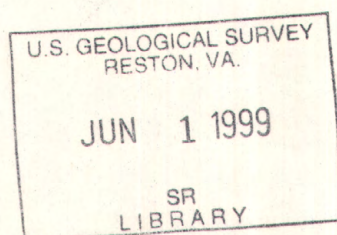
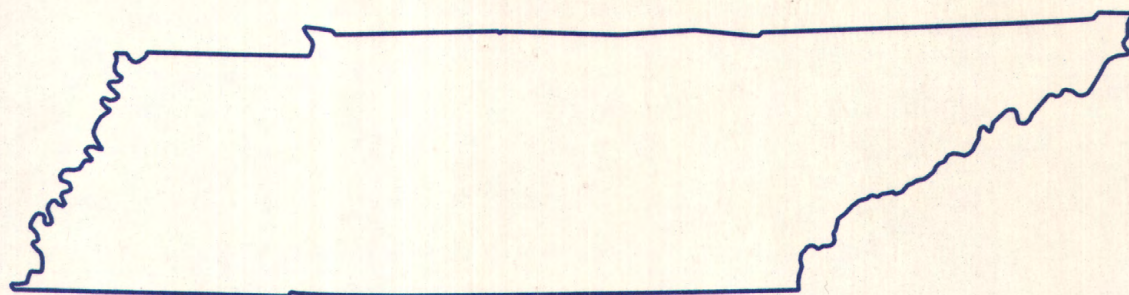


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1996



# Water Resources Data Tennessee Water Year 1996



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-96-1  
Prepared in cooperation with the State of Tennessee  
and with other agencies



# CALENDAR FOR WATER YEAR 1996

1995

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

1996

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

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

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





# Water Resources Data Tennessee Water Year 1996

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-96-1  
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

1997



## PREFACE

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

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

Bradley A. Bryan, Knoxville    W. Harry Doyle, Memphis    J. Tim Hamilton, Nashville

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

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This report was prepared in cooperation with the State of Tennessee and with other agencies under the general supervision of Jerry F. Lowery, Data Management Section Chief, and 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 April 1997		3. REPORT TYPE AND DATES COVERED Annual--Oct. 1, 1995 to Sept. 30, 1996
4. TITLE AND SUBTITLE Water Resources Data - Tennessee, Water Year 1996			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 810 Broadway, Suite 500 Nashville, Tennessee 37203			8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WDR-TN-96-1	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division 810 Broadway, Suite 500 Nashville, Tennessee 37203			10. SPONSORING / MONITORING AGENCY REPORT NUMBER USGS-WRD-TN-96-1	
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.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT No restriction on distribution. This report may be purchased from: National Technical Information Service, Springfield, VA 2216.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Water resources data for the 1996 water year for Tennessee consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains records for water discharge at 65 gaging stations; stage only for 1 gaging station; elevation and contents for 32 lakes reservoirs; water quality at 21 gaging stations and 12 wells; and water levels for 10 observation wells; and 1 precipitation station. Also included are data for 96 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, *Groundwater, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment analyses, Water temperature, Sampling sites, Water levels, Water analyses.			15. NUMBER OF PAGES 337	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED		18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED		19. SECURITY CLASSIFICATION OF ABSTRACT
20. LIMITATION OF ABSTRACT				



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# **WATER RESOURCES DATA - TENNESSEE, 1996**

## **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 64 gaging stations; stage only at 1 gaging station; stage and contents at 32 lakes and reservoirs; water quality for 21 stations, and 12 wells; and water levels at 10 observation wells. Also included are data for 96 crest-stage partial-record stations. Locations of these sites are shown on figures 4 through 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and miscellaneous analyses or as seepage investigations.

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

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

Publications similar to this report are published annually by the USGS for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report TN-96-1." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (615) 736-5424.



## COOPERATION

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

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

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, in collecting records for 8 gaging stations and 4 water-quality stations, by the Tennessee Valley Authority for 11 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 gaging stations, and by the U.S. Department of the Army, Ft. Campbell, for 3 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, water supply, and hydroelectric power generation. Natural flow conditions occur only in tributaries to these rivers, or in other streams draining smaller basins throughout the State. Runoff data from these natural-flow streams can be used to describe the hydrologic conditions of the State for the 1996 water year.

A comparison of the mean discharges for the 1996 water year with the period-of-record mean at unregulated streams can be used to measure hydrologic conditions. The data for 1996 show that mean discharges at unregulated streams east of the Tennessee River (Kentucky Lake) ranged from 89 to 134 percent of the period-of-record mean. In West Tennessee mean discharges for 1996 ranged from about 72 to 100 percent of the period-of-record means. This comparison indicates that runoff during the water year varied from slightly below average to slightly above average in East and Middle Tennessee and varied from below average to average on streams in West Tennessee.

The most significant flooding to occur during the 1996 water year occurred on October 4-5, 1995 on Mill Creek at Nolensville, Tennessee. The instantaneous peak discharge was measured at 13,000 cubic feet per second. A recurrence interval slightly higher than 100 years was associated with this flood event. This high discharge was the result of heavy precipitation, approximately 4 inches, received when the remnants of Hurricane Opal crossed over Tennessee.

Peak flows on the Nolichucky River at Embreeville, Tennessee and the Collins River near McMinnville, Tennessee occurred on January 19, 1996 and October 6, 1995 respectively. The Nolichucky River at Embreeville and the Collins River at McMinnville recorded instantaneous values of 34,200 and 16,300 cubic feet per second respectively; however, each of these peaks had less than a 5-year recurrence interval.

Ground Water

Ground-water levels at key aquifers throughout Tennessee were near normal during the 1996 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) are representative of conditions in West Tennessee and were 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 slower 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 monthly water levels for each of the continuous recording observation wells are included in the body of this report.

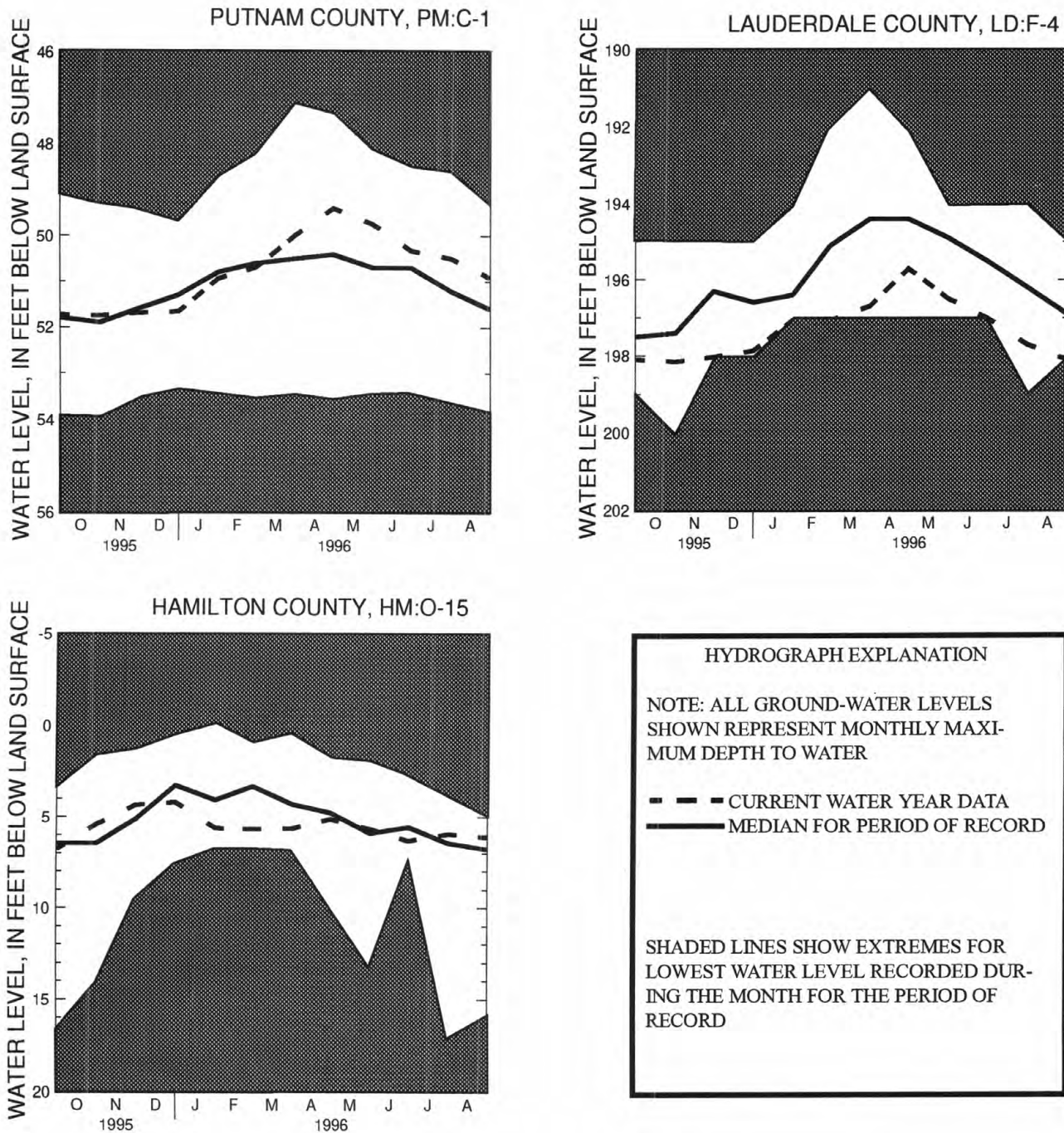


**WATER RESOURCES DATA - TENNESSEE, 1996**Water Quality

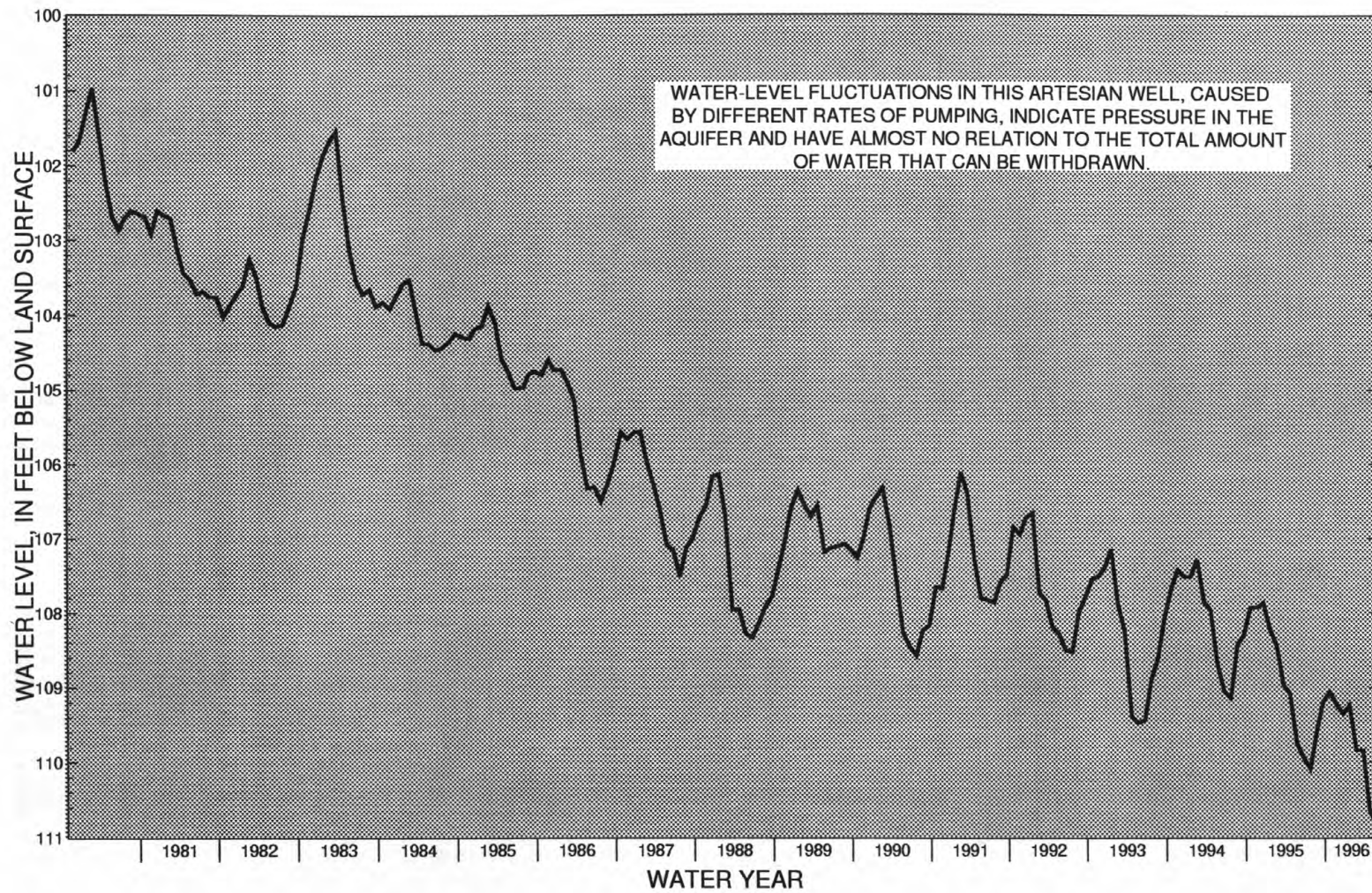
Water-quality data were collected at 30 surface-water sites during the 1996 water year. Nineteen of these sites are part of the U.S. Geological Survey's National Water-Quality Assessment project of the Upper Tennessee River Basin. Data were also collected at two additional stations that are a part of 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:

- o 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.
- o Operation of a continuous monitor to measure temperature, dissolved oxygen, pH, and specific conductance in the West Fork Stones River in support of a water resources program for the City of Murfreesboro, Tennessee.
- o Operation of a continuous monitor to measure temperature and dissolved oxygen of the Duck River in support of a water resources program with the Duck River Development Agency.
- o 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. However, low concentrations of a few pesticides, primarily atrazine, were detected in samples collected from streams in the Upper Tennessee River Basin.



**Figure 1.** Ground-water levels for the 1996 water year compared to the maximum, minimum, and median water levels for the period of record.



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



## SPECIAL NETWORKS AND PROGRAMS

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

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

The National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO<sub>2</sub> emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO<sub>2</sub> and NO<sub>x</sub> schedules to begin in 2000.

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

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

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

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

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

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

[http://wwwrvares.er.usgs.gov/nawqa/nawqa\\_home.html](http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html)

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

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

## EXPLANATION OF RECORDS

The surface-water and ground-water records published in this report are for the 1996 water year that began October 1, 1995, and ended September 30, 1996. 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.

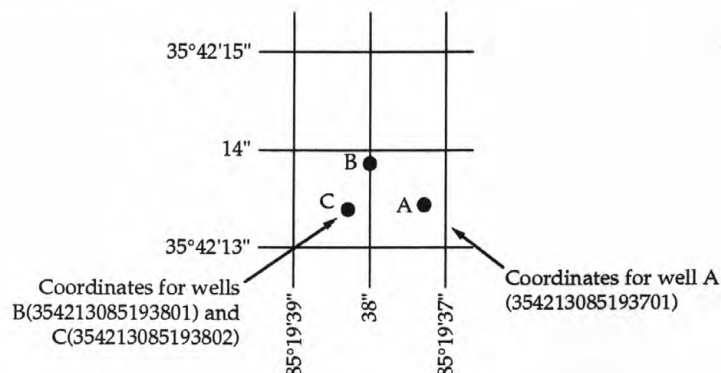
## Downstream Order System

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 indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation 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<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures to more than 1,000 ft<sup>3</sup>/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 ( $\mu\text{g/L}$ ) 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 ( $\text{ng/L}$ ). Present data above the  $\mu\text{g/L}$  level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the USGS will begin using new trace-element protocols in the near future.

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

#### Water Temperature

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

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

#### Sediment

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

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

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

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

#### Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, 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:

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

## Dissolved Trace-Element Concentrations

\*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ( $\mu\text{g/L}$ ) 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 ( $\text{ng/L}$ ). Data above the  $\mu\text{g/L}$  level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

## Change in National Trends Network Procedures

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

Records of Ground-Water Levels

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

## Data Collection and Computation

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

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

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

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

#### Data Presentation

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

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

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

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

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

**DATUM.**--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The 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.

**WATER RESOURCES DATA - TENNESSEE, 1996**

\* 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 5-1/4 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.)

## DEFINITION OF TERMS

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

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  $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$  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  $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$  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  $[(\text{ft}^3/\text{s})/\text{mi}^2]$  (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 ( $\text{ft}^3/\text{s}$ ) 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  $[(\text{ft}^3/\text{s})/\text{d}]$  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 ( $\text{CaCO}_3$ ).

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 ( $\mu\text{g/g}$ ) 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 ( $\mu\text{g/L}$ ,  $\mu\text{g/L}$ ) 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 ( $\text{MG/L}$ ,  $\text{mg/L}$ ) 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  $\text{mg/L}$  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:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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 ( $1 \times 10^{-12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  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 ( $\text{ft}^3/\text{s}$ ) 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."

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- 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.
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- 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.
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- 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.
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- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.
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- 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.
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- 3-B7. *Analytical solutions for one-, two, and three-dimensional solute transport in ground-water systems with uniform flow*, by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 pages.
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- 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.
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- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.



Map number	Station number and name	Page	Map number	Station number and name	Page
1 03312255	SALT LICK CREEK AT RED BOILING SPRINGS	34-35	34 03538235	EAST FORK POPLAR CR AT BEAR CR RD AT OAK RIDGE	170-171
2 03418420	CUMBERLAND RIVER BELOW CORDELL HULL DAM	42-43	35 03538256	BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE	172-173
3 03421000	COLLINS RIVER NEAR MCMINNVILLE	50-51	36 03538260	BEAR CREEK AT COUNTY LINE NEAR OAK RIDGE	174-175
4 03424730	SMITH FORK AT TEMPERANCE HALL	52-53	37 03538270	BEAR CREEK AT STATE HIGHWAY 95 NEAR OAK RIDGE	176-177
5 03426310	CUMBERLAND RIVER AT OLD HICKORY DAM	54-55	38 03540500	EMORY RIVER AT OAKDALE	178-179
6 03426385	MANSKER CREEK ABOVE GOODLETTSVILLE	64-65	39 03563000	OCOEE RIVER AT EMF	180-181
7 03428200	WEST FORK STONES RIVER AT MURFREESBORO	66-67	40 03566000	HIWASSEE RIVER AT CHARLESTON	182-183
8 03430147	STONERS CREEK NEAR HERMITAGE	74-75	41 03566128	NORTH MOUSE CR NR ROCKY MTN. HOLLOW NR ATHENS	184-185
9 03430550	MILL CREEK NEAR NOLENSVILLE	76-77	42 03568000	TENNESSEE RIVER AT CHATTANOOGA	186-187
10 03431000	MILL CREEK NEAR ANTIOCH	78-79	43 03578455	BRADLEY CREEK TRIB AT AEDC NEAR MANCHESTER	190
11 03431300	BROWNS CR AT STATE FAIRGROUND AT NASHVILLE	80-81	44 03578600	BRUMALOW CREEK AT AEDC NEAR MANCHESTER	191
12 03431500	CUMBERLAND RIVER AT WOODLAND ST AT NASHVILLE	82-83	45 03578970	ROWLAND CREEK AT AEDC NEAR MANCHESTER	192
13 03431599	WHITES CREEK NEAR BORDEAUX	84-85	46 03579620	ROCK CREEK AT TULLAHOMA	194-195
14 03431700	RICHLAND CREEK AT CHARLOTTE AVE AT NASHVILLE	86-87	47 03593500	TENNESSEE RIVER AT SAVANNAH	196-197
15 03432350	HARPETH RIVER AT FRANKLIN	88-89	48 03597210	GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE	198-199
16 03432400	HARPETH RIVER BELOW FRANKLIN	90	49 03597590	WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE	200-201
17 03433500	HARPETH RIVER AT BELLEVUE	92-93	50 03597860	DUCK RIVER AT SHELBYVILLE	202
18 03434500	HARPETH RIVER NEAR KINGSTON SPRINGS	94-95	51 03598000	DUCK RIVER NEAR SHELBYVILLE	208-209
19 03435305	RED RIVER BELOW HWY 161 AT BARREN PLAINS	102-103	52 03599000	BIG ROCK CREEK AT LEWISBURG	210-212
20 03436420	PINEY FORK AT FORT CAMPBELL, KY & TN	104-105	53 03599500	DUCK RIVER AT COLUMBIA	214-215
21 03436426	LITTLE WEST FORK NEAR FORT CAMPBELL, KY & TN	112-113	54 03600088	CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK	218-219
22 03465500	NOLICHUCKY RIVER AT EMBREEVILLE	122-123	55 03602219	PINEY RIVER AT CEDAR HILL	221
23 03466228	SINKING CREEK AT AFTON	132-133	56 03604000	BUFFALO RIVER NEAR FLATWOODS	222-223
24 03469175	LITTLE PIGEON RIVER ABOVE SEVIERVILLE	140-141	57 03605078	CYPRESS CREEK AT CAMDEN, TN	226
25 03491000	BIG CREEK NEAR ROGERSVILLE	144-145	58 07024305	BEAVER CREEK AT HWY 22 BYPASS	234-235
26 03491544	CROCKETT CREEK BELOW ROGERSVILLE	146-147	59 07027000	REELFOOT LAKE NEAR TIPTONVILLE	236-238
27 03497300	LITTLE RIVER ABOVE TOWNSEND	148-149	60 07028930	TURKEY CREEK AT MEDINA	239
28 03498500	LITTLE RIVER NEAR MARYVILLE	152-153	61 07029500	HATCHIE RIVER AT BOLIVAR	240-241
29 03498850	LITTLE RIVER NR ALCOA	154-155	62 07030240	LOOSAHATCHIE RIVER NEAR ARLINGTON	242-243
30 03528000	CLINCH RIVER ABOVE TAZEWEEL	156-157	63 07030392	WOLF RIVER AT LAGRANGE	244-246
31 03536450	FIRST CREEK NEAR OAK RIDGE	164-165	64 07031650	WOLF RIVER AT GERMANTOWN	248-249
32 03536550	WHITEOAK CR BL MELTON VALLEY DR NR OAK RIDGE	166-167	65 07032200	NONCONNAH CREEK NEAR GERMANTOWN	250-251
33 03538231	EAST FORK POPLAR CREEK AT Y12 AT OAK RIDGE	168-169			

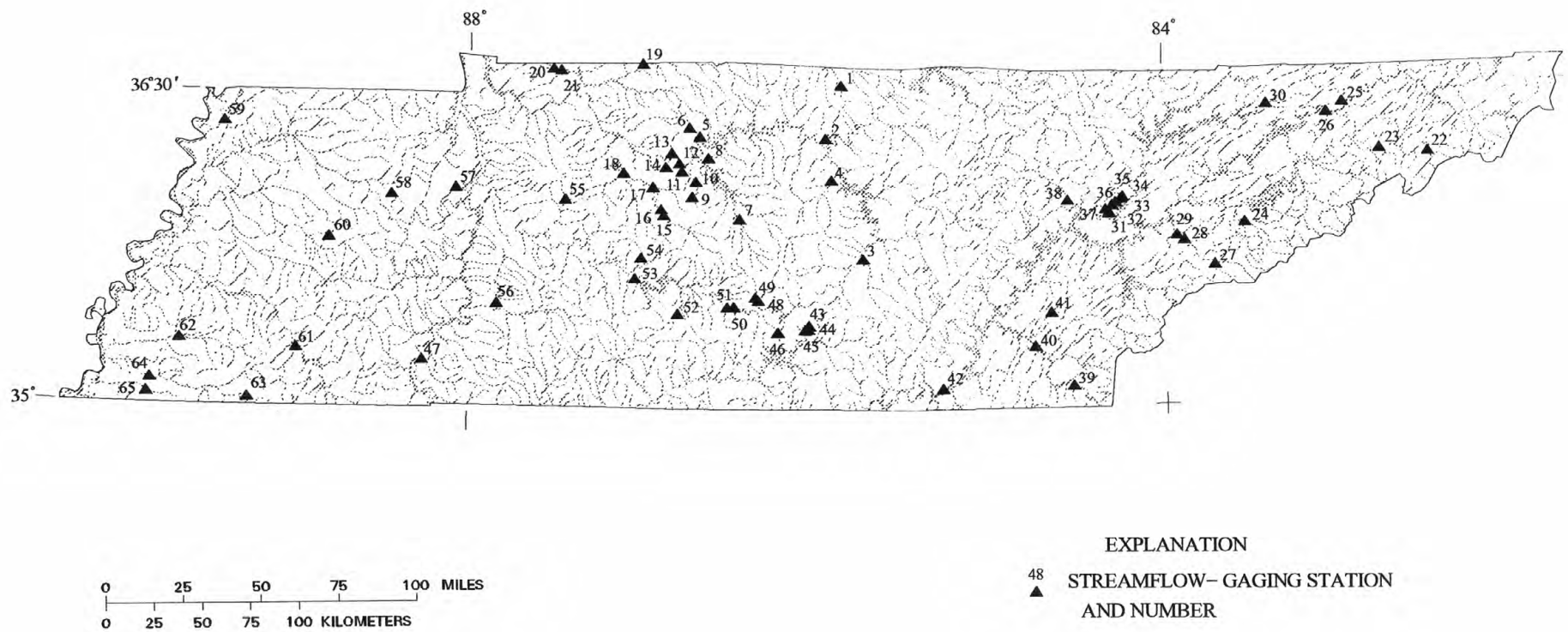


Figure 4.— Location of streamflow- gaging stations in Tennessee.

Map number	Station number and name	Page	Map number	Station number and name	Page
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2 03414500	EAST FORK OBEY RIVER NEAR JAMESTOWN	252	50 03436130	PASSENGER CREEK NEAR SANGO	259
3 03416000	WOLF RIVER NEAR BYRDSTOWN	252	51 03436505	CUMMINGS CREEK NEAR DOTSONVILLE	260
4 03418070	ROARING RIVER ABOVE GAINESBORO	253	52 03436690	YELLOW CREEK AT ELLIS MILLS	260
5 03418201	DOE CREEK AT GAINESBORO	253	53 03436700	YELLOW CREEK NEAR SHILOH	260
6 03421200	CHARLES CREEK NEAR MCMINNVILLE	253	54 03461230	CANEY CREEK NEAR COSBY	260
7 03424900	MULHERRIN CREEK NEAR GORDONSVILLE	253	55 03465607	CHEROKEE CREEK NEAR EMBREEVILLE	260
8 03425045	PEYTON CREEK AT MONOVILLE	253	56 03465780	CLEAR FORK NEAR FAIRVIEW	260
9 03425365	SECOND CREEK NEAR WALNUT GROVE	253	57 03466890	LICK CREEK NEAR ALBANY	261
10 03425637	STATION CAMP CREEK AT COTTONTOWN	253	58 03467480	BENT CREEK AT TAYLOR GAP	261
11 03426800	EAST FORK STONES RIVER AT WOODBURY	254	59 03467992	CARTER BRANCH NEAR WHITE PINE	261
12 03426874	BRAWLEYS FORK BELOW BRADYVILLE	254	60 03467993	CEDAR CREEK NEAR VALLEY HOME	261
13 034269424	REED CREEK NEAR BRADYVILLE	254	61 03467998	SINKING FORK AT WHITE PINE	261
14 03427500	EAST FORK STONES RIVER NEAR LASCASSAS	254	62 03470215	DUMPLIN CREEK AT MT. HAREB	261
15 03427690	BUSHMANN CREEK AT PITTS LANE FORD NEAR COMPTON	254	63 03476960	INDIAN CREEK AT CHILDRESS	261
16 03428043	LYTLE CREEK SANBYRNE DRIVE AT MURFREESBORO	254	64 03478615	EVANS CREEK NEAR BLOUNTVILLE	262
17 03428270	UNNAMED SINK NEAR ALMAVILLE	254	65 03487550	REEDY CREEK AT OREBANK	262
18 03428500	WEST FORK STONES RIVER NEAR SMYRNA	255	66 03490522	FORGEY CREEK AT ZION HILL	262
19 03428513	UNNAMED SINK ON I-840 AT LEANNA	255	67 03491540	ROBERTSON CREEK NEAR PERSIA	262
20 03428515	UNNAMED SINK AT LEANNA	255	68 03494714	DRY LAND CREEK TRIB NEAR NEW MARKET	262
21 03430118	MCCRORY CREEK AT IRONWOOD DRIVE AT DONELSON	255	69 03494990	FLAT CREEK AT LUTTRELL	262
22 03430400	MILL CREEK AT NOLENSVILLE	255	70 03519610	BAKER CREEK TRIB NEAR BINFIELD	262
23 03431040	SEVENMILE CREEK AT BLACKMAN ROAD	255	71 03519640	BAKER CREEK NEAR GREENBACK	263
24 03431060	MILL CREEK AT THOMPSON LANE NEAR WOODBINE	256	72 03527800	BIG WAR CREEK AT LUTHER	263
25 03431062	MILL CREEK TRIB AT GLENROSE AVENUE AT WOODBINE	256	73 03528390	CROOKED CREEK NEAR MAYNARDVILLE	263
26 03431120	WEST FK BROWNS CR @ GEN. BATES DR @ NASHVILLE	256	74 03534000	COAL CREEK AT LAKE CITY	263
27 03431240	E FK BROWNS CR @ BAIRD@WARD PRINT. CO @ NASH.	256	75 03535180	WILLOW FORK NEAR HALLS CROSSROAD	263
28 03431340	BROWNS CREEK AT FACTORY STREET AT NASHVILLE	256	76 03566420	WOLFTEVER CREEK NEAR OOLTEWAH	263
29 03431490	PAGES BRANCH AT AVONDALE	257	77 03566599	NORTH CHICKAMAUGA CR AT GREENS MILL NR HIXSON	264
30 03431550	EARTHMAN FORK AT WHITES CREEK	257	78 03569168	STRINGERS BRANCH AT LEAWOOD DRIVE AT RED BANK	264
31 03431573	EWING CREEK AT RICHMOND HILL DRIVE AT PARKWOOD	257	79 03571500	LITTLE SEQUATCHIE RIVER AT SEQUATCHIE	264
32 03431575	EWING CREEK AT BRICK CHURCH PIKE AT PARKWOOD	257	80 03571730	STANDIFER BRANCH AT JASPER	264
33 03431578	EWING CREEK AT GWYNWOOD DRIVE NEAR JORDONIA	257	81 03571800	BATTLE CREEK NEAR MONTEAGLE	264
34 03431581	EWING CREEK BELOW KNIGHT ROAD NEAR BORDEAUX	257	82 03583300	RICHLAND CREEK NEAR CORNERSVILLE	264
35 03431677	SUGARTREE CR @ YMCA ACCESS RD @ GREEN HILLS	257	83 035944242	OWL CREEK AT LEXINGTON	264
36 03431679	SUGARTREE CR @ ABBOTT MARTIN RD @ GREEN HILLS	258	84 03597300	WARTRACE CREEK ABOVE BELL BUCKLE	265
37 03431800	SYCAMORE CREEK NEAR ASHLAND CITY	258	85 03602170	WEST PINEY RIVER NEAR DICKSON	265
38 03432470	MURFREES FORK ABOVE BURWOOD	258	86 03602500	PINEY RIVER AT VERNON	265
39 03432925	LITTLE HARPETH RIVER AT GRANNY WHITE PIKE	258	87 03604090	COON CREEK ABOVE CHOP HOLLOW NEAR HOHENWALD	265
40 03434590	JONES CREEK NEAR BURNS	258	88 03604580	BLUE CREEK NEAR NEW HOPE	265
41 034350021	BARTONS CREEK NEAR CUMBERLAND FURNACE	258	89 03605555	TRACE CREEK ABOVE DENVER	265
42 034350035	LOUISE CREEK NEAR GREYS CHAPEL	258	90 03605880	CANE CREEK NEAR STEWART	265
43 034351105	HONEY RUN CREEK NEAR CROSS PLAINS	259	91 07024225	NEIL DITCH NEAR HENRY	266
44 034351113	HONEY RUN CREEK BELOW CROSS PLAINS	259	92 07024370	LITTLE REEDY CREEK NEAR HUNTINGDON	266
45 03435739	BEAVER DAM CREEK ABOVE SPRINGFIELD	259	93 07025500	NORTH FORK OBION RIVER NEAR UNION CITY	266
46 03435770	SULPHUR FORK RED RIVER ABOVE SPRINGFIELD	259	94 07028505	NORTH FORK FORKED DEER RIVER AT TRENTON	266
47 03435930	SPRING CREEK TRIB NEAR CEDAR HILL	259	95 07029090	LEWIS CREEK NEAR DYERSBURG	266
48 03436082	SULPHER FORK CREEK ABOVE PORT ROYAL	259	96 07030100	CANE CREEK AT RIPLEY	266



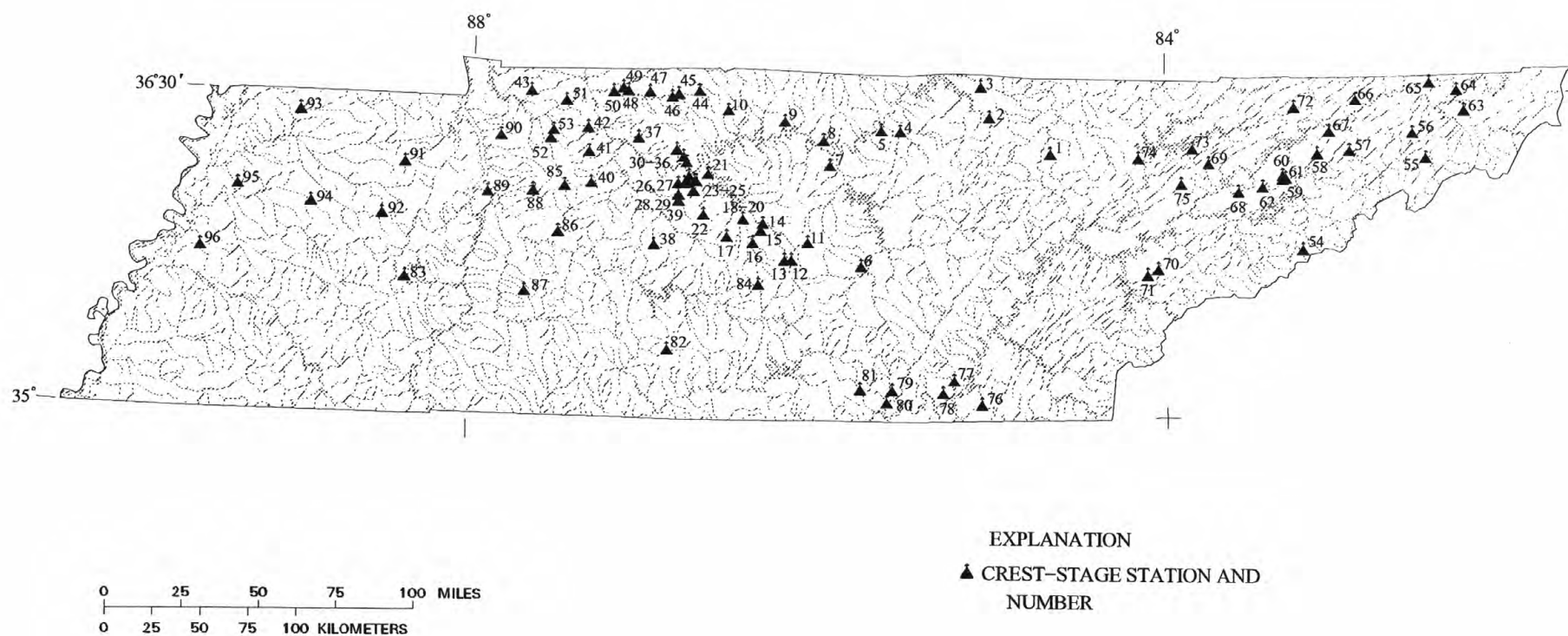


Figure 5.—Location of crest-stage stations in Tennessee.

Map number	Station number and name	Page
1	03417500 CUMBERLAND RIVER AT CELINA	36-41
2	03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM	44-49
3	03426310 CUMBERLAND RIVER AT OLD HICKORY DAM	56-62
4	03428200 WEST FORK STONES RIVER AT MURFREESBORO	68-73
5	03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM	96-101
6	03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN	106-110
7	03455000 FRENCH BROAD RIVER NEAR NEWPORT	117-119
8	03461080 PIGEON RIVER NEAR DENTON	120-121
9	03461500 PIGEON RIVER AT NEWPORT	124-125
10	03466208 BIG LIMESTONE CREEK NR LIMESTONE	126-131
11	03467609 NOLICHUCKY RIVER NR LOWLAND	134-139
12	03490500 HOLSTON RIVER AT SURGOINSVILLE	142-143
13	03497300 LITTLE RIVER ABOVE TOWNSEND	150-151
14	03497450 LITTLE RIVER NEAR COULTER BRIDGE	272
15	03498863 LITTLE RIVER ABOVE ROCKFORD	273
16	03528000 CLINCH RIVER ABOVE TAZEWEEL	158-160
17	03532000 POWELL RIVER NEAR ARTHUR	161-162
18	03538580 EMORY RIVER NEAR LANCING	274
19	03538860 OBED RIVER NEAR POTTER'S FORD NR CROSSVILLE	275
20	03539690 DADDY'S CREEK AT DEVILS BREAKFAST TABLE	276
21	03539717 CLEAR CREEK AT NORRIS FORD NEAR JONES KNOB	277

Map number	Station number and name	Page
22	03539735 CLEAR CREEK NEAR WALTMAN FORD BR NR FRANKFORT	278
23	03541498 WHITES CREEK NEAR RODDY	279
24	03542495 PINEY RIVER AB MOUTH OF SOCK CREEK NR SPRING CITY	280
25	03568000 TENNESSEE RIVER AT CHATTANOOGA	188-189
26	03597860 DUCK RIVER AT SHELBYVILLE	203-206
27	03600085 CARTERS CREEK AT PETTY LANE NEAR CARTERS CREEK	216
28	03600086 CARTERS CREEK TRIB NEAR CARTERS CREEK	217
29	03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK	220
30	03604000 BUFFALO RIVER NEAR FLATWOODS	224-225
31	350034086242800 LI:G-1	296
32	350234085181200 HM:G-36	292
33	350735089593300 SH:P-76	301
34	350900089482300 SH:Q-1	302
35	351428085003600 HM:O-15	293
36	353839089493500 LD:F-4	295
37	353922083345600 SV:E-2	300
38	354223088380200 MD:N-1	297
39	360020087573300 HS:H-1	294
40	360521085432600 PM:C-1	299
41	360543084343100 MG:F-5	298
42	360835086441100 DV:L-10	291

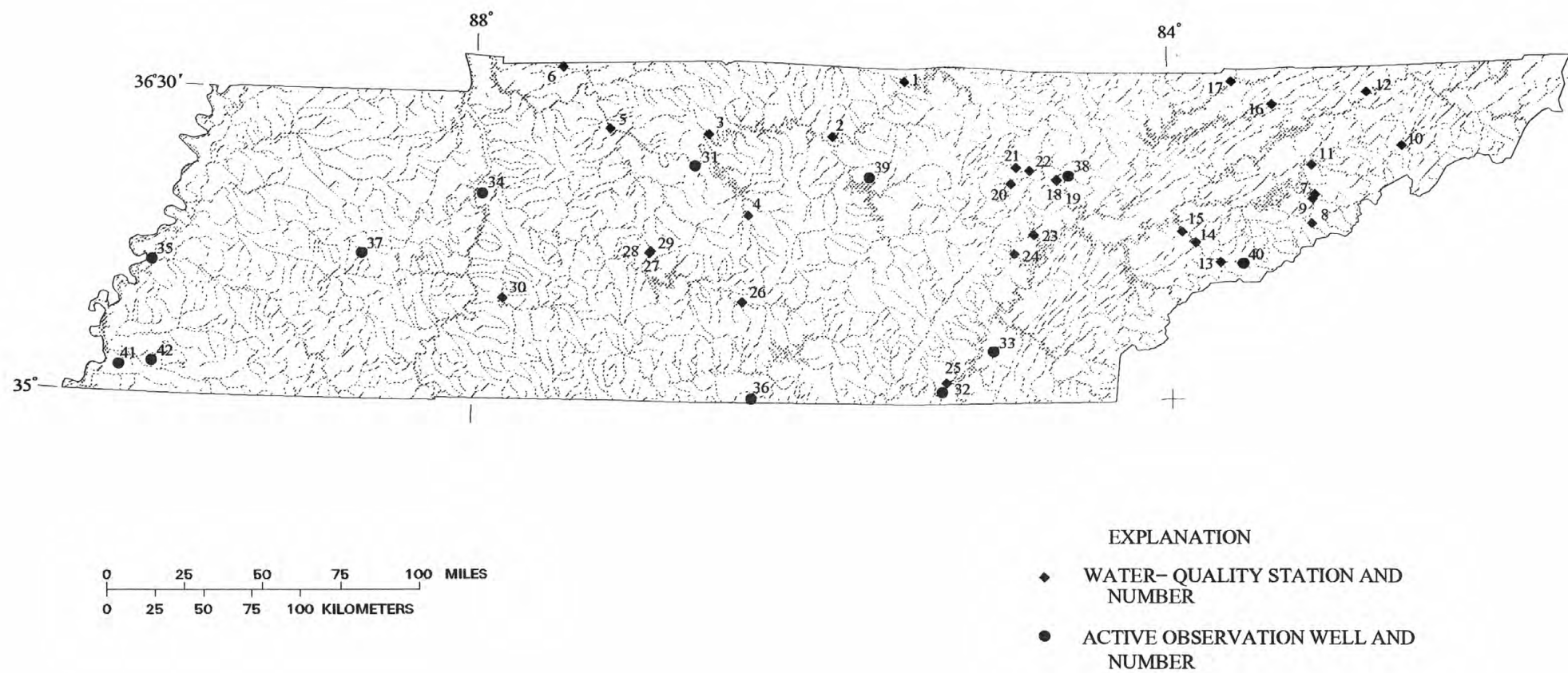


Figure 6.— Location of water- quality stations and active observation wells in Tennessee.



## 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 mi<sup>2</sup>.

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

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0700	451	5.55	May 7	0645	716	6.24
Nov. 7	0830	*860	*6.55				

Minimum daily discharge, 1.7 ft<sup>3</sup>/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.9	10	12	18	36	63	36	16	5.2	19	3.3
2	1.7	11	9.6	27	16	28	50	30	18	5.2	12	3.4
3	27	21	9.7	33	17	22	41	26	20	5.2	9.4	5.8
4	19	12	9.8	24	17	19	37	24	24	5.2	7.7	5.3
5	133	8.1	9.7	19	17	30	33	21	17	5.2	6.4	4.7
6	28	9.4	9.3	21	15	123	30	27	15	5.1	5.2	4.8
7	15	354	9.9	22	20	209	27	260	15	5.0	6.7	4.3
8	10	54	9.5	22	32	79	29	87	20	5.0	7.6	4.5
9	9.2	31	10	19	73	50	27	50	22	5.0	8.1	4.7
10	7.2	23	9.6	16	43	40	25	31	18	5.0	5.5	4.2
11	5.0	63	9.0	21	32	34	23	28	18	5.0	14	4.0
12	4.5	38	9.0	31	25	31	22	23	17	4.9	18	3.7
13	4.6	28	9.3	27	21	28	22	19	19	4.9	12	3.6
14	5.6	22	8.9	31	20	26	21	19	16	5.0	7.8	3.6
15	5.0	19	8.7	40	18	28	21	41	14	9.2	6.4	3.7
16	4.5	16	11	36	16	56	19	26	12	5.2	5.7	22
17	3.9	15	11	31	15	56	18	20	11	4.9	5.3	12
18	3.6	13	18	74	15	41	18	17	9.3	4.9	5.0	7.0
19	3.5	12	28	121	29	83	19	15	8.5	4.8	4.8	5.8
20	6.9	11	24	49	39	67	54	14	7.7	6.3	4.6	4.9
21	6.6	10	19	34	32	53	41	13	7.2	6.1	4.3	8.3
22	5.2	9.7	16	27	27	52	31	12	6.8	21	4.1	7.3
23	4.4	13	14	23	22	58	140	11	6.4	13	3.9	5.6
24	4.4	13	13	66	19	59	64	9.4	6.2	9.9	3.9	5.1
25	4.2	11	12	41	17	84	44	8.5	6.1	8.8	4.1	5.2
26	4.2	10	11	35	17	59	45	8.9	6.0	7.8	4.1	5.1
27	43	11	11	34	50	46	34	59	5.8	6.7	4.3	8.9
28	22	12	10	29	107	45	30	78	5.4	6.0	4.1	26
29	10	11	9.5	25	50	39	34	30	5.3	14	3.5	15
30	6.8	10	9.4	22	---	35	49	21	5.3	14	3.4	9.2
31	5.6	---	12	19	---	47	---	18	---	35	3.4	---
TOTAL	415.3	876.1	370.9	1031	839	1663	1111	1082.8	378.0	248.5	214.3	211.0
MEAN	13.4	29.2	12.0	33.3	28.9	53.6	37.0	34.9	12.6	8.02	6.91	7.03
MAX	133	354	28	121	107	209	140	260	24	35	19	26
MIN	1.7	4.9	8.7	12	15	19	18	8.5	5.3	4.8	3.4	3.3
CFSM	1.06	2.32	.95	2.64	2.30	4.26	2.94	2.77	1.00	.64	.55	.56
IN.	1.23	2.59	1.10	3.04	2.48	4.91	3.28	3.20	1.12	.73	.63	.62

## GREEN RIVER BASIN

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

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	8.64	18.2	31.7	37.9	36.0	51.4	29.7	21.5	14.5	9.66	6.22	5.48
MAX	13.4	29.2	63.6	48.9	95.2	89.3	55.7	34.9	23.1	17.6	9.13	9.29
(WY)	1996	1996	1992	1992	1994	1994	1994	1996	1992	1992	1992	1992
MIN	6.09	10.5	12.0	28.7	16.5	27.9	16.8	11.5	8.69	4.37	3.17	2.71
(WY)	1994	1992	1996	1993	1992	1993	1992	1992	1993	1993	1991	1995

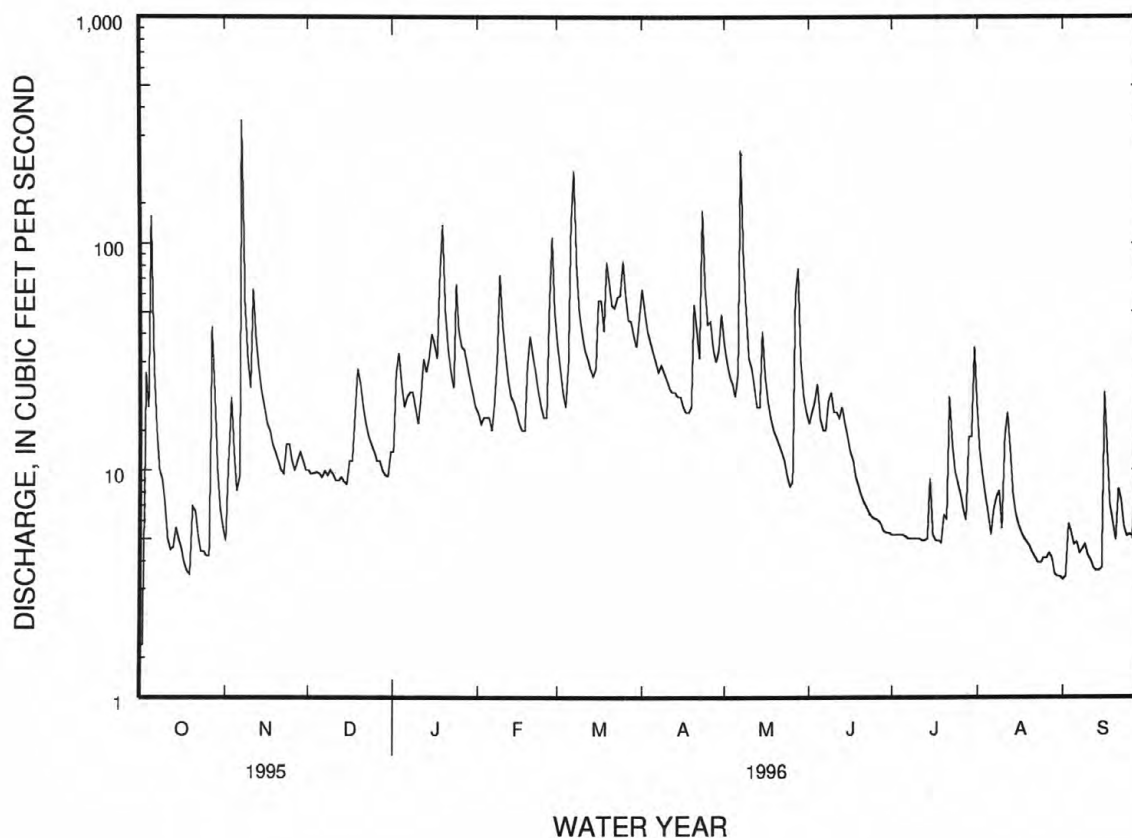
## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1991 - 1996

ANNUAL TOTAL	6844.9		8440.9									
ANNUAL MEAN	18.8		23.1							22.6		
HIGHEST ANNUAL MEAN										32.8	1994	
LOWEST ANNUAL MEAN										15.2	1993	
HIGHEST DAILY MEAN	403	Mar 8	354	Nov 7	783	Mar 9	1994					
LOWEST DAILY MEAN	1.5	Sep 30	a1.7	Oct 1	1.5	Sep 30	1995					
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 26	3.6	Aug 27	1.8	Sep 26	1995					
INSTANTANEOUS PEAK FLOW			860	Nov 7	b3820	Dec 2	1991					
INSTANTANEOUS PEAK STAGE			6.55	Nov 7	c9.97	Dec 2	1991					
ANNUAL RUNOFF (CFSM)	1.49		1.83		1.79							
ANNUAL RUNOFF (INCHES)	20.21		24.92		24.38							
10 PERCENT EXCEEDS	30		49		39							
50 PERCENT EXCEEDS	13		15		13							
90 PERCENT EXCEEDS	3.0		4.8		4.0							

a Also occurred Oct. 2.

b From rating curve extended above 350 ft<sup>3</sup>/s on basis of flood profile computations.

c 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 mi<sup>2</sup>.

