9.5	8.7	12	5.3	e2.7
21	7.6	e12	23	17	---	20	---	8.4	8.7	---	---	e2.6
22	4.4	e10	17	20	---	16	---	7.4	8.6	---	7.3	e2.6
23	4.0	e9.8	15	49	---	16	---	6.6	7.4	32	4.7	e2.7
24	e4.2	e8.3	13	56	---	38	---	6.1	7.4	17	3.8	e2.9
25	e4.7	e7.9	13	---	51	34	---	5.7	7.4	12	3.3	e4.0
26	e4.9	e9.0	e14	---	37	---	---	---	---	---	3.2	e3.4
27	e7.2	e12	e20	---	31	---	---	33	---	---	3.6	e3.2
28	e5.2	e10	e50	---	28	---	---	16	15	22	3.3	e3.1
29	e4.8	e9.4	e62	---	---	---	24	12	11	14	2.9	e3.0
30	e11	e8.0	e45	55	---	60	---	13	9.5	11	3.6	e2.9
31	e5.6	---	24	38	---	43	---	14	---	8.8	4.2	---
TOTAL	163.5	239.3	680.6	661	506	718	313	478.7	377.7	361.3	154.2	132.7
MEAN	5.27	9.57	26.2	27.5	31.6	32.6	34.8	17.1	14.5	19.0	5.32	4.42
MAX	11	25	62	56	59	60	45	40	46	63	13	15
MIN	2.2	4.7	7.6	13	18	16	24	5.7	7.4	7.4	2.9	2.6
CFSM	.19	.35	.96	1.01	1.16	1.20	1.27	.63	.53	.70	.19	.16
IN.	.22	.33	.93	.90	.69	.98	.43	.65	.51	.49	.21	.18

e Estimated

TENNESSEE RIVER BASIN

RESERVOIRS IN TENNESSEE RIVER BASIN

03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at Douglas Dam on French Broad River, 6.5 mi north of Sevierville, and at mile 32.3. DRAINAGE AREA, 4,541 mi². PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gages, each 32 ft high by 40 ft wide and 8 sluice gates 10 ft high by 5.67 ft wide. Closure of dam was made Feb. 19, 1943; water in reservoir first reached minimum pool elevation Feb. 25, 1943. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,002.00 ft, top of gates, is 743,600 cfs-days, of which 631,200 cfs-days is controlled storage above elevation 940.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 760,000 cfs-days, July 25, 1949, elevation, 1,001.79 ft; minimum after first filling, 1,000 cfs-days, Jan. 16, 1956, elevation, 883.7 ft, estimated.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 636,800 cfs-days, Aug. 21, elevation, 995.38 ft; minimum, 93,200 cfs-days, Jan. 21, elevation, 937.21 ft.

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft upstream from South Holston Dam on South Fork Holston River, 7.0 mi southeast of Bristol, Virginia-Tennessee, and at mile 49.8. DRAINAGE AREA, 703 mi². PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to May 11, 1951, non-recording gage at same site and datum.

REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft, spillway crest, is 385,200 cfs-days, of which 220,800 cfs-days is controlled storage above elevation 1,675.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 363,800 cfs-days, May 10, 1984, elevation, 1,736.86 ft; minimum after first filling, 57,700 cfs-days, Jan. 13, 1956, elevation, 1,614.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximim contents, 331,900 cfs-days, May 30, elevation 1,729.04 ft: minimum, 222,200 cfs-days, Nov. 26, elevation, 1,696.45 ft.

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi east of Elizabethton, and at mile 36.7. DRAINAGE AREA, 468 mi². PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,975.00 ft, spillway crest, is 341,300 cfs-days, of which 178,500 cfs-days is controlled storage above elevation 1,915.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 300,800 cfs-days, Apr. 19, 1987, elevation, 1,963.28 ft; minimum after first filling, 25,100 cfs-days, Jan. 13, 1956, elevation, 1,813.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 287,000 cfs-days, June 8, elevation, 1,959.13 ft; minimum, 214,000 cfs-days, Nov. 27, elevation, 1,934.71 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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...	960.97	246.100	-	1,702.84	241,500	-	1,940.65	230,700	-
Oct. 31...	949.75	161,700	- 84,400	1,698.28	277,600	+36,100	1,936.52	219,100	-11,600
Nov. 30...	946.21	139,500	- 22,200	1,697.13	224,200	-53,400	1,935.15	215,200	- 3,900
Dec. 31...	942.84	120,300	- 19,200	1,703.22	242,600	+18,400	1,939.85	228,500	+13,300
CAL YR 1993	-	-	- 66,100	-	-	-17,800	-	-	-12,900
Jan. 31...	946.04	138,400	+18,100	1,705.36	249,300	+6,700	1,940.88	231,400	+2,900
Feb. 28...	958.75	227,700	+89,300	1,717.27	288,800	+39,500	1,950.30	259,000	+27,600
Mar. 31...	991.33	579,300	+351,600	1,727.23	325,000	+36,200	1,957.86	282,900	+23,900
Apr. 30...	990.44	567,100	- 12,200	1,726.87	323,600	-1,400	1,956.89	279,800	-3,100
May 31...	993.55	610,400	+43,300	1,728.93	331,400	+7,800	1,958.92	286,400	+6,600
June 30...	994.69	626,800	+16,400	1,728.69	330,500	-900	1,956.34	278.000	-8,400
July 31...	993.75	613,300	-13,500	1,725.35	317,900	-12,600	1,953.45	268,800	- 9,200
Aug. 31...	990.24	564,400	-48,900	1,721.95	305,400	-12,500	1,951.30	262,100	-6,700
Sept. 30...	974.74	378,400	-186,000	1,716.20	285,100	-20,300	1,945.72	245,400	-16,700
WTR YR 1994	-	-	+132,300	-	-	+43,600	-	-	+14,700

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi northeast of Spurgeon, 1.3 mi downstream from Watauga River, and at mile 18.6. DRAINAGE AREA, 1,840 mi². PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,385.0 ft, top of gates, is 97,500 cfs-days, of which 74,800 cfs-days is controlled storage above elevation 1,330 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 99,100 cfs-days, May 19, 1964, elevation 1,384.99 ft; minimum after first filling, 21,300 cfs-days, Jan. 23, 1956, elevation, 1,327.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 93,200 cfs-days, Mar. 30, elevation, 1,383.02 ft; minimum, 44,700 cfs-days, Jan. 21, elevation, 1,352.91 ft.

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi upstream from bridge on U. S. Highway 23, 4.5 mi southeast of Kingsport, and at mile 8.2. DRAINAGE AREA, 1,903 mi². PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,263 ft, top of gates, is 13,600 cfs-days, of which 2,200 cfs-days is controlled storage above elevation 1,258 ft, normal minimum pool. Reservoir is used for navigation, flood control and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 14,000 cfs-days, Feb. 11, 1954, elevation, 1,263.80 ft, minimum after first filling, 2,690 cfs-days, Sept. 19, 1986, elevation, 1,226.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,600 cfs-days, April 22, elevation, 1,263.04 ft; minimum, 11,200 cfs-days, Sept. 7, elevation, 1,257.60 ft.

03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi upstream from bridge on State Highway 92, 2.7 mi upstream from Mill Spring Creek, 2.8 mi north of Jefferson City, and at mile 52.3. DRAINAGE AREA, 3,429 mi². PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates, each 32 ft high by 40 ft wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,075.0 ft, top of gates, is 778,400 cfs-days, of which 580,300 cfs-days is controlled storage above elevation 1,020.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 779,400 cfs-days, May 11, 1944, maximum elevation, 1,074.47 ft May 30, 1973; minimum after first filling, 48,400 cfs-days, Jan. 7, 1954, elevation, 980.77 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 701,500 cfs-days, June 12, elevation, 1,069.90 ft; minimum, 271,800 cfs-days, Dec. 23, elevation, 1,030.65 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03486800 BOONE LAKE			03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30...	1,378.55	84,000	-	1,260.84	12,600	-	1,039.51	346,400	-
Oct. 31...	1,372.88	73,600	-10,400	1,262.40	13,300	+700	1,034.98	306,700	-39,700
Nov. 30...	1,364.36	59,800	-13,800	1,260.29	12,400	-900	1,033.23	292,200	-14,500
Dec. 31...	1,359.27	52,600	-7,200	1,259.04	11,800	-600	1,032.46	286,000	-6,200
CAL YR 1993	-	-	+3,900	-	-	-1,600	-	-	-38,700
Jan. 31...	1,362.08	56,500	+3,900	1,259.37	12,000	+200	1,035.50	311,100	+25,100
Feb. 28...	1,363.60	58,700	+2,200	1,262.75	13,400	+1,400	1,047.41	423,800	+112,700
Mar. 31...	1,381.77	90,500	+31,800	1,259.63	12,100	-1,300	1,060.61	576,400	+152,600
Apr. 30...	1,380.23	87,300	-3,200	1,260.98	12,700	+600	1,064.80	630,900	+54,500
May 31...	1,382.30	91,600	+4,300	1,261.20	12,800	+100	1,069.00	688,700	+57,800
June 30...	1,381.93	90,900	-700	1,261.40	12,900	+100	1,069.15	690,800	+2,100
July 31...	1,382.07	91,200	+300	1,261.80	13,000	+100	1,069.22	691,800	+1,000
Aug. 31...	1,381.09	89,100	-2,100	1,261.27	12,800	-200	1,067.51	667,900	-23,900
Sept. 30...	1,377.00	81,000	-8,100	1,259.68	12,100	-700	1,052.11	474,800	-193,100
WTR YR 1994	-	-	-3,000	-	-	-500	-	-	+128,400

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi northeast of Lenoir City, and at mile 602.3. DRAINAGE AREA, 9,550 mi². PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates, each 32 ft high by 40 ft wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Revised capacity table put into use Jan. 19, 1980. Total level pool capacity at elevation 815.00 ft, top of gates, is 424,000 cfs-days, of which 120,000 cfs-days is controlled flood storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 815.14 ft, May 8, 1984; minimum first filling, 805.54 ft, Jan. 18, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 200,900 cfs-days, Mar. 27; maximum elevation, 816.07 ft, Mar. 28; minimum midnight contents, 147,300 cfs-days, Dec. 18, minimum elevation, 807.27 ft, Mar. 7. Contents based on backwater profile.

03519800 TELLICO LAKE.--Lat 35°46'53", long 84°15'10", Loudon County, Hydrologic Unit 06010201, at Tellico Dam on Little Tennessee River, 1.1 mi south of Lenoir City, and at mile 0.4. DRAINAGE AREA, 2,627 mi². PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates, each 42 ft high by 40 ft wide. Closure of dam was made Nov. 29, 1979; water in reservoir first reached ordinary minimum pool elevation Dec. 24, 1979. Total capacity at elevation 815.00 ft, top of gates, is 225,500 cfs-days, of which 63,800 cfs-days is controlled storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and indirectly, power. Tellico-Fort Loudoun canal was opened Jan. 1ᶜ, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 228,700 cfs-days, May 8, 1984, elevation, 815.37 ft; minimum after first filling, 155,400 cfs-days, Jan. 11, 1985, elevation, 807.31 ft; minimum elevation, 806.96 ft, Jan. 14, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 224,100 cfs-days, Mar. 28, elevation, 816.20 ft; minimum, 155,700 cfs-days, Mar. 7, elevation, 807.35 ft.

03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi northwest of Norris, and at mile 79.8. DRAINAGE AREA, 2,912 mi². PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of stage is 0.11 ft above sea level. Gage readings have been reduced to sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with three drum gates, each 100 ft wide by 14 ft high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,034.11 ft, top of gates, is 1,286,600 cfs-days, of which 969,000 cfs-days is controlled storage above elevation 960.11 ft normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,236,700 cfs-days, Feb. 11, 1937, elevation, 1,031.21 ft; minimum after first filling, 75,500 cfs-days, Jan. 24, 1956, elevation, 909.46 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,075,100 cfs-days, April 17, elevation, 1022.80 ft; minimum, 536,600 cfs-days, Nov. 24, elevation, 984.42 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03499500 FORT LOUDOUN LAKE			03519800 TELLICO LAKE			03532500 NORRIS LAKE		
Sept. 30...	812.40	178,900	-	812.46	193,400	-	992.81	632,600	-
Oct. 31...	812.73	181,000	+2,100	812.79	196,000	+2,600	987.73	573,100	-59,500
Nov. 30...	808.83	154,400	-26,600	808.89	166,600	-29,400	986.43	558,600	-14,500
Dec. 31...	808.85	155,100	+700	808.91	166,800	+200	987.85	574,500	+15,900
CAL YR 1993	-	-	-4,000	-	-	-3,500	-	-	-64,700
Jan. 31...	808.84	155,100	0	808.90	166,700	-100	993.83	645,000	+70,500
Feb. 28...	808.00	151,100	-4,000	808.06	160,700	-6,000	1011.50	888,900	+243,900
Mar. 31...	812.39	181,600	+30,500	812.45	193,300	+32,600	1,021.14	1,046,200	+157,300
Apr. 30...	812.58	180,200	-1,400	812.62	194,700	+1,400	1,018.69	1,004,500	-41,700
May 31...	812.64	180,600	+400	812,68	195,100	+400	1,019.96	1,025,900	+21,400
June 30...	812.64	181,200	+600	812.73	195,500	+400	1,018.75	1,005,500	-20,400
July 31...	812.87	182,400	+1,200	812.95	197,200	+1,700	1,016.73	972,000	-33,500
Aug. 31...	812.47	180,300	-2,100	812.56	194,200	-3,000	1,014.13	930.000	-42,000
Sept. 30...	812.68	182,000	+1,700	812.74	195,600	+1,400	1,004.97	792,400	-137,000
WTR YR 1994	-	-	+3,100	-	-	+2,200	-	-	+159,800

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03535900 MELTON HILL LAKE.--Lat 35°53'04", long 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi southwest of Oak Ridge, 19 mi west of Knoxville, 57 mi downstream from Norris Dam on Clinch River, and at mile 23.1. DRAINAGE AREA, 3,343 mi². PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft high by 40 ft wide. Dam completed and storage began May 1, 1963; water in reservoir first reached minimum pool elevation May 23, 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 796 ft, top of gates, is 63,500 cfs-days, of which 16,100 cfs-days is controlled storage above elevation 790.0 ft, normal minimum pool. Reservoir is used for navigation, power, and recreation.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,900 cfs-days, Mar. 16, 1973, elevation, 796.45 ft; minimum after first filling, 35,100 cfs-days, Feb. 9, 1966, elevation, 784.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,100 cfs-days, Feb. 11, elevation, 795.87 ft; minimum, 47,400 cfs-days, Mar. 23, elevation, 790.00 ft.

03543000 WATTS BAR LAKE.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06010201, at Watts Bar Dam on Tennessee River, 6.5 mi southeast of Spring City, 72.4 mi downstream from Fort Loudoun Dam, and at mile 529.9. DRAINAGE AREA, 17,310 mi², approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates, each 32 ft high by 40 ft wide, also one 2-section leaf trashway gate 16.3 ft high by 24 ft wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 745.0 ft, top of gates, is 592,400 cfs-days, of which 191,000 cfs-days is controlled flood storage above elevation 735.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 745.40 ft, Mar. 17, 1973; minimum after first filling, 733.44 ft, Mar. 20, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 605,200 cfs-days, Mar. 28; maximum elevation, 745.28 ft, Mar. 29; minimum midnight contents, 411,300 cfs-days, Mar. 10; minimum elevation, 735.22 ft, Mar. 10. Contents based on backwater profile.

03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi east of Cleveland, and at mile 11.9. DRAINAGE AREA, 595 mi². PERIOD OF RECORD, June 1914 to current year. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir," and October 1953 to September 1968, as "Parksville Lake." GAGE, nonrecording gage. Datum of gage is 6.89 ft above sea level. Gage readings have been reduced to sea level.

REMARKS.--Reservoir is formed by concrete dam with 347 ft of spillway. Spillway is equipped with four floodgates, each 6 ft high by 20 ft wide and 265 ft of flashboards about 5.7 ft high. Crest of spillway under gates is at elevation 830.82 ft; remainder of spillway is 1.0 ft higher. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1979. Total capacity at elevation 837.55 ft, about top of flashboards, is 42,300 cfs-days, of which 15,600 cfs-days is controlled storage above elevation 817.9 ft, normal minimum pool. Reservoir is used for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight contents observed, 53,300 cfs-days, July 9, 1916; maximum midnight elevation observed, 840.2 ft, Feb. 10, 1946; minimum contents observed, 27,300 cfs-days, Jan. 27, 1956, elevation, 817.7 ft; minimum midnight elevation observed, 814.8 ft, Dec. 14, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 45,100 cfs-days, Mar. 27, elevation, 840.7 ft; minimum 32,300 cfs-days, Mar. 1, elevation, 826.7 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	03535900 MELTON HILL LAKE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	*03543000 WATTS BAR LAKE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	03564000 LAKE OCOEE Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
Sept. 30.	793.73	57,200	-	740.04	490,700	-	834.7	39,100	-
Oct. 31...	794.02	57,700	+500	740.41	497,700	+7,000	835.6	40,000	+900
Nov. 30...	791.75	51,700	-6,000	737.22	440,400	-57,300	830.9	35,600	-4,400
Dec. 31...	793.20	55,400	+3,700	736.08	421,200	-19,200	827.8	33,100	-2,500
CAL YR 1993	-	-	-800	-	-	-25,600	-	-	-3,700
Jan. 31...	793.75	56,900	+1,500	737.40	444,100	+22,900	829.0	34,100	+1,000
Feb. 28...	793.00	54,900	-2,000	738.15	460,100	+16,000	828.0	33,300	-800
Mar. 31...	790.80	49,300	-5,600	743.09	556,500	+96,400	831.2	35,900	+2,600
Apr. 30...	793.44	56,100	+6,800	739.96	489,000	-67,500	835.2	39,600	+3,700
May 31...	793.15	55,300	-800	740.67	502,700	+13,700	835.2	39,600	0
June 30...	793.42	56,000	+700	740.34	497,300	-5,400	835.5	39,900	+300
July 31...	794.21	58,200	+2,200	740.91	508,300	+11,000	834.9	39,300	-600
Aug. 31...	793.77	57,000	-1,200	740.28	496,600	-11,700	834.0	38,400	-900
Sept. 30...	793.58	56,500	-500	740.16	493,800	-2,800	834.3	38,700	+300
WTR YR 1994	-	-	-700	-	-	+3,100	-	-	-400

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi northeast of Chattanooga, 58.9 mi downstream from Watts Bar Dam, and at mile 471.0. DRAINAGE AREA, 20,790 mi², approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates, each 40.44 ft high by 40 ft wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 685.44 ft, top of gates, is 372,600 cfs-days, of which 175,000 cfs-days is controlled flood storage above elevation 675.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 686.19 ft, Mar. 29, 1994; minimum after first filling, 673.27 ft, Jan. 21, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 386,300 cfs-days, Mar. 29; maximum elevation, 686.19 ft, Mar. 29; minimum midnight contents, 208,500 cfs-days, Mar. 17; minimum elevation, 675.13 ft, Feb. 9. Contents based on backwater profile.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi upstream from Sequatchie River, 5 mi south of Jasper, 46.3 mi downstream from Chickamauga Dam, and at mile 424.7. DRAINAGE AREA, 21,870 mi², approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft, is equipped with 10 radial gates, each 40 ft high by 40 ft wide. A trash gate, 5.5 ft high by 15 ft wide, is located between the spillway and powerhouse. Dam was completed and storage began on Dec. 14, 1967. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 635.0 ft, top of gates, is 127,200 cfs-days, of which 16,200 cfs-days is controlled storage above elevation 632.0 ft, ordinary minimum. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 634.99 ft, Apr. 19, 1969; minimum after first filling, 630.82 ft, Feb. 20, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 162,200 cfs-days, Mar. 28; maximum elevation, 634.18 ft, Oct. 21; minimum midnight contents, 114,400 cfs-days, Mar. 25; minimum elevation, 632,00 ft, Dec. 13. Contents based on backwater profile.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi upstream from Spring Creek, 2.5 mi northeast of Estill Springs, 6.8 mi upstream from bridge on U.S. Highway 41-A, and at mile 170.0. DRAINAGE AREA, 263 mi². PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, each 25 ft high by 50 ft wide, and two sluice gates, each 6 ft high by 4 ft wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft, surcharge pool, is 44,400 cfs-days, of which 9,900 cfs- days is controlled storage above elevation 957.0 ft, normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes.

COOPERATION.--Twice-daily gage readings (0600 and 2400 hours) furnished by U.S. Air Force.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 42,300 cfs-days, April 21 and 22, 1956, elevation, 960.98 ft; minimum after first filling, 26,300 cfs-days, Nov. 8-11, 1953, elevation, 951.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 40,000 cfs-days, June 27, elevation, 959.86 ft; minimum midnight contents, 36,200 cfs-days, Jan. 10, elevation, 957.90 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03566500 CHICKAMAUGA LAKE			*03570520 NICKAJACK LAKE			03579000 WOODS RESERVOIR		
Sept. 30...	681.58	297,400	-	633.10	116,600	-	959.35	39,000	-
Oct. 31...	678.75	250,900	-46,500	633.57	119,100	+2,500	958.25	36,900	-2,100
Nov. 30...	676.87	226,900	-24,000	633.44	119,200	+100	958.02	36,400	-500
Dec. 31...	676.95	227,200	+300	633.00	119,400	+200	958.04	36,500	+100
CAL YR 1993	-	-	-35,700	-	-	-8,800	-	-	+200
Jan. 31...	677.23	236,300	+9,100	632.26	122,900	+3,500	958.16	36,700	+200
Feb. 28...	676.39	237,800	+1,500	632.13	133,900	+11,000	958.02	36,400	-300
Mar. 31...	681.88	326,400	+88,600	632.12	151,500	+17,600	959.52	39,300	+2,900
Apr. 30...	682.10	310,800	-15,600	633.90	122,300	-29,200	959.36	39,000	-300
May 31...	682.53	314,400	+3,600	633.73	120,000	-2,300	959.43	39,100	+100
June 30...	682.51	318,000	+3,600	632.40	117,900	-2,100	959.49	39,300	+200
July 31...	682.82	322,600	+4,600	632.41	117,600	-300	959.55	39,400	+100
Aug. 31...	681.30	297,100	-25,500	633.39	121,100	+3,500	959.48	39,200	-200
Sept. 30...	681.11	289,300	-7,800	635.48	121,800	+700	959.45	39,200	0
WTR YR 1994	-	-	-8,100	-	-	+5,200	-	-	+200

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03580740 TIMS FORD LAKE.--Lat 35°11'51", long 86°16'41", Franklin County, Hydrologic Unit 06030003, in intake tower near left bank at Tims Ford Dam on Elk River, 0.4 mi upstream from bridge on State Highway 50, 9.5 mi west of Winchester, and at mile 133.4. DRAINAGE AREA, 529 mi². PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates, each 42 ft high by 40 ft wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 3, 1971. Total capacity at elevation 895 ft, top of gates, is 306,500 cfs-days, of which 142,400 cfs-days is controlled storage above elevation 865 ft, normal minimum pool. Reservoir is used for flood control, power, and recreation.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 298,600 cfs-days, Dec. 23, 1990, elevation, 893.62 ft; minimum after first filling 154,000 cfs-days, Oct. 15, 1972, elevation, 862.24 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 280,000 cfs-days, Mar. 29, elevation, 890.33 ft; minimum, 198,500 cfs-days, Jan. 22 elevation, 873.64 ft.

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi north of town of Pickwick Dam, 6.1 mi upstream from Lick Creek, 52.7 mi downstream from Wilson Dam, and at mile 206.7. DRAINAGE AREA, 38,820 mi², approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 2-section lift gates, each 40 ft high by 40 ft wide, one of which is used as a trash gate. Dam completed and storage began Feb. 8, 1938; water in reservoir first reached minimum pool elevation Feb. 18, 1938. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 418.0 ft, top of gates, is 557,100 cfs-days, of which 210,200 cfs-days is controlled flood storage above elevation 408.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 419.49 ft, Mar. 30, 1944; minimum after first filling, 407.12 ft, Dec. 18, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 659,400 cfs-days, Mar. 28; maximum elevation, 416.65 ft, Mar. 28; minimum midnight contents, 438,700 cfs-days, Jan. 8, minimum elevation, 408.29 ft, Dec. 12. Contents based on backwater profile.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'55", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi northeast of Normandy, 2.6 mi downstream from Riley Creek, 8 mi north of Tullahoma, and at mile 248.6. DRAINAGE AREA, 195 mi². PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, each 40 ft high by 36 ft wide. Storage began Jan. 5, 1976; water in reservoir first reached minimum pool elevation Mar. 22, 1976. Revised capacity table put into use Jan. 1, 1977. Total capacity at elevation 880 ft, top of gates, is 64,000 cfs-days, of which 30,400 cfs-days is controlled storage above elevation 859 ft, normal minimum pool. Reservoir is used for flood control, water supply, water-quality control, recreation, and shoreline development.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 63,800 cfs-days, Feb. 20, 1991, elevation, 880.12 ft; minimum after first filling, 26,800 cfs-days, Nov. 27, 1981, elevation, 853.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 62,200 cfs-days, Mar. 28, elevation, 879.19 ft; minimum 39,100 cfs-days, Jan. 25, elevation, 863.82 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)
	03580740	TIMS FORD LAKE		*03593000	PICKWICK LAKE		03596460	NORMANDY LAKE	
Sept. 30...	884.19	247,300	-	410.48	479,200	-	870.25	48,100	-
Oct. 31...	883.09	241,800	-5,500	410.26	473,100	-6,100	868.00	44,800	-3,300
Nov. 30...	877.17	213,900	-27,900	409.42	454,800	-18,300	864.53	40,100	-4,700
Dec. 31...	874.22	201,000	-12,900	409.95	469,400	+14,600	864.61	40,200	+100
CAL YR 1993	-	-	-21,500	-	-	-400	-	-	+100
Jan. 31...	878.41	219,500	+18,500	410.87	496,200	+26,800	866.28	42,400	+2,200
Feb. 28...	880.65	230,000	+10,500	410.35	499,900	+3,700	870.92	49,000	+6,600
Mar. 31...	889.31	274,300	+44,300	415.46	635,600	+135,700	876.74	58,100	+9,100
Apr. 30...	884.98	251,300	-23,000	413.09	541,400	-94,200	874.48	54,500	-3,600
May 31...	887.56	264,800	+13,500	413.92	560,400	+19,000	875.15	55,500	+1,000
June 30...	887.39	263,900	-900	413.71	561,700	+1,300	875.52	56,100	+500
July 31...	887.23	263,100	-800	412.78	534,800	-26,900	875.06	55,400	-700
Aug. 31...	885.44	253,700	-9,400	411.75	506,900	-27,900	874.13	53,900	-1,500
Sept. 30...	885.38	253,400	-300	411.32	496,900	-10,000	872.86	52,000	-1,900
WTR YR 1994	-	-	+6,100	-	-	+17,700	-	-	+3,900

* Contents based on backwater profile.

TENNESSEE RIVER BASIN

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03609000 KENTUCKY LAKE.--Lat 37°00'49", long 88°16'06", Marshall County, KY, Hydrologic Unit 06040006, at Kentucky Dam on Tennessee River at Gilbertsville, KY, and at mile 22.4. DRAINAGE AREA, 40,200 mi², approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with 24 lift gates 50 ft high by 40 ft wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft, top of gates, is 3,090,000 cfs-days, of which 2,020,700 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.87 ft, May 24, 1983; minimum after first filling, 348.02 ft, Mar. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 2,218,400 cfs-days, Apr. 21; maximum elevation, 366.35 ft, Apr. 23; minimum midnight contents, 1,083,500 cfs-days, Dec. 27, minimum elevation, 353.85 ft, Dec. 25.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03609000 KENTUCKY LAKE		
Sept. 30...	356.50	1,245,000	-
Oct. 31...	355.50	1,160,000	-85,000
Nov. 30...	354.60	1,114,500	-45,500
Dec. 31...	354.88	1,151,900	+37,400
CAL YR 1993	-	-	+173,900
Jan. 31...	355.69	1,366,500	+214,600
Feb. 28...	355.95	1,473,600	+107,100
Mar. 31...	354.97	1,826,800	+353,200
Apr. 30...	359.95	1,542,700	-284,100
May 31...	359.22	1,447,800	-94,900
June 30...	359.32	1,498,600	+50,800
July 31...	359.10	1,448,600	-50,000
Aug. 31...	356.75	1,295,000	-153,600
Sept. 30...	356.04	1,219,800	-75,200
WTR YR 1994	-	-	-25,200

* Contents based on backwater profile.

OTHER RESERVOIRS.--The following small reservoirs in the Tennessee River basin are described below, but records of contents are not published herein.

03466400 DAVY CROCKETT LAKE on Nolichucky River at Nolichucky Dam, with a total capacity of 1,300 cfs-days, none of which is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, with a total capacity of 20,800 cfs-days of which 840 cfs-days is controlled storage.

03518200 CHILHOWEE LAKE on Little Tennessee River at Chilhowee Dam, with a total capacity of 24,800 cfs-days of which 3,400 cfs-days is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles west of Ducktown, with a total capacity of 1,660 cfs-days, of which 1,550 cfs-days is controlled storage. Records of contents previous to 1971 water year published as Ocoee No. 3 Lake near Ducktown, TN.

Map number	Station number	Station name	Page
183	07024225	NEIL DITCH NEAR HENRY	320
184	07024300	BEAVER CREEK AT HUNTINGTON	270-271,344
185	07024370	LITTLE REEDY CREEK NEAR HUNTINGDON	320
186	07025500	NORTH FORK OBION RIVER NEAR UNION CITY	321,344
187	07026040	OBION RIVER AT HWY 51 NEAR OBION	272-275
188	07027000	REELFOOT LAKE NEAR TIPTONVILLE	276-278
189	07028505	NORTH FORK FORKED DEER RIVER AT TRENTON	321
190	07029090	LEWIS CREEK NEAR DYERSBURG	321
191	07029500	HATCHIE RIVER AT BOLIVAR	280-283
192	07030100	CANE CREEK AT RIPLEY	321
193	07030240	LOOSAHATCHIE RIVER NEAR ARLINGTON	284-285,344
194	07031650	WOLF RIVER AT GERMANTOWN	286-287,344
195	07032000	MISSISSIPPI RIVER AT MEMPHIS	288-291
196	07032200	NONCONNAH CREEK NEAR GERMANTOWN	292-293,344

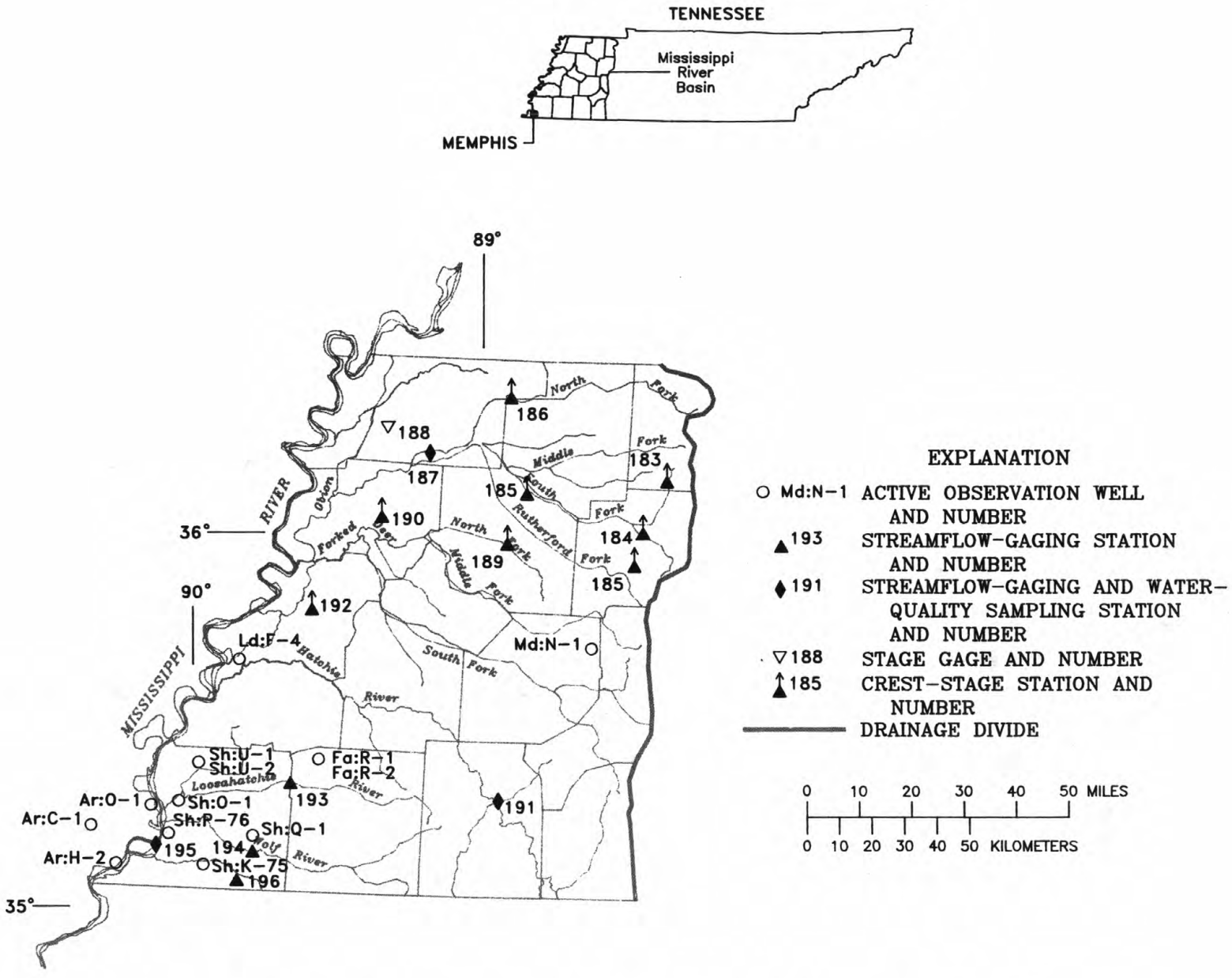


Figure 7.--Location of gaging sites in the Mississippi River Basin.

OBION RIVER BASIN

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 bridge pier on U.S. Highway 70, 0.3 mi southwest of Huntingdon, 0.6 mi downstream from Brier Creek, and at mile 5.6.

DRAINAGE AREA.--55.5 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1946, 1948, 1952-54, 1956-61 and annual maximum, water years 1954-62, 1989-91. October 1962 to February 1988, July 1988 to Sept. 89. October 1991 to April 14, 1994. Station discontinued on March 31, 1994, due to bridge construction.

REVISED RECORDS.--WSP 1920: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 364.20 ft above sea level, from Tennessee State Highway Department bench mark. Dec. 21, 1945, to Oct. 3, 1962, nonrecording gage at site 30 ft downstream at same datum; Jan. 6, 1954, to Oct. 3, 1962, crest-stage gage at same site at datum 1.17 ft higher.

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

EXTREMES FOR CURRENT PERIOD.--October 1993 to March 1994: Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	0500	*2,680	*12.22	Mar. 28	0315	2,160	11.72

Minimum discharge, 28 ft³/s, Oct. 1-2, minimum gage height, 2.33 ft, Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO APRIL 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	48	34	75	90	e250	---	---	---	---	---	---
2	32	50	38	75	84	e312	---	---	---	---	---	---
3	35	51	94	73	79	e210	---	---	---	---	---	---
4	31	52	447	70	85	e130	---	---	---	---	---	---
5	31	56	693	69	86	e112	---	---	---	---	---	---
6	30	56	266	69	76	e101	---	---	---	---	---	---
7	30	52	96	315	70	e88	---	---	---	---	---	---
8	31	54	81	217	70	e83	---	---	---	---	---	---
9	33	56	88	98	530	e1350	---	---	---	---	---	---
10	34	54	234	86	694	e1130	---	---	---	---	---	---
11	35	56	113	83	654	e1560	---	---	---	---	---	---
12	37	58	82	93	1220	e810	---	---	---	---	---	---
13	36	93	79	83	786	e425	---	---	---	---	---	---
14	36	165	98	76	434	e200	---	---	---	---	---	---
15	36	305	84	66	213	e149	---	---	---	---	---	---
16	40	166	75	61	120	e100	---	---	---	---	---	---
17	46	300	69	200	e97	e89	---	---	---	---	---	---
18	46	145	66	187	e97	e77	---	---	---	---	---	---
19	61	67	63	175	e120	e68	---	---	---	---	---	---
20	64	56	68	175	e99	e61	---	---	---	---	---	---
21	60	48	74	174	e352	e54	---	---	---	---	---	---
22	53	41	66	134	e930	e51	---	---	---	---	---	---
23	50	40	62	128	e1300	51	---	---	---	---	---	---
24	48	38	58	167	e820	109	---	---	---	---	---	---
25	49	38	60	311	e545	203	---	---	---	---	---	---
26	49	40	58	437	e400	118	---	---	---	---	---	---
27	54	39	59	1320	e275	921	---	---	---	---	---	---
28	52	38	171	2190	e204	1870	---	---	---	---	---	---
29	50	36	186	697	---	777	---	---	---	---	---	---
30	64	35	94	182	---	244	---	---	---	---	---	---
31	53	---	77	107	---	100	---	---	---	---	---	---
TOTAL	1337	2333	3833	8193	10530	11803	---	---	---	---	---	---
MEAN	43.1	77.8	124	264	376	381	---	---	---	---	---	---
MAX	64	305	693	2190	1300	1870	---	---	---	---	---	---
MIN	30	35	34	61	70	51	---	---	---	---	---	---
CFSM	.78	1.40	2.23	4.76	6.78	6.86	4.57	---	---	---	---	---
IN.	.90	1.56	2.57	5.49	7.06	7.91	2.21	---	---	---	---	---

e Estimated

OBION RIVER BASIN

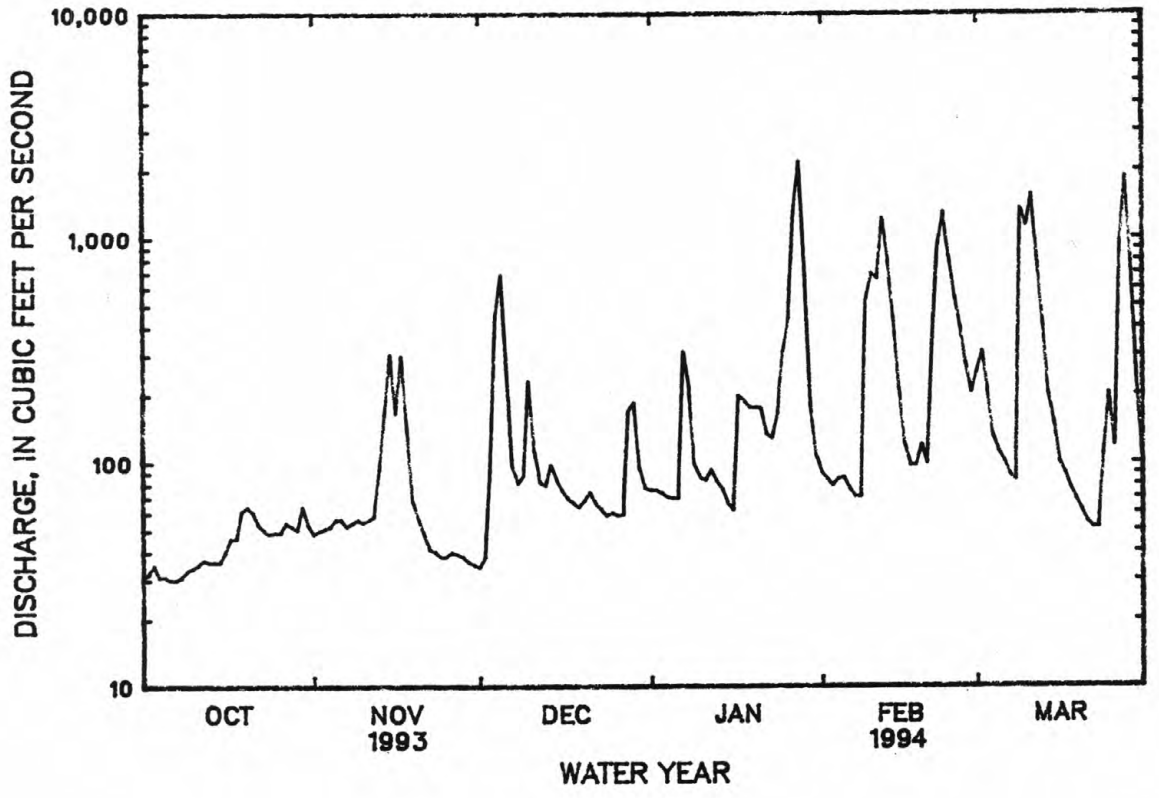
07024300 BEAVER CREEK AT HUNTINGDON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1994, BY WATER YEAR (WY)

MEAN	55.8	112	174	145	164	200	150	125	73.7	61.9	49.0	68.8
MAX	202	350	453	380	490	523	539	528	304	257	232	348
(WY)	1973	1980	1983	1989	1989	1975	1979	1983	1981	1972	1971	1970
MIN	24.0	34.1	34.0	33.9	46.0	54.5	36.4	26.7	25.8	25.1	21.2	25.4
(WY)	1964	1964	1966	1963	1963	1969	1967	1987	1964	1966	1986	1963

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		WATER YEARS 1963 - 1993		
ANNUAL TOTAL	32495				
ANNUAL MEAN	89.0		113		
HIGHEST ANNUAL MEAN			209		1979
LOWEST ANNUAL MEAN			54.5		1963
HIGHEST DAILY MEAN	1580	Mar 27	4850	Apr 2	1979
LOWEST DAILY MEAN	18	Jul 10	18	Jul 10	1993
ANNUAL SEVEN-DAY MINIMUM	19	Jul 6	19	Aug 24	1986
INSTANTANEOUS PEAK FLOW			a8350	Sep 9	1970
INSTANTANEOUS PEAK STAGE			15.20	Sep 13	1982
INSTANTANEOUS LOW FLOW			18	Jul 9	1993
ANNUAL RUNOFF (CFSM)	1.60		2.04		
ANNUAL RUNOFF (INCHES)	21.78		27.75		
10 PERCENT EXCEEDS	172		206		
50 PERCENT EXCEEDS	53		46		
90 PERCENT EXCEEDS	26		26		

a From rating curve extended above 3,600 ft³/s, on basis of contracted opening measurement of peak flow.



OBION RIVER BASIN

07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR OBION, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°14'27", long 89°13'03", Obion County, Hydrologic Unit 08010202, on right downstream bank, at end of main channel bridge on U.S. Highway 51, 3.2 mi northeast of Trimble, 2.0 mi southwest of Obion and 1.6 river miles downstream of the former gage location, Obion River at Obion.

DRAINAGE AREA.--1,875 mi².

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 U.S. Army Corps of Engineers. Prior to Oct. 1990 published as "at Obion".

REVISED RECORD.--WSP 1211: 1930, 1943. WSP 2120: Drainage area.

GAGE.--Data collection platform. Datum of gage is 245.17 ft above sea level. Prior to Oct. 1990 water-stage recorder at site 1.6 mi upstream at a datum 1.31 ft higher (levels by the U.S. Army Corps of Engineers). Prior to Oct. 1, 1932, nonrecording gage at site 1.6 mi upstream at datum 6.31 ft higher; Oct. 1, 1932, to Aug. 2, 1939, nonrecording gage, and Aug. 3, 1939, to Sept. 1958, water-stage recorder at site 1.6 mi upstream at datum 16.31 ft higher.

REMARKS.--Records poor.

COOPERATION.--Twenty discharge measurements furnished by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99,500 ft3/s, Jan 24, 1937 gage height, 40.4 ft at a 1.31 ft higher datum; minimum, under conditions of no backwater, 230 ft3.s, Oct. 7-9, 1943; minimum daily discharge, 15 ft3/s, backwater from Mississippi River, Feb. 4, 1937; reverse flow of 57 ft3/s measured by current meter on that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 17,700 ft3/s, Mar. 30, gage height 34.06 ft; minimum daily discharge 595 ft³/s, Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	643	e680	957	1130	7310	3840	13200	e1500	2620	1150	815	681
2	696	e675	1030	1110	6820	2640	12300	e1550	2100	996	783	681
3	815	e655	3780	1050	5260	2240	9890	e1580	2060	936	761	812
4	754	e638	11900	1000	3120	1880	7870	e1600	2270	1140	750	1040
5	676	e640	12900	954	e1860	e1600	5560	e1760	2660	1170	750	e1120
6	641	e638	11000	911	1940	e2500	7030	2200	2620	1160	1060	1040
7	629	e625	9940	4520	1770	e4100	6290	1800	2320	2100	1110	941
8	616	e618	e7700	5350	e1750	e6000	4100	1940	1440	2810	848	760
9	619	e618	e6000	2480	e1680	e8600	3000	1870	1670	2360	803	700
10	614	e622	e4650	1840	e1600	e8000	e2620	1490	6270	1450	778	676
11	610	e630	e4100	1560	e1530	e12800	e3050	1310	2860	1260	760	655
12	618	649	e3700	2710	e2100	e11000	e4500	1240	1440	1040	736	641
13	621	764	e3250	2420	e5000	e7600	7530	1220	1030	988	719	635
14	617	2260	e3080	1630	e13000	e5500	11200	1220	754	1040	716	e620
15	615	7550	e2720	1300	e10500	e3520	9540	1260	693	1060	714	e618
16	615	5250	e2520	1030	e7400	e2800	10900	1520	629	3190	726	e615
17	647	11000	e2270	2710	e5600	2220	10900	1900	758	2030	726	e612
18	665	10500	e2000	4010	e4500	1800	8540	1230	807	1300	691	e610
19	1650	7160	e1850	2120	e3900	1720	6120	1100	655	1110	682	e607
20	5690	4070	e1700	1440	3600	1620	4170	1010	630	1010	681	e604
21	5920	2160	e1500	1220	e5400	1600	2610	906	637	957	684	e600
22	1840	1540	e1100	1080	8290	7590	2050	861	698	3220	707	e598
23	955	1300	968	1210	11500	10600	1760	2660	737	4550	720	e595
24	801	1180	930	3820	11600	10100	1590	2480	e770	1880	700	e600
25	741	1430	910	6740	11500	10800	1470	2340	814	1250	700	e638
26	721	2330	902	8750	7870	11900	1530	2340	922	1350	689	e665
27	719	1660	e970	11100	7530	16100	1480	4250	3650	2930	764	e678
28	e700	1260	e989	8010	6030	16500	1500	5010	9260	3310	798	e650
29	e680	1100	2210	8040	---	16600	e1510	3170	5860	1290	696	e628
30	e660	1020	1550	7200	---	16400	e1520	2740	1440	977	688	e620
31	e660	---	1190	6730	---	13000	---	3920	---	874	681	---
TOTAL	33448	71222	110266	105175	159960	223170	165330	60977	61074	51888	23436	20940
MEAN	1079	2374	3557	3393	5713	7199	5511	1967	2036	1674	756	698
MAX	5920	11000	12900	11100	13000	16600	13200	5010	9260	4550	1110	1120
MIN	610	618	902	911	1530	1600	1470	861	629	874	681	595
CFSM	.58	1.27	1.90	1.81	3.05	3.84	2.94	1.05	1.09	.89	.40	.37
IN.	.66	1.41	2.19	2.09	3.17	4.43	3.28	1.21	1.21	1.03	.46	.42

e Estimated

OBION RIVER BASIN

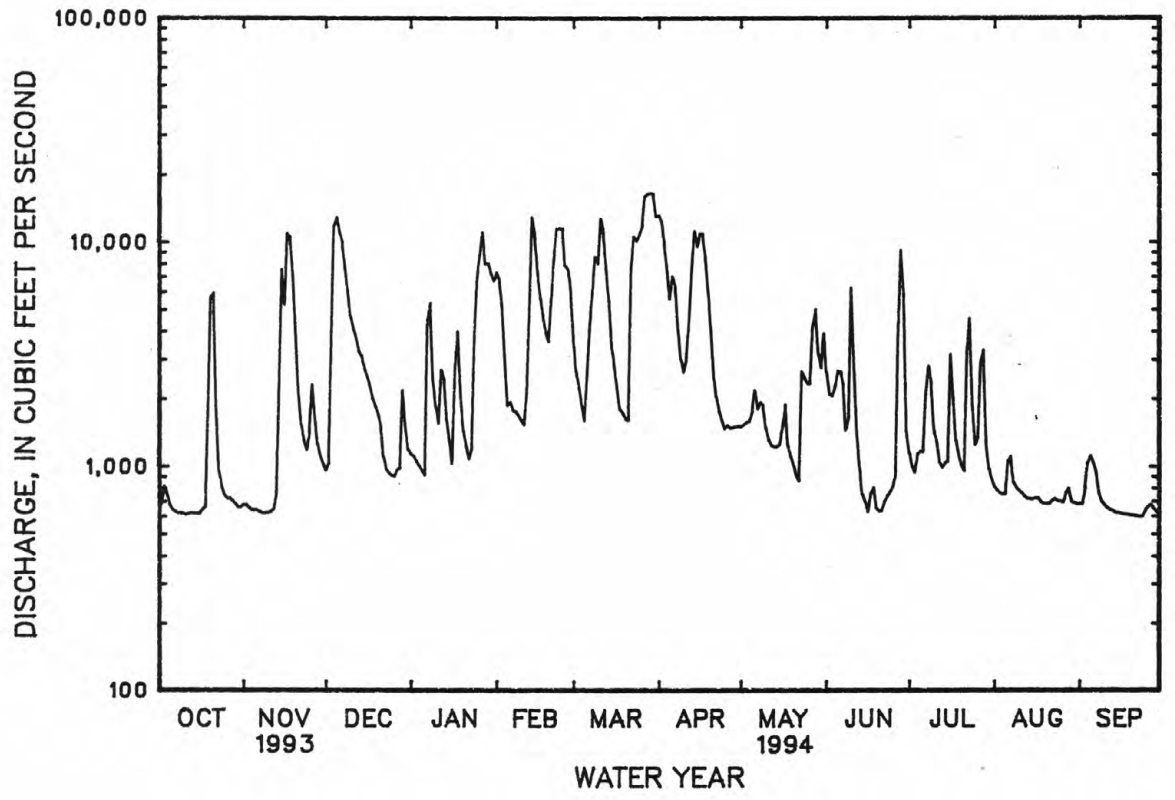
07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR OBION, TN--Continued
(National stream-quality accounting network station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

MEAN	928	2097	3453	4869	4965	4450	3951	2909	1914	1423	992	934
MAX	3576	15500	14260	26640	17120	15810	11770	15540	10970	4783	6643	5041
(WY)	1991	1958	1991	1937	1990	1975	1973	1983	1970	1975	1971	1950
MIN	249	372	495	587	543	628	678	487	323	301	277	264
(WY)	1944	1955	1944	1944	1941	1941	1941	1936	1936	1944	1936	1956

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1929 - 1994	
ANNUAL TOTAL	786619		1086886			
ANNUAL MEAN	2155		2978		2729	
HIGHEST ANNUAL MEAN					5351	1973
LOWEST ANNUAL MEAN					569	1941
HIGHEST DAILY MEAN	12900	Dec 5	16600	Mar 29	a99500	Jan 24 1937
LOWEST DAILY MEAN	575	Sep 13	595	Sep 23	15	Feb 4 1937
ANNUAL SEVEN-DAY MINIMUM	595	Sep 8	602	Sep 18	233	Oct 6 1943
INSTANTANEOUS PEAK FLOW			17700	Mar 30	a99500	Jan 24 1937
INSTANTANEOUS PEAK STAGE			34.06	Mar 30	a40.40	Jan 24 1937
INSTANTANEOUS LOW FLOW			NOT DETERMINED	Sep 23	a230	Oct 7 1943
ANNUAL RUNOFF (CFSM)	1.15		1.59		1.46	
ANNUAL RUNOFF (INCHES)	15.61		21.56		19.78	
10 PERCENT EXCEEDS	5310		8020		7020	
50 PERCENT EXCEEDS	1170		1500		1010	
90 PERCENT EXCEEDS	643		641		408	

a See EXTREMES FOR PERIOD OF RECORD.