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 current year.

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, 18.6°C, Sept. 25, 1996; minimum, 2.5°C, Feb. 9, 1995.

DISSOLVED OXYGEN: Maximum, 12.9 mg/L, Mar. 8, 1996; minimum, 7.1 mg/L, Dec. 9, 10, 17, 18, 1994, Sept. 10, 11, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 256 microsiemens, Aug. 5, 6; minimum, 164 microsiemens, July 7.

pH: Maximum, 7.9 units, Feb. 24, 25; minimum, 6.7 units, Nov. 12, 13, 14.

WATER TEMPERATURE: Maximum, 18.6°C, Sept. 25; minimum, 3.6°C, Feb. 5, Mar. 9.

DISSOLVED OXYGEN: Maximum, 12.9 mg/L, Mar. 8; minimum, 7.2 mg/L, Aug. 5.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG.C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	182	213	205	186	182	186	202	202	202	204	200	201
2	186	214	208	190	186	187	203	202	203	207	203	204
3	194	209	206	194	190	191	204	203	204	209	202	205
4	197	214	205	190	190	190	205	204	205	202	193	196
5	197	170	183	190	186	187	209	205	206	197	192	193
6	197	189	193	190	186	188	207	206	207	199	192	195
7	201	197	198	196	181	189	211	207	208	199	194	197
8	201	197	199	192	189	192	213	204	208	198	193	195
9	201	196	197	204	187	197	210	209	209	197	193	193
10	196	192	193	204	199	202	211	210	210	196	192	193
11	196	188	192	210	198	202	215	211	211	194	190	193
12	196	188	192	206	197	203	220	212	215	196	191	195
13	193	189	191	201	196	198	216	207	211	197	196	197
14	193	185	189	200	195	199	207	203	204	199	197	198
15	189	182	187	195	191	194	207	204	205	201	199	200
16	186	182	186	195	190	194	211	207	209	202	201	202
17	190	186	187	194	193	193	215	211	213	203	202	203
18	191	183	186	193	188	192	220	215	217	202	201	201
19	187	183	185	192	187	191	220	216	218	201	199	200
20	187	179	184	192	187	190	216	211	212	203	199	200
21	180	176	180	193	192	193	211	206	210	202	201	201
22	184	180	181	198	193	194	210	201	205	201	199	200
23	181	177	181	198	194	195	205	204	204	199	198	199
24	185	177	180	200	195	198	208	204	205	198	197	197
25	185	177	180	201	196	200	207	206	206	197	192	194
26	186	178	182	201	198	200	206	201	203	195	193	194
27	190	178	185	199	198	199	201	200	201	197	195	196
28	202	190	194	204	199	201	200	199	200	198	197	198
29	198	194	195	205	200	204	199	199	199	200	198	200
30	194	186	190	205	201	202	199	194	197	202	200	201
31	186	182	185	---	---	---	201	197	198	204	202	203
MONTH	202	170	190	210	181	195	220	194	207	209	190	198



CUMBERLAND RIVER BASIN  
03417500 CUMBERLAND RIVER AT CELINA, TN--Continued  
SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	206	204	205	210	206	208	196	195	196	201	201	201
2	208	206	207	212	206	209	197	192	196	201	192	196
3	210	208	209	211	206	208	198	193	196	192	191	192
4	211	210	211	210	206	209	198	192	195	191	186	188
5	213	211	212	217	206	212	192	191	191	190	186	189
6	217	212	215	217	207	210	191	189	190	193	189	191
7	217	193	200	217	194	203	189	188	188	197	193	194
8	203	198	198	226	216	220	188	183	187	196	184	192
9	203	199	200	229	224	227	187	186	187	187	187	187
10	201	196	199	227	222	225	186	186	186	187	186	186
11	202	201	201	225	220	222	189	185	186	186	185	185
12	203	198	201	220	217	219	189	184	186	185	184	184
13	204	203	203	217	213	217	188	184	185	184	183	183
14	204	200	201	215	213	215	188	183	185	187	182	184
15	202	201	201	213	207	211	187	187	187	189	185	186
16	203	202	202	207	202	205	187	186	187	189	184	188
17	204	203	203	205	199	202	186	186	186	191	187	188
18	209	204	206	203	197	199	186	185	185	194	190	191
19	210	205	209	201	192	197	189	184	185	194	189	192
20	211	206	209	195	190	192	188	180	184	193	188	191
21	211	207	208	190	189	189	192	183	187	192	188	191
22	208	201	203	190	189	190	187	183	186	191	187	190
23	204	202	203	191	190	191	194	183	187	190	186	189
24	202	199	201	192	188	189	206	190	195	189	185	188
25	203	199	201	189	188	189	209	205	206	188	187	188
26	200	197	199	190	189	190	209	204	206	191	187	190
27	197	182	194	191	187	191	204	203	204	---	---	---
28	196	182	188	192	188	192	203	203	203	---	---	---
29	207	195	203	193	188	192	207	202	203	---	---	---
30	---	---	---	194	189	192	206	201	202	186	182	185
31	---	---	---	195	190	193	---	---	---	192	185	188
MONTH	217	182	203	229	187	203	209	180	192	201	182	189
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	191	189	190	---	---	---	205	193	196	194	193	193
2	192	188	190	200	175	188	205	199	202	195	193	194
3	191	189	190	197	178	197	210	204	206	197	194	195
4	189	187	188	209	177	188	234	209	223	196	191	194
5	187	186	187	198	179	188	256	214	236	197	193	194
6	201	187	196	197	172	183	256	198	224	197	194	195
7	215	201	208	201	164	182	213	194	202	199	193	195
8	220	215	218	201	179	190	230	192	205	198	192	194
9	229	220	226	---	---	---	209	196	200	197	193	196
10	243	229	237	---	---	---	210	206	207	199	196	197
11	244	237	243	---	---	---	209	203	205	199	194	196
12	237	233	235	---	---	---	209	192	200	198	194	196
13	236	232	232	---	---	---	212	188	204	198	194	195
14	235	230	232	---	---	---	207	201	205	196	193	195
15	231	221	225	---	---	---	202	195	198	197	193	194
16	221	215	218	---	---	---	197	193	195	197	194	194
17	216	208	213	---	---	---	196	194	195	198	194	195
18	209	194	202	---	---	---	195	191	193	197	196	197
19	195	185	191	---	---	---	193	188	191	202	196	198
20	198	175	184	183	181	182	189	185	187	204	202	203
21	195	173	183	192	182	184	193	190	190	204	200	203
22	195	175	186	205	185	187	196	188	192	202	200	201
23	199	173	184	205	184	187	189	183	186	203	200	201
24	199	174	186	184	182	183	184	178	181	204	202	203
25	---	---	---	185	183	184	189	177	180	204	202	203
26	---	---	---	185	184	185	208	178	192	203	198	200
27	---	---	---	185	184	185	---	---	---	200	196	198
28	---	---	---	190	185	187	---	---	---	208	197	202
29	---	---	---	199	189	192	---	---	---	202	198	200
30	---	---	---	199	190	193	198	193	195	205	198	200
31	---	---	---	196	190	192	198	193	195	---	---	---
MONTH	244	173	206	209	164	187	256	177	199	208	191	197

CUMBERLAND RIVER BASIN  
03417500 CUMBERLAND RIVER AT CELINA, TN--Continued  
PH (STANDARD UNITS), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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

## CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	17.4	17.8	17.3	15.5	14.1	14.7	10.3	9.9	10.1	8.0	7.6	7.8
2	17.4	18.0	17.7	16.5	15.5	15.9	12.0	9.9	11.2	8.8	8.0	8.4
3	17.6	17.8	17.4	16.0	14.8	15.6	10.9	10.3	10.6	8.6	7.2	7.9
4	17.4	17.4	16.7	14.8	13.0	14.0	10.9	10.3	10.6	7.2	6.4	6.8
5	17.8	17.4	17.7	13.0	12.0	12.4	10.5	10.1	10.2	7.4	6.4	7.0
6	18.0	17.2	17.7	12.2	11.7	12.0	10.5	9.6	10.1	7.4	6.8	7.2
7	18.0	16.5	17.7	12.6	12.0	12.4	9.6	8.2	9.0	6.8	6.2	6.4
8	18.0	16.8	17.3	12.4	11.5	12.0	8.4	7.6	8.0	6.2	5.7	6.0
9	17.1	16.2	16.6	11.5	11.1	11.2	8.2	7.4	7.8	6.4	5.9	6.1
10	16.4	15.8	16.1	12.2	11.1	11.8	7.6	5.9	6.6	7.4	6.4	6.8
11	17.1	16.2	16.6	12.6	11.7	12.2	6.1	5.3	5.6	7.6	7.1	7.3
12	17.3	16.8	17.0	11.7	10.5	11.2	7.9	5.7	6.9	7.1	6.8	6.9
13	17.3	16.8	17.0	11.9	10.7	11.4	9.3	7.9	8.9	6.9	6.5	6.8
14	16.8	16.3	16.6	11.7	11.5	11.5	10.6	9.3	10.0	7.2	6.7	7.0
15	16.3	14.3	15.9	11.9	11.3	11.6	10.9	9.0	10.3	7.3	6.6	7.1
16	15.9	14.1	15.1	11.7	11.3	11.6	9.3	8.9	9.2	7.4	6.7	7.1
17	15.1	12.3	14.2	11.7	11.3	11.4	9.5	9.0	9.2	8.2	7.2	7.8
18	15.1	12.9	14.3	12.4	11.5	11.9	9.8	9.4	9.6	8.9	8.2	8.4
19	15.2	13.3	14.6	12.8	12.0	12.5	10.4	9.8	10.0	8.7	6.7	7.7
20	15.4	12.8	14.9	12.7	12.0	12.4	10.0	8.6	9.3	6.7	5.5	5.8
21	15.0	14.4	14.7	12.3	11.6	12.0	8.6	7.6	8.1	6.1	5.5	5.8
22	14.4	13.8	14.2	11.6	10.8	11.0	8.6	7.6	8.2	6.2	5.6	5.9
23	14.2	13.6	14.0	11.0	10.6	10.8	8.4	8.0	8.2	6.7	6.2	6.3
24	14.9	14.2	14.6	10.8	10.6	10.7	8.0	7.0	7.5	7.1	6.4	6.8
25	14.9	14.3	14.7	10.6	9.7	10.1	7.0	6.4	6.6	6.4	5.9	6.1
26	14.7	14.3	14.5	10.5	9.3	9.9	6.6	6.0	6.4	6.3	5.8	6.0
27	14.3	13.7	14.0	11.3	10.3	10.8	7.0	6.6	6.9	6.3	6.0	6.2
28	14.3	14.1	14.2	11.3	10.9	11.2	7.0	6.4	6.8	6.1	5.6	5.9
29	14.1	13.5	13.7	10.9	10.3	10.7	7.0	6.4	6.7	6.1	5.9	6.0
30	13.5	13.1	13.3	10.3	9.9	10.2	7.4	6.6	7.1	6.2	5.9	6.0
31	14.3	13.1	13.7	---	---	---	7.6	7.2	7.4	5.9	5.5	5.7
MONTH	18.0	12.3	15.6	16.5	9.3	11.9	12.0	5.3	8.5	8.9	5.5	6.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	5.5	5.3	5.4	5.4	4.4	5.0	7.9	7.3	7.6	11.2	10.1	10.6
2	5.3	4.5	4.9	5.2	5.0	5.1	7.3	6.8	7.1	10.6	9.6	9.9
3	4.8	4.3	4.4	5.1	4.7	4.9	8.0	6.4	7.3	10.6	10.2	10.4
4	4.6	4.0	4.2	5.2	4.5	4.9	8.2	7.6	7.9	11.4	10.4	10.9
5	4.4	3.6	4.1	5.7	5.2	5.4	8.0	6.9	7.5	12.2	11.1	11.7
6	5.7	4.2	4.8	7.5	5.7	6.9	6.9	6.2	6.5	---	---	---
7	5.8	5.5	5.7	7.9	6.3	7.4	7.0	6.0	6.4	---	---	---
8	6.2	5.6	5.9	6.3	4.0	5.2	7.5	6.7	7.1	---	---	---
9	6.5	5.9	6.2	4.2	3.6	3.9	7.6	6.8	7.3	10.2	9.0	9.6
10	6.8	6.0	6.4	4.8	4.0	4.4	8.1	7.1	7.6	10.2	9.2	9.7
11	6.8	6.3	6.5	5.4	4.4	4.9	8.6	7.1	7.9	10.2	9.2	9.5
12	6.3	5.5	5.8	5.7	5.0	5.4	8.9	7.8	8.4	9.4	8.2	8.8
13	5.8	5.2	5.5	6.3	5.4	5.9	8.7	8.2	8.5	9.0	8.2	8.5
14	5.9	5.6	5.8	6.9	6.1	6.6	8.2	7.4	7.8	8.6	7.8	8.2
15	5.7	5.2	5.6	6.9	6.5	6.7	8.7	8.0	8.3	9.2	8.4	8.8
16	5.4	5.0	5.2	6.5	5.9	6.1	8.5	7.8	8.2	9.4	8.8	9.2
17	5.0	4.7	4.8	6.1	5.6	5.9	9.5	7.8	8.6	10.6	9.2	9.7
18	5.1	4.7	4.8	6.5	6.1	6.3	9.7	8.7	9.1	12.3	10.4	11.1
19	5.2	4.8	4.9	6.5	5.6	6.0	10.0	8.6	9.3	12.5	10.9	11.7
20	5.7	5.2	5.4	5.6	5.0	5.2	11.0	9.7	10.4	12.3	10.9	11.6
21	6.3	5.7	5.9	5.2	4.6	4.9	12.5	10.1	11.0	12.1	10.8	11.3
22	6.0	5.6	5.8	6.0	5.0	5.5	12.5	11.7	12.0	11.7	10.2	11.0
23	6.3	5.6	6.0	6.5	5.3	5.9	12.0	9.6	10.5	11.7	10.2	10.9
24	7.0	6.3	6.7	7.2	5.7	6.5	9.9	8.9	9.5	12.1	10.8	11.4
25	7.4	6.0	6.7	8.3	6.8	7.5	9.8	8.3	8.9	12.5	10.8	11.4
26	7.5	6.5	7.1	7.9	6.9	7.5	10.4	9.6	10.0	12.5	11.9	12.2
27	8.3	6.7	7.3	6.9	6.2	6.4	9.8	9.0	9.4	---	---	---
28	8.3	6.2	7.2	6.6	6.2	6.4	9.9	8.8	9.1	---	---	---
29	6.6	5.2	6.0	6.8	6.6	6.7	11.2	9.9	10.7	---	---	---
30	---	---	---	7.6	6.8	7.2	11.4	11.1	11.3	---	---	---
31	---	---	---	7.9	7.3	7.6	---	---	---	---	---	---
MONTH	8.3	3.6	5.7	8.3	3.6	5.9	12.5	6.0	8.7	12.5	7.8	10.4



CUMBERLAND RIVER BASIN  
03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.2	10.6	10.9	16.9	15.3	15.8	15.6	14.2	14.8	17.1	17.0	17.1
2	11.2	10.6	10.8	17.4	16.4	16.9	14.9	14.3	14.6	18.1	16.9	17.4
3	---	---	---	16.7	14.0	14.8	15.0	14.3	14.6	18.1	17.6	17.9
4	---	---	---	14.3	13.2	13.7	15.8	14.5	15.0	17.6	16.2	16.7
5	---	---	---	14.4	13.5	13.9	16.5	15.7	16.0	17.0	16.2	16.6
6	12.2	11.6	11.8	14.8	14.2	14.5	17.8	16.4	17.0	17.2	16.8	17.0
7	12.0	11.6	11.8	15.3	14.7	15.0	17.3	15.6	16.1	17.3	16.9	17.1
8	11.9	11.3	11.5	16.5	14.7	15.7	16.1	15.4	15.7	17.3	16.7	17.0
9	12.3	11.3	11.6	16.6	15.3	16.0	17.2	15.3	16.1	17.5	17.1	17.3
10	13.4	12.3	12.8	15.3	13.6	14.4	16.5	15.6	16.0	17.6	17.2	17.4
11	13.0	12.1	12.8	15.0	13.7	14.1	16.3	15.6	15.8	17.5	17.2	17.3
12	12.4	11.9	12.0	14.0	13.2	13.6	17.2	16.0	16.4	17.5	17.3	17.4
13	12.4	12.2	12.3	14.4	13.4	13.8	17.3	14.8	15.5	17.6	17.1	17.2
14	12.5	12.0	12.3	14.4	13.9	14.2	15.2	14.7	15.0	17.1	16.4	16.7
15	12.5	12.0	12.2	15.6	13.7	14.9	15.4	15.1	15.2	16.8	16.4	16.6
16	12.4	12.2	12.2	18.0	15.6	16.5	15.6	15.1	15.3	16.8	16.6	16.7
17	12.5	12.0	12.2	18.0	15.6	16.4	15.6	15.1	15.3	17.4	16.8	17.0
18	12.6	12.1	12.3	15.9	15.2	15.5	15.6	15.2	15.4	17.6	17.3	17.4
19	12.6	12.3	12.4	15.7	15.3	15.5	16.2	15.2	15.7	17.5	16.9	17.2
20	12.8	12.3	12.5	15.8	15.4	15.6	16.1	15.5	15.8	18.0	17.1	17.5
21	12.8	12.4	12.6	15.9	15.3	15.7	16.2	15.4	15.8	18.0	17.6	17.8
22	12.9	12.4	12.7	16.3	15.3	15.7	16.4	15.6	15.9	17.7	17.2	17.4
23	13.8	12.6	13.1	16.2	14.8	15.8	16.2	15.8	16.0	17.7	14.8	16.6
24	14.2	13.0	13.5	14.8	14.0	14.3	16.1	15.9	16.0	18.3	15.5	17.7
25	---	---	---	14.2	13.9	14.1	16.4	15.6	16.0	18.6	18.2	18.3
26	---	---	---	14.1	13.4	13.7	17.2	16.2	16.6	18.3	17.7	17.9
27	---	---	---	14.3	13.6	14.0	---	---	---	18.4	17.8	18.0
28	14.5	13.3	13.7	14.6	13.9	14.2	---	---	---	18.4	17.7	18.1
29	15.0	14.5	14.6	14.7	14.6	14.6	---	---	---	17.7	17.1	17.3
30	15.4	14.9	15.1	14.7	13.5	14.2	17.2	16.9	17.1	17.4	15.2	16.7
31	---	---	---	14.2	13.4	13.8	17.2	16.7	16.9	---	---	---
MONTH	15.4	10.6	12.5	18.0	13.2	14.9	17.8	14.2	15.8	18.6	14.8	17.3

OXYGEN, DISSOLVED (DO) MG/L, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.6	9.3	8.6	8.6	8.5	8.6	11.1	10.6	10.8	11.2	10.1	10.6
2	8.5	7.8	4.0	8.6	8.4	8.5	11.9	10.3	11.1	11.4	9.9	10.6
3	8.5	8.1	3.6	8.8	8.5	8.7	11.9	10.2	10.6	11.9	10.6	11.2
4	8.3	7.9	7.2	9.1	8.7	8.9	11.1	9.3	10.0	12.2	11.1	11.7
5	8.5	8.1	8.3	9.2	9.0	9.1	10.2	9.0	9.7	12.5	11.9	12.2
6	8.1	7.8	7.9	9.3	9.0	9.1	11.0	8.7	9.6	12.3	11.4	11.8
7	7.8	7.5	7.7	9.7	8.7	9.2	11.8	8.9	9.7	12.0	11.4	11.8
8	8.2	7.6	7.9	9.4	8.7	9.2	11.9	8.2	9.5	12.2	11.4	11.9
9	8.7	8.1	8.3	9.4	9.1	9.3	10.5	8.2	9.4	12.0	11.4	11.7
10	8.8	8.2	8.6	9.2	8.7	8.9	11.5	7.6	9.5	11.7	10.7	11.3
11	8.8	8.5	8.7	9.6	9.0	9.3	11.5	7.7	9.7	11.6	10.6	11.2
12	8.5	8.2	8.4	10.0	9.5	9.7	11.5	8.2	10.4	11.4	10.2	11.0
13	8.4	8.1	8.3	9.9	8.7	9.0	11.2	9.8	10.5	11.5	10.3	11.1
14	8.3	8.0	8.1	9.9	9.1	9.6	---	---	---	11.5	10.4	11.2
15	8.4	8.0	8.2	9.9	9.7	9.8	---	---	---	11.6	10.9	11.2
16	8.7	7.8	8.4	10.1	9.8	9.9	11.8	10.8	11.2	11.6	10.6	11.2
17	8.9	8.2	8.5	10.3	10.1	10.3	12.1	10.2	11.2	11.1	10.3	10.7
18	9.2	8.0	8.6	10.4	10.2	10.3	---	---	---	11.0	10.0	10.5
19	9.5	8.8	9.0	10.6	10.3	10.5	---	---	---	11.4	10.4	11.0
20	9.5	8.8	9.3	10.7	10.3	10.5	---	---	---	11.9	11.0	11.5
21	9.2	8.1	8.7	11.0	10.4	10.7	---	---	---	12.0	11.4	11.7
22	8.5	7.9	8.1	11.5	11.0	11.2	---	---	---	12.4	10.8	11.9
23	9.0	8.4	8.6	11.5	10.6	11.1	---	---	---	12.5	11.7	12.2
24	8.9	8.4	8.7	11.0	10.4	10.7	12.5	11.6	11.9	12.6	12.0	12.3
25	8.6	8.4	8.5	11.6	11.0	11.3	12.6	11.2	12.0	12.8	10.4	12.1
26	8.8	8.4	8.6	11.6	11.3	11.5	12.6	11.7	12.1	10.7	9.1	10.0
27	8.9	8.6	8.8	11.3	11.0	11.2	12.4	11.6	12.0	10.4	9.3	9.8
28	8.6	8.4	8.5	11.2	10.8	11.0	12.5	11.5	12.1	11.0	9.6	10.4
29	9.0	8.4	8.7	11.3	10.9	11.1	12.3	11.3	12.0	11.1	10.1	10.6
30	9.2	8.7	9.0	11.3	10.7	10.9	12.1	11.3	11.7	11.7	9.8	10.9
31	8.7	8.5	8.6	---	---	---	11.5	10.5	11.0	11.9	10.1	11.1
MONTH	9.5	7.5	8.1	11.6	8.4	10.0	12.6	7.6	10.8	12.8	9.1	11.2

CUMBERLAND RIVER BASIN  
03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

OXYGEN, DISSOLVED (DO) MG/L, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.5	10.5	11.7	12.2	12.0	12.1	10.2	9.8	10.0	11.1	10.5	10.7
2	12.1	11.2	11.6	12.3	12.1	12.2	10.3	9.8	10.0	11.3	11.0	11.2
3	12.5	11.3	11.8	12.4	12.1	12.2	11.9	10.0	11.3	11.4	11.1	11.2
4	12.5	11.3	12.0	12.5	12.3	12.4	12.1	11.4	11.8	11.4	11.2	11.3
5	12.7	11.5	12.2	12.5	12.3	12.3	11.4	10.1	10.3	11.6	11.3	11.4
6	12.2	11.3	11.9	---	---	---	11.2	10.3	10.7	11.9	11.3	11.6
7	12.2	11.8	11.9	12.5	11.1	11.7	12.0	11.2	11.5	11.5	10.8	11.1
8	11.8	11.6	11.7	12.9	11.7	12.1	12.2	11.8	12.0	12.1	10.7	11.3
9	11.7	11.5	11.7	12.8	12.2	12.4	12.1	11.8	11.9	12.2	11.9	12.0
10	11.8	11.6	11.7	12.5	12.1	12.3	12.1	12.0	12.0	11.9	11.7	11.8
11	11.7	11.6	11.7	12.4	12.2	12.3	12.2	12.0	12.1	11.7	11.5	11.5
12	12.0	11.6	11.8	12.3	12.1	12.2	12.1	12.0	12.0	11.5	11.3	11.5
13	12.0	11.8	11.9	12.3	12.0	12.1	12.0	11.8	11.9	11.5	11.3	11.4
14	12.1	11.8	11.9	12.1	12.0	12.1	11.9	11.8	11.9	11.6	11.3	11.5
15	12.0	11.8	11.9	12.0	11.9	11.9	12.0	11.7	11.8	11.6	11.3	11.5
16	12.1	11.9	12.0	11.9	11.7	11.8	12.1	11.9	12.0	11.3	11.2	11.2
17	12.1	11.9	12.0	11.8	11.7	11.7	12.4	11.9	12.1	11.3	11.1	11.2
18	12.1	12.0	12.0	12.1	11.7	11.9	12.3	12.1	12.3	11.3	11.1	11.2
19	12.2	12.1	12.1	12.0	11.7	11.8	12.3	12.0	12.1	11.3	10.9	11.2
20	12.2	12.0	12.1	12.1	11.6	11.9	12.1	11.4	11.6	11.3	10.9	11.1
21	12.2	12.0	12.1	12.2	11.9	12.0	11.4	10.7	11.2	11.2	10.8	11.0
22	12.3	11.9	12.2	11.9	11.5	11.6	11.4	10.7	11.0	11.2	10.8	11.0
23	12.2	11.8	11.9	11.5	11.3	11.4	11.9	11.3	11.6	11.3	10.9	11.1
24	11.9	11.4	11.5	11.3	11.0	11.2	12.1	11.2	11.6	11.3	10.9	11.1
25	11.5	11.0	11.1	11.0	10.6	10.9	12.1	10.7	11.4	11.3	10.8	11.0
26	11.3	11.0	11.2	11.0	10.6	10.8	10.7	10.5	10.6	11.1	10.5	10.8
27	11.2	10.5	11.1	11.0	10.8	10.9	10.7	10.5	10.6	10.5	9.8	10.3
28	11.9	10.6	11.5	10.9	10.6	10.8	10.8	10.7	10.7	9.8	8.9	9.3
29	12.1	11.7	11.8	10.6	10.4	10.5	10.8	10.5	10.7	10.0	8.9	9.2
30	---	---	---	10.6	10.4	10.5	10.7	10.5	10.5	10.5	10.0	10.3
31	---	---	---	10.4	10.1	10.3	---	---	---	10.6	9.9	10.3
MONTH	12.7	10.5	11.8	12.9	10.1	11.7	12.4	9.8	11.4	12.2	8.9	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.1	9.8	10.0	10.5	10.1	10.2	9.1	8.5	8.7	9.4	8.6	8.9
2	10.0	9.7	9.8	10.5	9.8	10.1	9.3	8.1	8.7	9.6	8.7	9.2
3	9.8	9.7	9.7	10.0	9.8	9.9	9.2	8.3	8.8	9.8	7.8	9.1
4	---	---	---	10.1	9.8	9.9	9.0	7.8	8.4	9.3	7.7	8.6
5	10.3	10.1	10.2	10.3	9.6	10.1	9.2	7.2	7.9	9.1	8.4	8.7
6	10.6	10.2	10.4	10.0	9.1	9.5	9.5	8.0	8.6	9.2	8.5	8.8
7	10.5	10.3	10.4	---	---	---	9.1	7.6	8.5	9.3	8.1	8.6
8	10.3	10.0	10.2	10.0	9.1	9.4	9.0	7.4	8.2	9.1	8.2	8.7
9	10.3	10.0	10.2	9.7	8.9	9.5	8.8	7.4	8.3	8.9	8.3	8.6
10	10.1	10.0	10.0	9.5	7.9	8.7	8.7	8.4	8.6	9.0	8.0	8.5
11	10.3	9.8	10.0	9.6	7.9	8.8	8.8	7.5	8.4	9.1	8.1	8.5
12	10.3	10.1	10.2	9.7	8.7	9.4	8.6	7.3	8.1	8.9	8.2	8.4
13	10.5	10.0	10.3	---	---	---	8.1	7.3	7.7	9.1	7.6	8.5
14	10.5	10.3	10.4	---	---	---	7.7	7.3	7.4	9.1	8.0	8.5
15	10.6	10.3	10.5	---	---	---	8.1	7.7	7.9	8.8	7.7	8.3
16	10.7	10.4	10.5	---	---	---	8.4	7.9	8.1	9.1	8.0	8.6
17	10.7	10.5	10.6	---	---	---	8.4	8.2	8.3	9.0	8.0	8.6
18	10.7	10.5	10.6	---	---	---	8.5	8.1	8.3	9.2	8.2	8.8
19	10.7	10.4	10.6	9.1	8.7	8.9	9.0	8.1	8.5	9.5	7.5	8.2
20	11.2	10.3	10.6	9.5	9.1	9.3	9.0	8.5	8.7	9.9	8.6	9.3
21	11.0	10.7	10.8	9.6	9.2	9.4	8.7	8.4	8.6	9.9	8.2	9.2
22	10.9	10.5	10.7	9.6	8.9	9.3	8.5	7.6	8.1	9.7	7.9	8.8
23	10.8	10.2	10.5	9.7	9.2	9.5	7.8	7.5	7.6	9.7	8.6	9.2
24	10.6	9.8	10.3	9.5	9.2	9.3	---	---	---	10.2	8.6	9.6
25	10.6	9.5	10.0	9.5	9.0	9.3	---	---	---	10.2	8.4	9.6
26	---	---	---	9.5	9.2	9.4	---	---	---	10.1	8.0	9.0
27	---	---	---	9.8	9.3	9.5	---	---	---	9.9	8.8	9.5
28	---	---	---	9.8	9.4	9.7	---	---	---	10.2	8.1	9.6
29	---	---	---	10.2	9.5	9.9	8.3	7.9	8.2	9.4	7.7	8.7
30	---	---	---	10.0	9.4	9.7	9.1	7.6	8.6	9.2	7.9	8.5
31	---	---	---	9.5	9.1	9.3	9.4	8.4	8.9	---	---	---
MONTH	11.2	9.5	10.3	10.5	7.9	9.5	9.5	7.2	8.3	10.2	7.5	8.8

## 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 mi<sup>2</sup>.

## 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. 114).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum daily discharge, 116,000 ft<sup>3</sup>/s, Mar. 13, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 35,900 ft<sup>3</sup>/s, Mar. 7; minimum daily, 3,450 ft<sup>3</sup>/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6060	9040	4150	5760	17800	15000	24700	12600	21100	4890	17300	8600
2	4730	9620	4770	7460	22000	13700	25200	14500	17700	6020	15300	5410
3	3740	11400	5220	12600	21700	14200	20100	16500	17100	10400	14100	6420
4	4060	10100	5490	11800	20500	15300	23500	14500	19600	9880	12000	12100
5	15600	8370	6200	15800	22000	14300	22000	14100	20200	10900	8910	9880
6	11300	6820	4500	16600	22000	21200	20900	8820	19100	7520	7110	10600
7	6200	26700	5510	18000	19600	35900	19400	16400	19200	7130	8250	10700
8	4500	30000	4750	18200	21400	34700	18100	24300	16900	6830	13700	10800
9	4220	13400	4080	16700	26000	20800	19300	22300	20000	8400	12100	10800
10	3480	11500	4860	16600	22500	21200	21300	19400	19000	13000	12700	10400
11	3500	12900	6650	18200	20900	21800	21500	19200	17800	10100	8550	11200
12	3470	12800	7720	17500	20400	21800	22300	19500	20300	10700	10000	10800
13	3460	12300	9430	18700	17200	16200	19600	20400	21700	10200	17300	9970
14	3450	12700	9850	18200	16900	16700	16800	22700	21500	9890	19300	9450
15	3580	13800	10400	18900	21100	19700	12800	23800	20200	8050	19200	11400
16	4490	12600	10000	19900	21300	21600	11200	24000	20100	7240	17900	10100
17	3830	12100	7360	19000	20300	18700	8810	20900	19100	9220	16800	8620
18	3500	9760	6390	17700	18300	17000	8730	14200	18900	11600	16800	10200
19	3500	10200	10300	28800	14600	23800	9750	11600	20800	9300	16100	6100
20	3600	8620	15200	25000	14800	25500	10200	12200	20900	10700	14500	7080
21	6290	6920	12900	17900	15200	24400	14900	11400	20400	8110	14700	5850
22	7180	6050	13900	18000	14600	21500	9860	11500	18600	5540	16600	4440
23	6520	5470	12900	18800	18100	23700	20600	13900	15700	9000	18100	5090
24	5470	5530	9840	23300	15100	23600	26600	10800	11800	16000	17100	4470
25	7630	5650	8380	27400	10500	24900	19200	8520	11000	17200	12600	6730
26	6280	5190	8650	24100	7720	22300	20300	9090	13600	15700	8750	8820
27	6110	5850	8580	22000	9450	21000	19800	6480	13900	14800	7670	6710
28	7610	6380	9670	24300	18900	19000	17500	18200	12000	12600	8700	10100
29	8280	5980	9980	25600	15300	20000	13000	22700	8420	7520	10700	9690
30	7900	5580	8270	25100	---	19800	9580	22000	5100	10100	10400	6990
31	8950	---	6820	22100	---	19000	---	22100	---	17500	10800	---
TOTAL	178490	313330	252720	590020	526170	648300	527530	508610	521720	316040	414040	259520
MEAN	5758	10440	8152	19030	18140	20910	17580	16410	17390	10190	13360	8651
MAX	15600	30000	15200	28800	26000	35900	26600	24300	21700	17500	19300	12100
MIN	3450	5190	4080	5760	7720	13700	8730	6480	5100	4890	7110	4440



## CUMBERLAND RIVER BASIN

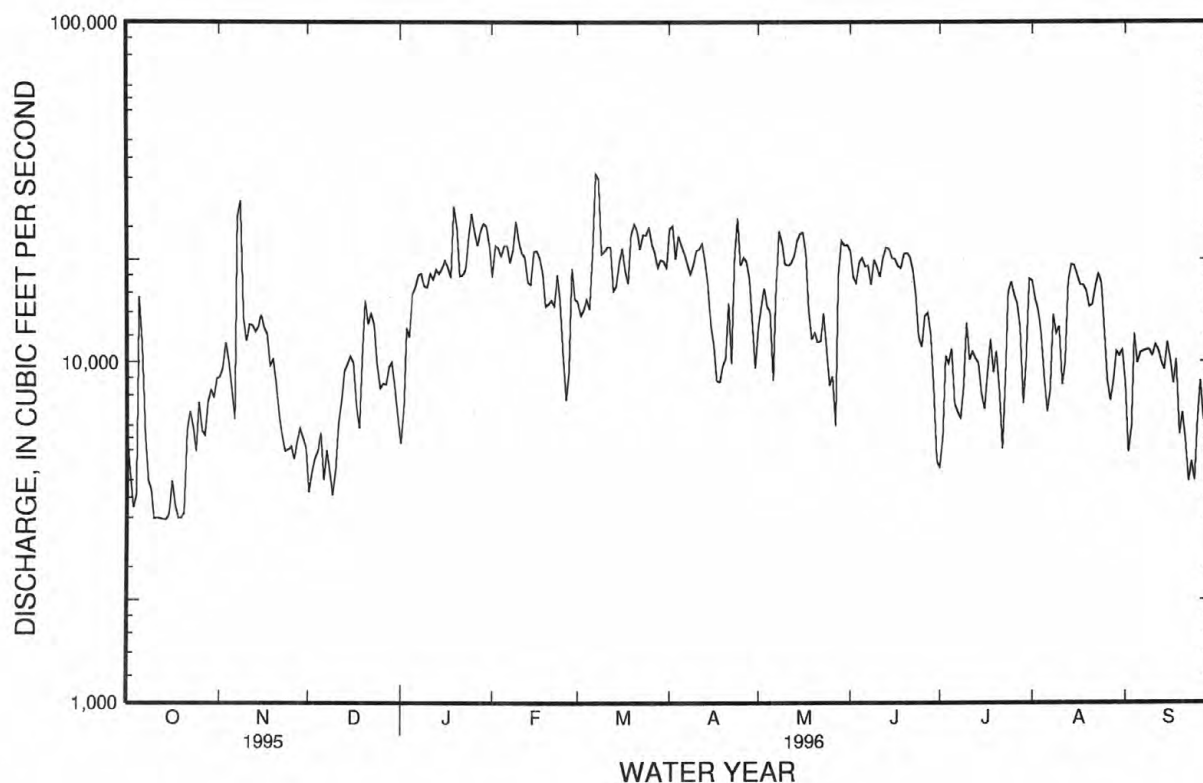
03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

MEAN	6620	8411	13700	16680	16920	17930	14360	12500	12460	10180	10180	8007
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1981 - 1996

ANNUAL TOTAL	3872150			5056490								
ANNUAL MEAN	10610			13820						12310		
HIGHEST ANNUAL MEAN										19560		1994
LOWEST ANNUAL MEAN										6159		1988
HIGHEST DAILY MEAN	39600	Mar	9	35900	Mar	7				85200	May	8 1984
LOWEST DAILY MEAN	1860	May	7	3450	Oct	14				.00	Nov	2 1980
ANNUAL SEVEN-DAY MINIMUM	3590	Oct	9	3590	Oct	9				1290	Nov	22 1980
10 PERCENT EXCEEDS	20900			22000						24400		
50 PERCENT EXCEEDS	8420			12900						9380		
90 PERCENT EXCEEDS	4710			5570						3920		



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, 23.7°C, July 13, 1995; 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, 224 microsiemens, Mar. 5, 6; minimum, 174 microsiemens, July 25, 26.

pH: Maximum, 8.4 units, on several days May to Sept; minimum, 6.7 units, Oct. 19, 20, Mar. 9, May 18.

WATER TEMPERATURE: Maximum, 22.3°C, July 26; minimum, 2.2°C, Feb. 5.

DISSOLVED OXYGEN: Maximum, 12.7 mg/L, Feb 7, 8, Mar. 6; minimum, 6.2 mg/L, Oct. 4.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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

CUMBERLAND RIVER BASIN  
03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued  
SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	214	212	213	219	214	216	203	203	203	207	207	207
2	216	212	212	220	219	219	207	203	203	207	207	207
3	213	212	213	220	216	217	208	204	206	207	207	207
4	213	213	213	222	217	219	208	204	207	211	207	207
5	214	213	213	224	222	222	208	208	208	211	206	207
6	214	214	214	224	223	223	208	208	208	210	206	208
7	218	214	214	223	218	218	208	207	208	210	206	209
8	219	214	215	218	213	215	207	207	207	206	206	206
9	215	215	215	213	204	209	207	207	207	206	206	206
10	219	215	217	203	199	201	207	207	207	210	206	206
11	220	219	220	202	197	201	207	203	206	210	206	208
12	220	220	220	208	200	205	207	203	206	211	210	210
13	220	220	220	211	207	209	207	203	206	211	211	211
14	220	219	219	210	209	209	206	202	204	211	211	211
15	219	219	219	209	208	208	206	202	206	211	207	207
16	219	219	219	208	207	207	206	202	205	208	208	208
17	219	218	219	207	206	206	206	202	206	208	204	208
18	218	214	217	206	201	204	206	206	206	208	204	208
19	218	214	214	205	200	200	206	202	204	208	208	208
20	214	214	214	200	198	199	206	201	203	208	208	208
21	218	213	213	198	197	197	205	201	204	208	208	208
22	213	213	213	197	197	197	209	205	205	208	208	208
23	213	212	212	197	197	197	209	201	206	212	208	210
24	213	213	213	197	197	197	208	208	208	214	210	211
25	214	213	214	201	197	201	212	208	209	214	209	210
26	215	214	214	202	201	202	212	208	211	213	208	209
27	216	212	215	203	202	202	208	207	207	212	206	208
28	216	212	213	203	203	203	207	207	207	206	205	205
29	214	213	213	204	200	204	211	207	207	205	204	204
30	---	---	---	205	200	204	207	207	207	204	203	203
31	---	---	---	205	201	202	---	---	---	203	202	202
MONTH	220	212	215	224	197	207	212	201	206	214	202	208
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	202	200	201	189	185	188	196	192	193	200	195	196
2	200	199	199	193	185	189	204	192	195	198	195	196
3	199	198	198	193	185	191	200	195	197	199	195	196
4	198	197	197	193	192	193	207	195	200	198	195	196
5	197	196	196	196	192	194	203	195	197	198	194	196
6	196	196	196	199	194	195	207	191	198	197	194	196
7	196	196	196	198	193	194	207	198	200	196	194	195
8	196	196	196	201	192	194	201	199	199	196	193	194
9	196	196	196	196	191	194	201	199	199	197	192	194
10	196	196	196	195	190	192	201	199	200	195	193	194
11	200	196	196	194	189	190	204	200	200	195	192	193
12	196	196	196	193	188	190	202	199	200	193	191	192
13	196	196	196	192	187	189	202	199	200	193	191	191
14	196	196	196	191	185	187	200	199	199	193	191	191
15	196	196	196	189	184	186	199	198	198	193	190	191
16	196	196	196	188	183	186	199	198	199	192	188	190
17	200	196	197	191	182	185	203	198	199	191	188	190
18	200	196	197	186	181	182	199	198	199	190	188	189
19	200	192	195	185	180	181	203	199	200	192	187	189
20	192	188	191	183	179	180	208	198	200	191	185	187
21	192	188	190	187	178	179	204	198	199	192	185	187
22	196	188	192	---	---	---	203	197	199	191	184	187
23	192	188	192	---	---	---	200	196	197	193	183	187
24	192	192	192	---	---	---	198	196	197	192	186	189
25	192	188	192	---	174	---	202	197	198	191	189	190
26	192	188	190	177	174	175	199	196	197	192	189	190
27	188	184	188	181	176	177	201	196	197	192	189	191
28	188	188	188	---	176	---	199	196	197	191	189	190
29	192	188	189	190	184	---	198	196	197	192	189	190
30	192	188	189	196	189	192	197	195	196	195	191	191
31	---	---	---	195	191	193	198	196	196	---	---	---
MONTH	202	184	194	201	174	188	208	191	198	200	183	192

CUMBERLAND RIVER BASIN  
03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued  
PH (STANDARD UNITS), WATER, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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



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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.5	18.1	18.8	15.2	15.0	15.0	10.7	10.1	10.4	5.8	5.6	5.7
2	19.3	18.1	18.7	15.4	15.0	15.1	10.5	10.1	10.4	5.8	5.6	5.7
3	18.5	18.1	18.4	15.2	14.5	14.9	10.7	10.5	10.5	6.1	5.6	5.8
4	18.5	17.9	18.3	14.5	14.3	14.5	10.5	10.2	10.3	6.2	5.9	6.0
5	19.5	18.3	18.8	14.3	13.7	14.0	10.2	10.0	10.1	6.2	6.0	6.2
6	19.3	18.3	18.7	13.7	13.3	13.5	10.0	9.8	9.9	6.4	6.2	6.2
7	18.7	18.1	18.4	13.5	12.5	13.0	9.8	9.4	9.6	6.5	5.9	6.2
8	18.8	18.0	18.4	13.1	12.4	12.8	9.6	9.1	9.3	6.3	5.5	5.8
9	19.0	18.2	18.5	12.4	11.8	12.0	9.1	8.5	8.9	5.5	5.3	5.4
10	18.8	18.4	18.6	11.8	11.6	11.7	8.5	7.7	8.1	5.8	5.2	5.5
11	19.2	18.4	18.8	12.0	11.0	11.6	7.7	7.3	7.5	5.8	5.0	5.3
12	19.0	18.6	18.9	11.4	11.0	11.2	7.7	6.9	7.1	5.1	4.9	5.0
13	19.0	18.8	18.9	11.2	10.6	10.9	7.1	6.9	7.0	5.6	4.9	5.1
14	19.0	18.2	18.8	11.0	10.4	10.6	7.8	7.1	7.4	6.2	5.6	5.8
15	18.8	17.6	18.3	10.4	9.6	10.1	8.4	7.2	7.7	6.4	6.0	6.2
16	18.6	17.8	18.3	10.0	9.4	9.9	8.4	8.1	8.2	6.6	6.4	6.5
17	18.4	17.8	18.3	10.0	9.7	9.8	8.1	8.1	8.1	7.2	6.6	6.8
18	18.5	18.0	18.3	10.1	9.7	9.9	8.1	7.9	8.0	7.8	7.2	7.5
19	18.7	18.1	18.4	10.1	9.7	9.9	8.1	7.9	8.0	7.8	6.9	7.4
20	18.5	17.9	18.2	10.3	9.5	10.0	8.2	7.8	8.0	6.9	6.7	6.8
21	18.1	17.5	17.9	10.3	9.7	9.9	8.6	7.8	8.3	6.9	6.7	6.9
22	17.7	17.4	17.6	10.1	9.7	9.9	8.8	8.2	8.5	6.9	6.6	6.7
23	17.5	17.4	17.5	9.9	9.7	9.8	8.6	7.6	8.3	6.8	6.2	6.5
24	17.5	17.2	17.4	9.7	9.5	9.7	8.0	7.3	7.6	6.4	5.8	6.1
25	17.3	16.8	17.1	9.7	9.5	9.6	7.3	6.9	7.2	6.4	5.8	6.0
26	17.1	16.9	16.9	10.1	9.3	9.7	6.9	6.6	6.7	6.4	5.8	6.1
27	16.9	16.5	16.6	10.1	9.7	9.9	6.6	6.0	6.3	6.7	6.3	6.4
28	16.6	16.0	16.3	10.8	9.8	10.1	6.0	5.5	5.7	6.3	5.9	6.0
29	16.0	15.6	15.8	10.6	10.0	10.2	5.7	5.5	5.5	5.9	5.5	5.8
30	15.6	15.4	15.5	10.5	10.0	10.3	5.7	5.5	5.6	6.3	5.0	5.9
31	15.4	15.0	15.2	---	---	---	5.7	5.7	5.7	6.2	5.8	6.0
MONTH	19.5	15.0	17.9	15.4	9.3	11.3	10.7	5.5	8.1	7.8	4.9	6.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.9	4.9	5.5	7.9	7.5	7.9	9.5	8.8	9.2	13.3	11.7	12.5
2	5.3	4.5	4.9	7.9	7.5	7.7	9.5	8.8	9.1	13.7	12.3	12.8
3	4.5	3.5	4.2	7.8	7.4	7.6	10.1	8.6	9.2	13.9	12.3	13.1
4	3.9	2.4	2.8	7.4	7.1	7.2	9.6	8.5	9.2	14.1	12.7	13.3
5	3.3	2.2	3.0	7.3	6.9	7.1	10.0	9.1	9.5	14.8	12.7	13.6
6	3.5	3.1	3.3	7.3	6.7	7.0	10.2	9.2	9.8	14.6	12.8	13.5
7	3.6	3.4	3.5	6.7	5.9	6.2	9.8	8.8	9.3	15.0	13.2	14.1
8	4.2	3.6	3.9	6.8	5.9	6.5	9.6	8.4	9.0	15.2	14.4	14.6
9	5.0	4.2	4.6	6.8	6.4	6.5	8.6	7.8	8.3	15.7	14.4	14.9
10	5.6	5.0	5.1	6.4	6.0	6.1	8.2	7.5	7.9	16.8	14.7	15.6
11	5.8	5.6	5.6	6.0	5.6	5.8	9.2	7.6	8.3	16.5	15.8	16.1
12	5.8	5.5	5.7	5.6	5.0	5.3	9.6	8.0	8.9	16.2	15.4	15.8
13	5.5	5.5	5.5	5.4	5.0	5.2	9.6	8.8	9.2	16.2	14.9	15.5
14	5.5	5.3	5.4	6.2	5.4	5.8	10.8	9.0	9.7	15.1	13.9	14.6
15	5.5	5.5	5.5	6.8	6.0	6.3	10.3	9.5	9.9	14.6	14.0	14.3
16	5.5	4.9	5.2	7.5	6.8	7.2	10.3	9.5	10.0	14.4	13.4	14.0
17	4.9	4.7	4.8	7.8	7.4	7.6	10.9	9.5	10.2	14.5	13.1	13.7
18	4.9	4.9	4.9	8.0	7.6	7.8	11.5	10.3	10.9	15.5	13.1	14.0
19	4.9	4.9	4.9	7.8	6.9	7.5	11.3	10.7	11.1	16.4	13.6	14.5
20	5.1	4.9	5.0	6.9	5.7	6.2	11.9	10.7	11.3	16.7	13.8	15.1
21	5.1	4.9	5.0	6.7	5.5	6.1	12.8	11.5	11.9	16.3	13.9	15.2
22	5.5	5.1	5.3	6.9	6.3	6.6	12.6	11.9	12.2	17.7	14.3	15.9
23	6.5	5.5	5.9	7.1	5.9	6.4	12.7	12.2	12.5	19.5	15.6	17.4
24	7.1	6.5	6.6	---	---	---	13.0	12.4	12.6	20.0	16.3	18.2
25	7.3	6.9	7.0	---	---	---	13.0	12.0	12.5	19.5	16.6	18.3
26	7.5	7.0	7.3	9.4	7.5	8.6	13.4	12.4	13.0	18.5	17.1	17.7
27	7.7	7.4	7.5	9.6	8.0	8.8	13.1	12.4	12.8	19.4	16.7	17.4
28	8.3	7.7	7.9	10.1	7.8	9.1	12.7	11.9	12.3	21.3	17.1	19.4
29	8.3	7.9	8.0	10.0	8.8	9.5	12.9	11.5	12.0	20.6	19.4	19.9
30	---	---	---	9.8	8.0	9.2	12.5	11.5	11.9	19.6	18.2	19.2
31	---	---	---	9.2	8.2	8.9	---	---	---	18.3	17.4	17.8
MONTH	8.3	2.2	5.3	10.1	5.0	7.2	13.4	7.5	10.5	21.3	11.7	15.5

CUMBERLAND RIVER BASIN  
03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.0	17.0	17.5	19.3	18.5	18.9	18.6	17.8	18.3	20.9	19.5	20.3
2	17.8	16.5	17.0	19.6	18.4	18.8	18.6	17.6	18.1	20.5	19.5	20.0
3	16.5	15.4	16.0	19.1	18.2	18.8	18.8	17.4	18.1	20.3	19.5	19.8
4	16.1	14.5	15.3	---	---	---	19.0	17.4	18.3	21.2	19.5	20.3
5	15.5	14.8	15.1	21.8	18.2	19.4	19.2	17.6	18.3	21.5	19.7	20.5
6	15.5	14.5	15.0	20.6	18.6	19.6	19.4	17.6	18.5	21.6	19.6	20.5
7	15.4	14.6	15.1	21.0	18.8	19.7	20.2	17.9	18.9	21.7	19.8	20.6
8	15.4	14.4	15.0	21.8	19.2	20.1	21.9	18.5	19.6	21.4	19.8	20.8
9	15.9	15.2	15.5	21.4	19.2	20.2	20.9	18.6	19.8	21.9	19.9	21.0
10	15.9	15.1	15.5	22.2	19.2	20.7	21.3	19.0	20.2	21.6	20.0	21.0
11	15.9	14.9	15.4	22.0	19.4	20.6	20.5	19.4	20.0	21.5	20.1	20.8
12	16.0	15.1	15.6	22.0	19.4	20.7	20.9	19.4	20.1	21.5	20.2	20.9
13	16.0	15.4	15.7	21.8	19.4	20.5	20.7	19.5	20.2	20.7	19.8	20.3
14	16.8	16.0	16.3	22.2	19.4	20.4	20.5	19.7	20.1	20.5	19.8	20.2
15	17.1	16.4	16.7	20.8	19.4	20.4	20.0	19.5	19.8	20.6	19.8	20.2
16	17.4	16.7	17.0	21.6	19.2	19.9	19.9	19.2	19.6	20.6	19.9	20.3
17	17.8	16.7	17.2	21.6	18.8	19.9	19.6	19.0	19.4	20.2	19.5	19.9
18	17.9	16.8	17.4	21.2	18.8	19.8	19.8	18.7	19.2	20.0	19.3	19.6
19	18.1	17.0	17.6	19.6	18.4	19.2	19.8	18.4	19.1	19.9	19.1	19.4
20	18.3	17.4	17.9	20.2	18.8	19.5	19.5	18.5	19.0	19.7	19.1	19.4
21	18.4	17.5	18.1	---	18.8	---	19.4	18.6	19.1	19.5	19.0	19.3
22	18.4	17.3	18.0	---	---	---	19.5	18.8	19.2	19.3	18.7	19.0
23	18.7	17.1	18.0	---	---	---	19.5	18.8	19.3	20.0	18.5	18.9
24	18.9	17.2	18.1	---	---	---	19.5	19.0	19.3	19.2	18.6	18.8
25	19.3	17.0	18.2	---	---	---	20.1	19.0	19.4	19.3	18.3	18.8
26	20.0	17.2	18.6	22.3	---	---	20.0	19.1	19.5	20.5	18.7	19.2
27	20.8	17.5	19.3	22.1	20.3	21.1	20.0	19.1	19.5	20.2	19.2	19.9
28	20.8	17.8	19.4	---	---	---	20.2	18.8	19.5	19.7	19.2	19.4
29	20.5	18.3	19.6	---	---	---	20.9	18.9	19.8	19.6	19.1	19.2
30	19.9	18.3	19.2	19.8	17.8	18.8	21.1	19.2	20.0	19.4	18.7	19.0
31	---	---	---	19.6	17.8	18.9	21.0	19.4	20.2	---	---	---
MONTH	20.8	14.4	17.0	22.3	17.8	19.8	21.9	17.4	19.3	21.9	18.3	19.9

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	6.8	7.4	9.1	8.7	9.0	11.6	11.1	11.2	10.4	10.2	10.3
2	7.9	6.8	7.1	9.1	8.5	9.0	11.5	11.0	11.2	10.4	10.1	10.3
3	7.0	6.5	6.8	9.2	8.5	8.8	11.2	10.9	11.2	10.3	10.0	10.2
4	6.9	6.2	6.6	9.1	8.5	8.8	11.2	11.0	11.1	10.3	10.0	10.2
5	7.7	6.5	7.0	8.9	8.6	8.8	11.1	10.9	11.0	10.5	10.1	10.4
6	7.3	6.5	7.0	9.2	8.3	8.9	11.2	10.9	11.0	10.7	10.1	10.5
7	7.2	6.6	6.9	9.2	8.9	9.1	11.2	10.9	11.1	10.7	10.3	10.6
8	7.4	6.6	6.9	9.1	8.9	9.0	11.4	10.9	11.1	11.1	10.5	10.8
9	8.0	6.8	7.2	9.3	9.1	9.2	11.3	11.0	11.1	11.3	11.0	11.2
10	7.6	6.9	7.3	9.6	9.3	9.4	11.5	11.1	11.2	11.5	11.0	11.4
11	8.5	7.1	7.7	9.8	9.6	9.7	11.4	11.0	11.3	11.6	11.2	11.5
12	8.2	7.3	7.8	9.9	9.6	9.7	11.4	11.0	11.2	11.5	11.3	11.4
13	8.0	7.5	7.7	9.7	9.3	9.5	11.3	11.1	11.2	11.5	11.4	11.4
14	7.8	6.8	7.4	9.7	9.4	9.5	11.4	11.2	11.3	11.4	11.3	11.4
15	8.1	6.8	7.1	9.9	9.4	9.7	11.5	11.0	11.2	11.4	11.3	11.3
16	8.3	6.9	7.4	10.0	9.7	9.8	11.2	10.9	11.1	11.4	11.3	11.4
17	8.5	7.0	8.0	10.0	9.7	9.9	11.2	11.0	11.1	11.5	11.3	11.4
18	8.6	7.9	8.3	10.1	9.8	10.0	11.2	10.9	11.1	11.5	11.4	11.4
19	8.6	7.8	8.2	10.2	10.0	10.1	11.1	10.8	11.0	11.4	11.3	11.4
20	8.2	7.4	7.8	10.2	10.0	10.1	10.9	10.7	10.8	11.4	11.3	11.3
21	8.5	7.4	8.0	10.4	9.9	10.2	10.7	10.3	10.5	11.3	11.2	11.3
22	9.0	8.2	8.6	10.6	10.3	10.4	10.4	10.1	10.2	11.2	11.1	11.1
23	9.0	8.2	8.7	10.7	10.4	10.5	10.3	9.9	10.1	11.2	10.8	11.1
24	8.8	8.3	8.6	10.8	10.5	10.7	10.2	9.9	10.1	11.6	11.1	11.4
25	9.0	8.3	8.6	10.8	10.6	10.7	10.2	10.1	10.1	11.7	11.5	11.7
26	9.3	8.2	8.7	11.3	10.8	11.0	10.3	10.0	10.1	11.7	11.5	11.6
27	9.0	8.4	8.8	11.4	11.0	11.2	10.3	10.1	10.2	11.5	11.4	11.5
28	8.9	8.5	8.8	11.6	11.2	11.4	10.5	10.1	10.3	11.7	11.4	11.5
29	9.2	8.4	8.8	11.3	11.0	11.1	10.6	10.3	10.5	11.9	10.7	11.6
30	9.3	8.5	9.0	12.1	11.0	11.3	10.6	10.4	10.4	11.8	10.9	11.4
31	9.3	8.3	9.0	---	---	---	10.5	10.2	10.4	12.0	10.9	11.6
MONTH	9.3	6.2	7.8	12.1	8.3	9.9	11.6	9.9	10.8	12.0	10.0	11.1

CUMBERLAND RIVER BASIN  
03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued  
OXYGEN DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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

## 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 mi<sup>2</sup>.

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

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

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

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

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 6	0300	*16,300	*17.64	Nov. 8	0630	15,600	17.18

Minimum discharge, 150 ft<sup>3</sup>/s, Oct. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	628	688	1090	1470	869	3830	1740	438	212	6010	291
2	156	1660	634	3010	1340	801	2980	1360	392	207	3080	266
3	171	3650	588	4880	1190	744	2430	1120	357	201	1690	251
4	413	2470	648	3360	1030	673	2070	948	348	193	1070	243
5	7400	1740	845	2300	881	634	1790	823	343	190	782	237
6	11900	1320	787	2180	825	1850	1500	754	317	188	646	236
7	4110	5660	732	5980	809	7380	1280	1320	311	185	710	246
8	1930	13200	707	4450	1910	6930	1120	1940	364	187	664	264
9	1250	5600	910	2980	5440	3910	997	1430	411	188	1230	731
10	928	2810	1290	2350	4270	2730	895	1050	421	182	1230	1660
11	734	2860	1120	2040	3580	2160	813	858	393	175	775	1250
12	617	5080	976	3320	3010	1780	756	752	377	173	1700	809
13	538	3270	870	2710	2350	1480	715	672	493	172	2380	626
14	518	2370	779	2260	1950	1240	687	605	687	175	1710	522
15	501	1910	709	2230	1620	1420	661	1180	521	184	1120	438
16	462	1520	846	2280	1320	2920	635	1750	400	190	806	390
17	416	1260	1160	2240	1120	2910	592	1190	340	198	639	656
18	371	1100	1300	1990	995	2330	556	890	306	200	543	1330
19	334	964	3500	4520	912	3700	529	727	331	188	526	852
20	333	851	4360	4030	880	4830	912	624	459	195	451	583
21	331	766	2960	2740	880	3580	3400	553	351	190	389	499
22	323	694	2070	2070	839	2900	3600	500	302	4090	352	526
23	311	641	1600	1670	788	2570	2750	466	271	1780	322	694
24	286	603	1280	3260	743	2370	2210	429	261	954	325	556
25	269	575	1090	3180	685	2210	1640	387	312	699	370	463
26	257	541	949	2400	645	2270	2130	373	311	910	335	411
27	353	514	841	3360	622	1920	2440	376	259	817	302	380
28	1170	501	752	3590	802	3910	1850	499	241	573	279	734
29	1330	517	675	2650	999	5190	1490	732	229	1230	263	2320
30	925	680	619	2070	---	3680	1850	638	219	1620	257	1900
31	730	---	614	1740	---	3050	---	507	---	2860	283	---
TOTAL	39532	65955	36899	88930	43905	84941	49108	27193	10765	19506	31239	20364
MEAN	1275	2198	1190	2869	1514	2740	1637	877	359	629	1008	679
MAX	11900	13200	4360	5980	5440	7380	3830	1940	687	4090	6010	2320
MIN	156	501	588	1090	622	634	529	373	219	172	257	236
CFSM	1.99	3.44	1.86	4.48	2.37	4.28	2.56	1.37	.56	.98	1.57	1.06
IN.	2.30	3.83	2.14	5.17	2.55	4.94	2.85	1.58	.63	1.13	1.82	1.18



## CUMBERLAND RIVER BASIN

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

MEAN	325	788	1605	2100	2404	2507	1779	1073	605	430	315	292
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

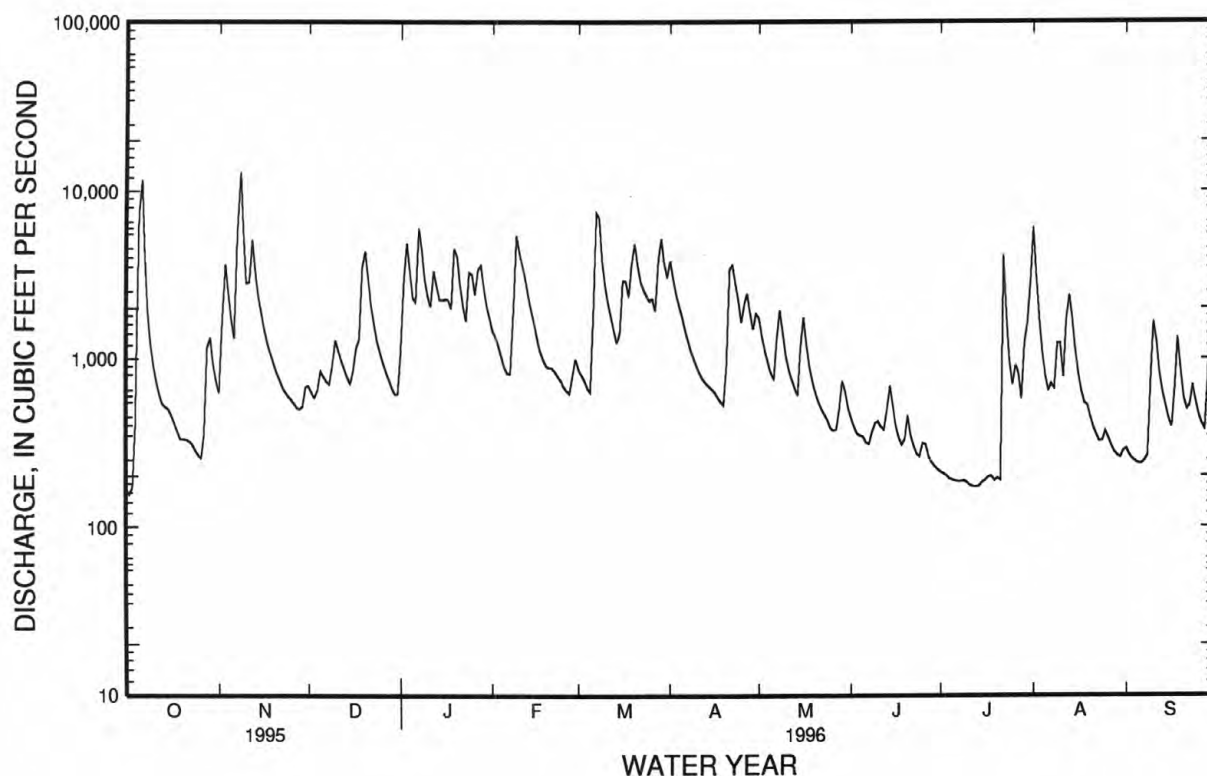
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1925 - 1996

ANNUAL TOTAL	373749			518337								
ANNUAL MEAN	1024			1416						1180		
HIGHEST ANNUAL MEAN										2193		1973
LOWEST ANNUAL MEAN										409		1931
HIGHEST DAILY MEAN	13200	Nov 8		13200	Nov 8					64100	Dec 23	1990
LOWEST DAILY MEAN	133	Sep 10		156	Oct 2					a37	Oct 28	1961
ANNUAL SEVEN-DAY MINIMUM	143	Sep 5		178	Jul 9					50	Sep 24	1925
INSTANTANEOUS PEAK FLOW				16300	Oct 6					b75300	Mar 23	1929
INSTANTANEOUS PEAK STAGE				17.64	Oct 6					39.10	Mar 23	1929
INSTANTANEOUS LOW FLOW				c150	Oct 2					35	Sep 21	1930
ANNUAL RUNOFF (CFSM)	1.60			2.21						1.84		
ANNUAL RUNOFF (INCHES)	21.72			30.13						25.04		
10 PERCENT EXCEEDS	2230			3280						2600		
50 PERCENT EXCEEDS	579			824						532		
90 PERCENT EXCEEDS	198			262						112		

a Caused by regulation from highway construction.

b From rating curve extended above 42,000 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow.

c Also occurred Oct. 3.



## 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 Memorial bridge on State Highway 264, 0.3 mi northwest of Temperance Hall, and at mile 8.8.

DRAINAGE AREA.--214 mi<sup>2</sup>.

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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1430	*8,680	*16.76	Mar. 7	1100	4,590	11.69
Nov. 7	1700	7,430	15.37	July 22	0830	6,700	14.51

Minimum discharge, 19.0 ft<sup>3</sup>/s, Oct. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	90	86	179	240	262	1950	366	84	36	1160	79
2	20	1040	83	704	228	233	1160	300	78	35	397	77
3	28	770	78	610	197	204	749	261	77	34	244	81
4	526	275	79	382	180	180	546	234	74	32	187	125
5	3940	173	83	296	170	178	439	212	68	31	156	120
6	1020	138	85	292	169	655	368	221	62	30	134	96
7	305	3130	104	620	184	2950	326	816	63	29	118	165
8	179	1470	132	462	772	1320	297	875	105	30	120	302
9	134	498	146	377	877	710	272	461	152	29	513	169
10	107	284	173	350	546	499	245	325	104	30	210	171
11	84	640	152	433	426	399	226	269	107	30	314	154
12	73	719	137	1690	340	347	217	241	280	28	717	125
13	65	364	125	806	283	309	211	211	614	28	471	107
14	64	242	114	537	259	276	205	196	207	28	252	101
15	63	183	104	430	234	268	198	1630	132	30	187	90
16	59	151	146	354	204	311	191	729	100	30	157	88
17	56	130	210	305	186	425	179	323	83	30	136	86
18	53	116	378	308	176	362	174	206	74	28	119	85
19	50	105	1510	1440	173	1510	173	157	78	26	108	80
20	51	95	845	640	224	1320	765	129	89	30	99	78
21	54	88	485	432	214	893	777	110	69	33	93	81
22	55	82	346	330	198	797	433	99	61	1950	90	98
23	54	79	275	281	188	814	1800	87	55	303	85	106
24	52	79	232	994	175	628	971	79	50	162	82	93
25	49	77	203	656	161	820	582	72	49	118	79	84
26	48	72	184	468	157	734	1020	67	50	98	101	81
27	150	69	170	568	155	525	711	108	47	88	249	106
28	591	69	158	437	338	733	476	656	44	86	138	867
29	200	76	146	368	328	863	386	255	41	256	103	451
30	130	90	139	310	---	667	457	135	39	452	88	237
31	104	---	140	275	---	768	---	101	---	1300	82	---
TOTAL	8385	11394	7248	16334	7982	20960	16504	9931	3136	5450	6989	4583
MEAN	270	380	234	527	275	676	550	320	105	176	225	153
MAX	3940	3130	1510	1690	877	2950	1950	1630	614	1950	1160	867
MIN	20	69	78	179	155	178	173	67	39	26	79	77
CFSM	1.26	1.77	1.09	2.46	1.29	3.16	2.57	1.50	.49	.82	1.05	.71
IN.	1.46	1.98	1.26	2.84	1.39	3.64	2.87	1.73	.55	.95	1.21	.80

## CUMBERLAND RIVER BASIN

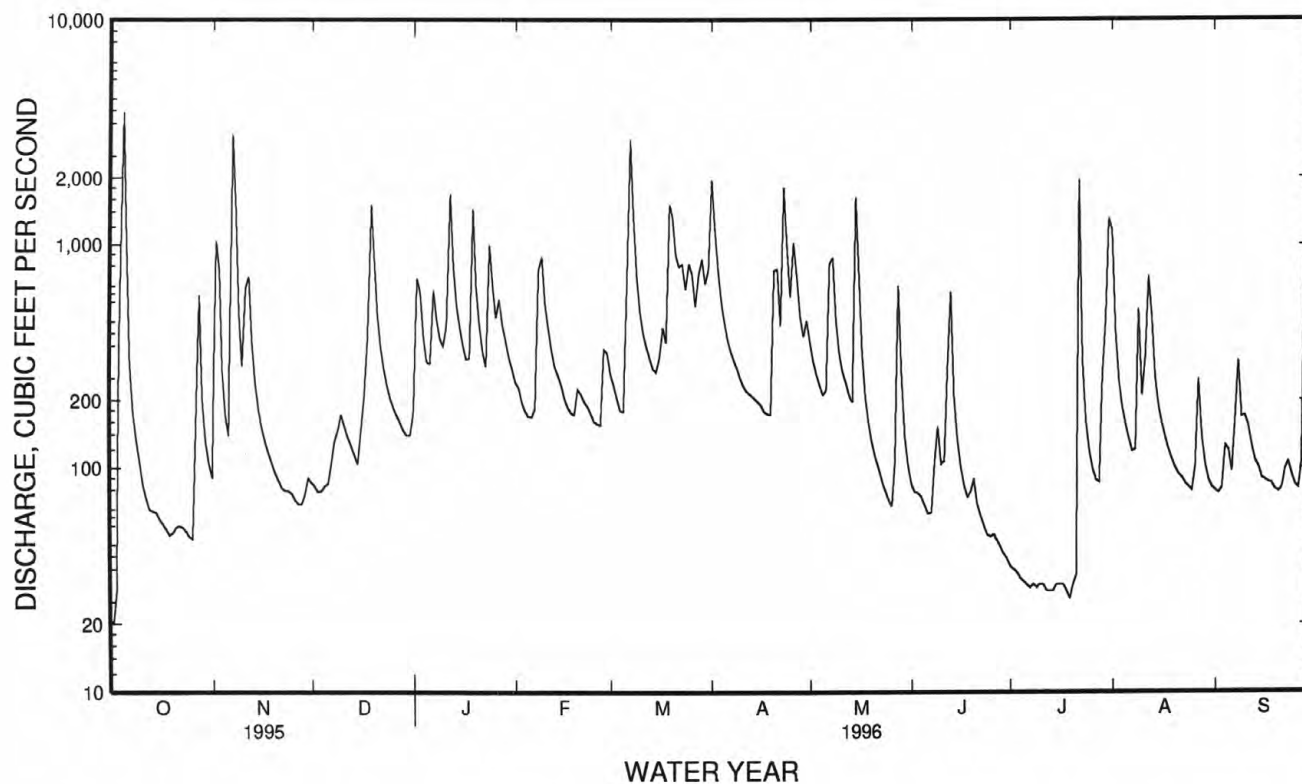
03424730 SMITH FORK AT TEMPERANCE HALL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	107	224	539	568	473	754	476	254	118	166	96.3	111
MAX	270	411	811	767	1190	1516	1095	506	185	460	225	389
(WY)	1996	1993	1992	1994	1994	1994	1994	1995	1994	1992	1996	1992
MIN	21.0	37.2	234	463	212	477	158	61.4	52.7	49.5	22.8	26.8
(WY)	1994	1992	1996	1995	1993	1995	1992	1992	1993	1995	1993	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1990 - 1996		
ANNUAL TOTAL	94554			118896			326		
ANNUAL MEAN	259			325			488		
HIGHEST ANNUAL MEAN							234		
LOWEST ANNUAL MEAN							10500		
HIGHEST DAILY MEAN	5980	Mar	8	3940	Oct	5	10500	Mar	27 1994
LOWEST DAILY MEAN	10	Sep	7	20	Oct	2	10	Sep	7 1995
ANNUAL SEVEN-DAY MINIMUM	11	Sep	3	29	Jul	13	11	Sep	3 1995
INSTANTANEOUS PEAK FLOW				8680	Oct	5	16100	Mar	27 1994
INSTANTANEOUS PEAK STAGE				16.76	Oct	5	23.41	Mar	27 1994
INSTANTANEOUS LOW FLOW				a19	Oct	2	9.9	Sep	8 1995
ANNUAL RUNOFF (CFSM)	1.21			1.52			1.52		
ANNUAL RUNOFF (INCHES)	16.44			20.67			20.70		
10 PERCENT EXCEEDS	554			769			709		
50 PERCENT EXCEEDS	126			178			120		
90 PERCENT EXCEEDS	25			53			25		

a Also occurred Oct. 3.



## 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 mi<sup>2</sup>.

## 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. 114 ).

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 53,400 ft<sup>3</sup>/s, Nov. 8; minimum daily, 5,700 ft<sup>3</sup>/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7600	6950	12700	10100	34500	19700	32700	18600	22500	7160	28700	11400
2	7010	8340	10900	12700	28400	16900	39100	22400	23700	8230	21800	7690
3	5700	13500	11500	18000	25000	16300	38700	22200	19600	9860	18500	7970
4	6470	16900	10400	21500	30300	17600	35600	24600	18100	12100	12900	8910
5	31800	15400	11800	22900	31100	20100	34700	18800	15300	16300	14400	17400
6	26400	11500	11100	23800	31000	23100	34700	15800	22900	11200	15500	12300
7	16400	38700	11100	24600	28100	45500	26600	27300	21300	8250	13800	12200
8	12400	53400	11000	25300	25000	52500	28600	37700	23100	6970	15000	12700
9	12500	33200	9740	27700	27400	44200	27600	30200	26400	9350	21100	13000
10	11300	16500	9420	28000	31400	28400	28000	28200	25000	11200	19300	13000
11	10900	19900	7860	27000	24500	28000	30500	25000	20800	12200	14700	13300
12	8780	27700	10700	30800	23700	28100	27600	25100	21700	11100	13100	13000
13	9220	19900	10900	31600	25200	28200	27600	25900	25700	11700	20900	13000
14	8800	17700	11000	29400	22900	19800	22500	27900	25000	10100	21400	13000
15	7730	20700	11900	28000	24100	22700	17700	36300	24400	8880	25700	13000
16	8300	20900	11300	29000	25700	25600	14700	38900	23500	9640	23100	13000
17	8310	19400	9050	28000	27500	25600	11300	33200	21900	11400	19900	12200
18	8900	15600	9640	29100	27600	25700	11500	23000	19800	11700	19700	9440
19	8080	15800	13600	36900	20700	30900	10700	16500	17700	13000	19800	9570
20	7520	14900	21600	40400	26600	38700	13200	14400	20900	12100	18000	9810
21	8900	11700	23900	36600	24400	37000	16100	16900	21000	11900	17400	5780
22	9900	11500	20800	27000	19800	35000	21600	15700	24500	11900	20400	5750
23	10100	12600	24200	28400	21800	28400	27000	15500	17200	11100	20100	5710
24	9530	12400	17900	28300	21800	34200	38800	18300	16300	14200	16600	7850
25	9030	11200	14100	36600	14400	35400	27300	16400	14100	19200	17400	7320
26	10600	14500	13800	41500	10300	35400	25700	13100	13600	18100	11300	10300
27	11000	10100	14200	35400	10100	32300	25600	10100	16100	13900	10800	14000
28	12900	10100	14800	34900	22800	28300	26300	28000	15800	13300	10200	9370
29	14800	11000	13900	32100	23500	28500	17400	27800	12700	13200	11600	16700
30	6810	13200	15200	29600	---	24800	17800	27700	8530	12500	13600	9470
31	7460	---	12500	31200	---	26800	---	27600	---	19400	12600	---
TOTAL	335150	525190	412510	886400	709600	903700	757200	729100	599130	371140	539300	328140
MEAN	10810	17510	13310	28590	24470	29150	25240	23520	19970	11970	17400	10940
MAX	31800	53400	24200	41500	34500	52500	39100	38900	26400	19400	28700	17400
MIN	5700	6950	7860	10100	10100	16300	10700	10100	8530	6970	10200	5710



## CUMBERLAND RIVER BASIN

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

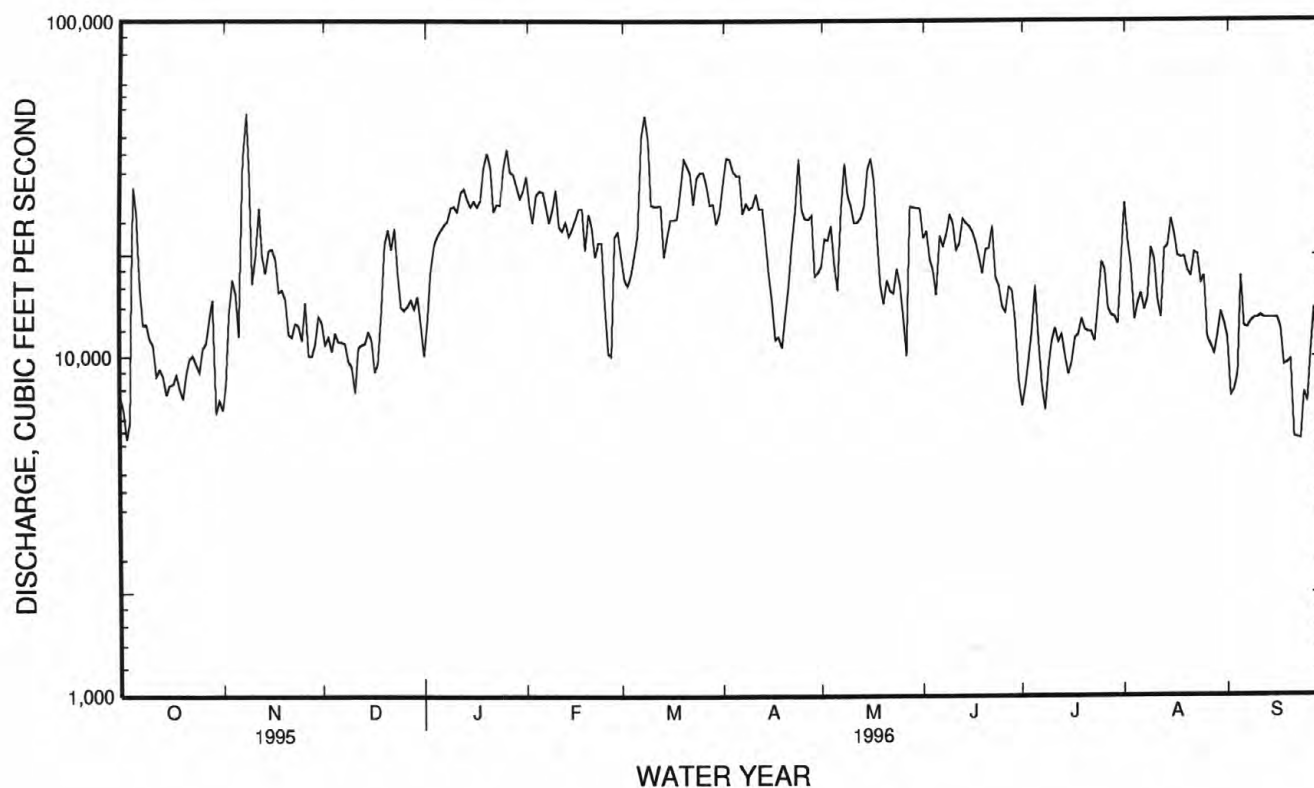
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

MEAN	9383	12700	22680	29140	27990	31760	29230	20660	15120	12720	12070	10050
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      \*WATER YEARS 1957 - 1996

ANNUAL TOTAL	5519900		7096560									
ANNUAL MEAN	15120		19390							19420		
HIGHEST ANNUAL MEAN										28560		1974
LOWEST ANNUAL MEAN										8780		1988
HIGHEST DAILY MEAN	71400	Mar 8	53400	Nov 8	146000	Mar 14	1975					
LOWEST DAILY MEAN	3600	May 8	5700	Oct 3	200	Nov 3	1957					
ANNUAL SEVEN-DAY MINIMUM	6390	Feb 8	7400	Sep 19	1070	Oct 28	1969					
10 PERCENT EXCEEDS	29300		31300		41200							
50 PERCENT EXCEEDS	11700		17700		14000							
90 PERCENT EXCEEDS	7330		9360		5260							

\* Regulated period only.



CUMBERLAND RIVER BASIN  
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, 1 NTU, many days during the 1996 water year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 242 microsiemens, Nov. 15, 16; minimum, 188 microsiemens, Oct. 8, 12.

pH: Maximum, 8.6 units, May 23, 24; minimum, 6.5 units, July 26.

WATER TEMPERATURE: Maximum, 25.7°C, July 27; minimum, 2.7°C, Feb. 5.

DISSOLVED OXYGEN: Maximum, 13.1 mg/L, Feb. 22, 23; minimum, 6.1 mg/L, Oct. 4.

TURBIDITY: Maximum, 33 NTU, May 29, 30; minimum, 1 NTU, many days.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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

CUMBERLAND RIVER BASIN 03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER) TN--Continued SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	226	223	224	218	216	217	223	217	220	229	226	228
2	225	222	224	222	218	221	223	217	220	230	227	229
3	225	222	223	223	221	222	225	221	223	231	228	229
4	226	221	223	223	221	222	225	220	223	231	228	230
5	223	220	222	222	221	221	227	220	224	232	228	230
6	221	217	219	221	217	219	222	214	218	230	226	228
7	221	216	219	220	215	217	215	207	212	228	221	224
8	222	217	219	222	215	218	210	204	206	221	214	219
9	222	219	220	223	216	220	209	200	204	218	214	216
10	220	217	218	218	215	217	205	200	202	214	211	213
11	222	215	218	221	216	219	203	199	200	217	210	213
12	223	218	220	218	213	216	201	198	199	223	217	219
13	227	221	224	218	214	216	199	196	197	224	222	223
14	229	224	226	214	209	211	198	196	197	223	222	222
15	230	226	228	211	207	208	200	197	199	222	215	217
16	231	227	229	207	204	206	199	196	197	216	214	215
17	233	228	231	206	203	204	199	197	198	220	215	218
18	230	218	224	211	206	209	198	197	197	220	217	218
19	220	213	217	211	209	210	197	196	196	219	216	217
20	216	213	215	215	210	213	208	206	207	221	217	219
21	215	212	213	219	214	216	209	207	208	226	221	224
22	217	214	215	220	218	219	211	208	210	228	224	226
23	220	217	218	225	219	222	214	211	212	229	226	228
24	222	219	221	226	224	225	217	212	214	229	227	228
25	222	220	221	226	224	225	220	216	218	229	224	226
26	222	220	221	227	225	226	224	218	222	226	222	224
27	221	218	220	232	226	228	224	221	222	224	221	222
28	219	217	218	232	228	230	227	221	224	221	216	219
29	218	215	216	230	224	228	229	225	227	217	211	214
30	---	---	---	228	222	225	230	227	229	215	211	213
31	---	---	---	225	220	223	---	---	---	213	208	210
MONTH	233	212	221	232	203	218	230	196	211	232	208	221
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	212	209	210	207	206	206	200	199	200	215	209	212
2	216	210	214	207	203	206	202	199	200	214	207	211
3	216	213	215	204	201	203	202	199	200	217	210	212
4	215	210	213	205	203	204	202	199	201	216	211	213
5	212	209	211	207	203	205	---	---	---	215	205	210
6	211	208	209	206	204	205	210	205	206	206	201	203
7	211	209	210	206	203	204	219	207	210	202	201	201
8	211	209	210	204	201	203	215	210	212	201	201	201
9	211	209	210	204	200	202	215	211	213	202	201	201
10	210	209	209	204	202	203	216	211	213	203	202	202
11	210	209	209	204	200	202	216	211	213	204	203	203
12	209	208	208	202	200	201	214	207	209	204	203	203
13	210	208	209	200	198	199	212	206	209	204	203	204
14	214	209	211	---	---	---	211	207	209	204	203	203
15	214	213	214	204	202	204	213	207	209	203	202	203
16	216	214	215	205	203	204	213	209	210	203	200	202
17	216	215	216	206	202	204	214	210	211	204	203	204
18	217	215	217	207	204	206	218	214	217	204	203	204
19	218	216	217	207	205	206	219	216	217	204	203	204
20	217	215	216	208	205	207	217	215	216	205	203	204
21	216	214	215	208	206	207	216	214	215	204	203	204
22	214	212	213	---	---	---	215	213	214	204	203	204
23	212	209	211	---	---	---	215	213	214	204	203	204
24	210	208	209	---	---	---	218	213	214	204	203	204
25	209	208	209	199	198	199	217	213	215	205	203	205
26	209	208	208	199	198	199	218	211	214	206	201	204
27	209	208	208	199	198	199	214	210	212	204	200	202
28	208	207	208	199	198	198	214	209	212	205	203	204
29	208	207	207	199	199	199	215	209	212	205	203	204
30	208	206	207	200	198	199	214	210	212	205	204	204
31	---	---	---	200	199	199	215	213	213	---	---	---
MONTH	218	206	211	208	198	203	219	199	211	217	200	205

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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



CUMBERLAND RIVER BASIN  
03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.4	20.9	21.2	16.1	15.9	16.0	9.8	9.4	9.6	6.4	6.1	6.2
2	21.0	20.7	20.8	16.7	16.1	16.4	9.9	9.6	9.8	6.6	6.4	6.5
3	21.2	20.8	21.0	16.5	15.6	15.9	10.1	9.9	9.9	6.6	6.4	6.5
4	20.8	20.4	20.5	15.6	15.2	15.3	10.2	9.9	10.1	6.4	6.3	6.4
5	21.2	20.6	20.9	15.2	14.4	14.7	10.3	10.1	10.2	6.4	6.2	6.3
6	21.0	20.5	20.7	14.4	14.1	14.2	10.2	9.9	10.1	6.2	5.6	5.9
7	20.8	20.4	20.5	14.2	13.6	14.0	9.9	9.5	9.7	5.6	5.0	5.3
8	20.5	20.2	20.3	13.6	13.0	13.5	9.5	9.2	9.3	5.1	4.4	4.8
9	20.3	20.0	20.2	13.0	12.2	12.5	9.2	8.4	8.9	4.8	4.5	4.7
10	20.2	19.8	20.0	12.2	12.0	12.0	8.4	7.6	8.0	5.1	4.8	4.9
11	20.1	19.7	19.9	12.3	11.6	12.0	7.6	7.1	7.3	5.2	5.1	5.1
12	20.2	19.8	20.1	11.6	11.2	11.3	7.2	7.0	7.1	5.3	5.2	5.2
13	20.4	19.7	20.1	11.3	11.1	11.2	7.6	7.2	7.4	5.5	5.2	5.3
14	20.3	19.6	19.9	11.1	10.4	10.8	8.1	7.6	7.8	5.9	5.4	5.6
15	19.6	19.2	19.4	10.4	10.1	10.3	8.6	8.1	8.2	6.2	5.8	6.0
16	19.3	19.0	19.1	10.2	10.0	10.1	8.7	8.4	8.6	6.6	6.2	6.4
17	19.3	18.9	19.0	10.3	9.9	10.1	8.9	8.6	8.8	7.2	6.6	6.8
18	19.3	18.8	19.0	10.5	10.2	10.3	9.2	8.9	9.0	7.9	7.2	7.6
19	19.2	18.7	19.0	10.5	10.1	10.3	9.4	9.2	9.3	7.6	7.0	7.3
20	19.1	18.3	18.7	10.7	10.3	10.5	9.2	8.7	8.9	7.0	6.7	6.7
21	18.3	17.8	18.0	10.6	10.4	10.5	8.7	8.1	8.4	6.9	6.7	6.8
22	17.9	17.4	17.7	10.5	10.1	10.3	8.1	7.5	7.7	7.0	6.9	6.9
23	17.7	17.5	17.6	10.3	10.1	10.2	7.5	7.1	7.3	6.9	6.8	6.9
24	17.7	17.3	17.5	10.1	9.7	9.9	7.1	6.8	6.9	7.0	6.6	6.8
25	17.3	16.9	17.1	9.9	9.5	9.7	6.8	6.5	6.6	6.7	6.5	6.6
26	17.2	16.9	17.0	10.0	9.5	9.8	6.7	6.3	6.5	6.8	6.5	6.6
27	16.9	16.6	16.7	10.4	10.0	10.2	6.3	6.0	6.2	6.8	6.2	6.5
28	16.6	16.2	16.3	10.4	9.9	10.1	6.0	5.5	5.7	6.2	5.9	6.0
29	16.2	15.8	16.0	9.9	9.6	9.8	5.6	5.3	5.5	6.0	5.9	5.9
30	16.0	15.7	15.8	9.8	9.3	9.6	5.8	5.4	5.6	6.1	5.9	6.0
31	15.9	15.7	15.8	---	---	---	6.1	5.8	5.9	6.0	5.5	5.7
MONTH	21.4	15.7	18.9	16.7	9.3	11.7	10.3	5.3	8.1	7.9	4.4	6.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	5.0	5.3	8.6	8.2	8.4	9.9	9.5	9.7	15.6	15.0	15.3
2	5.0	4.2	4.6	8.5	8.3	8.5	10.1	9.5	9.8	16.0	15.3	15.6
3	4.2	3.4	3.8	8.4	8.0	8.2	10.6	10.0	10.3	16.5	15.7	16.1
4	3.4	2.8	3.0	8.5	7.9	8.2	10.5	10.2	10.4	17.0	16.3	16.5
5	3.2	2.7	3.0	8.6	8.4	8.5	10.2	9.5	10.0	17.2	16.2	16.7
6	3.5	3.1	3.3	9.0	8.6	8.8	9.5	9.2	9.4	17.4	16.2	16.7
7	3.7	3.3	3.5	8.8	8.1	8.5	9.5	9.1	9.3	17.4	16.8	17.1
8	4.1	3.7	3.9	8.1	6.9	7.4	9.4	9.2	9.3	17.3	16.7	17.0
9	4.2	3.9	4.1	6.9	6.5	6.8	9.5	9.0	9.2	17.7	17.1	17.4
10	4.8	4.2	4.5	6.7	6.3	6.5	9.4	9.0	9.2	18.0	17.3	17.6
11	5.0	4.7	4.8	6.9	6.3	6.5	10.1	9.3	9.6	18.0	17.4	17.6
12	4.9	4.7	4.8	7.0	6.3	6.6	10.7	9.7	10.2	17.7	17.2	17.5
13	4.9	4.6	4.8	7.6	6.8	7.2	10.9	10.3	10.6	17.5	16.9	17.3
14	5.3	4.9	5.0	8.2	7.3	7.7	11.4	10.5	11.0	16.9	16.4	16.7
15	5.5	5.2	5.4	8.4	8.0	8.3	11.5	10.8	11.3	16.8	16.3	16.5
16	5.6	5.2	5.5	8.8	8.3	8.6	11.5	10.6	11.1	17.2	16.4	16.8
17	5.4	5.1	5.2	9.4	8.6	8.9	12.6	11.4	11.8	17.6	16.8	17.2
18	5.5	5.1	5.3	9.0	8.7	8.9	12.6	12.2	12.4	18.3	17.4	17.8
19	5.7	5.4	5.5	8.9	7.9	8.4	12.8	12.6	12.7	19.0	17.3	18.1
20	5.9	5.7	5.8	7.9	7.4	7.6	13.4	12.8	13.2	19.1	17.5	18.2
21	6.1	5.8	5.9	7.5	7.2	7.4	14.0	13.2	13.5	18.6	17.3	17.9
22	6.2	6.0	6.1	7.8	7.3	7.5	14.6	13.6	14.1	19.6	17.6	18.7
23	7.2	6.2	6.6	8.0	7.5	7.7	14.7	14.2	14.5	20.5	18.2	19.4
24	7.5	6.7	7.1	8.3	7.6	7.9	15.0	14.5	14.7	20.7	18.5	19.6
25	8.1	7.4	7.7	8.5	7.9	8.2	15.0	14.4	14.7	20.5	18.6	19.6
26	8.6	8.0	8.2	8.6	8.1	8.3	15.2	14.5	14.9	20.2	18.9	19.7
27	8.9	8.5	8.7	8.4	8.0	8.3	15.5	14.8	15.0	20.3	19.0	19.7
28	8.8	8.4	8.6	8.6	8.4	8.5	15.5	15.0	15.2	21.5	19.8	20.8
29	8.7	8.3	8.4	8.9	8.6	8.8	15.4	15.2	15.4	20.9	20.2	20.6
30	---	---	---	9.7	8.9	9.3	15.4	14.9	15.2	21.0	20.7	20.9
31	---	---	---	9.7	9.5	9.6	---	---	---	20.8	20.3	20.6
MONTH	8.9	2.7	5.5	9.7	6.3	8.1	15.5	9.0	11.9	21.5	15.0	18.0