OBION RIVER BASIN

07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR 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 microsiemens, Dec. 14, 1976; minimum, 35 microsiemens, July 21 and 22, 1975.
WATER TEMPERATURE: Maximum, 33.5°C, June 18, 1978; minimum, -0.5°C, several days in Jan. and Feb. 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
NOV 16...	0900	80020	4935	85	88	6.8	6.6	14.5	777	52	5.3	51
MAR 15...	1600	80020	4462	88	91	7.1	7.5	12.5	767	38	9.8	91
JUN 14...	1300	80020	762	91	89	7.1	6.8	26.5	774	35	8.2	101
AUG 30...	1530	80020	684	81	79	7.6	6.9	26.0	767	15	10.2	125

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
NOV 16...	96	K500	27	6	6.4	2.6	2.7	12	0.2	12	21	22
MAR 15...	160	50	29	6	7.1	2.6	4.3	23	0.4	2.2	22	24
JUN 14...	180	98	27	1	6.9	2.3	5.0	27	0.4	2.5	26	27
AUG 30...	96	65	22	0	5.6	1.9	6.2	36	0.6	1.4	30	28

DATE	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
NOV 16...	6.0	5.8	0.20	20	96	82	0.13	1080	0.040	0.330	0.370
MAR 15...	8.3	5.1	<0.10	6.8	61	53	0.08	788	0.020	0.550	0.570
JUN 14...	4.7	5.0	<0.10	11	96	57	0.13	319	<0.010	0.540	0.540
AUG 30...	2.8	4.5	<0.10	12	32	54	0.04	67.4	<0.010	0.380	0.380

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

OBION RIVER BASIN

07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR OBION, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)
NOV 16...	0.18	0.140	1.3	0.480	0.260	0.80	0.260	---	95	20	---
MAR 15...	0.13	0.100	0.50	0.150	0.020	0.09	0.030	<10	35	<3	73
JUN 14...	0.04	0.030	0.50	0.230	0.070	0.21	0.070	100	34	<3	910
AUG 30...	0.04	0.030	0.30	0.130	0.050	0.15	0.050	40	21	<3	400

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 16...	<4	720	<10	4	<1	<1.0	39	11	219	2410	95
MAR 15...	<4	67	<10	1	<1	<1.0	41	<6	90	1140	96
JUN 14...	<4	55	<10	1	<1	<1.0	46	<6	107	349	97
AUG 30...	<4	53	<10	<1	<1	<1.0	36	<6	47	97	100

OBION RIVER BASIN

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mi east of Blue Bank, 0.8 mi west of the spillway, and 3.3 mi southeast of Tiptonville.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft above sea level.

REMARKS.--Gage heights for periods Nov. 18 to Nov. 23, 1993 and Aug. 23 to Sept. 30, 1994 based on once daily observer readings and damaged ADR tape. Records poor for these periods, good thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft, from recorded range in stage, about Apr. 26, 1973; minimum, 9.59 ft, July 6, 7, 8, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft, at spillway, present datum, from information by local resident. Minimum stage at spillway, 9.30 ft, Nov. 20, 21, 1953 at a datum of 270.29 ft above mean sea level.

EXTREMES FOR CURRENT YEAR--Maximum gage height, 13.51 ft, Dec. 6; minimum 11.39 ft, Aug. 29, may have been lower during period of once daily observer readings.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.66	11.56	11.61	11.70	11.68	11.69	12.94	12.89	12.91	12.71	12.62	12.66
2	11.76	11.58	11.69	11.69	11.66	11.67	12.96	12.88	12.93	12.72	12.68	12.70
3	11.74	11.70	11.71	11.69	11.65	11.67	13.16	12.96	13.05	12.76	12.61	12.69
4	11.70	11.66	11.68	11.68	11.64	11.66	13.44	13.14	13.29	12.79	12.61	12.70
5	11.71	11.68	11.69	11.77	11.64	11.70	13.48	13.41	13.45	12.65	12.58	12.61
6	11.71	11.68	11.69	11.78	11.65	11.70	13.51	13.45	13.47	12.69	12.55	12.59
7	11.68	11.66	11.67	11.72	11.65	11.67	13.47	13.40	13.43	12.74	12.59	12.66
8	11.67	11.60	11.65	11.67	11.65	11.66	13.40	13.34	13.37	12.63	12.59	12.60
9	11.76	11.60	11.66	11.67	11.66	11.66	13.34	13.20	13.27	12.59	12.57	12.58
10	11.73	11.61	11.66	11.67	11.65	11.66	13.27	13.19	13.22	12.58	12.52	12.55
11	11.64	11.61	11.63	11.66	11.58	11.64	13.33	13.18	13.22	12.61	12.54	12.57
12	11.62	11.59	11.60	11.67	11.57	11.64	13.18	13.11	13.14	12.61	12.59	12.60
13	11.63	11.60	11.61	11.75	11.57	11.69	13.16	13.07	13.11	12.66	12.58	12.59
14	11.62	11.60	11.61	11.87	11.70	11.77	13.11	13.07	13.09	12.70	12.56	12.62
15	11.60	11.58	11.59	11.99	11.86	11.92	13.11	13.05	13.08	12.63	12.56	12.60
16	11.62	11.57	11.58	12.21	11.93	12.01	13.08	13.04	13.05	12.60	12.60	12.60
17	11.63	11.56	11.60	12.46	12.17	12.30	13.04	12.99	13.02	12.60	12.60	12.60
18	11.63	11.59	11.60	---	---	e12.52	13.01	12.95	12.97	12.60	12.60	12.60
19	11.74	11.60	11.68	---	---	e12.67	12.97	12.94	12.95	12.60	12.60	12.60
20	11.79	11.71	11.74	---	---	e12.76	13.02	12.86	12.93	12.60	12.60	12.60
21	11.82	11.73	11.77	---	---	e12.82	12.93	12.85	12.88	12.60	12.60	12.60
22	11.79	11.74	11.76	---	---	e12.87	12.99	12.85	12.88	12.60	12.60	12.60
23	11.77	11.74	11.76	---	---	e12.87	12.91	12.83	12.85	12.60	12.60	12.60
24	11.76	11.74	11.75	12.87	12.85	12.86	12.83	12.72	12.78	12.60	12.60	12.60
25	11.75	11.74	11.74	12.99	12.84	12.89	12.89	12.65	12.75	12.66	12.60	12.62
26	11.80	11.70	11.74	13.02	12.93	12.97	12.76	12.60	12.70	12.83	12.66	12.73
27	11.78	11.70	11.74	12.99	12.88	12.95	12.83	12.70	12.75	12.98	12.83	12.92
28	11.73	11.60	11.68	12.98	12.88	12.94	12.90	12.69	12.82	13.04	12.97	13.00
29	11.83	11.68	11.75	13.02	12.93	12.98	12.82	12.71	12.76	13.03	12.99	13.01
30	11.86	11.69	11.77	13.02	12.93	12.97	12.78	12.70	12.73	13.02	12.93	12.97
31	11.79	11.67	11.72	---	---	---	12.71	12.66	12.70	12.99	12.88	12.93
MONTH	11.86	11.56	11.68	---	---	12.23	13.51	12.60	13.02	13.04	12.52	12.67

e Estimated

OBION RIVER BASIN

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.94	12.88	12.90	13.13	13.04	13.06	13.10	13.02	13.06	12.91	12.78	12.84
2	12.88	12.81	12.85	13.17	12.98	13.09	13.05	12.96	13.02	12.84	12.73	12.78
3	12.89	12.84	12.86	13.05	12.90	12.96	13.17	12.98	13.08	12.76	12.67	12.71
4	12.84	12.82	12.83	12.93	12.90	12.91	13.06	13.01	13.03	12.67	12.62	12.64
5	12.85	12.82	12.83	12.92	12.90	12.91	13.09	13.00	13.03	12.68	12.64	12.66
6	12.82	12.79	12.81	12.90	12.86	12.88	13.11	12.97	13.03	12.69	12.64	12.67
7	12.81	12.77	12.79	13.01	12.84	12.88	12.99	12.93	12.96	12.73	12.62	12.66
8	12.83	12.67	12.75	13.13	12.91	13.00	12.93	12.85	12.89	12.67	12.59	12.62
9	12.93	12.76	12.86	13.14	13.00	13.06	12.90	12.84	12.88	12.59	12.58	12.58
10	12.97	12.82	12.89	13.02	13.00	13.01	13.07	12.83	12.97	12.62	12.58	12.60
11	13.02	12.83	12.87	13.05	13.01	13.03	13.09	13.03	13.06	12.60	12.56	12.58
12	12.83	12.77	12.81	13.07	13.04	13.06	13.08	12.97	13.02	12.62	12.57	12.58
13	12.96	12.82	12.87	13.08	13.05	13.07	13.07	13.01	13.04	12.63	12.57	12.60
14	12.85	12.79	12.82	13.12	12.98	13.04	13.04	12.98	13.02	12.57	12.47	12.51
15	12.86	12.82	12.84	13.11	13.00	13.04	13.07	12.95	13.00	12.47	12.42	12.45
16	12.86	12.85	12.85	13.11	12.99	13.05	13.01	12.91	12.95	12.43	12.39	12.41
17	12.85	12.81	12.83	13.03	12.86	12.96	12.94	12.87	12.91	12.46	12.39	12.42
18	12.83	12.78	12.80	13.01	12.84	12.93	12.87	12.74	12.80	12.47	12.38	12.42
19	12.78	12.71	12.74	12.95	12.92	12.94	12.76	12.70	12.73	12.45	12.38	12.41
20	12.83	12.72	12.79	12.92	12.83	12.89	12.81	12.75	12.78	12.40	12.37	12.38
21	12.94	12.82	12.86	12.92	12.79	12.87	12.83	12.77	12.79	12.38	12.36	12.37
22	12.99	12.82	12.90	12.88	12.82	12.85	12.85	12.76	12.80	12.36	12.34	12.35
23	13.02	12.93	12.97	12.84	12.74	12.79	12.80	12.74	12.76	12.35	12.33	12.34
24	13.08	12.98	13.04	12.91	12.76	12.82	12.75	12.71	12.72	12.33	12.29	12.31
25	13.20	12.98	13.08	12.88	12.78	12.83	12.71	12.65	12.69	12.30	12.25	12.28
26	13.20	13.04	13.13	12.92	12.75	12.80	12.71	12.67	12.69	12.36	12.26	12.30
27	13.18	13.07	13.11	13.09	12.88	13.00	12.80	12.68	12.70	12.35	12.26	12.30
28	13.08	13.04	13.05	13.20	13.08	13.13	12.94	12.80	12.88	12.28	12.24	12.26
29	---	---	---	13.20	13.16	13.18	12.95	12.83	12.88	12.26	12.21	12.24
30	---	---	---	13.25	13.12	13.17	12.93	12.83	12.87	12.24	12.21	12.23
31	---	---	---	13.13	13.09	13.11	---	---	---	12.24	12.22	12.23
MONTH	13.20	12.67	12.88	13.25	12.74	12.98	13.17	12.65	12.90	12.91	12.21	12.48

OBION RIVER BASIN

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.22	12.20	12.22	12.14	12.09	12.12	11.84	11.81	11.83	---	---	11.66
2	12.26	12.16	12.20	12.10	12.05	12.08	11.81	11.79	11.80	---	---	11.60
3	12.35	12.19	12.29	12.11	12.08	12.09	11.79	11.76	11.78	---	---	11.65
4	12.35	12.29	12.31	12.09	12.06	12.08	11.86	11.73	11.78	---	---	11.63
5	12.30	12.23	12.29	12.07	12.05	12.06	11.90	11.81	11.86	---	---	e11.61
6	12.29	12.25	12.28	12.11	12.05	12.06	11.87	11.81	11.83	---	---	11.58
7	12.33	12.29	12.31	12.14	12.02	12.06	11.82	11.78	11.81	---	---	11.58
8	12.39	12.29	12.33	12.10	12.04	12.07	11.80	11.79	11.79	---	---	11.56
9	12.36	12.32	12.34	12.12	12.05	12.09	11.80	11.76	11.78	---	---	11.53
10	12.35	12.32	12.33	12.12	12.08	12.10	11.79	11.76	11.77	---	---	11.51
11	12.45	12.30	12.33	12.10	12.06	12.08	11.76	11.74	11.75	---	---	11.50
12	12.35	12.31	12.33	12.10	12.04	12.06	11.75	11.71	11.73	---	---	11.51
13	12.32	12.27	12.30	12.05	12.00	12.03	11.71	11.69	11.70	---	---	11.58
14	12.31	12.25	12.28	12.04	12.00	12.03	11.75	11.66	11.68	---	---	11.56
15	12.28	12.26	12.27	12.04	12.01	12.03	11.75	11.67	11.70	---	---	11.49
16	12.29	12.25	12.27	12.05	12.02	12.04	11.69	11.63	11.66	---	---	11.46
17	12.27	12.23	12.26	12.07	12.02	12.04	11.64	11.61	11.63	---	---	11.48
18	12.25	12.22	12.23	12.04	12.02	12.03	11.61	11.59	11.60	---	---	11.47
19	12.22	12.19	12.21	12.02	11.99	12.00	11.59	11.56	11.58	---	---	11.49
20	12.20	12.18	12.19	12.00	11.97	11.98	11.58	11.53	11.55	---	---	11.48
21	12.19	12.15	12.17	12.01	11.97	11.99	11.61	11.56	11.57	---	---	11.46
22	12.16	12.11	12.14	11.98	11.96	11.97	11.56	11.55	11.56	---	---	11.47
23	12.12	12.05	12.09	12.01	11.96	11.97	---	---	11.54	---	---	11.44
24	12.13	12.06	12.09	11.96	11.93	11.95	---	---	11.50	---	---	11.44
25	12.09	12.05	12.08	11.93	11.90	11.91	---	---	11.47	---	---	11.44
26	12.18	12.02	12.08	11.95	11.90	11.92	---	---	11.44	---	---	11.44
27	12.18	12.14	12.16	11.97	11.90	11.93	---	---	11.42	---	---	e11.43
28	12.16	12.11	12.14	11.94	11.89	11.91	---	---	11.43	---	---	e11.45
29	12.17	12.14	12.15	11.90	11.88	11.89	---	---	11.39	---	---	11.46
30	12.16	12.13	12.15	11.88	11.81	11.86	---	---	11.67	---	---	e11.45
31	---	---	---	11.86	11.84	11.85	---	---	11.71	---	---	---
MONTH	12.45	12.02	12.23	12.14	11.81	12.01	---	---	11.66	---	---	11.51

e Estimated

THIS IS A BLANK PAGE

HATCHIE RIVER BASIN

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 25 ft upstream from bridge on State Highway 18, 250 ft upstream from Illinois Central Gulf Railroad bridge, 0.6 mi downstream from Spring Creek, 1.5 mi northeast of Bolivar, and at mile 135.1.

DRAINAGE AREA.--1,480 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Data collection platform. Datum of gage is 323.49 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 9	0300	11,800	15.96	Mar. 13	1430	10,600	15.98
Jan. 31	0500	*17,300	*17.16	Mar. 30	1430	12,400	16.44
Feb. 15	1500	17,100	17.13				

Minimum discharge, 408 ft³/s, Oct. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAT OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2650	616	771	3120	13900	6770	11100	3010	3940	5200	4920	535
2	2820	620	755	3350	11200	6150	9560	3400	3710	5720	5020	642
3	2830	590	756	3210	9110	5580	8090	3570	3330	5970	4950	818
4	2330	572	3280	2910	7640	5150	7020	3340	3010	5740	4710	929
5	1430	555	6750	2590	6520	4760	6260	3060	2610	5190	4430	1030
6	894	554	7310	2150	5520	4560	7760	2750	2250	4510	3790	1040
7	697	559	9010	1970	4820	4460	7060	2540	2020	3540	2640	938
8	602	550	11100	2060	4370	4530	6470	2500	2540	2450	1630	825
9	547	534	10500	2210	e4200	6610	5700	2490	3260	2290	1100	758
10	508	525	9600	2310	e4100	8200	5380	2350	4230	1870	870	689
11	477	521	8260	2490	e6000	8640	5370	2180	4420	1300	766	630
12	457	531	6870	2620	e9000	9160	5560	1840	4830	1140	707	587
13	444	550	5990	2610	e12000	10300	5660	1460	5220	1050	667	552
14	433	603	5530	2480	e15000	9960	5590	1510	5460	969	648	520
15	415	1110	5100	2100	e17000	8750	5310	1930	5300	930	727	495
16	410	1810	4790	1680	14900	7540	5290	2250	4890	1110	773	480
17	409	2470	4530	2010	12000	6390	5130	2460	4410	1860	832	475
18	428	2760	4260	2830	9920	5390	4930	2540	3940	2270	816	467
19	526	2880	4090	3240	8440	4740	4560	2560	3490	2160	729	455
20	809	2920	4030	3400	7330	4290	4230	2540	2770	1760	683	447
21	932	2930	3890	3460	6540	3790	3900	2350	1860	1430	798	435
22	937	2800	3580	3570	6190	3230	3650	1910	1190	1660	1050	429
23	1070	2510	3210	3790	7340	2750	3330	1360	872	2550	1120	462
24	1060	1990	2910	3790	6780	3090	2860	995	897	3250	915	484
25	952	1420	2700	3830	6760	4670	2260	821	907	3150	732	493
26	853	1140	2450	3840	6640	4960	1690	764	1230	2850	e680	494
27	779	1010	2140	6130	6960	5970	1400	1030	3860	3840	e600	472
28	712	940	1870	8710	6990	8420	1840	1530	4920	3920	e570	465
29	651	863	2380	11000	---	10200	2230	1700	5430	4300	e550	451
30	618	810	2840	15300	---	12100	2510	1900	4980	4500	e530	429
31	608	---	3040	16400	---	12200	---	3400	---	4640	e510	---
TOTAL	29288	38243	144292	131160	237170	203310	151700	68040	101776	93119	49463	17926
MEAN	945	1275	4655	4231	8470	6558	5057	2195	3393	3004	1596	598
MAX	2830	2930	11100	16400	17000	12200	11100	3570	5460	5970	5020	1040
MIN	409	521	755	1680	4100	2750	1400	764	872	930	510	429
CFSM	.64	.86	3.14	2.86	5.72	4.43	3.42	1.48	2.29	2.03	1.08	.40
IN.	.74	.96	3.63	3.30	5.96	5.11	3.81	1.71	2.56	2.34	1.24	.45

e Estimated

HATCHIE RIVER BASIN

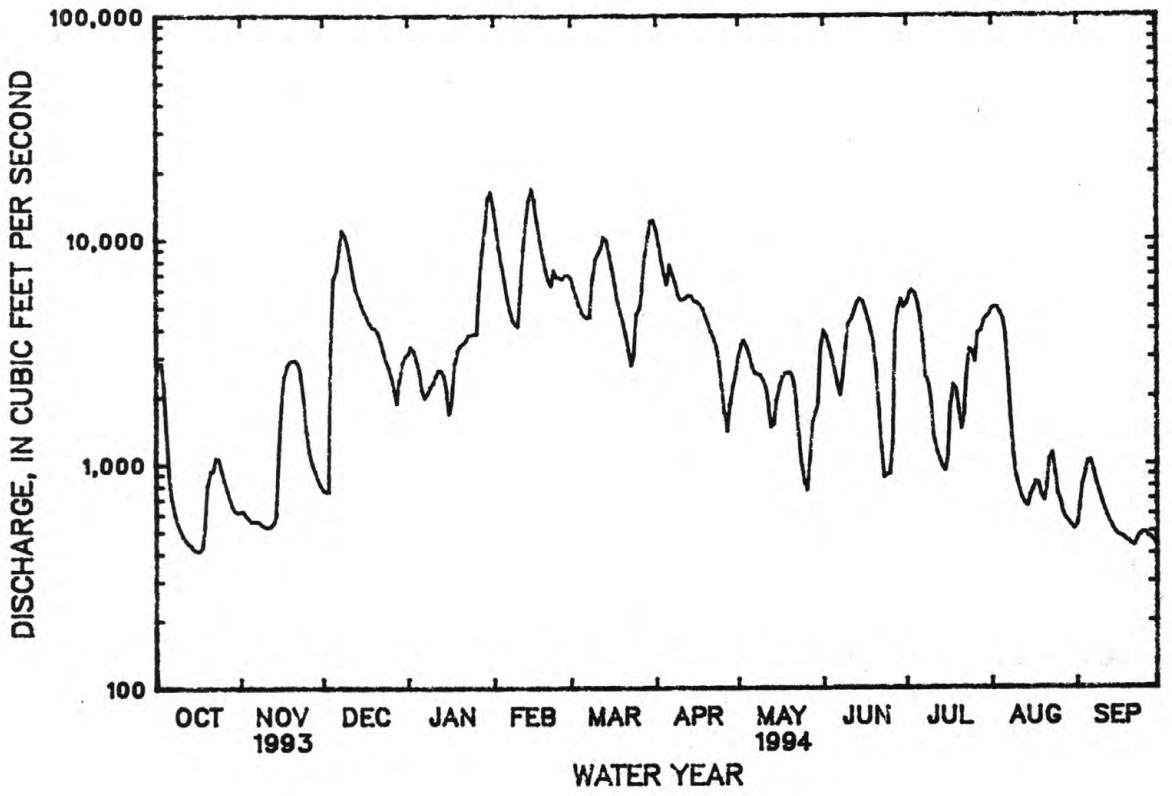
07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued
(National stream-quality accounting network station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1994, BY WATER YEAR (WY)

MEAN	701	1671	3224	4491	4741	4544	4031	2731	1389	932	604	717
MAX	4447	7457	12490	13420	14060	12110	10960	13540	6319	5933	2678	4651
(WY)	1933	1958	1983	1974	1948	1973	1979	1991	1939	1932	1931	1979
MIN	150	233	422	555	829	1053	711	444	209	189	193	127
(WY)	1957	1957	1955	1955	1934	1941	1986	1942	1941	1943	1954	1956

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1929 - 1994	
ANNUAL TOTAL	819890		1265487			
ANNUAL MEAN	2246		3467		2469	
HIGHEST ANNUAL MEAN					5003	1973
LOWEST ANNUAL MEAN					971	1941
HIGHEST DAILY MEAN	11100	Dec 8	17000	Feb 15	59300	Mar 18 1973
LOWEST DAILY MEAN	340	Aug 2	409	Oct 17	80	Sep 1 1943
ANNUAL SEVEN-DAY MINIMUM	376	Jul 28	428	Oct 12	85	Aug 26 1943
INSTANTANEOUS PEAK FLOW			17300	Jan 31	a61600	Mar 18 1973
INSTANTANEOUS PEAK STAGE			17.16	Jan 31	21.66	Mar 18 1973
INSTANTANEOUS LOW FLOW			408	Oct 17	78	Sep 2 1943
ANNUAL RUNOFF (CFSM)	1.52		2.34		1.67	
ANNUAL RUNOFF (INCHES)	20.61		31.81		22.67	
10 PERCENT EXCEEDS	4750		7420		6080	
50 PERCENT EXCEEDS	1490		2620		1090	
90 PERCENT EXCEEDS	431		550		268	

a From rating curve extended above 34,000 ft³/s.



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 September 1982, October 1983 to September 1986.
WATER TEMPERATURE: June 1980 to September 1982, October 1983 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 380 microsiemens, Sept. 5, 6, 1985; minimum, 28 microsiemens, Apr. 18, 1982.
WATER TEMPERATURE: Maximum, 31.5°C, July 15, 16, 1980; minimum recorded, 0.0°C, Dec. 23, 1983 to Jan. 3, 1984, several days in 1985, minimum observed, -0.5°C, Jan. 3, 1984.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
NOV 16...	1445	80020	1920	70	72	6.9	7.1	15.5	770	32	6.2	62
MAR 16...	1100	80020	7320	44	47	6.9	7.4	11.5	774	28	9.8	89
JUN 15...	0945	80020	5255	60	58	7.0	6.6	25.0	774	20	7.2	86
AUG 31...	1000	80020	508	67	65	7.0	6.8	25.0	768	17	10.1	121

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKALINITY LAB (MG/L AS CACO3)
NOV 16...	78	>1000	20	0	5.2	1.6	2.4	17	0.2	4.7	--	15
MAR 16...	77	K21	15	7	4.4	0.98	1.5	16	0.2	1.5	9	--
JUN 15...	73	110	--	--	--	--	--	--	--	--	16	16
AUG 31...	130	400	22	0	6.4	1.4	3.1	22	0.3	1.6	24	23

DATE	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
NOV 16...	7.5	4.0	0.10	8.1	59	44	0.08	319	<0.010	0.160	0.160
MAR 16...	5.7	2.1	<0.10	3.8	41	26	0.06	931	0.020	0.065	0.085
JUN 15...	0.10	--	--	0.04	--	--	--	--	<0.010	--	<0.050
AUG 31...	2.6	3.4	<0.10	9.5	36	44	0.05	59.1	<0.010	0.160	0.160

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

HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)
NOV 16...	0.04	0.030	0.50	0.110	0.050	0.06	0.020	160	26	<3	250
MAR 16...	0.05	0.040	0.30	0.050	0.010	0.06	0.020	110	22	<3	210
JUN 15...	--	<0.010	0.40	0.050	<0.010	--	<0.010	--	--	<3	--
AUG 31...	0.09	0.070	0.30	0.050	0.020	0.06	0.020	50	23	6	1200

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 16...	<4	100	<10	1	<1	<1.0	48	<6	140	746	90
MAR 16...	<4	22	<10	<1	<1	<1.0	31	<6	22	491	90
JUN 15...	<4	--	<10	<1	<1	<1.0	--	<6	28	469	87
AUG 31...	<4	280	<10	<1	<1	<1.0	53	<6	40	64	99

LOOSAHATCHIE RIVER BASIN

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN

LOCATION.--Lat 35°18'37", long 89°38'23", Shelby County, Hydrologic Unit 08010209, on left bank 20 ft downstream from bridge on U.S. Highways 70 and 79, 1.5 mi upstream from Beaver Creek, 1.5 mi northeast of Arlington, and at mile 30.4.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of the gage is 246.43 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 17	0315	6,330	14.92	Mar. 9	1800	7,160	15.85
Dec. 4	1200	7,010	15.68	Mar. 24	1615	5,950	14.48
Jan. 28	0230	*10,800	*18.99	Mar. 28	0015	10,700	18.88
Feb. 22	2045	8,500	17.18	June 9	2100	6,160	14.72

Minimum daily discharge, 86 ft³/s, Oct. 10-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	102	92	275	187	202	251	219	178	237	141	219
2	100	102	91	266	171	291	220	144	152	179	136	145
3	99	102	181	257	160	290	243	142	143	133	133	115
4	96	102	4750	255	151	209	236	141	137	135	130	109
5	94	105	2170	244	146	182	792	127	135	121	140	107
6	91	105	464	238	140	166	3830	120	134	117	126	105
7	90	105	324	806	135	156	704	116	283	114	122	105
8	89	105	285	450	136	160	359	123	261	124	119	103
9	88	105	278	317	406	4890	289	115	2350	140	117	102
10	86	105	344	290	401	3420	257	112	3470	138	114	102
11	86	105	280	281	3020	597	239	108	415	111	113	102
12	86	105	251	304	2010	289	418	107	224	457	113	102
13	90	506	637	293	1240	229	375	390	192	302	111	102
14	93	1090	1220	275	497	198	243	303	154	156	111	102
15	93	1720	462	259	340	179	304	334	142	312	226	102
16	93	745	321	246	262	163	302	217	133	1300	124	103
17	95	3440	282	1710	217	151	203	144	156	356	114	106
18	101	396	263	768	199	145	181	126	132	183	110	107
19	112	192	251	393	181	139	171	118	121	146	109	107
20	147	148	376	330	604	134	165	115	118	126	108	107
21	112	128	440	303	797	132	161	114	116	126	127	107
22	106	117	296	294	3190	132	157	108	113	285	114	107
23	105	111	265	301	5000	125	153	107	111	145	108	115
24	104	105	248	315	938	2850	151	107	113	134	105	116
25	102	104	240	627	337	2700	134	107	111	132	103	111
26	102	102	233	616	246	544	115	1120	409	413	103	111
27	101	101	230	6870	207	7590	117	363	1160	2080	100	111
28	100	98	343	7500	191	8590	672	179	233	268	99	111
29	100	96	721	996	---	1390	187	155	173	178	99	111
30	100	94	349	332	---	400	156	378	156	156	100	111
31	100	---	289	235	---	290	---	496	---	146	106	---
TOTAL	3061	10541	16954	26646	21509	36933	11785	6555	11727	8950	3681	3363
MEAN	98.7	351	547	860	768	1191	393	211	391	289	119	112
MAX	147	3440	4750	7500	5000	8590	3830	1120	3470	2080	226	219
MIN	86	94	82	235	135	125	115	107	111	111	99	102
CFSM	.38	1.34	2.09	3.28	2.93	4.55	1.50	.81	1.49	1.10	.45	.43
IN.	.43	1.50	2.41	3.78	3.05	5.24	1.67	.93	1.67	1.27	.52	.48

LOOSAHATCHIE RIVER BASIN

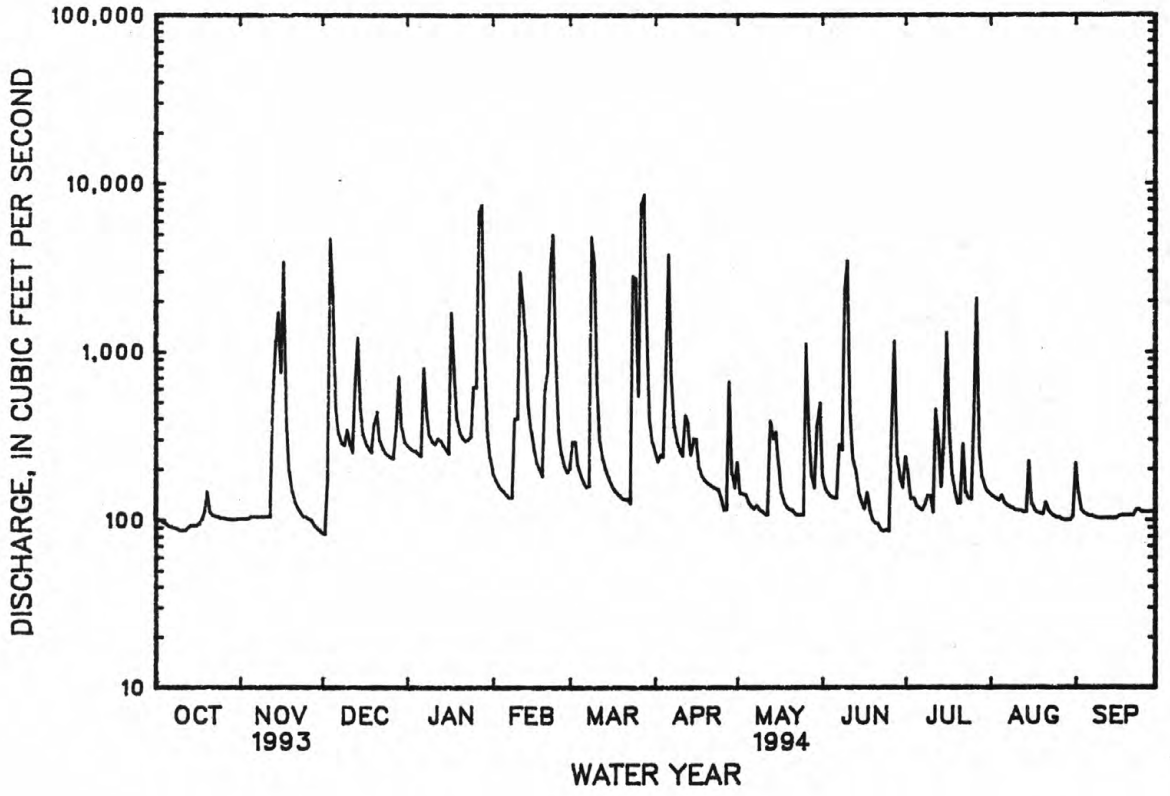
07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

MEAN	134	343	637	518	673	602	617	390	284	195	140	143
MAX	379	1344	1962	1479	2064	1548	2306	1497	1609	1155	521	292
(WY)	1989	1989	1988	1974	1990	1980	1991	1983	1974	1989	1974	1977
MIN	73.4	75.6	106	94.5	143	141	107	93.8	86.7	87.5	84.3	80.7
(WY)	1970	1972	1977	1981	1978	1986	1978	1988	1972	1970	1982	1982

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	102289		161727			
ANNUAL MEAN	280		443		388	
HIGHEST ANNUAL MEAN					769	1989
LOWEST ANNUAL MEAN					154	1986
HIGHEST DAILY MEAN	6800	Apr 9	8590	Mar 28	19900	Dec 26 1987
LOWEST DAILY MEAN	78	Jan 18	86	Dec 2	66	Apr 7 1974
ANNUAL SEVEN-DAY MINIMUM	86	Sep 2	88	Oct 7	68	Nov 5 1982
INSTANTANEOUS PEAK FLOW			10800	Jan 28	27400	Dec 25 1987
INSTANTANEOUS PEAK STAGE			18.99	Jan 28	25.27	Dec 25 1987
INSTANTANEOUS LOW FLOW			a86	Oct 10	66	Apr 6 1974
ANNUAL RUNOFF (CFSM)	1.07		1.69		1.48	
ANNUAL RUNOFF (INCHES)	14.52		22.96		20.12	
10 PERCENT EXCEEDS	502		711		609	
50 PERCENT EXCEEDS	120		153		116	
90 PERCENT EXCEEDS	91		102		84	

a Also occurred Oct. 11-13.



WOLF RIVER BASIN

07031650 WOLF RIVER AT GERMANTOWN, TN

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, Hydrologic Unit 08010210, on left bank, 30 ft downstream of bridge on Germantown Road, 1.7 mi north of U.S. Hwy 72, 3.6 mi downstream of Grays Creek, 4.0 mi northeast of I-240 and U.S. Highway 72 interchange, and at mile 18.9.

DRAINAGE AREA.--699 mi².

PERIOD OF RECORD.--October 1969 to September 1986, October 1990 to current year. Prior to September 1977 published as "near Germantown".

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft above sea level. Apr. 21, 1986, to Dec. 30, 1990, water-stage recorder at site 2.1 mi downstream at datum 9.94 ft lower.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. National Weather Service rain gage and telemeters at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 28	1745	8,370	15.07	Mar. 27	2000	*8.560	*15.23

Minimum discharge, 281 ft³/s, Oct. 13-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	323	443	683	3420	1260	3040	802	866	1510	1410	385
2	465	320	458	684	2490	1190	2320	771	1030	1560	869	330
3	419	318	692	674	1640	1120	1760	842	1190	1540	650	327
4	374	322	5050	627	1050	989	1300	793	1240	1330	564	324
5	343	328	5670	582	812	868	1820	772	1110	859	541	357
6	325	327	4570	551	618	798	3520	742	855	732	467	337
7	314	322	3840	835	578	766	2910	706	1040	544	437	329
8	304	318	2990	785	621	778	2420	911	1020	540	416	325
9	299	315	2460	724	702	3540	2380	759	1630	1630	403	320
10	292	316	2090	623	771	3590	1930	636	1460	1140	389	315
11	289	317	1470	595	3540	4860	1430	573	1440	1220	378	310
12	286	319	997	605	2440	4580	1300	540	1490	790	369	305
13	284	662	1240	586	2470	3370	1350	691	1740	713	361	300
14	284	1440	1660	551	2330	2650	1360	741	2010	617	513	304
15	284	1840	1460	514	2270	2030	1530	677	1760	876	443	295
16	287	2250	1210	485	2170	1380	1270	623	1450	1300	396	291
17	293	3130	1010	1780	1870	948	1150	574	1070	718	394	288
18	356	2080	913	1570	1410	778	1050	565	753	606	377	293
19	437	1500	830	1390	1000	685	934	583	714	545	383	291
20	415	1020	973	1030	1290	628	880	579	643	537	449	290
21	377	842	981	766	1250	596	845	541	558	601	480	287
22	372	729	879	694	3460	571	763	495	490	645	398	287
23	375	640	765	668	3630	561	669	456	445	585	376	304
24	373	578	685	653	3480	2010	604	427	484	552	367	317
25	367	542	648	832	3080	2310	574	408	439	589	361	320
26	372	530	615	1010	2710	2490	604	833	447	1260	360	316
27	351	507	585	5840	2050	6020	604	562	637	1670	348	316
28	337	487	711	7980	1650	7020	857	520	1070	1000	334	313
29	325	469	890	7840	---	6550	690	464	1140	1210	327	308
30	326	455	859	5570	---	5270	834	479	1290	1440	321	304
31	321	---	754	4290	---	3880	---	575	---	1680	321	---
TOTAL	10671	23546	48398	52017	54802	74086	42698	19640	31511	30539	14202	9388
MEAN	344	785	1561	1678	1957	2390	1423	634	1050	985	458	313
MAX	465	3130	5670	7980	3630	7020	3520	911	2010	1680	1410	385
MIN	284	315	443	485	578	561	574	408	439	537	321	287
CFSM	.49	1.12	2.23	2.40	2.80	3.42	2.04	.91	1.50	1.41	.66	.45
IN.	.57	1.25	2.58	2.77	2.92	3.94	2.27	1.05	1.68	1.63	.76	.50

WOLF RIVER BASIN

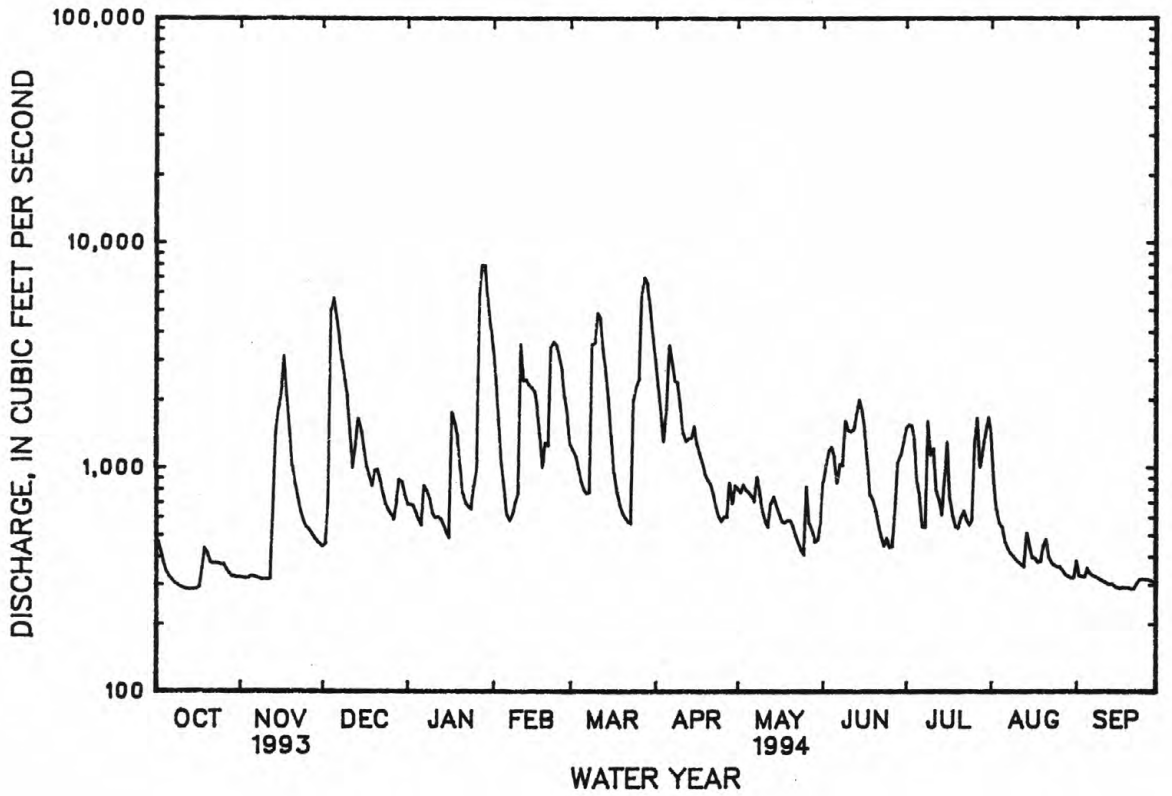
07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

MEAN	419	774	1618	1413	1335	1693	1714	1343	784	451	392	437
MAX	1063	1991	4939	3504	3256	4854	4805	4542	1986	985	737	1345
(WY)	1985	1980	1983	1974	1991	1980	1991	1991	1974	1994	1979	1979
MIN	213	239	439	372	546	569	448	364	271	258	240	244
(WY)	1970	1972	1981	1981	1977	1986	1986	1992	1972	1971	1986	1986

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	280486		411498			
ANNUAL MEAN	768		1127		1030	
HIGHEST ANNUAL MEAN					1807	1991
LOWEST ANNUAL MEAN					497	1986
HIGHEST DAILY MEAN	5670	Dec 5	7980	Jan 28	30400	Mar 14 1975
LOWEST DAILY MEAN	278	Sep 15	284	Oct 13	196	Sep 15 1972
ANNUAL SEVEN-DAY MINIMUM	283	Sep 12	287	Oct 10	199	Sep 12 1972
INSTANTANEOUS PEAK FLOW			8560	Mar 27	33400	Mar 14 1975
INSTANTANEOUS PEAK STAGE			15.23	Mar 27	27.98	Mar 14 1975
INSTANTANEOUS LOW FLOW			a281	Oct 13	184	Oct 8 1987
ANNUAL RUNOFF (CFSM)	1.10		1.61		1.47	
ANNUAL RUNOFF (INCHES)	14.93		21.90		20.02	
10 PERCENT EXCEEDS	1460		2450		2220	
50 PERCENT EXCEEDS	530		685		528	
90 PERCENT EXCEEDS	300		319		275	

a Also occurred Oct. 14 and 15.



MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°07'37", long 90°04'25", Shelby County, Hydrologic Unit 08010100, on left bank 50 ft downstream from Harahan Bridge at Memphis, 1.3 mi downstream from Beale Street gage, 3.5 mi downstream from Wolf River, 62.4 mi upstream from St. Francis River, and at mile 734.8.

DRAINAGE AREA.--932,800 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: January 1933 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage heights: October 1934 to September 1951 and October 1952 to current year in reports of Geological Survey. Since November 1871, at Beale Street gage, in reports of Mississippi River Commission, December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at nonrecording gage 1,000 ft 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 above sea level. Prior to Apr. 16, 1934, Beale Street nonrecording gage 1.3 mi upstream at present datum. Apr. 16 to Dec. 21, 1934, nonrecording gage 1,000 ft downstream at present datum.

REMARKS.--Flow regulated upstream by many locks, dams, and reservoirs.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1937, 46.55 ft Apr. 9, 1913, at Beale Street gage or about 45.2 ft at present site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	870000	481000	775000	408000	851000	1120000	964000	1340000	453000	500000	344000	287000
2	902000	470000	748000	384000	897000	1140000	1010000	1310000	445000	519000	358000	274000
3	925000	455000	735000	384000	931000	1140000	1040000	1280000	439000	528000	373000	273000
4	937000	445000	757000	383000	955000	1140000	1070000	1250000	427000	526000	379000	273000
5	940000	442000	777000	384000	971000	1140000	1090000	1240000	412000	517000	371000	270000
6	937000	442000	800000	389000	978000	1130000	1120000	1200000	401000	503000	345000	269000
7	926000	444000	823000	396000	978000	1130000	1130000	1180000	405000	503000	327000	271000
8	906000	443000	846000	407000	979000	1120000	1130000	1160000	378000	466000	321000	274000
9	879000	436000	872000	429000	984000	1120000	1140000	1140000	363000	440000	317000	270000
10	842000	435000	890000	463000	984000	1120000	1140000	1090000	385000	413000	308000	259000
11	793000	442000	895000	503000	981000	1120000	1150000	1040000	409000	390000	305000	253000
12	735000	440000	895000	546000	961000	1120000	1160000	1000000	433000	389000	308000	245000
13	676000	430000	898000	587000	931000	1120000	1160000	979000	445000	392000	305000	235000
14	624000	426000	907000	625000	903000	1130000	1160000	972000	446000	384000	290000	229000
15	585000	427000	903000	655000	894000	1140000	1190000	974000	435000	375000	275000	223000
16	553000	443000	893000	672000	901000	1150000	1220000	976000	426000	389000	262000	220000
17	530000	566000	869000	678000	917000	1150000	1260000	977000	417000	404000	248000	222000
18	515000	700000	830000	658000	941000	1150000	1310000	967000	415000	405000	248000	224000
19	507000	800000	776000	626000	960000	1150000	1360000	938000	400000	390000	262000	222000
20	503000	866000	719000	604000	975000	1140000	1400000	887000	423000	378000	278000	218000
21	498000	912000	667000	583000	987000	1140000	1420000	824000	423000	383000	294000	216000
22	495000	947000	631000	571000	994000	1140000	1430000	759000	421000	388000	312000	214000
23	513000	967000	603000	512000	1020000	1130000	1440000	701000	414000	387000	330000	215000
24	538000	971000	582000	475000	1030000	1110000	1440000	644000	412000	386000	350000	221000
25	547000	963000	566000	462000	1040000	1080000	1430000	590000	407000	371000	379000	225000
26	547000	947000	551000	470000	1050000	1020000	1410000	552000	400000	355000	399000	223000
27	541000	924000	536000	495000	1070000	960000	1400000	522000	400000	351000	401000	218000
28	527000	894000	525000	555000	1100000	909000	1380000	492000	405000	344000	388000	214000
29	515000	856000	509000	621000	---	872000	1380000	468000	431000	353000	372000	216000
30	499000	814000	483000	710000	---	879000	1360000	457000	468000	358000	341000	233000
31	487000	---	451000	793000	---	919000	---	458000	---	350000	308000	---
TOTAL	20792000	19228000	22712000	16428000	27163000	33829000	37294000	28367000	12538000	12837000	10098000	7206000
MEAN	670700	640900	732600	529900	970100	1091000	1243000	915100	417900	414100	325700	240200
MAX	940000	971000	907000	793000	1100000	1150000	1440000	1340000	468000	528000	401000	287000
MIN	487000	426000	451000	383000	851000	872000	964000	457000	363000	344000	248000	214000

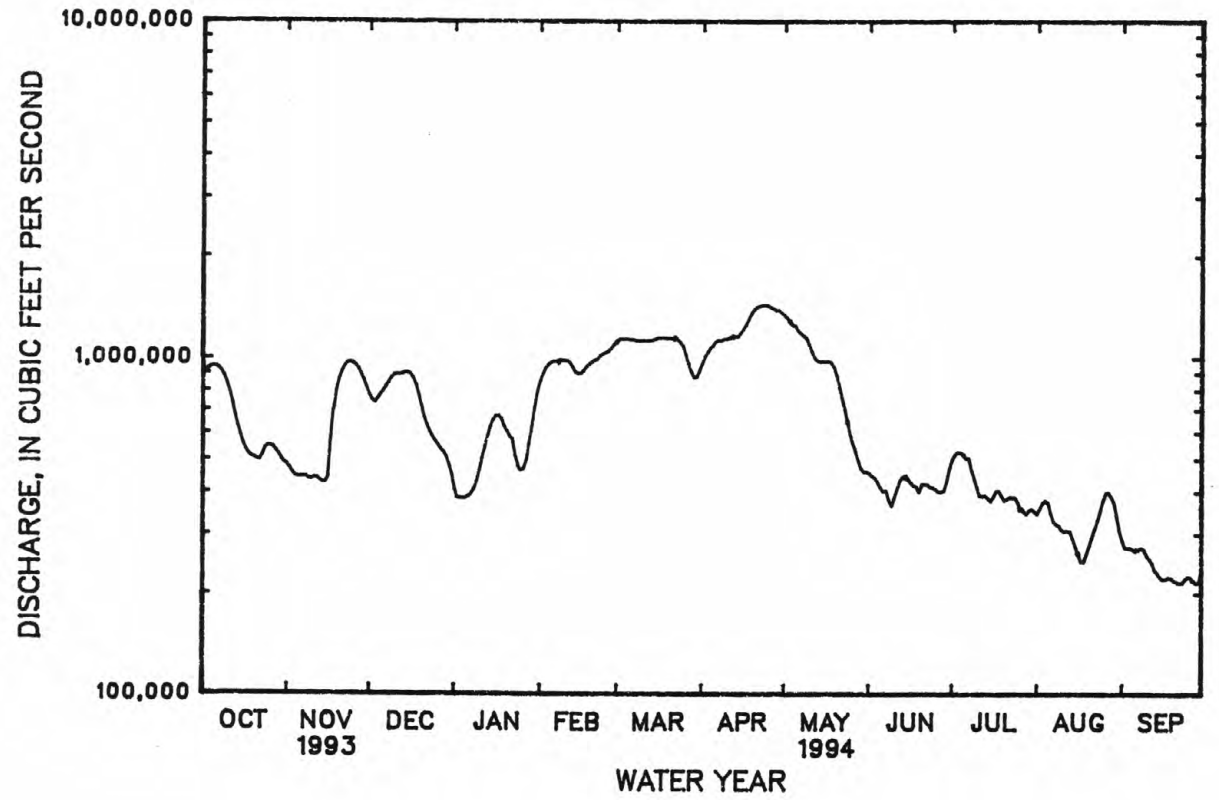
MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued
(National stream-quality accounting network station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1994, BY WATER YEAR (WY)

MEAN	259500	313600	440900	545000	638500	780000	837800	672500	510900	406400	295000	248800
MAX	680900	728600	1030000	1237000	1668000	1327000	1464000	1481000	1012000	875300	959900	672400
(WY)	1987	1986	1983	1991	1937	1979	1973	1983	1943	1993	1993	1993
MIN	87050	101800	109200	111700	151700	248300	395200	221100	153900	130800	95890	113800
(WY)	1940	1940	1940	1940	1934	1941	1954	1934	1988	1988	1936	1939

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1933 - 1994	
ANNUAL TOTAL	297115000		248492000			
ANNUAL MEAN	814000		680800		493600	
HIGHEST ANNUAL MEAN					787600	1973
LOWEST ANNUAL MEAN					242400	1934
HIGHEST DAILY MEAN	1230000	Apr 9	1440000	Apr 23	1970000	Feb 8 1937
LOWEST DAILY MEAN	110000	Mar 12	214000	Sep 22	80000	Aug 24 1936
ANNUAL SEVEN-DAY MINIMUM	434000	Nov 9	219000	Sep 18	81300	Aug 22 1936
INSTANTANEOUS PEAK FLOW			1440000	Apr 23	1980000	Feb 8 1937
INSTANTANEOUS PEAK STAGE			37.31	Apr 23	48.69	Feb 10 1937
INSTANTANEOUS LOW FLOW			214000	Sep 28	79200	Aug 26 1936
10 PERCENT EXCEEDS	1120000		1140000		959000	
50 PERCENT EXCEEDS	828000		553000		406000	
90 PERCENT EXCEEDS	525000		289000		176000	



MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1973 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
DEC 14...	1115	80513	80020	920000	335	8.0	6.5	54	11.4	95	--
FEB 15...	1000	80513	80020	933000	322	7.7	2.0	38	12.7	91	K23
JUL 19...	1057	80513	80020	422000	450	7.5	25.5	44	7.5	92	110
AUG 29...	1135	80513	80020	406000	425	7.5	27.0	8.3	7.6	96	32

DATE	TIME	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT FET FIELD MG/L AS CACO3
DEC 14...	1115	170	150	22	41	11	12	15	0.4	3.0	128
FEB 15...	1000	92	110	26	32	8.3	11	17	0.4	2.7	88
JUL 19...	1057	110	170	29	44	15	17	17	0.6	3.7	259
AUG 29...	1135	39	160	20	42	14	23	23	0.8	3.5	142

DATE	TIME	CARBONATE WATER DIS IT FIELD MG/L AS CO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	ALKALINITY WAT DIS TOT IT 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)
DEC 14...	1115	0	154	126	47	14	0.10	7.1	208	218
FEB 15...	1000	0	108	89	40	14	0.10	5.9	179	174
JUL 19...	1057	0	174	143	58	18	0.20	7.4	275	259
AUG 29...	1135	0	174	143	68	21	0.20	2.8	248	264

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

MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER-QUALITY RECORDS

DATE	TIME	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
DEC 14...	1115	517000	0.28	1.36	0.040	1.40	1.40	0.050	0.65	0.70
FEB 15...	1000	451000	0.24	1.38	0.020	1.40	1.40	0.100	0.50	0.60
JUL 19...	1057	313000	0.37	--	<0.010	2.20	2.20	0.020	0.78	0.80
AUG 29...	1135	272000	0.34	--	<0.010	0.840	0.840	0.040	0.56	0.60

DATE	TIME	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC 14...	1115	0.200	0.050	0.060	60	45	<3	87	5	3
FEB 15...	1000	0.170	0.050	0.040	120	40	<3	100	11	12
JUL 19...	1057	0.220	0.100	0.090	<10	67	<3	5	13	<1
AUG 29...	1135	0.100	0.070	0.060	20	59	<3	25	5	1

DATE	TIME	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 14...	1115	<10	2	<1	<1.0	150	<6	234	581000	62
FEB 15...	1000	<10	2	<1	<1.0	120	<6	164	413000	65
JUL 19...	1057	<10	2	<1	<1.0	190	<6	157	179000	95
AUG 29...	1135	20	2	<1	<1.0	210	<6	67	73400	75

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 south of Germantown, and at mile 17.3.

DRAINAGE AREA.--68.2 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-1964, 1969; October 1969 to May 1985, October 1985 to current year.

REVISED RECORDS.--WRD TN-74-1: Drainage area, WRD TN-87-1 (P).

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft above sea level, (levels by Soil Conservation Service).

REMARKS.--Records fair. Periodic observations of water temperature are published in this report as miscellaneous water-quality data. National Weather Service rain gage and telemeters at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 13	1615	4,010	13.79	Feb. 11	0645	3,890	13.62
Nov. 16	2145	3,850	13.56	Feb. 22	1645	4,930	15.19
Dec. 4	0800	*8,950	*20.51	Mar. 27	1600	4,480	14.51
Jan. 27	1145	5,050	15.37	July 15	2145	4,320	14.26

Minimum daily discharge 0.50 ft³/s, Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.39	.90	19	21	35	24	105	1.1	1.4	1.1	17
2	52	.23	8.2	18	15	125	19	40	.67	.65	.46	3.2
3	5.8	.16	274	15	13	77	32	129	.43	.45	.39	1.6
4	1.5	.22	4670	13	11	39	18	60	.29	.29	18	.87
5	.73	.19	583	9.1	10	27	748	31	.28	.26	15	.85
6	.54	.11	80	7.4	8.6	19	717	17	1.0	5.3	1.4	.93
7	.54	.10	50	68	6.5	15	83	165	140	2.3	.37	.84
8	.58	.16	35	42	6.2	43	42	88	13	45	.21	.58
9	.94	.34	39	22	19	1800	28	30	57	997	.23	.65
10	.83	.29	42	14	46	417	26	15	42	176	.24	.62
11	.73	.20	26	17	1750	73	27	8.3	12	32	.09	.58
12	.74	2.0	16	21	413	44	176	60	2.9	35	.03	.50
13	.73	1080	348	16	193	32	67	109	1.3	114	.04	e.10
14	.73	915	272	14	69	25	29	48	.81	27	194	e.11
15	.72	342	71	10	42	22	110	44	.45	495	109	e.10
16	.88	1080	38	6.3	28	18	48	34	2.4	160	42	e.05
17	.61	1240	23	821	21	15	21	14	.46	123	15	e.06
18	41	74	17	152	17	13	12	5.9	.20	12	9.8	e.48
19	30	26	12	52	14	11	7.3	2.5	.09	2.7	4.9	e.16
20	9.6	15	159	25	357	11	3.9	1.3	.07	.63	18	e1.4
21	2.2	9.2	78	17	89	11	2.6	1.3	.11	16	7.7	2.5
22	1.1	5.3	36	15	2060	9.7	1.9	.97	.10	25	.89	3.3
23	.36	3.6	23	17	630	8.2	1.0	.88	.12	6.4	1.2	16
24	.20	2.2	15	18	93	744	.95	.78	25	.94	.76	9.4
25	.13	6.3	11	49	47	478	.94	1.2	8.0	54	.75	5.5
26	.15	8.6	7.6	168	30	86	538	23	6.5	84	.61	2.7
27	.13	4.5	5.7	3560	21	2620	479	7.9	1.9	161	1.9	1.3
28	.05	2.7	64	1180	18	914	e133	1.6	12	23	2.6	1.1
29	.14	1.5	73	109	---	105	75	.77	44	6.3	2.3	.84
30	4.6	1.0	37	47	---	51	167	25	12	1.6	22	.63
31	1.0	---	21	31	---	33	---	2.7	---	1.3	9.0	---
TOTAL	160.12	4821.29	7135.40	6572.8	6048.3	7920.9	3637.59	1073.10	386.18	2609.52	479.97	73.95
MEAN	5.17	161	230	212	216	256	121	34.6	12.9	84.2	15.5	2.46
MAX	52	1240	4670	3560	2060	2620	748	165	140	997	194	17
MIN	.05	.10	.90	6.3	6.2	8.2	.94	.77	.07	.26	.03	.05
CFSM	.08	2.36	3.37	3.11	3.17	3.75	1.78	.51	.19	1.23	.23	.04
IN.	.09	2.63	3.89	3.59	3.30	4.32	1.98	.59	.21	1.42	.26	.04

e Estimated

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

MEAN	14.5	102	183	161	187	203	191	114	60.8	39.3	13.4	21.4
MAX	69.4	323	616	531	604	659	834	407	300	354	77.4	164
(WY)	1990	1989	1983	1974	1989	1980	1991	1979	1974	1989	1978	1977
MIN	.000	.21	2.24	.41	14.6	15.2	9.44	3.74	3.09	.70	.37	.087
(WY)	1970	1972	1977	1986	1978	1986	1978	1988	1988	1976	1980	1984

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994		
ANNUAL TOTAL	32690.54		40919.12				
ANNUAL MEAN	89.6		112		108		
HIGHEST ANNUAL MEAN					215		1979
LOWEST ANNUAL MEAN					22.4		1986
HIGHEST DAILY MEAN	4670	Dec 4	4670	Dec 4	5900	Jul 2	1989
LOWEST DAILY MEAN	.05	Oct 28	.03	Aug 12	a.00	Oct 1	1969
ANNUAL SEVEN-DAY MINIMUM	.17	Oct 23	.15	Sep 13	.00	Oct 1	1969
INSTANTANEOUS PEAK FLOW			8950	Dec 4	13100	Jul 2	1989
INSTANTANEOUS LOW FLOW			NOT DETERMINED	Sep 16	.00	Oct 1	1969
ANNUAL RUNOFF (CFSM)	1.31		1.64		1.58		
ANNUAL RUNOFF (INCHES)	17.83		22.32		21.50		
10 PERCENT EXCEEDS	165		166		188		
50 PERCENT EXCEEDS	14		13		4.9		
90 PERCENT EXCEEDS	.54		.29		.13		

a No flow at times most years.

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

The data given in the following tables include a description of the station and a table showing time and discharge for the highest peak that occurred during the year. Information is available on some lower peaks, but is not published herein.

03486305 SINKING CREEK AT SINKING CREEK ROAD AT JOHNSON CITY, TN

LOCATION.--Lat 36°16'49", long 82°22'05". Washington County, Hydrologic Unit 06010103, on left bank at downstream end of culvert at Sinking Creek Road, 1.5 miles south of courthouse in Johnson City, and at mile 7.2.

DRAINAGE AREA.--4.10 mi².

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

GAGE.--Water stage recorder. Datum of gage is 1829.20 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 411 ft³/s, March 27, 1994, gage height, 4.10 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 411 ft³/s, March 27, gage height, 4.10 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
00:15:00	25	05:15:00	26	10:15:00	45	15:15:00	90	20:15:00	293
00:30:00	25	05:30:00	26	10:30:00	47	15:30:00	96	20:30:00	290
00:45:00	25	05:45:00	26	10:45:00	47	15:45:00	97	20:45:00	288
01:00:00	25	06:00:00	27	11:00:00	49	16:00:00	97	21:00:00	284
01:15:00	25	06:15:00	28	11:15:00	49	16:15:00	97	21:15:00	286
01:30:00	24	06:30:00	28	11:30:00	50	16:30:00	97	21:30:00	284
01:45:00	25	06:45:00	29	11:45:00	52	16:45:00	97	21:45:00	286
02:00:00	25	07:00:00	30	12:00:00	53	17:00:00	97	22:00:00	286
02:15:00	25	07:15:00	31	12:15:00	57	17:15:00	97	22:15:00	288
02:30:00	25	07:30:00	31	12:30:00	59	17:30:00	97	22:30:00	293
02:45:00	25	07:45:00	32	12:45:00	63	17:45:00	97	22:45:00	299
03:00:00	25	08:00:00	33	13:00:00	68	18:00:00	97	23:00:00	302
03:15:00	25	08:15:00	35	13:15:00	71	18:15:00	97	23:15:00	411
03:30:00	25	08:30:00	35	13:30:00	75	18:30:00	97	23:30:00	400
03:45:00	25	08:45:00	36	13:45:00	78	18:45:00	97	23:45:00	375
04:00:00	25	09:00:00	38	14:00:00	80	19:00:00	97	24:00:00	375
04:15:00	25	09:15:00	41	14:15:00	83	19:15:00	97		
04:30:00	25	09:30:00	42	14:30:00	84	19:30:00	97		
04:45:00	25	09:45:00	43	14:45:00	89	19:45:00	97		
05:00:00	25	10:00:00	44	15:00:00	90	20:00:00	98		
				MARCH 28, 1994					
00:15:00	334	05:15:00	214	10:15:00	160	15:15:00	123	20:15:00	111
00:30:00	355	05:30:00	212	10:30:00	162	15:30:00	123	20:30:00	111
00:45:00	348	05:45:00	206	10:45:00	155	15:45:00	123	20:45:00	110
01:00:00	308	06:00:00	200	11:00:00	155	16:00:00	122	21:00:00	110
01:15:00	318	06:15:00	196	11:15:00	151	16:15:00	118	21:15:00	110
01:30:00	322	06:30:00	193	11:30:00	151	16:30:00	120	21:30:00	110
01:45:00	293	06:45:00	196	11:45:00	149	16:45:00	120	21:45:00	110
02:00:00	268	07:00:00	187	12:00:00	144	17:00:00	117	22:00:00	111
02:15:00	299	07:15:00	196	12:15:00	143	17:15:00	118	22:15:00	108
02:30:00	297	07:30:00	180	12:30:00	144	17:30:00	117	22:30:00	111
02:45:00	302	07:45:00	181	12:45:00	143	17:45:00	115	22:45:00	108
03:00:00	275	08:00:00	176	13:00:00	143	18:00:00	115	23:00:00	110
03:15:00	275	08:15:00	178	13:15:00	138	18:15:00	114	23:15:00	111
03:30:00	277	08:30:00	180	13:30:00	139	18:30:00	113	23:30:00	107
03:45:00	260	08:45:00	178	13:45:00	134	18:45:00	113	23:45:00	113
04:00:00	241	09:00:00	170	14:00:00	134	19:00:00	113	24:00:00	111
04:15:00	239	09:15:00	170	14:15:00	131	19:15:00	111		
04:30:00	245	09:30:00	167	14:30:00	128	19:30:00	113		
04:45:00	233	09:45:00	165	14:45:00	126	19:45:00	110		
05:00:00	220	10:00:00	163	15:00:00	125	20:00:00	111		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486311 SINKING CREEK AT HIGHWAY 67 AT JOHNSON CITY, TN

LOCATION.--Lat 36°18'41", long 82°19'48", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert at State Highway 67, 1.2 miles east of Johnson City Courthouse, and at mile 3.9.

DRAINAGE AREA.--7.29 mi².

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1594.26 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 573 ft³/s, March 27, 1994, gage height, 4.59 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 573 ft³/s, March 27, gage height, 4.59 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
00:15:00	47	05:15:00	77	10:15:00	80	15:15:00	129	20:15:00	445
00:30:00	47	05:30:00	81	10:30:00	78	15:30:00	159	20:30:00	456
00:45:00	47	05:45:00	83	10:45:00	77	15:45:00	184	20:45:00	469
01:00:00	47	06:00:00	80	11:00:00	76	16:00:00	260	21:00:00	485
01:15:00	47	06:15:00	77	11:15:00	75	16:15:00	255	21:15:00	535
01:30:00	47	06:30:00	73	11:30:00	75	16:30:00	248	21:30:00	550
01:45:00	47	06:45:00	70	11:45:00	75	16:45:00	234	21:45:00	550
02:00:00	47	07:00:00	67	12:00:00	76	17:00:00	258	22:00:00	558
02:15:00	47	07:15:00	65	12:15:00	84	17:15:00	266	22:15:00	571
02:30:00	47	07:30:00	65	12:30:00	93	17:30:00	283	22:30:00	560
02:45:00	47	07:45:00	70	12:45:00	104	17:45:00	280	22:45:00	541
03:00:00	47	08:00:00	81	13:00:00	112	18:00:00	291	23:00:00	573
03:15:00	48	08:15:00	84	13:15:00	114	18:15:00	291	23:15:00	563
03:30:00	51	08:30:00	81	13:30:00	114	18:30:00	309	23:30:00	571
03:45:00	53	08:45:00	80	13:45:00	112	18:45:00	315	23:45:00	568
04:00:00	55	09:00:00	78	14:00:00	111	19:00:00	309	24:00:00	573
04:15:00	55	09:15:00	81	14:15:00	111	19:15:00	331		
04:30:00	56	09:30:00	85	14:30:00	111	19:30:00	364		
04:45:00	59	09:45:00	85	14:45:00	112	19:45:00	375		
05:00:00	66	10:00:00	83	15:00:00	114	20:00:00	393		
				MARCH 28, 1994					
00:15:00	571	05:00:00	461	09:45:00	396	14:45:00	125	19:30:00	91
00:30:00	563	05:15:00	458	10:00:00	181	15:00:00	121	19:45:00	88
00:45:00	560	05:30:00	453	10:15:00	177	15:15:00	117	20:00:00	88
01:00:00	565	05:45:00	448	10:30:00	177	15:30:00	117	20:15:00	85
01:15:00	563	06:00:00	445	10:45:00	177	15:45:00	110	20:30:00	85
01:30:00	555	06:15:00	440	11:00:00	173	16:00:00	110	20:45:00	82
01:45:00	544	06:30:00	438	11:15:00	173	16:15:00	106	21:00:00	79
02:00:00	521	06:45:00	438	11:30:00	168	16:30:00	106	21:15:00	79
02:15:00	513	07:00:00	433	11:45:00	164	16:45:00	103	21:30:00	77
02:30:00	516	07:15:00	428	12:00:00	155	17:00:00	103	21:45:00	77
02:45:00	510	07:30:00	425	12:15:00	151	17:15:00	99.7	22:00:00	74
03:00:00	507	07:45:00	422	12:30:00	146	17:30:00	99.7	22:15:00	74
03:15:00	499	08:00:00	420	12:45:00	142	17:45:00	97	22:30:00	77
03:30:00	496	08:15:00	422	13:00:00	142	18:00:00	97	22:45:00	77
03:45:00	488	08:30:00	415	13:15:00	137	18:15:00	93	23:00:00	82
04:00:00	482	08:45:00	411	13:30:00	133	18:30:00	93	23:15:00	82
04:15:00	474	09:00:00	407	14:00:00	129	18:45:00	91	23:30:00	85
04:30:00	466	09:15:00	404	14:15:00	129	19:00:00	91	23:45:00	91
04:45:00	464	09:30:00	400	14:30:00	125	19:15:00	91	24:00:00	91

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486312 CATBIRD CREEK AT MIAMI DRIVE AT JOHNSON CITY, TN

LOCATION.--Lat 36°18'45", long 82°19'32", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert at Miami Drive, 1.5 miles east of Johnson City Courthouse, and at mile 0.1.

DRAINAGE AREA.--2.91 mi², includes 0.14 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1581.02 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 142 ft³/s, Mar. 27, 1994, gage height, 5.79 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 142 ft³/s, March 27, gage height, 5.79 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
05:15:00	7.3	09:15:00	28	13:15:00	23	17:15:00	61	21:15:00	114
05:30:00	8.6	09:30:00	31	13:30:00	27	17:30:00	61	21:30:00	121
05:45:00	10	09:45:00	31	13:45:00	33	17:45:00	63	21:45:00	134
06:00:00	12	10:00:00	31	14:00:00	38	18:00:00	66	22:00:00	142
06:15:00	15	10:15:00	29	14:15:00	41	18:15:00	68	22:15:00	141
06:30:00	19	10:30:00	27	14:30:00	43	18:30:00	70	22:30:00	141
06:45:00	26	10:45:00	28	14:45:00	43	18:45:00	67	22:45:00	137
07:00:00	28	11:00:00	29	15:00:00	41	19:00:00	66	23:00:00	135
07:15:00	29	11:15:00	28	15:15:00	39	19:15:00	65	23:15:00	131
07:30:00	29	11:30:00	26	15:30:00	37	19:30:00	65	23:30:00	129
07:45:00	28	11:45:00	24	15:45:00	37	19:45:00	66	23:45:00	130
08:00:00	27	12:00:00	22	16:00:00	39	20:00:00	68	24:00:00	125
08:15:00	24	12:15:00	20	16:15:00	46	20:15:00	72		
08:30:00	22	12:30:00	19	16:30:00	51	20:30:00	82		
08:45:00	21	12:45:00	19	16:45:00	59	20:45:00	96		
09:00:00	20	13:00:00	21	17:00:00	61	21:00:00	108		
				MARCH 28, 1994					
00:15:00	121	05:15:00	77	10:15:00	57	15:15:00	49	20:15:00	42
00:30:00	116	05:30:00	75	10:30:00	57	15:30:00	48	20:30:00	42
00:45:00	109	05:45:00	73	10:45:00	56	15:45:00	47	20:45:00	41
01:00:00	105	06:00:00	72	11:00:00	56	16:00:00	47	21:00:00	41
01:15:00	103	06:15:00	70	11:15:00	55	16:15:00	46	21:15:00	41
01:30:00	100	06:30:00	69	11:30:00	54	16:30:00	46	21:30:00	41
01:45:00	99	06:45:00	68	11:45:00	54	16:45:00	46	21:45:00	40
02:00:00	97	07:00:00	67	12:00:00	54	17:00:00	46	22:00:00	40
02:15:00	95	07:15:00	66	12:15:00	54	17:15:00	45	22:15:00	40
02:30:00	93	07:30:00	64	12:30:00	53	17:30:00	44	22:30:00	40
02:45:00	91	07:45:00	64	12:45:00	53	17:45:00	44	22:45:00	40
03:00:00	91	08:00:00	64	13:00:00	53	18:00:00	44	23:00:00	40
03:15:00	89	08:15:00	62	13:15:00	52	18:15:00	44	23:15:00	41
03:30:00	89	08:30:00	61	13:30:00	52	18:30:00	43	23:30:00	42
03:45:00	88	08:45:00	60	13:45:00	51	18:45:00	43	23:45:00	43
04:00:00	86	09:00:00	60	14:00:00	51	19:00:00	43	24:00:00	43
04:15:00	85	09:15:00	59	14:15:00	51	19:15:00	43		
04:30:00	84	09:30:00	59	14:30:00	50	19:30:00	43		
04:45:00	82	09:45:00	58	14:45:00	49	19:45:00	42		
05:00:00	79	10:00:00	57	15:00:00	49	20:00:00	42		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486485 BRUSH CREEK AT STATE OF FRANKLIN ROAD AT JOHNSON CITY, TN

LOCATION.--Lat 36°18'08", long 82°22'53", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert at State of Franklin Road, 1.8 miles west of Johnson City Courthouse, and at mile 8.1.

DRAINAGE AREA.--4.05 mi², includes 0.82 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1656.08 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 393 ft³/s, July 28, 1991, gage height, 5.63 ft, from rating curve extended above 74 ft³/s, based on step-backwater analysis.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 297 ft³/s, March 27, gage height, 5.03 ft, from rating curve extended above 74 ft³/s, based on step-backwater analysis.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
05:15:00	21	09:15:00	35	13:15:00	38	17:15:00	204	21:15:00	255
05:30:00	25	09:30:00	36	13:30:00	42	17:30:00	198	21:30:00	262
05:45:00	28	09:45:00	36	13:45:00	45	17:45:00	188	21:45:00	271
06:00:00	29	10:00:00	36	14:00:00	46	18:00:00	186	22:00:00	278
06:15:00	32	10:15:00	36	14:15:00	47	18:15:00	184	22:15:00	286
06:30:00	35	10:30:00	36	14:30:00	46	18:30:00	182	22:30:00	293
06:45:00	35	10:45:00	35	14:45:00	44	18:45:00	177	22:45:00	297
07:00:00	33	11:00:00	34	15:00:00	43	19:00:00	164	23:00:00	293
07:15:00	31	11:15:00	32	15:15:00	42	19:15:00	145	23:15:00	282
07:30:00	29	11:30:00	29	15:30:00	45	19:30:00	136	23:30:00	267
07:45:00	28	11:45:00	28	15:45:00	53	19:45:00	134	23:45:00	240
08:00:00	28	12:00:00	27	16:00:00	67	20:00:00	138	24:00:00	207
08:15:00	30	12:15:00	27	16:15:00	122	20:15:00	165		
08:30:00	30	12:30:00	29	16:30:00	167	20:30:00	192		
08:45:00	32	12:45:00	32	16:45:00	192	20:45:00	220		
09:00:00	34	13:00:00	35	17:00:00	201	21:00:00	241		
				MARCH 28, 1994					
00:15:00	169	05:15:00	59	10:15:00	45	15:15:00	39	20:15:00	37
00:30:00	143	05:30:00	58	10:30:00	45	15:30:00	38	20:30:00	37
00:45:00	125	05:45:00	57	10:45:00	45	15:45:00	38	20:45:00	37
01:00:00	111	06:00:00	56	11:00:00	45	16:00:00	38	21:00:00	37
01:15:00	101	06:15:00	56	11:15:00	45	16:15:00	38	21:15:00	37
01:30:00	92	06:30:00	54	11:30:00	45	16:30:00	38	21:30:00	37
01:45:00	86	06:45:00	54	11:45:00	45	16:45:00	37	21:45:00	37
02:00:00	79	07:00:00	53	12:00:00	44	17:00:00	37	22:00:00	37
02:15:00	74	07:15:00	52	12:15:00	44	17:15:00	37	22:15:00	38
02:30:00	71	07:30:00	52	12:30:00	43	17:30:00	37	22:30:00	39
02:45:00	71	07:45:00	51	12:45:00	43	17:45:00	37	22:45:00	40
03:00:00	69	08:00:00	50	13:00:00	41	18:00:00	37	23:00:00	40
03:15:00	68	08:15:00	49	13:15:00	41	18:15:00	37	23:15:00	41
03:30:00	68	08:30:00	49	13:30:00	41	18:30:00	37	23:30:00	42
03:45:00	67	08:45:00	48	13:45:00	40	18:45:00	37	23:45:00	43
04:00:00	66	09:00:00	48	14:00:00	40	19:00:00	37	24:00:00	44
04:15:00	65	09:15:00	47	14:15:00	40	19:15:00	37		
04:30:00	64	09:30:00	47	14:30:00	40	19:30:00	37		
04:45:00	62	09:45:00	46	14:45:00	39	19:45:00	37		
05:00:00	60	10:00:00	46	15:00:00	39	20:00:00	37		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486494 BRUSH CREEK AT JOHNSON CITY, TN

LOCATION.--Lat 36°19'15", long 82°21'01", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert, 1000 ft upstream from Elm Street, 0.5 mile north of Johnson City Courthouse, and at mile 5.7.

DRAINAGE AREA.--9.58 mi², including 1.09 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1602.76 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 690 ft³/s, Mar. 27, 1994, gage height, 8.26 ft, from rating curve extended above 180 ft³/s, based on step-back water analysis; maximum gage height, 8.39 ft, June 30, 1992.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 690 ft³/s, Mar. 27, gage height, 8.26 ft, from rating curve extended above 180 ft³/s, based on step-back water analysis.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
04:00:00	51	08:15:00	125	12:30:00	92	16:45:00	528	21:00:00	690
04:15:00	51	08:30:00	136	12:45:00	126	17:00:00	486	21:15:00	673
04:30:00	48	08:45:00	126	13:00:00	160	17:15:00	447	21:30:00	638
04:45:00	51	09:00:00	112	13:15:00	189	17:30:00	426	21:45:00	583
05:00:00	57	09:15:00	101	13:30:00	195	17:45:00	405	22:00:00	530
05:15:00	93	09:30:00	105	13:45:00	183	18:00:00	381	22:15:00	493
05:30:00	138	09:45:00	117	14:00:00	163	18:15:00	357	22:30:00	472
05:45:00	164	10:00:00	119	14:15:00	142	18:30:00	339	22:45:00	453
06:00:00	165	10:15:00	109	14:30:00	126	18:45:00	336	23:00:00	441
06:15:00	153	10:30:00	95	14:45:00	113	19:00:00	338	23:15:00	432
06:30:00	135	10:45:00	80	15:00:00	105	19:15:00	342	23:30:00	428
06:45:00	116	11:00:00	70	15:15:00	105	19:30:00	373	23:45:00	426
07:00:00	95	11:15:00	63	15:30:00	134	19:45:00	435	24:00:00	424
07:15:00	80	11:30:00	61	15:45:00	232	20:00:00	512		
07:30:00	71	11:45:00	60	16:00:00	352	20:15:00	555		
07:45:00	66	12:00:00	60	16:15:00	488	20:30:00	623		
08:00:00	93	12:15:00	64	16:30:00	546	20:45:00	660		
				MARCH 28, 1994					
00:15:00	424	05:15:00	169	10:15:00	118	15:15:00	91	20:15:00	87
00:30:00	418	05:30:00	166	10:30:00	118	15:30:00	90	20:30:00	86
00:45:00	414	05:45:00	165	10:45:00	119	15:45:00	89	20:45:00	86
01:00:00	405	06:00:00	163	11:00:00	121	16:00:00	88	21:00:00	85
01:15:00	391	06:15:00	161	11:15:00	122	16:15:00	87	21:15:00	84
01:30:00	369	06:30:00	155	11:30:00	121	16:30:00	86	21:30:00	84
01:45:00	341	06:45:00	151	11:45:00	118	16:45:00	85	21:45:00	85
02:00:00	309	07:00:00	146	12:00:00	115	17:00:00	85	22:00:00	87
02:15:00	278	07:15:00	143	12:15:00	113	17:15:00	85	22:15:00	94
02:30:00	251	07:30:00	140	12:30:00	109	17:30:00	84	22:30:00	103
02:45:00	243	07:45:00	137	12:45:00	108	17:45:00	84	22:45:00	111
03:00:00	240	08:00:00	134	13:00:00	105	18:00:00	84	23:00:00	115
03:15:00	234	08:15:00	132	13:15:00	103	18:15:00	84	23:15:00	121
03:30:00	222	08:30:00	131	13:30:00	102	18:30:00	84	23:30:00	129
03:45:00	209	08:45:00	130	13:45:00	100	18:45:00	85	23:45:00	135
04:00:00	198	09:00:00	129	14:00:00	98	19:00:00	88	24:00:00	138
04:15:00	188	09:15:00	127	14:15:00	96	19:15:00	90		
04:30:00	181	09:30:00	124	14:30:00	95	19:30:00	91		
04:45:00	176	09:45:00	122	14:45:00	94	19:45:00	90		
05:00:00	172	10:00:00	120	15:00:00	93	20:00:00	88		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486508 BRUSH CREEK AT PINEY GROVE AT JOHNSON CITY, TN

LOCATION.--Lat 36°20'53", long 82°19'09", Washington County, Hydrologic Unit 06010103, on right downstream wingwall on driveway bridge over Brush Creek, 2.0 mi northeast of Johnson City Courthouse, and at mile 3.9.

DRAINAGE AREA.--14.0 mi^2, includes 1.09 mi^2 without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1521.71 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 681 ft^3/s, Mar. 27, 1994, gage height, 5.65 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 681 ft^3/s, Mar. 27, gage height, 5.65 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
					MARCH 27, 1994				
00:15:00	22	05:15:00	98	10:15:00	195	15:15:00	268	20:15:00	561
00:30:00	22	05:30:00	106	10:30:00	198	15:30:00	242	20:30:00	587
00:45:00	22	05:45:00	122	10:45:00	199	15:45:00	229	20:45:00	604
01:00:00	22	06:00:00	158	11:00:00	193	16:00:00	275	21:00:00	627
01:15:00	24	06:15:00	219	11:15:00	178	16:15:00	421	21:15:00	640
01:30:00	28	06:30:00	269	11:30:00	160	16:30:00	496	21:30:00	653
01:45:00	36	06:45:00	284	11:45:00	144	16:45:00	536	21:45:00	681
02:00:00	43	07:00:00	277	12:00:00	128	17:00:00	566	22:00:00	662
02:15:00	45	07:15:00	253	12:15:00	118	17:15:00	585	22:15:00	675
02:30:00	43	07:30:00	221	12:30:00	113	17:30:00	627	22:30:00	673
02:45:00	41	07:45:00	188	12:45:00	115	17:45:00	607	22:45:00	651
03:00:00	38	08:00:00	159	13:00:00	131	18:00:00	618	23:00:00	664
03:15:00	35	08:15:00	140	13:15:00	168	18:15:00	596	23:15:00	643
03:30:00	33	08:30:00	136	13:30:00	235	18:30:00	587	23:30:00	604
03:45:00	31	08:45:00	150	13:45:00	301	18:45:00	585	23:45:00	607
04:00:00	31	09:00:00	194	14:00:00	352	19:00:00	572	24:00:00	578
04:15:00	35	09:15:00	220	14:15:00	374	19:15:00	561		
04:30:00	44	09:30:00	228	14:30:00	374	19:30:00	547		
04:45:00	69	09:45:00	215	14:45:00	345	19:45:00	538		
05:00:00	89	10:00:00	205	15:00:00	301	20:00:00	553		
					MARCH 28, 1994				
00:15:00	572	05:15:00	271	10:15:00	169	15:15:00	128	20:15:00	117
00:30:00	563	05:30:00	259	10:30:00	163	15:30:00	126	20:30:00	114
00:45:00	563	05:45:00	252	10:45:00	160	15:45:00	123	20:45:00	115
01:00:00	563	06:00:00	246	11:00:00	160	16:00:00	121	21:00:00	114
01:15:00	559	06:15:00	243	11:15:00	159	16:15:00	122	21:15:00	112
01:30:00	551	06:30:00	232	11:30:00	159	16:30:00	119	21:30:00	111
01:45:00	549	06:45:00	231	11:45:00	161	16:45:00	117	21:45:00	110
02:00:00	551	07:00:00	225	12:00:00	162	17:00:00	118	22:00:00	108
02:15:00	538	07:15:00	219	12:15:00	160	17:15:00	113	22:15:00	107
02:30:00	526	07:30:00	212	12:30:00	154	17:30:00	115	22:30:00	107
02:45:00	514	07:45:00	207	12:45:00	151	17:45:00	111	22:45:00	109
03:00:00	486	08:00:00	200	13:00:00	150	18:00:00	111	23:00:00	113
03:15:00	453	08:15:00	195	13:15:00	146	18:15:00	111	23:15:00	123
03:30:00	419	08:30:00	190	13:30:00	144	18:30:00	111	23:30:00	131
03:45:00	404	08:45:00	185	13:45:00	141	18:45:00	110	23:45:00	142
04:00:00	376	09:00:00	179	14:00:00	137	19:00:00	109	24:00:00	151
04:15:00	349	09:15:00	176	14:15:00	136	19:15:00	109		
04:30:00	330	09:30:00	173	14:30:00	133	19:30:00	111		
04:45:00	314	09:45:00	169	14:45:00	131	19:45:00	111		
05:00:00	292	10:00:00	170	15:00:00	129	20:00:00	114		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486657 KNOB CREEK AT CLAUDE SIMMONS ROAD AT JOHNSON CITY, TN

LOCATION.--Lat 36°19'52", long 82°25'29", Washington County, Hydrologic Unit 06010103, on left bank at downstream end of culvert at Claude Simmons Road, 4.4 mi northwest of Johnson City Courthouse, and at mile 6.7.

DRAINAGE AREA.--3.15 mi², includes 0.13 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1623.62 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 143 ft³/s, Mar. 27, 1994, gage height, 4.75 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 143 ft³/s, March 27, gage height, 4.75 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
05:30:00	7.8	09:15:00	13	13:00:00	14	16:45:00	40	20:30:00	93
05:45:00	8.9	09:30:00	13	13:15:00	15	17:00:00	46	20:45:00	118
06:00:00	9.4	09:45:00	13	13:30:00	16	17:15:00	50	21:00:00	134
06:15:00	9.6	10:00:00	12	13:45:00	17	17:30:00	57	21:15:00	143
06:30:00	10	10:15:00	12	14:00:00	17	17:45:00	65	21:30:00	140
06:45:00	10	10:30:00	12	14:15:00	17	18:00:00	72	21:45:00	137
07:00:00	11	10:45:00	12	14:30:00	17	18:15:00	74	22:00:00	133
07:15:00	11	11:00:00	11	14:45:00	17	18:30:00	74	22:15:00	130
07:30:00	11	11:15:00	11	15:00:00	17	18:45:00	70	22:30:00	123
07:45:00	11	11:30:00	11	15:15:00	17	19:00:00	63	22:45:00	118
08:00:00	11	11:45:00	11	15:30:00	17	19:15:00	58	23:00:00	108
08:15:00	11	12:00:00	11	15:45:00	19	19:30:00	56	23:15:00	96
08:30:00	12	12:15:00	11	16:00:00	23	19:45:00	57	23:30:00	85
08:45:00	12	12:30:00	12	16:15:00	27	20:00:00	62	23:45:00	77
09:00:00	13	12:45:00	13	16:30:00	33	20:15:00	77	24:00:00	71
				MARCH 28, 1994					
00:15:00	66	05:15:00	29	10:15:00	22	15:15:00	17	20:15:00	16
00:30:00	62	05:30:00	29	10:30:00	21	15:30:00	17	20:30:00	16
00:45:00	58	05:45:00	28	10:45:00	21	15:45:00	17	20:45:00	16
01:00:00	52	06:00:00	27	11:00:00	20	16:00:00	17	21:00:00	16
01:15:00	49	06:15:00	27	11:15:00	20	16:15:00	17	21:15:00	16
01:30:00	47	06:30:00	27	11:30:00	20	16:30:00	17	21:30:00	16
01:45:00	45	06:45:00	26	11:45:00	20	16:45:00	17	21:45:00	16
02:00:00	43	07:00:00	26	12:00:00	20	17:00:00	17	22:00:00	16
02:15:00	41	07:15:00	25	12:15:00	18	17:15:00	17	22:15:00	16
02:30:00	40	07:30:00	25	12:30:00	19	17:30:00	17	22:30:00	16
02:45:00	39	07:45:00	24	12:45:00	19	17:45:00	17	22:45:00	17
03:00:00	38	08:00:00	24	13:00:00	19	18:00:00	17	23:00:00	17
03:15:00	37	08:15:00	24	13:15:00	18	18:15:00	17	23:15:00	17
03:30:00	36	08:30:00	23	13:30:00	18	18:30:00	17	23:30:00	17
03:45:00	35	08:45:00	23	13:45:00	18	18:45:00	17	23:45:00	17
04:00:00	34	09:00:00	23	14:00:00	18	19:00:00	17	24:00:00	18
04:15:00	33	09:15:00	23	14:15:00	18	19:15:00	17		
04:30:00	31	09:30:00	23	14:30:00	18	19:30:00	16		
04:45:00	31	09:45:00	22	14:45:00	18	19:45:00	16		
05:00:00	30	10:00:00	22	15:00:00	17	20:00:00	16		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486659 KNOB CREEK TRIBUTARY AT KNOB CREEK ROAD AT JOHNSON CITY, TN

LOCATION.--Lat 36°20'26", long 82°24'33", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert under Knob Creek Road, and at mile 0.1.

DRAINAGE AREA.--1.97 mi², includes 0.66 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 590.36 ft above sea level.

REMARKS.--The maximum discharge for the year is unknown due to debris piled up on the control.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, unknown, March 27, 1994, gage height, 2.85 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, unknown, March 27, gage height, 2.85 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE

MARCH 27, 1994

DISCHARGE UNKNOWN, AFFECTED BY BACKWATER.

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486665 KNOB CREEK AT WAYFIELD DRIVE AT JOHNSON CITY, TN

LOCATION.--Lat 36°22'11", long 82°22'13", Washington County, Hydrologic Unit 06010103, on left bank at downstream end of culvert, 4.1 miles northwest of Johnson City Courthouse, and at mile 2.1.

DRAINAGE AREA.--11.4 mi², including 2.4 mi² without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1441.49 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 557 ft³/s, Mar. 27, 1994, gage height, 4.80 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 557 ft³/s, March 27, gage height, 4.80 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
00:15:00	24	05:15:00	82	10:15:00	88	15:15:00	104	20:15:00	354
00:30:00	28	05:30:00	104	10:30:00	81	15:30:00	116	20:30:00	408
00:45:00	29	05:45:00	116	10:45:00	76	15:45:00	143	20:45:00	450
01:00:00	28	06:00:00	116	11:00:00	73	16:00:00	181	21:00:00	484
01:15:00	27	06:15:00	110	11:15:00	71	16:15:00	212	21:15:00	506
01:30:00	25	06:30:00	101	11:30:00	70	16:30:00	233	21:30:00	527
01:45:00	24	06:45:00	93	11:45:00	69	16:45:00	238	21:45:00	557
02:00:00	24	07:00:00	83	12:00:00	69	17:00:00	244	22:00:00	553
02:15:00	24	07:15:00	74	12:15:00	74	17:15:00	248	22:15:00	519
02:30:00	24	07:30:00	71	12:30:00	99	17:30:00	248	22:30:00	510
02:45:00	23	07:45:00	72	12:45:00	122	17:45:00	245	22:45:00	506
03:00:00	24	08:00:00	87	13:00:00	135	18:00:00	244	23:00:00	490
03:15:00	28	08:15:00	104	13:15:00	142	18:15:00	236	23:15:00	466
03:30:00	42	08:30:00	106	13:30:00	143	18:30:00	230	23:30:00	444
03:45:00	54	08:45:00	101	13:45:00	140	18:45:00	226	23:45:00	419
04:00:00	58	09:00:00	95	14:00:00	133	19:00:00	224	24:00:00	395
04:15:00	58	09:15:00	93	14:15:00	125	19:15:00	227		
04:30:00	54	09:30:00	95	14:30:00	116	19:30:00	241		
04:45:00	54	09:45:00	99	14:45:00	109	19:45:00	269		
05:00:00	62	10:00:00	95	15:00:00	104	20:00:00	308		
				MARCH 28, 1994					
00:15:00	375	05:00:00	188	09:45:00	111	14:45:00	96	19:30:00	92
00:30:00	357	05:15:00	182	10:00:00	110	15:00:00	95	19:45:00	92
00:45:00	336	05:30:00	172	10:15:00	109	15:15:00	95	20:00:00	90
01:00:00	325	05:45:00	160	10:30:00	109	15:30:00	94	20:15:00	90
01:15:00	309	06:00:00	151	10:45:00	107	15:45:00	93	20:30:00	89
01:30:00	291	06:15:00	144	11:00:00	109	16:00:00	93	20:45:00	89
01:45:00	277	06:30:00	142	11:15:00	107	16:15:00	92	21:00:00	89
02:00:00	265	06:45:00	138	11:30:00	107	16:30:00	92	21:15:00	89
02:15:00	253	07:00:00	135	11:45:00	107	16:45:00	92	21:30:00	88
02:30:00	244	07:15:00	133	12:00:00	105	17:00:00	90	21:45:00	89
02:45:00	235	07:30:00	130	12:15:00	104	17:15:00	90	22:00:00	89
03:00:00	227	07:45:00	128	12:30:00	102	17:30:00	90	22:15:00	92
03:15:00	221	08:00:00	124	12:45:00	101	17:45:00	90	22:30:00	93
03:30:00	212	08:15:00	121	13:15:00	101	18:00:00	90	22:45:00	96
03:45:00	204	08:30:00	120	13:30:00	100	18:15:00	90	23:00:00	98
04:00:00	193	08:45:00	117	13:45:00	99	18:30:00	90	23:15:00	99
04:15:00	191	09:00:00	116	14:00:00	98	18:45:00	90	23:30:00	98
04:30:00	193	09:15:00	115	14:15:00	98	19:00:00	90	23:45:00	101
04:45:00	191	09:30:00	112	14:30:00	98	19:15:00	92	24:00:00	107

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03486670 COBB CREEK AT EAST OAKLAND AVENUE AT JOHNSON CITY, TN

LOCATION.--Lat 36°21'24", long 82°25'29", Washington County, Hydrologic Unit 06010103, on right bank at downstream end of culvert at Oakland Avenue, 3.1 miles north of Johnson City courthouse, and at mile 3.1.