CUMBERLAND RIVER BASIN  
03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.4	19.9	20.0	22.5	21.8	22.2	24.3	23.6	23.9	23.5	22.5	23.0
2	19.9	19.6	19.7	22.3	21.7	21.9	24.1	23.6	23.9	23.1	22.5	22.8
3	20.3	19.6	19.9	22.5	21.1	21.7	23.8	23.3	23.6	23.2	22.3	22.6
4	20.0	19.4	19.7	22.9	22.0	22.5	23.6	22.7	23.1	22.9	22.5	22.7
5	20.5	19.5	19.9	24.5	22.3	23.4	---	---	---	23.8	22.9	23.5
6	20.8	19.8	20.3	24.5	22.6	23.5	23.8	22.8	23.2	23.2	22.6	22.8
7	20.3	19.9	20.2	24.6	22.4	23.5	23.7	22.2	23.0	23.0	22.5	22.7
8	20.6	20.2	20.4	23.7	22.5	23.2	23.8	21.8	22.7	23.4	22.5	22.9
9	20.5	19.8	20.1	23.1	22.3	22.7	23.9	22.3	23.1	23.8	22.8	23.1
10	19.8	19.3	19.5	23.9	22.4	23.0	24.0	22.7	23.4	23.5	22.8	23.0
11	19.4	18.9	19.2	24.3	22.3	23.4	23.6	22.9	23.1	23.7	23.1	23.4
12	19.2	18.6	18.8	24.0	22.5	23.2	23.0	21.8	22.2	23.7	22.7	23.2
13	19.5	18.9	19.3	---	---	---	22.5	21.7	22.1	23.7	22.7	23.4
14	20.0	19.0	19.5	---	---	---	22.7	21.8	22.2	23.8	23.0	23.5
15	20.5	19.5	19.9	---	---	---	22.3	22.0	22.2	23.2	22.9	23.0
16	20.6	19.8	20.2	24.2	22.9	23.5	22.3	21.4	21.8	23.1	22.4	22.9
17	20.8	20.0	20.4	24.4	23.1	23.7	22.4	21.7	22.0	22.4	22.0	22.2
18	20.8	20.0	20.4	24.7	23.2	23.9	22.9	22.0	22.4	22.1	21.8	22.0
19	20.9	19.9	20.4	24.2	23.8	24.0	22.9	22.2	22.6	22.2	21.7	21.9
20	21.3	19.9	20.8	25.4	23.8	24.6	23.5	22.5	22.9	22.3	21.6	21.9
21	22.0	20.7	21.4	---	---	---	23.7	22.4	22.9	22.0	21.5	21.7
22	22.7	21.8	22.3	---	---	---	23.6	22.4	22.9	21.5	21.0	21.3
23	23.5	21.5	22.2	---	---	---	23.4	22.4	23.0	21.4	21.0	21.1
24	22.6	21.2	21.8	---	---	---	23.6	22.5	22.9	21.3	20.9	21.1
25	22.4	21.2	21.8	---	---	---	23.8	23.0	23.3	21.6	20.7	21.1
26	23.3	21.5	22.3	25.3	24.4	24.9	23.6	22.2	22.9	22.3	21.4	21.8
27	24.0	21.9	22.9	25.7	24.2	24.7	23.1	22.1	22.5	22.2	21.4	21.8
28	24.3	22.1	23.1	25.0	23.8	24.5	22.9	21.7	22.2	21.5	20.9	21.2
29	23.6	22.2	22.9	24.9	24.0	24.5	23.1	21.8	22.4	21.3	20.9	21.1
30	23.2	22.0	22.5	24.6	23.8	24.2	23.9	22.0	22.9	21.3	21.0	21.1
31	---	---	---	24.3	23.6	24.0	23.6	22.6	23.1	---	---	---
MONTH	24.3	18.6	20.7	25.7	21.1	23.5	24.3	21.4	22.8	23.8	20.7	22.3

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.4	7.1	7.7	8.7	8.4	8.5	11.8	11.5	11.7	10.9	10.7	10.8
2	7.3	6.8	7.0	8.8	8.3	8.6	11.7	11.5	11.6	10.9	10.6	10.8
3	7.9	6.7	7.3	8.7	8.1	8.4	11.7	11.5	11.6	10.7	10.6	10.6
4	6.8	6.1	6.4	9.0	8.4	8.7	11.7	11.4	11.5	10.9	10.6	10.7
5	10.8	6.8	9.1	8.7	8.4	8.6	11.6	11.3	11.4	10.9	10.6	10.8
6	10.7	7.7	8.8	9.2	8.2	8.7	11.6	11.2	11.4	11.1	10.9	11.0
7	8.2	7.7	7.9	12.4	9.1	11.2	11.6	11.2	11.5	11.7	11.1	11.4
8	8.7	8.0	8.4	12.7	12.1	12.3	11.8	11.5	11.6	12.0	11.5	11.7
9	8.7	8.2	8.5	12.8	9.6	10.4	11.7	11.5	11.6	12.0	11.6	11.8
10	9.1	8.0	8.4	10.0	9.6	9.8	11.9	11.7	11.8	12.2	11.9	12.1
11	8.8	7.8	8.3	10.1	9.9	10.0	12.3	11.9	12.1	12.2	12.0	12.1
12	8.9	7.8	8.5	10.5	10.1	10.3	12.3	11.9	12.0	12.1	11.9	12.0
13	9.4	7.2	8.5	10.2	10.1	10.2	12.0	11.8	11.9	11.9	11.8	11.9
14	8.8	7.4	7.8	10.6	10.1	10.4	11.9	11.7	11.8	12.0	11.8	11.9
15	8.1	6.9	7.7	10.6	10.5	10.6	11.7	11.5	11.6	12.0	11.8	11.9
16	8.5	7.5	8.0	10.7	10.5	10.6	11.6	11.4	11.5	11.8	11.7	11.8
17	8.5	7.5	7.9	10.6	10.4	10.5	11.6	11.3	11.5	11.8	11.6	11.7
18	9.1	7.1	8.1	10.4	10.1	10.3	11.3	11.1	11.2	11.7	11.6	11.7
19	9.3	7.5	8.3	10.2	10.1	10.2	11.1	10.8	11.0	11.9	11.7	11.8
20	8.8	7.3	8.0	10.2	10.0	10.1	11.0	10.8	10.9	12.2	11.9	12.1
21	8.1	6.9	7.6	10.3	9.8	10.0	11.0	10.9	11.0	12.0	11.8	11.9
22	8.3	7.1	7.7	10.4	9.9	10.2	11.3	11.0	11.1	11.9	11.7	11.8
23	8.3	7.3	7.8	10.5	10.1	10.3	11.2	11.0	11.2	11.9	11.0	11.6
24	8.0	7.1	7.6	10.6	10.0	10.3	11.3	11.0	11.2	11.7	11.5	11.6
25	8.7	7.5	8.1	10.7	10.4	10.6	11.2	11.0	11.1	11.7	11.6	11.7
26	8.9	8.5	8.7	10.9	10.5	10.7	11.2	10.8	11.0	13.0	11.5	12.3
27	8.7	8.4	8.5	11.0	10.8	10.9	11.1	10.9	11.0	11.5	11.4	11.4
28	8.6	8.2	8.4	11.4	10.6	11.1	11.4	11.1	11.3	11.7	11.4	11.6
29	9.0	8.3	8.6	11.7	11.4	11.5	11.4	11.2	11.3	11.8	11.7	11.7
30	8.9	8.6	8.8	11.8	11.5	11.7	11.3	11.1	11.2	11.7	11.6	11.7
31	9.1	8.6	8.8	---	---	---	11.1	10.9	11.0	11.7	11.5	11.7
MONTH	10.8	6.1	8.1	12.8	8.1	10.2	12.3	10.8	11.4	13.0	10.6	11.6

CUMBERLAND RIVER BASIN  
03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued  
OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.9	11.7	11.8	12.8	12.5	12.7	11.2	11.0	11.1	11.1	10.5	10.8
2	12.1	11.8	12.0	12.9	12.5	12.7	11.1	10.9	11.0	11.2	10.6	11.0
3	12.6	12.1	12.4	12.9	12.5	12.7	11.1	10.8	10.9	11.7	10.8	11.2
4	12.8	12.5	12.7	13.0	12.7	12.8	10.9	10.5	10.7	11.8	11.3	11.5
5	12.7	12.6	12.6	12.7	12.1	12.3	10.7	10.5	10.6	11.4	10.8	11.1
6	12.6	12.5	12.6	12.4	12.0	12.2	11.0	10.7	10.8	11.7	10.7	11.1
7	12.6	12.5	12.6	12.7	12.2	12.4	11.3	11.0	11.1	11.8	11.0	11.4
8	12.6	12.4	12.5	12.9	12.2	12.7	11.2	11.0	11.1	11.7	11.2	11.5
9	12.6	12.5	12.5	12.9	10.3	11.8	11.3	11.0	11.2	12.4	11.2	11.8
10	12.5	12.4	12.4	10.4	10.3	10.4	11.7	11.3	11.5	12.3	11.1	11.9
11	12.4	12.3	12.3	10.6	10.4	10.5	12.2	11.5	11.9	11.1	10.4	10.6
12	12.5	12.3	12.4	11.7	10.6	11.1	12.3	11.9	12.1	11.6	10.4	11.0
13	12.7	12.4	12.6	11.6	11.4	11.5	12.1	11.8	11.9	11.8	11.1	11.4
14	12.6	12.5	12.6	11.4	11.2	11.3	12.2	11.8	12.0	11.9	11.2	11.5
15	12.6	12.4	12.5	11.2	11.0	11.1	12.1	11.7	11.9	11.5	10.9	11.2
16	12.8	12.4	12.5	11.1	11.0	11.0	11.9	11.6	11.7	10.8	10.5	10.7
17	12.8	12.5	12.7	11.4	11.1	11.2	12.1	11.6	11.9	10.7	10.4	10.5
18	12.9	12.5	12.7	11.7	11.4	11.6	12.2	11.8	12.0	10.8	10.1	10.4
19	12.7	12.5	12.6	11.6	11.4	11.5	11.8	11.5	11.6	10.9	9.2	10.0
20	12.7	12.4	12.6	11.5	11.3	11.4	11.6	11.1	11.3	10.5	8.9	9.5
21	13.0	12.6	12.8	11.6	11.4	11.5	11.6	11.1	11.3	9.6	8.4	9.0
22	13.1	12.9	13.0	11.7	11.5	11.6	11.3	10.9	11.1	10.3	8.4	9.5
23	13.1	12.8	13.0	11.8	11.5	11.6	10.9	10.6	10.7	9.5	8.5	9.1
24	13.0	12.6	12.8	11.9	11.6	11.7	10.9	10.4	10.6	9.3	8.5	8.8
25	12.8	12.6	12.7	11.8	11.6	11.7	10.6	10.4	10.5	8.9	8.3	8.6
26	12.8	12.7	12.7	11.9	11.6	11.7	10.5	10.2	10.4	8.7	8.1	8.5
27	12.9	12.6	12.7	11.8	11.7	11.8	10.7	10.1	10.3	8.5	8.1	8.3
28	12.7	12.4	12.6	11.9	11.4	11.7	10.9	10.3	10.6	8.4	7.8	8.1
29	12.8	12.5	12.6	11.4	11.2	11.3	10.8	10.4	10.6	8.4	8.0	8.2
30	---	---	---	11.6	11.2	11.4	10.9	10.4	10.7	8.5	8.1	8.3
31	---	---	---	11.4	11.1	11.3	---	---	---	9.0	8.4	8.6
MONTH	13.1	11.7	12.6	13.0	10.3	11.7	12.3	10.1	11.2	12.4	7.8	10.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.6	8.4	8.5	8.7	8.3	8.5	10.6	8.9	9.6	9.1	8.0	8.5
2	8.4	8.2	8.3	8.4	8.2	8.3	10.8	9.1	10.0	8.4	7.3	8.1
3	8.8	8.2	8.5	8.4	7.9	8.1	10.7	9.0	9.9	7.5	6.8	7.1
4	9.1	8.4	8.7	8.6	7.9	8.2	---	---	---	7.5	7.0	7.2
5	9.8	8.7	9.3	8.8	7.9	8.3	---	---	---	8.0	7.4	7.8
6	9.9	9.1	9.5	8.5	7.4	8.0	---	---	---	8.0	7.5	7.8
7	9.6	9.0	9.3	8.3	7.3	7.8	10.4	8.4	9.5	7.9	7.3	7.6
8	9.8	9.1	9.4	7.7	7.2	7.5	10.7	8.2	9.3	8.1	7.2	7.5
9	9.6	8.8	9.1	7.9	7.2	7.5	10.5	8.9	9.6	7.9	7.0	7.5
10	9.4	8.8	9.1	7.9	7.2	7.6	10.6	9.5	10.1	7.5	6.9	7.1
11	9.2	8.2	8.8	8.5	7.4	7.8	10.2	9.5	9.9	7.7	7.2	7.4
12	9.0	8.6	8.7	8.6	7.1	7.8	9.5	8.6	9.1	7.9	6.9	7.3
13	9.6	8.7	9.1	---	---	---	9.7	8.4	9.0	7.7	6.9	7.5
14	9.9	8.7	9.3	---	---	---	9.9	8.9	9.4	8.5	7.7	8.1
15	10.2	9.5	9.8	---	---	---	9.9	9.4	9.7	8.7	7.7	8.2
16	10.7	9.8	10.1	9.0	7.7	8.2	10.4	8.6	9.4	8.8	7.5	8.3
17	10.5	9.9	10.2	8.8	7.6	8.3	10.2	8.9	9.4	7.9	7.2	7.5
18	10.6	10.0	10.2	8.2	7.4	7.8	10.4	8.8	9.5	8.2	7.6	7.9
19	11.1	9.8	10.4	7.7	7.4	7.6	10.4	8.8	9.5	8.7	7.4	8.0
20	10.6	10.0	10.3	8.5	7.2	7.8	10.4	9.0	9.6	10.1	7.4	8.4
21	10.8	9.9	10.3	8.5	7.4	8.0	10.3	8.6	9.3	9.1	8.0	8.4
22	11.0	10.3	10.6	---	---	---	10.2	8.5	9.2	8.1	7.6	7.9
23	11.1	9.8	10.3	---	---	---	10.0	8.7	9.4	8.4	7.7	8.1
24	10.0	9.2	9.6	---	---	---	9.8	8.6	9.0	8.7	7.8	8.2
25	9.5	8.7	9.2	8.6	8.2	8.4	10.2	9.1	9.6	9.8	7.6	8.6
26	9.8	8.7	9.2	8.9	7.9	8.5	10.2	8.6	9.3	9.5	7.9	8.8
27	9.7	8.5	9.0	9.6	8.3	8.8	9.5	8.3	8.8	9.0	8.2	8.5
28	10.0	8.6	9.3	9.4	8.1	8.9	9.0	8.0	8.4	8.2	7.7	8.0
29	9.7	8.8	9.2	9.2	8.4	8.9	9.2	8.0	8.5	8.5	7.9	8.2
30	9.2	8.6	8.9	8.9	8.1	8.5	9.5	8.0	8.6	8.8	8.1	8.4
31	---	---	---	10.0	7.7	8.6	9.0	8.1	8.6	---	---	---
MONTH	11.1	8.2	9.4	10.0	7.1	8.1	10.8	8.0	9.3	10.1	6.8	7.9

CUMBERLAND RIVER BASIN  
034263100 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17	2	5	2	5	2	10	4	10	7	8	6
2	15	3	5	2	8	3	7	4	10	5	10	6
3	15	7	8	4	9	3	5	4	6	4	13	9
4	14	6	13	5	6	4	5	4	6	2	16	11
5	14	8	20	8	7	4	5	3	6	1	19	16
6	10	7	16	6	6	4	5	3	7	1	23	17
7	15	6	11	6	8	5	4	3	7	5	25	21
8	20	8	11	7	8	5	5	3	7	5	25	21
9	22	9	13	9	10	6	5	3	13	4	31	24
10	21	6	18	12	10	5	4	2	19	5	28	16
11	22	6	14	10	8	5	7	2	12	6	19	8
12	25	6	11	8	7	4	5	2	11	5	12	7
13	18	4	9	7	7	3	6	3	6	2	13	10
14	12	4	14	7	7	4	6	3	6	2	16	10
15	20	3	8	5	6	3	7	2	9	2	19	14
16	12	3	7	5	8	4	8	2	7	2	18	13
17	11	4	7	5	8	5	9	4	6	1	17	9
18	9	4	8	4	10	5	7	3	7	1	10	6
19	6	3	8	5	13	8	8	3	7	2	9	6
20	6	2	10	6	11	7	8	2	3	1	8	5
21	7	3	12	7	13	5	7	3	3	1	8	5
22	13	3	9	7	14	6	10	6	3	1	8	5
23	22	5	10	5	18	6	11	7	4	2	8	6
24	32	18	8	5	11	7	9	6	7	4	8	4
25	20	4	7	2	13	9	7	5	8	4	6	4
26	6	4	4	2	13	10	11	5	9	5	7	4
27	7	3	5	1	16	11	15	10	7	4	7	5
28	7	4	3	1	15	6	15	10	8	4	11	6
29	6	3	5	1	12	7	11	6	8	5	15	10
30	5	2	5	2	10	4	7	5	---	---	14	7
31	6	2	---	---	11	6	8	6	---	---	9	6
MONTH	32	2	20	1	18	2	15	2	19	1	31	4
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10	6	3	1	20	13	10	6	---	---	10	2
2	10	7	6	1	20	13	8	5	---	---	---	---
3	16	7	5	1	18	14	7	4	---	---	---	---
4	15	9	4	1	22	16	7	1	---	---	---	---
5	16	10	8	2	22	14	---	---	---	---	12	1
6	12	7	9	1	18	10	---	---	---	---	9	4
7	10	7	10	3	11	6	---	---	---	---	11	7
8	12	6	13	4	10	5	---	---	---	---	10	7
9	17	7	13	8	12	6	---	---	---	---	12	7
10	15	7	18	11	12	7	7	1	14	5	15	10
11	12	7	17	15	17	10	3	1	14	4	17	11
12	8	7	17	12	18	12	4	2	25	7	14	12
13	12	6	19	12	20	10	7	2	25	9	14	8
14	8	5	19	14	25	14	---	---	24	13	19	9
15	8	5	22	15	22	13	8	5	20	8	17	10
16	8	4	22	16	17	9	8	5	---	---	20	14
17	7	4	20	17	11	7	10	6	9	7	21	14
18	7	3	21	17	15	7	17	7	9	7	21	10
19	10	3	25	14	20	13	17	9	15	8	16	5
20	8	1	31	17	23	17	19	9	21	14	18	8
21	9	4	19	15	26	13	25	13	---	---	---	---
22	11	4	18	13	27	13	---	---	---	---	---	---
23	13	2	21	14	31	17	---	---	---	---	13	3
24	11	3	20	15	32	23	---	---	9	3	11	3
25	9	2	22	13	30	18	15	10	9	3	15	8
26	5	1	21	14	30	24	15	9	8	3	15	10
27	5	2	20	13	28	6	13	10	12	4	13	9
28	4	2	27	17	11	9	14	7	10	3	14	7
29	5	1	33	23	12	9	17	9	13	3	12	7
30	5	2	33	19	12	8	---	---	20	9	14	8
31	---	---	24	16	---	---	---	---	10	2	---	---
MONTH	17	1	33	1	32	5	25	1	25	2	21	1



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## CUMBERLAND RIVER BASIN

03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN

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

DRAINAGE AREA.--27.7 mi<sup>2</sup>, includes Slater Creek.

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

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

REMARKS.--No estimated daily discharges. Records good. 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 1200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0915	1,760	7.53	May 15	0415	1,690	7.39
Nov. 7	0730	*2,490	*8.98	May 28	0145	1,540	7.09
Apr. 23	0245	2,170	8.34	Sept. 27	0730	2,400	8.80

Minimum discharge, 1.3 ft<sup>3</sup>/s, Aug. 22, 24, 26, 31, Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	11	8.6	23	29	71	131	58	17	2.4	28	1.4
2	2.8	43	8.1	162	25	54	97	46	26	2.2	15	5.9
3	8.5	52	7.8	122	22	42	73	37	24	2.0	9.2	30
4	7.2	30	7.6	68	21	35	58	31	18	1.9	6.9	12
5	346	21	7.0	48	20	43	46	26	15	1.8	5.6	6.3
6	46	50	6.9	45	19	149	39	27	14	1.7	4.7	4.8
7	20	793	6.9	38	19	351	35	298	11	1.8	4.0	4.7
8	12	116	6.6	33	20	136	32	139	28	2.3	3.8	4.2
9	8.9	53	6.4	31	20	81	29	74	29	2.4	3.7	3.7
10	7.1	35	5.8	33	19	59	26	49	24	1.9	3.1	3.0
11	5.9	212	5.5	75	18	49	24	39	21	1.7	2.8	2.5
12	5.3	88	5.8	133	16	42	23	31	25	1.7	3.0	2.3
13	4.9	49	5.9	77	15	37	24	26	27	1.7	2.8	2.2
14	6.0	35	5.9	58	15	33	22	22	21	1.9	2.4	2.1
15	5.0	26	6.0	47	14	36	21	489	15	26	2.2	2.1
16	4.3	21	6.8	40	13	42	20	107	11	8.1	2.0	94
17	4.0	18	12	35	12	43	19	59	9.1	4.9	1.8	29
18	4.0	15	50	113	12	40	17	40	7.8	4.9	1.7	14
19	3.9	12	58	78	206	268	19	31	8.1	6.0	1.7	8.8
20	5.8	11	46	67	230	188	159	25	11	3.6	1.6	6.6
21	5.0	10	36	56	112	138	93	21	7.1	13	1.5	19
22	4.0	9.2	29	44	73	154	150	17	6.1	32	1.5	17
23	3.9	17	23	44	55	159	785	14	5.4	10	1.5	11
24	4.9	18	20	210	43	128	166	11	4.8	6.5	1.5	8.4
25	4.2	16	17	89	36	229	94	9.7	4.4	5.1	1.6	6.8
26	4.2	13	14	74	33	130	103	9.0	3.8	4.2	2.0	6.0
27	68	13	12	68	128	85	69	27	3.5	3.5	2.0	637
28	30	11	11	51	220	72	53	228	3.2	5.5	2.6	497
29	18	9.9	9.9	47	105	59	63	49	2.9	6.5	2.0	82
30	12	9.0	9.4	40	---	50	81	29	2.7	30	1.6	42
31	10	---	17	34	---	79	---	21	---	60	1.4	---
TOTAL	673.7	1817.1	471.9	2083	1570	3082	2571	2089.7	405.9	257.2	125.2	1565.8
MEAN	21.7	60.6	15.2	67.2	54.1	99.4	85.7	67.4	13.5	8.30	4.04	52.2
MAX	346	793	58	210	230	351	785	489	29	60	28	637
MIN	1.9	9.0	5.5	23	12	33	17	9.0	2.7	1.7	1.4	1.4
CFSM	.78	2.19	.55	2.43	1.95	3.59	3.09	2.43	.49	.30	.15	1.88
IN.	.90	2.44	.63	2.80	2.11	4.14	3.45	2.81	.55	.35	.17	2.10

## CUMBERLAND RIVER BASIN

03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN--Continued

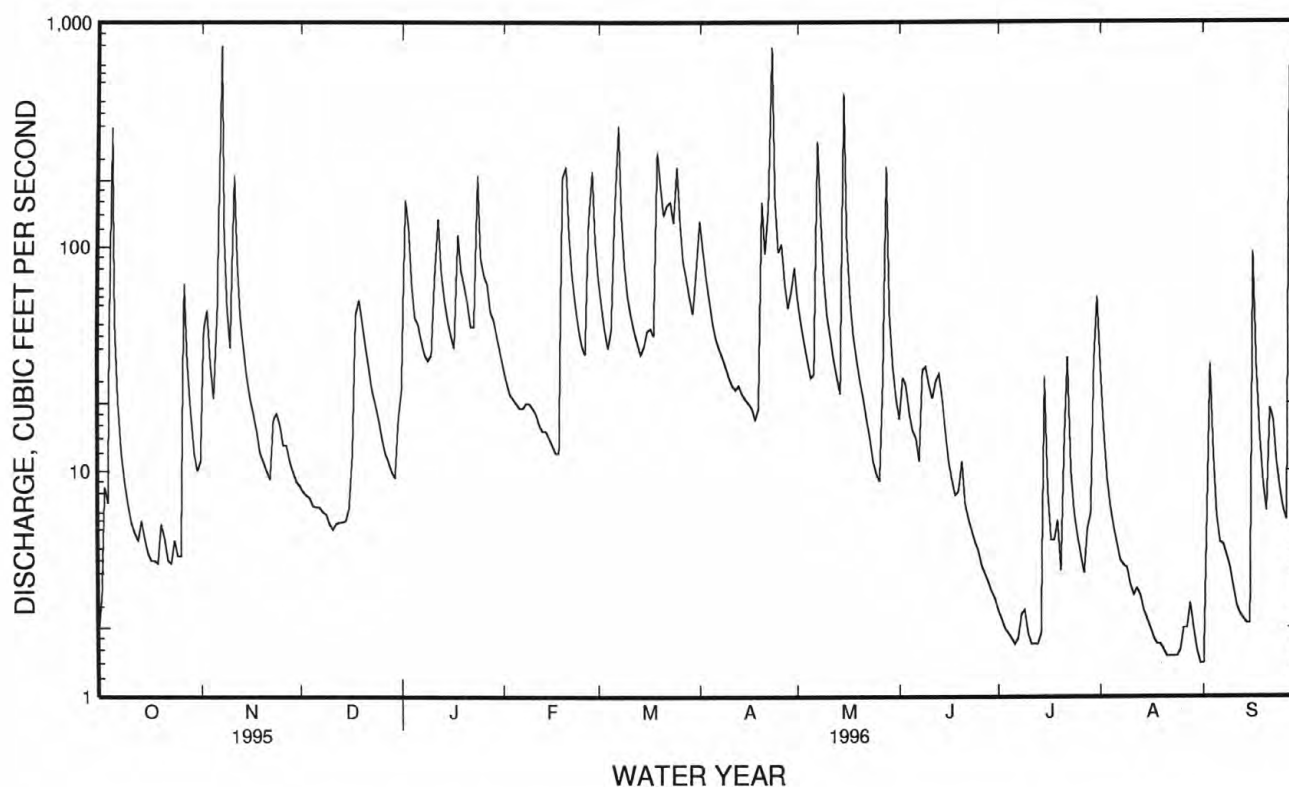
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	13.7	35.4	46.7	77.6	89.3	104	74.4	58.7	22.1	5.72	5.84	15.6
MAX	21.7	60.6	77.0	89.2	169	147	114	69.2	43.9	8.30	14.0	52.2
(WY)	1996	1996	1994	1995	1994	1994	1994	1995	1994	1996	1994	1996
MIN	6.15	10.2	15.2	67.2	46.4	66.3	23.2	39.5	8.81	2.58	1.17	2.22
(WY)	1994	1994	1996	1996	1995	1995	1995	1994	1995	1995	1993	1995

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

ANNUAL TOTAL	12462.28	16712.5	
ANNUAL MEAN	34.1	45.7	46.0
HIGHEST ANNUAL MEAN			58.3
LOWEST ANNUAL MEAN			34.1
HIGHEST DAILY MEAN	793	Nov 7	1340
LOWEST DAILY MEAN	.87	Jul 21	.29
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 1	.53
INSTANTANEOUS PEAK FLOW			3340
INSTANTANEOUS PEAK STAGE		2490	10.68
INSTANTANEOUS LOW FLOW		8.98	.20
ANNUAL RUNOFF (CFSM)	1.23	1.65	1.66
ANNUAL RUNOFF (INCHES)	16.74	22.44	22.58
10 PERCENT EXCEEDS	69	108	95
50 PERCENT EXCEEDS	11	19	13
90 PERCENT EXCEEDS	1.8	2.4	1.8

a Also occurred Aug. 24, 26, 31, Sept. 1, 2.



## 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 sewage treatment plant outfall, 3,000 ft downstream from Sinking Creek, 4.5 mi northwest of the courthouse in Murfreesboro, and at mile 10.7.

DRAINAGE AREA.--177 mi<sup>2</sup>, includes 17 mi<sup>2</sup> 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, which are fair. Flow is affected by Murfreesboro sewage treatment plant outflow. An annual average of 11.6 ft<sup>3</sup>/s, with a maximum of 15.5 ft<sup>3</sup>/s is discharged to the West Fork Stones River 25 ft above the station. Prior to July 1987 an annual average of 7.7 ft<sup>3</sup>/s was discharged. Natural flow of stream affected by transbasin diversion of water from East Fork Stones River basin into the West Fork Stones River basin.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1930	*7,370	*15.15	July 22	1200	5,900	13.35
Nov. 7	1900	5,090	12.26	July 31	2300	5,450	12.76
Mar. 19	1230	4,490	11.31				

Minimum discharge 17.0 ft<sup>3</sup>/s, July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	98	98	378	242	272	663	266	66	25	2080	44
2	23	582	91	1370	231	227	509	212	63	23	591	39
3	44	664	84	746	203	189	405	175	61	22	390	57
4	397	340	84	454	177	163	350	150	55	19	285	54
5	3690	248	99	345	164	159	311	130	51	19	227	45
6	1430	214	100	502	154	464	268	186	49	19	202	42
7	509	2270	107	960	161	1310	238	405	60	24	191	39
8	344	1550	114	559	753	736	216	548	122	49	184	39
9	259	632	148	450	917	471	198	314	197	43	e425	45
10	207	437	210	428	507	372	174	231	160	31	e250	105
11	168	730	164	502	393	311	156	202	118	27	e1500	68
12	135	722	139	1840	321	264	142	176	133	26	e1600	57
13	115	447	125	823	266	231	134	147	104	24	741	47
14	103	361	112	559	233	204	126	130	87	22	380	40
15	92	293	104	435	209	211	115	301	75	28	268	35
16	83	248	374	361	186	410	103	279	65	31	207	46
17	75	216	398	313	165	448	95	193	58	26	166	51
18	67	188	530	312	148	302	88	151	52	23	136	37
19	62	165	1680	1040	166	2470	82	125	48	22	111	34
20	68	146	808	512	176	1160	290	106	51	38	95	31
21	62	130	503	395	166	701	522	93	44	69	86	48
22	56	116	385	330	151	519	325	85	39	3310	74	53
23	53	121	313	281	141	409	1620	76	39	595	67	40
24	52	117	260	389	129	338	727	70	37	344	62	37
25	46	106	225	471	118	541	444	64	36	236	59	37
26	43	95	197	408	109	541	491	68	35	148	56	34
27	123	87	175	581	110	385	404	119	31	217	100	53
28	272	84	155	428	386	704	293	151	29	246	93	279
29	206	91	138	354	367	680	256	132	25	223	65	282
30	143	105	123	305	---	495	321	93	24	218	53	150
31	114	---	136	274	---	454	---	76	---	1570	46	---
TOTAL	9064	11603	8179	17105	7449	16141	10066	5454	2014	7717	10790	1968
MEAN	292	387	264	552	257	521	336	176	67.1	249	348	65.6
MAX	3690	2270	1680	1840	917	2470	1620	548	197	3310	2080	282
MIN	23	84	84	274	109	159	82	64	24	19	46	31

e Estimated



## CUMBERLAND RIVER BASIN

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

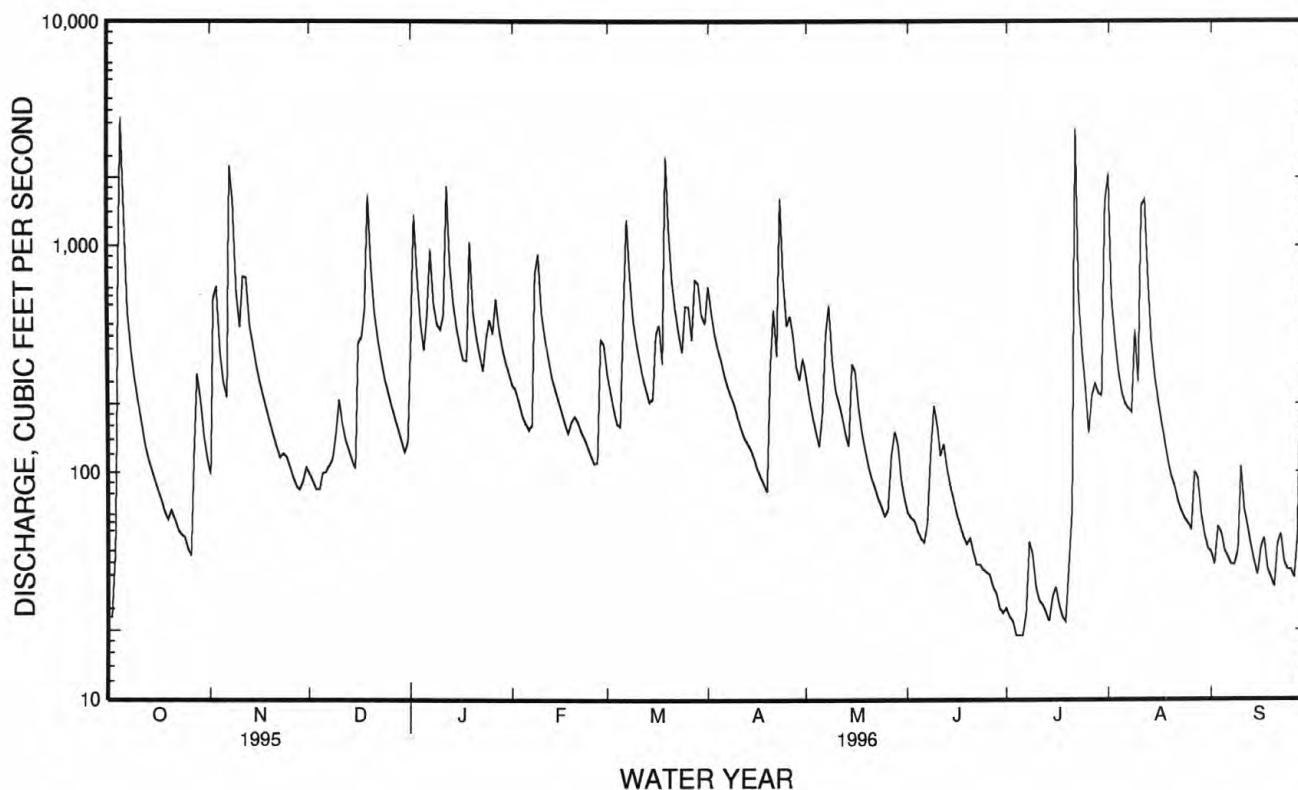
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	165	308	507	562	518	695	334	209	147	99.2	69.5	155
MAX	894	1035	1259	1453	1156	1773	954	818	765	658	348	880
(WY)	1976	1987	1991	1974	1991	1975	1994	1973	1989	1989	1996	1979
MIN	7.60	10.4	31.6	25.4	133	216	58.4	23.8	11.0	13.9	12.2	11.3
(WY)	1981	1981	1981	1981	1978	1981	1986	1981	1988	1988	1976	1980

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      aWATER YEARS 1972 - 1996

ANNUAL TOTAL	87615			107550								
ANNUAL MEAN	240			294						319		
HIGHEST ANNUAL MEAN										517		1973
LOWEST ANNUAL MEAN										76.0		1981
HIGHEST DAILY MEAN	5480	Mar	8	3690	Oct	5	21200	Mar	13	1975		
LOWEST DAILY MEAN	16	Sep	8	19	Jul	4	4.7	Oct	13	1980		
ANNUAL SEVEN-DAY MINIMUM	17	Sep	5	22	Jun	30	5.3	Nov	8	1980		
INSTANTANEOUS PEAK FLOW				7370	Oct	5	31000	Mar	13	1975		
INSTANTANEOUS PEAK STAGE				15.15	Oct	5	23.80	Mar	13	1975		
INSTANTANEOUS LOW FLOW				17	Jul	4	2.9	Jul	7	1988		
10 PERCENT EXCEEDS	505			585			655					
50 PERCENT EXCEEDS	114			164			109					
90 PERCENT EXCEEDS	35			39			14					

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, except period July 18 to Aug. 8 which was poor. 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, 0.2°C, Feb. 3, 4, 5, 6, 1996.

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, 487 microsiemens, Dec. 13, 14; minimum 202 microsiemens, Oct. 5.

pH: Maximum, 8.5 units, Nov. 17, 18, 19, 20, April 28, 29; minimum, 6.1 units, Aug. 10.

WATER TEMPERATURE: Maximum, 32.0°C, July 2; minimum, 0.2°C, Feb. 3, 4, 5, 6.

DISSOLVED OXYGEN: Maximum, 17.6 mg/L, Dec. 2, Feb. 18; minimum, 5.1 mg/L, Sept. 7.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	421	417	419	420	416	418	449	431	441	433	419	429
2	420	417	418	420	337	372	450	430	440	419	276	343
3	420	392	407	383	334	351	448	438	443	353	278	316
4	415	336	393	378	335	357	449	435	444	386	353	372
5	336	202	258	412	378	396	453	445	449	398	386	393
6	349	227	297	422	412	418	455	440	448	404	397	401
7	391	349	373	422	229	349	454	440	449	399	307	331
8	409	391	401	343	231	290	456	450	453	369	312	338
9	418	409	413	390	343	371	463	452	457	413	366	379
10	422	418	420	409	390	400	470	461	464	412	392	397
11	427	422	424	410	390	399	477	467	472	401	387	393
12	431	420	427	396	342	355	484	477	479	393	254	291
13	435	425	430	394	353	374	487	474	482	345	274	314
14	433	422	429	414	394	406	487	473	480	373	345	361
15	434	416	426	427	414	421	485	464	475	386	373	380
16	430	411	420	435	427	430	471	448	458	396	386	391
17	424	404	416	439	433	435	448	435	442	404	396	399
18	420	402	413	441	436	439	440	431	437	406	392	402
19	417	402	412	443	436	440	433	324	368	405	304	347
20	416	382	407	444	431	440	407	347	381	367	309	338
21	414	404	410	446	428	439	432	407	421	401	367	387
22	408	403	406	448	426	439	442	432	437	416	401	409
23	411	404	408	448	434	440	445	441	443	425	416	420
24	409	401	405	449	428	439	448	443	445	428	376	412
25	410	400	406	448	428	438	448	444	447	376	345	353
26	409	401	405	447	427	437	449	441	446	401	361	383
27	404	314	374	445	434	441	447	439	444	413	401	409
28	398	359	383	446	425	438	445	434	440	408	406	407
29	404	393	395	446	436	442	443	429	437	415	407	410
30	414	404	411	445	431	440	441	424	433	427	415	423
31	416	411	413	---	---	---	438	423	430	433	427	429
MONTH	435	202	401	449	229	408	487	324	445	433	254	379

CUMBERLAND RIVER BASIN												
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued												
SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	433	428	432	387	381	383	400	390	395	408	395	403
2	434	425	430	399	387	390	391	384	388	413	400	406
3	436	429	433	402	390	397	401	391	395	415	401	410
4	437	408	426	405	386	398	407	401	404	421	401	412
5	441	418	431	407	392	400	410	404	406	421	406	415
6	447	434	440	413	380	398	410	394	403	426	381	406
7	464	447	456	380	294	324	408	385	400	399	374	386
8	477	337	435	346	296	318	407	397	402	406	384	398
9	353	326	335	381	346	367	407	368	393	412	397	403
10	393	353	375	394	381	388	401	349	380	427	411	419
11	410	393	402	399	393	396	398	343	375	433	424	428
12	417	410	414	403	391	398	395	342	372	441	427	433
13	422	413	418	403	387	397	390	358	374	445	438	441
14	425	413	420	403	389	398	390	363	376	446	443	444
15	425	412	420	404	386	397	387	368	377	---	---	---
16	424	404	416	400	394	397	384	368	376	---	---	---
17	428	402	417	401	376	386	382	372	376	---	---	---
18	421	388	407	376	363	368	377	373	375	---	---	---
19	436	401	411	363	230	291	379	375	377	---	---	---
20	446	416	433	352	264	314	380	331	350	---	---	---
21	442	414	430	382	352	370	366	336	358	---	---	---
22	436	422	430	395	382	389	365	330	345	---	---	---
23	438	407	425	401	395	398	359	266	302	---	---	---
24	432	394	415	405	398	402	356	274	315	---	---	---
25	425	392	410	403	387	392	393	356	377	---	---	---
26	422	397	409	388	377	380	397	387	391	389	361	375
27	417	393	410	378	372	375	399	393	397	391	358	375
28	421	393	400	392	378	384	400	393	397	382	356	367
29	395	384	389	385	348	358	402	393	398	404	382	395
30	---	---	---	392	359	377	407	393	399	414	403	409
31	---	---	---	399	392	395	---	---	---	420	414	418
MONTH	477	326	416	413	230	378	410	266	379	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	423	419	421	395	391	393	448	428	437	390	382	388
2	422	419	420	394	392	393	444	425	434	390	383	387
3	423	418	421	394	392	393	444	426	435	392	375	386
4	421	416	419	393	389	390	445	426	435	398	389	393
5	419	411	416	391	389	391	447	427	436	401	397	399
6	418	407	413	392	390	391	444	431	438	408	397	404
7	411	390	402	392	378	388	446	427	436	412	407	410
8	395	353	375	391	381	386	442	410	431	415	409	412
9	373	344	362	387	379	384	410	289	332	414	408	412
10	394	373	386	384	379	382	338	291	312	413	403	409
11	402	393	398	386	383	384	393	338	354	410	403	407
12	399	373	387	385	383	384	393	258	304	404	399	402
13	418	399	411	387	382	385	383	335	353	403	398	401
14	425	416	420	385	382	384	422	383	406	403	397	400
15	423	389	411	382	367	375	438	422	432	401	396	399
16	410	392	402	389	373	383	443	438	440	397	393	396
17	408	390	400	396	386	391	446	439	443	395	379	386
18	401	386	394	---	---	---	448	438	444	379	361	370
19	399	386	393	---	---	---	450	434	443	367	361	364
20	395	388	392	---	---	---	447	431	440	372	364	369
21	399	392	396	---	---	---	441	425	433	370	334	363
22	401	392	397	---	---	---	434	419	427	377	365	370
23	399	392	396	443	424	434	428	413	422	380	374	377
24	399	392	396	445	424	435	418	409	415	379	374	377
25	397	390	394	444	428	436	416	408	412	387	378	383
26	392	388	391	443	428	434	419	408	414	391	381	388
27	392	385	389	441	426	434	420	410	417	391	361	378
28	392	388	390	443	419	434	421	418	419	400	381	391
29	393	389	391	443	418	435	428	418	424	398	325	343
30	394	391	393	447	432	437	418	399	412	366	338	354
31	---	---	---	449	435	439	399	389	395	---	---	---
MONTH	425	344	399	449	367	404	450	258	412	415	325	387