DRAINAGE AREA.--3.75 mi^2, includes 1.45 mi^2 without surface drainage.

PERIOD OF RECORD.--October 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1533.56 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 374 ft^3/s, May 27, 1991, gage height, 5.95 ft, from rating curve extended above 52 ft^3/s, on basis of slope-area measurement at gage height 5.95 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 261 ft^3/s, Mar. 27, gage height, 5.39 ft, from rating curve extended above 52 ft^3/s, on basis of slope-area measurement at gage height 5.95 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				MARCH 27, 1994					
04:15:00	28	08:15:00	26	12:15:00	13	16:15:00	69	20:15:00	145
04:30:00	26	08:30:00	35	12:30:00	18	16:30:00	88	20:30:00	221
04:45:00	22	08:45:00	43	12:45:00	18	16:45:00	118	20:45:00	244
05:00:00	19	09:00:00	37	13:00:00	38	17:00:00	125	21:00:00	261
05:15:00	20	09:15:00	29	13:15:00	49	17:15:00	125	21:15:00	247
05:30:00	34	09:30:00	29	13:30:00	49	17:30:00	118	21:30:00	224
05:45:00	44	09:45:00	30	13:45:00	51	17:45:00	107	21:45:00	203
06:00:00	52	10:00:00	33	14:00:00	50	18:00:00	104	22:00:00	180
06:15:00	51	10:15:00	33	14:15:00	46	18:15:00	94	22:15:00	156
06:30:00	48	10:30:00	27	14:30:00	44	18:30:00	80	22:30:00	129
06:45:00	43	10:45:00	21	14:45:00	41	18:45:00	69	22:45:00	114
07:00:00	39	11:00:00	18	15:00:00	36	19:00:00	62	23:00:00	101
07:15:00	35	11:15:00	17	15:15:00	31	19:15:00	59	23:15:00	90
07:30:00	28	11:30:00	16	15:30:00	29	19:30:00	59	23:30:00	79
07:45:00	25	11:45:00	15	15:45:00	32	19:45:00	69	23:45:00	71
08:00:00	26	12:00:00	13	16:00:00	50	20:00:00	92	24:00:00	63
				MARCH 28, 1994					
00:15:00	56	05:15:00	25	10:15:00	15	15:15:00	12	20:15:00	13
00:30:00	51	05:30:00	24	10:30:00	15	15:30:00	12	20:30:00	12
00:45:00	47	05:45:00	23	10:45:00	15	15:45:00	12	20:45:00	12
01:00:00	43	06:00:00	22	11:00:00	15	16:00:00	12	21:00:00	12
01:15:00	41	06:15:00	22	11:15:00	15	16:15:00	12	21:15:00	12
01:30:00	38	06:30:00	22	11:30:00	15	16:30:00	11	21:30:00	12
01:45:00	37	06:45:00	21	11:45:00	17	16:45:00	11	21:45:00	12
02:00:00	37	07:00:00	19	12:00:00	17	17:00:00	11	22:00:00	12
02:15:00	41	07:15:00	19	12:15:00	16	17:15:00	12	22:15:00	13
02:30:00	43	07:30:00	18	12:30:00	15	17:30:00	13	22:30:00	14
02:45:00	42	07:45:00	18	12:45:00	15	17:45:00	12	22:45:00	15
03:00:00	42	08:00:00	17	13:00:00	14	18:00:00	12	23:00:00	18
03:15:00	45	08:15:00	17	13:15:00	14	18:15:00	12	23:15:00	19
03:30:00	49	08:30:00	16	13:30:00	13	18:30:00	12	23:30:00	20
03:45:00	43	08:45:00	16	13:45:00	14	18:45:00	12	23:45:00	20
04:00:00	37	09:00:00	16	14:00:00	13	19:00:00	12	24:00:00	23
04:15:00	32	09:15:00	15	14:15:00	13	19:15:00	12		
04:30:00	30	09:30:00	15	14:30:00	13	19:30:00	12		
04:45:00	28	09:45:00	15	14:45:00	13	19:45:00	13		
05:00:00	27	10:00:00	15	15:00:00	12	20:00:00	14		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03495547 LOVE CREEK AT I-40 AT KNOXVILLE, TN

LOCATION.--Lat 36°00'39" long 83°50'36", Knox County, Hydrologic Unit 06010201, on left downstream wingwall of culvert under I-40, at mile 1.2.

DRAINAGE AREA.--8.01 mi².

PERIOD OF RECORD.--June 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 830.42 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 692 ft³/s, December 23, 1990, gage height, 7.98 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 669 ft³/s, February 11, gage height, 7.84 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				FEBRUARY 10, 1994					
00:15:00	75	05:15:00	86	10:15:00	60	15:15:00	49	20:15:00	296
00:30:00	73	05:30:00	86	10:30:00	59	15:30:00	48	20:30:00	326
00:45:00	71	05:45:00	86	10:45:00	58	15:45:00	48	20:45:00	360
01:00:00	70	06:00:00	85	11:00:00	57	16:00:00	48	21:00:00	392
01:15:00	68	06:15:00	85	11:15:00	56	16:15:00	48	21:15:00	428
01:30:00	68	06:30:00	84	11:30:00	55	16:30:00	49	21:30:00	455
01:45:00	67	06:45:00	83	11:45:00	54	16:45:00	50	21:45:00	475
02:00:00	66	07:00:00	83	12:00:00	53	17:00:00	51	22:00:00	493
02:15:00	67	07:15:00	82	12:15:00	53	17:15:00	53	22:15:00	511
02:30:00	68	07:30:00	82	12:30:00	52	17:30:00	55	22:30:00	535
02:45:00	69	07:45:00	81	12:45:00	52	17:45:00	60	22:45:00	561
03:00:00	70	08:00:00	79	13:00:00	51	18:00:00	68	23:00:00	583
03:15:00	71	08:15:00	75	13:15:00	51	18:15:00	78	23:15:00	600
03:30:00	71	08:30:00	73	13:30:00	50	18:30:00	90	23:30:00	618
03:45:00	71	08:45:00	71	13:45:00	50	18:45:00	110	23:45:00	632
04:00:00	74	09:00:00	68	14:00:00	50	19:00:00	132	24:00:00	650
04:15:00	76	09:15:00	66	14:15:00	50	19:15:00	165		
04:30:00	79	09:30:00	65	14:30:00	50	19:30:00	201		
04:45:00	82	09:45:00	63	14:45:00	49	19:45:00	237		
05:00:00	84	10:00:00	62	15:00:00	50	20:00:00	267		
				FEBRUARY 11, 1994					
00:15:00	660	05:15:00	353	10:15:00	333	15:15:00	176	20:15:00	108
00:30:00	666	05:30:00	343	10:30:00	320	15:30:00	173	20:30:00	106
00:45:00	669	05:45:00	338	10:45:00	307	15:45:00	167	20:45:00	103
01:00:00	661	06:00:00	335	11:00:00	293	16:00:00	162	21:00:00	102
01:15:00	660	06:15:00	332	11:15:00	280	16:15:00	155	21:15:00	101
01:30:00	652	06:30:00	332	11:30:00	268	16:30:00	149	21:30:00	99.8
01:45:00	646	06:45:00	327	11:45:00	257	16:45:00	147	21:45:00	98
02:00:00	633	07:00:00	323	12:00:00	244	17:00:00	147	22:00:00	97
02:15:00	620	07:15:00	319	12:15:00	233	17:15:00	146	22:15:00	96
02:30:00	598	07:30:00	317	12:30:00	223	17:30:00	144	22:30:00	95
02:45:00	574	07:45:00	319	12:45:00	217	17:45:00	142	22:45:00	93
03:00:00	545	08:00:00	323	13:00:00	210	18:00:00	140	23:00:00	93
03:15:00	515	08:15:00	331	13:15:00	206	18:15:00	138	23:15:00	91
03:30:00	486	08:30:00	338	13:30:00	200	18:30:00	135	23:30:00	90
03:45:00	458	08:45:00	345	13:45:00	197	18:45:00	133	23:45:00	89
04:00:00	434	09:00:00	345	14:00:00	194	19:00:00	129	24:00:00	88
04:15:00	415	09:15:00	332	14:15:00	191	19:15:00	123		
04:30:00	398	09:30:00	344	14:30:00	186	19:30:00	117		
04:45:00	388	09:45:00	342	14:45:00	183	19:45:00	113		
05:00:00	368	10:00:00	340	15:00:00	179	20:00:00	111		

TENNESSEE RIVER BASIN

FLOOD-HYDROGRAPH STATION

03495957 WHITES CREEK AT NORA ROAD, AT KNOXVILLE, TN

LOCATION.--Lat 36°01'21", long 83°54'52", Knox County, Hydrologic Unit 0601201, on left downstream wingwall of bridge on Nora Road, and at mile 0.6.

DRAINAGE AREA.--9.51 mi².

PERIOD OF RECORD.--April 1990 to September 1992. Flood hydrograph, October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 948.46 ft above sea level.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge, 699 ft³/s, February 11, 1994, gage height, 7.44 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge, 699 ft³/s, February 11, gage height, 7.44 ft.

UNIT DISCHARGE (CUBIC FEET/SECOND)

TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE	TIME	VALUE
				FEBRUARY 10, 1994					
00:15:00	122	05:15:00	89	10:15:00	80	15:15:00	69	20:15:00	98
00:30:00	120	05:30:00	88	10:30:00	79	15:30:00	69	20:30:00	102
00:45:00	116	05:45:00	87	10:45:00	79	15:45:00	68	20:45:00	107
01:00:00	115	06:00:00	87	11:00:00	79	16:00:00	67	21:00:00	114
01:15:00	112	06:15:00	87	11:15:00	78	16:15:00	66	21:15:00	124
01:30:00	110	06:30:00	87	11:30:00	77	16:30:00	66	21:30:00	141
01:45:00	110	06:45:00	86	11:45:00	77	16:45:00	65	21:45:00	159
02:00:00	107	07:00:00	85	12:00:00	77	17:00:00	65	22:00:00	174
02:15:00	106	07:15:00	85	12:15:00	76	17:15:00	65	22:15:00	190
02:30:00	102	07:30:00	84	12:30:00	76	17:30:00	65	22:30:00	208
02:45:00	101	07:45:00	84	12:45:00	75	17:45:00	66	22:45:00	230
03:00:00	99	08:00:00	83	13:00:00	75	18:00:00	68	23:00:00	250
03:15:00	97	08:15:00	83	13:15:00	75	18:15:00	69	23:15:00	270
03:30:00	95	08:30:00	83	13:30:00	74	18:30:00	72	23:30:00	294
03:45:00	94	08:45:00	82	13:45:00	73	18:45:00	74	23:45:00	321
04:00:00	93	09:00:00	81	14:00:00	72	19:00:00	77	24:00:00	348
04:15:00	92	09:15:00	81	14:15:00	72	19:15:00	81		
04:30:00	91	09:30:00	81	14:30:00	71	19:30:00	85		
04:45:00	90	09:45:00	81	14:45:00	70	19:45:00	90		
05:00:00	90	10:00:00	80	15:00:00	70	20:00:00	94		
				FEBRUARY 11, 1994					
00:15:00	382	05:15:00	694	10:15:00	485	15:15:00	273	20:15:00	158
00:30:00	412	05:30:00	691	10:30:00	468	15:30:00	263	20:30:00	155
00:45:00	447	05:45:00	686	10:45:00	453	15:45:00	255	20:45:00	152
01:00:00	483	06:00:00	679	11:00:00	441	16:00:00	251	21:00:00	148
01:15:00	509	06:15:00	669	11:15:00	425	16:15:00	244	21:15:00	144
01:30:00	537	06:30:00	661	11:30:00	412	16:30:00	235	21:30:00	142
01:45:00	563	06:45:00	647	11:45:00	395	16:45:00	232	21:45:00	139
02:00:00	586	07:00:00	635	12:00:00	385	17:00:00	223	22:00:00	136
02:15:00	602	07:15:00	620	12:15:00	374	17:15:00	219	22:15:00	133
02:30:00	618	07:30:00	609	12:30:00	365	17:30:00	212	22:30:00	131
02:45:00	628	07:45:00	599	12:45:00	351	17:45:00	206	22:45:00	129
03:00:00	637	08:00:00	588	13:00:00	345	18:00:00	201	23:00:00	127
03:15:00	656	08:15:00	574	13:15:00	333	18:15:00	196	23:15:00	124
03:30:00	659	08:30:00	556	13:30:00	324	18:30:00	190	23:30:00	122
03:45:00	669	08:45:00	553	13:45:00	315	18:45:00	183	23:45:00	121
04:00:00	684	09:00:00	544	14:00:00	308	19:00:00	180	24:00:00	119
04:15:00	694	09:15:00	537	14:15:00	300	19:15:00	174		
04:30:00	696	09:30:00	525	14:30:00	293	19:30:00	171		
04:45:00	696	09:45:00	511	14:45:00	285	19:45:00	168		
05:00:00	699	10:00:00	496	15:00:00	279	20:00:00	163		

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 crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from current meter or indirect measurements of peak flow. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
CUMBERLAND RIVER BASIN								
Whiteoak Creek at Sunbright, TN (03409000)	Lat 36°14'38", long 84°40'14", Morgan County, Hydrologic Unit 05130104, at bridge on U.S. Highway 27 in Sunbright. Datum of gage is 1,294.05 ft above sea level. Drainage area is 13.5 mi^2.	1934, 1955-82, 1985-94	2-11-94	10.80	-	5-27-73	17.24a	5,560
East Fork Obey River near Jamestown, TN (03414500)	Lat 36°24'58", long 85°01'35", Fentress County, Hydrologic Unit 05130105, on right bank 200 ft upstream from bridge on State Highway 52, 0.5 mi upstream from Poplar Cove Creek, 5.3 mi west of Jamestown, and at mile 12.7. Datum of gage is 680.30 ft, Sandy Hook Datum. Drainage area is 202 mi^2 includes 6.0 mi^2 without surface drainage.	1942-91†, 1992-94	2-11-94	25.96	31,100	5-27-73	30.46	44,800
Wolf River near Byrdstown, TN (03416000)	Lat 36°33'37", long 85°04'23", Pickett County, Hydrologic Unit 05130105, on right bank 0.3 mi upstream from bridge on county road, 0.5 mi upstream from Widow Creek, 3.2 mi east of Byrdstown, 5.4 mi upstream from Lick Creek, and at mi 26.2. Datum of gage is 707.54 ft, Sandy Hook Datum. Drainage area is 106 mi^2.	1942-91†, 1992-94	2-11-94	9.25	9,000	9- 2-82	17.14	23,500

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
Roaring River above Gainesboro, TN (03418070)	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 upstream from Blackburn Fork, 6.3 mi east of Gainesboro, and at mi 9.1. Datum of gage is 520.56 ft, above sea level. Drainage area is 210 mi^2, includes 34 mi^2 without surface drainage.	1974-91†, 1992-94	2-11-94	18.17	12,300	3-12-75	21.83	22,400
Doe Creek at Gainesboro, TN (03418201)	Lat 36°21'23", long 85°39'20", Jackson County, Hydrologic Unit 05130106, at bridge on Highway 56, at Gainesboro. Datum of gage is 519.37 ft above sea level. Drainage area is 5.72 mi^2.	1978-94	2-11-94	3.90	-	8-31-82	7.28	
Charles Creek near McMinnville, TN (03421200)	Lat 35°43'00", long 85°46'05", Warren County, Hydrologic Unit 05130107, at bridge on county road at Faulkner Springs, 2.7 mi north of McMinnville. Drainage area is 31.1 mi^2.	1955-94	12- 4-93	10.24	4,120	6-22-89	17.03	24,800
Mulherrin Creek near Gordonsville, TN (03424900)	Lat 36°11'28", long 85°57'11", Smith County, Hydrologic Unit 05130108, at bridge on State Highway 53, 1.3 mi upstream from mouth, 1.5 mi northwest of Gordonsville. Drainage area is 26.9 mi^2.	1982, 1986-94	3-27-94	17.38	-	2-14-89	23.85	
Peyton Creek at Monoville, TN (03425045)	Lat 36°18'37", long 85°59'21", Smith County, Hydrologic Unit 05130201, at county road bridge 0.9, mi northwest of Monoville. Datum of gage is 459.39 ft above sea level. Drainage area is 44.7 mi^2.	1986-94	3-27-94	37.85	-	3- 6-89	40.41	-
Darwin Branch tributary at Hartsville, TN (03425357)	Lat 36°23'54", long 86°09'08", Trousdale County, Hydrologic Unit 05130201, at culvert on New Hall Town Road, 0.9 mi northwest of Hartsville. Drainage area is 0.66 mi^2.	1986-94	2-22-94	21.20	-	9-23-89	23.97	-
Second Creek near Walnut Grove, TN (03425365)	Lat 36°24'01", long 86°12'48", Trousdale County, Hydrologic Unit 05130201, at culvert on State Highways 10 and 25, 2.6 mi west of Hartsville. Drainage area is 3.47 mi^2.	1986-94	2-22-94	24.60	-	9-23-89	29.24	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
East Fork Stones River at Woodbury, TN (03426800)	Lat 35°49'41", long 86°04'36", Cannon County, Hydrologic Unit 05130203, at bridge on U.S. Highway 70S at Woodbury. Datum of gage is 676.23 ft above sea level. Drainage area is 39.1 mi^2.	1962-89†, 1990-94	12- 4-93	13.27	5,180	3-15-73	16.75	13,200
Brawleys Fork below Bradyville, TN (03426874)	Lat 35°44'44", long 86°10'14", Cannon County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 0.5 mi northwest of Bradyville. Drainage area is 15.4 mi^2.	1983-94	12- 4-93	26.91	2,610	10- 1-89	27.94	2,850
Reed Creek near Bradyville, TN (034269424)	Lat 35°44'44", long 86°12'31", Rutherford County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 2.4 mi northwest of Bradyville. Drainage area is 3.52 mi^2.	1983-94	12- 4-93	3.48	-	9- 4-86	4.55	-
East Fork Stones River near Lascassas, TN (03427500)	Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 50 ft upstream from highway bridge, 2.5 mi southwest of Lascassas, 3.7 mi downstream of Bradley Creek, 6.0 mi northeast of the courthouse in Murfreesboro, and at mi 15.4. Datum of gage is 507.88 ft, Sandy Hook Datum. Drainage area is 262 mi^2.	1950-58†, 1963-91†, 1992-94	3-28-94	30.84	20,200	3-13-75	39.48	41,200
Bushman Creek at Pitts Lane Ford near Compton, TN (03427690)	Lat 35°53'08", long 86°20'47", Rutherford County, Hydrologic Unit 05130203, on right bank 75 ft upstream of bridge on De Jarnett Lane, 0.1 mi west of intersection of De Jarnett Lane and State Highway 96, 1.6 mi southwest of Compton. Datum of gage is 569.74 ft above sea level. Drainage area is 9.67 mi^2.	1989-92†, 1993-94	3-27-94	6.29	1,540	2- 3-90	6.43	1,610
Lytle Creek at Sanbyrne Drive at Murfreesboro, TN (03428043)	Lat 35°49'38", long 86°23'28", Rutherford County, Hydrologic Unit 05130203, at bridge on Sanbyrne Drive, 1 mi south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft above sea level.	1978-90, 1991-92†, 1993-94	6-26-94	2.63	-	9- 4-86	2.55	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
West Fork Stones River near Smyrna, TN (03428500)	Lat 35°56'25", long 86°27'54", Rutherford County, Hydrologic Unit 05130203, near left bank at county bridge on Sulphur Springs Road, 400 ft upstream from Nice's Mill dam, 1.6 mi downstream from Overall Creek, 4.2 mi southeast of Smyrna, and at mi 6.4. Datum of gage is 500 ft, above sea level. Drainage area is 237 mi^2, includes 43 mi^2 without surface drainage.	1965-91†, 1992-94	3-27-94	16.25	23,400	3-13-75	19.18	63,800
McCrory Creek at Ironwood Drive at Donelson, TN (03430118)	Lat 36°09'07", long 86°39'02", Davidson County, Hydrologic Unit 05130203, at bridge under Ironwood Drive, 1.3 mi southeast of intersection of U.S. Highway 70 (Lebanon Road) and Donelson Pike in Donelson. Datum of gage is 430.63 ft above sea level. Drainage area is 7.31 mi^2.	1977-94b	6-26-94	7.99	1,890	5- 6-84	9.87	2,850
Mill Creek at Nolensville, TN (03430400)	Lat 35°57'32", long 86°40'31", Williamson County, Hydrologic Unit 05130202, at bridge on Sunset Road, 0.6 mi northwest of Nolensville. Datum of gage is 586.18 ft above sea level. Drainage area is 12.0 mi^2.	1965-94	6-26-94	8.96	8,630	5- 7-84	9.82	11,400
Sevenmile Creek at Blackman Road, near Nashville, TN (03431040)	Lat 36°04'21", long 86°44'00", Davidson County, Hydrologic Unit 05130202, at bridge on Blackman Road, 7.0 mi southeast of State capitol in Nashville. Datum of gage is 499.08 ft above sea level. Drainage area is 12.2 mi^2.	1965-94	4-15-94	5.98	-	9-13-79	9.58	-
Mill Creek at Thompson Lane, near Woodbine, TN (03431060)	Lat 36°07'04", long 86°43'08", Davidson County, Hydrologic Unit 05130202, at bridge on Thompson Lane, 1.5 mi 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 above sea level. Drainage area is 93.4 mi^2.	1965-94	3-27-94 4-15-94	13.07	8,710	5- 4-79	20.63	26,200

See footnotes at the end of the table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			CUMBERLAND RIVER BASIN--Continued					
Mill Creek tributary at Glenrose Avenue, at Woodbine, TN (03431062)	Lat 36°07'02", long 86°43'37", Davidson County, Hydrologic Unit 05130202, at culvert under Glenrose Avenue, 1.1 mi northeast of intersection of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth. Datum of gage is 443.52 ft above sea level. Drainage area is 1.17 mi^2.	1977-94b	6-26-94	7.52	612	5- 6-84	9.12	833
West Fork Browns Creek at General Bates Drive, at Nashville, TN (03431120)	Lat 36°06'29", long 86°47'07", Davidson County, Hydrologic Unit 05130202, at bridge on General Bates Drive, 4.0 mi south of State capitol in Nashville. Datum of gage is 499.94 ft above sea level. Drainage area is 3.30 mi^2.	1965-94	6-26-94	6.09	1,420	3-29-75	7.00	2,110
East Fork Browns Creek at Baird-Ward Printing Company, at Nashville, TN (03431240)	Lat 36°06'33", long 86°46'00", Davidson County, Hydrologic Unit 05130202, at bridge on access road to Baird-Ward Printing Co., Plant No. 1, 500 ft west of 100-Oaks Shopping Center, and 4.0 mi southeast of State capitol in Nashville. Datum of gage is 497.91 ft above sea level. Drainage area is 1.58 mi^2.	1965-94	6-26-94	5.05	596	5- 3-93	5.37	690
Browns Creek at Factory Street, at Nashville, TN (03431340)	Lat 36°08'26", long 46°45'31", Davidson County, Hydrologic Unit 05130202, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 mi southeast of State capitol in Nashville. Datum of gage is 420.66 ft above sea level. Drainage area is 13.2 mi^2.	1965-94	6-26-94	7.61	-	9-13-79	10.89	7,800
Pages Branch at Avondale, TN (03431490)	Lat 36°12'22", long 86°46'24", Davidson County, Hydrologic Unit 05130202, at culvert under Trinity Lane, 900 ft east of intersection of Interstate 65 and Trinity Lane at Avondale, 0.9 mi upstream from mouth. Drainage area is 2.01 mi^2.	1977-94b	4-15-94	5.34	-	12- 3-78	6.20	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
Earthman Fork at Whites Creek, TN (03431550)	Lat 36°15'55", long 86°49'51", Davidson County, Hydrologic Unit 05130202, at bridge on Whites Creek Pike in town of Whites Creek, 1,800 ft upstream from mouth. Drainage area is 6.29 mi^2.	1965-94	4-15-94	6.66	1,150	5- 3-93	9.43	2,510
Ewing Creek at Richmond Hill Drive at Parkwood, TN (03431573)	Lat 36°13'50", long 86°46'28", Davidson County, Hydrologic Unit 05130202, at bridge on Richmond Hill Drive, 1.0 mi southeast of Parkwood. Datum of gage is sea level. Drainage area is 2.17 mi^2.	1976-94	4-15-94	496.38	-	6- 9-86	497.32	-
Ewing Creek at Brick Church Pike at Parkwood, TN (03431575)	Lat 36°13'58", long 86°46'54", Davidson County, Hydrologic Unit 05130202, at bridge on Brick Church Pike, 0.4 mi upstream from North Fork, 0.8 mi south of Parkwood. Datum of gage is sea level. Drainage area is 3.02 mi^2.	1976-94	4-15-94	477.49	-	6- 9-86	478.15	-
Ewing Creek at Gwynwood Drive near Jordonia, TN (03431578)	Lat 36°13'58", long 86°47'32" Davidson County, Hydrologic Unit 05130202, at bridge on county road, 0.3 mi downstream from North Fork, 3.4 mi northeast of Bordeaux, 4.5 mi northeast of Jordonia, and at mi 2.1. Datum of gage is sea level. Drainage area is 9.98 mi^2.	1976-94	4-15-94	462.78	-	6- 9-86	463.10	-
Ewing Creek below Knight Road, near Bordeaux, TN (03431581)	Lat 36°13'55", long 86°48'14", Davidson County, Hydrologic Unit 05130202, at downstream side of bridge on Knight Road, 3.0 mi northeast of Bordeaux. Datum of gage is sea level. Drainage area is 13.3 mi^2.	1976-94	4-15-94	447.60	-	6- 9-86	449.80	-
Sugartree Creek at YMCA Access Road, at Green Hills, TN (03431677)	Lat 36°06'13", long 86°49'12", Davidson County, Hydrologic Unit 05130202, at bridge on YMCA Access Road, 0.5 mi southwest of Hillsboro High School, at Green Hills. Datum of gage is sea level. Drainage area is 1.51 mi^2.	1976-94	6-26-94	544.58	-	9-13-79	545.23	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
Sugartree Creek at Abbott Martin Road, at Green Hills, TN (03431679)	Lat 36°06'23", long 86°49'17", Davidson County, Hydrologic Unit 05130202, at bridge on Abbott Martin Road, at intersection of Bedford Avenue and Abbott Martin Road, at Green Hills. Datum of gage is sea level. Drainage area is 2.19 mi^2.	1976-94	6-26-94	531.28	-	9-13-79	531.30	-
Bednigo Branch tributary at Chestnut Grove, TN (03431795)	Lat 36°25'10", long 86°54'11", Robertson County, Hydrologic Unit 05130206, at culvert on Coopertown Road, 0.6 mi southwest of Crunk, 0.6 mi northeast of Chestnut Grove. Drainage area is 0.47 mi^2.	1986-94	2-22-94	20.69	-	12-25-84 12-25-87	21.06	-
Sycamore Creek near Ashland City, TN (03431800)	Lat 36°19'12", long 87°03'04", Cheatham County, Hydrologic Unit 05130202, near right bank on downstream end of pier of bridge on State Highway 49, at Sycamore, 3.2 mi north of Ashland City, 4.4 mi upstream from Spring Creek, and at mi 8.6. Elevation of gage is 400 ft above sea level, from topograhic map. Drainage area is 97.2 mi^2.	1961-87†, 1988-91†, 1992-94	3- 9-94	11.33	8,590	2-21-89	13.50	18,500
Murfrees Fork above Burwood, TN (03432470)	Lat 35°48'58", long 86°57'20", Williamson County, Hydrologic Unit 05130204, at county road bridge, just downstream from Cayce Branch, 1.6 mi east of Burwood. Drainage area is 7.43 mi^2.	1986-94	4-15-94	20.42	-	9- 4-86	26.85	-
Little Harpeth River at Granny White Pike, at Brentwood, TN (03432925)	Lat 36°01'30", long 86°49'09", Williamson County, Hydrologic Unit 05130204, at bridge on Granny White Pike, 2.0 mi southwest of Brentwood. Datum of gage is 618.29 ft above sea level. Drainage area is 22.0 mi^2.	1978-94	4-15-94	9.79	1,630	5- 4-79	17.55	9,260
Jones Creek near Burns, TN (03434590)	Lat 36°06'15", long 87°19'05", Dickson County, Hydrologic Unit 05130204, at bridge on Rock Church Road, 3.5 mi north of Burns and at mi 21.9. Drainage area is 13.3 mi^2.	1984-94	3- 9-94	5.54	964	5- 6-84	9.87	3,750

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued						
Hall Branch near Charlotte, TN (03434616)	Lat 36°11'48", long 87°20'30", Dickson County, Hydrologic Unit 05130204, at Culvert under State Highway 48, 1.4 mi north of Charlotte and at mi 2.6. Drainage area is 0.50 mi^2.	1984-94	1994	<7.69	-	5- 6-84	15.71	385
Bartons Creek near Cumberland Furnace, TN (034350021)	Lat 36°15'02", long 87°20'00", Dickson County, Hydrologic Unit 05130205, at bridge on Stayton road, 1.9 mi southeast of Cumberland Furnace. Drainage area is 22.3 mi^2.	1984-94b	3- 9-94	11.83	-	5-27-91	14.93	-
Bartons Creek tributary near Stayton, TN (0343500213)	Lat 36°15'19", long 87°19'12", Dickson County, Hydrologic Unit 05130205, at Culvert under Jackson Lane road, 1.5 mi southeast of Stayton, 2.5 mi southeast of Cumberland Furnace. Drainage area is 0.51 mi^2.	1984-94	4-15-94	9.34	-	5-27-91	13.49	-
Honey Run Creek below Cross Plains, TN (034351113)	Lat 36°32'31", long 86°42'14", Robertson County, Hydrologic Unit 05130206, at Empson Bridge on county road, 0.4 mi above mouth of Empson branch, 0.6 mi southwest of Cross Plains. Drainage area is 25.8 mi^2.	1986-94	2-12-94	22.20	-	2- 3-90	23.11	-
Sulphur Fork Red River above Springfield, TN (03435770)	Lat 36°30'47", long 86°51'44", Robertson County, Hydrologic Unit 05130206, on left bank 150 ft downstream from new bridge on State Highway 49, 1.2 mi downstream from Beaver Dam Creek, 1.3 mi northeast of Springfield. Datum of gage is 538.17 ft above sea level. Drainage area is 65.6 mi^2.	1975-88†, 1988-94	3- 9-94	11.91	5,250	2-21-89	14.29	11,200
Spring Creek tributary near Cedar Hill, TN (03435930)	Lat 36°32'08", long 86°59'26", Robertson County, Hydrologic Unit 05130206, at culvert on Kinney Road, 1.2 mi southeast of Cedar Hill. Drainage area is 1.40 mi^2.	1986-94	3- 9-94	20.44	-	5-17-90	22.23	-
Red River at Port Royal, TN (03436100)	Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork, and at mi 25.5. Datum of gage is 376.25 ft above sea level. Drainage area is 935 mi^2, includes 437 mi^2 without surface drainage.	1961-91†, 1992-94	3-10-94	34.13	24,000	3-13-75	48.26	60,300

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
CUMBERLAND RIVER BASIN--Continued								
Cummings Creek near Dotsonville, TN (03436505)	Lat 36°29'18", long 87°28'06", Montgomery County, Hydrologic Unit 05130205, at bridge on Dotsonville Road, 1.1 mi northeast of Dotsonville. Drainage area is 2.65 mi^2.	1984-94	3- 9-94	8.52	-	12-25-87	9.45	-
Yellow Creek at Ellis Mills, TN (03436690)	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 northeast of Ellis Mills, 1.0 mi upstream from Leatherwood Creek, 1.0 mi downstream from Williamson Branch. Elevation of gage is 417 ft above sea level, from topographic map. Drainage area is 103 mi^2.	1980-91†, 1992-94	3- 9-94	11.52	4,230	5- 6-84	18.47	14,400
Yellow Creek near Shiloh, TN (03436700)	Lat 36°20'55", long 87°32'20", Montgomery County, Hydrologic Unit 05130205, at bridge on State Highway 13, 2.6 mi west of Shiloh, 3.0 mi downstream from Leatherwood Creek, 9.0 mi east of Erin. Datum of gage is 390.13 ft above sea level. Drainage area is 124 mi^2.	1957-80†, 1982-94	3- 9-94	10.66	3,890	5- 6-84	17.75	16,200
TENNESSEE RIVER BASIN								
Caney Creek near Cosby, TN (03461230)	Lat 35°47'03", long 83°12'11", Cocke County, Hydrologic Unit 06010106, at culvert under State Highway 32, 3.3 mi southeast of Cosby. Drainage area is 1.62 mi^2.	1967-94	3-27-94	5.37	186	3-16-73	6.05	240
Cherokee Creek near Embreeville, TN (03465607)	Lat 36°12'24", long 82°29'23", Washington County, Hydrologic Unit 06010108, at culvert on county road, 0.5 mi southeast of Mayday, 1.4 mi northwest of Kansas City, and at mi 1.3. Drainage area is 22.9 mi^2.	1984-94	3-27-94	18.19	-	5- 7-84	18.37	-
Clear Fork near Fairview, TN (03465780)	Lat 36°19'33", long 82°33'47", Washington County, Hydrologic Unit 06010108, at culvert on State Highway 81, 2.0 mi southwest of Sulfur Springs, and at mi 3.8. Drainage area is 10.5 mi^2.	1983-94	3-27-94	6.06	-	5- 7-84	7.26	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued						
Lick Creek near Albany, TN (03466890)	Lat 36°14'54", long 82°55'34", Greene County, Hydrologic Unit 06010108, at State Highway 70 bridge, 0.3 mi downstream from Puncheon Camp Creek, 1.0 mi northwest of Albany, and at mi 33.7. Drainage area is 172 mi^2.	1984-94	3-27-94	17.41	10,800	3-27-94	17.41	10,800
Bent Creek at Taylor Gap, TN (03467480)	Lat 36°14'08", long 83°06'41", Hamblen County, Hydrologic Unit 06010108, at bridge on county road (Mountain Valley Road), 2.1 mi southwest of Bulls Gap, 5.0 mi southeast of Russellville. Drainage area is 2.18 mi^2.	1986-94	3-27-94	15.56	2,550	3-27-94	15.56	2,550
Carter Branch near White Pine, TN (03467992)	Lat 36°07'05", long 83°18'55", Jefferson County, Hydrologic Unit 06010108, at bridge on county road, 1.6 mi northeast of Kimbrough Crossroad, 1.8 mi northwest of White Pine. Drainage area is 4.25 mi^2.	1986-94	3-27-94	8.64	-	8- 9-91	9.09	-
Cedar Creek near Valley Home, TN (03467993)	Lat 36°08'03", long 83°18'47", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 1.7 mi southeast of Valley Home, 1.9 mi southeast of Witt, 2.2 mi northwest of White Pine. Drainage area is 2.01 mi^2.	1986-94	3-27-94	12.52	142	8- 9-91	13.19	193
Sinking Fork at White Pine, TN (03467998)	Lat 36°07'21", long 83°17'44", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 0.9 mi northwest of White Pine, 2.7 mi northeast of Kimbrough Crossroad. Drainage area is 6.38 mi^2.	1986-94	3-27-94	6.53	1,080	5-28-90	6.68	1,180
Dumplin Creek at Mt. Hareb, TN (03470215)	Lat 36°04'59", long 83°25'51", Jefferson County, Hydrologic Unit 06010107, at culvert on county road, 0.8 mi southeast of Mt. Hareb, 4.3 mi southeast of Jefferson City, 4.6 mi north of Dandridge. Drainage area is 3.65 mi^2.	1986-94	3-27-94	10.70	170	5-28-90	10.92	211
Indian Creek at Childress, TN (03476960)	Lat 36°25'38", long 82°15'54", Sullivan County, Hydrologic Unit 06010102, at bridge on U.S. Highway 19, 3.3 mi south of Bluff City, and at mi 4.6. Drainage area is 6.79 mi^2.	1983-94	5-26-94	11.03	-	5- 7-84	10.73	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued						
Evans Creek near Blountville, TN (03478615)	Lat 36°31'19", long 82°18'12", Sullivan County, Hydrologic Unit 06010102, at State Highway 37 bridge, 1.5 mi southeast of Blountville. Datum of gage is 1500.00 ft above sea level. Drainage area is 2.50 mi^2.	1983-94	2-11-94	10.67	56	7-21-84	12.38	92
Reedy Creek at Orebank, TN (03487550)	Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, 80 ft upstream from culvert, 0.3 mi north of Orebank, 1.0 mi upstream from Gaines Branch, and at mi 9.8. Drainage area is 36.3 mi^2.	1963-89†, 1990-94	2- 9-94	9.09	1,460	10- 2-77	11.61	4,940c
Forgey Creek at Zion Hill, TN (03490522)	Lat 36°29'12", long 82°53'08", Hawkins County, Hydrologic Unit 06010104, at culvert on county road (Carter Valley Road), 0.9 mi north of Zion Hill, 7.8 mi northeast of Rogersville. Drainage area is 0.86 mi^2.	1986-94	3-27-94	19.15	-	7- 7-89	21.03	-
Dodson Creek tributary near Rogersville, TN (03491490)	Lat 36°21'19", long 82°57'03", Hawkins County, Hydrologic Unit 06010104, at bridge on county road, 1.4 mi northwest of Enterprise, and at mi 0.5. Drainage area is 0.32 mi^2.	1983-94	2- 9-94	4.77	-	9-16-89	8.05	-
Robertson Creek near Persia, TN (03491540)	Lat 36°20'24", long 83°02'27", Hawkins County, Hydrologic Unit 06010104, at bridge on State Highway 113, 0.25 mi below Mooney Branch, and at mi 3.0. Drainage area is 14.6 mi^2.	1986-94	3-27-94	12.50	714	8-13-93	12.50	714
Dry Land Creek tributary near New Market, TN (03494714)	Lat 36°03'33", long 83°34'13", Jefferson County, Hydrologic Unit 06010104, at culvert on county road (Rocky Valley Road), 3.0 mi south of New Market, 3.3 mi northwest of Piedmont. Drainage area is 0.20 mi^2.	1986-94	6-27-94	12.86	-	5- 5-89	12.42	-
Flat Creek at Luttrell, TN (03494990)	Lat 36°11'45", long 83°44'44", Union County, Hydrologic Unit 06010104, at bridge on State Highway 61, 0.3 mi southwest of Luttrell, 3.5 mi northwest of Blaine. Drainage area is 22.4 mi^2.	1986-94	2-23-94	12.09	-	12-23-90	12.37	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued						
Baker Creek tributary near Binfield, TN (03519610)	Lat 35°41'56", long 84°02'46", Blount County, Hydrologic Unit 06010204, at culvert under county road, 1.5 mi east of Binfield. Drainage area is 2.10 mi^2.	1966-77, 1979-94	3-27-94	6.00	91	6-23-81	8.29	-
Baker Creek near Greenback, TN (03519640)	Lat 35°40'21", long 84°06'28", Blount County, Hydrologic Unit 06010204, at county road bridge, 1.0 mi upstream from Little Baker Creek, 3.4 mi east of Greenback, and at mi 15.0. Datum of gage is 845.01 ft above sea level. Drainage area is 16.0 mi^2.	1965-75†, 1976-94	3-27-94	9.00	2,240	5-30-74	9.70	2,900
Big War Creek at Luther, TN (03527800)	Lat 36°27'18", long 83°14'29", Hancock County, Hydrologic Unit 06010205, at bridge on county road, 0.4 mi south of Luther 0.8 mi northwest of Yount Town, 6.0 mi southwest of Sneedville. Drainage area is 22.3 mi^2.	1986-94	3-27-94	8.90	2,410	6- 4-91	8.95	-
Crooked Creek near Maynardville, TN (03528390)	Lat 36°15'56", long 83°50'25", Union County, Hydrologic Unit 06010205, at culvert on State Highway 170, 2.5 mi northwest of Maynardville, 5.5 mi northeast of Paulette. Drainage area is 2.23 mi^2.	1986-94	3-27-94	4.63	-	12-23-90	5.57	-
Coal Creek at Lake City, TN (03534000)	Lat 36°13'14", long 84°09'27" Anderson County, Hydrologic Unit 06010207, at bridge on U.S. Highway 25-W, at Lake City. Datum of Gage is 842.76 ft above sea level. Drainage area is 24.5 mi^2.	1932-34†, 1955-94	12- 4-93	7.76	4,580	4- 5-77	10.57	7,950d
Willow Fork near Halls Crossroads, TN (03535180)	Lat 36°05'59", long 83°54'27", Knox County, Hydrologic Unit 06010207, at culvert under Quarry Road, 1.7 mi northeast of Halls Crossroads. Datum of gage is 1,027.82 ft above sea level. Drainage area is 3.23 mi^2.	1967-94	2-11-94	6.82	437	3-16-73	8.08	878

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued						
Wolftever Creek near Ooltewah, TN (03566420)	Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi downstream from Southern Railway bridge, 0.9 mi south of Ooltewah, 1.6 mi upstream from Little Wolftever Creek, and at mi 16.1. Drainage area is 18.8 mi^2.	1964-89†, 1992-94	3-28-94	9.08	5,110	3-16-73	9.75	7,300
North Chickamauga Creek at Greens Mill, near Hixson, TN (03566599)	Lat 35°10'30", long 85°13'40", Hamilton County, Hydrologic Unit 06020001, at bridge on Boy Scout Road, 2.3 mi north of Hixson. Drainage area is 99.5 mi^2.	1925,1944, 1953-56, 1980-94	2-11-94	34.08	-	12-22-90	36.19	-
Stringers Branch at Leawood Drive, at Red Bank, TN (03569168)	Lat 35°07'00", long 85°17'28", Hamilton County, Hydrologic Unit 06020001, at bridge on Leawood Drive at Red Bank. Drainage area is 1.54 mi^2.	1980-94	3-28-94	25.11	-	4-15-87	25.70	-
Little Sequatchie River at Sequatchie, TN (03571500)	Lat 35°07'47", long 85°35'10", Marion County, Hydrologic Unit 06020004, at Highway 27 bridge, 1.0 mi northeast of Sequatchie. Drainage area is 116 mi^2.	1925,1929, 1930, 1932-34†, 1944, 1951-54, 1965,1979-94	2-23-94	10.84	-	12-22-90	11.78	-
Standifer Branch at Jasper, TN (03571730)	Lat 35°04'22", long 85°36'56", Marion County, Hydrologic Unit 06020004, at bridge on U.S. Highways 41, 64, and 72, 0.6 mi east of courthouse, 0.8 mi above Town Creek, at Jasper. Drainage area is 15.3 mi^2.	1982-94	3-27-94	17.39	-	12-22-90	19.59	-
Battle Creek near Monteagle, TN (03571800)	Lat 35°08'03", long 85°46'15", Marion County, Hydrologic Unit 06030001, at bridge on former U.S. Highways 41 and 64, 9.2 mi southeast of Monteagle. Datum of gage is 621.51 ft above sea level. Drainage area is 50.4 mi^2.	1955-94	2-22-94	9.47	5,260	3-12-63	12.20	10,200
Richland Creek near Cornersville, TN (03583300)	Lat 35°19'10", long 86°52'20", Marshall County, Hydrologic Unit 06030004, at bridge on U.S. Highway 31-A, 3.4 mi southwest of Cornersville. Datum of gage is 754.28 ft above sea level. Drainage area is 47.5 mi^2.	1962-68†, 1969-94	2-22-94	12.47	4,920	7-11-89	16.58	11,400

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued						
Owl Creek at Lexington, TN (035944242)	Lat 35°38'26", long 88°22'13", Henderson County, Hydrologic Unit 06040001, on State Highway 20, 1.37 mi east of Lexington, and at mi 1.3. Datum of gage is 400.00 ft above sea level, prior to March 15, 1990 unknown. Drainage area is 2.50 mi^2.	1984-94	4-12-94	24.47	-	12- 3-90	26.35	-
Wartrace Creek above Bell Buckle, TN (03597300)	Lat 35°37'45", long 86°21'22", Bedford County, Hydrologic Unit 06040002, at culvert under county road, 2.7 mi north of Bell Buckle. Drainage area is 4.99 mi^2.	1966-94	3-27-94	8.26	1,380	3-15-73	12.64	3,220
Rutherford Creek tributary at Moores Lane near Kedron, TN (035999716)	Lat 35°42'03", long 86°55'03", Maury County, Hydrologic Unit 06040003, at culvert under Moores Lane, 1.1 mi southwest of Kedron. Drainage area is 0.25 mi^2.	1987-94	3-27-94	26.27	-	6-13-93	27.29	-
West Piney River at Hwy 70 near Dickson, TN (03602170)	Lat 36°05'21", long 87°28'12", Dickson County, Hydrologic Unit 06040003, at U.S. Highway 70 bridge, 4.0 mi west of Dickson. Drainage area is 2.16 mi^2.	1984-94	2-10-94	23.65	320	5- 6-84	28.17	1,230
Piney River at Vernon, TN (03602500)	Lat 35°52'16", long 87°30'05", Hickman County, Hydrologic Unit 06040003, on right downstream side of bridge, 40 ft upstream from Pretty Creek, 0.2 mi northwest of Vernon, 2.3 mi downstream from Mill Creek, 6.5 mi north of Centerville, and at mile 8.3. Drainage ares is 193 mi^2.	1925-93†, 1994	2-10-94	11.27	6,560	5-27-91	24.42	49,400
Coon Creek tributary near Hohenwald, TN (03604070)	Lat 35°34'07", long 87°40'02", Perry County, Hydrologic Unit 06040004, at culvert under State Highway 20, 7.0 mi northwest of Hohenwald. Drainage area is 0.51 mi^2.	1967-94	6-26-94	5.07	170	5- 8-84	6.58	301
Hugh Hollow Branch near Hohenwald, TN (03604080)	Lat 35°34'59", long 87°40'36", Perry County, Hydrologic Unit 06040004, at culvert under State Highway 20, 8.0 mi northwest of Hohenwald. Drainage area is 1.52 mi^2.	1967-94	6-26-94	>2.00	-	5- 8-84	5.55	1,400
Coon Creek above Chop Hollow, near Hohenwald, TN (03604090)	Lat 35°35'19", long 87°41'09", Perry County, Hydrologic Unit 06040004, at bridge on State Highway 20, 9.0 mi northwest of Hohenwald. Drainage area is 6.02 mi^2.	1967-94	6-26-94	4.96	972	12- 9-72	6.80	3,150

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			TENNESSEE RIVER BASIN--Continued					
Blue Creek near New Hope, TN (03604580)	Lat 36°03'52", long 87°38'58", Humphreys County, Hydrologic Unit 06040003, at county road bridge, 1.8 mi northwest of New Hope, 3.1 mi southeast of McEwen, and at mi 3.9. Drainage area is 13.2 mi^2.	1984-94	1994	<16.05	-	6-13-89	18.82	-
Little Blue Creek tributary near Gorman, TN (03604595)	Lat 36°19'44", long 87°42'13", Humphreys County, Hydrologic Unit 06040003, at culvert under county road, 1.8 mi south of Gorman, 4.4 mi southwest of McEwen, and at mi 0.3. Drainage area is 0.62 mi^2.	1984-94	2- 9-94	18.79	-	5- 6-84	21.89	-
Trace Creek above Denver, TN (03605555)	Lat 36°03'08", long 87°54'27", Humphreys County, Hydrologic Unit 06040005, on left bank at bridge on U.S. Highway 70, 1.0 mi northeast of New Johnsonville. Datum of gage is 377.05 ft above sea level. Drainage area is 31.9 mi^2.	1963-88†, 1989-94	2- 9-94	8.00	2,620	5- 6-84	13.61	11,700
Cane Creek at Stewart, TN (03605880)	Lat 36°19'09", long 87°50'21", Houston County, Hydrologic Unit 06040005, at bridge on county road, 200 ft north of intersection of county road and State Highway 147, and at mi 7.0. Drainage area is 4.12 mi^2.	1984-94	2- 9-94	17.33	-	12-25-87	18.74	-
			OBION RIVER BASIN					
Neil Ditch near Henry, TN (07024225)	Lat 36°10'19", long 88°23'33", Henry County, Hydrologic Unit 08010203, located on county road, 2.7 mi southeast of Henry, 1.6 mi north of Henry-Carroll county line. Drainage area is 4.07 mi^2.	1984-94	3-11-94	9.02	-	12-21-90	14.48	-
Little Reedy Creek near Huntingdon, TN (07024370)	Lat 35°55'44", long 88°29'50", Carroll County, Hydrologic Unit 08010203, located on U.S. Highway 70, 0.6 mi southwest of Leach, 5.6 mi northeast of Cedar Grove. Drainage area is 0.91 mi^2.	1984-94	7-16-94	14.05	-	12-25-87	15.38	-

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1994 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		OBION RIVER BASIN--Continued						
North Fork Obion River River near Union City, TN (07025500)	Lat 36°23'59", long 88°59'43", Obion County, Hydrologic Unit 08010202, at bridge on State Highway 22, 0.3 miles downstream from Harris Fork Creek, 0.8 miles southeast of Gibbs, 3.9 miles southeast of Union City, 4.5 miles upstream from Hoosier Creek, and 10 miles upstream from confluence South Fork. Datum of gage is 285.80 ft. above sea level. Drainage area is 480 mi^2.	1929-66†, 1967-71†, 1989-93†, 1994	3-30-94	17.85	9,800	1-22-37	23.08	49,200
North Fork Forked Deer River at U.S. Highway 45W Bypass at Trenton, TN (07028505)	Lat 35°58'58", long 88°55'49", Gibson County, Hydrologic Unit 08010204, at bridge on U.S. Highway 45W Bypass, 0.25 mi north of intersection of U.S. Highway 45W Bypass and State Highways 77 and 104 in Trenton. Datum of gage is 306.85 ft above sea level. Drainage area is 73.9 mi^2.	1987-94	3-28-94	7.57	-	12-21-90	12.00	-
Lewis Creek near Dyersburg, TN (07029090)	Lat 36°03'14", long 89°21'42", Dyer County, Hydrologic Unit 08010204, at bridge on U.S. Highway 51 (Business Route), 2.1 mi northeast of square in Dyersburg. Datum of gage is 276.52 ft above sea level. Drainage area is 25.5 mi^2.	1955-78, 1980-83, 1985-94	11-17-93	14.57	1,080	3- 9-64	19.31	5,450
Cane Creek at Ripley, TN (07030100)	Lat 35°45'25", long 89°33'05", Lauderdale County, Hydrologic Unit 08010208, at bridge on State Highway 19, 1.3 mi upstream from Hyde Creek, 1.5 mi northwest of Ripley. Datum of gage is 295.93 ft above sea level. Drainage area is 33.9 mi^2.	1957-62†, 1963-70†, 1986-88†, 1989-94	3-30-94	18.51	3,450	7- 1-89	23.16	6,360

† Operated as a continuous-record gaging station.
a A gage height of 17.45 ft occurred on 3-23-29.
b Operated as a flood hydrograph station.
c A peak discharge of 11,000 ft^3/s occurred on 3-23-29.
d A peak discharge of 8,000 ft^3/s occurred on 3-23-29.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table. Measurements of base flow are designed by an asterisk (*); measurements of peak flow by a dagger(†).

Discharge measurements made at miscellaneous sites during water year 1994

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN				
03424010 Caney Fork	Cumberland River	Lat 36°05′52", long 85°49′38", Dekalb County, Hydrologic Unit 05130108, below Center Hill Dam at power plant, 2.5 mi southeast of Lancaster, 3.5 mi southwest of Buffalo Valley, and at mile 26.6.	2174		6-22-94	77
03424500 Caney Fork	Cumberland River	Lat 36°06′10", long 85°50′40", Smith County, Hydrologic Unit 05130108, on left bank 1.1 mi downstream from Center Hill Dam, 2.0 mi south of Lancaster 4.7 mi upstream from Indian Creek, 10.0 mi north of Smithville, and at mile 25.5.	2183	(Revised) 1950-58 1949, 1959	6-22-94	98
		TENNESSEE RIVER BASIN				
03599965 Rutherford Creek	Duck River to Tennessee River	Lat 35°42′57", long 86°55′02", Maury County, Hydrologic Unit 06040003, at county road bridge, 2.5 mi southeast of Spring Hill and at mile 19.7.	39.3	1986, 1987	9-29-94	5.8
03600085 Carters Creek	Duck River to Tennessee River	Lat 35°43′39", long 86°59′19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mi north of Carters Creek, and at mi 4.7.	16.6	1986-93	10-19-93 2- 9-94 4-19-94 7-13-94	* .54 119 54 *1.6
03600086 Carters Creek Tributary	Carters Creek to Duck River to Tennessee River	Lat 35°43′34", long 86°59′19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mi north of Carters Creek.	2.94	1986-93	10-19-93 2- 9-94 4-19-94 7-13-94	* .63 25 10 *1.7

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

Springs

In 1931 a study of large springs in Tennessee was made and the results published in WSP 713. From 1950 to 1954 a more detailed study, including some of these springs, was made. Results of this study and all subsequent spring measurements were published annually in WSP's from 1950 to 1960. Since 1960 results of measurements have been published in annual State reports. Measurements made in the 1994 water year are given in the following table.

Discharge measurement of springs during water year 1994

Site number and name	Location	Tributary to	Date	Discharge (gpm)	Discharge (ft^3/sec)
		GRUNDY COUNTY			
03420187 Unnamed Spring	Lat 35°29'45", long 85°40'01", Hydrologic Unit 05130107, west of Tarlton, 2.2 mi north of Beersheba Springs.	Collins River to Caney Fork to Cumberland River	5-12-94 8- 3-94	53,000 24,800	118 55.2
		MONTGOMERY COUNTY			
03436385 Noah Spring	Lat 36°38'20", long 87°33'08", Hydrologic Unit 05130206, 200 ft south of Tennessee Kentucky state line, 2.1 mi south of Garrettsburg, Kentucky.	Little West Fork to Red River to Cumberland River	3-17-94	8,800	19.6
03436435 Unnamed Spring	Lat 36°32'44", long 87°30'42", Hydrologic Unit 05130206, on old Dover road, 0.1 mi northwest of Woodlawn.	Fletchers Fork to Little West Fork to Red River to Cumberland River	3-17-94	0	0
03436445 Britton Spring	Lat 36°35'35", long 87°25'56", Hydrologic Unit 05130206, 0.7 mi west of Ringgold.	Fletchers Fork to Little West Fork to Red River to Cumberland River	3-17-94	5,480	12.2

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study

A series of low-flow discharge measurements were made March 17, 1994, in the vicinity of Fort Campbell, TN-KY (Stewart, Montgomery, Tennessee and Christian, Kentucky counties), to define areas of potential ground-water supplies, low-flow hydrology and quality of water at base flow conditions. The measurements were made during a period of constant base flow.

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN				
03436360 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'24", long 87°39'15", Christian County, KY, Hydrologic Unit 05130206, 0.1 mile north of Kentucky-Tennessee state line, on Angel road, 1.3 mi south of LaFayette, KY.	14.8	5.34	8.9	112
03436361 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'21", long 87°39'01", Christian County, KY, Hydrologic Unit 05130206, 0.1 mile north of Kentucky-Tennessee state line, on Angel road, 1.5 mi southeast of LaFayette, KY.	1.44	0.42	9.8	249
03436362 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'50", long 87°38'00", Christian County, KY, Hydrologic Unit 05130206, 1.6 miles southeast of LaFayette, KY.	18.6	10.5	10.2	160
03436364 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°40'42", long 87°38'30", Christian County, KY, Hydrologic Unit 05130206, 1.5 miles northeast of LaFayette, KY.	1.92	1.29	6.6	---
03436365 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°39'02", long 87°38'00", Christian County, KY, Hydrologic Unit 05130206, 1.8 miles southeast of LaFayette, KY.	10.9	0.0	---	---
03436366 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'50", long 87°38'01", Christian County, KY, Hydrologic Unit 05130206, 1.6 miles southeast of LaFayette, KY.	11.0	23.5	11.9	212
03436368 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'19", long 87°37'18", Christian County, KY, Hydrologic Unit 05130206, 0.6 miles west of intersection of Angels Road and Mabry Road, 2.5 mi southeast of LaFayette, KY.	1.03	0.32	8.4	66
03436369 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'41", long 87°36'53", Christian County, KY, Hydrologic Unit 05130206, 0.41 mile northwest of intersection of Angels Road and Mabry Road, 2.7 mi east of LaFayette, KY.	31.7	38.2	11.5	202

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436370 Noah Spring Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'39", long 87°36'51", Christian County, KY, Hydrologic Unit 05130206, 0.4 miles northwest of intersection Angels Road and Mabry Road 2.7 mi east of LaFayette, KY.	0.15	0.01	10.8	174
03436372 Noah Branch Tributary	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'37", long 87°35'24", Christian County, KY, Hydrologic Unit 05130206, 1.2 miles northeast of intersection of Mabry Road, on Angels Road, 3.1 mi southwest of Garrettsburg, KY.	0.46	0.0	---	---
03436373 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'42", long 87°35'07", Christian County, KY, Hydrologic Unit 05130206, 1.5 miles northeast of intersection of Mabry Road, on Angels road, 2.8 mi southwest of Garrettsburg, KY.	34.7	13.1	11.2	222
03436375 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'19", long 87°33'26", Montgomery County, Hydrologic Unit 05130206, intersection of Kentucky-Tennessee state line and Palmyra Road, 2.1 mi south of Garrettsburg, KY.	36.5	56.1	10.4	228
03436378 Unnamed Tributary to Noah Cave	Noah Cave	Lat 36°39'46", long 87°34'28", Christian County, KY, Hydrologic Unit 05130206, 1.6 miles north of Kentucky-Tennessee state line, at Loveland Road,1.8 mi west of Garrettsburg, KY.	4.77	1.29	12.7	216
03436379 Unnamed Tributary to Noah Cave	Noah Cave	Lat 36°40'03", long 87°34'04", Christian County, KY, Hydrologic Unit 05130206, on Brodie Road 1.4 miles southwest of Garrettsburg, KY.	1.99	1.06	9.9	125
03436382 Unnamed Tributary to Noah Cave	Noah Cave	Lat 36°39'47", long 87°32'43", Christian County, KY, Hydrologic Unit 05130206, on Route 345, 0.4 mile south of Garrettsburg, KY.	2.36	0.10	9.5	317
03436384 Noah Cave Sink		Lat 36°38'47", long 87°33'21", Christian County, KY, Hydrologic Unit 05130206, 0.3 mile southwest of intersection of Route 345 and Angels Road, 1.7 mi south of Garrettsburg, KY.	14.3	15.9	12.5	270
03436388 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°38'02", long 87°32'12", Montgomery County, Hydrologic Unit 05130206, at On the Line Road, 0.3 mile south of Kentucky-Tennessee state line, 2.3 mi south of Garrettsburg, KY.	52.4	116	10.8	232

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436390 Dry Fork Creek Tributary	Dry Fork Creek to Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°40'57", long 87°29'03", Christian County, KY, Hydrologic Unit 05130206, near Army Airfield, 1.9 miles southwest of intersection of Highway 117 and 41A, at Ft. Campbell TN-KY.	0.11	0.06	10.0	67
03436391 Dry Fork Creek Tributary	Dry Fork Creek to Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°40'39", long 87°30'37", Christian County, KY, Hydrologic Unit 05130206, at Army Airfield tower, 1.9 miles northeast of Garrettsburg, KY.	3.99	0.43	9.3	113
03436394 Dry Fork Creek Tributary	Dry Fork Creek to Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°40'07", long 87°30'50", Christian County, KY, Hydrologic Unit 05130206, at Army Airfield water tank, 1.6 miles east of Garrettsburg, KY.	0.23	0.0	---	---
03436396 Dry Fork Creek	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°39'13", long 87°31'02", Christian County, KY, Hydrologic Unit 05130206, at Angels Road, 1.0 mile north of Kentucky-Tennessee state line 1.8 mi southeast of Garrettsburg, KY.	9.67	45.2	12.8	280
03436397 Dry Fork Creek Tributary	Dry Fork Creek to Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°39'19", long 87°30'22", Christian County, KY, Hydrologic Unit 05130206, at Angels Road, 1.0 mile north of Kentucky-Tennessee state line, 2.2 mi southeast of Garrettsburg, KY.	1.11	0.01	9.0	341
03436398 Dry Fork Creek	Noah Spring Branch to Little West Fork to Red River to Cumberland River	Lat 36°38'06", long 87°28'33", Montgomery County, Hydrologic Unit 05130206, 0.4 mile south of intersection of Range Corp BDY road and Kentucky-Tennessee state line, at Ft. Campbell TN-KY.	0.95	0.0	---	---
03436400 Noah Spring Branch	Little West Fork to Red River to Cumberland River	Lat 36°37'22", long 87°30'47", Montgomery County, Hydrologic Unit 05130206, 1.9 miles northeast of Ghost Corp Road and Jordan Spring Road intersection.	72.15	191	---	252
03436401 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°34'51", long 87°42'24", Stewart County, Hydrologic Unit 05130206, at Destiny Trail, 1.9 miles northwest of Legate.	2.60	0.91	10.4	65
034364015 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'17", long 87°41'48", Stewart County, Hydrologic Unit 05130206, 0.5 mile south of Jordan Spring Road and Normandy Loop intersection, 1.4 mi north of Legate.	5.48	0.0	---	---

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436402 Piney Fork Tributary	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'19", long 87°41'48", Stewart County, Hydrologic Unit 05130206, 0.5 mile south of Jordan Spring Road and Normandy Loop intersection, 1.4 mi north of Legate.	0.26	2.09	9.6	60
03436403 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'16", long 87°40'37", Stewart County, Hydrologic Unit 05130206, 1.3 miles southeast of Jordan Spring Road and Normandy Loop intersection, 2.5 mi northeast of Legate.	11.6	5.8	9.3	54
03436404 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'16", long 87°39'54", Stewart County, Hydrologic Unit 05130206, at Rendevous Road, 1.9 miles southeast of Legate.	12.5	5.28	8.4	55
03436405 Lake Kyle Outflow	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°34'58", long 87°39'24", Stewart County, Hydrologic Unit 05130206, 0.4 mile west of intersection of Indian Mound Road and Destiny Trail Road, 3.0 mi northeast of Legate.	2.07	1.85	11.3	57
03436406 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'22", long 87°38'46", Stewart County, Hydrologic Unit 05130206, 0.6 mile south on Indian Mound Road from Jordan Spring Road intersection,3.8 mi northeast of Legate.	16.2	8.97	8.4	5.7
03436407 Piney Fork Tributary	Piney Fork Creek to Little West Fork to Red River to Cumberland River	Lat 36°35'24", long 87°38'44", Stewart County, Hydrologic Unit 05130206, 0.6 mile south on Indian Mound Road from Jordan Spring Road intersection, 3.8 mi northeast of Legate.	0.47	0.12	7.0	85
03436408 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'38", long 87°37'49", Montgomery County, Hydrologic Unit 05130206, 1.0 mile southeast of Indian Mound Road and Jordan Road intersection, 4.8 mi south of LaFayette, KY.	18.9	10.9	7.6	59
03436409 Elk Fork Creek	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'14", long 87°36'50", Montgomery County, Hydrologic Unit 05130206, 0.7 mile southeast of Ghost Corp Road and Jordan Spring Road intersection, 4.1 mi north of Oakwood.	7.01	4.35	8.8	65

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436410 Elk Fork Creek	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'38", long 87°37'47", Montgomery County, Hydrologic Unit 05130206, at mouth, 1.0 mile southeast of Indian Mound Road and Jordan Spring Road intersection, 4.8 mi south of LaFayette, KY.	7.98	5.14	6.6	63
034364104 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°36'22", long 87°37'56", Montgomery County, Hydrologic Unit 05130206, 0.7 mile northeast of Grant Road and Jordan Spring Road intersection, near LaFayette, KY.	27.8	18.3	7.4	77
034364105 Piney Fork Tributary	Piney Fork Creek to Little West Fork to Red River to Cumberland River	Lat 36°36'23", long 87°37'58", Montgomery County, Hydrologic Unit 05130206, 0.7 mile northeast of Grant Road and Jordan Spring Road intersection, near LaFayette, KY.	0.47	0.01	7.4	191
03436411 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°37'06", long 87°36'38", Montgomery County, Hydrologic Unit 05130206, 1.8 miles northeast of Ghost Corp Road and Jordan Spring Road, near LaFayette, KY.	30.2	22.4	10.2	105
03436412 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°37'37", long 87°35'54", Montgomery County, Hydrologic Unit 05130206, at Engineers Road, near Garrettsburg, KY.	31.1	24.7	10.8	110
03436413 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°37'03", long 87°34'53", Montgomery County, Hydrologic Unit 05130206, 1.9 miles northwest of Jordan Spring Road and Palmyra Road, near Oakwood.	32.0	36.8	10.5	113
03436414 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°36'59", long 87°33'17", Montgomery County, Hydrologic Unit 05130206, 2.0 miles northeast of intersection of Jordan Springs Road and Ghost Corps Road, near Oakwood.	36.5	38.4	9.7	121
03436415 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°36'59", long 87°32'21", Montgomery County, Hydrologic Unit 05130206, at mouth, 1.4 miles northwest of intersection of Ghost Corps Road and Jordan Spring Road, near Oakwood.	37.3	5.49	10.1	88
03436416 Jordan Creek	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'40", long 87°33'16", Montgomery County, Hydrologic Unit 05130206, 1.1 miles east of Jordan Spring Road and Palmyra Road, near Oakwood.	4.50	10.4	14.0	164

CUMBERLAND RIVER BASIN

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436417 Moss Creek	Jordan Creek to Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'53", long 87°34'37", Montgomery County, Hydrologic Unit 05130206, at Palmyra Road, 0.4 mile north of Jordan Spring and Palmyra Road intersection, near Oakwood.	3.12	1.82	9.0	45
03436418 Jordan Creek	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°36'29", long 87°32'42", Montgomery County, Hydrologic Unit 05130206, 1.2 miles northwest of Jordan Spring Road and Ghost Corps Road, near Oakwood.	9.95	15.4	9.0	146
03436419 Jordan Creek	Piney Fork to Little West Fork to Red River to Cumberland River	Lat 36°36'56", long 87°32'21", Montsgomery County, Hydrologic Unit 05130206, at mouth, 1.4 miles northwest of intersection of Ghost Corp Road and Jordan Spring Road, near Oakwood.	11.2	9.2	9.6	150
03436420 Piney Fork	Little West Fork to Red River to Cumberland River	Lat 36°36'59", long 87°30'51", Montgomery County, Hydrologic Unit 05130206, 1.4 miles northeast of Ghost Corps Road and Jordan Spring Road intersection, near Oakwood.	50.0	58.5	8.0	138
03436426 Little West Fork	Red River to Cumberland River	Lat 36°36'38", long 87°28'11", Montgomery County, Hydrologic Unit 05130206, 3 miles northwest of Ringgold.	128	284	---	248
03436430 Little West Fork	Red River to Cumberland River	Lat 36°36'28", long 87°26'57", Montgomery County, Hydrologic Unit 05130206, 1.2 miles southwest of GATE #1 at Ft. Campbell TN-KY.	131	317	10.0	242
03436433 Fletchers Fork	Little West Fork to Red River to Cumberland River	Lat 36°33'26", long 87°31'25", Montgomery County, Hydrologic Unit 05130206, 1.1 miles northwest of Woodlawn.	9.73	0.0	---	---
03436437 Fletchers Fork Tributary	Fletchers Fork to Little West Fork to Red River to Cumberland River	Lat 36°33'24", long 87°31'22", Montgomery County, Hydrologic Unit 05130206, 1.1 miles northwest of Woodlawn.	0.42	0.0	---	---
03436440 Fletcher Fork	Little West Fork to Red River to Cumberland River	Lat 36°34'27", long 87°30'42", Montgomery County, Hydrologic Unit 05130206, 1.2 miles south of Ghost Corp Road and Jordan Spring Road intersection, near Woodlawn.	13.0	18.8	13.0	140
03436441 Fletchers Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'19", long 87°27'57", Montgomery County, Hydrologic Unit 05130206, 2.6 miles west of Ringgold.	17.6	31.9	8.0	165

Fort Campbell, TN-KY (Stewart, Montgomery, TN and Christian, KY counties), special study--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements discharge (ft^3/sec.)	Water temp. (C°)	Specific cond. (us/cm)
		CUMBERLAND RIVER BASIN--Continued				
03436442 Raccoon Branch	Fletchers Fork to Little West Fork to Red River to Cumberland River	Lat 36°34'31", long 87°27'57", Montgomery County, Hydrologic Unit 05130206, 0.3 mile southwest of Walnut Grove Church, near LaFayette, KY.	5.21	2.14	7.0	75
03436443 Raccoon Branch	Fletchers Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'17", long 87°27'56", Montgomery County, Hydrologic Unit 05130206, at mouth, 2.7 miles west of Ringgold.	3.94	6.09	---	180
03436444 Fletchers Fork	Little West Fork to Red River to Cumberland River	Lat 36°35'34", long 87°26'58", Montgomery County, Hydrologic Unit 05130206, 1.8 miles west of Ringgold.	24.3	28.7	12.0	170
03436446 Fletchers Fork Tributary	Fletchers Fork to Little West Fork to Red River to Cumberland River	Lat 36°35'30", long 87°25'54", Montgomery County, Hydrologic Unit 05130206, 0.8 mile west of Ringgold.	0.88	0.0	---	---
03436460 Little West Fork	Red River to Cumberland River	Lat 36°35'30", long 87°23'23", Montgomery County, Hydrologic Unit 05130206, 1.6 miles east of Ringgold.	180	0.42	11.2	250

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
GREEN RIVER BASIN									
03312255 - SALT LICK CREEK AT RED BOILING SPRINGS, TN									
OCT					APR				
08...	1120	2.4	237	17.0	05...	0830	34	120	9.0
19...	1340	26	192	17.5	MAY				
NOV					24...	1130	11	161	18.5
18...	1130	22	188	12.5	JUN				
DEC					23...	1300	6.3	195	23.0
13...	1250	20	156	9.0	AUG				
JAN					01...	1145	7.8	190	21.5
24...	1200	21	186	7.0	SEP				
FEB					06...	0930	7.9	204	19.0
28...	1130	28	128	8.5					
CUMBERLAND RIVER BASIN									
03414500 - EAST FORK OBEY RIVER NEAR JAMESTOWN, TN									
NOV					MAY				
23...	1400	85	195	10.5	26...	1315	92	225	16.5
MAR					AUG				
02...	1550	3120	102	6.5	02...	1400	98	192	21.0
03416000 - WOLF RIVER NEAR BYRDSTOWN, TN									
NOV					MAY				
23...	1015	32	301	6.5	26...	0955	40	299	19.0
MAR					AUG				
02...	1100	442	192	7.5	02...	1125	42	264	22.0
03418070 - ROARING RIVER ABOVE GAINESBORO, TN									
NOV					MAY				
22...	1620	6.2	301	8.0	25...	1500	1.8	234	23.0
MAR					AUG				
03...	0845	1460	177	7.5	03...	1100	2.8	251	24.5
03420185 - COLLINS RIVER AT BEERSHEBA SPRINGS, TN									
JAN					MAR				
25...	1030	0.39	116	8.0	28...	1630	500	30	10.0
MAR					29...	0800	1260	147	9.0
04...	1020	158	28	7.5	30...	1000	149	30	9.0
09...	1235	5.9	--	10.0	APR				
28...	1010	9320	30	10.0	14...	1330	117	29	14.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				CUMBERLAND RIVER BASIN--Continued					
				03420200 - COLLINS RIVER NEAR TARLTON, TN					
NOV					MAY				
19...	1110	165	133	12.5	12...	0745	189	79	13.0
JAN					JUN				
25...	1135	385	79	4.5	28...	1100	946	77	16.5
MAR					AUG				
04...	1325	1580	57	9.0	03...	1435	106	104	19.0
09...	1255	400	77	9.5	SEP				
28...	1130	10800	40	--	07...	1000	52	131	17.0
29...	1115	3450	52	10.0					
				03421000 - COLLINS RIVER NEAR MCMINNVILLE, TN					
OCT					APR				
13...	1150	96	328	15.0	04...	1200	2300	165	12.5
NOV					MAY				
24...	1000	198	278	10.0	27...	1340	730	233	19.5
DEC					JUN				
20...	1300	788	172	9.0	28...	1130	3400	110	19.5
JAN					AUG				
25...	1510	1550	162	7.0	03...	1630	428	217	21.0
MAR									
01...	1230	1710	158	9.5					
				03422500 - CANEY FORK NEAR ROCK ISLAND, TN					
OCT					MAR				
12...	1500	45	273	17.0	01...	1745	4890	122	9.5
NOV					27...	0920	49	188	16.0
29...	1240	44	289	10.5	JUN				
DEC					27...	1830	3370	185	21.0
20...	1600	3370	129	9.0					
				03424730 - SMITH FORK AT TEMPERANCE HALL, TN					
OCT					APR				
12...	1015	19	288	13.0	04...	1700	509	313	14.0
NOV					JUN				
01...	1045	26	294	7.0	23...	0930	63	283	26.5
19...	1030	164	338	13.0	AUG				
DEC					04...	1105	44	278	26.0
20...	0925	150	370	7.0	SEP				
JAN					08...	1000	35	282	22.0
26...	1330	1780	288	10.0					
MAR									
04...	1030	898	293	9.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
CUMBERLAND RIVER BASIN--Continued									
03426385 - MANSKER CREEK ABOVE GOODLETTSVILLE, TN									
OCT					APR				
05...	1145	1.9	480	21.0	05...	1215	43	312	10.0
NOV					15...	1700	1810	150	13.5
03...	1025	3.3	550	8.5	MAY				
DEC					17...	1400	46	325	19.0
03...	1040	8.2	490	9.0	JUN				
JAN					28...	1315	30	398	21.5
13...	0830	26	400	6.0	JUL				
FEB					26...	0820	9.9	387	23.0
23...	0930	472	250	10.5	SEP				
					06...	1115	5.4	452	22.0
03427500 - EAST FORK STONES RIVER NEAR LASCASSAS, TN									
NOV					MAY				
19...	1440	189	401	13.5	18...	1425	125	309	20.0
MAR					AUG				
11...	1330	1790	301	10.5	08...	1235	126	384	22.0
03430147 - STONERS CREEK NEAR HERMITAGE, TN									
OCT					APR				
06...	0840	0.52	525	14.0	06...	1150	230	280	12.5
NOV					MAY				
04...	1005	1.4	575	10.5	23...	0905	4.8	250	17.0
DEC					JUN				
02...	1100	4.0	535	7.5	23...	1200	1.1	475	24.0
JAN					JUL				
14...	1115	21	430	6.0	27...	1150	16	382	21.5
MAR					SEP				
03...	0755	51	365	6.0	12...	1140	2.5	507	21.5
03430550 - MILL CREEK NEAR NOLENSVILLE, TN									
OCT					MAR				
06...	1120	0.43	520	15.0	10...	1300	480	346	10.5
NOV					MAY				
04...	0805	1.0	475	10.0	20...	1300	11	--	17.0
DEC					JUN				
02...	0900	2.8	570	5.5	23...	0900	2.7	300	23.5
JAN					JUL				
14...	1045	55	462	5.5	28...	0925	20	417	20.5
FEB									
28...	1310	70	413	8.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				CUMBERLAND RIVER BASIN--Continued					
				03431000 - MILL CREEK NEAR ANTIOCH, TN					
OCT					APR				
01...	0935	2.0	505	15.0	18...	0730	255	384	10.0
04...	1030	1.8	495	11.5	MAY				
NOV					19...	1335	25	445	18.5
30...	1005	5.6	605	5.0	JUL				
JAN					03...	1400	11	438	28.5
14...	0810	81	470	5.5	25...	1110	27	530	25.0
FEB					SEP				
28...	1045	109	435	7.5	13...	1035	3.6	417	23.0
				03431300 - BROWNS CREEK AT STATE FAIRGROUNDS AT NASHVILLE, TN					
OCT					APR				
04...	0755	1.4	595	12.5	04...	1120	20	510	12.5
NOV					15...	1445	1380	109	14.0
02...	1145	1.3	595	12.0	MAY				
23...	1010	2.1	660	7.0	16...	0830	8.8	550	16.5
JAN					JUN				
11...	1345	16	570	9.5	30...	1225	12	370	23.0
FEB					JUL				
28...	0800	24	543	8.5	25...	0850	2.6	589	23.0
					SEP				
					06...	0825	5.9	553	21.0
				034315005 - CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN					
NOV					MAR				
05...	0730	6240	229	14.0	11...	0945	112000	183	11.0
JAN					APR				
25...	0835	54200	248	6.0	01...	1230	88900	197	11.0
FEB					JUN				
16...	0900	88200	210	6.0	10...	1000	13700	188	22.0
22...	0825	73800	202	7.5	AUG				
24...	0830	112000	210	8.0	29...	0815	9130	170	23.5
				03431599 - WHITES CREEK NEAR BORDEAUX, TN					
OCT					APR				
05...	0915	3.4	635	14.5	05...	0815	67	388	10.0
DEC					15...	1530	6350	109	13.0
03...	0810	12	620	9.5	MAY				
JAN					17...	0830	92	375	13.5
13...	1030	44	480	7.0	JUL				
FEB					01...	0950	19	502	21.5
23...	0810	1090	236	10.5	26...	1015	101	289	22.5
MAR					SEP				
10...	0900	842	316	7.0	06...	1320	12	565	23.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				CUMBERLAND RIVER BASIN--Continued					
				03431700 - RICHLAND CREEK AT CHARLOTTE AVE, AT NASHVILLE, TN					
OCT					APR				
07...	1155	1.6	550	18.5	07...	1255	127	478	12.5
30...	1250	6.0	595	7.5	MAY				
NOV					23...	1220	9.7	508	19.0
03...	1225	3.7	575	10.5	JUL				
JAN					01...	1345	14	400	23.0
13...	1235	20	575	9.5	23...	1315	8.3	520	24.0
MAR					SEP				
02...	1300	175	370	7.5	07...	1320	13	560	21.5
				03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TN					
NOV					MAY				
22...	1121	36	313	7.5	24...	0850	67	258	19.5
MAR					JUL				
08...	1100	156	218	10.0	29...	0905	80	232	20.5
				03432350 - HARPETH RIVER AT FRANKLIN, TN					
OCT					APR				
10...	0925	1.0	434	15.5	07...	1220	2120	258	10.5
NOV					MAY				
08...	0910	1.2	457	6.5	24...	1005	33	339	19.0
DEC					JUN				
13...	1215	573	350	8.5	30...	1340	110	125	23.5
JAN					AUG				
26...	1340	1210	260	8.0	05...	1235	92	366	24.0
MAR					SEP				
10...	0845	7210	140	5.5	09...	1000	20	422	20.0
				03432400 - HARPETH RIVER BELOW FRANKLIN, TN					
OCT					JUN				
06...	1222	7.0	610	19.0	29...	1410	165	362	23.5
NOV					AUG				
08...	1050	8.0	620	9.5	05...	1430	115	345	24.0
MAY					SEP				
10...	1050	197	348	17.0	08...	0905	38	462	20.0
				03433500 - HARPETH RIVER AT BELLEVUE, TN					
OCT					MAY				
07...	1030	16	440	18.0	25...	1200	116	371	22.5
NOV					JUN				
22...	1035	72	450	7.5	24...	0945	85	290	26.0
MAR					JUL				
02...	0930	1180	363	8.5	28...	1255	228	295	24.0
APR					SEP				
06...	0955	8740	161	12.5	07...	1125	90	412	22.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				CUMBERLAND RIVER BASIN--Continued					
				03434500 - HARPETH RIVER NEAR KINGSTON SPRINGS, TN					
OCT					JUL				
07...	0755	69	325	17.0	05...	0820	201	285	26.0
NOV					29...	1100	331	452	23.5
24...	0755	172	400	6.0	SEP				
MAY					07...	0810	182	346	21.5
24...	1120	342	290	21.0					
				03435305 - RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAIN, TN					
SEP									
19...	1250	115	440	20.0					
				03436100 - RED RIVER AT PORT ROYAL, TN					
NOV					MAY				
22...	0920	336	407	7.0	25...	0945	714	358	19.5
MAR					JUL				
03...	1445	3170	340	9.5	29...	0935	570	391	20.5
				03436400 - NOAHS SPRING BRANCH AT FORT CAMPBELL, KY-TN					
OCT					MAY				
15...	0850	1.8	390	13.0	24...	0915	61	212	13.5
NOV					JUN				
30...	0950	11	356	8.0	27...	1215	114	172	19.5
FEB					JUL				
02...	1115	118	257	9.5	28...	0935	25	333	18.0
MAR					SEP				
04...	0815	175	260	11.0	08...	1030	13	374	17.0
16...	0645	123	252	10.5					
APR									
12...	1810	529	169	16.5					
				03436420 - PINEY FORK AT FORT CAMPBELL, KY-TN					
DEC					APR				
27...	1300	4.0	200	6.5	12...	1300	400	91	15.0
JAN					MAY				
26...	1210	292	80	5.0	12...	1130	22	176	16.5
MAR					JUN				
01...	1100	60	144	8.0	28...	0845	23	155	20.0
17...	0920	59	138	8.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
CUMBERLAND RIVER BASIN--Continued									
03436426 - LITTLE WEST FORK NEAR FORT CAMPBELL, KY-TN									
OCT					APR				
13...	1100	8.5	371	19.5	13...	0945	798	179	14.0
15...	1115	7.5	385	14.5	MAY				
NOV					12...	1015	131	254	15.0
30...	1245	24	365	7.0	JUN				
FEB					27...	1045	218	149	20.0
04...	1230	222	250	9.5	JUL				
MAR					27...	1300	41	347	20.5
04...	1230	277	225	12.0	SEP				
17...	0945	284	240	10.0	08...	1430	15	361	21.0
03436690 - YELLOW CREEK AT ELLIS MILLS, TN									
NOV					MAY				
17...	1300	61	280	14.0	20...	0930	123	230	14.5
MAR					JUL				
09...	1035	1670	158	7.0	27...	0955	44	275	23.0
TENNESSEE RIVER BASIN									
03465830 - MUDDY FORK NEAR LEESBURG, TN									
MAY					AUG				
24...	0940	11	432	16.0	02...	1100	7.1	446	19.5
JUN					16...	1000	6.4	445	19.5
08...	0915	12	386	18.5	31...	1110	7.0	473	19.5
21...	1110	9.0	447	20.5	SEP				
JUL					14...	1125	5.5	467	16.5
05...	1125	11	451	20.5	27...	1055	5.4	477	16.0
19...	1140	11	341	21.0					
03466098 - JOCKEY CREEK NEAR MT. BETHEL CHURCH, NEAR LIMESTONE, TN									
MAY					AUG				
24...	1140	17	406	17.0	02...	0920	15	425	19.0
JUN					16...	1115	16	418	19.0
08...	1040	21	402	18.5	31...	0930	14	422	19.0
21...	1000	16	412	19.5	SEP				
JUL					14...	0940	11	418	15.5
05...	1004	17	416	19.5	27...	0935	9.4	431	15.5
19...	0940	14	410	20.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				TENNESSEE RIVER BASIN--Continued					
				03466825 - LICK CREEK NEAR HOLLAND MILL, TN					
MAY					AUG				
25...	0955	23	436	17.0	03...	0925	15	480	20.5
JUN					17...	1110	238	355	20.0
07...	0952	17	449	20.0	29...	1315	14	467	20.0
22...	0950	31	359	20.5	SEP				
JUL					12...	1245	13	468	17.5
06...	0930	21	443	21.5	28...	1055	9.3	476	15.5
20...	0930	17	454	22.0					
				03491000 - BIG CREEK NEAR ROGERSVILLE, TN					
NOV									
03...	0815	8.3	--	8.0					
				03491544 - CROCKETT CREEK BELOW ROGERSVILLE, TN					
AUG									
08...	1640	2.6	440	23.5					
				03528000 - CLINCH RIVER ABOVE TAZEWELL, TN					
SEP									
26...	1430	427	347	21.0					
				03531680 - POWELL RIVER AT ALANTHUS HILL, TN					
JAN					JAN				
07...	1815	1830	261	6.5	09...	1320	3350	195	5.0
08...	1220	4070	252	7.0	10...	1210	2050	221	4.0
08...	1930	5110	244	6.5					
				03536320 - WHITEOAK CREEK NEAR MELTON HILL, TN					
OCT					DEC				
25...	0945	0.05	--	12.0	06...	1130	2.5	--	11.0
				03536380 - WHITEOAK CREEK NEAR WHEAT, TN					
JUN									
28...	0945	4.5	--	16.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				TENNESSEE RIVER BASIN--Continued					
				03538256 - BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE, TN					
DEC					JAN				
08...	1520	0.28	990	11.5	03...	1155	3.2	916	6.0
				03538600 - OBED RIVER AT CROSSVILLE, TN					
DEC					SEP				
21...	0910	24	83	5.5	20...	0820	1.7	--	14.5
MAR									
21...	1315	4.2	--	11.0					
				03565428 - OOSTANAULA CREEK NEAR SWEETWATER, TN					
MAY					AUG				
23...	0930	4.9	300	15.0	01...	0910	13	299	17.5
JUN					15...	0915	5.2	317	18.0
06...	0910	7.3	275	17.5	30...	0905	3.3	331	17.5
20...	0910	5.5	312	17.5	SEP				
JUL					13...	0930	2.8	331	16.5
05...	0900	4.2	310	18.0	26...	0920	2.2	342	15.0
18...	0905	5.8	327	18.5					
				03565430 - OOSTANAULA CREEK BELOW JOHNSON BRANCH NEAR ATHENS, TN					
MAY					AUG				
23...	1120	15	263	15.0	01...	1200	51	248	17.5
JUN					15...	1100	19	274	18.0
06...	1035	20	218	18.5	30...	1035	11	287	18.0
20...	1100	16	277	18.5	SEP				
JUL					13...	1135	8.8	290	17.0
05...	1038	12	290	19.0	26...	1115	7.9	295	16.0
18...	1105	20	272	19.0					
				03571000 - SEQUATCHIE RIVER NEAR WHITWELL, TN					
OCT					MAY				
20...	1355	46	264	19.5	17...	1640	333	211	19.5
DEC					JUN				
08...	1130	711	201	10.5	27...	1425	2530	155	20.0
FEB					JUL				
01...	1030	1720	153	6.5	29...	1225	1310	171	20.5
MAR					SEP				
03...	1530	5910	99	9.0	07...	1300	236	200	21.0
APR									
04...	1455	2050	150	12.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

TENNESSEE RIVER BASIN--Continued

03579620 - ROCK CREEK AT TULLAHOMA, TN

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT					MAY				
15...	1200	0.96	126	16.0	18...	1100	3.1	100	16.5
DEC					JUL				
02...	1340	0.96	115	10.5	05...	1525	2.1	109	23.0
17...	1315	4.9	110	8.5	AUG				
JAN					08...	1550	3.1	172	23.0
25...	1445	37	123	6.0	SEP				
MAR					09...	0945	1.2	122	19.0
08...	1610	13	70	11.0					
APR									
06...	1150	247	37	12.5					

03580995 - EAST FORK MULBERRY CREEK BELOW JACK DANIEL DISTILLERY AT LYNCHBURG, TN

OCT					APR				
13...	1400	4.8	328	18.0	07...	1000	202	178	11.0
NOV					MAY				
17...	0944	11	300	17.0	25...	1305	12	238	22.0
DEC					JUN				
15...	1200	39	310	10.5	28...	1245	14	290	23.0
FEB					AUG				
03...	1220	34	242	8.0	02...	1420	17	229	23.0
MAR					SEP				
02...	0930	239	196	10.0	07...	1320	7.8	307	24.0

03584600 - ELK RIVER AT PROSPECT, TN

OCT					MAY				
12...	1355	219	260	16.0	24...	1355	605	221	22.0
NOV					JUN				
16...	1130	1920	259	15.5	29...	1224	1320	187	22.5
DEC					AUG				
14...	0930	3350	275	8.5	03...	0100	1070	225	23.0
FEB					SEP				
01...	1400	4270	268	6.5	08...	1245	957	228	22.0
MAR									
01...	1600	14600	191	9.0					
APR									
13...	1000	9690	206	15.0					

03588500 - SHOAL CREEK AT IRON CITY, TN

OCT					APR				
12...	1035	184	125	13.5	12...	1400	1150	94	17.0
NOV					MAY				
16...	1120	408	121	14.5	24...	1000	384	103	19.0
DEC					AUG				
13...	1130	514	111	8.0	03...	1110	263	128	24.0
JAN					SEP				
11...	1200	723	97	5.5	08...	1115	299	115	21.0
MAR									
01...	1005	996	95	9.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				TENNESSEE RIVER BASIN--Continued					
				03597210 - GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN					
OCT					APR				
13...	0825	5.5	293	12.0	13...	1348	397	229	15.5
28...	1045	6.0	315	11.0	MAY				
NOV					25...	1230	30	258	20.5
17...	1215	53	333	16.5	JUN				
DEC					28...	1040	79	256	20.5
15...	0915	118	318	8.5	AUG				
FEB					02...	1020	30	309	22.5
02...	0945	120	285	3.5	SEP				
MAR					07...	1058	17	297	21.5
03...	0905	75800	218	8.0					
				03597590 - WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN					
OCT					APR				
13...	1100	0.02	369	13.0	07...	1345	190	296	11.5
28...	1230	0.04	402	12.5	MAY				
NOV					25...	0910	2.2	369	19.0
17...	1355	39	417	16.0	JUN				
DEC					28...	0835	8.9	207	21.5
14...	1450	59	361	8.0	JUL				
FEB					09...	0900	24	346	20.5
02...	1140	41	359	3.0	AUG				
MAR					02...	0840	4.8	385	21.5
02...	1700	750	200	7.0					
				03598000 - DUCK RIVER NEAR SHELBYVILLE, TN					
OCT					MAY				
14...	1025	180	175	13.5	26...	1215	289	191	21.0
NOV					JUN				
18...	1150	575	223	14.0	30...	1028	244	205	23.0
FEB					AUG				
03...	0815	1310	187	4.0	02...	1620	236	205	23.5
MAR					SEP				
02...	1400	2720	191	8.5	09...	1040	214	164	21.5
APR									
06...	1450	13600	116	12.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
				TENNESSEE RIVER BASIN--Continued					
				03598173 - FALL CREEK NEAR DEASON, TN					
MAR					AUG				
23...	0707	10	302	10.5	01...	1745	7.6	304	23.0
24...	1505	860	97	15.0	SEP				
25...	0756	152	230	11.5	06...	1325	5.6	363	21.5
JUN					22...	1142	1.3	389	18.0
28...	1516	0.18	384	29.0					
				03598179 - FALL CREEK NEAR HALLS MILLS,TN					
MAR					AUG				
23...	1221	22	292	15.5	01...	1721	19	330	24.0
24...	1450	1330	196	15.0	SEP				
25...	0918	336	228	12.0	06...	1525	6.4	373	22.5
MAY					22...	1416	1.2	340	21.5
26...	0815	2.1	306	20.5					
JUN									
27...	1410	0.41	278	25.5					
				03598250 - NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN					
MAR					JUN				
22...	0700	37	301	10.5	27...	1130	11	315	22.5
24...	1640	1330	105	15.0	AUG				
25...	1040	1230	146	12.5	01...	1124	6.5	354	23.0
MAY					SEP				
26...	0949	3.4	330	20.5	01...	1115	47	333	23.5
				03599500 - DUCK RIVER AT COLUMBIA, TN					
NOV					MAY				
15...	0945	471	247	11.0	27...	0918	361	282	21.5
DEC					JUL				
16...	0940	3300	338	9.0	01...	0950	392	247	26.5
FEB					AUG				
04...	0930	2540	281	5.0	04...	0836	310	221	25.5
MAR					SEP				
04...	1035	7660	231	9.0	12...	1115	225	226	24.5
APR									
14...	1022	11900	182	16.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
			TENNESSEE RIVER BASIN--Continued						
			03602219 - PINEY RIVER AT CEDAR HILL, TN						
OCT					MAY				
13...	0900	13	288	13.0	19...	1100	96	203	14.0
NOV					JUN				
18...	1255	23	300	12.0	30...	1025	29	260	20.0
DEC					AUG				
15...	0910	93	230	9.5	04...	1245	20	158	18.5
JAN					SEP				
25...	1400	184	252	8.5	09...	0955	17	294	18.0
APR									
14...	1100	220	169	13.0					
			03603000 - DUCK RIVER ABOVE HURRICANE MILLS, TN						
OCT					APR				
12...	1025	623	196	17.0	11...	1455	16400	178	15.5
NOV					MAY				
17...	1015	1520	215	14.0	16...	1315	4220	166	15.0
DEC					JUN				
14...	0715	6380	260	9.0	29...	1600	1900	148	23.5
JAN					SEP				
25...	1200	3450	289	6.0	15...	1130	830	289	21.0
MAR									
09...	1139	8650	165	9.0					
			03604400 - BUFFALO RIVER BELOW LOBELVILLE, TN						
OCT					APR				
12...	0900	355	162	--	12...	1033	9010	61	15.5
NOV					MAY				
16...	1350	879	115	15.0	16...	1125	2110	142	15.5
DEC					JUN				
13...	1120	1680	96	8.5	29...	0920	2230	89	22.0
JAN					AUG				
24...	1335	1190	100	6.0	03...	1500	634	112	19.5
MAR					SEP				
08...	1450	1400	88	11.5	13...	1400	500	167	23.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INSTAN-TANEOUS (Ft^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OBION RIVER BASIN									
07024300 - BEAVER CREEK AT HUNTINGDON, TN									
OCT 13...	1535	35	55	14.0					
07025500 - NORTH FORK OBION RIVER NEAR UNION CITY, TN									
OCT 13...	0905	260	58	13.0					
LOOSAHATCHIE RIVER BASIN									
07030240 - LOOSAHATCHIE RIVER NEAR ARLINGTON, TN									
OCT 13...	1320	92	43	15.5					
WOLF RIVER BASIN									
07031650 - WOLF RIVER AT GERMANTOWN, TN									
OCT 12...	1330	284	47	15.0					
NONCONNAH CREEK BASIN									
07032200 - NONCONNAH CREEK NEAR GERMANTOWN, TN									
OCT 12...	1028	0.71	138	14.5					

GROUND-WATER LEVELS

DAVIDSON COUNTY

360835086441100. Local number, Dv:L-10.

LOCATION.--Lat 36°08'35", long 86°44'11", Hydrologic Unit 05130202, 220 ft south of Elm Hill Pike, 0.3 mi west of Louisville and Nashville Railroad crossing, 0.4 mi east of Fesslers Lane in Nashville.
Owner: U.S. Geological Survey.