CUMBERLAND RIVER BASIN  
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued  
PH (STANDARD UNITS), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.2	7.6	7.5	8.1	7.6	7.7	7.6	8.1	7.9	7.9	7.6
2	7.6	7.1	7.7	7.4	7.9	7.6	7.7	7.4	8.1	7.9	7.9	7.6
3	7.5	7.0	7.7	7.6	7.7	7.4	7.5	7.4	8.1	7.9	7.9	7.6
4	7.9	7.3	7.7	7.6	7.6	7.4	7.5	7.4	8.0	7.8	8.0	7.6
5	7.7	7.4	7.8	7.6	8.1	7.5	7.6	7.4	7.9	7.5	7.6	7.4
6	7.6	7.4	7.9	7.8	8.1	7.7	7.7	7.4	7.9	7.7	7.6	7.4
7	7.7	7.6	7.9	7.6	7.9	7.6	7.7	7.4	7.9	7.6	7.8	7.3
8	7.8	7.7	7.7	7.6	8.1	7.6	7.5	7.4	7.9	7.7	7.8	7.7
9	7.8	7.7	8.0	7.7	8.2	7.9	7.6	7.5	7.8	7.7	8.0	7.8
10	7.8	7.6	8.1	8.0	8.3	8.0	7.6	7.4	8.0	7.8	8.1	7.9
11	7.8	7.6	8.0	8.0	8.2	8.0	7.6	7.5	8.2	7.9	8.2	7.9
12	7.7	7.5	8.0	7.9	8.0	7.9	7.6	7.4	8.2	8.0	8.3	7.9
13	7.5	7.3	8.1	8.0	8.2	7.9	7.8	7.6	8.3	8.0	8.3	7.9
14	7.6	7.3	8.2	8.1	8.1	7.8	8.0	7.8	8.4	8.0	8.2	7.9
15	7.5	7.2	8.3	8.1	8.1	7.8	8.1	7.9	8.4	8.0	8.0	7.7
16	7.4	7.1	8.4	8.2	8.0	7.8	8.1	7.9	8.4	8.1	8.0	7.7
17	7.2	7.0	8.5	8.3	7.9	7.8	8.2	7.9	8.4	8.0	8.0	7.8
18	7.0	6.7	8.5	8.3	7.8	7.7	8.1	7.8	8.2	7.9	7.9	7.7
19	6.7	6.4	8.5	8.3	7.8	7.6	7.9	7.6	8.0	7.8	7.8	7.5
20	6.6	6.5	8.5	8.2	7.7	7.6	7.8	7.6	8.1	7.7	7.7	7.5
21	6.5	6.4	8.4	8.1	7.8	7.7	7.9	7.7	8.1	7.6	7.8	7.7
22	6.5	6.4	8.3	8.0	7.9	7.8	8.1	7.8	7.9	7.6	8.0	7.7
23	6.6	6.4	8.2	8.0	7.9	7.8	8.1	7.8	8.1	7.6	8.0	7.8
24	6.6	6.4	8.2	8.0	7.9	7.8	8.1	7.8	8.0	7.6	8.1	7.8
25	7.5	6.4	8.2	8.0	7.9	7.8	8.0	7.9	7.9	7.6	8.0	7.8
26	7.5	7.3	8.1	7.9	7.9	7.7	8.0	7.9	7.8	7.5	8.0	7.8
27	7.5	7.1	8.2	7.9	7.9	7.7	8.1	7.9	7.6	7.5	8.0	7.7
28	7.8	7.1	8.2	7.9	7.9	7.7	8.1	8.0	7.9	7.5	7.9	7.7
29	7.8	7.7	8.0	7.8	7.8	7.6	8.0	7.9	7.9	7.6	7.8	7.7
30	7.8	7.6	8.3	7.8	7.8	7.6	8.1	7.9	---	---	8.0	7.7
31	7.8	7.5	---	---	7.7	7.5	8.1	7.9	---	---	7.9	7.7
MONTH	7.9	6.4	8.5	7.4	8.3	7.4	8.2	7.4	8.4	7.5	8.3	7.3
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.9	7.8	8.4	7.8	7.5	7.2	8.1	7.9	8.0	6.7	8.3	8.0
2	8.0	7.7	8.4	7.7	7.3	7.1	8.0	7.8	6.7	6.3	8.3	8.1
3	8.1	7.7	8.3	7.6	7.4	7.0	7.9	7.7	7.0	6.7	8.2	7.9
4	8.0	7.8	8.3	7.4	7.4	7.1	8.0	7.7	7.2	6.8	8.0	7.8
5	8.1	7.7	8.2	7.6	7.4	7.1	7.9	7.7	7.5	7.1	8.1	7.7
6	8.3	7.8	7.8	7.4	7.6	7.1	7.9	7.7	7.7	7.3	8.1	7.6
7	8.4	7.8	7.4	7.3	7.5	7.2	7.8	7.6	7.9	7.3	8.1	7.7
8	8.2	7.8	7.6	7.3	7.2	6.9	7.7	7.7	8.1	7.3	8.2	7.9
9	8.4	7.8	7.9	7.4	7.0	6.7	7.8	7.5	7.5	6.2	8.2	7.9
10	8.3	7.8	7.9	7.4	7.2	6.8	7.7	7.6	6.5	6.1	8.1	7.7
11	8.3	7.7	7.7	7.5	7.2	6.9	7.7	7.5	7.5	6.2	8.1	7.9
12	8.1	7.6	8.0	7.5	7.6	6.9	7.8	7.5	7.5	7.0	8.1	7.9
13	8.0	7.6	7.9	7.5	7.4	7.0	7.8	7.5	7.2	6.9	8.1	7.9
14	7.9	7.6	7.8	7.6	8.0	7.3	7.8	7.5	7.2	7.0	8.0	7.8
15	7.9	7.6	---	---	8.0	7.5	7.8	7.5	7.2	7.1	8.0	7.8
16	7.7	7.6	---	---	8.1	7.5	7.7	7.5	7.1	6.9	7.9	7.8
17	7.6	7.5	---	---	8.0	7.5	7.7	7.5	7.1	6.9	8.0	7.8
18	7.5	7.3	---	---	8.0	7.5	7.7	7.5	7.2	7.1	7.9	7.7
19	7.5	7.3	---	---	7.8	7.5	---	---	7.3	7.1	8.0	7.7
20	7.5	7.3	---	---	7.8	7.5	---	---	7.6	7.3	8.0	7.7
21	7.5	7.3	---	---	7.7	7.4	---	---	7.7	7.6	8.0	7.7
22	7.7	7.3	---	---	7.6	7.4	---	---	7.8	7.7	8.0	7.6
23	7.6	7.5	---	---	7.7	7.4	7.5	7.1	7.9	7.8	7.9	7.6
24	7.8	7.5	---	---	7.7	7.4	7.1	6.9	7.9	7.8	7.8	7.4
25	8.1	7.8	---	---	7.8	7.4	7.2	7.0	8.1	7.9	7.9	7.4
26	8.2	8.0	---	---	8.0	7.6	7.4	7.1	8.1	7.9	7.8	7.4
27	8.4	8.1	7.8	7.5	8.0	7.6	7.4	7.2	8.2	7.9	7.6	6.9
28	8.5	8.1	7.8	7.4	8.0	7.6	7.6	7.3	8.2	7.9	7.6	6.9
29	8.5	8.0	7.7	7.3	8.0	7.7	7.5	7.2	8.3	8.0	7.5	7.0
30	8.4	7.9	7.6	7.4	8.2	7.9	7.2	7.1	8.4	8.1	7.3	7.0
31	---	---	7.6	7.3	---	---	8.2	7.0	8.3	8.1	---	---
MONTH	8.5	7.3	8.4	7.3	8.2	6.7	8.2	6.9	8.4	6.1	8.3	6.9



CUMBERLAND RIVER BASIN												
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued												
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.4	19.9	21.0	16.0	14.1	14.9	9.2	7.0	8.1	8.5	6.6	7.5
2	23.7	21.5	22.4	18.1	16.0	17.0	9.7	7.6	8.7	10.1	8.5	9.6
3	22.8	21.5	22.2	17.4	14.3	16.1	10.7	9.1	9.9	10.1	8.3	9.3
4	21.5	20.5	21.1	14.3	11.6	13.0	10.8	9.4	10.2	8.3	7.1	7.6
5	20.8	19.7	20.2	11.6	10.2	10.9	11.0	9.5	10.2	7.6	7.1	7.4
6	20.9	19.9	20.5	10.7	9.8	10.3	10.4	8.6	9.2	7.6	6.1	7.1
7	19.9	18.1	19.0	12.9	10.7	12.0	8.8	7.4	8.3	6.1	3.3	4.2
8	18.9	17.0	17.8	12.8	11.1	12.0	7.4	6.4	6.9	3.8	2.8	3.2
9	19.1	16.5	17.6	11.3	10.3	10.8	7.2	4.8	6.4	4.8	3.1	3.9
10	19.6	16.7	17.9	12.0	10.6	11.2	4.8	3.0	4.0	6.6	4.8	5.7
11	20.1	17.1	18.4	12.6	11.3	12.2	7.0	2.4	3.6	7.0	6.3	6.6
12	20.3	17.1	18.7	11.3	9.8	10.3	4.4	3.3	3.9	7.0	5.4	6.0
13	19.8	18.7	19.4	10.6	9.7	10.2	6.9	4.4	5.6	7.7	5.8	6.7
14	19.8	17.6	19.1	10.6	9.2	10.0	9.5	6.8	8.1	9.2	7.6	8.4
15	18.2	15.6	17.0	9.2	7.8	8.6	11.5	9.3	10.4	10.6	8.9	9.7
16	17.6	15.3	16.4	8.6	7.8	8.1	12.3	10.8	11.4	11.5	10.0	10.7
17	17.2	14.5	15.9	9.9	7.6	8.6	11.6	11.3	11.5	12.5	11.3	11.8
18	17.8	15.1	16.4	11.1	8.7	9.8	12.0	11.4	11.7	13.2	11.8	12.6
19	18.3	15.6	17.0	10.7	9.3	9.9	12.1	11.3	11.9	11.8	6.3	8.9
20	17.9	16.1	17.0	11.7	8.9	10.2	11.3	8.8	10.0	6.3	5.0	5.6
21	16.1	14.2	15.2	11.0	9.0	10.0	8.8	7.2	7.9	7.1	5.9	6.4
22	16.1	13.3	14.7	9.7	7.7	8.9	7.2	6.7	6.9	7.9	6.2	7.0
23	16.7	13.8	15.3	9.4	8.8	9.1	6.7	6.0	6.4	8.9	7.6	8.1
24	17.3	16.0	16.6	9.4	8.0	8.7	6.6	5.7	6.0	9.4	8.0	8.9
25	16.2	13.6	14.8	10.8	6.8	8.3	5.7	5.0	5.4	8.0	6.8	7.3
26	15.3	14.0	14.6	9.8	7.5	8.7	5.9	4.4	5.0	8.0	6.8	7.3
27	15.2	14.8	15.0	10.8	9.4	10.0	5.4	4.4	4.9	8.3	7.2	7.7
28	15.5	14.0	14.7	10.8	9.0	10.0	4.6	3.8	4.2	7.6	6.3	7.0
29	14.9	12.9	13.8	9.0	7.9	8.7	4.9	2.9	3.9	7.6	7.0	7.2
30	13.7	12.1	13.0	8.7	6.7	7.7	5.5	2.7	4.1	8.1	7.2	7.8
31	14.4	12.9	13.7	---	---	---	6.6	4.8	5.5	7.2	5.4	6.4
MONTH	23.7	12.1	17.3	18.1	6.7	10.5	12.3	2.4	7.4	13.2	2.8	7.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.4	3.6	5.0	10.8	8.7	9.5	14.3	12.2	13.3	18.0	14.8	16.1
2	3.6	1.2	2.6	10.7	8.4	9.3	13.8	11.0	12.4	19.0	15.4	17.0
3	1.9	.2	.9	10.3	7.8	8.8	15.4	12.1	13.7	20.8	16.6	18.5
4	.9	.2	.3	11.3	7.2	9.1	15.7	14.4	14.9	21.8	17.8	19.6
5	.7	.2	.3	11.2	9.4	10.3	14.4	11.8	13.2	22.7	19.3	20.9
6	3.1	.2	1.6	13.0	9.7	11.7	13.0	11.0	11.9	21.7	19.2	20.2
7	3.9	2.1	3.1	12.4	7.7	10.5	13.4	10.6	11.7	19.2	18.2	18.6
8	5.4	3.9	4.7	7.7	5.6	6.4	11.7	10.9	11.5	19.5	17.2	18.3
9	8.4	5.1	7.1	7.3	4.8	5.9	14.4	9.9	11.8	21.3	18.1	19.4
10	9.8	8.2	9.0	8.5	5.6	6.9	14.6	10.2	12.0	22.3	19.2	20.4
11	10.7	9.4	9.9	9.9	6.8	8.1	16.0	10.4	13.1	20.4	17.9	19.4
12	9.4	7.4	8.5	11.5	7.9	9.4	18.2	12.8	15.4	19.5	16.8	17.9
13	8.1	6.5	7.3	13.0	9.1	10.8	17.6	15.1	16.4	17.9	16.0	16.9
14	9.1	7.0	8.0	13.7	10.9	12.4	19.5	14.4	16.8	---	15.8	---
15	8.7	7.7	8.2	15.6	12.8	14.1	18.7	16.5	17.5	---	---	---
16	7.8	5.9	7.1	15.6	14.0	14.7	18.8	14.3	16.5	---	---	---
17	7.4	4.9	6.0	15.3	13.7	14.3	19.5	14.6	17.0	---	---	---
18	8.0	5.1	6.4	14.7	13.0	13.7	19.3	16.4	17.8	---	---	---
19	8.2	6.1	7.1	13.1	7.3	9.5	19.1	17.9	18.4	---	---	---
20	10.3	8.2	9.1	7.7	7.3	7.5	18.8	17.1	18.0	---	---	---
21	11.4	8.9	10.1	10.3	7.4	8.2	19.1	17.2	17.8	---	---	---
22	12.1	10.3	11.3	10.1	7.7	8.9	19.3	16.8	17.8	---	---	---
23	15.1	11.2	13.1	11.5	8.6	10.1	18.3	15.6	17.1	---	---	---
24	15.0	11.7	13.5	13.7	10.4	12.0	16.0	14.2	15.2	---	---	---
25	14.9	11.2	13.2	15.4	12.9	14.1	17.2	14.7	15.9	---	---	---
26	15.6	12.9	14.4	14.0	12.0	13.0	18.3	15.9	17.0	---	---	---
27	15.7	14.6	15.2	12.0	10.9	11.5	18.0	15.3	16.5	26.6	24.4	25.4
28	15.5	12.6	14.1	11.9	11.5	11.7	18.3	15.6	16.8	26.0	22.6	24.2
29	12.6	9.5	10.8	12.2	11.4	11.9	19.2	17.0	17.9	24.8	23.1	24.0
30	---	---	---	14.8	12.1	13.4	17.6	15.7	16.6	24.5	21.9	23.2
31	---	---	---	14.9	14.3	14.5	---	---	---	24.6	21.3	22.9
MONTH	15.7	.2	7.9	15.6	4.8	10.7	19.5	9.9	15.4	26.6	14.8	20.2

## CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.5	21.9	22.8	31.8	28.3	29.9	25.1	23.9	24.6	26.0	24.3	25.3
2	22.8	20.9	21.6	32.0	28.7	30.1	25.0	24.1	24.6	25.6	24.1	24.7
3	23.6	20.3	21.7	31.5	28.1	29.5	25.1	24.1	24.7	24.6	23.6	23.9
4	24.0	20.9	22.5	29.2	25.5	27.1	25.3	24.4	24.8	25.4	22.8	24.0
5	24.1	20.8	22.6	29.1	24.2	26.5	25.4	24.4	24.8	25.2	23.3	24.3
6	25.6	22.1	23.9	29.9	24.8	27.2	25.1	24.5	24.9	26.0	23.7	24.9
7	25.3	23.6	24.2	28.3	26.3	27.2	26.3	24.3	24.9	26.3	24.5	25.5
8	23.6	21.5	22.4	27.2	25.8	26.2	26.4	24.4	25.2	26.5	24.4	25.6
9	22.7	20.2	21.4	28.4	24.9	26.5	25.1	23.0	24.1	27.3	25.2	26.3
10	23.0	20.2	21.5	27.7	25.1	26.5	25.1	22.7	23.8	26.8	25.0	26.0
11	23.0	20.8	22.0	25.9	24.2	24.6	23.6	22.2	23.1	26.8	24.5	25.6
12	23.1	21.3	22.2	26.6	23.6	24.9	22.9	21.7	22.1	25.8	23.7	24.8
13	24.1	20.8	22.4	28.5	25.4	26.7	23.5	21.8	22.5	24.7	21.8	22.8
14	26.3	22.7	24.3	29.2	26.5	27.7	24.1	21.9	22.9	22.3	19.9	21.2
15	27.7	23.9	25.7	29.1	26.3	27.6	24.7	22.3	23.3	21.8	20.2	21.1
16	28.9	24.9	26.8	29.2	25.7	27.5	26.1	22.8	24.2	23.2	21.6	22.3
17	29.3	25.8	27.5	30.0	27.1	28.4	26.7	23.3	24.8	22.8	20.4	21.5
18	29.6	26.4	28.0	---	---	---	25.6	23.8	24.8	21.2	19.2	20.3
19	29.8	27.0	28.4	---	---	---	26.8	23.6	25.1	21.4	19.0	20.3
20	29.5	26.7	28.3	---	---	---	27.7	24.7	26.1	21.3	19.4	20.5
21	30.2	26.8	28.6	---	---	---	28.2	25.4	26.6	21.1	20.1	20.6
22	30.8	27.5	29.2	---	---	---	28.2	25.4	26.7	21.8	18.7	20.2
23	30.7	28.1	29.6	24.8	23.8	24.4	28.6	25.8	27.1	21.9	19.8	20.9
24	31.4	28.2	29.8	25.0	23.8	24.5	28.4	26.0	27.2	21.9	20.6	21.4
25	31.1	28.6	29.8	25.0	24.3	24.6	28.1	25.6	26.8	22.7	20.8	21.8
26	29.5	26.7	28.2	25.0	24.1	24.5	27.5	25.5	26.5	22.9	21.6	22.3
27	30.4	26.1	27.9	24.9	24.1	24.5	26.6	24.9	25.8	22.7	21.5	22.2
28	29.7	26.4	27.8	24.9	23.9	24.4	27.2	24.7	25.8	22.2	19.9	21.1
29	30.4	27.0	28.6	24.6	23.6	24.2	27.2	24.7	25.9	20.7	18.5	19.4
30	31.4	27.7	29.3	24.8	23.5	24.1	26.7	24.2	25.6	20.3	17.2	18.7
31	---	---	---	24.8	23.7	24.2	26.4	24.7	25.6	---	---	---
MONTH	31.4	20.2	25.6	32.0	23.5	26.3	28.6	21.7	25.0	27.3	17.2	22.6

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	6.5	7.4	11.7	9.0	10.0	17.5	11.9	14.0	11.6	10.3	10.8
2	8.9	6.2	7.2	9.2	8.5	8.8	17.6	11.7	13.9	10.4	10.0	10.1
3	6.5	5.7	6.2	9.5	9.1	9.3	15.6	11.2	12.9	10.4	10.0	10.2
4	8.3	6.4	7.5	11.0	9.5	10.2	16.4	10.8	13.0	11.5	10.4	10.8
5	8.1	7.7	7.9	11.3	10.2	10.7	14.4	10.8	12.2	11.7	10.6	10.9
6	8.8	7.8	8.5	11.8	10.4	11.0	15.4	10.9	12.6	11.0	10.4	10.6
7	9.6	8.6	9.0	10.6	9.9	10.2	15.3	11.1	12.7	11.9	11.0	11.7
8	10.2	9.0	9.4	11.0	10.0	10.6	14.4	11.7	12.7	12.8	11.8	12.1
9	10.5	9.1	9.5	11.5	10.8	11.1	15.7	11.6	13.1	13.0	11.4	12.0
10	10.9	9.0	9.6	11.6	10.5	11.0	15.6	12.7	13.8	12.7	10.8	11.5
11	11.6	8.8	9.7	10.9	10.1	10.4	16.3	13.4	14.3	11.5	10.4	10.7
12	12.5	8.6	10.1	11.5	10.9	11.2	14.6	13.0	13.6	11.2	10.4	10.8
13	11.6	8.3	9.6	11.5	10.9	11.1	14.9	11.9	13.5	11.2	10.4	10.7
14	12.4	8.0	9.7	11.8	10.8	11.1	13.8	10.8	12.0	11.8	10.3	10.8
15	15.0	8.7	10.9	12.8	11.1	11.8	14.6	10.0	11.8	12.5	10.2	10.9
16	15.4	8.9	11.3	12.8	11.4	11.9	11.2	9.6	10.2	12.1	10.2	10.8
17	15.4	9.2	11.5	13.6	11.3	12.2	10.6	9.9	10.1	13.1	10.0	11.0
18	15.1	9.1	11.4	13.8	11.0	11.9	10.1	9.7	9.9	11.7	10.0	10.5
19	13.9	8.7	10.9	13.8	10.8	11.9	10.3	9.6	9.9	12.1	10.1	11.4
20	11.7	8.2	9.7	15.1	10.8	12.3	10.9	10.1	10.6	13.4	12.1	12.7
21	12.3	8.3	9.9	15.6	10.6	12.3	11.6	10.8	11.2	13.9	12.5	12.9
22	12.4	8.5	10.2	16.3	10.8	12.8	12.5	11.2	11.6	15.1	12.6	13.4
23	12.4	8.6	10.3	13.1	10.7	11.6	12.8	11.3	11.8	14.5	12.4	13.1
24	11.7	8.2	9.9	16.6	10.6	12.9	13.7	11.5	12.2	12.6	12.0	12.3
25	12.2	8.6	10.3	17.2	11.1	13.4	13.0	11.5	12.0	13.1	12.4	12.7
26	11.3	8.7	10.2	17.3	11.1	13.5	14.4	11.6	12.6	12.7	12.1	12.5
27	10.9	8.4	9.2	15.0	10.7	12.5	14.2	11.6	12.6	13.5	12.1	12.6
28	10.8	8.3	9.5	16.9	11.1	13.5	14.8	11.6	12.9	14.2	12.4	12.9
29	12.1	9.9	10.6	15.5	11.2	13.0	15.6	11.8	13.3	12.6	11.9	12.3
30	12.6	10.0	11.0	17.2	11.8	13.8	15.9	11.8	13.4	12.9	11.7	12.1
31	11.6	9.6	10.4	---	---	---	13.2	10.9	12.0	14.4	11.7	12.7
MONTH	15.4	5.7	9.6	17.3	8.5	11.6	17.6	9.6	12.3	15.1	10.0	11.6

CUMBERLAND RIVER BASIN  
03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued  
OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	14.7	12.3	13.2	12.9	10.1	11.0	12.9	11.1	11.9	12.6	8.6	10.0
2	14.7	12.6	13.5	13.4	10.1	11.2	14.3	11.9	12.7	13.0	8.3	10.2
3	15.8	13.3	14.3	15.0	10.1	11.9	15.2	11.9	13.0	---	---	---
4	15.9	13.7	14.6	15.8	10.4	12.4	14.1	11.7	12.6	---	---	---
5	15.9	13.6	14.6	11.8	9.3	10.4	14.1	11.9	12.8	---	---	---
6	16.2	13.4	14.5	11.8	9.1	10.0	15.4	12.5	13.8	---	---	---
7	13.6	11.0	12.6	11.1	9.6	10.2	15.8	12.8	14.0	---	---	---
8	11.5	10.6	11.0	12.1	11.1	11.6	14.5	12.8	13.6	---	---	---
9	10.8	9.9	10.4	13.3	11.6	12.2	16.2	12.9	14.3	---	---	---
10	10.8	9.6	10.0	13.9	11.2	12.3	14.8	11.0	13.5	---	---	---
11	11.7	9.6	10.3	14.1	10.8	12.0	13.5	9.8	11.5	---	---	---
12	12.4	9.8	10.8	14.6	10.5	11.9	13.1	9.5	11.1	---	---	---
13	14.1	10.4	11.7	15.0	9.8	11.7	11.6	9.2	10.3	---	---	---
14	14.2	10.5	11.6	13.9	9.3	11.1	12.2	9.1	10.4	---	---	---
15	14.3	10.3	11.7	13.8	8.7	10.4	10.6	9.1	9.7	---	---	---
16	15.7	10.5	12.6	12.0	8.6	9.6	10.8	9.0	9.7	---	---	---
17	16.9	11.1	13.4	11.2	8.7	9.5	10.8	8.9	9.6	---	---	---
18	17.6	11.3	13.7	11.4	8.6	9.5	10.3	8.9	9.5	---	---	---
19	13.6	11.0	12.0	10.5	8.6	9.7	9.9	8.8	9.2	---	---	---
20	15.4	10.5	12.2	10.6	10.5	10.5	9.1	8.8	9.0	---	---	---
21	15.8	9.9	12.1	11.1	10.2	10.5	9.6	8.9	9.1	---	---	---
22	12.9	9.6	10.9	11.6	9.6	10.5	9.5	7.9	9.0	---	---	---
23	15.7	9.1	11.5	11.9	9.5	10.4	8.8	7.9	8.4	---	---	---
24	15.5	8.8	11.3	12.9	9.3	10.6	9.5	8.8	9.1	---	---	---
25	15.2	9.0	11.4	11.8	9.1	10.0	10.2	8.5	9.2	---	---	---
26	13.4	8.8	10.6	12.1	9.5	10.5	10.1	8.3	8.9	---	---	---
27	10.1	8.2	9.2	12.7	10.1	11.1	11.2	8.5	9.4	8.8	6.4	7.3
28	10.1	8.1	9.1	11.4	10.4	10.9	11.6	8.3	9.5	8.9	6.7	7.5
29	11.8	9.5	10.4	11.4	10.9	11.1	11.1	7.8	8.9	8.9	6.7	7.6
30	---	---	---	13.1	10.9	11.7	11.2	7.8	9.1	9.2	6.9	7.8
31	---	---	---	12.0	10.7	11.2	---	---	---	9.6	6.9	8.0
MONTH	17.6	8.1	11.9	15.8	8.6	10.9	16.2	7.8	10.8	13.0	6.4	8.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.1	6.7	7.8	8.3	5.6	6.8	8.3	7.7	8.1	8.5	5.8	7.1
2	8.1	6.8	7.4	8.3	5.4	6.6	8.9	8.1	8.4	7.7	6.0	7.0
3	9.4	6.9	8.0	8.1	5.3	6.4	9.5	8.1	8.6	7.3	5.9	6.7
4	9.2	6.9	7.9	8.3	5.5	6.5	10.0	8.0	8.7	8.5	6.1	7.2
5	9.3	7.0	8.1	8.5	5.8	6.8	11.2	7.9	9.1	7.9	6.1	7.0
6	10.1	7.0	8.4	8.7	6.0	7.1	11.6	7.5	9.0	8.0	5.2	6.6
7	8.6	6.8	7.6	7.6	6.0	6.7	12.8	7.1	9.2	7.9	5.1	6.5
8	8.0	6.7	7.3	6.7	5.7	6.2	10.9	6.2	8.3	8.5	5.3	6.8
9	8.4	7.3	7.7	8.3	5.4	6.7	7.0	6.1	6.6	8.6	5.3	6.8
10	9.0	7.5	8.1	8.3	5.8	7.0	7.7	6.0	6.6	8.1	5.9	6.8
11	9.2	7.5	8.1	7.8	6.4	7.0	7.0	6.0	6.4	8.4	5.6	6.7
12	8.5	7.1	7.6	8.6	6.6	7.5	7.3	6.7	7.0	7.9	5.6	6.6
13	9.5	6.9	8.0	8.9	6.6	7.7	7.3	6.9	7.1	7.9	5.7	6.7
14	11.7	6.8	8.7	8.7	6.4	7.5	7.9	6.8	7.3	8.3	6.1	7.1
15	13.7	6.8	9.5	8.3	6.2	7.1	8.2	6.8	7.3	7.9	6.3	7.2
16	12.3	6.5	9.0	8.2	5.8	7.0	8.8	6.7	7.5	7.4	6.1	6.8
17	11.7	6.1	8.6	8.5	6.0	7.0	9.3	6.5	7.5	7.3	6.0	6.7
18	10.8	6.0	8.2	---	---	---	8.8	6.4	7.3	8.4	6.3	7.3
19	9.2	5.6	7.4	---	---	---	9.9	6.5	7.8	8.8	6.7	7.8
20	8.6	5.4	7.0	---	---	---	9.9	6.3	7.7	8.9	6.9	8.0
21	8.4	5.4	6.9	---	---	---	10.1	6.2	7.7	8.5	7.0	7.7
22	8.1	5.2	6.7	---	---	---	10.2	6.0	7.7	10.0	7.0	8.2
23	8.2	5.3	6.8	7.4	7.0	7.2	10.1	5.9	7.6	9.0	6.8	7.9
24	8.2	5.2	6.7	8.0	7.0	7.4	9.4	5.8	7.4	8.5	5.9	7.4
25	8.1	5.4	6.8	8.2	6.9	7.4	9.1	5.6	7.1	9.2	6.0	7.6
26	8.7	5.9	7.3	8.9	6.9	7.7	8.9	5.6	7.1	8.4	6.0	7.3
27	8.7	6.1	7.4	9.4	7.0	8.0	8.4	5.6	6.8	7.3	5.5	6.4
28	8.6	6.2	7.3	9.7	7.0	8.0	8.6	6.0	7.0	7.6	5.4	6.5
29	8.5	6.0	7.1	8.1	6.9	7.5	8.8	6.0	7.1	7.5	6.8	7.1
30	8.5	5.9	7.0	8.1	6.9	7.3	8.7	5.9	7.2	7.9	6.7	7.1
31	---	---	---	8.1	7.1	7.6	8.2	5.8	7.0	---	---	---
MONTH	13.7	5.2	7.7	9.7	5.3	7.1	12.8	5.6	7.6	10.0	5.1	7.1

## 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 mi<sup>2</sup>.

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 YEAR.--Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0745	*2,790	*10.43	Nov. 7	0930	1,380	7.84

Minimum discharge, 1.2 ft<sup>3</sup>/s, July 18, 19, 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	12	7.8	17	18	26	133	38	11	1.9	23	1.7
2	1.7	91	7.4	75	17	22	76	29	13	1.8	11	1.7
3	9.0	104	9.3	58	16	19	55	23	11	1.7	7.0	55
4	14	44	18	38	15	17	43	19	11	1.7	5.0	9.3
5	820	29	13	30	13	24	34	16	31	1.6	3.9	5.4
6	91	51	11	35	12	170	29	29	16	1.5	3.3	3.4
7	43	529	12	34	17	245	25	162	61	1.5	3.4	2.7
8	27	114	11	29	34	94	22	69	179	3.0	4.6	2.4
9	19	63	11	29	26	63	20	41	79	1.8	3.2	2.2
10	14	44	10	32	21	47	17	29	46	1.7	2.6	2.1
11	12	147	9.6	73	19	37	16	25	32	1.5	2.5	2.1
12	9.6	67	9.8	111	16	30	14	20	46	2.7	3.4	2.0
13	8.4	46	9.4	58	15	25	14	17	29	1.8	2.5	2.0
14	8.2	34	8.9	43	14	22	12	14	21	1.4	2.3	1.9
15	7.2	27	8.5	33	13	26	12	241	16	5.1	2.2	1.9
16	6.2	22	10	28	12	28	11	65	13	2.0	2.1	5.5
17	5.4	19	36	25	11	25	9.8	39	11	1.6	2.0	2.8
18	4.8	16	79	94	11	22	9.4	27	9.3	1.3	2.0	2.3
19	4.5	14	93	98	138	239	9.1	21	7.9	1.3	1.9	2.1
20	5.4	13	48	51	117	127	61	16	8.1	1.8	1.8	2.0
21	5.4	12	34	39	66	92	27	14	6.2	24	1.8	7.5
22	4.4	11	27	31	48	75	18	12	5.3	63	1.8	4.9
23	3.8	14	22	27	37	57	244	10	5.7	8.6	1.8	2.7
24	5.6	13	18	85	28	44	69	8.7	4.7	5.0	1.7	2.3
25	4.5	11	16	44	23	183	44	7.7	4.1	3.6	1.7	2.1
26	4.1	10	14	43	21	76	61	12	3.6	2.9	4.6	2.0
27	106	9.8	13	41	22	55	35	56	3.0	2.5	2.7	15
28	43	9.7	11	32	61	52	27	109	2.5	3.3	1.9	25
29	23	8.5	11	28	32	42	48	29	2.3	4.5	1.8	9.6
30	16	8.0	10	24	---	34	75	18	2.1	11	1.8	5.7
31	13	---	15	21	---	83	---	13	---	53	1.7	---
TOTAL	1341.0	1593.0	613.7	1406	893	2101	1270.3	1229.4	690.8	220.1	113.0	187.3
MEAN	43.3	53.1	19.8	45.4	30.8	67.8	42.3	39.7	23.0	7.10	3.65	6.24
MAX	820	529	93	111	138	245	244	241	179	63	23	55
MIN	1.7	8.0	7.4	17	11	17	9.1	7.7	2.1	1.3	1.7	1.7
CFSM	2.10	2.58	.96	2.20	1.49	3.29	2.06	1.93	1.12	.34	.18	.30
IN.	2.42	2.88	1.11	2.54	1.61	3.79	2.29	2.22	1.25	.40	.20	.34



## CUMBERLAND RIVER BASIN

03430147 STONERS CREEK NEAR HERMITAGE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

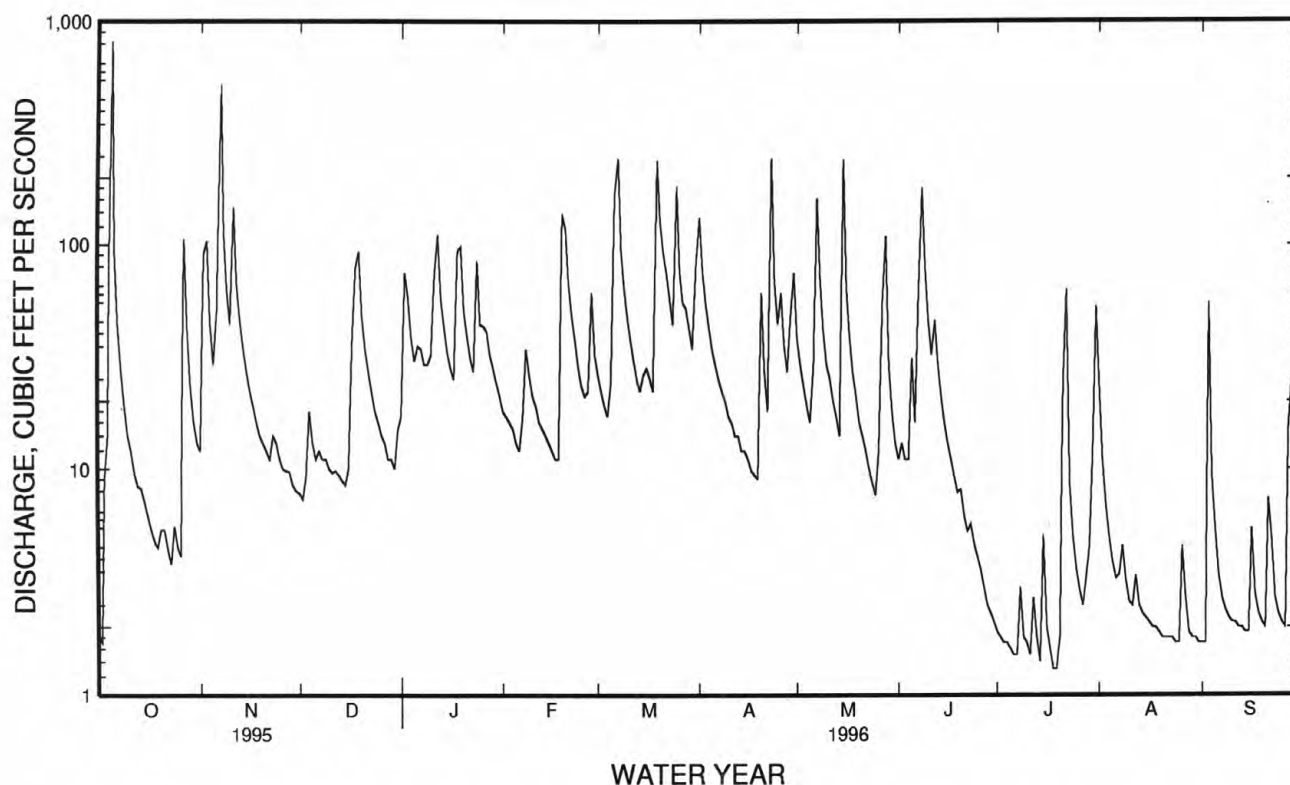
MEAN	15.3	29.6	40.0	53.2	47.7	74.3	42.3	33.2	14.3	16.5	5.35	6.39
MAX	43.3	53.1	74.7	67.7	119	107	112	83.6	23.0	62.0	13.3	11.5
(WY)	1996	1996	1994	1995	1994	1994	1994	1995	1996	1992	1994	1995
MIN	2.92	8.33	19.8	39.4	27.5	54.4	10.6	5.24	7.22	3.11	.79	1.46
(WY)	1994	1994	1996	1993	1995	1992	1992	1992	1993	1993	1993	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1992 - 1996

ANNUAL TOTAL	12397.42	11658.6	
ANNUAL MEAN	34.0	31.9	32.6
HIGHEST ANNUAL MEAN			44.2
LOWEST ANNUAL MEAN			23.1
HIGHEST DAILY MEAN	820	Oct 5	1260
LOWEST DAILY MEAN	.44	Sep 8	.29
ANNUAL SEVEN-DAY MINIMUM	.45	Sep 4	.34
INSTANTANEOUS PEAK FLOW			a4220
INSTANTANEOUS PEAK STAGE		10.43	12.60
INSTANTANEOUS LOW FLOW		b1.2	.27
ANNUAL RUNOFF (CFSM)	1.65	1.55	1.58
ANNUAL RUNOFF (INCHES)	22.39	21.05	21.49
10 PERCENT EXCEEDS	66	74	65
50 PERCENT EXCEEDS	11	15	11
90 PERCENT EXCEEDS	1.8	2.0	1.6

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

b Also occurred July 19, 20, 21.



## 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 mi<sup>2</sup>.

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

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

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

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0915	*13,000	*17.27	Apr. 23	0315	3,980	10.88
Nov. 2	0815	3,560	10.45	July 22	0245	4,030	10.93
Nov. 7	1000	3,920	10.82				

Minimum daily discharge, 0.52 ft<sup>3</sup>/s, July 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	31	17	38	45	64	180	94	5.9	.58	142	5.4
2	2.5	734	16	239	42	52	118	64	6.5	.57	64	8.1
3	23	196	16	136	41	44	87	49	6.6	.79	38	37
4	31	98	18	88	41	39	70	41	6.9	.56	26	16
5	3160	66	16	67	41	53	57	35	5.5	.85	20	8.9
6	234	61	15	64	40	207	49	124	5.2	.52	16	12
7	105	970	20	58	51	499	44	297	7.1	1.0	13	6.9
8	63	227	19	51	93	175	40	146	33	27	20	5.6
9	44	126	22	50	75	115	35	79	19	5.1	16	4.9
10	33	84	20	54	60	84	31	55	12	2.5	9.5	4.5
11	27	277	20	145	50	68	29	45	10	1.5	7.5	3.7
12	23	142	19	238	43	57	26	37	60	3.6	8.4	3.3
13	20	95	19	128	39	49	26	32	35	3.3	7.8	3.3
14	18	70	18	89	36	44	24	28	22	4.7	5.6	5.2
15	15	54	17	67	32	97	22	219	17	10	4.6	6.7
16	13	46	22	57	30	80	20	75	11	4.8	3.8	14
17	11	40	59	50	28	66	19	49	8.1	3.0	3.1	15
18	9.0	36	185	241	26	55	18	37	6.2	1.9	59	12
19	8.3	32	236	226	267	734	17	30	5.2	1.3	19	10
20	9.9	29	128	120	203	268	364	25	4.5	10	9.2	10
21	9.6	26	83	88	120	177	110	21	4.2	19	6.0	20
22	7.6	24	62	69	87	136	65	18	3.3	873	4.6	17
23	7.1	31	49	58	68	102	1130	15	2.7	64	3.9	11
24	10	29	42	175	53	80	180	13	2.5	31	3.5	9.2
25	9.2	25	36	94	46	581	107	10	2.0	21	3.2	8.1
26	8.2	24	32	100	42	181	107	8.4	1.5	15	2.8	6.6
27	346	22	28	104	47	121	67	20	1.2	10	2.6	42
28	130	21	25	79	175	117	53	25	1.0	9.7	2.2	37
29	61	19	23	67	82	101	180	13	.77	18	2.4	24
30	42	18	22	57	---	81	209	9.5	.60	108	2.8	15
31	34	---	32	50	---	247	---	7.3	---	269	4.2	---
TOTAL	4517.1	3653	1336	3147	2003	4774	3484	1721.2	306.47	1521.27	530.7	382.4
MEAN	146	122	43.1	102	69.1	154	116	55.5	10.2	49.1	17.1	12.7
MAX	3160	970	236	241	267	734	1130	297	60	873	142	42
MIN	2.5	18	15	38	26	39	17	7.3	.60	.52	2.2	3.3
CFSM	3.60	3.00	1.06	2.50	1.70	3.80	2.87	1.37	.25	1.21	.42	.31
IN.	4.15	3.35	1.23	2.89	1.84	4.38	3.20	1.58	.28	1.40	.49	.35

## CUMBERLAND RIVER BASIN

03430550 MILL CREEK NEAR NOLENSVILLE, TN--Continued

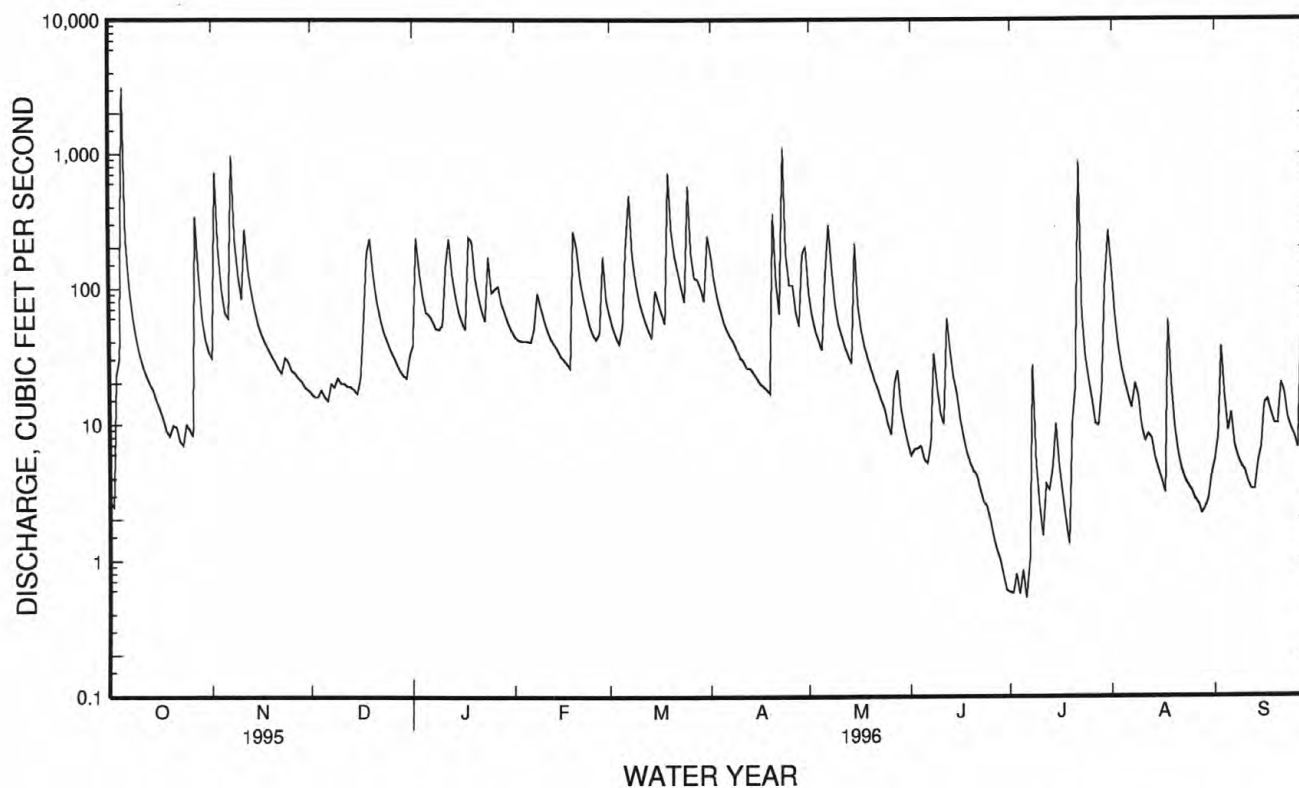
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	42.9	55.8	78.1	118	115	194	87.7	65.2	27.9	26.7	14.0	9.18
MAX	146	122	119	156	263	359	209	190	73.6	58.8	35.0	16.1
(WY)	1996	1996	1994	1995	1994	1994	1994	1995	1994	1992	1995	1994
MIN	1.18	2.83	43.1	64.5	60.6	150	20.3	8.40	9.59	2.82	1.73	3.21
(WY)	1994	1994	1996	1993	1995	1992	1992	1992	1993	1995	1993	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1992 - 1996

ANNUAL TOTAL	29497.31			27376.14				72.5		
ANNUAL MEAN	80.8			74.8						
HIGHEST ANNUAL MEAN								104		1994
LOWEST ANNUAL MEAN								41.3		1993
HIGHEST DAILY MEAN	3160	Oct 5		3160	Oct 5			4070	Mar 27	1994
LOWEST DAILY MEAN	.27	Jul 21		.52	Jul 6			a.08	Sep 13	1993
ANNUAL SEVEN-DAY MINIMUM	.76	Jul 16		.64	Jun 30			.10	Sep 9	1993
INSTANTANEOUS PEAK FLOW				13000	Oct 5			13000	Oct 5	1995
INSTANTANEOUS PEAK STAGE				17.27	Oct 5			17.27	Oct 5	1995
ANNUAL RUNOFF (CFSM)	1.99			1.85				1.79		
ANNUAL RUNOFF (INCHES)	27.07			25.13				24.29		
10 PERCENT EXCEEDS	152			175				136		
50 PERCENT EXCEEDS	22			31				20		
90 PERCENT EXCEEDS	2.6			3.8				1.8		

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 mi<sup>2</sup>.

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 September 1996 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

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.--No estimated daily discharges. Records good. Minor diversion from gage pool for industrial use. Periodic observations of water temperature and specific 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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1330	*7,720	*15.31	Apr. 23	0530	3,380	10.59
Nov. 7	1130	3,220	10.34				

Minimum discharge, 1.6 ft<sup>3</sup>/s, Aug. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	42	19	65	73	109	267	146	15	3.7	175	3.6
2	5.1	687	18	308	69	92	175	107	19	3.5	86	5.8
3	55	259	22	199	60	79	140	86	18	3.2	54	42
4	55	132	22	137	52	70	118	73	19	2.6	34	32
5	3140	93	19	108	47	105	99	62	13	2.5	25	12
6	306	93	19	104	51	310	87	156	12	2.3	18	8.4
7	144	1150	24	99	62	703	77	374	11	4.8	15	8.6
8	94	325	21	87	137	267	71	211	99	32	29	7.2
9	68	178	24	85	118	175	64	125	54	15	28	4.9
10	50	126	21	89	96	139	56	93	30	9.0	14	4.8
11	39	386	19	163	86	116	51	81	33	6.1	12	4.2
12	31	199	18	352	72	101	48	68	136	5.2	16	3.2
13	26	138	19	185	66	87	45	54	76	5.5	13	2.8
14	24	105	18	139	64	78	41	46	47	9.7	11	4.1
15	22	82	17	109	56	124	37	357	31	23	8.4	3.3
16	18	68	27	93	53	120	32	136	22	13	6.6	15
17	16	57	68	84	47	106	28	89	19	8.0	5.9	7.0
18	14	49	215	290	44	91	28	69	16	5.6	61	5.7
19	14	41	352	374	350	988	27	55	13	5.0	40	4.3
20	18	36	181	177	311	423	419	43	16	10	15	3.6
21	13	33	127	138	184	271	167	35	11	35	10	30
22	13	27	99	113	141	205	108	29	9.8	1050	7.9	20
23	13	41	81	98	117	161	1280	25	9.6	95	7.1	13
24	19	38	68	247	96	134	271	22	8.2	49	6.0	9.9
25	13	30	57	146	84	760	169	20	7.0	28	5.6	7.6
26	12	27	50	144	75	272	167	16	6.0	20	4.5	6.3
27	457	26	43	157	85	182	117	101	5.3	15	4.7	40
28	174	23	36	124	247	173	95	81	5.2	23	4.1	64
29	90	20	30	110	134	156	184	35	4.8	20	3.3	35
30	63	19	29	94	---	133	333	25	4.4	107	2.7	23
31	47	---	49	84	---	308	---	19	---	275	3.2	---
TOTAL	5057.6	4530	1812	4702	3077	7038	4801	2839	770.3	1886.7	726.0	431.3
MEAN	163	151	58.5	152	106	227	160	91.6	25.7	60.9	23.4	14.4
MAX	3140	1150	352	374	350	988	1280	374	136	1050	175	64
MIN	4.5	19	17	65	44	70	27	16	4.4	2.3	2.7	2.8
CFSM	2.55	2.36	.91	2.37	1.66	3.55	2.50	1.43	.40	.95	.37	.22
IN.	2.94	2.63	1.05	2.73	1.79	4.09	2.79	1.65	.45	1.10	.42	.25



## CUMBERLAND RIVER BASIN

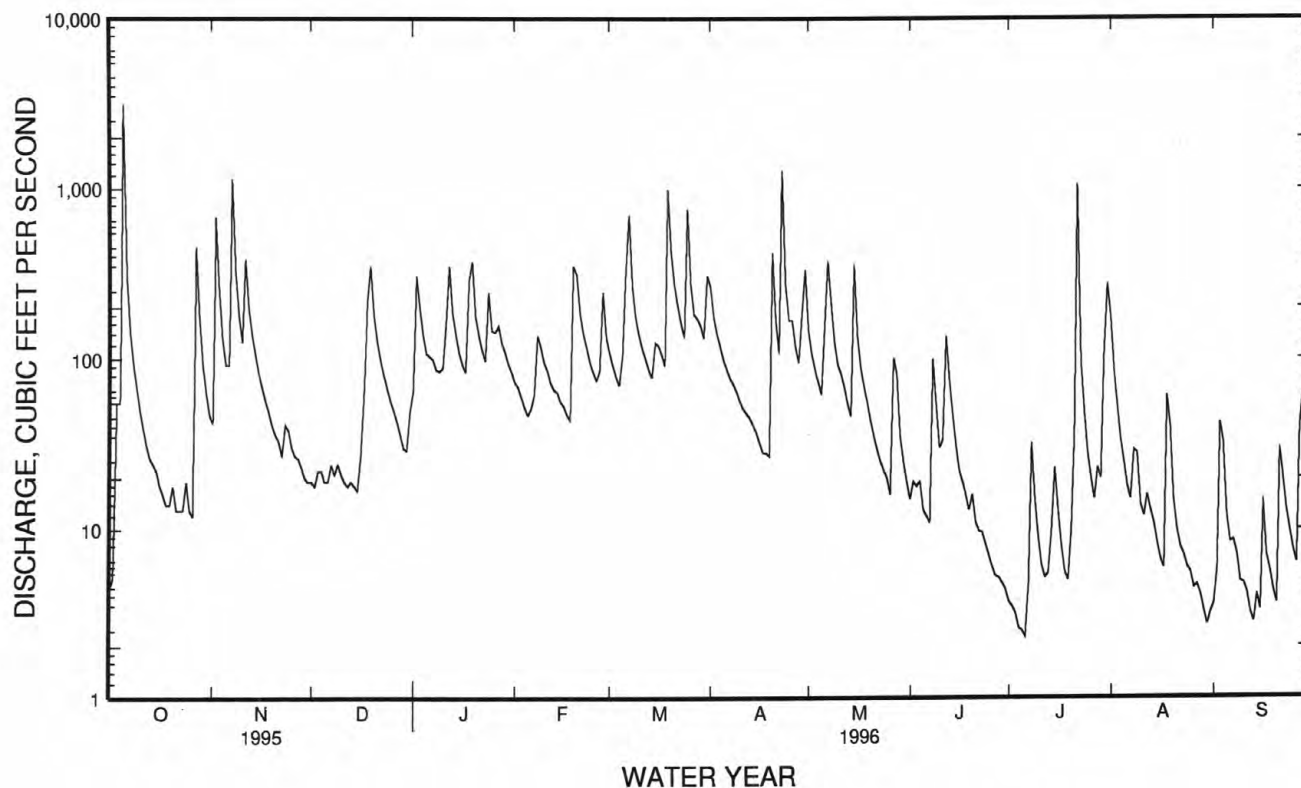
03431000 MILL CREEK NEAR ANTIOCH, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

MEAN	22.8	59.3	124	173	205	240	156	87.9	54.4	19.2	17.7	17.4
MAX	163	225	439	544	512	694	348	245	318	63.9	86.0	103
(WY)	1996	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	2.70	.017	1.14	.085
(WY)	1954	1954	1954	1955	1968	1966	1967	1960	1956	1954	1969	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1954 - 1996		
ANNUAL TOTAL	36483.34			37670.9			97.5		
ANNUAL MEAN	100			103			182		
HIGHEST ANNUAL MEAN							49.8		
LOWEST ANNUAL MEAN							7440		
HIGHEST DAILY MEAN	3140	Oct	5	3140	Oct	5	30100	Mar	21 1955
LOWEST DAILY MEAN	.94	Sep	10	2.3	Jul	6	a.00	Oct	1 1953
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep	4	3.2	Jun	30	.00	Oct	1 1953
INSTANTANEOUS PEAK FLOW				7720	Oct	5	23.78	May	4 1979
INSTANTANEOUS PEAK STAGE				15.31	Oct	5	.00	May	4 1979
INSTANTANEOUS LOW FLOW				1.6	Aug	30	.00	Oct	1 1953
ANNUAL RUNOFF (CFSM)	1.56			1.61			1.52		
ANNUAL RUNOFF (INCHES)	21.21			21.90			20.70		
10 PERCENT EXCEEDS	217			212			212		
50 PERCENT EXCEEDS	33			49			24		
90 PERCENT EXCEEDS	4.9			5.9			1.0		

a Also occurred one or more days 1953-56, 1964-65, 1994.



## 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 mi<sup>2</sup>.

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

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

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

REMARKS.--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 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0740	*1,900	*7.75	July 21	2335	1,690	7.41
May 6	1405	711	5.26	Sept. 27	0655	1,200	6.49
June 12	0445	762	5.40				

Minimum discharge, 0.75 ft<sup>3</sup>/s, July 13, 14, Aug. 23, 26, 30, 31, Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.9	3.4	9.6	8.7	12	26	14	4.4	1.7	19	.81
2	2.0	28	3.3	25	8.0	10	20	11	7.7	1.7	12	17
3	23	11	9.1	16	7.5	9.1	18	9.2	5.5	1.4	8.0	49
4	7.7	8.7	4.2	13	7.2	8.4	15	7.8	4.2	1.2	5.8	9.5
5	424	7.2	3.8	12	6.8	21	13	7.2	3.7	1.1	4.5	5.4
6	55	19	5.1	14	6.2	54	12	97	3.2	1.1	3.8	3.8
7	27	135	4.0	11	8.4	66	11	58	3.2	2.2	4.3	7.7
8	16	48	4.4	11	7.6	38	9.7	36	30	8.6	10	4.4
9	11	29	3.9	11	7.1	28	8.5	25	14	3.0	4.1	2.7
10	8.3	21	3.4	10	6.5	21	7.8	19	11	1.6	3.0	2.1
11	6.5	77	3.4	24	6.1	17	7.3	19	6.9	1.2	2.6	1.7
12	5.2	34	3.3	25	5.7	15	6.7	13	81	1.1	6.7	1.6
13	5.0	24	3.2	19	5.5	13	7.1	11	17	.90	2.7	1.4
14	4.9	17	3.2	16	5.2	11	6.1	9.0	13	10	2.2	1.3
15	4.0	14	5.6	13	4.8	14	6.2	78	9.9	11	1.7	1.1
16	3.6	11	5.5	11	5.1	15	5.4	24	7.6	2.5	1.5	19
17	3.2	9.2	22	9.9	4.6	10	5.0	17	6.3	1.9	1.3	3.5
18	2.9	7.9	31	47	4.5	14	4.9	13	11	1.5	11	2.5
19	2.5	6.9	26	31	38	67	4.5	11	13	1.3	1.8	1.9
20	8.5	6.1	17	21	31	44	57	8.6	9.4	8.4	1.4	1.7
21	3.2	5.5	14	17	20	36	16	8.4	5.2	87	1.3	20
22	2.7	4.9	11	14	16	32	19	6.4	4.2	146	1.0	4.9
23	2.3	12	9.5	20	14	27	73	5.3	8.0	16	1.3	3.3
24	4.6	5.5	8.1	36	11	22	30	4.6	4.0	8.4	.97	2.5
25	2.4	4.9	7.2	19	10	83	23	4.1	3.0	6.0	.92	2.1
26	2.5	4.6	6.4	23	9.1	40	27	3.8	2.6	4.5	8.5	1.7
27	67	5.5	5.7	17	23	31	17	29	2.3	3.7	2.0	76
28	16	4.3	5.0	14	19	29	14	22	2.0	6.7	1.2	19
29	10	3.9	4.7	13	13	23	28	9.0	1.8	9.2	.96	9.2
30	7.6	3.8	4.6	12	---	19	19	7.1	1.7	30	.83	6.7
31	6.1	---	10	10	---	28	---	5.9	---	45	1.8	---
TOTAL	746.3	574.8	251.0	544.5	319.6	857.5	517.2	593.4	296.8	425.90	128.18	283.51
MEAN	24.1	19.2	8.10	17.6	11.0	27.7	17.2	19.1	9.89	13.7	4.13	9.45
MAX	424	135	31	47	38	83	73	97	81	146	19	76
MIN	1.6	3.8	3.2	9.6	4.5	8.4	4.5	3.8	1.7	.90	.83	.81
CFSM	2.04	1.62	.69	1.49	.93	2.34	1.46	1.62	.84	1.16	.35	.80
IN.	2.35	1.81	.79	1.72	1.01	2.70	1.63	1.87	.94	1.34	.40	.89

## CUMBERLAND RIVER BASIN

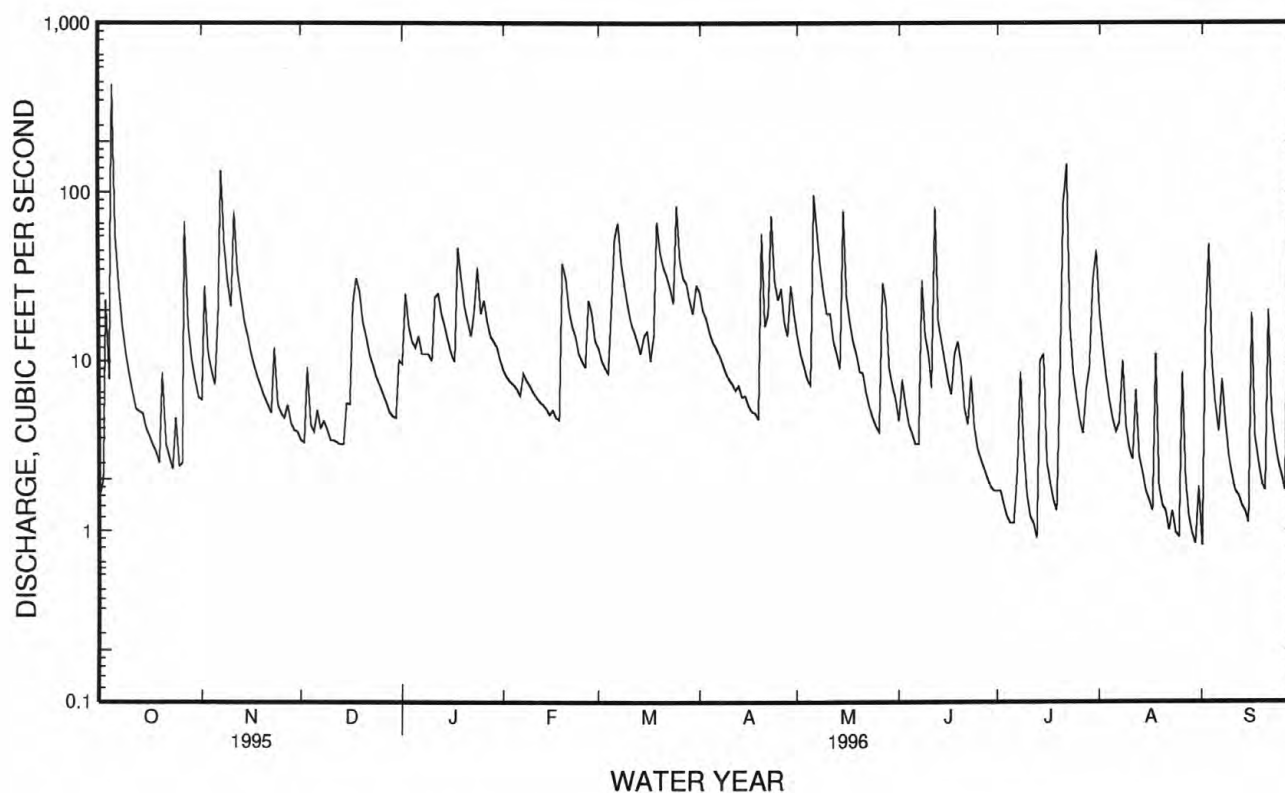
03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	5.36	13.3	20.6	25.8	25.2	37.1	25.3	18.6	10.6	6.76	6.40	5.84
MAX	24.1	34.8	63.8	86.5	49.2	102	50.3	38.5	41.2	19.8	23.2	21.0
(WY)	1996	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 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1964 - 1996		
ANNUAL TOTAL	5828.80			5538.69			16.9		
ANNUAL MEAN	16.0			15.1			29.6		
HIGHEST ANNUAL MEAN							6.67		
LOWEST ANNUAL MEAN							1973		
HIGHEST DAILY MEAN	424	Oct	5	424	Oct	5	696	Mar	12 1975
LOWEST DAILY MEAN	.47	Sep	9	.81	Sep	1	.29	Sep	5 1973
ANNUAL SEVEN-DAY MINIMUM	.58	Sep	5	1.2	Aug	19	.36	Sep	2 1973
INSTANTANEOUS PEAK FLOW				1900	Oct	5	2210	Nov	27 1994
INSTANTANEOUS PEAK STAGE				7.75	Oct	5	8.20	Nov	27 1994
INSTANTANEOUS LOW FLOW				a.75	Jul	13	.15	Sep	5 1973
ANNUAL RUNOFF (CFSM)	1.35			1.28			1.43		
ANNUAL RUNOFF (INCHES)	18.38			17.46			19.49		
10 PERCENT EXCEEDS	33			30			38		
50 PERCENT EXCEEDS	6.1			8.4			6.0		
90 PERCENT EXCEEDS	1.8			1.8			1.2		

a Also occurred July 14, Aug. 23, 26, 30, 31, Sept. 1, 2.



## 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 mi<sup>2</sup>, approximately.

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

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

REMARKS.--Records good. 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 ft<sup>3</sup>/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 71,500 ft<sup>3</sup>/s, at 1200 hours Nov. 8, gage height, 28.77 ft; minimum daily discharge, 6,140 ft<sup>3</sup>/s, Sept. 23; minimum gage height, 16.22 ft, Oct. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8230	9330	17400	11700	40600	23800	36000	22500	e23800	e7590	e37300	12800
2	7790	10600	12000	14700	35500	20900	48600	23500	e25200	e8730	28500	e8100
3	6630	15300	11800	21200	29700	18200	48500	24600	e21400	9940	24900	e8600
4	6860	20700	13100	25800	33800	21000	45700	26300	e19400	12600	19000	e9440
5	36800	20400	11800	27500	36200	22100	42100	22400	e16300	17100	18000	e18500
6	39700	16300	14900	27400	36200	26700	41500	17100	23300	12500	19600	e13000
7	25600	39400	12700	27600	31600	49900	33300	31300	23200	9330	19100	e12900
8	18600	68200	13100	30500	28900	65500	31700	47700	24600	7630	19200	e13400
9	18400	51500	11600	32500	27100	61400	30500	40100	29400	9670	24800	e13700
10	17600	25900	10700	32900	37300	38300	31100	35500	29300	12000	25200	e13800
11	13400	25700	9420	33200	28300	34300	33200	33100	24500	12800	18100	e14100
12	13000	34800	11800	35900	27900	34800	31300	27700	24500	12600	15800	e13900
13	12700	30400	12300	41700	30100	34600	30200	30100	30600	12500	21800	e13800
14	11900	23300	11500	36500	27700	28900	26400	31500	30800	11300	24900	e13800
15	10500	26600	13000	34600	27200	25100	20400	43100	29800	9730	30200	e13800
16	10800	27400	13300	35300	31100	29100	17600	48600	28400	9680	29100	e13800
17	10900	26500	10200	34600	32200	28500	12000	43800	e24800	12100	23700	e13100
18	12100	21300	11500	34700	30500	29700	12000	30900	e22600	12600	21800	e10000
19	11300	20700	16200	44000	25800	36400	11900	19800	e20400	12800	22400	e10100
20	9860	19200	26800	52000	29900	49300	13300	16600	e22700	13400	19800	10400
21	11800	16300	28000	47500	30600	47900	16600	19000	e23200	12700	19700	7150
22	13300	16500	26100	36000	23700	44200	25900	17500	e27000	19000	20600	6890
23	13000	14800	28600	34800	24400	37400	31300	e17000	e19200	14200	23100	6140
24	11400	14700	23800	34900	25500	39000	50000	e20000	e17200	16000	18200	7750
25	12700	14100	18300	41600	18600	43600	38600	e17400	e15200	21200	21000	8590
26	12000	16600	17700	50000	11500	46500	32500	e13800	e14700	23700	13100	9810
27	14900	12700	17700	45300	11800	43000	32500	e10700	e17300	18000	11900	17200
28	16100	11200	17500	43100	21900	35400	33100	e29600	e16900	16400	11000	14100
29	16400	14300	17300	39700	28900	35300	23800	e32000	e13500	16600	11800	17900
30	11400	15400	16300	35000	---	31000	18900	e30400	e9040	16300	13800	11100
31	8660	---	14300	37600	---	30700	---	e29200	---	e17000	13700	---
TOTAL	444330	680130	490720	1079800	824500	1112500	900500	852800	668240	417700	641100	357670
MEAN	14330	22670	15830	34830	28430	35890	30020	27510	22270	13470	20680	11920
MAX	39700	68200	28600	52000	40600	65500	50000	48600	30800	23700	37300	18500
MIN	6630	9330	9420	11700	11500	18200	11900	10700	9040	7590	11000	6140

e Estimated



## CUMBERLAND RIVER BASIN

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

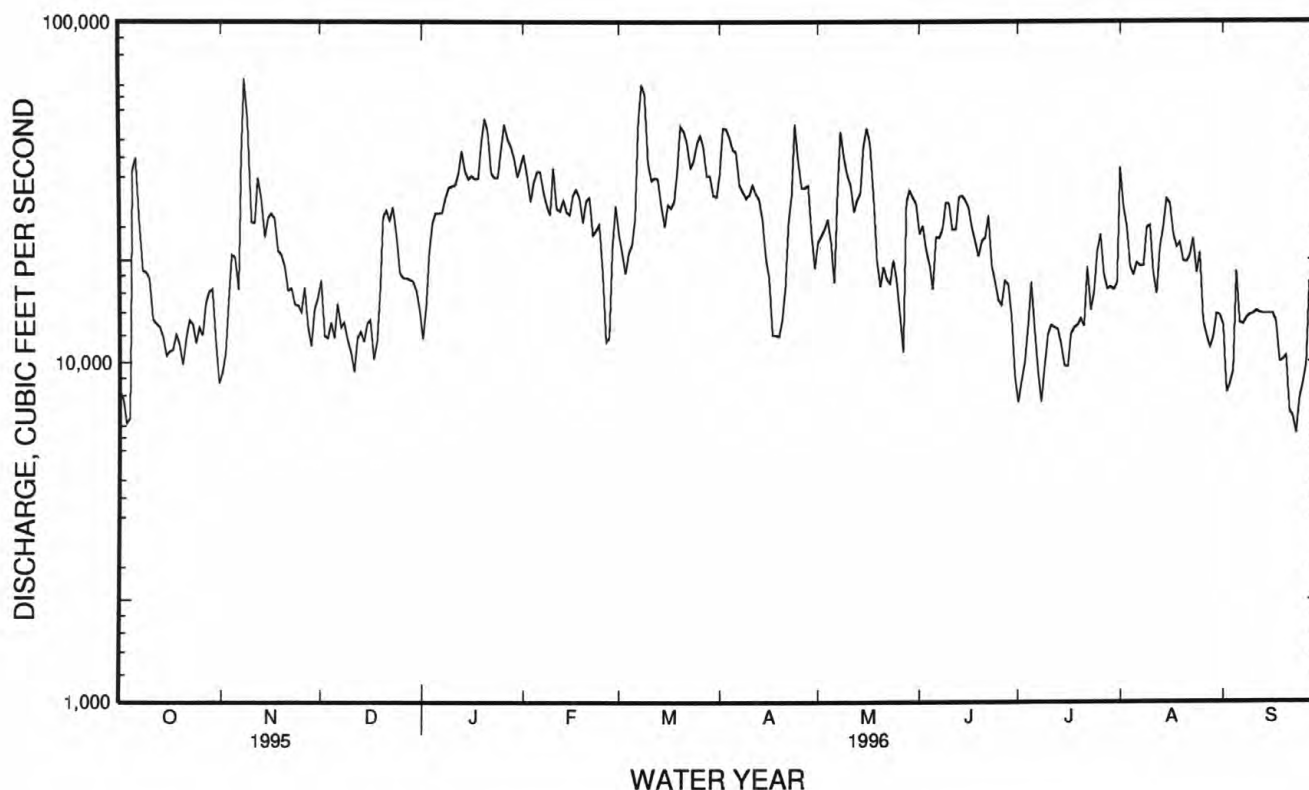
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	12330	15220	23380	35020	35070	44460	42270	22790	15380	14410	15220	11900
MAX	18380	22670	32340	43570	71760	82050	92860	32800	22270	20320	20680	18820
(WY)	1993	1996	1994	1994	1994	1994	1994	1995	1996	1992	1996	1992
MIN	7649	8167	15830	22930	19200	29360	10680	7195	10210	11490	10490	8176
(WY)	1994	1994	1996	1995	1993	1995	1995	1992	1993	1993	1993	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      \*WATER YEARS 1992 - 1996

ANNUAL TOTAL	6669200	8469990										
ANNUAL MEAN	18270	23140										
HIGHEST ANNUAL MEAN												1994
LOWEST ANNUAL MEAN												1995
HIGHEST DAILY MEAN	86700	Mar 9	68200	Nov 8	119000	Mar 28	1994					
LOWEST DAILY MEAN	4470	Jan 4	6140	Sep 23	4290	Oct 10	1993					
ANNUAL SEVEN-DAY MINIMUM	7040	Apr 3	8100	Sep 20	5410	Oct 6	1993					
INSTANTANEOUS PEAK FLOW			71500	Nov 8	125000	Mar 29	1994					
INSTANTANEOUS PEAK STAGE			28.77	Nov 8	38.05	Mar 29	1994					
10 PERCENT EXCEEDS	36600		38400		45400							
50 PERCENT EXCEEDS	13700		20800		16300							
90 PERCENT EXCEEDS	8020		11000		7810							

\* 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 mi<sup>2</sup>.

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

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

REMARKS.--No estimated daily discharges. Records good. Peak discharge of 12,200 ft<sup>3</sup>/s, Feb. 23, 1975, gage height 17.06 ft, occurred at Tucker Road near Bordeaux site. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0915	*6,670	*17.23	May 28	0330	4,650	14.47
Nov. 7	0830	4,360	14.01	Sept. 27	0830	3,710	13.01
Apr. 23	0315	3,370	12.48	Sept. 27	1845	3,670	12.96

Minimum discharge, 1.6 ft<sup>3</sup>/s, Aug. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	16	13	31	42	73	177	89	36	4.7	49	2.8
2	4.2	51	12	226	36	47	135	69	56	4.8	24	5.2
3	20	56	14	193	38	30	105	55	71	5.1	15	40
4	19	38	15	114	42	21	87	45	91	4.4	10	19
5	1310	29	14	77	41	29	71	38	71	3.9	7.2	8.7
6	105	83	13	81	35	232	59	61	64	3.5	6.2	5.8
7	50	1330	14	69	21	495	51	215	45	3.2	5.1	7.4
8	31	248	12	59	25	164	46	140	78	4.4	4.8	35
9	22	136	12	53	23	114	40	90	81	4.8	4.9	10
10	17	87	11	53	21	111	34	61	85	3.6	4.1	6.6
11	14	332	11	140	19	87	31	57	77	3.0	3.7	4.5
12	11	171	10	235	16	72	27	44	70	2.7	4.3	3.7
13	11	105	9.9	143	15	60	29	36	55	2.5	4.8	3.5
14	11	73	9.3	97	14	51	27	29	44	2.5	4.1	3.7
15	9.8	54	8.9	70	14	53	26	730	35	38	3.4	3.5
16	8.4	42	14	54	14	59	23	192	27	7.6	3.2	130
17	6.6	32	38	45	13	63	21	116	23	4.6	2.9	40
18	5.8	27	171	204	12	57	19	74	19	3.6	2.6	18
19	5.3	23	169	245	327	450	19	53	17	2.9	2.7	11
20	9.4	21	109	139	356	312	142	39	32	6.6	2.7	7.6
21	8.4	18	75	96	194	245	91	31	17	71	2.8	38
22	6.2	16	55	72	128	250	114	25	12	138	2.5	27
23	5.5	31	42	63	89	227	1250	21	10	24	2.5	15
24	6.6	27	34	344	63	176	260	17	8.4	13	2.3	10
25	5.9	23	28	163	48	395	157	13	8.0	7.9	2.6	7.4
26	5.6	20	23	132	41	212	162	15	6.9	6.2	3.6	6.1
27	226	19	21	121	255	149	111	68	6.1	5.4	4.6	1090
28	67	19	17	91	393	127	83	833	5.5	5.9	3.0	765
29	34	15	15	77	128	101	97	125	4.9	11	2.7	163
30	23	14	13	63	---	82	125	72	4.3	23	2.3	89
31	18	---	26	51	---	133	---	48	---	91	2.4	---
TOTAL	2081.0	3156	1029.1	3601	2463	4677	3619	3501	1160.1	512.8	196.0	2576.5
MEAN	67.1	105	33.2	116	84.9	151	121	113	38.7	16.5	6.32	85.9
MAX	1310	1330	171	344	393	495	1250	833	91	138	49	1090
MIN	4.2	14	8.9	31	12	21	19	13	4.3	2.5	2.3	2.8
CFSM	1.31	2.05	.65	2.26	1.66	2.94	2.35	2.20	.75	.32	.12	1.67
IN.	1.51	2.29	.75	2.61	1.79	3.39	2.62	2.54	.84	.37	.14	1.87

## CUMBERLAND RIVER BASIN

03431599 WHITES CREEK NEAR BORDEAUX, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	13.9	56.4	107	133	157	192	130	94.0	30.9	14.2	19.1	20.8
MAX	67.1	138	286	288	369	530	286	277	154	48.3	87.2	122
(WY)	1996	1973	1973	1974	1975	1975	1994	1995	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

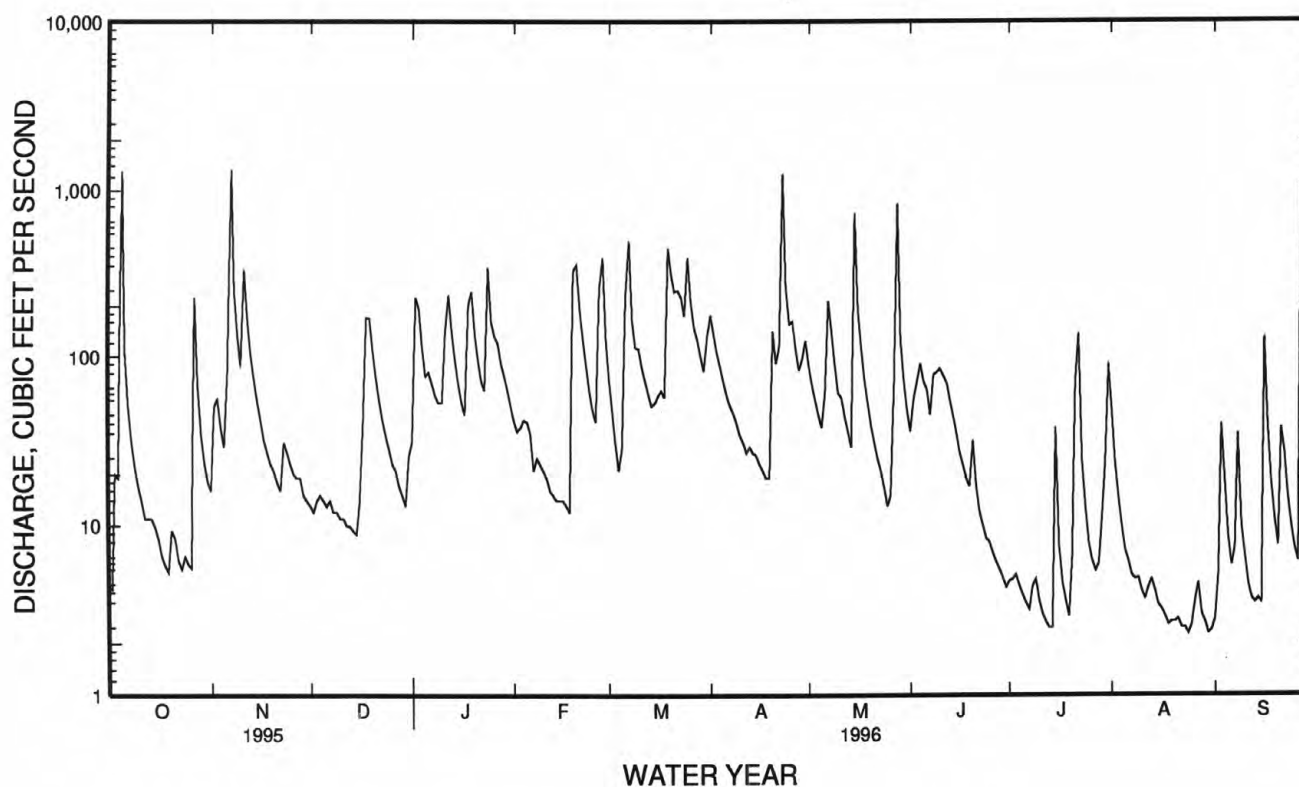
## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1965 - 1996

ANNUAL TOTAL	31666.9	28572.5	
ANNUAL MEAN	86.8	78.1	76.4
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			35.2
HIGHEST DAILY MEAN	1930	May 14	5100
LOWEST DAILY MEAN	2.6	Jul 20	.30
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 28	.42
INSTANTANEOUS PEAK FLOW			a12200
INSTANTANEOUS PEAK STAGE			b18.27
INSTANTANEOUS LOW FLOW			c.20
ANNUAL RUNOFF (CFSM)	1.69	1.52	1.49
ANNUAL RUNOFF (INCHES)	22.96	20.72	20.25
10 PERCENT EXCEEDS	171	171	178
50 PERCENT EXCEEDS	22	31	22
90 PERCENT EXCEEDS	4.2	4.3	2.6

a From rating curve extended above 6,900 ft<sup>3</sup>/s on basis of contracted opening measurement of peak flow.

b See REMARKS.

c Also occurred Sept. 15, 1968.



## 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 on downstream end of pier of Charlotte Avenue bridge on U.S. Highway 70, 4.0 mi southwest of the State Capitol in Nashville, and at mile 3.7.

DRAINAGE AREA.--24.3 mi<sup>2</sup>.

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

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

REMARKS.--Records good. 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 YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	Unknown	*4,330	*10.53	No other peaks greater than base discharge.			

Minimum daily discharge, 1.9 ft<sup>3</sup>/s, July 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	12	8.7	21	22	31	48	32	8.4	4.1	46	4.0
2	4.1	45	8.3	84	20	27	40	26	15	4.0	26	41
3	26	37	15	62	18	23	36	22	11	3.5	17	154
4	15	25	12	44	15	21	32	18	9.9	2.6	13	37
5	631	18	10	36	15	37	28	16	8.0	2.7	10	21
6	74	31	11	38	15	116	25	186	7.0	2.2	8.5	16
7	39	293	11	34	19	164	22	137	6.2	2.5	7.4	14
8	25	86	11	29	21	85	21	84	19	8.1	6.7	14
9	19	53	11	28	19	64	18	57	19	4.9	5.9	9.5
10	14	39	10	27	17	50	17	41	21	2.7	4.9	8.1
11	11	137	9.4	51	17	42	15	39	12	2.8	4.4	6.6
12	9.4	63	9.7	69	15	36	14	30	110	2.3	4.6	5.5
13	8.1	45	8.9	50	14	32	15	24	30	2.2	4.3	5.0
14	8.2	35	8.7	40	14	28	13	20	20	3.4	3.6	4.3
15	7.2	31	9.4	34	13	31	13	167	21	15	3.1	4.1
16	6.2	25	15	31	13	30	12	56	13	4.7	2.5	e45
17	5.6	18	33	30	12	25	11	38	11	3.6	2.7	e24
18	4.7	16	67	92	12	25	10	29	43	2.1	7.4	e12
19	4.6	14	69	77	64	138	12	23	26	1.9	3.8	6.7
20	14	13	45	52	93	97	78	19	20	16	3.1	6.0
21	6.3	11	36	42	59	84	33	16	12	78	14	35
22	5.4	10	29	35	46	77	46	13	9.6	136	7.5	28
23	4.5	20	24	36	39	64	209	11	33	28	3.5	e19
24	6.4	14	20	90	33	54	73	9.9	35	e19	3.2	e13
25	4.6	12	18	48	28	173	53	8.2	16	e13	5.9	e8.6
26	4.3	11	16	47	25	82	56	8.7	11	e8.8	31	e6.2
27	117	12	15	44	38	63	36	45	9.2	e6.0	9.8	e208
28	40	11	13	37	55	57	30	38	7.5	e15	6.8	85
29	23	9.8	12	33	36	46	50	18	5.5	35	4.4	44
30	16	9.0	11	29	---	38	45	13	4.9	62	3.4	29
31	13	---	25	25	---	53	---	10	---	94	8.2	---
TOTAL	1170.3	1155.8	602.1	1395	807	1893	1111	1254.8	574.2	586.1	282.6	913.6
MEAN	37.8	38.5	19.4	45.0	27.8	61.1	37.0	40.5	19.1	18.9	9.12	30.5
MAX	631	293	69	92	93	173	209	186	110	136	46	208
MIN	3.7	9.0	8.3	21	12	21	10	8.2	4.9	1.9	2.5	4.0
CFSM	1.55	1.59	.80	1.85	1.15	2.51	1.52	1.67	.79	.78	.38	1.25
IN.	1.79	1.77	.92	2.14	1.24	2.90	1.70	1.92	.88	.90	.43	1.40

e Estimated



## CUMBERLAND RIVER BASIN

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

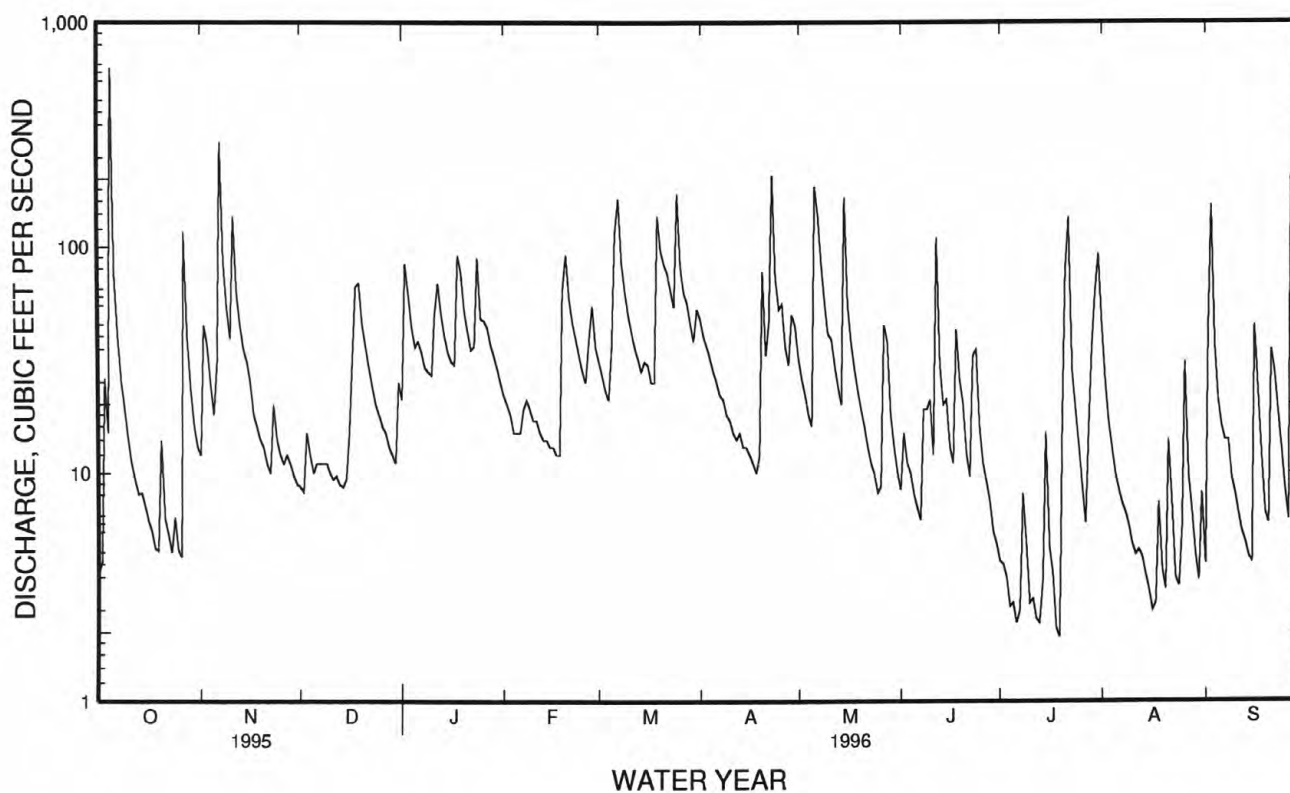
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	11.8	33.9	56.6	52.3	56.9	63.8	45.8	37.8	18.2	11.3	8.06	12.9
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1964 - 1996

ANNUAL TOTAL	11218.3	11745.5	34.1	
ANNUAL MEAN	30.7	32.1	71.3	1979
HIGHEST ANNUAL MEAN			13.6	1966
LOWEST ANNUAL MEAN			7020	Nov 2 1990
HIGHEST DAILY MEAN	631	Oct 5	.05	Oct 8 1980
LOWEST DAILY MEAN	1.3	Jul 21	.23	Oct 8 1965
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 5	9470	Sep 13 1979
INSTANTANEOUS PEAK FLOW			15.13	Sep 13 1979
INSTANTANEOUS PEAK STAGE		4330	.05	Oct 7 1980
INSTANTANEOUS LOW FLOW		1.4	1.40	
ANNUAL RUNOFF (CFSM)	1.26	1.32	19.05	
ANNUAL RUNOFF (INCHES)	17.17	17.98	76	
10 PERCENT EXCEEDS	66	68	11	
50 PERCENT EXCEEDS	13	19	1.5	
90 PERCENT EXCEEDS	3.6	4.6		

a From crest-stage gage.



## 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 mi<sup>2</sup>, includes 15 mi<sup>2</sup> without surface drainage.

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

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

REMARKS.--Records good except those below 5.0 ft<sup>3</sup>/s, which are poor. The Franklin Utility District diverts part of its municipal water supply from the river above the gage. This water along with other water is returned to the river through the sewage treatment plant 2.7 mi below gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 6	0030	*7,160	*22.65	Apr. 23	1230	4,240	17.54
Nov. 7	1800	3,410	15.52	July 22	1130	3,220	15.05

Minimum discharge, 0.30 ft<sup>3</sup>/s, Aug. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	123	92	292	251	304	648	394	28	9.3	1370	3.4
2	9.2	1610	83	939	224	263	481	305	31	6.8	439	15
3	28	1100	74	741	187	227	408	250	38	6.0	258	224
4	115	520	79	471	168	205	353	217	33	5.0	195	170
5	3830	347	94	360	157	214	303	188	29	4.7	160	60
6	3340	262	82	320	159	354	273	445	30	4.3	135	53
7	678	1810	78	347	155	1670	248	1090	39	4.1	103	33
8	394	1550	73	309	451	961	225	835	138	12	63	23
9	288	726	89	282	621	593	195	452	e170	10	70	19
10	227	484	116	283	413	428	167	329	e250	6.0	58	21
11	185	892	106	326	342	360	153	268	138	12	34	17
12	146	777	95	1200	272	313	149	225	95	6.1	33	11
13	107	506	86	726	230	275	140	182	66	5.0	99	3.4
14	95	395	89	485	221	248	122	145	51	13	68	3.9
15	88	323	89	365	200	249	106	521	39	14	41	9.9
16	86	270	283	287	175	276	106	390	32	9.0	20	19
17	73	229	302	255	150	318	95	270	24	4.4	17	13
18	59	203	680	333	143	255	78	213	15	2.6	31	6.1
19	49	175	1310	1230	444	1760	70	163	17	6.3	31	8.2
20	46	161	804	615	767	1530	510	128	23	3.5	20	12
21	53	139	522	444	477	934	508	106	22	9.4	6.4	35
22	53	121	381	368	380	762	327	101	22	1540	5.7	48
23	47	125	306	328	327	586	2930	84	15	323	11	30
24	45	149	263	611	274	485	1260	65	8.7	140	10	15
25	40	132	232	470	244	1530	681	48	9.9	79	6.1	12
26	31	117	204	e590	225	1000	560	44	17	59	1.6	14
27	356	106	180	627	210	661	398	81	15	42	2.3	138
28	621	98	152	438	504	588	318	118	7.6	27	6.6	132
29	287	89	138	388	383	606	349	99	1.8	19	5.6	102
30	188	94	137	336	---	481	674	65	5.1	139	4.0	70
31	145	---	154	297	---	514	---	45	---	857	.72	---
TOTAL	11712.8	13633	7373	15063	8754	18950	12835	7866	1410.1	3378.5	3305.02	1320.9
MEAN	378	454	238	486	302	611	428	254	47.0	109	107	44.0
MAX	3830	1810	1310	1230	767	1760	2930	1090	250	1540	1370	224
MIN	3.6	89	73	255	143	205	70	44	1.8	2.6	.72	3.4
CFSM	1.98	2.38	1.25	2.54	1.58	3.20	2.24	1.33	.25	.57	.56	.23
IN.	2.28	2.66	1.44	2.93	1.70	3.69	2.50	1.53	.27	.66	.64	.26

e Estimated

## CUMBERLAND RIVER BASIN

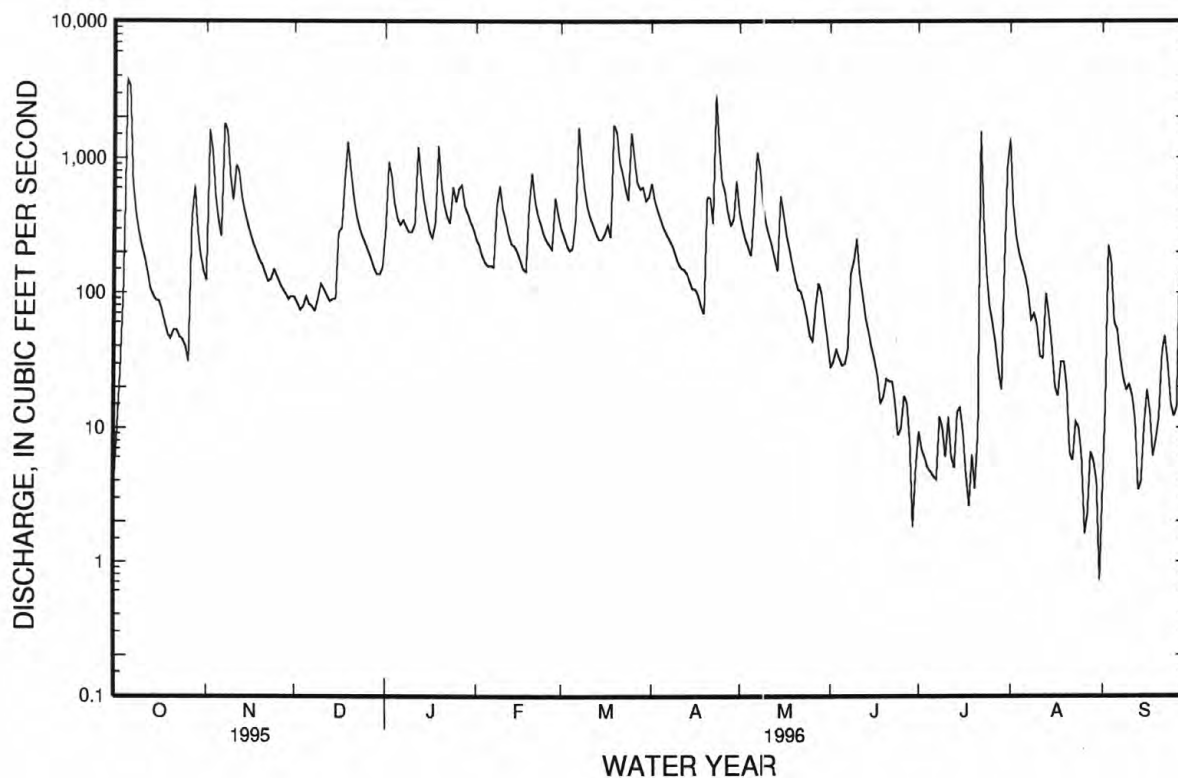
03432350 HARPETH RIVER AT FRANKLIN, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	107	292	487	510	534	656	371	329	95.0	63.1	34.8	78.8
MAX	610	778	1172	1472	1358	1945	1066	1489	530	431	141	971
(WY)	1976	1980	1991	1979	1990	1975	1979	1984	1989	1989	1995	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 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1975 - 1996		
ANNUAL TOTAL	103677.2			105601.32					
ANNUAL MEAN	284			289			296		
HIGHEST ANNUAL MEAN							522		
LOWEST ANNUAL MEAN							68.7		
HIGHEST DAILY MEAN	7390	Mar	8	3830	Oct	5	18500	Mar	13 1975
LOWEST DAILY MEAN	1.6	Sep	4	.72	Aug	31	.30	Oct	14 1980
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep	4	3.5	Aug	26	.32	Oct	20 1980
INSTANTANEOUS PEAK FLOW				7160	Oct	6	20200	Mar	13 1975
INSTANTANEOUS PEAK STAGE				22.65	Oct	6	33.65	Mar	13 1975
INSTANTANEOUS LOW FLOW				.30	Aug	31	a.30	Oct	14 1980
ANNUAL RUNOFF (CFSM)	1.49			1.51			1.55		
ANNUAL RUNOFF (INCHES)	20.19			20.57			21.03		
10 PERCENT EXCEEDS	679			665			648		
50 PERCENT EXCEEDS	115			153			94		
90 PERCENT EXCEEDS	14			9.7			3.0		

a Also occurred Aug. 31, 1996.