AQUIFER.--Carters and Lebanon Limestones of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in., depth 262 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 515 ft above sea level, from topographic map. Measuring point: Top of casing 2.5 ft above land-surface datum.

REMARKS.--No record Apr. 21, 22, June 25-27. Records good.

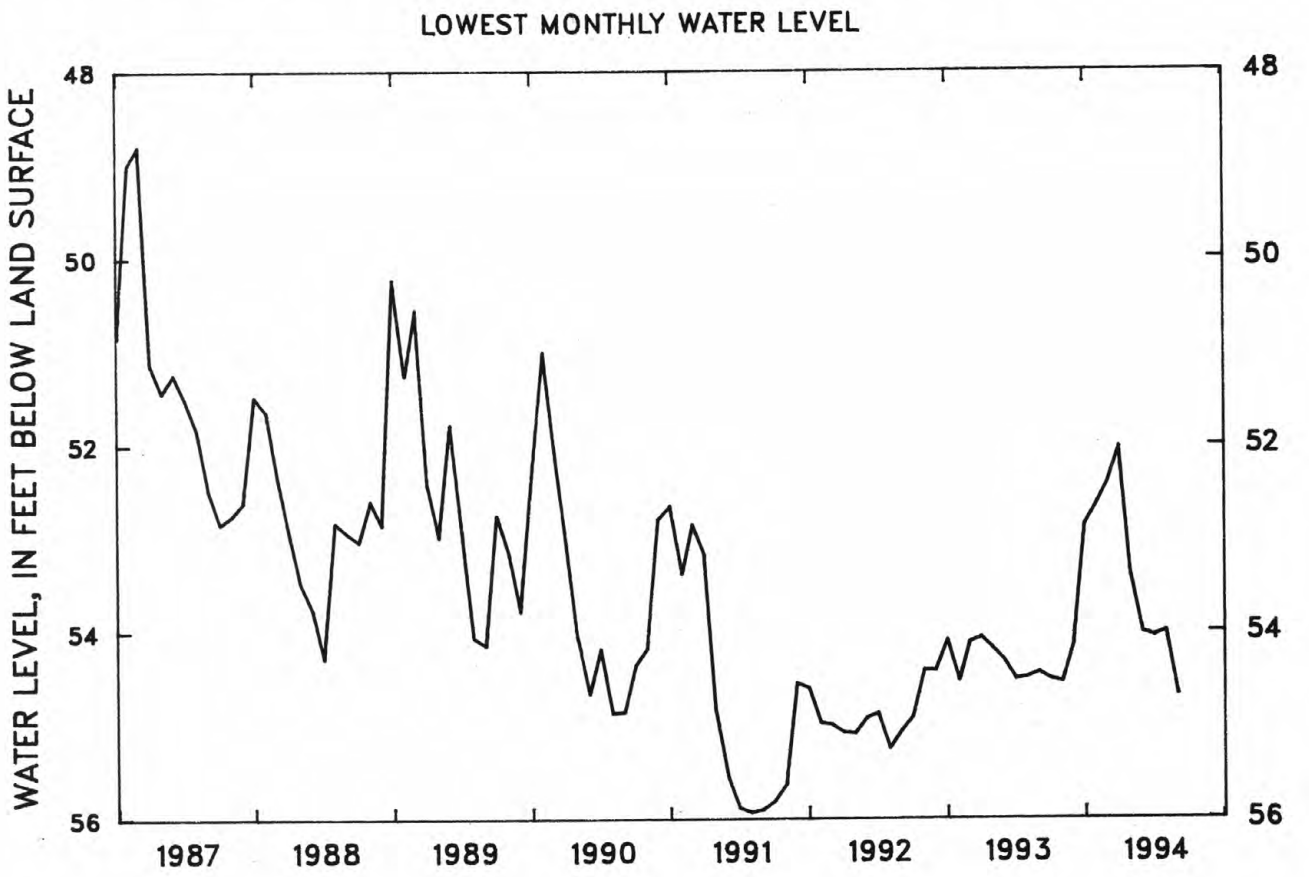
PERIOD OF RECORD.--June 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.52 ft below land-surface datum, Feb. 21, 1989; lowest water level 55.94 ft below land-surface datum, Aug. 5, 6, 7, and 8, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.04	54.50	46.31	51.80	52.04	49.07	47.75	50.58	53.85	53.28	53.88	53.46
10	54.18	54.54	49.61	50.99	50.20	51.15	47.71	51.64	53.26	53.79	53.75	53.75
15	54.21	52.57	47.44	52.69	47.23	46.27	47.27	52.75	53.90	53.99	53.74	54.03
20	52.75	53.53	51.34	52.13	51.12	49.91	46.93	52.71	54.00	54.03	54.00	54.54
25	54.23	54.17	52.17	51.90	42.66	52.07	50.75	53.38	---	53.82	53.15	52.21
EOM	54.35	54.13	50.92	48.80	45.93	43.50	52.03	52.86	52.03	53.75	53.67	54.09

WTR YR 1994 HIGHEST 41.56 MAR 31, 1994 LOWEST 54.69 SEPT 22, 23, 1994



GROUND-WATER LEVELS

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. to 120 ft, 6 in. to 250 ft, cased to 27 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 670.3 ft above sea level. Measuring point: Top of instrument shelf, 1.5 ft above land-surface datum.

REMARKS.--Missing record Oct. 1 to Nov. 12, Dec.4-22, Dec. 24 to Jan. 10, Mar. 16-23. Records fair. The well has been pumped at rates up to 1,200 gal/min over a 68 hour period indicating a specific capacity of 20.4 [(gal/min)/ft].

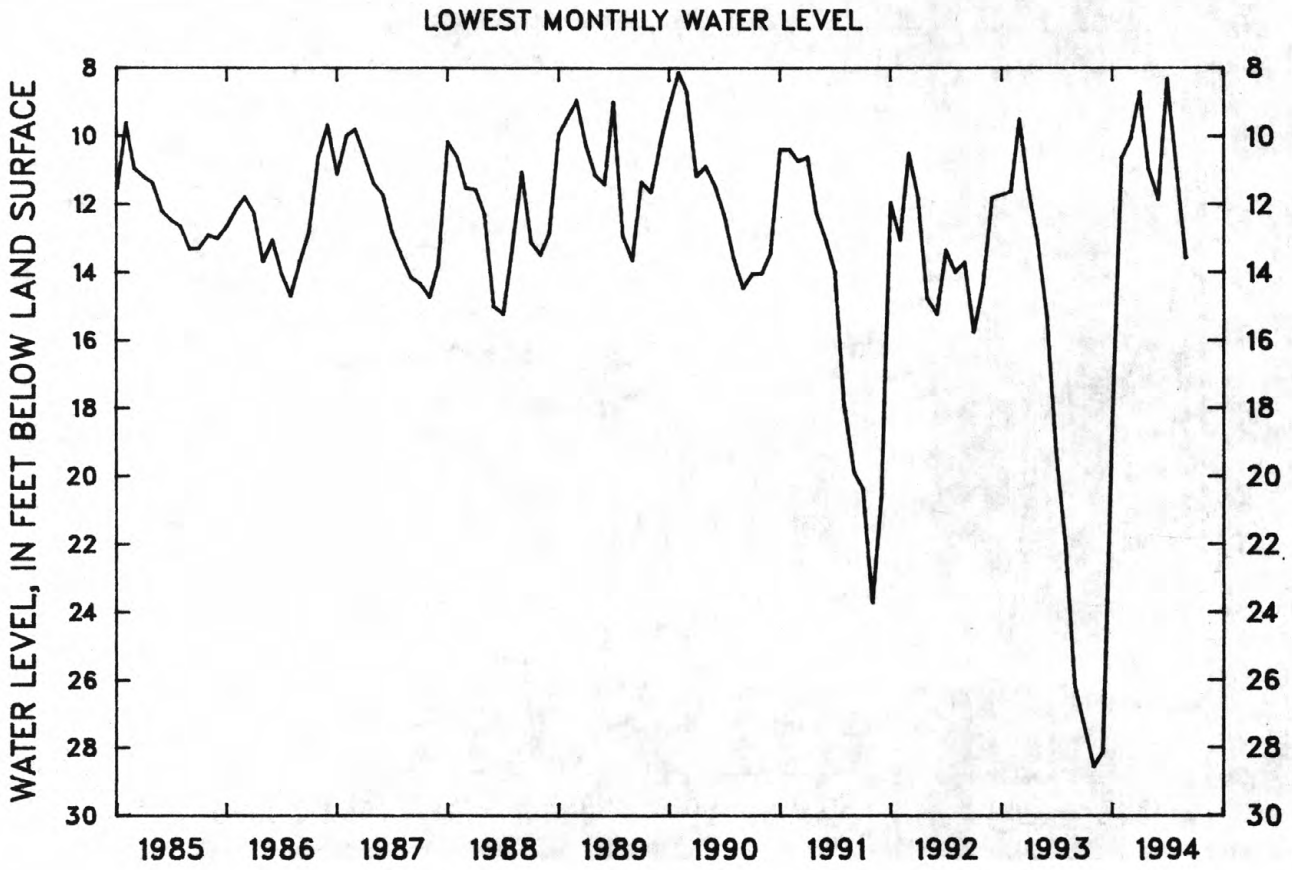
PERIOD OF RECORD.--April 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.89 ft below land-surface datum, Mar. 28, 1994; lowest recorded, 28.59 ft below land-surface datum, Nov. 13, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	10.06	5.97	6.73	8.71	11.63	8.33	8.33	11.02
10	---	---	---	---	10.28	7.70	6.53	9.78	10.49	8.33	9.55	12.30
15	---	27.90	---	15.72	7.01	8.69	8.21	10.25	11.08	7.06	10.17	13.07
20	---	27.32	---	13.27	8.35	---	7.28	10.47	10.79	8.15	9.96	13.24
25	---	27.50	---	12.20	6.76	9.10	8.31	11.08	11.57	8.33	9.89	12.22
EOM	---	27.47	---	9.39	7.77	4.60	8.71	11.31	8.32	7.61	10.98	12.89

WTR YR 1994 HIGHEST 0.89 MAR 28, 1994 LOWEST 28.59 NOV 13, 1993



GROUND-WATER LEVELS

HAMILTON COUNTY--Continued

351428085003600. Local number, Hm:O-15.

LOCATION.--Lat 35°14'28", long 85°00'36", Hydrologic Unit 06020001, at Smith Road and State Highway 58, near Snow Hill.
Owner: Savannah Valley Utility District.

AQUIFER.--Knox Dolomite of Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 10 in., depth 262 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 735 ft above sea level, from topographic map. Measuring point: Instrument shelf,5.66 ft above land-surface datum.

REMARKS.--No missing record. Record goods. Well previously published as "at Savannah Valley". Water level affected by pumping from municipal supply well 300 ft south. Negative values indicate water levels above land-surface.

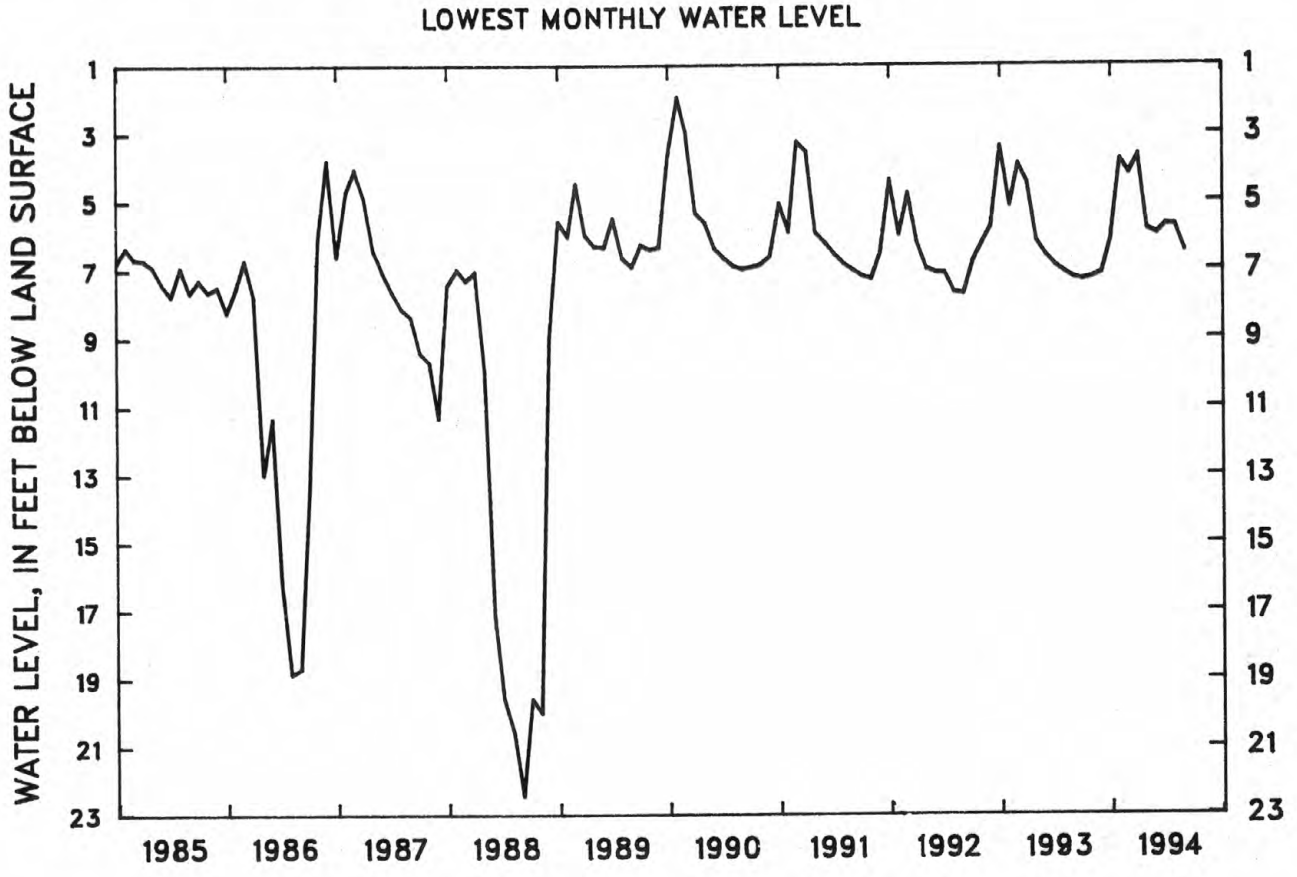
PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, -4.33 ft above land-surface datum, Feb. 11, 1994; lowest, 22.45 ft below land-surface datum, Sept. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.16	7.16	5.92	5.71	2.95	-.89	.24	4.86	5.90	5.68	1.89	5.62
10	7.29	7.12	6.35	3.67	2.85	-.36	.23	5.31	5.73	5.65	3.56	5.52
15	7.17	6.92	6.43	.64	-.96	1.18	-.65	5.69	5.87	-.41	4.87	6.49
20	7.25	7.19	6.59	.71	1.03	3.40	.02	5.69	5.89	2.38	4.73	6.45
25	7.19	7.15	6.00	3.59	-.91	3.74	1.88	5.78	5.87	2.98	5.10	6.24
EOM	7.13	6.69	5.76	.53	.19	-1.05	3.66	5.85	5.55	-.20	5.62	6.00

WTR YR 1994 HIGHEST -4.33 FEB 11, 1994 LOWEST 7.33 OCT 21, 22, 1993



GROUND-WATER LEVELS

HUMPHREYS COUNTY

360020087573300. Local number, Hs:H-1.

LOCATION.--Lat 36°00'20", long 87°57'33", Hydrologic Unit 06040005, 100 ft 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., depth 187 ft, cased to 72 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 470 ft above sea level, from topographic map. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--No missing record. Records good.

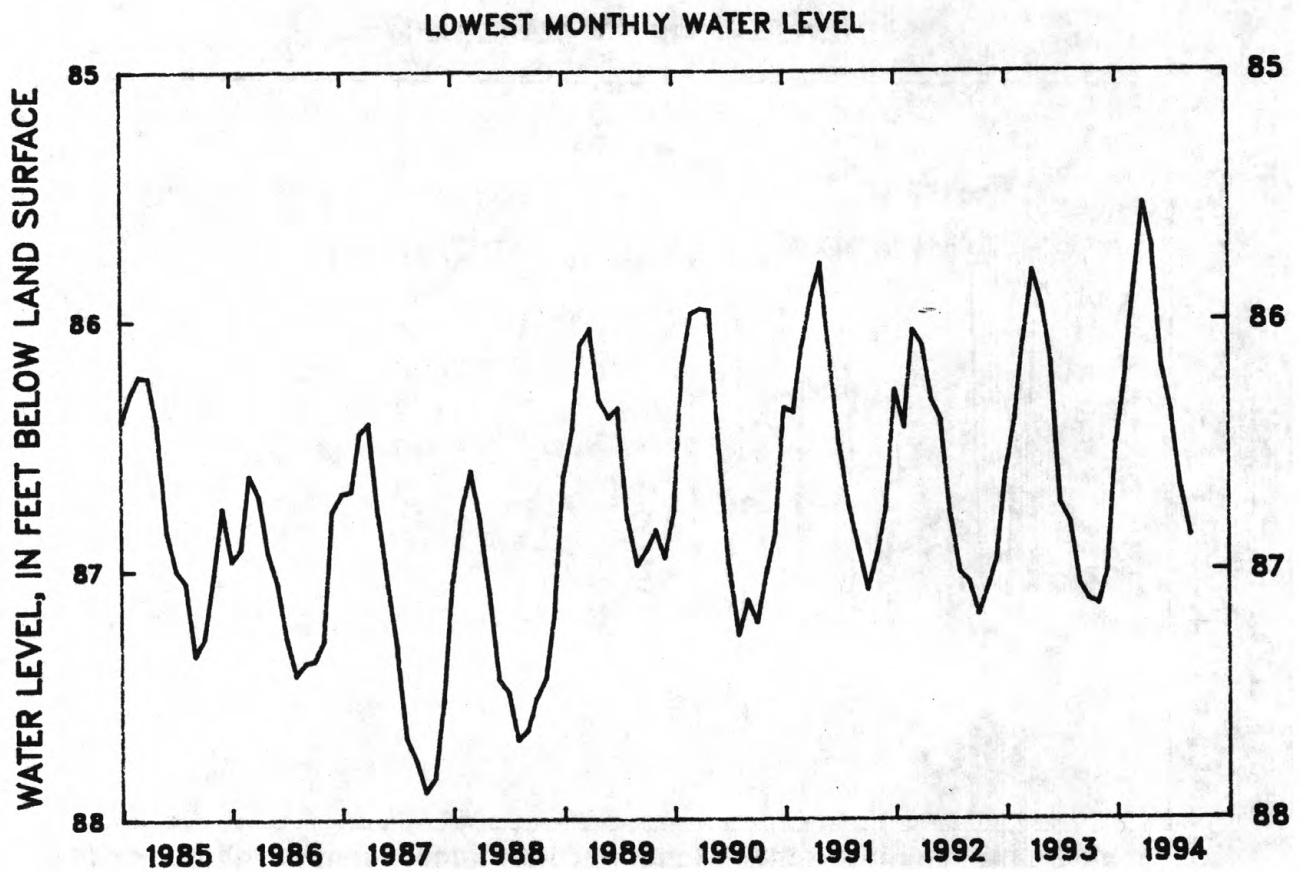
PERIOD OF RECORD.--February 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.09 below land-surface datum, Apr. 21, 22, 23, 1994; lowest, 90.20 ft below land-surface datum, Nov. 25, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.03	87.03	86.58	86.49	86.14	85.81	85.47	85.49	85.83	86.37	86.38	86.69
10	87.08	87.12	86.52	86.45	86.17	85.53	85.35	85.63	85.82	86.36	86.49	86.73
15	87.12	86.94	86.51	86.45	85.88	85.57	84.33	85.57	85.90	86.31	86.52	86.79
20	86.97	86.84	86.49	86.42	85.88	85.72	84.22	85.60	86.01	86.36	86.58	86.86
25	86.98	86.87	86.59	86.28	85.76	85.87	84.17	85.68	86.11	86.33	86.64	86.76
EOM	87.10	87.00	86.48	86.06	85.82	85.54	85.41	85.71	86.20	86.37	86.68	86.87

WTR YR 1994 HIGHEST 84.09 APR 21, 22, 23, 1994 LOWEST 87.14 NOV 8, 1993



GROUND-WATER LEVELS

LAUDERDALE COUNTY

353839089493500. Local number, Ld:F-4.

LOCATION.--Lat 35°38'39", long 89°49'35", Hydrologic Unit 08010208, 1.1 mi north of State Highway 87, at Fort Pillow State Park.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 to 6 to 3 in., depth 879 ft, cased to 869 ft, screened 869 to 879 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 437.05 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--Records good.

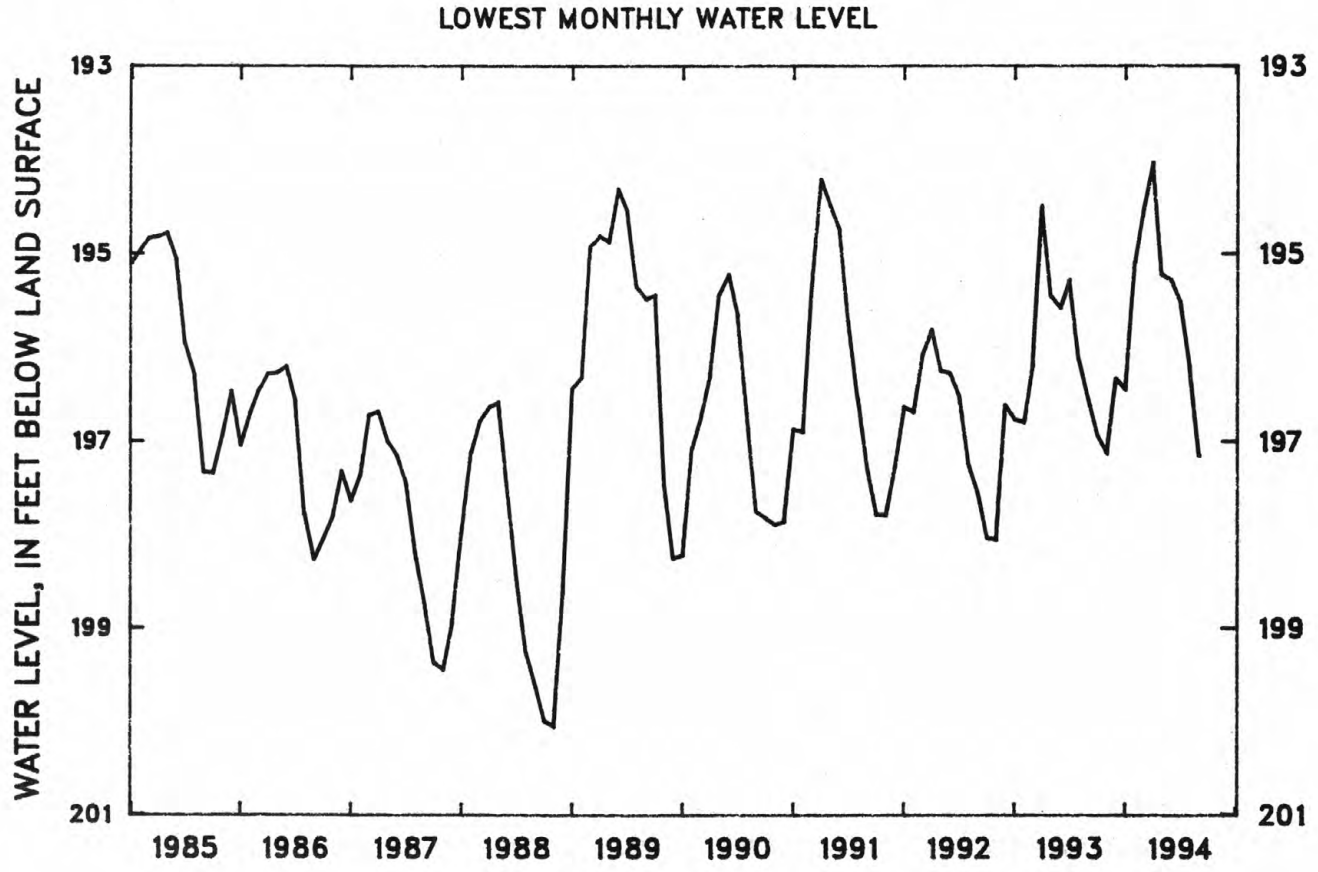
PERIOD OF RECORD.--April 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 187.76 ft below land-surface datum, Apr. 7, 1975; lowest, 200.05 ft below land-surface datum, Nov. 11, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	195.75	196.92	195.94	196.41	194.24	193.37	193.28	193.29	195.28	195.07	195.61	196.49
10	196.08	197.13	195.62	196.45	194.32	193.58	193.02	194.20	195.16	195.19	195.78	196.62
15	196.65	196.99	195.32	195.99	194.79	193.25	192.73	194.38	195.19	195.32	195.92	196.82
20	196.80	196.07	195.82	195.95	194.28	193.20	190.69	194.62	195.24	195.38	196.09	196.96
25	196.88	195.54	196.16	195.96	193.80	194.03	190.93	195.03	195.15	195.42	196.17	197.03
EOM	196.86	196.12	196.33	195.38	193.67	194.32	191.93	195.23	195.08	195.52	196.21	197.16

WTR YR 1994 HIGHEST 190.49 APR 21, 22, 1994 LOWEST 197.16 SEP 30, 1994



GROUND-WATER LEVELS

MADISON COUNTY

354223088380200. Local number, Md:N-1.

LOCATION.--Lat 35°42'23", long 88°38'02", Hydrologic Unit 08010205, about 0.4 mi 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., depth 659 ft, cased to 639 ft, screened 639 to 659 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 562.70 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--Records good.

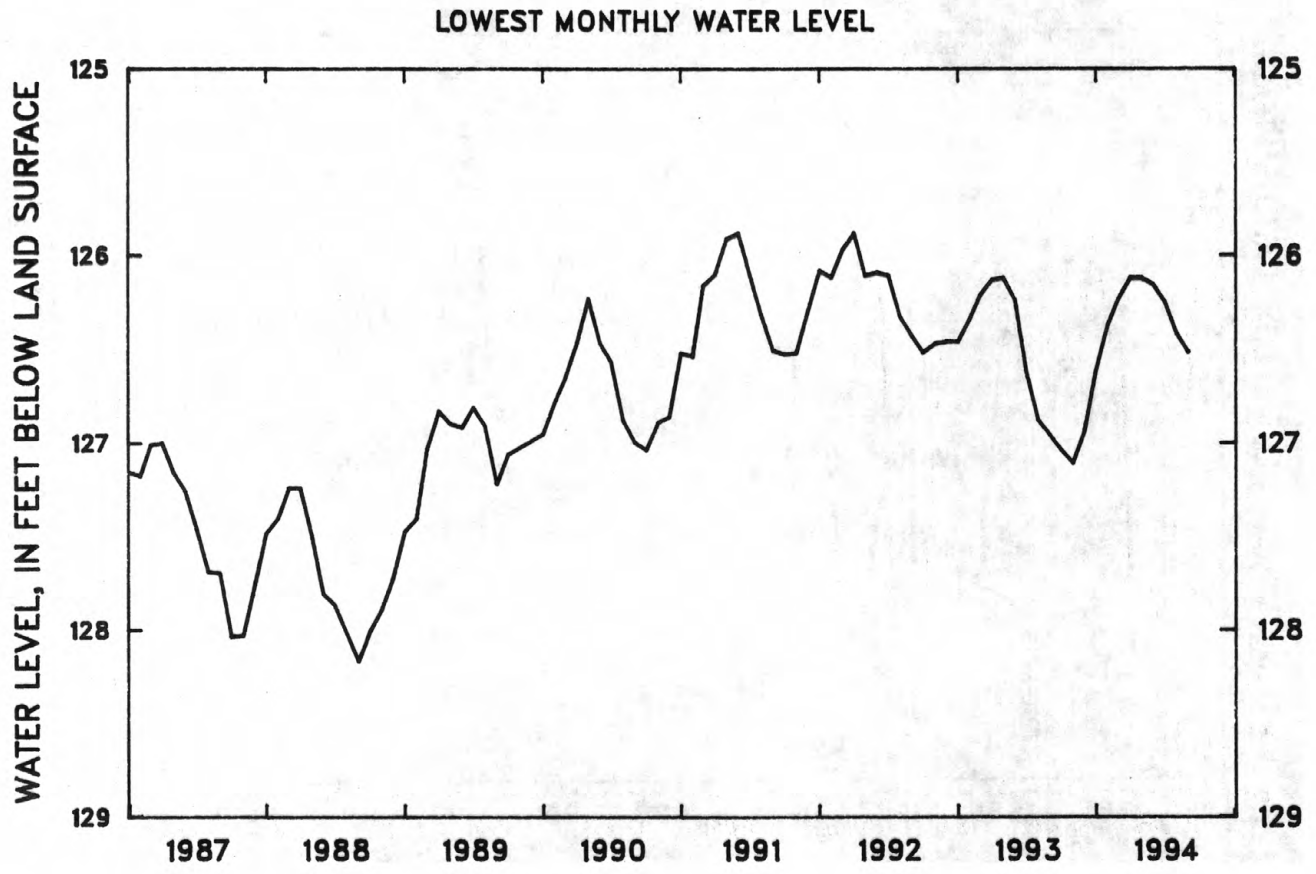
PERIOD OF RECORD.--June 1949 to current year. Analog record June 1949 to February 1971, periodic tape measurements or monthly maximum-minimum recorder March 1971 to April 1986.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 124.50 ft below land-surface datum, Mar. 10, 1952; lowest recorded, 129.13 ft below land-surface datum, Nov. 15, 1963; highest water level measured, 124.98 ft below land-surface datum, Apr. 8, 1980; lowest measured, 131.17 ft below land-surface datum, June 20, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.94	126.96	126.68	126.54	126.35	126.16	126.03	126.07	126.10	126.22	126.19	126.41
10	126.98	127.10	126.69	126.60	126.34	126.15	126.03	126.06	126.08	126.18	126.28	126.45
15	126.99	126.93	126.61	126.61	126.34	126.11	125.97	125.96	126.15	126.17	126.18	126.51
20	126.93	126.86	126.69	126.59	126.31	126.12	126.05	126.08	126.16	126.17	126.24	126.52
25	127.01	126.87	126.75	126.53	126.25	126.13	126.04	126.05	126.15	126.14	126.40	126.45
EOM	127.04	126.93	126.58	126.36	126.30	126.11	126.09	126.09	126.14	126.18	126.42	126.50

WTR YR 1994 HIGHEST 125.88 APR 5, 6, 1994 LOWEST 127.11 NOV 1, 1993



GROUND-WATER LEVELS

MORGAN COUNTY

360543084343101. Local number, Mg:F-5.

LOCATION.--Lat 36°05'43", long 84°34'31", Hydrologic Unit 06010208, 1.0 mi southeast of Wartburg.
Owner: Plateau Utility District.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 394 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1,265 ft above sea level, from topographic map. Measuring point: Floor of recorder shelter, 2.4 ft above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface inflow. No missing record. Records fair.

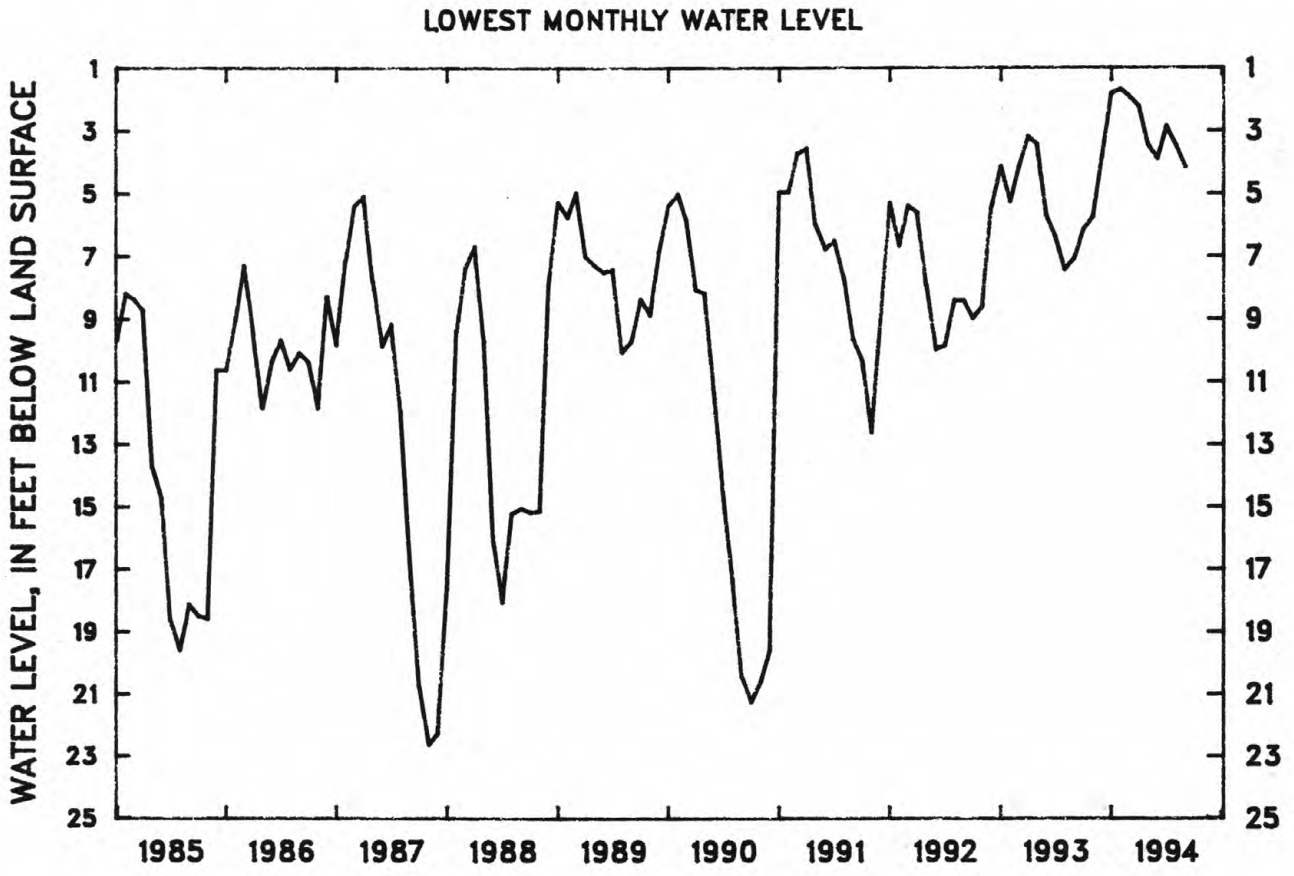
PERIOD OF RECORD.--November 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.71 ft above land-surface datum, Feb. 11, 1994; lowest recorded, 22.75 ft below land-surface datum, Nov. 18, 1987, but may have been lower during period of no gage height record Oct. 21 to Nov. 18, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.08	5.44	.98	.89	1.55	1.05	1.19	1.71	3.89	2.50	2.49	3.73
10	5.93	5.25	1.71	1.09	.73	.85	1.14	2.00	3.04	1.72	2.60	3.64
15	6.01	5.24	1.18	1.30	1.06	1.51	.91	2.44	2.92	1.34	3.09	3.97
20	6.01	4.23	1.55	1.68	1.61	1.92	1.46	2.42	1.33	.94	3.47	3.65
25	5.58	4.43	1.48	1.24	.93	1.25	2.04	3.03	1.60	1.79	2.93	3.77
EOM	5.65	3.75	1.25	1.08	1.46	.84	1.85	3.44	1.63	2.12	3.45	4.17

WTR YR 1994 HIGHEST -0.71 FEB 11, 1994 LOWEST 6.14 OCT 7, 1993



GROUND-WATER LEVELS

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, at Silver Point.
Owner: Tennessee Department of Transportation.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in., depth 175 ft, cased to 60 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1,030 ft above sea level, from topographic map. Measuring point: Top of instrument shelf, 2.88 ft above land surface datum.

REMARKS.--No missing record. Records good.

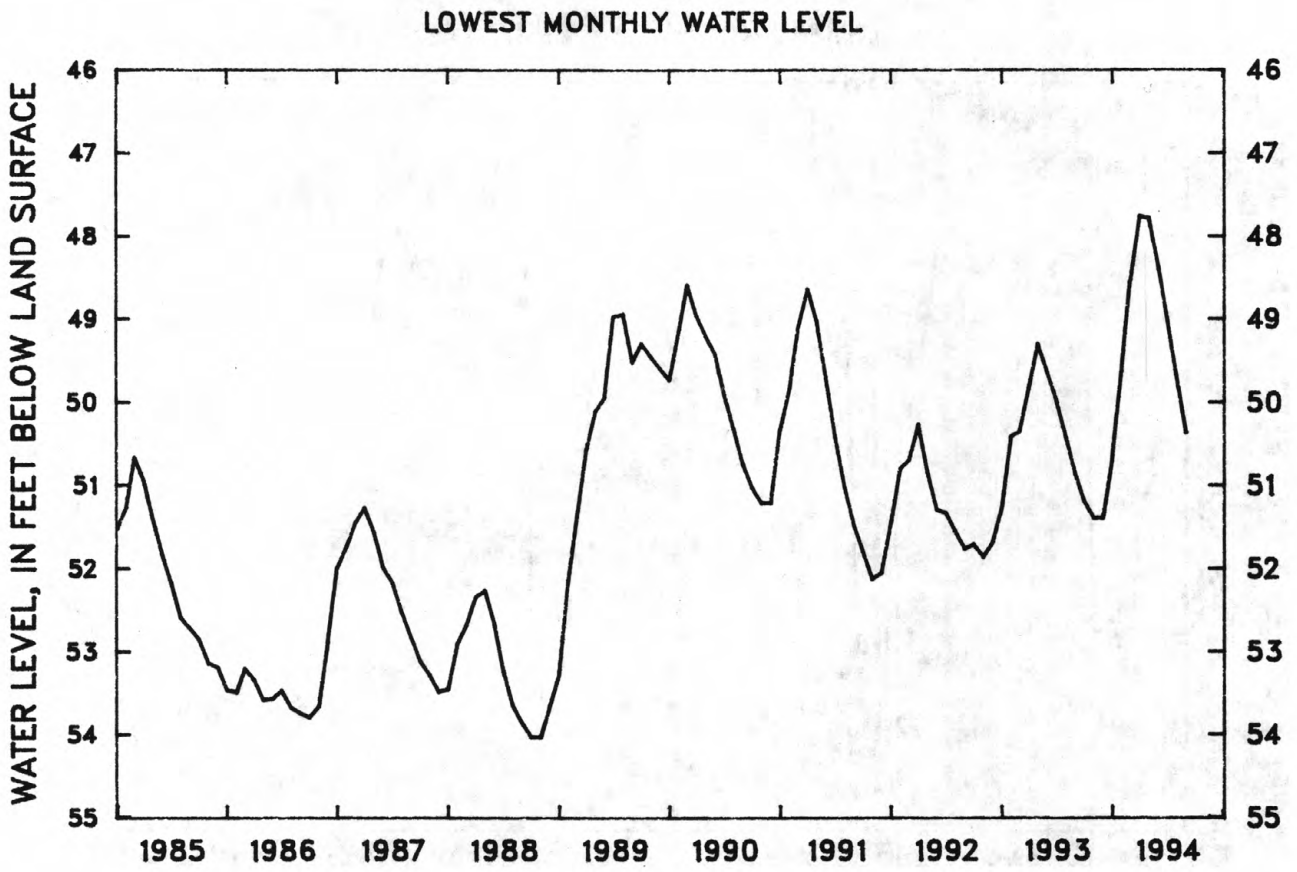
PERIOD OF RECORD.--March 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.50 ft below land-surface datum, Apr. 25, 1994; lowest, 54.04 ft below land-surface datum, Oct. 28, Nov. 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.91	51.18	51.27	50.64	49.43	48.45	47.47	47.03	47.88	48.34	49.11	49.82
10	50.95	51.27	51.10	50.38	49.38	48.30	47.32	47.18	48.05	48.41	49.24	49.96
15	50.98	51.32	51.00	50.27	49.12	47.98	47.02	47.26	48.23	48.52	49.33	50.04
20	51.01	51.32	50.82	50.10	48.93	47.93	46.84	47.43	48.27	48.66	49.41	50.18
25	51.06	51.33	50.85	49.87	48.81	48.09	46.71	47.44	48.35	48.77	49.59	50.23
EOM	51.20	51.40	50.68	49.66	48.62	47.85	46.80	47.78	48.33	48.99	49.70	50.38

WTR YR 1994 HIGHEST 46.50 APR 25, 1994 LOWEST 51.40 NOV 30, DEC 1, 1993



GROUND-WATER LEVELS

ROANE COUNTY

355634084243701. Local number, Rn:BRW-6.

LOCATION.--Lat 35°52'34", long 84°24'37", Hydrologic Unit 06010207, 2.7 mi southwest of intersection of State Highways 58 and 95, 9.7 mi southwest of Oak Ridge.

AQUIFER.--Knox Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 100 ft, cased to 91 ft, screened 81 to 91 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 812.89 ft above sea level, from Department of Energy records. Measuring point: Top of casing, 2.90 ft above land-surface datum.

REMARKS.--Missing record Dec. 21 to Feb. 4. Records fair.

PERIOD OF RECORD.--July 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.45 ft above land-surface datum, Mar. 29, 1994; lowest, 49.78 ft below land-surface datum, Nov. 14, 15, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level, 0.45 ft above land-surface datum, Mar. 29, 1994; lowest, 49.78 ft below land-surface datum, Nov. 14, 15, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.34	49.49	41.96	---	22.90	3.70	---	---	---	---	---	---
10	48.56	49.62	33.84	---	23.37	8.48	---	---	---	---	---	---
15	48.79	49.78	35.07	---	4.81	11.69	---	---	---	---	---	---
20	48.98	49.01	37.48	---	11.84	16.62	---	---	---	---	---	---
25	49.17	49.39	---	---	3.43	18.96	---	---	---	---	---	---
EOM	49.44	49.21	---	---	6.33	1.27	---	---	---	---	---	---

WTR YR 1994 HIGHEST -0.45 MAR 29, 1994 LOWEST 49.78 NOV 14, 15, 1993

355535084241901. Local number, Rn:BRW-21.

LOCATION.--Lat 35°55'35", long 84°24'19", Hydrologic Unit 06010207, 2.5 mi southwest of intersection of State Highways 58 and 95, 9.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 123 ft, cased to 118 ft, screened 97 to 118 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 803.56 ft above sea level, from Department of Energy records. Measuring point: Top of stainless steel casing, 2.80 ft above land-surface datum.

REMARKS.--No missing record. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.98 ft below land-surface datum, Feb. 11, 1994; lowest, 57.39 ft below land-surface datum, Nov. 3, 4, 5, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 35.98 ft below land-surface datum, Feb. 11, 1994; lowest, 57.39 ft below land-surface datum, Nov. 3, 4, 5, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.04	57.39	46.68	51.17	51.55	44.88	---	---	---	---	---	---
10	57.10	57.34	50.98	49.02	48.26	49.83	---	---	---	---	---	---
15	57.16	57.12	52.85	46.59	45.70	51.39	---	---	---	---	---	---
20	57.23	56.11	53.83	49.76	51.23	53.27	---	---	---	---	---	---
25	57.28	56.26	53.60	52.30	43.96	51.94	---	---	---	---	---	---
EOM	57.36	55.50	52.91	45.82	47.46	44.41	---	---	---	---	---	---

WTR YR 1994 HIGHEST 35.98 FEB 11, 1994 LOWEST 57.39 NOV 3, 4, 5, 1993

GROUND-WATER LEVELS

ROANE COUNTY-Continued

355537084242401. Local number, Rn:BRW-24.

LOCATION.--Lat 35°55'37", long 84°24'24", Hydrologic Unit 06010207, 2.5mi southwest of intersection of State Highways 58 and 95, 9.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 95 ft, cased to 92 ft, screened 71 to 92 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 788.28 ft above sea level, from Department of Energy Records. Measuring point: Top of casing, 3.40 ft above land-surface datum.

REMARKS.--Missing record Feb. 4. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.72 ft below land-surface datum, Mar. 28, 1994; lowest, 49.73 ft below land-surface datum, Dec. 4, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 27.72 ft below land-surface datum, Mar. 28, 1994; lowest, 49.73 ft below land-surface datum, Dec. 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.00	48.14	39.63	47.22	48.60	40.83	---	---	---	---	---	---
10	47.94	48.55	47.79	47.35	39.82	47.04	---	---	---	---	---	---
15	48.17	47.86	48.58	46.60	40.65	48.22	---	---	---	---	---	---
20	47.75	48.74	48.94	48.06	48.08	48.51	---	---	---	---	---	---
25	48.18	49.33	48.83	48.63	38.51	43.32	---	---	---	---	---	---
EOM	47.99	49.11	48.50	46.16	44.97	36.62	---	---	---	---	---	---

WTR YR 1994 HIGHEST 27.72 MAR 28, 1994 LOWEST 49.73 DEC 4, 1993

355632084243801. Local number, Rn:BRW-25.

LOCATION.--Lat 35°56'32", long 84°24'38", Hydrologic Unit 06010207, 2.7 mi southwest of intersection of State Highways 58 and 95, 9.7 mi southwest of Oak Ridge.

AQUIFER.--Knox Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 92 ft, cased to 91 ft, screened 69 to 91 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 800.44 ft above sea level, from Department of Energy Records. Measuring point: Top of casing, 3.20 ft above land-surface datum.

REMARKS.--No missing record. Records good.

PERIOD OF RECORD.--July to 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.85 ft below land-surface datum, Mar. 30, 1994; lowest, 46.85 ft below land-surface datum, Nov. 14, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 6.85 ft below land-surface datum, Mar. 30, 1994; lowest, 46.85 ft below land-surface datum, Nov. 14, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.15	46.73	37.89	38.14	29.48	10.86	---	---	---	---	---	---
10	46.26	46.77	36.89	34.49	31.11	16.47	---	---	---	---	---	---
15	46.38	46.84	37.54	30.14	10.60	20.94	---	---	---	---	---	---
20	46.46	46.38	39.75	31.14	20.30	25.88	---	---	---	---	---	---
25	46.55	46.61	40.16	34.74	12.76	29.22	---	---	---	---	---	---
EOM	46.68	46.47	40.48	25.10	13.35	7.29	---	---	---	---	---	---

WTR YR 1994 HIGHEST 6.85 MAR 30, 1994 LOWEST 46.85 NOV 14, 1993

355609084240001. Local number, Rn:BRW-30.

LOCATION.--Lat 35°56'09", long 84°24'00", Hydrologic Unit 06010207, 1.7 mi southwest of intersection of State Highways 58 and 95, 8.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 55 ft, cased to 54 ft, screened 34 to 54 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 760.29 ft above sea level, from Department of Energy records. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Missing record Oct. 1-4. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.38 ft below land-surface datum, Mar. 29, 1994; lowest, 22.01 ft below land-surface datum, Dec. 28, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 14.38 ft below land-surface datum, Mar. 29, 1994; lowest, 22.01 ft below land-surface datum, Dec. 28, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.83	19.86	19.07	20.97	21.12	18.98	---	---	---	---	---	---
10	19.74	20.19	20.23	20.67	20.25	20.05	---	---	---	---	---	---
15	19.96	19.86	20.70	20.33	18.66	20.86	---	---	---	---	---	---
20	19.64	20.34	21.55	20.74	20.44	21.40	---	---	---	---	---	---
25	19.96	21.19	21.83	21.63	18.46	20.93	---	---	---	---	---	---
EOM	19.68	21.29	21.58	20.17	19.24	15.03	---	---	---	---	---	---

WTR YR 1994 HIGHEST 14.38 MAR 29, 1994 LOWEST 22.01 DEC 28, 1993

ROANE COUNTY--Continued

355603084244301. Local number, Rn:BRW-35.

LOCATION.--Lat 35°56'03", long 84°24'43", Hydrologic Unit 06010207, 2.5 mi southwest of intersection of State Highways 58 and 95, 9.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 45 ft, cased to 45 ft, screened 35 to 45 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 749.41 above sea level, from Department of Energy records. Measuring point: Top of casing, 2.90 ft above land-surface datum.