## 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 mi<sup>2</sup>, includes 15 mi<sup>2</sup> without surface drainage.

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

GAGE.--Data collection platform.

REMARKS.--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 gage height, 28.97 ft, Feb. 4, 1990; minimum discharge, 3.0 ft<sup>3</sup>/s, Aug. 19, 1988; minimum daily, 4.1 ft<sup>3</sup>/s, Aug. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 21.53 ft, Oct. 6; minimum discharge, 3.4 ft<sup>3</sup>/s, Oct. 1; minimum daily, 5.3 ft<sup>3</sup>/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	171	107	311	278	330	---	457	62	15	---	16
2	16	---	98	---	250	284	---	340	63	13	---	53
3	58	---	91	---	216	247	431	277	70	11	283	---
4	143	---	96	---	197	220	364	240	65	11	217	183
5	---	421	109	408	186	236	321	211	59	9.9	183	87
6	---	339	100	360	187	---	289	---	55	9.7	159	72
7	---	---	100	385	184	---	259	---	44	9.5	132	55
8	473	---	92	338	---	---	234	---	151	32	100	42
9	361	---	107	307	---	---	207	---	204	21	101	36
10	288	---	128	308	453	496	179	359	283	14	85	37
11	240	---	115	---	367	400	166	297	155	17	61	32
12	193	---	105	---	293	339	161	255	146	16	56	27
13	151	---	95	---	247	294	156	214	108	13	103	18
14	137	473	94	---	233	264	145	184	86	25	81	17
15	124	384	97	444	215	288	132	---	69	37	58	21
16	117	318	288	356	194	297	129	---	59	22	38	39
17	100	265	394	319	173	337	119	283	50	15	34	29
18	84	234	---	---	163	276	106	223	38	13	49	20
19	70	208	---	---	---	---	97	182	38	15	51	19
20	72	187	---	---	---	---	---	154	41	13	38	24
21	75	165	---	---	---	---	---	137	38	16	25	70
22	74	145	433	413	438	---	342	131	35	---	21	58
23	67	152	342	357	363	---	---	115	29	292	27	44
24	69	176	290	---	307	---	---	98	22	141	26	28
25	61	156	255	---	267	---	---	80	20	91	24	24
26	51	140	223	---	243	---	---	73	27	75	15	23
27	---	126	197	---	234	---	473	116	25	60	16	171
28	---	120	167	502	---	---	365	147	19	47	22	156
29	361	109	153	431	434	---	---	128	11	47	21	121
30	247	114	151	372	---	511	---	97	10	---	20	90
31	195	---	172	329	---	---	---	79	---	---	12	---
TOTAL	---	---	---	---	---	---	---	---	2082	---	---	---
MEAN	---	---	---	---	---	---	---	---	69.4	---	---	---
MAX	---	---	---	---	---	---	---	---	283	---	---	---
MIN	---	---	---	---	---	---	---	---	10	---	---	---



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## 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 mi<sup>2</sup>, includes 15 mi<sup>2</sup> without surface drainage.

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

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

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

REMARKS.--Records good. 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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1630	*8,890	*13.61	No other peaks greater than base discharge.			

Minimum discharge, 30 ft<sup>3</sup>/s, July 6, 7, Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	333	224	576	634	767	1340	934	154	41	2300	36
2	35	1830	212	1410	565	670	1090	727	141	45	978	49
3	58	2710	201	1740	470	577	935	595	151	41	524	251
4	141	1250	208	1150	e440	511	821	510	156	36	384	610
5	4850	890	209	911	e420	534	728	453	134	34	312	234
6	6170	703	213	794	e400	1040	649	903	130	32	264	213
7	1490	3310	214	773	378	2990	584	1920	121	33	239	153
8	881	3910	207	694	673	2300	530	1890	304	143	210	128
9	647	1710	211	628	1060	1440	486	1120	438	103	219	123
10	507	1160	230	606	870	1100	421	828	555	73	195	97
11	415	1930	229	657	736	914	379	683	366	54	157	87
12	340	1930	218	1820	617	794	361	588	470	49	132	76
13	280	1250	208	1520	527	694	341	490	370	48	132	66
14	235	987	200	1110	487	619	332	424	264	43	167	53
15	218	823	199	907	458	675	297	1310	239	72	131	48
16	199	691	238	757	409	711	283	1180	198	89	106	73
17	188	586	722	677	369	731	263	753	163	61	83	105
18	175	511	1340	756	336	705	249	576	155	45	84	80
19	153	457	2180	2240	661	2620	235	471	136	39	103	60
20	148	403	1740	1440	2140	3580	1190	390	132	70	102	54
21	146	363	1180	1070	1390	2160	1590	338	117	60	77	87
22	145	313	924	894	1060	1980	944	303	106	1420	61	176
23	135	309	758	781	891	1610	4660	272	95	769	53	142
24	129	351	636	1230	748	1280	3250	244	100	273	58	103
25	129	324	557	1180	642	3460	1640	213	76	179	54	78
26	119	290	494	990	578	2810	1290	187	66	135	61	67
27	649	263	439	1320	542	1670	1030	210	67	115	51	330
28	1310	251	374	1090	984	1360	819	299	63	97	43	513
29	759	237	322	940	964	1290	728	260	56	96	46	356
30	517	228	302	829	---	1090	1170	209	46	872	45	266
31	399	---	327	736	---	1020	---	177	---	972	42	---
TOTAL	21606	30303	15716	32226	20449	43702	28635	19457	5569	6139	7413	4714
MEAN	697	1010	507	1040	705	1410	954	628	186	198	239	157
MAX	6170	3910	2180	2240	2140	3580	4660	1920	555	1420	2300	610
MIN	35	228	199	576	336	511	235	177	46	32	42	36
CFSM	1.71	2.48	1.24	2.55	1.73	3.46	2.34	1.54	.45	.49	.59	.39
IN.	1.97	2.76	1.43	2.94	1.86	3.98	2.61	1.77	.51	.56	.68	.43

e Estimated

## CUMBERLAND RIVER BASIN

03433500 HARPETH RIVER AT BELLEVUE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1996, BY WATER YEAR (WY)

MEAN	115	372	832	1159	1288	1332	884	572	257	143	111	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

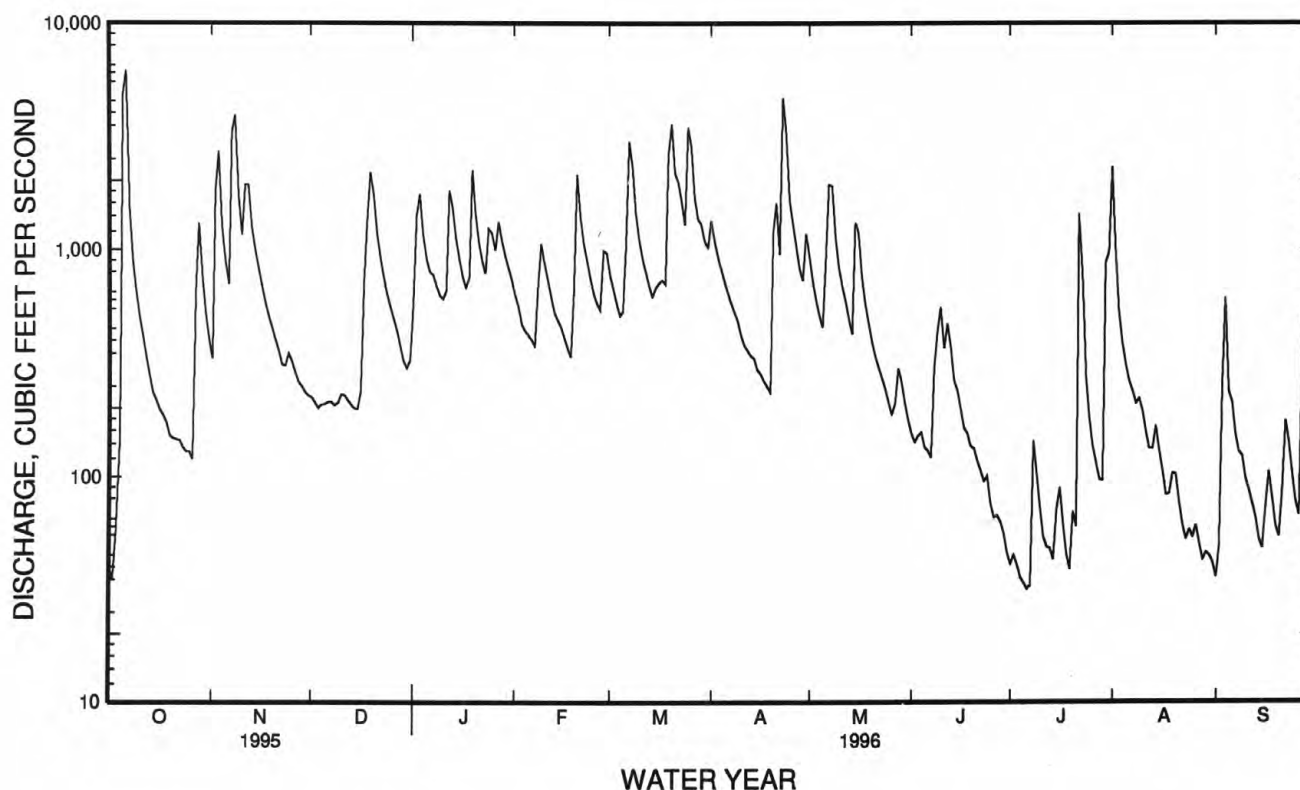
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1920 - 1996

ANNUAL TOTAL	227470			235929								
ANNUAL MEAN	623			645						595		
HIGHEST ANNUAL MEAN										1157		1973
LOWEST ANNUAL MEAN										137		1941
HIGHEST DAILY MEAN	10300	Mar 8		6170	Oct 6					32400	Mar 13	1975
LOWEST DAILY MEAN	19	Sep 11		32	Jul 6					.00	Oct 5	1922
ANNUAL SEVEN-DAY MINIMUM	21	Sep 6		37	Jul 1					.07	Oct 4	1922
INSTANTANEOUS PEAK FLOW				8890	Oct 5					40000	Feb 13	1948
INSTANTANEOUS PEAK STAGE				13.61	Oct 5					a24.34	Feb 13	1948
INSTANTANEOUS LOW FLOW				b30	Jul 6					c.00	Oct 5	1922
ANNUAL RUNOFF (CFSM)	1.53			1.58						1.46		
ANNUAL RUNOFF (INCHES)	20.74			21.51						19.82		
10 PERCENT EXCEEDS	1470			1430						1390		
50 PERCENT EXCEEDS	286			387						186		
90 PERCENT EXCEEDS	60			62						17		

a From floodmarks

b Also occurred July 7, Sept. 2.

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 mi<sup>2</sup>, includes 15 mi<sup>2</sup> 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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 24	0030	*8,430	*11.83				

Minimum discharge, 104 ft<sup>3</sup>/s, July 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	476	331	594	1030	1390	2000	1510	318	135	2620	114
2	117	546	321	1390	903	1190	1830	1180	e298	127	1760	125
3	120	3680	314	2830	761	1030	1570	986	e315	123	925	506
4	179	1800	325	1810	643	882	1390	848	e330	119	641	987
5	2330	1190	322	1370	1270	901	1240	745	e300	114	492	547
6	7540	931	313	1150	1090	2080	1100	1570	e285	108	413	376
7	2730	3620	321	1050	644	4420	998	3540	264	107	359	312
8	1280	5670	321	954	828	4250	907	3550	313	488	422	254
9	911	2760	316	855	1330	2590	832	2160	666	352	550	219
10	718	1770	304	823	1330	1930	741	1510	728	233	379	203
11	573	2710	312	865	1100	1570	665	1240	685	185	312	176
12	479	3170	321	2090	943	1360	618	1060	778	160	266	164
13	413	2010	318	2530	805	1200	599	896	824	146	237	151
14	362	1550	305	1730	739	1060	574	777	540	142	230	140
15	313	1230	295	1380	694	1080	536	2530	459	211	245	127
16	290	1020	329	1130	632	1290	487	2670	384	226	209	284
17	271	859	649	975	573	1250	460	1580	322	194	185	312
18	250	739	1770	935	529	1160	434	1170	286	158	161	226
19	232	648	2830	2660	1170	2820	433	940	275	136	157	184
20	221	571	2700	2430	4040	5660	1570	778	311	126	173	155
21	224	512	1720	1720	2950	3700	2890	653	266	166	169	218
22	212	457	1300	1410	2080	3490	1780	561	232	296	147	307
23	206	455	1040	1220	1650	2950	6120	502	213	1830	131	301
24	203	491	853	2210	1360	2340	6020	451	211	502	130	242
25	198	473	725	2200	1130	4250	2900	407	208	304	127	200
26	194	433	625	1710	1010	5160	2210	366	180	229	126	173
27	702	404	544	1950	997	3000	1800	377	164	192	193	2590
28	1690	393	477	1820	1700	2350	1420	605	161	176	154	2740
29	1190	361	414	1520	1760	2100	1220	512	156	163	123	1250
30	772	334	378	1340	---	1830	1460	418	147	866	117	784
31	578	---	406	1180	---	1640	---	352	---	2230	115	---
TOTAL	25622	41263	21499	47831	35691	71923	46804	36444	10619	10544	12268	14367
MEAN	827	1375	694	1543	1231	2320	1560	1176	354	340	396	479
MAX	7540	5670	2830	4040	4040	5660	6120	3550	824	2230	2620	2740
MIN	117	334	295	594	529	882	433	352	147	107	115	114
CFSM	1.21	2.02	1.02	2.27	1.81	3.41	2.29	1.73	.52	.50	.58	.70
IN.	1.40	2.25	1.17	2.61	1.95	3.93	2.56	1.99	.58	.58	.67	.78

e Estimated



CUMBERLAND RIVER BASIN  
03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

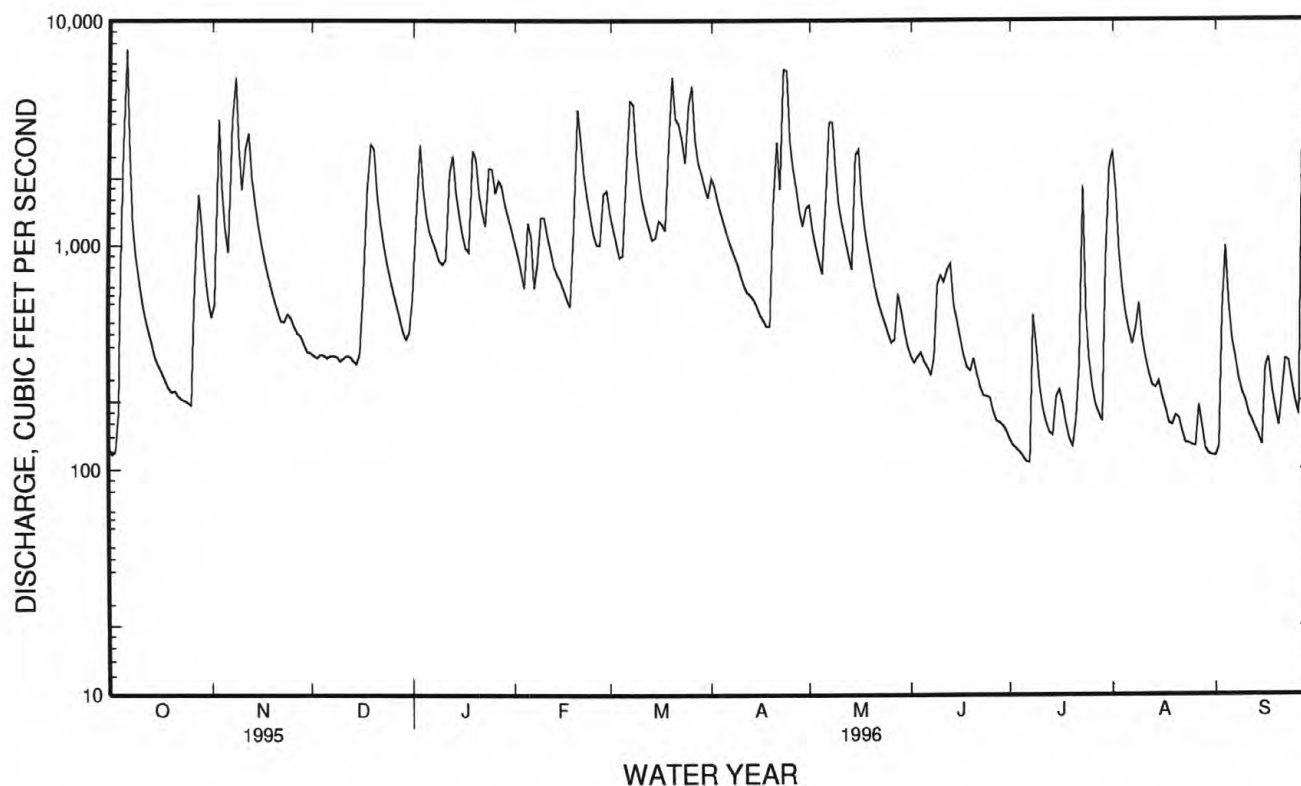
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

MEAN	229	623	1298	1865	2068	2149	1494	1026	474	266	208	217
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1925 - 1996

ANNUAL TOTAL	340422			374875								
ANNUAL MEAN	933			1024						989		
HIGHEST ANNUAL MEAN										2000		1973
LOWEST ANNUAL MEAN										249		1941
HIGHEST DAILY MEAN	13700	Mar 8		7540	Oct 6					43100	Feb 14	1948
LOWEST DAILY MEAN	73	Sep 9		107	Jul 7					16	Sep 28	1939
ANNUAL SEVEN-DAY MINIMUM	77	Sep 6		119	Jul 1					18	Sep 22	1939
INSTANTANEOUS PEAK FLOW				8430	Apr 24					60000	Jan 7	1946
INSTANTANEOUS PEAK STAGE				11.83	Apr 24					a32.20	Jan 7	1946
INSTANTANEOUS LOW FLOW				104	Jul 7					12	Sep 18	1939
10 PERCENT EXCEEDS	2170			2530						2240		
50 PERCENT EXCEEDS	467			636						344		
90 PERCENT EXCEEDS	141			162						70		

a From high-water mark in gage house.



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 mi<sup>2</sup>.

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, 298 microsiemens, May 4, 1995; 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, 28.4°C, Aug. 2, 3, 1995; minimum, 2.3°C, Feb. 6, 1996.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Feb. 18, 1996; minimum, 3.7 mg/L, June 29, 1994.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 282 microsiemens, Feb. 29; minimum, 204 microsiemens, Oct. 6, 7.

pH: Maximum, 8.3 units, April 13, 14, May 23, 25; minimum, 6.9 units, Feb. 25.

WATER TEMPERATURE: Maximum, 27.1°C, July 19; minimum, 2.3°C, Feb. 6.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L, Feb. 18; minimum, 4.9 mg/L, July 25.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	219	214	217	218	207	215	252	243	249	263	255	259
2	222	218	219	224	216	219	252	248	249	259	250	255
3	218	217	217	239	220	225	252	244	248	258	246	252
4	221	213	217	239	232	236	248	244	247	266	258	261
5	221	209	215	238	232	235	252	248	248	262	250	256
6	228	204	215	237	232	234	252	240	243	254	246	251
7	212	204	207	234	216	227	252	240	247	254	246	251
8	231	212	226	227	214	221	249	241	246	250	242	247
9	231	227	229	238	223	229	249	241	247	254	239	247
10	234	231	233	248	238	243	245	245	245	262	246	252
11	233	230	232	255	248	249	249	241	244	258	245	251
12	233	230	231	255	245	250	254	245	247	261	245	250
13	236	229	231	250	245	247	248	242	246	265	249	256
14	232	221	226	261	249	257	248	237	244	253	245	249
15	232	228	230	264	260	261	245	237	240	253	241	249
16	231	224	227	263	254	258	238	227	231	251	243	249
17	228	224	226	254	245	249	234	222	227	255	247	251
18	230	219	225	248	244	245	247	222	233	254	246	250
19	227	223	225	248	239	246	256	238	247	254	246	252
20	229	223	226	250	245	248	268	244	254	254	242	247
21	229	222	224	249	245	246	268	241	257	242	237	240
22	229	222	225	254	248	251	252	237	246	241	237	240
23	228	225	226	258	250	255	248	237	245	245	237	242
24	228	225	225	258	254	255	251	241	248	245	241	245
25	228	216	221	259	246	253	251	243	248	245	240	244
26	224	216	220	255	243	249	259	247	253	244	240	243
27	220	211	214	259	243	250	259	251	256	240	236	239
28	223	215	218	255	251	253	267	259	262	240	239	240
29	223	215	217	255	239	246	271	263	266	239	239	239
30	223	218	220	251	243	247	271	259	266	239	239	239
31	218	206	212	---	---	---	263	259	261	243	239	240
MONTH	236	204	222	264	207	243	271	222	248	266	236	248

## CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	239	238	238	269	260	262	252	245	248	271	251	261
2	238	234	238	275	260	267	256	244	251	271	255	263
3	238	234	236	278	263	271	245	235	240	263	255	260
4	238	237	238	278	268	271	247	235	239	263	251	255
5	237	233	234	276	268	272	252	236	246	263	251	256
6	233	229	233	275	258	269	249	241	244	267	255	260
7	233	229	233	265	253	259	249	235	242	267	251	259
8	233	232	233	265	248	256	243	236	237	259	251	256
9	236	232	233	258	247	252	237	229	232	259	251	253
10	240	228	233	262	254	258	234	229	231	259	247	252
11	236	231	233	265	257	263	232	227	229	255	239	250
12	235	231	234	264	255	259	232	224	227	259	236	249
13	246	231	238	266	250	257	230	225	229	255	236	249
14	257	246	251	257	245	251	231	226	229	255	239	251
15	261	256	258	256	243	252	232	227	230	---	---	---
16	279	259	266	258	243	251	237	229	233	242	235	236
17	266	261	264	246	233	241	238	229	233	241	230	237
18	265	260	263	241	228	233	242	235	238	245	229	235
19	264	258	260	244	239	242	244	239	240	256	240	248
20	258	253	256	259	244	252	246	241	241	255	235	243
21	261	257	259	265	259	262	250	243	247	255	242	249
22	260	258	259	272	265	267	248	243	246	250	238	242
23	262	258	261	268	267	268	245	240	243	253	237	243
24	265	260	262	271	266	268	257	240	248	248	233	242
25	264	262	263	266	259	262	247	238	241	248	236	241
26	266	262	264	259	258	258	255	243	248	247	235	242
27	268	264	265	258	253	253	259	251	256	247	234	241
28	268	262	266	253	248	249	259	251	256	242	227	235
29	282	262	267	248	243	244	259	243	252	238	229	234
30	---	---	---	243	238	241	263	243	257	249	236	242
31	---	---	---	246	238	242	---	---	---	248	236	243
MONTH	282	228	250	278	228	257	263	224	241	271	227	248

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	251	235	242	229	221	226	251	234	241	227	214	220
2	243	231	239	233	221	227	243	231	235	222	214	218
3	246	234	238	252	221	232	245	231	240	222	216	218
4	261	238	249	229	217	225	241	234	239	216	214	214
5	269	245	255	234	225	228	248	229	241	219	212	215
6	260	240	246	230	218	226	247	235	242	224	219	222
7	244	235	240	226	218	222	254	238	245	236	218	225
8	243	231	237	222	214	219	250	238	244	230	212	220
9	238	230	235	230	214	220	249	237	242	230	216	223
10	238	229	234	230	218	226	249	236	243	232	212	220
11	245	229	237	231	222	226	240	229	235	216	209	212
12	245	236	241	231	223	227	239	228	233	212	209	211
13	240	231	236	231	219	224	239	220	232	214	211	212
14	239	231	236	227	215	221	236	220	229	214	211	212
15	236	226	231	223	215	219	231	215	225	216	212	214
16	236	226	232	227	215	222	231	211	220	219	212	214
17	252	232	240	228	216	221	227	207	219	222	213	217
18	266	246	257	228	220	223	226	210	218	219	212	215
19	267	257	261	228	216	224	226	210	218	219	213	216
20	261	240	251	228	216	221	222	214	217	225	214	217
21	249	233	244	224	216	222	229	214	220	224	219	221
22	259	240	252	228	216	221	236	217	225	230	223	226
23	240	220	228	237	216	224	229	213	223	233	227	230
24	253	234	242	233	225	229	225	213	219	228	222	225
25	255	224	240	256	233	243	228	216	221	231	219	225
26	229	219	224	252	237	242	232	216	222	232	223	228
27	232	220	227	241	225	233	224	216	221	236	226	229
28	236	220	227	241	221	230	224	216	220	239	210	218
29	229	220	225	242	229	235	227	215	221	241	212	219
30	229	221	224	242	230	238	227	219	224	256	236	246
31	---	---	---	269	230	241	227	215	222	---	---	---
MONTH	269	219	239	269	214	227	254	207	229	256	209	220

CUMBERLAND RIVER BASIN  
03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued  
PH (STANDARD UNITS), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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



## CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	21.8	21.4	21.6	16.3	15.7	15.8	9.9	9.7	9.7	5.7	5.3	5.5
2	21.8	21.4	21.5	16.5	15.7	16.1	9.9	9.5	9.6	6.3	5.7	5.8
3	21.8	21.6	21.7	16.1	15.5	15.8	9.9	9.7	9.8	6.3	6.1	6.2
4	21.8	21.4	21.6	15.8	15.8	15.8	10.1	9.7	9.9	6.5	6.3	6.4
5	21.8	21.2	21.5	15.8	14.4	15.2	10.7	9.9	10.1	6.3	6.1	6.1
6	21.2	20.4	20.7	14.4	13.8	14.0	10.0	9.7	9.9	6.1	5.7	5.9
7	21.0	20.2	20.6	13.8	13.2	13.6	10.0	9.6	9.7	5.7	4.7	5.3
8	20.4	19.0	20.1	13.4	12.8	13.2	9.6	9.2	9.4	4.7	4.3	4.5
9	20.4	19.4	20.1	13.0	12.6	12.8	9.4	8.4	8.9	4.5	4.1	4.4
10	20.2	19.8	20.0	12.8	12.3	12.4	8.4	7.8	8.0	4.5	4.3	4.4
11	20.4	19.8	20.1	12.3	11.8	12.1	8.0	7.4	7.7	4.7	4.3	4.5
12	20.6	19.6	20.3	11.8	11.6	11.6	7.6	7.4	7.5	4.7	4.5	4.6
13	20.4	19.6	20.3	11.6	11.2	11.4	7.4	7.4	7.4	5.1	4.7	4.9
14	20.4	19.9	20.2	11.2	10.8	10.9	7.8	7.4	7.7	5.5	5.1	5.3
15	19.9	19.7	19.8	10.8	10.6	10.6	8.4	7.6	8.0	5.9	5.5	5.6
16	20.1	19.3	19.6	10.8	10.2	10.4	8.4	8.0	8.2	6.3	5.7	6.0
17	19.5	18.5	19.1	10.4	10.0	10.1	8.6	8.2	8.5	7.1	6.3	6.6
18	19.5	18.7	19.2	10.4	10.0	10.2	9.0	8.6	8.9	7.6	6.9	7.3
19	19.3	18.3	18.9	10.6	10.2	10.4	9.4	9.0	9.2	7.2	6.9	7.1
20	19.1	18.5	18.8	10.8	10.4	10.5	9.2	9.0	9.1	6.9	6.5	6.6
21	18.7	17.0	17.9	10.6	10.4	10.4	9.2	8.4	8.7	6.7	6.1	6.4
22	18.5	17.7	18.3	10.4	10.2	10.2	8.4	7.8	8.0	6.5	6.1	6.2
23	18.5	17.7	18.2	10.4	10.0	10.2	7.8	7.3	7.5	7.0	6.5	6.6
24	18.5	17.7	18.1	10.4	9.6	10.0	7.3	6.7	7.0	7.0	6.6	6.8
25	17.9	17.0	17.6	10.0	9.6	9.7	6.7	6.3	6.5	6.8	6.6	6.6
26	17.7	17.3	17.6	9.8	9.6	9.8	6.3	6.1	6.1	6.6	6.4	6.4
27	17.5	17.2	17.3	11.1	9.8	10.1	6.1	5.7	6.0	6.6	6.2	6.4
28	17.2	16.2	16.6	9.9	9.7	9.8	5.7	5.5	5.6	6.4	6.2	6.2
29	16.2	16.0	16.1	9.9	9.5	9.6	5.7	5.3	5.5	6.2	6.0	6.0
30	16.0	15.4	15.8	9.9	9.3	9.6	5.5	5.3	5.3	6.2	5.8	5.9
31	16.0	15.4	15.6	---	---	---	5.5	5.3	5.4	5.8	5.4	5.5
MONTH	21.8	15.4	19.2	16.5	9.3	11.7	10.7	5.3	8.0	7.6	4.1	5.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.4	5.2	5.3	9.0	8.6	8.7	10.8	10.3	10.5	16.3	15.9	16.1
2	5.2	4.2	4.7	8.6	8.2	8.6	10.8	10.4	10.5	16.5	15.9	16.1
3	4.2	3.4	3.8	8.2	8.0	8.1	11.0	10.4	10.7	17.1	16.3	16.6
4	3.4	3.0	3.1	8.4	7.8	8.1	11.2	10.9	11.0	17.8	16.9	17.3
5	3.0	2.4	2.6	8.6	8.2	8.4	10.9	10.3	10.6	18.2	17.6	18.0
6	2.9	2.3	2.6	9.2	8.4	8.8	10.3	9.9	10.2	18.4	18.0	18.2
7	3.1	2.9	3.0	9.4	8.2	9.0	9.9	9.5	9.7	18.6	18.2	18.5
8	3.7	3.1	3.4	8.2	7.3	7.7	9.7	9.3	9.5	18.6	17.8	18.3
9	4.1	3.5	3.8	7.3	6.5	6.8	9.7	9.3	9.5	18.6	18.0	18.4
10	4.9	4.1	4.5	6.7	6.1	6.5	9.8	9.4	9.6	19.0	18.6	18.8
11	4.9	4.7	4.8	6.7	6.3	6.5	10.4	9.6	9.9	19.0	18.4	18.8
12	5.1	4.9	4.9	7.1	6.5	6.7	10.8	10.2	10.4	18.8	18.4	18.6
13	5.1	4.7	4.9	7.4	6.9	7.1	11.2	10.8	11.1	18.6	18.0	18.2
14	5.1	4.9	5.0	8.2	7.4	7.7	12.0	11.2	11.5	18.2	17.8	17.9
15	5.3	5.0	5.1	9.0	8.2	8.6	12.0	11.6	11.8	---	---	---
16	5.2	4.8	5.0	9.4	8.6	9.0	12.0	11.6	11.8	18.2	17.4	17.7
17	5.2	4.8	5.0	9.6	9.2	9.4	12.8	11.9	12.3	18.6	17.4	18.1
18	5.3	4.9	5.1	9.8	9.6	9.7	13.0	12.6	12.8	19.1	18.2	18.7
19	5.7	5.1	5.4	9.8	8.4	9.1	13.4	12.8	13.1	20.1	18.7	19.4
20	6.7	5.5	6.0	8.4	7.3	7.8	14.2	13.4	13.7	20.7	19.5	20.0
21	7.0	6.5	6.7	7.4	7.3	7.3	15.4	14.2	14.9	20.9	20.1	20.5
22	7.0	6.8	6.9	7.8	7.3	7.5	15.2	14.9	15.0	21.5	20.1	20.8
23	7.5	6.8	7.3	8.2	7.6	7.9	15.5	14.9	15.1	21.3	20.1	20.7
24	7.7	7.3	7.5	8.8	8.2	8.4	15.3	14.9	15.0	21.0	20.3	20.7
25	8.2	7.4	7.8	9.4	8.8	9.1	15.7	14.9	15.2	22.3	21.0	21.5
26	9.4	8.2	8.7	9.6	9.2	9.5	15.9	15.5	15.6	23.1	21.9	22.3
27	9.4	8.8	9.0	9.2	8.8	9.0	16.1	15.5	15.8	22.5	21.9	22.2
28	9.9	9.1	9.4	9.0	8.8	8.8	16.1	15.5	15.7	22.5	21.6	22.0
29	9.3	9.0	9.1	9.0	8.8	8.9	16.5	16.1	16.2	22.3	21.2	21.6
30	---	---	---	10.0	9.0	9.6	16.3	15.9	16.0	22.1	21.1	21.6
31	---	---	---	10.4	10.0	10.2	---	---	---	21.8	20.7	21.1
MONTH	9.9	2.3	5.5	10.4	6.1	8.3	16.5	9.3	12.5	23.1	15.9	19.3

## CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.8	21.3	21.5	26.5	25.7	26.1	24.7	24.1	24.4	24.1	23.5	23.8
2	21.7	20.9	21.2	26.7	26.1	26.2	24.7	22.5	24.2	24.3	23.7	24.0
3	21.1	20.5	20.7	27.0	26.3	26.6	24.9	23.9	24.5	23.8	23.3	23.6
4	21.1	20.3	20.7	26.5	25.7	26.0	25.1	24.5	24.9	24.1	23.8	24.0
5	21.4	20.7	20.9	25.9	24.8	25.4	25.1	24.5	24.9	24.4	23.9	24.1
6	21.6	20.8	21.1	25.0	24.2	24.4	25.1	23.7	24.4	24.3	23.9	24.0
7	21.6	20.8	21.1	24.8	23.8	24.4	25.1	24.1	24.5	24.3	23.9	24.1
8	21.7	21.2	21.5	25.0	24.6	24.8	24.5	23.5	24.0	24.9	24.3	24.7
9	21.6	20.6	21.0	25.6	24.4	24.9	---	---	---	24.7	24.4	24.5
10	21.0	20.6	20.7	26.0	25.4	25.7	25.1	24.1	24.6	24.4	24.2	24.3
11	20.9	20.5	20.7	26.0	25.0	25.5	25.1	23.3	24.4	24.4	24.1	24.3
12	20.7	20.3	20.5	25.6	24.8	25.2	24.3	23.9	24.1	24.4	24.3	24.4
13	20.7	20.1	20.4	25.2	24.2	24.8	24.9	23.7	24.3	24.3	23.7	24.0
14	21.6	20.1	20.6	25.6	24.6	25.0	24.3	23.3	23.9	23.8	23.4	23.6
15	21.6	20.8	21.2	25.4	23.6	24.8	23.9	22.9	23.5	23.6	23.2	23.3
16	21.7	21.1	21.4	26.0	24.2	25.5	23.9	23.1	23.5	23.4	22.7	23.0
17	22.3	21.5	21.8	26.4	25.6	25.9	23.7	23.1	23.4	23.3	22.9	23.1
18	22.3	21.8	22.0	26.6	25.8	26.2	23.7	22.9	23.4	23.2	22.7	22.9
19	22.9	22.1	22.5	27.1	26.2	26.5	23.7	22.9	23.4	23.1	22.6	22.9
20	22.9	22.5	22.7	26.4	25.6	26.0	24.3	23.3	23.7	23.0	22.7	22.9
21	23.1	22.3	22.7	27.0	25.4	26.1	24.5	23.7	24.0	22.8	22.2	22.6
22	23.6	22.0	22.9	26.4	23.6	25.3	24.7	23.9	24.3	22.4	22.0	22.2
23	24.2	22.6	23.5	26.5	25.0	25.8	24.7	24.3	24.5	23.1	22.1	22.4
24	24.6	23.4	24.0	26.9	26.1	26.4	24.7	24.1	24.4	22.7	22.2	22.4
25	25.0	24.0	24.5	26.5	22.5	24.6	24.9	24.3	24.6	22.5	22.0	22.3
26	25.3	24.2	24.8	25.9	24.5	25.3	25.1	24.5	24.8	22.6	22.3	22.5
27	25.1	24.3	24.6	26.1	25.1	25.6	24.9	24.3	24.6	22.5	21.7	22.3
28	24.9	23.7	24.2	26.3	25.5	25.8	25.1	24.3	24.8	21.7	20.7	21.1
29	25.3	23.9	24.4	25.9	25.1	25.5	25.3	24.7	25.0	21.4	20.6	21.0
30	25.9	24.5	25.1	25.5	24.5	24.7	25.3	24.5	24.8	21.2	21.0	21.1
31	---	---	---	24.7	24.1	24.4	24.7	23.7	24.3	---	---	---
MONTH	25.9	20.1	22.2	27.1	22.5	25.5	25.3	22.5	24.3	24.9	20.6	23.2

OXYGEN DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.4	7.6	8.1	8.9	7.9	8.3	11.0	10.8	10.9	13.5	13.0	13.2
2	8.3	7.6	7.8	9.0	7.9	8.4	11.5	10.9	11.2	13.2	12.8	13.1
3	8.0	6.9	7.4	9.0	8.4	8.7	11.5	11.3	11.4	12.8	12.6	12.7
4	7.3	6.7	7.0	8.6	7.6	8.3	11.8	11.2	11.5	12.6	12.4	12.5
5	7.3	6.0	6.8	8.3	7.6	8.0	11.9	11.3	11.6	12.8	12.5	12.7
6	7.6	5.2	6.3	8.7	7.9	8.3	11.9	11.4	11.6	12.9	12.8	12.8
7	8.0	7.6	7.8	8.9	8.3	8.7	11.7	11.4	11.6	13.0	12.7	12.9
8	7.7	5.8	6.3	10.4	8.1	9.0	11.6	11.0	11.4	13.4	12.9	13.2
9	6.2	5.6	5.9	9.6	9.1	9.4	11.8	11.2	11.5	13.5	13.3	13.4
10	5.8	5.1	5.5	9.3	9.1	9.3	12.1	11.4	11.7	13.6	13.4	13.4
11	6.6	5.5	5.9	9.6	9.1	9.4	12.2	11.3	11.7	13.5	13.3	13.4
12	6.6	5.8	6.2	9.6	9.3	9.5	11.7	11.7	11.7	13.6	13.2	13.4
13	6.6	5.9	6.2	9.9	9.5	9.7	12.1	11.8	11.9	13.3	13.1	13.2
14	7.5	6.0	6.8	9.9	9.1	9.3	12.1	11.4	11.7	13.2	13.1	13.2
15	6.8	5.8	6.2	9.9	9.0	9.5	12.1	11.3	11.7	13.2	13.1	13.2
16	7.2	6.4	6.7	10.0	9.1	9.4	12.1	11.6	11.8	13.4	12.4	12.8
17	6.9	6.3	6.5	10.2	9.0	9.7	---	---	---	12.4	12.2	12.3
18	7.3	6.3	6.8	10.8	9.6	10.1	12.0	11.7	11.8	12.2	11.9	12.0
19	7.1	6.5	6.8	11.6	9.9	10.8	11.7	11.5	11.6	11.9	11.7	11.8
20	7.3	6.6	7.0	11.9	9.9	11.2	12.0	11.9	11.9	12.1	11.7	11.9
21	7.8	6.7	7.3	11.2	9.8	10.4	12.3	11.9	12.1	12.2	12.0	12.1
22	7.8	7.2	7.5	10.3	9.2	9.9	12.3	12.0	12.1	12.1	11.9	12.0
23	8.0	7.0	7.5	11.1	10.0	10.7	12.5	12.2	12.4	11.9	11.8	11.8
24	9.6	7.5	8.2	11.6	10.6	11.0	12.6	12.5	12.6	11.8	11.6	11.7
25	9.9	7.3	8.4	10.7	10.3	10.5	12.6	12.5	12.6	12.2	11.6	11.7
26	8.3	7.9	8.1	10.4	10.3	10.4	12.9	12.5	12.7	11.9	11.7	11.8
27	8.5	8.0	8.2	11.0	10.2	10.3	13.0	12.7	12.9	11.9	11.6	11.7
28	8.2	7.8	8.0	10.8	10.3	10.5	13.0	12.7	12.8	11.8	11.5	11.7
29	8.0	7.5	7.8	10.8	10.4	10.6	13.0	12.6	12.8	11.8	11.6	11.7
30	8.5	7.4	7.8	10.8	10.4	10.7	13.1	12.9	13.0	11.8	11.6	11.7
31	8.6	7.9	8.2	---	---	---	13.2	13.0	13.1	12.1	11.6	11.8
MONTH	9.9	5.1	7.1	11.9	7.6	9.7	13.2	10.8	12.0	13.6	11.5	12.5

## CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

OXYGEN DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.9	11.8	11.8	11.8	11.3	11.6	11.4	11.2	11.2	10.4	10.0	10.2
2	12.0	11.8	11.9	11.6	11.2	11.4	11.6	11.2	11.4	10.8	10.0	10.4
3	12.0	11.7	11.9	12.1	11.3	11.7	11.6	11.5	11.5	11.1	10.4	10.7
4	12.6	12.0	12.2	12.3	11.6	12.0	11.5	11.3	11.4	11.4	10.6	11.0
5	12.8	12.4	12.6	12.1	11.8	12.0	11.3	11.1	11.3	11.2	10.2	11.0
6	13.1	12.7	12.9	11.8	11.2	11.6	11.3	11.1	11.2	11.0	9.6	10.7
7	13.0	12.7	12.8	11.2	10.7	10.8	11.6	11.2	11.4	10.5	9.5	10.1
8	13.2	12.7	12.9	11.8	10.9	11.4	11.8	11.4	11.6	10.1	9.2	9.7
9	13.0	12.8	12.9	12.2	11.7	12.0	12.0	11.6	11.8	10.7	10.0	10.2
10	13.1	12.9	13.0	12.2	11.7	12.0	12.4	11.7	12.0	10.3	9.9	10.2
11	13.2	13.0	13.1	12.0	11.6	11.8	12.5	12.1	12.3	10.1	9.6	9.8
12	13.3	13.0	13.1	12.1	11.6	11.9	12.8	12.3	12.5	9.6	9.0	9.3
13	13.2	12.8	13.0	12.3	11.7	12.0	12.7	12.4	12.6	9.5	8.5	8.9
14	13.1	12.8	12.9	12.3	12.0	12.1	12.8	12.4	12.6	9.6	9.3	9.5
15	13.1	12.8	13.0	12.3	11.9	12.0	12.7	12.0	12.3	---	---	---
16	13.3	12.9	13.1	11.9	11.4	11.8	12.5	11.8	12.2	9.7	9.4	9.4
17	13.4	12.9	13.1	11.6	11.3	11.4	12.9	12.1	12.5	9.8	9.5	9.7
18	13.7	13.0	13.3	11.3	11.0	11.2	12.9	12.5	12.7	9.6	8.6	9.2
19	13.6	13.0	13.2	11.5	10.9	11.2	12.7	12.3	12.5	9.2	8.0	8.5
20	13.1	12.3	12.7	11.5	11.3	11.4	12.5	11.9	12.3	9.7	8.3	9.2
21	12.5	12.1	12.3	11.7	11.4	11.6	12.2	11.1	11.5	9.7	8.7	9.1
22	12.9	12.4	12.7	11.7	11.5	11.6	11.1	10.5	10.9	9.8	8.6	9.3
23	13.2	12.8	13.0	11.9	11.5	11.7	11.0	10.3	10.7	10.0	9.1	9.7
24	13.4	12.9	13.1	11.9	11.5	11.7	10.5	9.4	9.9	9.4	8.7	9.2
25	13.5	13.0	13.3	11.7	11.5	11.6	10.9	10.5	10.6	10.0	9.3	9.6
26	13.6	12.5	13.2	11.6	11.2	11.3	11.2	10.4	10.8	9.9	8.5	9.2
27	13.6	12.3	13.0	11.9	11.5	11.6	10.9	10.4	10.6	9.6	7.8	8.8
28	12.9	12.5	12.7	11.7	11.6	11.7	10.6	10.3	10.5	8.6	7.8	8.3
29	12.5	11.7	12.2	11.7	11.5	11.6	10.5	9.7	10.2	8.3	7.3	7.7
30	---	---	---	11.7	11.5	11.6	10.5	9.5	10.1	8.7	7.6	8.1
31	---	---	---	11.5	11.2	11.3	---	---	---	9.1	7.9	8.4
MONTH	13.7	11.7	12.8	12.3	10.7	11.6	12.9	9.4	11.5	11.4	7.3	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.0	7.8	8.6	8.4	7.2	7.7	6.4	5.7	6.0	8.5	7.6	8.1
2	8.9	8.4	8.7	8.3	7.2	8.0	8.0	6.2	7.2	8.7	7.9	8.3
3	8.6	7.9	8.2	7.9	7.3	7.5	7.7	6.9	7.4	8.0	7.7	7.9
4	8.2	7.7	7.9	8.0	7.4	7.7	8.5	7.3	7.9	8.2	7.4	7.9
5	8.8	7.8	8.2	7.7	7.2	7.5	8.3	7.6	7.9	7.6	6.8	7.2
6	9.2	8.1	8.6	7.6	7.3	7.4	8.3	7.6	7.9	7.4	6.1	6.6
7	9.2	8.5	8.9	8.1	7.2	7.6	7.8	7.1	7.4	7.4	5.9	6.5
8	9.2	8.7	8.9	7.6	7.3	7.4	7.2	6.7	7.0	8.3	7.0	7.5
9	8.9	7.9	8.4	7.5	7.1	7.3	7.6	6.7	7.0	7.9	6.8	7.4
10	8.1	7.8	7.9	7.6	6.9	7.3	8.0	6.1	7.1	8.0	6.5	7.2
11	8.1	7.8	8.0	8.0	7.1	7.4	7.8	7.1	7.5	8.2	7.4	7.8
12	8.4	7.8	8.0	7.5	6.9	7.2	8.3	6.9	7.5	8.1	7.4	7.7
13	8.6	7.9	8.3	7.6	6.9	7.2	8.2	7.3	7.7	8.2	7.0	7.6
14	9.3	7.8	8.5	8.0	7.0	7.4	7.8	6.6	7.2	8.0	7.1	7.6
15	9.6	8.5	9.0	7.8	7.2	7.5	8.5	6.6	7.5	7.7	7.0	7.3
16	9.4	8.6	9.1	8.2	7.3	7.6	9.0	7.0	8.0	7.3	6.4	6.9
17	9.4	9.0	9.2	7.9	7.3	7.7	8.9	7.4	8.2	8.9	6.5	7.6
18	9.5	9.4	9.4	7.8	7.1	7.5	8.8	8.0	8.4	8.8	7.1	7.8
19	---	---	---	7.9	7.3	7.7	8.9	7.8	8.5	7.7	6.8	7.2
20	---	---	---	8.0	6.9	7.6	9.1	7.7	8.7	8.1	6.9	7.5
21	---	---	---	7.9	7.1	7.4	9.2	7.7	8.6	7.6	7.0	7.3
22	---	---	---	7.3	6.5	6.8	9.1	6.7	8.1	8.0	6.7	7.5
23	---	---	---	6.6	6.2	6.4	8.8	7.3	8.1	8.3	7.4	7.9
24	---	---	---	6.3	5.2	5.7	8.5	7.8	8.2	8.6	7.5	8.2
25	---	---	---	5.9	4.9	5.3	8.5	7.1	8.1	8.4	7.6	8.1
26	8.6	8.1	8.4	6.6	5.2	6.0	8.7	7.4	8.2	8.2	7.5	7.9
27	8.7	7.7	8.1	6.8	6.2	6.4	8.3	7.4	7.8	8.5	7.6	8.2
28	8.8	7.8	8.3	7.1	6.1	6.6	8.4	7.6	7.9	8.1	7.0	7.7
29	8.7	7.9	8.2	6.9	6.2	6.5	8.7	7.7	8.0	8.2	7.1	7.6
30	8.2	7.6	7.9	6.9	5.8	6.2	8.5	7.4	7.9	8.2	6.5	7.1
31	---	---	---	6.4	5.8	6.1	8.2	7.3	7.8	---	---	---
MONTH	9.6	7.6	8.5	8.4	4.9	7.1	9.2	5.7	7.8	8.9	5.9	7.6

## CUMBERLAND RIVER BASIN

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN

LOCATION.--Lat 36°38'32", long 86°59'18", Robertson County, Hydrologic Unit 05130206, on left bank in pump house of Springfield water plant, 0.2 mi south of Kentucky-Tennessee state line, 0.7 mi below Highway 161 bridge, 4.8 mi northwest of Barren Plains.