REMARKS.--No missing record. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.20 ft below land-surface datum, Mar 30, 1994; lowest, 40.79 ft below land-surface datum, Apr. 28, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 4.20 ft below land-surface datum, Mar 30, 1994; lowest, 12.20 ft below land-surface datum, Jan 5, 6, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.10	9.14	10.89	12.20	11.89	9.62	---	---	---	---	---	---
10	9.09	9.20	10.83	12.16	12.10	11.65	---	---	---	---	---	---
15	9.13	9.23	11.26	11.94	9.40	11.84	---	---	---	---	---	---
20	9.14	9.40	11.64	11.91	11.54	11.78	---	---	---	---	---	---
25	9.13	9.95	11.97	12.14	9.20	12.03	---	---	---	---	---	---
EOM	9.12	10.44	12.12	11.90	9.15	4.71	---	---	---	---	---	---

WTR YR 1994 HIGHEST 4.20 MAR 30, 1994 LOWEST 12.20 JAN 5, 6, 1994

GROUND-WATER LEVELS

ROANE COUNTY--Continued

355624084235601. Local number, Rn:BRW-61.

LOCATION.--Lat 35°56'24", long 84°23'56", Hydrologic Unit 06010207, 1.7 mi southwest of intersection of State Highways 58 and 95, 8.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 30 ft, cased to 28 ft, screened 18 to 28 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 751.05 ft above sea level, from Department of Energy Records. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.50 ft below land-surface datum, Mar. 28, 1994; lowest, 13.27 ft below land-surface datum, Dec. 4, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level 4.50 ft below land-surface datum, Mar. 28, 1994; lowest, 13.27 ft below land-surface datum, Dec. 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.04	11.02	9.53	11.55	11.36	10.70	---	---	---	---	---	---
10	10.99	11.16	11.76	11.37	10.66	11.64	---	---	---	---	---	---
15	11.16	10.81	12.66	11.21	10.51	11.91	---	---	---	---	---	---
20	10.75	11.46	13.16	11.28	11.62	12.36	---	---	---	---	---	---
25	11.15	12.26	12.96	11.54	10.27	11.65	---	---	---	---	---	---
EOM	10.93	12.35	11.92	11.10	10.66	6.81	---	---	---	---	---	---

WTR YR 1994 HIGHEST 4.50 MAR 28, 1994 LOWEST 13.27 DEC 4, 1993

355619084240301. Local number, Rn:BRW-63.

LOCATION.--Lat 35°56'19", long 84°24'03", Hydrologic Unit 06010207, 1.7 mi southwest of intersection of State Highways 58 and 95, 8.5 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 80 ft, cased to 77 ft, screened 67 to 77 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute recording interval.

DATUM.--Elevation of land-surface datum is 767.52 ft above sea level, from Department of Energy records. Measuring point: Top of casing, 2.90 ft above land-surface datum.

REMARKS.--Missing record Jan. 18 to Feb. 4. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.94 ft below land-surface datum, Mar. 28, 29, 1994; lowest, 26.89 ft below land-surface datum, Dec. 3, 4, 1993.

EXTREMES FOR CURRENT PERIOD.--October to April: Highest water level 14.94 ft below land-surface datum, Mar. 28, 29, 1994; lowest, 26.89 ft below land-surface datum, Dec. 3, 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.12	25.54	20.88	23.77	25.09	19.21	---	---	---	---	---	---
10	25.09	25.65	23.68	23.83	22.60	21.04	---	---	---	---	---	---
15	25.32	25.63	24.05	23.42	20.18	23.53	---	---	---	---	---	---
20	25.04	25.34	25.03	---	21.84	24.68	---	---	---	---	---	---
25	25.37	26.65	25.21	---	18.14	23.84	---	---	---	---	---	---
EOM	25.22	26.17	24.66	---	20.12	16.80	---	---	---	---	---	---

WTR YR 1994 HIGHEST 14.94 MAR 28, 29, 1994 LOWEST 26.89 DEC 3, 4, 1993

355604084241201. Local number, Rn:BRW-66.

LOCATION.--Lat 35°56'04", long 84°24'12", Hydrologic Unit 06010207, 2.0 mi southwest of intersection of State Highways 58 and 95, 9.0 mi southwest of Oak Ridge.

AQUIFER.--Chickamauga Group.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 52 ft, cased to 52 ft, screened 47 to 52 ft.

INSTRUMENTATION.--Water-level recorder --60-minute recording interval.

DATUM.--Elevation of land-surface datum is 760.64 ft above sea level, from Department of Energy records. Measuring point: Top of casing, 2.90 ft above land-surface datum.

REMARKS.--No missing record. Records good.

PERIOD OF RECORD.--April 1993 to March 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.66 ft below land-surface datum, Mar. 31, 1994; lowest, 20.72 ft below land-surface datum, Dec. 3, 4, 1993.

EXTREMES FOR CURRENT PERIOD.--October to March: Highest water level, 13.66 ft below land-surface datum, Mar. 31, 1994; lowest, 20.72 ft below land-surface datum, Dec. 3, 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO MARCH 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.21	19.16	19.10	19.46	19.50	16.06	---	---	---	---	---	---
10	19.06	19.68	18.65	18.86	18.83	17.38	---	---	---	---	---	---
15	19.53	19.64	18.71	18.38	16.62	18.65	---	---	---	---	---	---
20	19.41	19.39	19.88	18.78	18.28	19.42	---	---	---	---	---	---
25	19.56	20.32	20.28	19.81	15.59	18.93	---	---	---	---	---	---
EOM	19.16	20.23	20.09	18.24	16.70	13.90	---	---	---	---	---	---

WTR YR 1994 HIGHEST 13.66 MAR 31, 1994 LOWEST 20.72 DEC 3, 4, 1993

GROUND-WATER LEVELS

SEVIER COUNTY

353922083345600. Local number, Sv:E-2.

LOCATION.--Lat 35°39'22", long 83°34'56", Hydrologic Unit 06010201, 3.3 mi southwest of Great Smoky Mountains National Park Headquarters, near Gatlinburg.

AQUIFER.--Elkmont Sandstone of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water-table well in phyllite, sandstone, diameter 6 in., depth 220 ft, cased to 27 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 2,150 ft above sea level, from topographic map. Measuring point: Floor of recorder shelter 1.5 ft above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface inflow. No missing record. Records good.

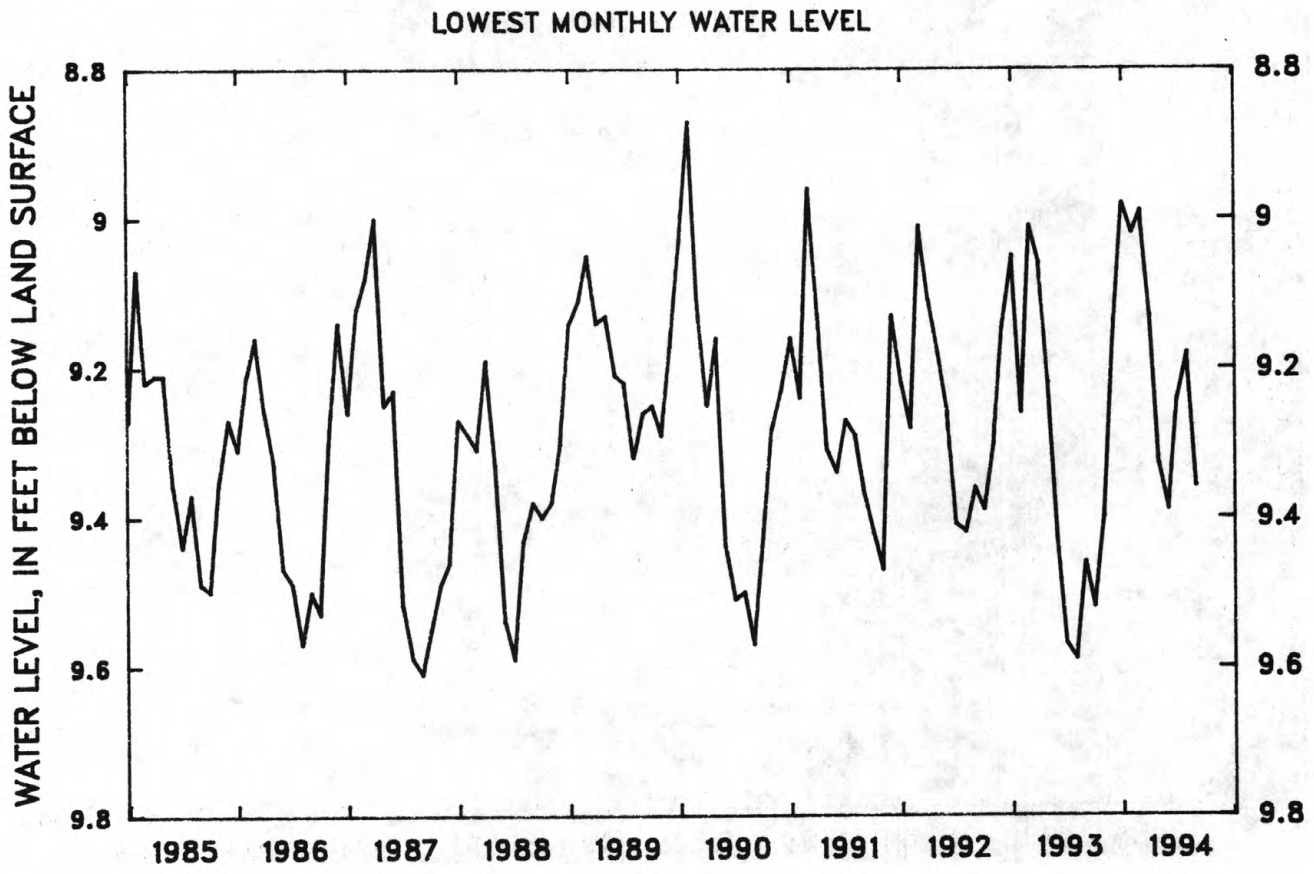
PERIOD OF RECORD.--May 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 27, 1994; lowest, 9.68 ft below land-surface datum, Aug. 10, Sept. 16, 17, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.47	9.37	7.05	8.66	8.96	8.49	8.74	9.10	9.39	9.07	8.97	9.20
10	9.51	9.33	8.84	8.56	8.41	7.83	8.53	9.12	8.97	9.24	8.99	9.26
15	9.51	9.40	8.93	8.70	8.64	8.73	8.13	9.21	8.65	9.13	8.91	9.35
20	9.52	9.27	8.96	8.80	9.01	8.98	8.59	9.25	8.47	9.15	8.50	9.21
25	9.47	9.35	9.03	8.97	8.18	8.82	9.03	9.33	8.73	9.18	8.90	9.27
EOM	9.38	8.99	8.70	8.56	8.74	8.09	9.13	9.33	8.78	8.74	9.18	9.34

WTR YR 1994 HIGHEST 3.48 MAR 27, 1994 LOWEST 9.52 OCT 16, 17, 18, 19, 20, 21, 1993



GROUND-WATER LEVELS

SHELBY COUNTY

350514089553700. Local number, Sh:K-75.

LOCATION.--Lat 35°05'14", long 89°55'37", Hydrologic Unit 08010211, at Willowview Avenue and Getwell Road, at Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Fluvial sand and gravel of Pleistocene age and possibly sand of Eocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in., depth 91 ft, cased to 81 ft, screened 81 to 91 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 260 ft above sea level, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply. No record June 28 to July 1. Records good.

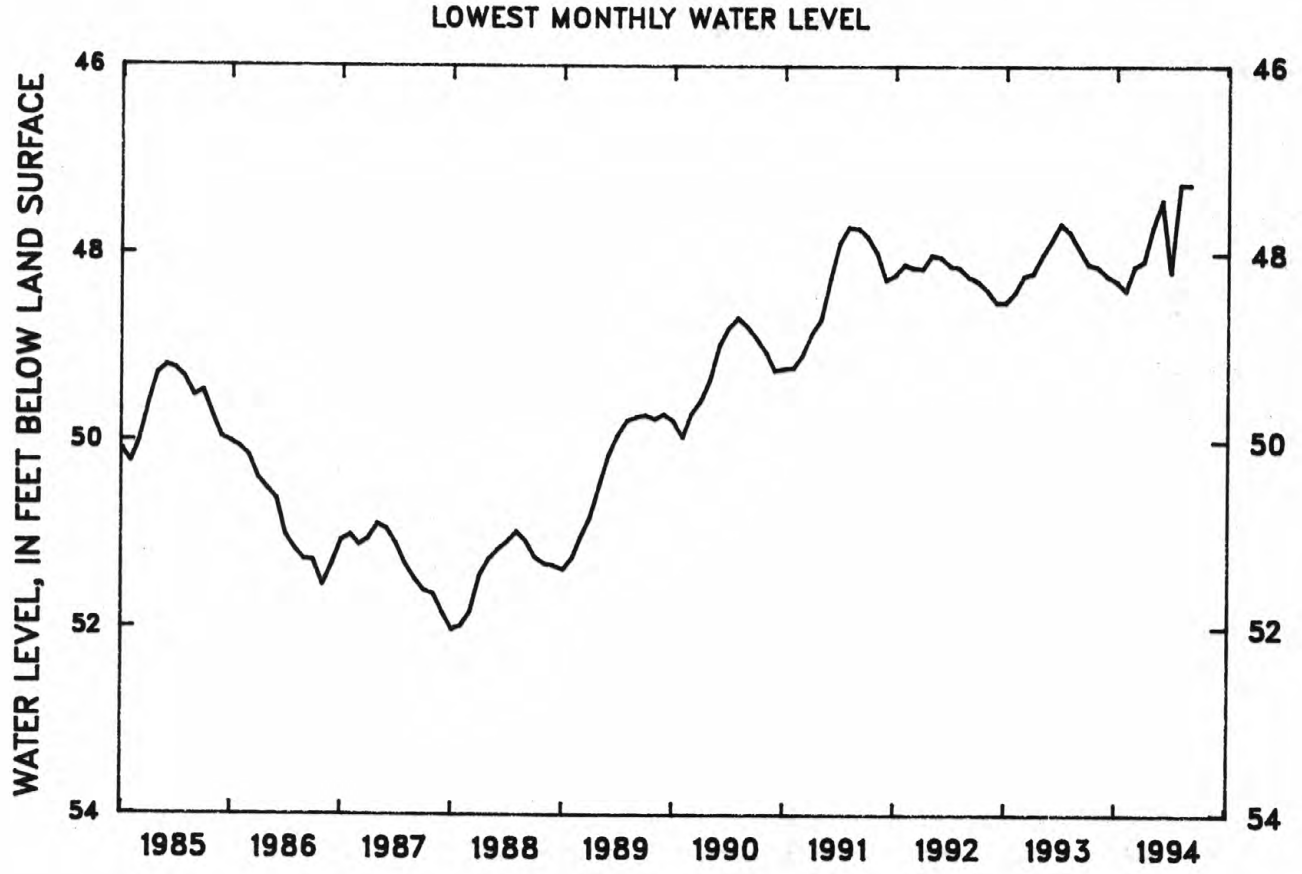
PERIOD OF RECORD.--August 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.28 ft below land-surface datum, April 2, 1950; lowest, 52.03 ft below land-surface datum, Jan. 13, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.93	48.03	48.13	48.19	48.10	48.04	47.63	47.60	47.36	47.25	47.21	47.22
10	47.99	48.01	48.16	48.11	48.22	48.13	47.74	47.59	47.39	47.24	47.21	47.22
15	47.89	48.14	48.15	48.28	48.13	47.92	47.87	47.55	47.37	47.24	47.21	47.19
20	47.97	48.12	48.14	48.23	48.11	47.80	47.68	47.49	47.32	47.21	47.19	47.22
25	47.90	48.10	48.21	48.04	48.26	48.02	47.59	47.37	47.32	47.19	47.22	47.22
EOM	48.00	48.13	48.10	48.25	47.98	47.90	47.65	47.44	---	47.21	47.25	47.23

WTR YR 1994 HIGHEST 47.09 AUG 20, SEP 26, 1994 LOWEST 48.39 FEB 13, 14, 1994



350735089593300. Local number, Sh:P-76.

LOCATION.--Lat 35°07'35", long 89°59'33", Hydrologic Unit 08010210, at Central Avenue and Tanglewood Street, at Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 12 in., depth 488 ft, cased to 428 ft, screened 428 to 488 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 286.70 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area. Records good.

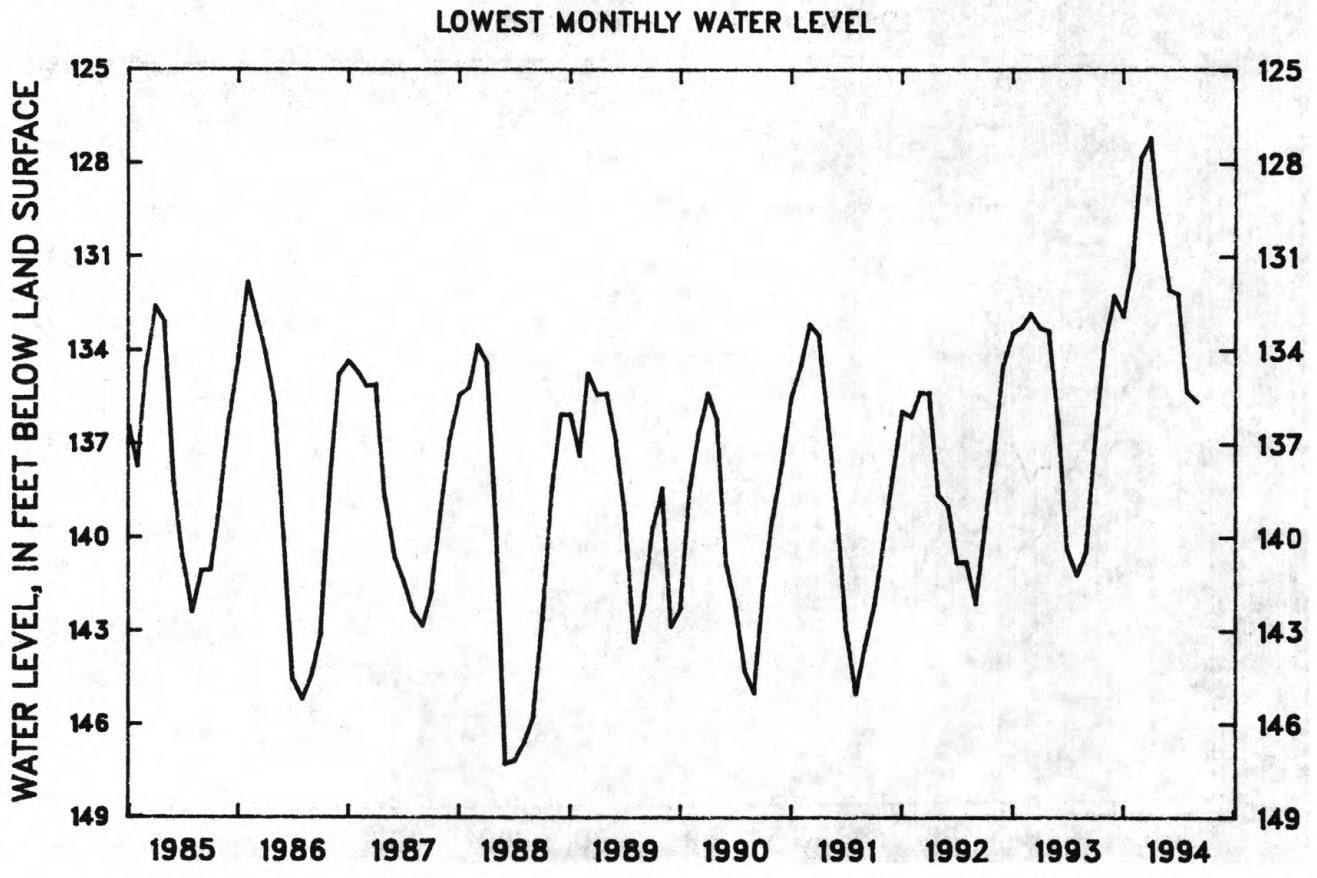
PERIOD OF RECORD.--October 1928 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft below land-surface datum, Apr. 3, 1933; lowest, 147.31 ft below land-surface datum, June 30, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	136.41	132.88	131.77	130.52	130.52	126.18	125.58	126.10	129.52	130.59	132.84	134.87
10	135.86	133.63	132.11	130.91	129.79	126.60	125.34	126.29	129.35	131.75	133.17	134.51
15	134.58	133.21	131.23	130.78	129.23	126.46	125.46	127.15	130.33	131.39	134.43	135.66
20	134.10	133.12	130.97	132.69	129.01	126.40	127.12	128.15	131.45	131.32	135.10	135.23
25	133.08	132.59	131.12	132.74	128.27	126.92	126.17	129.87	131.94	131.13	135.19	134.31
EOM	132.91	131.37	130.46	131.36	128.34	126.36	126.73	127.72	131.45	131.83	135.31	134.87

WTR YR 1994 HIGHEST 125.19 APR 16, 1994 LOWEST 136.89 OCT 1, 1993



GROUND-WATER LEVELS

SHELBY COUNTY--Continued

350900089482300. Local number, Sh:Q-1.

LOCATION.--Lat 35°09'00", long 89°48'23", Hydrologic Unit 08010210, south of Macon Road, 0.6 mi west of Germantown Road, near Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 384 ft, cased to 375 ft, screened 375 to 384 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 330.40 ft above sea level. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area. Records good.

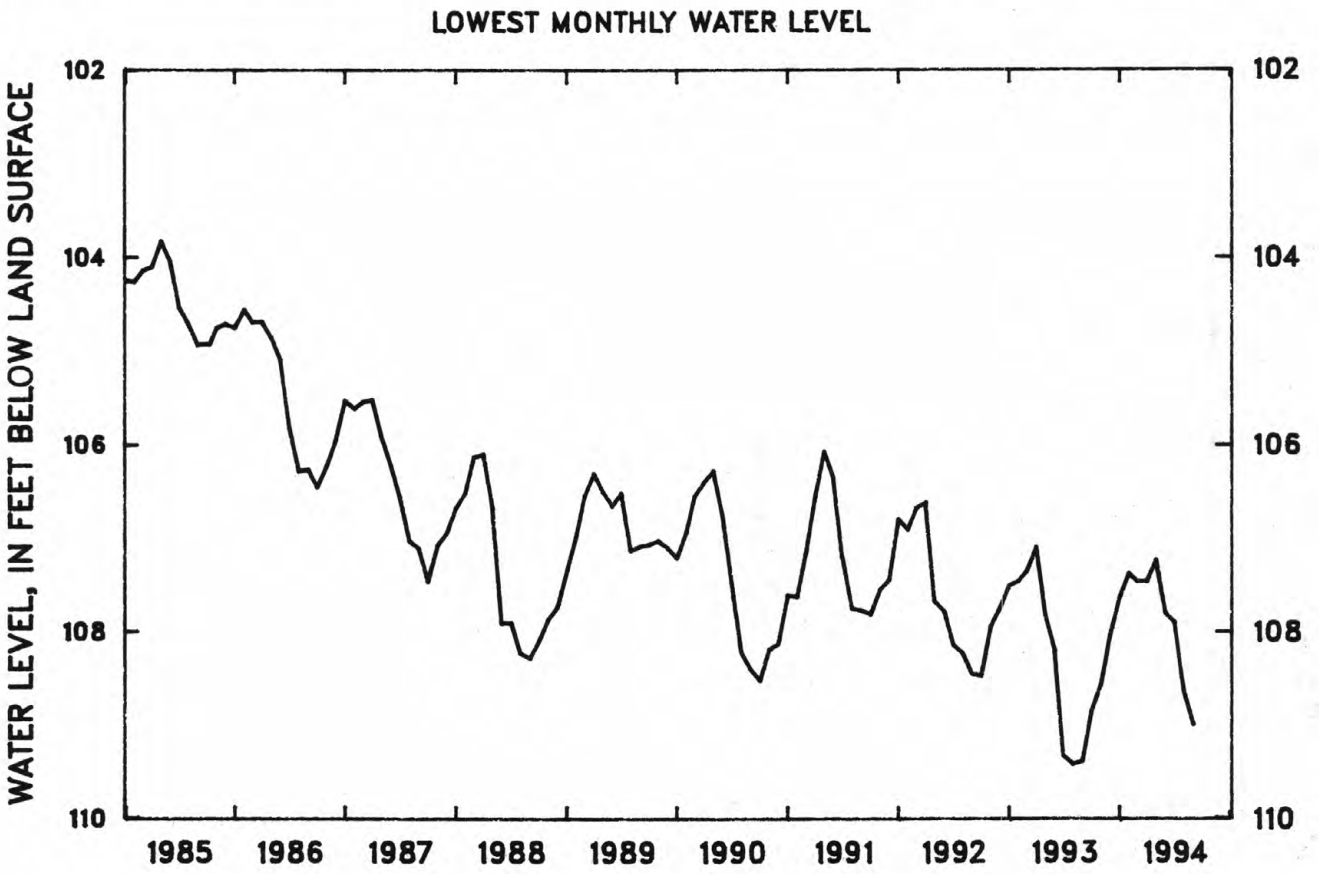
PERIOD OF RECORD.--October 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft below land-surface datum, Dec. 27, 1940; lowest 109.43 ft below land-surface datum, Aug. 27, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.52	108.05	107.57	107.47	107.14	106.94	107.11	106.77	107.19	107.91	108.07	108.77
10	108.64	108.56	107.57	107.62	107.19	107.10	106.88	107.08	106.98	107.80	108.18	108.47
15	108.74	108.16	107.57	107.54	107.32	106.93	106.77	106.93	107.29	107.67	108.26	108.76
20	108.28	108.07	107.55	107.56	107.11	107.06	106.98	106.92	107.67	107.68	108.25	109.01
25	108.25	107.99	107.53	107.22	107.27	107.40	107.21	107.10	107.60	107.51	108.41	108.97
EOM	108.31	108.03	107.53	107.43	107.28	107.47	107.06	107.08	107.62	107.84	108.65	109.00

WTR YR 1994 HIGHEST 106.76 MAY 5, 6, 7, 1994 LOWEST 109.01 SEP 20, 1994



GROUND-WATER LEVELS

CRITTENDEN COUNTY, AR

350344090130000. Local number, Ar:H-2.

LOCATION.--Lat 35°03'44", long 90°13'00", Hydrologic Unit 08020203, 0.7 mi east of Millers.
Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 502 ft, cased to 482 ft, screened 482 to 502 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 211 ft above sea level, from topographic map. Measuring point: Inside top of shelter base plate, 3.30 ft above land-surface datum.

REMARKS.--Well affected by pumpage in the Memphis, Tenn. area. No record April 28 to June 2 and July 7 to July 27. Records good.

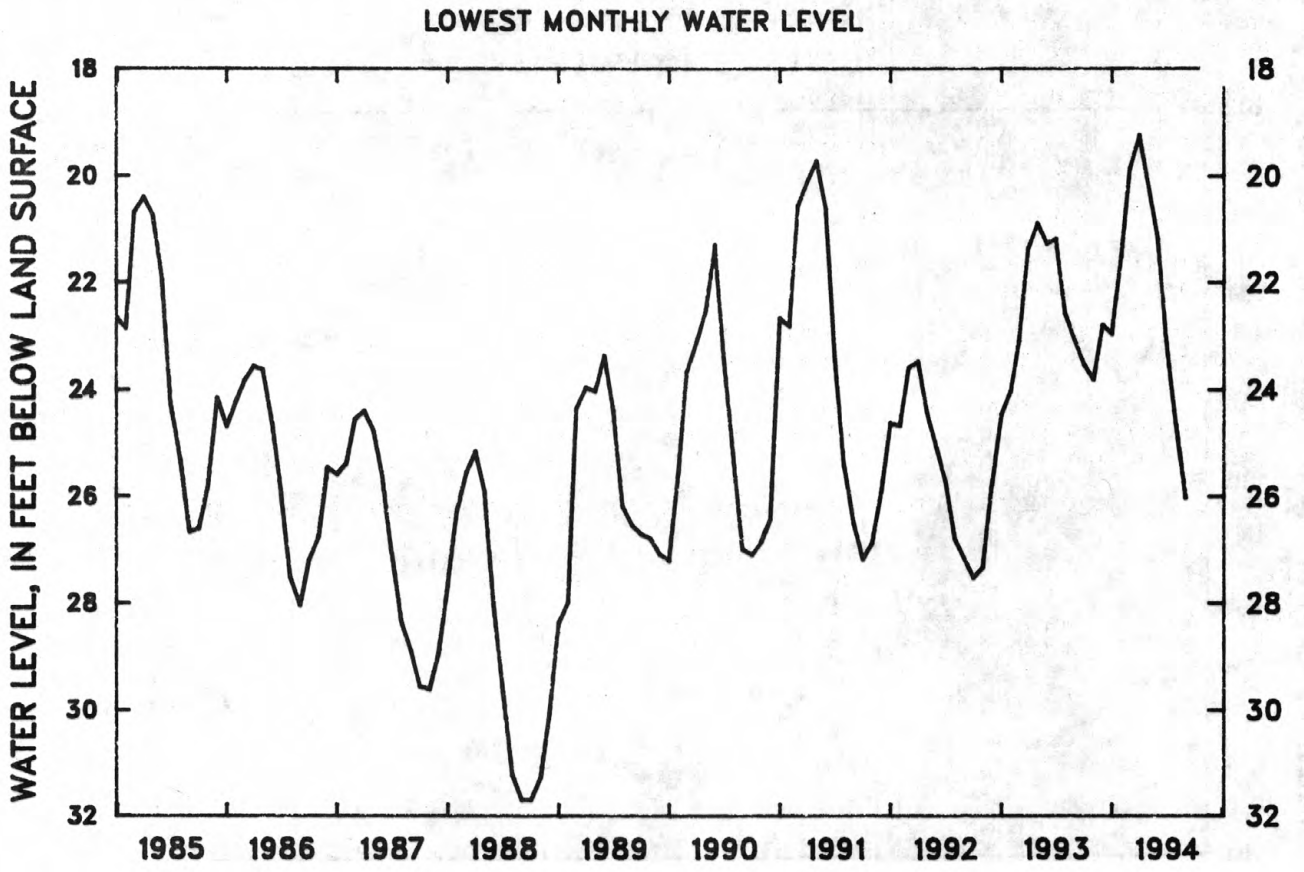
PERIOD OF RECORD.--May 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.28 ft below land-surface datum, May 30, 31, 1983; lowest, 31.71 ft below land-surface datum, Sept. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.20	23.66	22.36	22.95	20.87	19.46	18.46	---	20.18	21.26	23.26	25.04
10	22.40	23.81	21.88	22.78	20.87	19.45	18.05	---	20.42	---	23.76	25.24
15	23.19	23.75	21.60	22.04	21.05	19.15	17.73	---	20.42	---	24.08	25.52
20	23.43	22.32	21.97	22.25	20.64	18.85	16.90	---	20.74	---	24.40	25.74
25	23.26	21.82	22.54	22.62	20.22	18.97	16.32	---	20.98	---	24.33	25.84
EOM	23.52	22.44	22.79	21.75	20.02	19.42	---	---	21.19	23.13	24.66	.04

WTR YR 1994 HIGHEST 16.26 APR 25, 26, 1994 LOWEST 26.04 SEP 30, 1994



PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

FAYETTE COUNTY

352226089330101. Local number, Fa:R-1.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.2 mi southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in., depth 1,025 ft, cased to 1,008 ft, screened 1,008 to 1,025 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 317.50 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1949 to current year. Analog record August 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 64.89 ft below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft below land-surface datum, April 28, 1976; lowest measured, 87.77 ft below land-surface datum, Aug. 30, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	87.00	NOV 29	87.28	DEC 29	87.33	JAN 31	87.40	FEB 28	87.35	MAR 29	87.33
APR 26	87.26	MAY 31	87.28	JUN 28	86.36	JUL 29	87.65	AUG 30	87.77		

352226089330102. Local number, Fa:R-2.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.1 mi southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in., depth 365 ft, cased to 345 ft, screened 345 to 365 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 317.20 ft above sea level. Measuring point: Top of casing, 4.20 ft above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year. Analog record October 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 37.25 ft below land-surface datum, Mar. 10, 1952; lowest recorded, 42.12 ft below land-surface datum, Nov. 30, 1967; highest water level measured, 39.11 ft below land-surface datum, July 29, 1994; lowest measured, 41.75 ft below land-surface datum, Oct. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	40.48	NOV 29	40.49	DEC 29	40.40	JAN 31	40.29	FEB 28	39.94	MAR 30	39.75
APR 26	39.49	MAY 31	39.59	JUN 28	39.57	JUL 29	39.11	AUG 30	39.94		

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

SHELBY COUNTY

351435090005200. Local number, Sh:O-1.

LOCATION.--Lat 35°14'35", long 90°00'52", Hydrologic Unit 08010209, west side of O.K. Robertson Road, 0.4 mi north of U.S. Highway 51, at Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 434 ft, cased to 424 ft, screened 424 to 434 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 228.70 ft above sea level. Measuring point: Top of casing, 4.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--September 1940 to current year. Analong record September 1940 to January 1992, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.65 ft below land-surface datum, Sept. 3, 1940; lowest, 68.82 ft below land-surface datum, Aug. 24, 1988; highest water level measured, 50.16 ft below land-surface datum, March 29, 1994; lowest measured, 59.88 ft below land-surface datum, Aug. 26, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	56.59	NOV 29	54.12	DEC 29	53.90	FEB 4	50.94	FEB 28	50.48	MAR 29	50.16
APR 26	48.72	JUN 2	51.27	JUN 29	52.77	JUL 29	55.02	AUG 29	56.87		

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: Mrs. T.S. Welch

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 16 in., depth 1,558 ft, cased to 1,497 ft, screened 1,497 to 1,558 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 264.20 ft above sea level. Measuring point: Top of casing, 0.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--August 1946 to current year. Analog record March 1948 to January 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.5 ft below land-surface datum, April 11, 1948; lowest recorded, 60.42 ft below land-surface datum, Dec. 20, 1970; highest water level measured, 33.20 ft, April 21, 1947; lowest measured, 78.88 ft below land-surface datum, Aug. 29, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	78.38	NOV 29	77.51	DEC 29	77.64	FEB 4	77.45	FEB 28	77.20	MAR 29	77.26
APR 26	76.19	JUN 2	77.98	JUN 29	78.55	JUL 29	78.80	AUG 29	78.88		

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

SHELBY COUNTY--Continued

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: Mrs. F.E. Byrd

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in., depth 440 ft, cased to 360 ft, screened 360 to 440 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 268.76 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--June 1953 to current year. Analog record June 1953 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.59 ft below land-surface datum, June 29, 1953; lowest, 63.74 ft below land-surface datum, September 1, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	57.87	NOV 29	57.26	DEC 29	57.88	FEB 4	56.08	FEB 28	55.17	MAR 29	54.54
APR 26	53.46	JUN 2	54.75	JUN 29	54.87	JUL 29	54.87	AUG 29	57.33		

WILLIAMSON COUNTY

355505086541100. Local number, Wm:M-1.

LOCATION.--Lat 35°55'05", long 86°54'11", Hydrologic Unit 05130204, on Horton Lane, 0.8 mi 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., depth 1,160 ft, cased to 473 ft, open end.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 712 ft above sea level, from topographic map. Measuring point: Top of casing 2.80 ft 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 below land-surface datum, Mar. 10, 1952; lowest recorded 87.11 ft below land-surface datum, Sept. 10, 1970; highest water level measured, 85.43 ft below land-surface datum, Feb. 19, 1974; lowest measured, 114.81 ft below land-surface datum, Jan. 31, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 13	90.53	JAN 27	87.89	MAR 10	90.31	SEPT 8	90.19

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

CRITTENDEN COUNTY, AR

350958090173800. Local number, Ar:C-1.

LOCATION.--Lat 35°09′58", long 90°17′38", Hydrologic Unit 08020203, 450 ft west of Highway 147, 1.3 mi north of Lehi.
Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 622 ft, cased to 602 ft, screened 602 to 622 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 209 ft above sea level, from topographic map. Measuring point: Inside top of shelter base plate, 3.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area. Records good.

PERIOD OF RECORD.--May 1983 to current year. Analog record May 1983 to June 1989, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.29 ft below land-surface datum, June 11, 12, 13, 1983; lowest, 25.31 ft below land-surface datum, Oct. 5, 6, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	20.56	NOV 30	20.70	DEC 30	20.15	FEB 1	19.98	FEB 28	19.30	MAR 30	18.40
APR 27	17.65	JUN 2	17.45	JUN 29	18.70	JUL 27	19.92	AUG 29	20.40		

351349090062800. Local number, Ar:O-1.

LOCATION.--Lat 35°13′49", long 90°06′28", Hydrologic Unit 08020203, 0.3 mi east of blacktop road, 0.8 mi north of St. Claire.
Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 497 ft, cased to 477 ft, screened 477 to 497 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 217 ft above sea level, from topographic map. Measuring point: Inside top of shelter base plate, 3.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--May 1983 to current year. Analog record May 1983 to June 1989, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.42 ft below land surface datum, May 29, 30, 31, 1983; lowest, 41.68 ft below land-surface datum, Sept. 6, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	31.52	NOV 30	29.94	DEC 30	30.48	FEB 1	28.32	FEB 28	26.09	MAR 30	26.52
APR 27	21.99	JUN 2	27.71	JUN 29	28.72	JUL 27	30.52	AUG 29	32.26		

350114090071701 - SH:J-146 MLGW-DAVIS

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
AUG 25...	1400	80020	164	164	6.4	6.2	17.0	66	15

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 25...	6.9	7.7	20	0.4	1.1	78	2.9	2.6	0.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 25...	16	98	100	0.13	48	<50	450	5

350446090013500 - SH:J-154 MLGW-ALLEN

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
AUG 25...	1230	80020	143	140	6.2	6.5	17.0	51	12

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 25...	5.1	8.3	26	0.5	1.3	65	2.1	3.0	0.10

350446090013500 - SH:J-154 MLGW-ALLEN--Continued

DATE	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)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 25...	14	82	86	0.11	65	<50	900	14

350642089555000 - SH:K-142 MLGW 99 SHEAHAN WELL FIELD

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	PH WATER WHOLE LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
AUG 25...	1045	80020	105	104	6.2	6.2	17.0	31	7.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 25...	3.2	8.4	37	0.7	0.80	41	4.5	3.9	<0.10

DATE	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)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 25...	15	70	68	0.09	20	<50	130	9

350218089511701 - SH:L-36

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
AUG 25...	0930	80020	86	88	6.3	6.2	18.0	35	8.8

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 25...	3.2	3.2	16	0.2	0.50	40	2.5	1.4	<0.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 25...	11	40	55	0.05	12	<50	18	3

350507089482401 - SH:L-90-GERMANTOWN 7

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
AUG 23...	1145	80020	78	78	6.1	6.1	17.0	<0.10	21	5.0	2.0

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 23...	6.8	41	0.7	0.60	30	2.1	4.2	<0.10	12	50	51

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

SHELBY COUNTY--Continue

350507089482401 - SH:L-90-GERMANTOWN 7--Continued

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
AUG 23...	0.07	<0.010	0.130	0.130	0.03	0.020	<0.20	<0.010	<0.010	<0.010	<10

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
AUG 23...	17	<3	<3	<4	<1	<10	<1	<1	<1.0	15	<6

350449089480501 - SH:L-92-GERMANTOWN 9

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	PH WATER WHOLE LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG 23...	1015	80020	64	65	6.0	5.9	17.0	0.10	17	4.0	1.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 23...	6.0	43	0.6	0.50	26	1.7	2.8	<0.10	12	42	45

350449089480501 - SH:L-92-GERMANTOWN 9--Continued

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
AUG 23...	0.06	<0.010	0.093	0.093	0.03	0.020	<0.20	<0.010	<0.010	<0.010	<10

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
AUG 23...	13	<3	<3	<4	<1	<10	<1	<1	<1.0	11	<6

350917090012000 - SH:O-231 MLGW-MALLORY

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	PH WATER WHOLE LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
AUG 26...	1030	80020	144	143	6.3	6.2	17.0	54	12

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 26...	5.8	7.7	23	0.5	1.1	68	2.5	2.1	0.10

DATE	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)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 26...	15	78	88	0.11	60	<50	900	13

351440089572301 - SH:P-134 MORTON WELL FIELD

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
AUG 26...	0900	80020	128	123	6.4	6.3	17.5	50	12

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 26...	4.8	5.3	18	0.3	1.4	57	3.2	2.0	0.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 26...	11	68	75	0.09	75	<50	1400	23

351109089512901 - SH:Q-40

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	PH WATER WHOLE LAB (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
AUG 23...	1430	80020	122	116	6.2	6.1	17.0	38	8.7

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 23...	4.0	7.4	29	0.5	1.1	44	6.7	4.3	0.10

351109089512901 - SH:Q-40--Continued

DATE	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)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 23...	12	64	72	0.09	54	<50	1200	18

350835089434100 - SH:R-29

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	PH WATER WHOLE LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
AUG 23...	1215	80020	49	51	6.0	7.2	18.0	15	3.8

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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)
AUG 23...	1.4	3.5	32	0.4	0.80	22	1.1	1.7	<0.10

DATE	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)	BARIUM, DIS-SOLVED (UG/L AS BA)	COBALT, DIS-SOLVED (UG/L AS CO)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 23...	11	36	37	0.05	7	<50	23	2

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN (NATIONAL TRENDS NETWORK)

LOCATION.--Lat 35°28'08", long 89°10'14", Haywood County, Hydrologic Unit 08010208, 0.9 mi north of Hillville, 12 mi southeast of Brownsville.

PERIOD OF RECORD.--October 1984 to current year.

INSTRUMENTATION.--An automatic wet-dry precipitation collector is used to collect 7-day accumulations. The collector is equipped with a precipitation sensor which activates a motor to operate the sample bucket cover. The sample bucket remains uncovered for the duration of each precipitation event and covered during dry periods. Dryfall samples are not collected. A standard 8.0-inch recording rain gage is used to obtain on-site precipitation records.

REMARKS.--These data are part of the data for this site verified by the National Atmospheric Deposition Program/National Trends Network (NADP/NTN) Coordinator. Additional data are available from the NADP/NTN Coordinator, Natural Resource Ecology Laboratory, Fort Collins, Co. 80523. Data for all sites in the network are published quarterly by the NADP/NTN Coordinator's Office. Laboratory analyses were performed by the Central Analytical Laboratory of the Illinois State Water Survey. Data for the 1994 water year will be published in "Water Resources Data for Tennessee, Water Year 1995."

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN)	SPEC. CONDUC-TANCE FIELD ATM DEP WET TOT (US/CM)	PH FIELD ATM DEP WET T (UNITS)
OCT 1992 06-13	1508	0.16	40.1	4.19
OCT 13-20	1554	0.54	12.8	4.74
OCT 20-27	1410	0.79	32.2	4.29
OCT 27-NOV 03	1938	1.12	11.1	4.70
NOV 03-10	1700	0.30	19.8	4.51
NOV 10-17	1649	0.88	3.2	5.31
NOV 17-24	1708	1.26	9.4	4.75
NOV 24-DEC 01	1607	0.13	16.8	4.52
DEC 01-08	1700	0.22	53.5	4.04
DEC 08-15	1640	0.54	20.2	4.44
DEC 15-22	1647	1.51	9.5	4.75
DEC 22-29	1908	1.28	21.8	4.46

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN--Continued
(NATIONAL TRENDS NETWORK)

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN)	SPEC. CONDUC-TANCE FIELD ATM DEP WET TOT (US/CM)	PH FIELD ATM DEP WET T (UNITS)
DEC 29 1992-JAN 05 1993	2238	0.66	9.4	4.82
JAN 05-12	2243	0.78	23.2	4.37
JAN 12-19	2143	0.36	54.4	4.00
JAN 19-26	2152	1.96	10.0	4.62
JAN 26-FEB 02	2147	0.0	--	--
FEB 02-09	2229	0.0	--	--
FEB 09-16	1725	1.57	27.7	4.34
FEB 16-23	1755	1.09	12.5	4.70
FEB 23-MAR 02	2238	1.39	18.4	4.45
MAR 02-09	1633	0.01	--	--
MAR 09-16	2040	0.64	13.8	4.54
MAR 16-23	2227	0.85	14.4	4.58
MAR 23-30	1248	1.29	33.7	4.27
MAR 30-APR 06	1245	0.75	17.9	4.52
APR 06-13	2125	2.23	15.3	--
APR 13-20	1150	1.49	6.6	4.91
APR 20-27	1155	1.28	8.3	4.88
APR 27-MAY 04	1315	2.30	12.4	4.73
MAY 04-11	1125	0.10	9.7	4.75
MAY 11-18	1130	1.32	21.3	4.45
MAY 18-25	1159	0.82	16.5	4.55
MAY 25-JUN 01	1835	0.59	23.9	4.47
JUN 01-08	1310	0.54	10.1	4.92

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN--Continued (NATIONAL TRENDS NETWORK)

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN)	SPEC. CONDUC-TANCE FIELD ATM DEP WET TOT (US/CM)	PH FIELD ATM DEP WET T (UNITS)
JUN 1993 08-15	1306	0.88	17.0	4.61
JUN 15-22	1306	0.10	22.8	4.41
JUN 22-29	1321	1.95	17.1	4.51
JUN 29-JUL 06	1646	0.53	29.7	4.26
JUL 06-13	1318	0.41	30.5	4.27
JUL 13-20	1330	0.20	35.2	4.17
JUL 20-27	1316	0.12	88.2	3.79
JUL 27-AUG 03	1334	0.04	47.4	4.19
AUG 03-10	1330	1.95	14.0	4.61
AUG 10-17	1330	0.0	--	--
AUG 17-24	1408	0.16	30.8	4.32
AUG 24-31	1400	0.32	60.9	3.94
AUG 31-SEP 07	1314	0.04	30.2	4.25
SEP 07-14	1347	0.49	58.1	3.97
SEP 14-21	1314	0.61	20.0	4.42
SEP 21-28	1225	2.83	11.2	4.74
SEP 28-OCT 05	1135	0.17	--	--

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN--Continued
(NATIONAL TRENDS NETWORK)

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	CALCIUM ATM DEP WET DIS (MG/L)	MAG-NESIUM ATM DEP WET DIS (MG/L)	SODIUM ATM DEP WET DIS (MG/L)	POTAS-SIUM ATM DEP WET DIS (MG/L)	SULFATE ATM DEP WET DIS AS SO4 (MG/L)	CHLO-RIDE ATM DEP WET DIS (MG/L)	NI-TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L)	NI-TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L)	PHOS-PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L)
OCT 1992										
06-13	1508	0.510	0.037	0.119	0.044	3.42	0.18	2.37	0.390	<0.020
OCT										
13-20	1554	0.110	0.022	0.102	0.020	1.13	0.15	0.82	0.230	<0.020
OCT										
20-27	1410	0.150	0.027	0.136	0.049	2.56	0.16	1.89	0.540	<0.020
OCT 27-										
NOV 03	1938	0.040	0.012	0.053	0.030	0.86	0.09	0.70	0.110	<0.020
NOV										
03-10	1700	0.130	0.021	0.133	0.022	1.56	0.16	1.19	0.170	0.030
NOV										
10-17	1649	0.020	0.003	0.028	0.003	0.22	0.04	0.18	0.040	<0.020
NOV										
17-24	1708	0.060	0.015	0.081	0.012	0.89	0.12	0.50	0.100	<0.020
NOV 24-										
DEC 01	1607	0.090	0.012	0.111	0.011	1.21	0.13	1.00	0.130	<0.020
DEC										
01-08	1700	0.170	0.053	0.382	0.049	3.40	0.81	3.34	0.350	<0.020
DEC										
08-15	1640	0.040	0.004	0.018	0.010	1.70	0.05	0.94	0.160	<0.020
DEC										
15-22	1647	0.020	0.007	0.056	0.007	0.72	0.08	0.44	0.090	<0.020
DEC										
22-29	1908	0.030	0.006	0.044	0.007	1.60	0.10	1.01	0.180	<0.020

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN--Continued
(NATIONAL TRENDS NETWORK)

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	CALCIUM ATM DEP WET DIS (MG/L)	MAG-NESIUM ATM DEP WET DIS (MG/L)	SODIUM ATM DEP WET DIS (MG/L)	POTAS-SIUM ATM DEP WET DIS (MG/L)	SULFATE ATM DEP WET DIS AS SO4 (MG/L)	CHLO-RIDE ATM DEP WET DIS (MG/L)	NI-TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L)	NI-TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L)	PHOS-PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L)
DEC 29 1992-JAN 05 1993	2238	0.030	0.010	0.060	0.004	0.89	0.09	0.50	0.140	<0.020
JAN 05-12	2243	0.030	0.005	0.036	0.006	2.18	0.10	0.99	0.270	<0.020
JAN 12-19	2143	0.190	0.012	0.053	0.020	4.13	0.20	4.04	0.770	<0.020
JAN 19-26	2152	0.020	0.006	0.034	<0.003	0.68	0.06	0.54	0.050	<0.020
JAN 26-FEB 02	2147	--	--	--	--	--	--	--	--	--
FEB 02-09	2229	--	--	--	--	--	--	--	--	--
FEB 09-16	1725	0.150	0.029	0.201	0.125	2.50	0.33	1.36	0.610	0.080
FEB 16-23	1755	0.110	0.028	0.211	0.022	1.20	0.27	0.61	0.210	<0.020
FEB 23-MAR 02	2238	0.070	0.015	0.090	0.013	1.49	0.18	0.70	0.090	<0.020
MAR 02-09	1633	<0.090	<0.029	0.088	<0.029	<0.29	<0.29	0.39	<0.200	<0.200
MAR 09-16	2040	0.170	0.038	0.175	0.021	1.24	0.31	0.71	0.150	<0.020
MAR 16-23	2227	0.070	0.019	0.139	0.013	1.12	0.19	0.91	0.150	<0.020
MAR 23-30	1248	0.110	0.015	0.034	0.029	3.17	0.11	2.74	0.760	<0.020
MAR 30-APR 06	1245	0.130	0.013	0.032	0.022	1.30	0.07	1.24	0.230	<0.020
APR 06-13	2125	0.060	0.010	0.036	0.011	1.28	0.07	0.84	0.150	<0.020
APR 13-20	1150	0.060	0.024	0.154	0.047	0.65	0.22	0.50	0.220	<0.020
APR 20-27	1155	0.150	0.018	0.087	0.018	0.66	0.15	0.51	0.120	<0.020
APR 27-MAY 04	1315	0.090	0.030	0.183	0.021	1.05	0.27	0.91	0.160	<0.020
MAY 04-11	1125	0.100	0.018	0.101	0.016	0.36	0.13	0.89	0.020	<0.020
MAY 11-18	1130	0.140	0.017	0.031	0.021	1.79	0.09	1.62	0.290	<0.020
MAY 18-25	1159	0.120	0.032	0.152	0.038	1.47	0.24	1.24	0.300	<0.020
MAY 25-JUN 01	1835	0.080	0.023	0.125	0.040	2.00	0.14	1.43	0.630	<0.020
JUN 01-08	1310	0.190	0.025	0.100	0.030	1.19	0.11	0.85	0.300	<0.020

CHEMICAL QUALITY OF PRECIPITATION

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN--Continued
(NATIONAL TRENDS NETWORK)

PRECIPITATION QUALITY, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	CALCIUM ATM DEP WET DIS (MG/L)	MAG-NESIUM ATM DEP WET DIS (MG/L)	SODIUM ATM DEP WET DIS (MG/L)	POTAS-SIUM ATM DEP WET DIS (MG/L)	SULFATE ATM DEP WET DIS AS SO4 (MG/L)	CHLO-RIDE ATM DEP WET DIS (MG/L)	NI-TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L)	NI-TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L)	PHOS-PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L)
JUN 1993										
08-15	1306	0.110	0.036	0.201	0.055	1.34	0.26	1.76	0.410	<0.020
JUN										
15-22	1306	0.080	0.038	0.268	0.027	1.79	0.37	1.91	0.250	<0.020
JUN										
22-29	1321	0.050	0.016	0.091	0.025	1.38	0.15	1.18	0.170	<0.020
JUN 29-										
JUL 06	1646	0.090	0.028	0.156	0.027	2.73	0.21	1.68	0.250	<0.020
JUL										
06-13	1318	0.190	0.031	0.096	0.035	1.67	0.14	2.16	0.380	<0.020
JUL										
13-20	1330	0.140	0.044	0.253	0.031	2.65	0.33	2.91	0.290	0.090
JUL										
20-27	1316	0.580	0.102	0.341	0.049	7.78	0.34	6.33	1.20	0.070
JUL 27-										
AUG 03	1334	0.490	0.086	0.194	0.083	4.25	0.30	4.29	1.04	<0.020
AUG										
03-10	1330	0.080	0.012	0.031	0.018	1.24	0.05	0.95	0.170	<0.020
AUG										
10-17	1330	--	--	--	--	--	--	--	--	--
AUG										
17-24	1408	0.490	0.058	0.248	0.046	2.61	0.24	3.23	0.400	0.080
AUG										
24-31	1400	0.370	0.054	0.186	0.060	5.87	0.24	3.25	0.350	<0.020
AUG 31-										
SEP 07	1314	0.230	0.043	0.220	0.057	1.40	0.05	3.09	0.080	0.300
SEP										
07-14	1347	0.270	0.021	0.042	0.032	5.51	0.12	3.04	0.540	<0.020
SEP										
14-21	1314	0.060	0.021	0.125	0.021	1.65	0.18	0.96	0.080	<0.020
SEP										
21-28	1225	0.070	0.019	0.100	0.022	0.87	0.16	0.89	0.120	<0.020
SEP 28-										
OCT 05	1135	0.100	0.034	0.260	0.019	1.40	0.40	1.28	0.130	<0.020

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Red Boiling Spring at Red Boiling Springs (d)	03312250	USGS		1986
Crabapple Branch near La Follette (d)	03403718	USGS	1.07	1981-84
Indian Fork above Braytown (d)	03407804	USGS	4.32	1975-78
Green Branch near Hembree (d)	03407874	USGS	1.38	1976-78
Smoky Creek above Hembree (361240084245800) (d)	034078745	USGS	8.07	1982-83
Bills Branch near Hembree (d)	03407875	USGS	.67	1975-83
Shack Creek at Hembree (361341084253900) (d)	034078755	USGS	5.08	1982-84
Smoky Creek near Hembree (d)	03407876	USGS	17.2	1977-84
Bowling Branch above Smoky Junction (d)	03407877	USGS	2.19	1976-81
Anderson Branch near Montgomery (d)	03407881	USGS	.69	1976-80
Lowe Branch near Montgomery (d)	03407882	USGS	.92	1975-80
New River at Cordell (d)	03407908	USGS	198	10/75-77, 5/77-12/87
New River near New River (d)	03408000	USGS	314	1923-35
Long Branch near Grimsley (d)	03408600	USGS	1.11	1976-81
Crooked Creek tributary near Allardt (d)	03408810	USGS	.25	1976-79
Crooked Creek near Allardt (d)	03408815	USGS	3.62	1976-81
White Oak Creek at Sunbright (d)	03409000*	USGS	13.5	1932-33
White Oak Creek at Rugby (d)	03409400	USGS	98.0	1980-82
Pine Creek tributary at Oneida (d)	03410000	USGS	1.21	1932-33
South Fork Cumberland River at Leatherwood Ford (d)	03410210	USGS	806	1983-87
West Fork Obey River near Alpine (d)	03415000	USGS	115	1943-71, 1980-81
Obey River near Byrdstown (d)	03415500	USGS	445	1919-43
Obey River below Dale Hollow Dam (d)	03417000	USGS	936	1939-42, 1945-58
Roaring River near Hilham (d)	03418000	USGS	78.7	1932-75
Roaring River near Gainesboro (d)	03418188	USGS	276	1975
Caney Fork at Clifty (d)	03418500	USGS	111	1931-49
Bee Creek at Herbert (d)	03419000	USGS	101	1931-37
Calfkiller River at Sparta (d)	03419500	USGS	157	1932-41
Calfkiller River below Sparta (d)	03420000	USGS	175	1940-71
Barren Fork near Trousdale (d)	03420500	USGS	126	1932-57
Collins River near Rowland (d)	03421500	USGS	755	1916-24
Falling Water River near Cookeville (d)	03423000	USGS	67.0	1932-56
Falling Water River below Burgess Falls Dam (d)	03423152	USGS	124	1990-93
Taylor Creek near Cassville (d)	03423400	USGS	34.2	1989-93
Caney Fork below Center Hill Dam, near Lancaster (d)	03424500	USGS	2,183	1923-58
Spring Creek near Lebanon (d)	03425500	USGS	35.3	1955-61
Town Creek at Maple Street at Gallatin (d)	03425646	USGS	4.74	1984
Drakes Creek above Hendersonville (d)	03426000	USGS	19.2	1955-61
Cumberland River at Dam 3, near Old Hickory (d)	03426210	USGS	11,688	1931-42, 1947-53
East Fork Stones River at Woodbury (d)	03426800*	USGS	39.1	1932-33, 1950, 1954, 1962-89
Bradley Creek at Lascassas (d)	03427000	USGS	37.0	1955-61
Bushman Creek at Pitts Lane Ford near Compton (d)	03427690	USGS	9.67	1989-92
West Fork Stones River near Murfreesboro (d)	03428000	USGS	128	1932-69
Lytle Creek at Sanbyrn Drive at Murfreesboro (d)	03428043	USGS	17.6	1990-92
Fox Camp Spring at Mankinville (d)	03428047	USGS		1978-80
West Fork Stones River at Manson Pike, at Murfreesboro (d)	03428070	USGS	165	1973-81
Stones River near Smyrna (d)	03429000	USGS	571	1925-67
Stewart Creek near Smyrna (Smyrna Airport) (d)	03429500	USGS	69.7	1953-58
Stones River below J. Percy Priest Dam (d)	03430100	USGS	892	1939-67

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Collins Creek at Bell Road, near Antioch (d)	03430800	USGS	3.61	1976-77
Mill Creek near Antioch (d)	03431000	USGS	64.0	1954-61, 1964-75
Browns Creek at State Fairgrounds, at Nashville (d)	03431300	USGS	11.8	1964-75
Cumberland River at Nashville (d)	03431500	USGS	12,856	1893-54
Cummings Branch at Lickton (d)	03431517	USGS	2.40	1976-90
Whites Creek at Tucker Road, near Bordeaux (d)	03431600	USGS	51.6	1965-75
Richland Creek at Charlotte Ave, at Nashville (d)	03431700	USGS	24.3	1964-90
West Harpeth River near Leipers Fork (d)	03432500	USGS	66.9	1955-61
Red River near Portland (d)	03435030	USGS	15.1	1967-75
Red River near Adams (d)	03435500	USGS	706	1920-69
Sulphur Fork Red River near Adams (d)	03436000	USGS	186	1938-91
Cumberland River at Clarksville (lock C) (d)	03436500	USGS	15,897	1925-44
Yellow Creek near Shiloh (d)	03436700*	USGS	124	1958-80
Cumberland River at Dover (gaging station) (d)	03437000	USGS	16,437	1938-65
Pigeon River at Hartford (d)	03461000	USGS	547	1925-48
Cosby Creek above Cosby (d)	03461200	USGS	10.1	1967-87
Pigeon River at Newport (d)	03461500	USGS	666	1900-29, 1945-46, 1948-82,
		TVA		1982-83
North Indian Creek near Unicoi (d)	03465000	USGS	15.9	1944-57
Nolichucky River below Nolichucky Dam (d) (e)	03466500	USGS	1,184	1902-09, 1919-26, 1946-73
Lick Creek at Mohawk (d)	03467000	USGS	220	1946-71
Nolichucky River near Morristown (d)	03467500	USGS	1,679	1921-57
Long Creek near White Pine (d)	03468050	TVA	30.8	1964-81
French Broad River below Douglas Dam (d)	03469000	USGS	4,543	1919-74
Millican Creek near Douglas Dam (d)	03469010	TVA	4.22	1942-62
Roaring Fork Creek at Hwy 441, at Gatlinburg (d)	03469282	TVA	7.23	1977-82
Dudley Creek at Gatlinburg (d)	03469390	TVA	8.84	1977-82
West Prong Little Pigeon River near Pigeon Forge (d)	03469500	USGS	76.2	1946-49
		TVA		1967-69
Little Pigeon River at Sevierville (d)	03470000	USGS	353	1921-82
South Fork Holston River below South Holston Dam (d)	03476500	USGS	703	1951-74
South Fork Holston River at Bluff City (d)	03477000	USGS	813	1900-53
Beaver Creek at Bristol (d)	03478500	USGS	44.8	1932-34
Beaver Creek at Buffalo School, near Bluff City (d)	03478620	TVA	108	1934-38
Watauga River at North Carolina-Tennessee State Line (d)	03479500	USGS	152	1943-55
Watauga River at Stump Knob (d)	03480000	USGS	171	1928-31, 1934-45
Roan Creek near Neva (d)	03482000	USGS	102	1942-55
Roan Creek at Butler (d)	03482500	USGS	166	1901-02, 1934-48
Watauga River at Butler (d)	03483000	USGS	427	1900-02, 1921-48
Watauga River below Wilbur Dam (d)	03484000	USGS	471	1903-09, 1948-82
Watauga River at Siam (d)	03484110	TVA	480	1946
Doe River at Old Hopson School (d)	03484490	TVA	59.3	1967-69
Doe River at Blevins (d)	03484500	USGS	60.8	1912-15
Laurel Fork above Braemar (d)	03484900	TVA	23.0	1945-51
Laurel Fork above Hampton (d)	03484910	TVA	25.3	1948-52
Doe River at Elizabethton (d)	03485500	USGS	137	1912-16, 1921-82

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Watauga River at Elizabethton (d)	03486000	USGS	692	1926-49, 1953-82
Buffalo Creek at Milligan College (d)	03486200	TVA	28.1	1965-81
Brush Creek at Johnson City (Tennessee Street) (d)	03486490	TVA	6.78	1969-73
Brush Creek at Johnson City (Elm Street) (d)	03486495	TVA	9.58	1969-72
Brush Creek at Johnson City (d)	03486500	USGS	10.3	1932-34
Fall Creek near Fort Patrick Henry Dam (d)	03486900	TVA	13.1	1953-56
South Fork Holston River at Kingsport (d)	03487500	USGS	1,935	1926-77
South Fork Holston River at Kingsport (auxiliary channel) (d)	03487501	USGS	1.0	1953-77
Reedy Creek at Orebank (d)	03487550*	USGS	36.3	1963-89
South Fork Holston River near Ridgefields Bridge, at Kingsport (d)	03487640	TVA	2,047	1968-69
Holston River at Surgoinsville (d)	03490500	USGS	2,874	1941-88
Holston River near Rogersville (d)	03491500	USGS	3,035	1901-42
Poor Valley Creek near Mooresburg (near Spruce Pine School) (d)	03491800	USGS	32.3	1958-61
Poor Valley Creek near Mooresburg (d)	03491820	TVA	43.3	1959-60
Holston River near Morristown (d)	03492000	USGS	3,244	1937-42
Mossy Spring near Jefferson City (d)	03492500	USGS		1950-59
Mossy Creek at Jefferson City (d)	03493000	USGS	30.8	1932-34
Holston River near Jefferson City (d)	03494000	USGS	3,429	1937-74
Mill Spring near Jefferson City (d)	03494500	TVA		1941-48
		USGS		1951-59
Holston River near Knoxville (d)	03495500	USGS	3,747	1930-76, 1978-93
First Creek at Mineral Springs Avenue, at Knoxville (d)	03496000	USGS	15.7	1945-63
First Creek above Powers Avenue, at Knoxville (d)	03496200	USGS	17.2	1964-70
First Creek at Fifth Avenue, at Knoxville (d)	03496500	USGS	21.1	1932-34, 1945-59
Tennessee River at Knoxville (Gay Street Bridge) (d)	03497000	USGS	8,934	1900-82
Fourth Creek at Knoxville (d)	03497110	TVA	9.65	1942-43
Little River at Walland (d)	03497500	USGS	175	1925-31
Little River near Walland (d)	03498000	USGS	192	1931-52
Pistol Creek at Maryville (d)	03499000	USGS	13.5	1932-33
Little River below Rockford Dam, at Rockford (d)	03499100	TVA	346	1940-44
Little River near Rockford (d)	03499110	TVA	352	1936-37
Ten Mile Creek near Ebenezer (d)	03499200	TVA	13.2	1941-45
Muddy Creek near Fort Loudon Dam (d)	03499600	TVA	10.7	1941-59
Little Tennessee River at Calderwood (d)	03518000	USGS	1,862	1912-19, 1921-57
Little Tennessee River below Chilhowee Dam (d)	03518300	USGS	1,987	1958-79
North Fork Citico Creek near Tellico Plains (d)	03518400	TVA	7.04	1960-71
Tellico River at Tellico Plains (d)	03518500	USGS	118	1925-82
Little Tennessee River at McGhee (d)	03519500	USGS	2,443	1905-69
Baker Creek near Greenback (d)	03519640*	USGS	16.0	1966-75
Tennessee River at Loudon (d)	03520000	USGS	12,220	1923-55
Sweetwater Creek below Sweetwater (d)	03520045	TVA	26.4	1970-81
Sweetwater Creek near Sweetwater (d)	03520050	TVA	28.2	1964-70
Big Sycamore Creek near Sneedville (d)	03528100	TVA	5.49	1935-45
Big Barren Creek near New Tazewell (d)	03528300	TVA	22.5	1935-45
White Creek near Sharps Chapel (d)	03528400	TVA	2.68	1935-72
Powell River near Arthur (d)	03532000	USGS	685	1920-82
Davis Creek near Speedwell (d)	03532100	TVA	31.2	1936-37
Big Creek near La Follette (d)	03532220	TVA	26.2	1936-38
Clinch River below Norris Dam (d)	03533000	USGS	2,913	1904-74
Clear Creek near Norris (d)	03533100	TVA	2.83	1934-38
Coal Creek at Lake City (d)	03534000*	USGS	24.5	1932-34
Buffalo Creek at Norris (d)	03534500	USGS	9.92	1947-51
Bullrun Creek near Halls Crossroads (d)	03535000	USGS	68.5	1957-86
Scarboro Creek Tributary near Haw Ridge near Oak Ridge (d)	03535102	USGS	0.41	1989-91
Scarboro Creek Tributary near Oak Ridge (d)	03535103	USGS	0.41	1989-91
Whiteoak Creek at ORNL, near Oak Ridge (d)	03536500	USGS	2.08	1950-55

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Whiteoak Creek below ORNL, near Oak Ridge (d)	03537000	USGS	3.62	1950-53, 1955-64
Melton Branch tributary (East Seven) near Oak Ridge (d)	03537050	USGS	.24	1987-91, 1992-93
Melton Branch tributary (Center Seven) near Oak Ridge (d)	03537200	USGS	.07	1987-91, 1992-93
Melton Branch tributary (West Seven) near Oak Ridge (d)	03537300	USGS	.15	1987-89, 1992-93
Melton Branch near Oak Ridge (d)	03537500	USGS	1.48	1955-64
Whiteoak Creek at Whiteoak Dam, near Oak Ridge (d)	03538000	USGS	6.01	1953-55, 1960-64
Clinch River near Oak Ridge (d)	03538150	USGS	3,385	1937-64, 1968
Poplar Creek near Oak Ridge (d)	03538225	USGS	82.5	1960-89
East Fork Poplar Creek near Oak Ridge (d)	03538250	USGS	19.5	1960-88
Bear Creek tributary above Bear Creek Road near Wheat (d)	035382672	USGS	.30	1986-91
Bear Creek near Wheat (d)	035382673	USGS	3.20	1986-91
Bear Creek tributary near Wheat (d)	035382677	USGS	.14	1986-89, 1992-93
Bear Creek tributary at Hwy 95 near Wheat (d)	03538272	USGS	.14	1986-89
Bear Creek at Pine Ridge near Wheat (d)	03538273	USGS	5.0	1986-91
Bear Creek near Oak Ridge (d)	03538275	USGS	7.15	1960-64
Emory River near Wartburg (d)	03538500	USGS	83.2	1934-57, 1966-68
Daddys Creek near Grassy Cove (d)	03539000	USGS	51.2	1925-30
Daddys Creek near Crab Orchard (d)	03539500	USGS	93.5	1931-58
Daddys Creek near Hebbertsburg (d)	03539600	USGS	139	1957-68
Clear Creek near Lancing (d)	03539750	USGS	153	1966-68
Obed River near Lancing (d)	03539800	USGS	518	1956-68, 1973-88
Crooked Fork near Wartburg (d)	03539860	USGS	50.3	1966-68
Emory River at Deermont (d)	03540000	USGS	704	1920-28
Crab Orchard Creek near Deermont (d)	03540100	USGS	33.7	1966-68
Bitter Creek near Oakdale (d)	03541300	USGS	12.6	1967-75
Kingston Creek at Kingston (d)	03541400	TVA	.74	1940-41
Whites Creek near Glen Alice (d)	03541500	USGS	108	1934-55
Whites Creek at Glen Alice (d)	03542000	USGS	120	1931-34
Piney River at Spring City (d)	03542500	USGS	95.9	1927-31
Tennessee River at Breedenton (d)	03544000	USGS	17,440	1934-40
Richland Creek near Dayton (d)	03544500	USGS	50.2	1927-31, 1934-55, 1979-82
Turtletown Creek at Turtletown (d)	03556000	USGS	26.9	1934-71
Hiwassee River near McFarland (d)	03556500	USGS	1,136	1943-81
Hiwassee River near Reliance (d)	03557000	USGS	1,233	1900-14, 1918-48
Ocoee River at Copperhill (d)	03559500	USGS	352	1903-14, 1943-70
North Potato Creek tributary, Copper Basin area 6, near Ducktown (d)	03560700	TVA	.01	1940-51
Burra-burra Creek tributary, Copper Basin area 5, near Ducktown (d)	03560800	TVA	.02	1940-51
North Potato Creek near Ducktown (d)	03561000	USGS	13.0	1934-70
North Potato Creek tributary No. 2, Copper Basin area 1-W, near Ducktown (d)	03561200	TVA	.01	1942-52
North Potato Creek tributary No. 3, Copper Basin area 1-E, near Ducktown (d)	03561300	TVA	.01	1942-52
Ocoee River at McHarg (d)	03561500	USGS	447	1917-43
Walkertown Branch tributary, Copper Basin area 4, near Ducktown (d)	03561700	TVA	.01	1940-45
Ocoee River tributary, Copper Basin area 3, near Ducktown (d)	03561800	TVA	.01	1940-51

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

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

Station name	Station number	Agency	Drainage area (mi²)	Period of record
Brush Creek near Ducktown (d)	03562000	USGS	14.4	1934-42
Hiwassee River above Charleston (d)	03565000	USGS	2,001	1954-76
Chestuee Creek above Englewood (d)	03565040	TVA	14.8	1944-57
Little Chestuee Creek below Wilson Station (d)	03565080	TVA	8.54	1947-57
Chestuee Creek at Zion Hill (d)	03565120	TVA	37.8	1944-62
Middle Creek below Hwy 39 near Englewood (d)	03565160	TVA	32.7	1944-62
Chestuee Creek near Athens (d)	03565200	TVA	77.9	1944-54
Chestuee Creek at Dentville (d)	03565250	USGS	114	1944-62
South Chestuee Creek near Benton (d)	03565300	USGS	31.8	1957-86
Oostanaula Creek near Sanford (d)	03565500	USGS	57.0	1954-89
Oostanaula Creek near Calhoun (d)	03565700	TVA	67.0	1940-44
Wolftever Creek near Ooltewah (d)	03566420*	USGS	18.8	1964-89
Long Savannah Creek near Snow Hill (d)	03566450	TVA	28.3	1939-44
North Chickamauga Creek at Upper Mill, near Hixson (d)	03566600	TVA	99.5	1937-43
North Chickamauga Creek near Hixson (d)	03566630	TVA	114	1937-43
South Chickamauga Creek near McCarty (d)	03567600	TVA	458	1937-45
Sequatchie River near College Station (d)	03570650	USGS	154	1966-68
Little Sequatchie River at Sequatchie (d)	03571500*	USGS	116	1932-34
Tennessee River at South Pittsburg (d)	03571850	USGS	22,640	1930-87
Elk River near Pelham (d)	03578000	USGS	65.6	1952-88
Bradley Creek near Prairie Plains (d)	03578500	USGS	41.3	1952-60
Elk River near Estill Springs (d)	03579100	USGS	275	1921-81
Boiling Fork Creek south of Cowan (d)	03580000	USGS	20.2	1932
Boiling Fork Creek above Winchester (d)	03580300	USGS	55.9	1962-70
Boiling Fork Creek at Winchester (d)	03580500	USGS	77.1	1932-34
Elk River below Tims Ford Dam (d)	03580750	USGS	534	1966-76
Jack Daniel Spring at Lynchburg (d)	03580990	USGS		1970-78
East Fork Mulberry Creek at Lynchburg (d)	03581000	USGS	23.1	1932
East Fork Mulberry Creek near Lynchburg (d)	03581100	TVA	29.5	1967-69
East Fork Mulberry Creek near Mulberry (d)	03581200	TVA	49.4	1967-69
West Fork Mulberry Creek near Booneville at Mt. Herman (d)	03581400	TVA	17.4	1967-69
West Fork Mulberry Creek at Mulberry (d)	03581500	USGS	41.2	1954-62, 1966-68
Elk River above Fayetteville (d)	03582000	USGS	827	1934-82
Union Branch below Belleville (d)	03582140	USGS	2.37	1977
Elk River near Fayetteville (d)	03582500	USGS	897	1926-34
Bradshaw Creek at Frankewing (d)	03583000	USGS	36.5	1955-61, 1966-68
Richland Creek near Cornersville (d)	03583300*	USGS	47.5	1961-68
Factory Creek (head of Big Creek) near Campbellsville (d)	03583330	USGS	38.2	1966-68
Yokley Creek near Campbellsville (d)	03583360	USGS	20.2	1966-68
Weakley Creek near Bodenham (d)	03583500	USGS	24.4	1955-61, 1966-68
Richland Creek near Pulaski (d)	03584000	USGS	366	1934-75
Shoal Creek at Lawrenceburg (d)	03588000	USGS	55.4	1932-34, 1967-91
Chisholm Creek at Westpoint (d)	03588400	USGS	43.0	1962-88
Snake Creek near Adamsville (d)	03593300	TVA	49.4	1940-59
Holland Creek near Lowryville (d)	03593700	TVA	14.9	1965-78
Horse Creek near Savannah (d)	03594000	USGS	114	1929-34
Turkey Creek near Savannah (d)	03594040	TVA	53.7	1940-59
White Oak Creek near Milledgeville (d)	03594058	TVA	46.1	1940-59
White Oak Creek at Milledgeville (d)	03594110	TVA	49.2	1961-65
Middleton Creek near Milledgeville (d)	03594120	TVA	45.5	1940-59
Indian Creek near Cerro Gordo (d)	03594160	TVA	201	1940-59
Banjo Branch near Waynesboro (d)	03594164	USGS	2.14	1988-89
Beech River near Lexington (d)	03594415	TVA	15.9	1953-63
Wolf Creek at Graper Springs (d)	03594420	TVA	11.7	1953-55
Pine Tree Branch near Lexington (d)	03594425	TVA	.14	1941-78

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
Harmon Creek near Lexington (d)	03594430	TVA	6.87	1953-73
Piney Creek at Hwy 104 near Lexington (d)	03594435	TVA	19.2	1953-55, 1957-73
Cane Creek near Shady Hill (d)	03594437	TVA	20.7	1966-73
Haley Creek near Chesterfield (d)	03594441	TVA	8.30	1953-55
Beech River near Chesterfield (old channel before channelization) (d)	03594445	TVA	11.5	1940-54, 1960-65
Browns Creek near Chesterfield (d)	03594450	TVA	202	1953-63
Cane Creek near Shady Hill (d)	03594455	TVA	16.8	1953-64
Cane Creek near Chesterfield (old channel before channelization) (d)	03594460	TVA	222	1940-54
Beech River near Darden (old channel before channelization) (d)	03594465	TVA	165	1954-60
Flat Creek near Middleburg (d)	03594470	TVA	13.8	1953-55
Big Creek near Darden (d)	03594475	TVA	10.6	1953-55, 1966-73
Turkey Creek near Decaturville (d)	03594480	TVA	8.40	1953-63
Turkey Creek at Middleburg Road, near Decaturville (d)	03594482	TVA	11.5	1964-73
Rushing Creek near Decaturville (d)	03594485	TVA	17.0	1953-55
Tennessee River at Perryville (d)	03594500	USGS	34,550	1931-32
Duck River near Manchester (d)	03595000	USGS	55.2	1932-34
Little Duck River at Manchester (d)	03595500	USGS	40.4	1932-34
Duck River below Manchester (d)	03596000	USGS	107	1934-88
Duck River at Normandy (d)	03596500	USGS	208	1920-31, 1972-75
Garrison Fork at Fairfield (d)	03597000	USGS	66.3	1953-58, 1966-68
Wartrace Creek at Bell Buckle (d)	03597500	USGS	16.3	1953-61, 1966-75
Wartrace Creek at Wartrace (d)	03597600	USGS	36.4	1966-68
Big Rock Creek at Lewisburg (d)	03599000	USGS	24.9	1953-61, 1966-68
Fountain Creek near Culleoka (d)	03599430	USGS	26.9	1966-68
Fountain Creek near Fountain Heights (d)	03599450	USGS	74.0	1966-68
Rutherford Creek near Carters Creek (d)	03600000	USGS	68.8	1953-58
Rutherford Creek (No. 4) near Columbia (d)	03600100	TVA	112	1948-53
Rutherford Creek (No. 3) near Columbia (d)	03600200	TVA	116	1948-49
Little Bigby Creek at Experiment Lane at Columbia (d)	03600258	USGS	42.6	1990-92
Big Bigby Creek at Sandy Hook (d)	03600500	USGS	17.5	1953-87, 1988-89
Big Bigby Creek near Mount Pleasant (d)	03601000	USGS	25.8	1953-57
Big Bigby Creek at Cross Bridges (d)	03601500	USGS	112	1938-39
Duck River at Centerville (d)	03602000	USGS	2,048	1919-55
Piney River at Vernon (d)	03602500	USGS	193	1925-93
Hurricane Creek at Hurricane Mills (d)	03603500	USGS	75.1	1932-33
Coon Creek near Hohenwald (d)	03604100	USGS	10.0	1967-74
Buffalo River near Lobelville (d)	03604500	USGS	707	1987-89
Blue Creek at State Hwy 13 near Waverly (d)	03604600	TVA	24.8	1964-71
Birdsong Creek near Holladay (d)	03604800	TVA	44.9	1940-68
Trace Creek at Waverly (d)	03605500	USGS	20.1	1932-33
Cotton Creek near Camden (d)	03606400	TVA	.43	1941-45
Big Sandy River at Big Sandy (d)	03607000	USGS	379	1935-44
Tennessee River near Buchanan (d)	03607500	USGS	39,730	1930-43
Beaver Creek at Huntingdon (d)	07024300*	USGS	55.5	1946, 1948, 1952-54, 1958-88
South Fork Obion River near Greenfield (d)	07024500*	USGS	383	1929-89
Rutherford Fork Obion River near Bradford (d)	07025000	USGS	201	1929-57
North Fork Obion River near Union City (d)	07025500	USGS	480	1929-71, 1989-93

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Period of record
North Reelfoot Creek at State Hwy 22 near Clayton (d)	07026370	USGS	56.3	1980-83, 1984-89
South Reelfoot Creek near Clayton (d)	07026400	USGS	36.6	1984-89
Reelfoot Creek near Samburg (d)	07026500	USGS	110	1951-73
Reelfoot Lake near Phillippy (e)	07026690	USGS	240	1984-88
Indian Creek near Samburg (d)	07026795	USGS	8.01	1982-86
South Fork Forked Deer River at Jackson (d)	07027500	USGS	495	1929-73, 1988-91
South Fork Forked Deer River at Chestnut Bluff (d)	07028000	USGS	1,003	1929-57
North Fork Forked Deer River at Trenton (d)	07028500	USGS	73.5	1950-71
Middle Fork Forked Deer River near Alamo (d)	07029000	USGS	369	1929-73
Hatchie River near Stanton (d)	07030000	USGS	1,975	1929-58
Cane Creek at Three Point (d)	07030137	USGS	79.8	1985-87
Kelly Branch near Clopton (d)	07030245	USGS	7.79	1975-76
Loosahatchie River tributary at New Allen Road at Memphis (d)	07030295	USGS	1.26	1977-83
Wolf River at Rossville (d)	07030500	USGS	503	1929-72
Marys Creek at Pisgah Road, near Fisherville (d)	07031500	USGS	13.6	1955-57
Fletcher Creek near Cordova (d)	07031680	USGS	1.45	1974-83
Fletcher Creek at Whitten Road at Memphis (d)	07031683	USGS	21.4	1978-82
Unnamed tributary at Charles Bryan Road, near Cordova (d)	07031685	USGS	3.18	1975-77
Lick Creek at Dickinson Street, at Memphis (d)	07031777	USGS	2.96	1975-83
Johns Creek tributary at Holmes Road, near Memphis (d)	07032222	USGS	5.83	1975-85
Johns Creek at Raines Road, at Memphis (d)	07032224	USGS	19.4	1975-82, 1985
Black Bayou at Southern Avenue, at Memphis (d)	07032241	USGS	.59	1975-83
Cane Creek at East Person Avenue, at Memphis (d)	07032248	USGS	4.98	1975-85
Cypress Creek at Neely Road, at Memphis (d)	07032260	USGS	3.18	1975-85

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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

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

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Crabapple Branch near La Follette	03403718	USGS	1.07	C,T	1981-84
Indian Fork above Braytown	03407804	USGS	4.32	C	1975-81
New River at Stainville	03407850	USGS	66.0	C,S	1975-77, 1979-81
Green Branch near Hembree	03407874	USGS	1.38	C,S	1975-81
Smoky Creek above Hembree (361240084245800)	034078745	USGS	8.07	S	1982-83
Bills Branch near Hembree	03407875	USGS	.67	C,S	1975-83
		USGS		C,S,T	1980-83
Shack Creek at Hembree (361341084253900)	034078755	USGS	5.08	C,S,T	1982-84
Smoky Creek at Hembree	03407876	USGS	17.2	S	1978-84
		USGS		C,T	1980-84
Bowling Branch above Smoky Junction	03407877	USGS	2.19	C,S	1975-83
Smoky Creek at Smoky Junction	03407879	USGS	32.8	C,S	1975-77, 1979-81
Anderson Branch near Montgomery	03407881	USGS	.69	C	1975-81
Lowe Branch near Montgomery	03407882	USGS	.92	C	1975-81
New River at Cordell	03407908	USGS	198	C,S	1976-77, 1979-82
New River at New River	03408500	USGS	382	C,T	1977-86
		USGS		C,S	1965-67, 1975-77, 1979-81
Clear Fork near Robbins	03409500	USGS	272	T	1982-86
		USGS		C	1982, 1984-86
		USGS		C,S	1964-65, 1976-77, 1979-82, 1984
South Fork Cumberland River at Leatherwood Ford	03410210	USGS	806	C,S,T	1986
		USGS		C,S	1979-80, 1984-85
Roaring River near Hilham	03418000	USGS	78.7	T	1969-71
Roaring River above Gainesboro	03418070	USGS	210	C,S	1980-83
Collins River near McMinnville	03421000	USGS	640	C,S	1964-67,1979-82
Cumberland River at Carthage	03425000	USGS	10,690	C,T	1975-81
East Fork Stones River near Lascassas	03427500	USGS	262	C,T	1975-1990
West Fork Stones River near Murfreesboro	03428000	USGS	128	C	1964-68
West Fork Stones River at Manson Pike, at Murfreesboro	03428070	USGS	165	C,T	1973-82
West Fork Stones River near Smyrna	03428500	USGS	237	T	1974-1990
Richland Creek at Charlotte Avenue, at Nashville	03431700	USGS	24.3	C,S	1901, 1979-83
Harpeth River near Kingston Springs	03434500	USGS	681	C,S	1979-83
Sulphur Fork Red River near Greenbrier	03435637	USGS	34.9	T	1976-78
Sulphur Fork Red River above Beaverdam Creek, near Springfield	03435700	USGS	49.1	T	1975-77
Sulphur Fork Red River above Springfield	03435770	USGS	65.6	C,S	1976-83
Sulphur Fork Red River near Adams	03436000	USGS	186	C,S	1964, 1979-83
Red River at Port Royal	03436100	USGS	935	C,S	1979-83
Yellow Creek near Shiloh	03436700	USGS	124	C,S	1964-65, 1979-81
French Broad River below Hot Springs, NC	03454757	USGS	1,712	C	1970-73
French Broad River near Newport	03455000	TVA	1,858	C	1946-47, 1960-61, 1969-70, 1974-75, 1979-80
Nolichucky River at Embreeville	03465500	USGS	805	C,S	1979-82
Nolichucky River below Nolichucky Dam	03466500	TVA	1,184	C	1974-79
		TVA		T	1962
French Broad River at Douglas Dam (tailwater)	03468510	TVA	4,541	C	1975-80
Little Pigeon River at Sevierville	03470000	TVA	353	C	1967-68, 1970
		TVA		T	1969-74
		USGS		C,S	1979-82

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

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

Station name	Station number	Agency	Drainage area (mi²)	Type of record	Period of record (water years)
French Broad River near Knoxville	03470500	USGS	5,101	C,T	1975-82
		USGS		B,C,S,T	1975-86
South Fork Holston River at South Holston Dam	03476010	TVA	703	C	1975-80
Watauga River at Stump Knob	03480000	TVA	171	T	1962
Elk River at Elk Mills	03481450	TVA	74.0	C	1975-76
Roan Creek near Doeville	03482100	TVA	110	T	1962, 1971-74
		TVA		C	1975-76
Watauga River below Watauga Dam	03483950	TVA	468	C	1973, 1975-80
Doe River at Hampton	03484800	TVA	100	T	1968-73
Doe River at Elizabethton	03485500	TVA	137	C	1967-68, 1971
		TVA		T	1954-63
		USGS		C,S	1979-82
South Fork Holston River at Boone Dam (tailwater)	03486810	TVA	1,840	C	1975-78
South Fork Holston River at Ft. Patrick Henry Dam	03487010	TVA	1,903	C	1975-80
Reedy Creek at Orebank	03487550	TVA	36.3	T	1964-66
		TVA		C	1964-67
		USGS		C,S	1979-82
Holston River near Church Hill	03490350	TVA	2,819	C	1974-78
Holston River at Surgoinsville	03490500	USGS	2,874	T	1975-82
		TVA		C	1974-80
Big Creek near Rogersville	03491000	USGS	47.3	T	1972-75, 1977-79
Beech Creek at Kepler	03491300	TVA	47.0	T	1966-68
Holston River near Rogersville	03491500	TVA	3,035	T	1966-75
Holston River at Cherokee Dam (tailwater)	03493510	TVA	3,428	C	1975-80
Holston River near Knoxville	03495500	USGS	3,747	C,B,S	1977-93
First Creek above Powers Avenue, at Knoxville	03496200	USGS	17.2	T	1969-71
Tennessee River below Knoxville	03497100	TVA	8,963	T	1970-80
Little River above Townsend	03497300	USGS	106	T	1964-82
		USGS		C	1982
Little River near Maryville	03498500	TVA	269	C	1967-68
		USGS		C,S	1979-82
Tennessee River at Fort Loudon Dam (tailwater)	03499510	TVA	9,550	C	1975-80
Little Tennessee River at Calderwood Dam	03518210	TVA	1,977	C	1977-80
Little Tennessee River below Chilhowee Dam	03518300	TVA	1,987	T	1964-78
Tellico River at Tellico Plains	03518500	TVA	118	T	1964-78
		TVA		C	1969-70, 1973-76
		USGS		C,S	1979-82
Little Tennessee River at McGhee	03519500	TVA	2,443	T	1963
Little Tennessee River near Centersville	03519740	TVA		T	1976-79
Clinch River above Tazewell	03528000	TVA	1,474	T	1962-66, 1971-75
		TVA		C	1971-80
Powell River near Arthur	03532000	TVA	685	C,S	1965, 1969-72, 1974-82
		TVA		T	1963-66, 1971-75
Ollis Creek at Ivydell	03532190	TVA	13.3	C	1974-78
Clinch River below Norris Dam	03533000	TVA	2,913	C	1968-70, 1972-80
Clinch River at Coal Creek	03533500	TVA	2,921	T	1976-79
Clinch River near Clinton	03534100	TVA	2,980	C	1971-74, 1977
Clinch River at Edgemoor	03534900	TVA	3,089	C	1969-78
Bullrun Creek near Halls Crossroads	03535000	USGS	68.5	T	1967-74
Clinch River near Eaton Crossroads	03535915	TVA	3,346	T	1963-79
Poplar Creek near Oak Ridge	03538225	USGS	82.5	C,S	1961-65, 1979-81
		USGS		T	1962-65
East Fork Poplar Creek near Oak Ridge	03538250	USGS	19.5	T	1962-68
Bear Creek near Oak Ridge	03538275	USGS	7.15	T	1962-63
Emory River near Wartburg	03538500	TVA	83.2	C	1965-68, 1975-76
Obed River near Lancing	03539800	TVA	518	T	1965-66
		TVA		C	1965-68

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

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

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Crooked Fork near Wartburg	03539860	TVA	50.3	C	1965-68
		USGS		C,S	1979-81
Crab Orchard Creek near Deermont	03540100	TVA	33.7	C	1966-68
		TVA		T	1967-68
		USGS		C,S	1979-81
Emory River at Oakdale	03540500	TVA	764	C,S	1965-67, 1974-81
Tennessee River at Watts Bar Dam (tailwater)	03543005	USGS	17,310	B,C,S,T	1975-86
		USGS		T,C	1976-81
Richland Creek near Dayton	03544500	TVA	50.2	C	1966-67
		USGS		C,S	1979-82
Hiwassee River near Wetmore	03557050	TVA	1,233	C	1973-74, 1976
Hiwassee River at Patty	03557400	TVA	1,358	T	1976-78
Hiwassee River near Benton	03557405	TVA	1,362	C	1978-80
Ocoee River at Parksville	03564500	TVA	595	C	1971-72, 1976-80
Oostanaula Creek near Sanford	03565500	USGS	57.0	C,S	1979-82
Tennessee River at Sequoyah Nuclear Plant	03566404	TVA	20,630	C	1975-78
Tennessee River near Harrison Bay State Park	03566405	TVA	20,650	C	1969-73
Tennessee River at Chickamauga Dam (tailwater)	03566510	TVA	20,790	C	1975-80
Tennessee River at Nickajack Dam (tailwater gage)	03570525	TVA	21,849	C	1975-78
Sequatchie River near Dunlap	03570835	TVA	292	C	1975-78
Sequatchie River near Whitwell	03571000	TVA	402	T	1962-71
		TVA		C	1965, 1970, 1974-75
		USGS		C,S	1979-82
Sequatchie River at Whitwell Waterworks near Whitwell	03571200	TVA	410	C	1975-79
Tennessee River at South Pittsburg	03571850	USGS	22,640	T	1975-82
		USGS		C	1975-79, 1981
		USGS		B,C,S,T	1974-86
Elk River near Estill Springs	03579100	TVA	275	C	1974-78
		TVA		T	1971-77
Boiling Fork Creek near Decherd	03580110	TVA	37.7	T	1975-77
Elk River below Tims Ford Dam	03580750	TVA	534	T	1971-79
		TVA		C	1966-67, 1973 1975-80
Elk River above Fayetteville	03582000	TVA	827	C	1974, 1977-80
		USGS		T	1961-64
Elk River at Fayetteville	03582400	TVA	895	T	1976-78
Cane Creek near Fayetteville	03582600	TVA	106	T	1969-73
Richland Creek near Pulaski	03584000	TVA	366	T	1965-73
Elk River near Prospect	03584500	TVA	1,784	T	1961-64
Shoal Creek at Iron City	03588500	TVA	348	C,S	1974-80
		USGS		C,S	1980-83
Tennessee River at Pickwick Landing Dam	03593005	USGS	32,820	C,T	1976-82
Beech River near Chesterfield	03594439	TVA	121	C	1969-71, 1976
Duck River below Manchester	03596000	TVA	107	C	1967-68, 1970-71
		TVA		T	1976-80
		USGS		C,S	1975, 1979-83
Duck River at Normandy	03596500	TVA	208	T	1969-75
Duck River at Shelbyville Waterworks	03597850	TVA	425	C	1975-80
Duck River near Shelbyville	03598000	TVA	481	T	1961-64, 1976-78
Duck River near Columbia	03599460	TVA	1,176	T	1974-82
Duck River at Columbia Waterworks	03599482	TVA	1,195	C	1975-80
Piney River at Vernon	03602500	TVA	193	T	1964-67
Duck River above Hurricane Mills	03603000	TVA	2,557	C	1966-67, 1974-80
		TVA		T	1961-64
Buffalo River near Flat Woods	03604000	TVA	447	T	1964-68
Buffalo River near Lobelville	03604500	TVA	707	T	1961-64
		TVA		C	1967-68, 1973-76

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

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

Station name	Station number	Agency	Drainage area (mi^2)	Type of record	Period of record (water years)
Trace Creek above Denver	03605555	USGS	31.9	C	1979-83
Big Sandy River at Bruceton	03606500	TVA	205	T	1971-78
		TVA		C	1968, 1970-72
		USGS		C,S	1976, 1979-83
North Reelfoot Creek at Clayton	07026360	USGS	54.7	C,S	1982-84
North Reelfoot Creek at State Hwy 22 near Clayton	07026370	USGS	56.3	C,S	1983-89
South Reelfoot Creek near Clayton	07026400	USGS	38.6	C,S	1984-89
Bayou Du Chien near Walnut Log	07026695	USGS	27.8	C,T	1986-88
Indian Creek near Samburg	07026795	USGS	8.01	C,S	1982-84
Reelfoot Lake Spillway near Tiptonville	07027002	USGS	240	C,T	1975-76, 1986-88
Mosses Creek near Pocahontas	07029410	USGS	47.6	C,S	1961, 1963, 1977-78
Hatchie River near Lacy	07029425	USGS	1,033	C,S	1977-78
Big Muddy Creek at Stanton	07030010	USGS	84.4	C,S	1977-78
Cane Creek at Ripley	07030100	USGS	33.9	S	1985-87
Cane Creek at Three Point	07030137	USGS	79.8	S	1985-87
Loosahatchie River near Arlington	07030240	USGS	262	C,S	1979-82
Wolf River at Rossville	07030500	USGS	503	C	1961, 1963-68
Nonconnah Creek near Germantown	07032200	USGS	68.2	C,S	1979-82

INDEX

INDEX

INDEX

INDEX

INDEX

*U.S. GOVERNMENT PRINTING OFFICE: 1995-652-238/29003

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

USGS LIBRARY - RESTON
3 1818 00202654 8

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
810 Broadway, Suite 500
Nashville, TN 37203