DRAINAGE AREA.--549 mi<sup>2</sup>, includes 246 mi<sup>2</sup> without surface drainage.

PERIOD OF RECORD.--October 1994 to current year. Occasional low-flow measurements, water years 1966-1967 at site 1.8 mi upstream.

GAGE.-- Data Logger. Datum of gage is 440.00 above sea level (levels based on information provided by City of Springfield).

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	2200	4,620	11.52	Apr. 1	0615	4,920	11.53
Nov. 7	2245	7,050	13.63	Apr. 23	1530	5,480	12.05
Mar. 7	1830	4,880	11.49	May 7	2245	*9,790	*15.90
Mar. 25	2215	4,510	11.15	Sept. 28	1300	6,620	13.27

Minimum discharge, 64 ft<sup>3</sup>/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	147	256	218	815	1130	4430	1080	440	275	2260	140
2	66	155	247	413	737	1040	3070	875	786	260	1250	138
3	68	158	237	1160	662	946	2390	768	1220	245	940	148
4	71	199	227	983	592	832	2000	693	877	230	765	166
5	991	190	218	759	544	759	1700	632	719	220	642	163
6	1490	186	212	652	521	1450	1480	655	599	210	557	147
7	516	2890	206	595	499	3800	1330	5630	541	200	493	139
8	329	3000	199	532	495	3130	1220	5410	696	204	473	165
9	248	1350	195	475	510	2150	1140	2560	1030	257	609	153
10	207	958	187	454	511	1770	1020	1900	916	251	491	348
11	181	967	179	457	477	1540	931	1560	996	201	409	180
12	162	1440	175	971	440	1380	862	1340	1370	187	381	141
13	151	993	177	1170	410	1260	818	1170	1210	182	392	128
14	146	782	178	996	394	1140	865	1030	999	178	344	121
15	143	643	176	988	390	1040	820	2160	942	189	303	120
16	138	546	180	870	372	985	732	2030	874	241	279	271
17	131	476	179	775	349	1260	668	1350	736	196	259	582
18	125	426	194	730	335	1080	617	1100	628	173	244	293
19	123	383	353	1830	424	1500	587	931	575	160	228	213
20	140	347	387	1470	3430	2650	623	815	1080	162	216	177
21	140	320	331	1130	2800	2350	1100	729	845	171	205	185
22	141	295	290	968	1970	2280	796	654	653	513	194	206
23	138	296	263	886	1630	2660	3140	587	558	466	187	223
24	129	409	245	2590	1390	2740	2390	534	494	300	179	186
25	122	407	231	2540	1170	3290	1620	491	455	247	172	164
26	121	364	221	1760	1040	3260	1370	450	419	220	168	150
27	151	339	215	1540	970	2320	1160	445	377	201	175	1620
28	316	324	206	1290	1390	2000	972	1080	341	188	202	5110
29	237	295	199	1130	1400	1790	894	864	314	1090	165	2550
30	187	271	190	1030	---	1560	1300	607	290	3210	151	1540
31	159	---	196	923	---	1760	---	500	---	2340	143	---
TOTAL	7333	19556	6949	32285	26667	56852	42045	40630	21980	13167	13476	15867
MEAN	237	652	224	1041	920	1834	1401	1311	733	425	435	529
MAX	1490	3000	387	2590	3430	3800	4430	5630	1370	3210	2260	5110
MIN	66	147	175	218	335	759	587	445	290	160	143	120
CFSM	.43	1.19	.41	1.90	1.67	3.34	2.55	2.39	1.33	.77	.79	.96
IN.	.50	1.33	.47	2.19	1.81	3.85	2.85	2.75	1.49	.89	.91	1.08



## CUMBERLAND RIVER BASIN

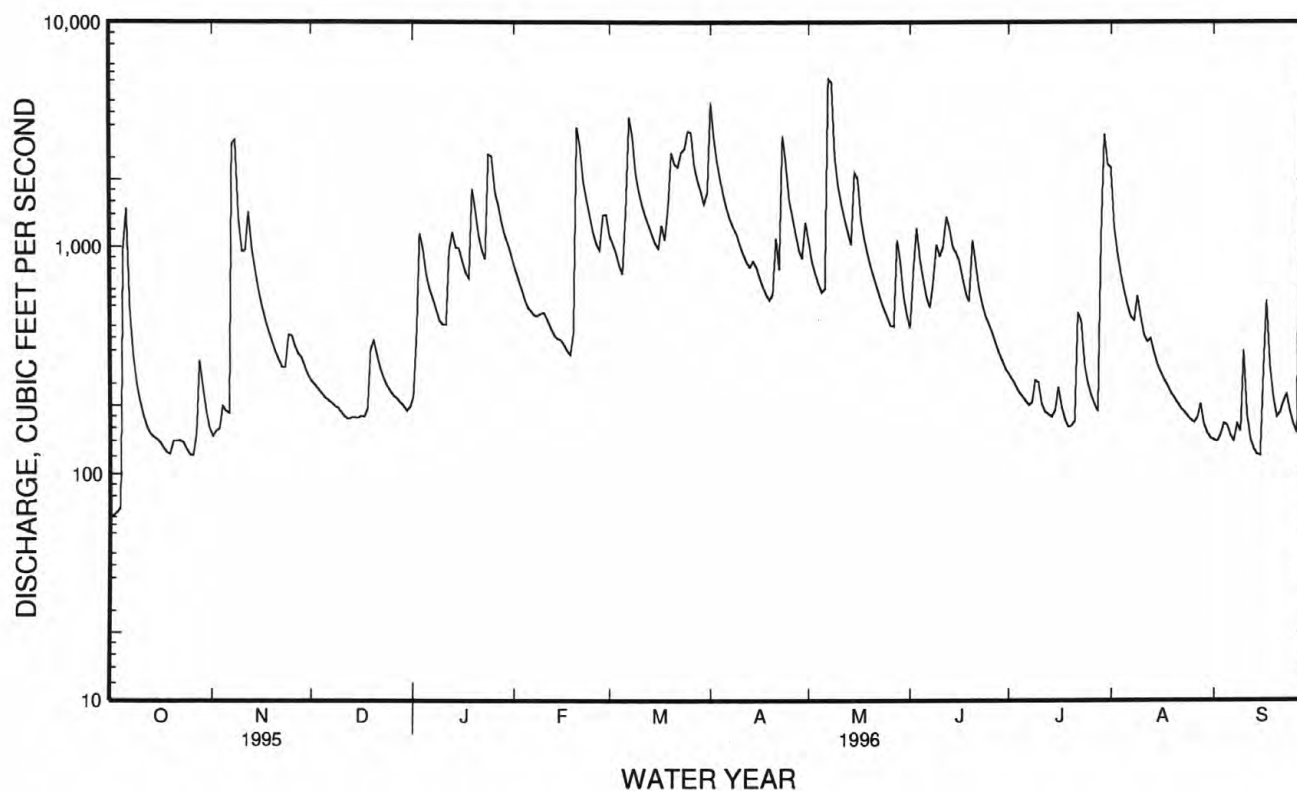
03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

MEAN	164	410	384	1009	962	1465	873	1552	586	315	303	310
MAX	237	652	545	1041	1006	1834	1401	1794	733	425	435	529
(WY)	1996	1996	1995	1996	1995	1996	1996	1995	1996	1996	1996	1996
MIN	91.9	168	224	976	920	1096	345	1311	440	206	172	90.6
(WY)	1995	1995	1996	1995	1996	1995	1995	1996	1995	1995	1995	1995

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1994 - 1996

ANNUAL TOTAL	219793		296807			
ANNUAL MEAN	602		811			694
HIGHEST ANNUAL MEAN						811
LOWEST ANNUAL MEAN						577
HIGHEST DAILY MEAN	11400	May 19	5630	May 7	11400	May 19 1995
LOWEST DAILY MEAN	66	Oct 1	66	Oct 1	60	Oct 7 1994
ANNUAL SEVEN-DAY MINIMUM	76	Sep 28	133	Oct 20	65	Oct 30 1994
INSTANTANEOUS PEAK FLOW			9790	May 7	13600	May 19 1995
INSTANTANEOUS PEAK STAGE			15.90	May 7	19.19	May 19 1995
INSTANTANEOUS LOW FLOW			64	Oct 3	59	Oct 7 1994
ANNUAL RUNOFF (CFSM)	1.10		1.48			1.26
ANNUAL RUNOFF (INCHES)	14.89		20.11			17.18
10 PERCENT EXCEEDS	1380		1850			1600
50 PERCENT EXCEEDS	295		505			352
90 PERCENT EXCEEDS	103		160			92



## 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 with Mabry Road, 6.6 mi northeast of Oakwood.

DRAINAGE AREA.--50.2 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1993 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 423.24 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 1,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 24	0430	1,190	10.51	May 28	0615	1,070	10.01
May 15	0945	*4,240	*15.42				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.4	41	117	377	100	42	4.4	50	.00
2	.00	.00	.00	60	27	87	190	62	145	3.9	18	.00
3	.00	.00	.00	133	24	61	133	43	124	3.5	11	.00
4	.00	.00	.00	57	25	45	100	33	62	2.4	9.5	.00
5	.00	.00	.00	33	24	93	80	25	41	1.1	7.7	.00
6	.00	.00	.00	27	19	601	63	121	31	.44	6.7	.00
7	.00	25	.00	27	11	506	52	368	46	.23	5.2	.00
8	.00	16	.00	27	12	348	48	295	116	.16	4.2	.00
9	.00	7.9	.00	20	12	238	51	152	165	.07	11	.00
10	.00	5.2	.00	13	11	132	39	91	147	.00	12	.00
11	.00	14	.00	66	10	106	31	73	146	.00	8.0	.00
12	.00	19	.00	240	8.8	87	26	71	288	.00	5.9	.00
13	.00	11	.00	128	7.8	70	35	45	236	.00	4.2	.00
14	.00	8.3	.00	91	7.3	55	93	33	140	.00	2.7	.00
15	.00	5.9	.00	65	6.8	47	61	2320	73	.00	1.0	.00
16	.00	4.3	.00	45	6.6	52	45	395	113	.00	.38	.00
17	.00	3.1	.00	36	5.9	101	32	221	44	.00	.15	.00
18	.00	1.7	.00	82	5.5	67	26	158	29	.00	.01	.00
19	.00	.18	7.2	224	100	482	23	121	23	.00	.00	.00
20	.00	.00	22	102	569	321	159	98	19	.00	.00	.00
21	.00	.00	15	67	216	225	144	81	16	31	.00	.00
22	.00	.00	10	50	141	247	89	68	14	175	.00	.00
23	.00	.00	8.5	59	103	188	278	58	12	29	.00	.00
24	.00	.00	7.0	704	72	136	158	49	11	27	.00	.00
25	.00	.00	5.6	224	52	285	105	43	9.8	21	.00	.00
26	.00	.00	4.6	157	42	194	76	38	8.6	16	.00	.00
27	.00	.00	3.6	157	70	130	52	109	7.7	12	.00	.00
28	.00	.00	2.8	107	352	104	38	603	6.8	8.1	.00	79
29	.00	.00	1.9	77	170	90	129	179	5.9	14	.00	7.5
30	.00	.00	1.3	59	---	72	191	93	5.2	8.8	.00	1.1
31	.00	---	1.9	52	---	245	---	58	---	141	.00	---
TOTAL	0.00	121.58	91.40	3190.4	2151.7	5532	2924	6204	2127.0	499.10	157.64	87.60
MEAN	.000	4.05	2.95	103	74.2	178	97.5	200	70.9	16.1	5.09	2.92
MAX	.00	25	22	704	569	601	377	2320	288	175	50	79
MIN	.00	.00	.00	1.4	5.5	45	23	25	5.2	.00	.00	.00
CFSM	.00	.08	.06	2.05	1.48	3.55	1.94	3.99	1.41	.32	.10	.06
IN.	.00	.09	.07	2.36	1.59	4.10	2.17	4.60	1.58	.37	.12	.06

## CUMBERLAND RIVER BASIN

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

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

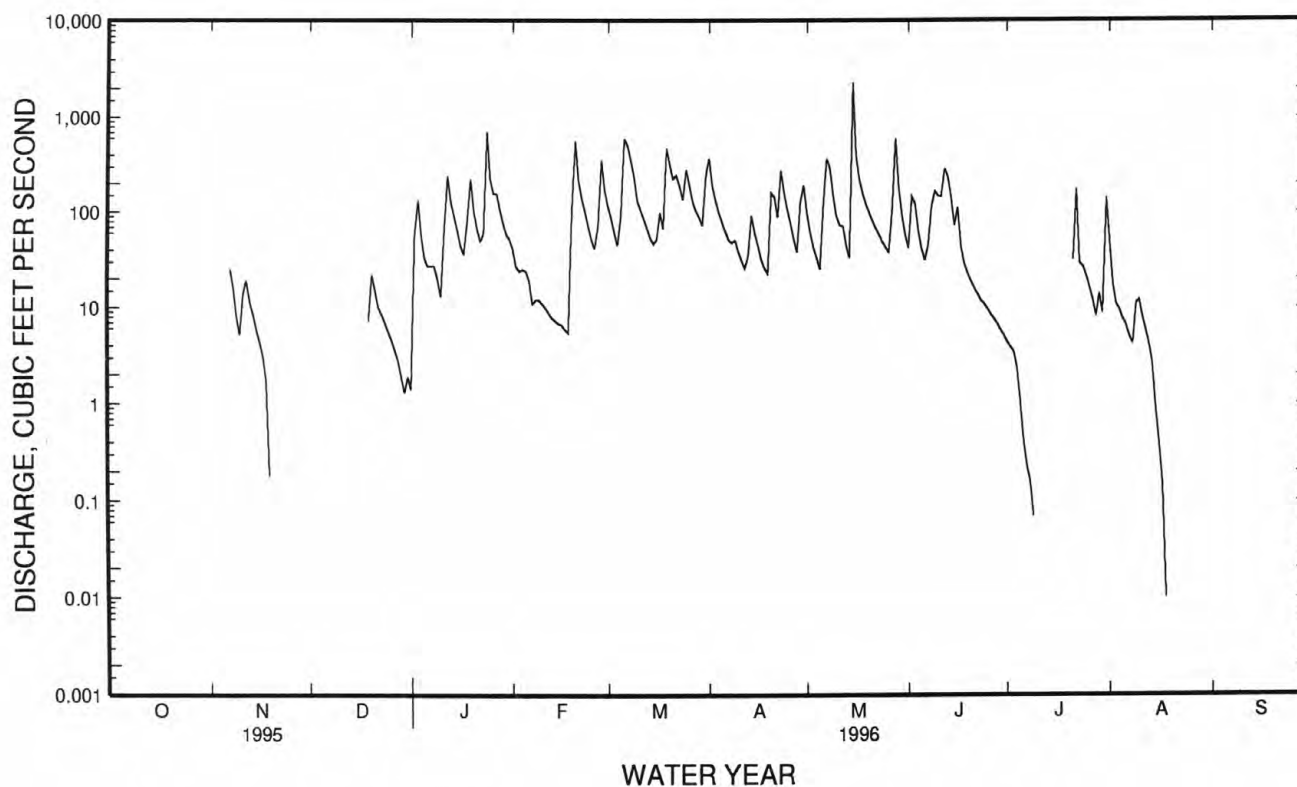
MEAN	.000	2.43	24.7	101	136	157	97.5	94.5	35.3	6.46	3.43	.73
MAX	.000	4.05	59.4	145	293	243	188	200	70.9	16.1	8.64	2.92
(WY)	1994	1996	1994	1994	1994	1994	1994	1996	1996	1996	1995	1996
MIN	.000	.000	2.95	55.2	44.2	51.0	7.45	22.5	7.94	.34	.000	.000
(WY)	1994	1995	1996	1995	1995	1995	1995	1994	1994	1994	1993	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

ANNUAL TOTAL	8022.18	23086.42	
ANNUAL MEAN	22.0	63.1	54.7
HIGHEST ANNUAL MEAN			78.7
LOWEST ANNUAL MEAN			22.4
HIGHEST DAILY MEAN	350	2320	2320
LOWEST DAILY MEAN	.00	a.00	b.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		4240	4240
INSTANTANEOUS PEAK STAGE		15.42	15.42
INSTANTANEOUS LOW FLOW		a.00	b.00
ANNUAL RUNOFF (CFSM)	.44	1.26	1.09
ANNUAL RUNOFF (INCHES)	5.94	17.11	14.82
10 PERCENT EXCEEDS	59	158	134
50 PERCENT EXCEEDS	3.7	11	3.3
90 PERCENT EXCEEDS	.00	.00	.00

a Occurred many days.

a Occurred many days each year.



CUMBERLAND RIVER BASIN  
03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN  
WATER-QUALITY RECORDS

LOCATION.--Lat 36°37'12", long 87°30'23", Montgomery County, Hydrologic Unit 05130206, in water supply pump house at Fort Campbell, KY-TN.

PERIOD OF RECORD.--November 1994 to September 1996 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1994 to September 1996 (discontinued).

pH: November 1994 to September 1996 (discontinued).

WATER TEMPERATURE: November 1994 to September 1996 (discontinued).

INSTRUMENTATION.--Data logger and water-quality monitor.

REMARKS.-- Interruptions in the record were due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 438 microsiemens, Oct. 20; 1996; minimum, 233 microsiemens, May. 21, 1995.

pH: Maximum, 7.2 units, Nov. 4, 5, 1994, May 9, June 20, 1995 Aug. 19, 1996; minimum, 6.4 units, several days in April and May, 1996.

WATER TEMPERATURE: Maximum, 15.6°C, Sept. 14, 1995; minimum, 12.3°C, Feb. 15, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 438 microsiemens, Oct. 20; minimum, 289 microsiemens, Mar. 9.

pH: Maximum, 7.2 units, Aug. 19; minimum, 6.4 units, several days in April and May.

WATER TEMPERATURE: Maximum, 14.9°C, Oct. 3, but may have been higher during periods of missing record; minimum, 13.3°C, Mar. 3.

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	413	399	405	428	422	425	406	399	402	367	363	365
2	414	399	405	434	424	428	408	401	404	369	362	364
3	413	394	403	433	421	427	412	407	409	365	354	360
4	413	394	402	424	417	421	410	406	409	354	343	349
5	410	392	399	420	414	417	415	409	411	344	337	340
6	409	397	403	423	411	417	414	410	412	342	333	337
7	407	396	401	432	407	419	414	409	412	337	332	333
8	408	396	401	417	396	407	415	409	412	334	328	332
9	409	398	403	397	382	389	415	406	411	338	329	334
10	408	398	405	383	381	382	413	406	408	339	332	336
11	413	405	409	384	381	383	409	404	407	341	335	337
12	424	404	412	383	378	380	416	408	410	350	328	340
13	425	412	417	381	376	379	414	409	412	335	325	330
14	428	414	420	377	372	375	418	413	415	328	323	325
15	424	414	417	375	371	373	425	414	418	328	325	327
16	424	412	417	376	373	375	421	414	417	334	326	329
17	427	414	419	390	373	378	420	410	414	341	333	336
18	425	417	421	382	377	381	415	405	412	346	335	338
19	429	420	423	383	379	381	418	397	407	346	331	337
20	438	413	424	383	380	382	398	384	391	335	327	330
21	433	419	425	386	380	383	385	373	378	330	325	328
22	431	418	425	384	381	383	376	370	372	331	327	329
23	435	421	427	390	383	386	371	367	369	338	331	335
24	434	425	429	393	386	389	370	366	368	381	322	347
25	437	422	429	392	385	387	369	364	367	322	313	316
26	431	423	429	397	392	395	367	361	364	314	310	312
27	433	385	418	402	395	399	369	363	365	311	306	308
28	431	420	425	400	392	396	365	360	362	311	306	308
29	426	414	421	400	394	396	363	358	361	317	311	315
30	422	412	417	401	392	397	362	360	361	321	316	318
31	430	418	422	---	---	---	366	362	364	321	315	318
MONTH	438	385	415	434	371	394	425	358	394	381	306	333



CUMBERLAND RIVER BASIN  
03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN--Continued  
SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	323	316	320	327	320	323	336	322	327	336	324	330
2	325	318	321	322	318	320	324	314	317	334	325	329
3	325	316	320	321	315	318	323	315	317	335	330	332
4	326	317	321	322	315	318	321	315	318	339	331	334
5	327	319	323	329	322	325	318	312	315	337	331	334
6	335	325	330	352	329	339	317	313	315	344	330	335
7	343	332	337	329	306	319	317	315	316	347	341	344
8	344	340	342	306	292	298	319	315	317	341	325	332
9	347	342	345	292	289	291	322	316	318	325	318	322
10	349	344	347	295	290	292	321	316	319	321	317	319
11	352	346	348	297	293	294	323	316	319	323	318	320
12	350	342	346	300	294	297	329	322	325	322	318	320
13	348	344	346	308	297	301	331	325	328	321	316	319
14	---	---	---	314	302	307	330	327	329	322	315	318
15	---	---	---	316	308	311	333	326	329	350	303	314
16	---	---	---	320	310	313	332	325	328	303	297	299
17	---	---	---	316	313	315	335	329	332	297	292	295
18	---	---	---	318	311	315	336	331	333	301	295	297
19	---	---	---	342	317	326	340	333	336	302	299	300
20	---	---	---	326	308	316	347	338	344	305	302	303
21	---	---	---	311	303	306	349	338	343	309	303	305
22	---	---	---	307	302	305	344	336	339	314	308	311
23	---	---	---	307	303	305	344	336	341	320	312	315
24	---	---	---	312	306	308	341	335	337	323	315	320
25	---	---	---	316	307	311	339	333	336	332	315	319
26	---	---	---	312	306	308	338	332	335	324	315	319
27	---	---	---	312	304	306	336	329	332	337	319	326
28	---	---	---	324	306	314	336	332	334	356	326	335
29	331	325	329	317	314	316	340	331	336	339	308	322
30	---	---	---	320	316	318	344	331	336	336	311	314
31	---	---	---	332	320	324	---	---	---	313	310	311
MONTH	---	---	---	352	289	312	349	312	328	356	292	319
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	317	309	313	337	331	334	380	346	354	---	---	---
2	318	313	317	341	332	335	350	341	345	---	---	---
3	323	313	318	342	333	337	345	340	342	---	---	---
4	322	311	315	340	332	336	345	342	343	---	---	---
5	318	310	314	339	334	336	351	344	347	---	---	---
6	318	313	316	340	334	336	357	348	352	---	---	---
7	323	315	319	343	335	339	358	351	354	---	---	---
8	327	317	321	346	340	342	357	353	354	---	---	---
9	323	313	318	344	340	342	362	352	357	---	---	---
10	323	312	317	345	340	343	360	353	356	---	---	---
11	321	313	316	348	345	346	359	351	356	---	---	---
12	321	316	318	350	345	348	357	352	355	---	---	---
13	323	315	318	355	349	352	361	355	358	---	---	---
14	325	315	319	359	351	354	364	356	359	---	---	---
15	323	314	318	364	354	357	362	356	359	---	---	---
16	328	318	320	364	354	357	368	359	362	---	---	---
17	323	314	317	366	356	360	369	361	364	---	---	---
18	322	315	318	369	358	362	373	364	367	---	---	---
19	339	309	321	371	361	365	374	358	370	---	---	---
20	323	318	321	388	363	373	---	---	---	---	---	---
21	326	322	324	372	360	366	---	---	---	---	---	---
22	329	321	324	393	356	372	---	---	---	---	---	---
23	328	322	325	358	347	351	---	---	---	---	---	---
24	332	323	326	348	341	345	---	---	---	---	---	---
25	334	323	327	347	343	344	---	---	---	---	---	---
26	333	323	328	350	344	346	---	---	---	---	---	---
27	331	325	327	374	345	347	---	---	---	---	---	---
28	332	326	329	352	345	348	---	---	---	---	---	---
29	337	329	332	350	345	348	---	---	---	---	---	---
30	335	331	333	353	346	349	---	---	---	---	---	---
31	---	---	---	396	353	368	---	---	---	---	---	---
MONTH	339	309	321	396	331	350	---	---	---	---	---	---

CUMBERLAND RIVER BASIN  
03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN--Continued  
PH (STANDARD UNITS), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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

CUMBERLAND RIVER BASIN  
03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.8	14.5	14.6	14.2	14.0	14.1	14.0	13.9	14.0	13.8	13.7	13.7
2	14.7	14.5	14.6	14.4	14.1	14.2	14.0	13.9	14.0	13.7	13.7	13.7
3	14.9	14.5	14.6	14.2	14.0	14.1	14.0	13.9	14.0	13.8	13.7	13.7
4	14.6	14.2	14.4	14.1	13.9	14.1	14.0	14.0	14.0	13.7	13.7	13.7
5	14.6	14.2	14.4	14.1	13.7	14.0	14.0	13.9	14.0	13.7	13.7	13.7
6	14.4	14.2	14.3	14.2	13.5	13.9	14.0	14.0	14.0	13.7	13.7	13.7
7	14.4	14.2	14.3	14.2	13.8	14.1	14.1	14.0	14.0	13.7	13.6	13.7
8	14.3	14.2	14.3	14.1	14.0	14.0	14.1	14.0	14.0	13.7	13.6	13.7
9	14.3	14.2	14.3	14.2	14.0	14.1	14.1	14.0	14.1	13.7	13.6	13.6
10	14.4	14.1	14.2	14.1	14.1	14.1	14.1	14.0	14.1	13.7	13.6	13.6
11	14.6	14.2	14.3	14.1	14.1	14.1	14.1	14.0	14.1	13.7	13.6	13.6
12	14.5	14.2	14.3	14.1	14.1	14.1	14.1	14.0	14.1	13.8	13.4	13.6
13	14.4	14.3	14.3	14.1	14.1	14.1	14.1	14.0	14.1	13.5	13.4	13.4
14	14.3	14.2	14.3	14.1	14.1	14.1	14.1	14.0	14.1	13.6	13.5	13.5
15	14.3	14.1	14.2	14.1	14.0	14.1	14.1	14.0	14.1	13.6	13.5	13.5
16	14.2	13.9	14.1	14.1	14.0	14.1	14.1	14.1	14.1	13.6	13.4	13.5
17	14.2	13.9	14.1	14.1	14.0	14.0	14.1	14.0	14.1	13.7	13.6	13.6
18	14.2	14.0	14.1	14.0	14.0	14.0	14.1	14.0	14.1	13.7	13.6	13.6
19	14.3	14.0	14.2	14.1	14.0	14.0	14.1	13.9	14.0	13.8	13.6	13.7
20	14.3	14.1	14.2	14.0	14.0	14.0	14.0	14.0	14.0	13.7	13.6	13.6
21	14.2	14.0	14.1	14.0	14.0	14.0	14.0	13.9	13.9	13.7	13.6	13.6
22	14.2	13.9	14.1	14.0	14.0	14.0	13.9	13.9	13.9	13.7	13.6	13.6
23	14.2	13.9	14.1	14.0	14.0	14.0	13.9	13.8	13.8	13.7	13.6	13.6
24	14.2	14.1	14.1	14.1	14.0	14.0	13.9	13.8	13.9	14.1	13.6	13.8
25	14.2	13.8	14.1	14.0	14.0	14.0	13.9	13.8	13.9	13.6	13.6	13.6
26	14.2	14.0	14.1	14.0	14.0	14.0	13.9	13.8	13.8	13.7	13.6	13.6
27	14.2	14.0	14.1	14.0	13.9	14.0	13.8	13.8	13.8	13.7	13.6	13.7
28	14.1	14.0	14.1	14.0	13.9	14.0	13.8	13.8	13.8	13.7	13.6	13.7
29	14.2	13.8	14.1	14.0	13.9	14.0	13.8	13.7	13.8	13.7	13.6	13.6
30	14.1	13.8	14.0	14.0	13.9	14.0	13.8	13.7	13.7	13.7	13.6	13.6
31	14.2	13.9	14.1	---	---	---	13.8	13.7	13.7	13.7	13.6	13.7
MONTH	14.9	13.8	14.2	14.4	13.5	14.0	14.1	13.7	14.0	14.1	13.4	13.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.7	13.6	13.7	13.6	13.5	13.5	13.8	13.6	13.7	13.7	13.6	13.6
2	13.7	13.6	13.6	13.6	13.5	13.5	13.7	13.6	13.6	13.7	13.6	13.6
3	13.7	13.6	13.6	13.6	13.3	13.5	13.7	13.5	13.6	13.7	13.6	13.6
4	13.7	13.6	13.6	13.6	13.5	13.5	13.6	13.6	13.6	13.7	13.6	13.7
5	13.6	13.6	13.6	13.6	13.5	13.5	13.7	13.6	13.6	13.7	13.6	13.7
6	13.7	13.5	13.6	13.8	13.6	13.7	13.7	13.6	13.6	13.7	13.6	13.7
7	13.7	13.5	13.6	13.8	13.6	13.7	13.7	13.6	13.6	13.8	13.7	13.7
8	13.6	13.5	13.6	13.7	13.6	13.7	13.6	13.6	13.6	13.7	13.6	13.7
9	13.6	13.5	13.6	13.7	13.6	13.7	13.6	13.6	13.6	13.7	13.6	13.7
10	13.6	13.5	13.5	13.7	13.6	13.7	13.6	13.5	13.6	13.7	13.6	13.6
11	13.6	13.5	13.5	13.7	13.6	13.7	13.6	13.6	13.6	13.7	13.6	13.6
12	13.6	13.5	13.5	13.7	13.6	13.7	13.6	13.6	13.6	13.7	13.6	13.7
13	13.6	13.4	---	13.7	13.5	13.6	13.7	13.6	13.6	13.7	13.6	13.7
14	---	---	---	13.7	13.6	13.6	13.7	13.6	13.6	13.7	13.6	13.7
15	---	---	---	13.6	13.5	13.6	13.6	13.6	13.6	13.9	13.5	13.6
16	---	---	---	13.7	13.6	13.6	13.6	13.5	13.6	13.5	13.5	13.5
17	---	---	---	13.6	13.5	13.6	13.6	13.6	13.6	13.5	13.5	13.5
18	---	---	---	13.6	13.5	13.6	13.6	13.6	13.6	13.6	13.5	13.6
19	---	---	---	13.9	13.6	13.7	13.6	13.6	13.6	13.6	13.6	13.6
20	---	---	---	13.8	13.6	13.7	13.7	13.6	13.7	13.7	13.6	13.6
21	---	---	---	13.6	13.4	13.5	13.7	13.6	13.6	13.6	13.6	13.6
22	---	---	---	13.5	13.4	13.5	13.7	13.6	13.6	13.7	13.6	13.6
23	---	---	---	13.6	13.5	13.5	13.7	13.6	13.7	13.7	13.6	13.6
24	---	---	---	13.5	13.5	13.5	13.7	13.6	13.6	13.7	13.6	13.7
25	---	---	---	13.6	13.5	13.5	13.7	13.6	13.6	13.8	13.6	13.7
26	---	---	---	13.6	13.5	13.5	13.7	13.6	13.6	13.7	13.6	13.6
27	---	---	---	13.6	13.4	13.5	13.7	13.6	13.6	13.8	13.7	13.7
28	---	---	---	13.6	13.4	13.5	13.7	13.6	13.6	14.3	13.7	13.9
29	---	13.4	---	13.6	13.6	13.6	13.7	13.6	13.6	13.7	13.6	13.7
30	---	---	---	13.6	13.6	13.6	13.7	13.6	13.6	13.7	13.7	13.7
31	---	---	---	13.8	13.6	13.6	---	---	---	13.7	13.7	13.7
MONTH	---	---	---	13.9	13.3	13.6	13.8	13.5	13.6	14.3	13.5	13.7

## CUMBERLAND RIVER BASIN

03436421 BOILING SPRINGS AT FORT CAMPBELL, KY-TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.8	13.7	13.7	---	---	---	14.3	14.1	14.2	---	---	---
2	13.8	13.7	13.7	---	---	---	14.1	14.1	14.1	---	---	---
3	13.8	13.7	13.7	---	---	---	14.1	14.0	14.1	---	---	---
4	13.8	13.7	13.7	---	---	---	14.1	14.0	14.0	---	---	---
5	13.8	13.7	13.7	14.0	13.8	13.9	14.0	13.9	14.0	---	---	---
6	13.8	13.7	13.7	14.0	13.9	14.0	14.3	13.6	14.0	---	---	---
7	13.8	13.7	13.8	14.0	13.9	13.9	14.2	13.7	13.8	---	---	---
8	13.8	13.7	13.8	14.1	13.9	14.0	14.0	13.5	13.9	---	---	---
9	13.8	13.7	13.8	14.1	13.9	14.0	14.2	14.0	14.1	---	---	---
10	13.8	13.7	13.8	14.1	14.0	14.0	14.3	13.8	14.2	---	---	---
11	13.9	13.8	13.8	14.1	14.0	14.1	14.5	14.3	14.4	---	---	---
12	13.8	13.7	13.8	14.1	14.0	14.0	14.6	14.4	14.5	---	---	---
13	13.9	13.6	13.8	14.1	14.0	14.1	14.6	14.2	14.5	---	---	---
14	13.9	13.5	13.8	14.1	14.0	14.0	14.3	13.7	13.9	---	---	---
15	13.8	13.5	13.8	14.1	14.0	14.0	13.8	13.7	13.8	---	---	---
16	13.9	13.8	13.8	14.1	14.0	14.0	---	---	---	---	---	---
17	13.9	13.7	13.8	14.1	13.9	14.0	14.3	13.6	14.1	---	---	---
18	13.8	13.7	13.8	14.2	13.9	14.0	14.1	14.0	14.1	---	---	---
19	13.8	13.7	13.7	14.3	14.0	14.0	14.2	13.8	14.0	---	---	---
20	13.8	13.6	13.7	14.1	14.0	14.1	---	---	---	---	---	---
21	---	---	---	14.0	13.9	14.0	---	---	---	---	---	---
22	13.8	13.5	13.7	14.2	14.0	14.1	---	---	---	---	---	---
23	13.7	13.7	13.7	14.0	13.8	13.9	---	---	---	---	---	---
24	---	---	---	14.0	13.9	14.0	---	---	---	---	---	---
25	---	---	---	14.1	14.0	14.0	---	---	---	---	---	---
26	14.2	13.6	13.8	14.1	14.0	14.1	---	---	---	---	---	---
27	13.8	13.4	13.6	14.2	14.1	14.1	---	---	---	---	---	---
28	13.6	13.6	13.6	14.2	14.1	14.1	---	---	---	---	---	---
29	13.7	13.6	13.7	14.2	14.1	14.2	---	---	---	---	---	---
30	---	---	---	14.2	14.1	14.2	---	---	---	---	---	---
31	---	---	---	14.7	14.0	14.3	---	---	---	---	---	---
MONTH	14.2	13.4	13.7	14.7	13.8	14.0	---	---	---	---	---	---



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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 East End 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 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1993 to September 1996 (discontinued).

GAGE.--Data logger. Elevation of gage is 409.36 ft above sea level.

REMARKS.--Records fair. Flow is effected by Ft. Campbell diverting an average of about 10.0 ft<sup>3</sup>/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 YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage Height (ft)
Jan. 24	0545	2,390	11.41	May 15	1415	*5,140	*15.50
Feb. 20	0615	1,900	10.59	May 28	0745	2,280	11.23
Mar. 6	1230	2,050	10.84				

Minimum discharge 8.4 ft<sup>3</sup>/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	e23	23	27	148	234	1110	235	188	62	386	27
2	e13	e24	21	69	135	198	508	178	336	60	158	26
3	e13	e22	21	150	121	161	379	152	313	57	124	87
4	e13	e20	19	98	111	139	309	136	212	53	109	35
5	e16	e18	19	79	103	177	260	121	175	51	99	33
6	e16	e45	17	73	101	1290	228	233	158	49	92	30
7	e14	e125	17	67	99	1180	205	968	175	48	89	29
8	12	e90	16	61	98	572	194	732	240	49	94	28
9	e12	e60	16	57	95	384	188	397	291	45	124	27
10	e11	e37	15	55	95	315	167	285	291	41	92	25
11	e9.9	e60	14	95	90	267	154	242	288	41	75	24
12	e9.7	e53	14	373	84	238	144	226	527	39	70	22
13	e9.7	e48	14	202	81	210	153	185	496	38	69	22
14	e12	e42	14	165	82	185	219	161	381	37	59	22
15	e12	e37	14	143	77	171	178	3580	258	40	55	22
16	e10	e32	14	126	74	169	145	1140	353	33	53	28
17	e9.5	e30	15	119	70	210	129	517	214	32	51	23
18	e9	e29	25	157	68	170	121	380	178	28	49	21
19	e8.5	e28	27	399	160	1090	117	306	160	27	46	20
20	e11	e27	45	203	1280	866	308	253	145	130	43	20
21	e12	e26	41	160	439	545	300	212	132	80	42	31
22	e11	e22	38	140	282	573	201	185	121	530	39	23
23	e10.5	30	35	155	218	441	470	166	112	109	38	21
24	e10	27	33	1590	171	350	299	151	104	77	37	21
25	e10	26	32	508	146	630	233	136	96	66	36	20
26	e35	26	29	346	132	454	196	128	89	57	34	21
27	e73	27	28	334	165	328	162	332	83	51	34	108
28	e55	24	27	241	684	288	143	1430	77	49	32	271
29	e32	22	25	212	315	261	267	431	74	50	30	148
30	e15	22	25	185	---	229	427	281	68	49	29	92
31	e14	---	27	164	---	530	---	221	---	831	28	---
TOTAL	508.5	1102	720	6753	5724	12855	7914	14100	6335	2909	2316	1327
MEAN	16.4	36.7	23.2	218	197	415	264	455	211	93.8	74.7	44.2
MAX	73	125	45	1590	1280	1290	1110	3580	527	831	386	271
MIN	8.5	18	14	27	68	139	117	121	68	27	28	20
CFSM	.13	.29	.18	1.72	1.55	3.27	2.08	3.58	1.66	.74	.59	.35
IN.	.15	.32	.21	1.98	1.68	3.77	2.32	4.13	1.86	.85	.68	.39

e Estimated

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

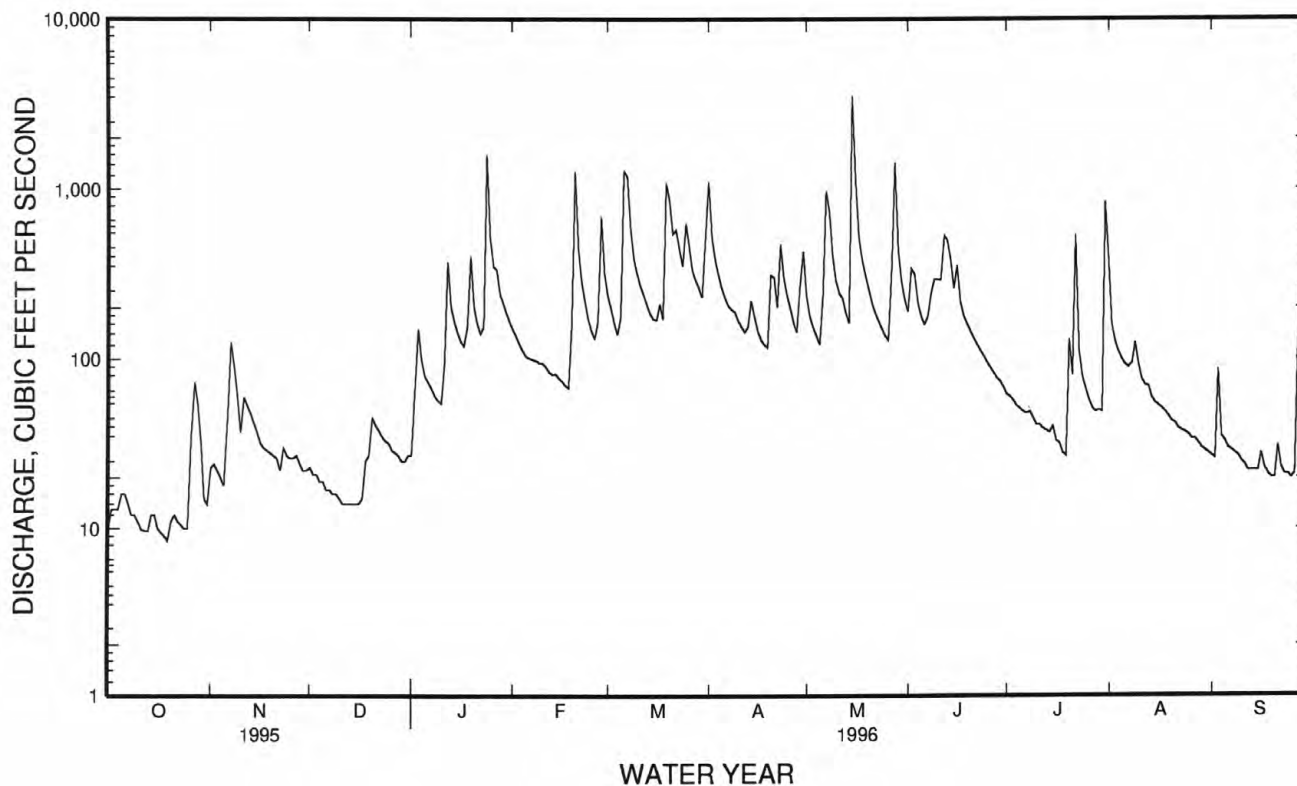
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	13.8	29.5	79.5	237	367	408	269	247	126	55.3	35.6	20.6
MAX	16.4	36.7	152	292	695	640	490	455	211	93.8	74.7	44.2
(WY)	1996	1996	1994	1994	1994	1994	1994	1996	1996	1996	1996	1996
MIN	10.6	15.6	23.2	201	197	169	55.1	119	75.4	31.5	12.0	10.8
(WY)	1994	1995	1996	1995	1996	1995	1995	1994	1994	1995	1993	1993

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

ANNUAL TOTAL	31803.7		62563.5									
ANNUAL MEAN	87.1		171							157		
HIGHEST ANNUAL MEAN										212		1994
LOWEST ANNUAL MEAN										88.6		1995
HIGHEST DAILY MEAN	1110	Feb 16	3580	May 15	3580	May 15	1996					
LOWEST DAILY MEAN	8.5	Oct 19	8.5	Oct 19	7.5	Sep 22	1993					
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 25	10	Oct 13	8.0	Sep 7	1993					
INSTANTANEOUS PEAK FLOW			5140	May 15	5140	May 15	1996					
INSTANTANEOUS PEAK STAGE			15.50	May 15	16.55	Mar 7	1994					
INSTANTANEOUS LOW FLOW			8.4	Oct 1	6.0	Nov 4	1994					
ANNUAL RUNOFF (CFSM)	.69		1.35		1.24							
ANNUAL RUNOFF (INCHES)	9.32		18.33		16.83							
10 PERCENT EXCEEDS	176		380		345							
50 PERCENT EXCEEDS	45		88		55							
90 PERCENT EXCEEDS	12		16		11							

a Also occurred Oct. 2.



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 mi<sup>2</sup>. PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft higher.

REVISIONS.--WSP 1556: Drainage area.

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,148,200 cfs-days, June 14, elevation, 728.22 ft; minimum, 1,340,700 cfs-days, Nov. 6, elevation, 693.87 ft.

**03416500 DALE HOLLOW LAKE.**--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3.0 mi east of Celina, and 7.3 mi upstream from mouth. DRAINAGE AREA, 936 mi<sup>2</sup>. PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 696,600 cfs-days, May 9, elevation, 652.02 ft; minimum, 507,900 cfs-days, Nov. 4, elevation, 637.57 ft.

**03418400 CORDELL HULL RESERVOIR.**--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam Cumberland River, 2.7 mi north of Carthage, and at mile 313.5. DRAINAGE AREA, 8,095 mi<sup>2</sup>. PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 135,700 cfs-days, July 18, elevation, 504.82 ft; minimum, 103,300 cfs-days, Mar. 16, elevation, 499.03 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
	03413500 LAKE CUMBERLAND				03416500 DALE HOLLOW LAKE			03418400 CORDELL HULL RESERVOIR	
Sept. 30...	696.34	1,392,800	-	637.76	510,100	-	504.29	132,400	-
Oct. 31...	694.60	1,356,000	-36,800	637.70	509,400	-700	520.65	122,700	-9,700
Nov. 30...	698.36	1,436,200	+80,200	639.62	532,800	+23,400	500.20	109,400	-13,300
Dec. 31...	699.82	1,467,900	+31,700	640.44	542,900	+10,100	500.67	111,800	+2,400
CAL YR 1995	-	-	+299,100	-	-	+54,400	-	-	+1,500
Jan. 31...	713.96	1,791,200	+323,300	641.94	561,700	+18,800	499.65	106,300	-5,500
Feb. 28...	711.15	1,724,600	-66,600	643.73	584,600	+22,900	500.70	112,000	+5,700
Mar. 31...	723.23	2,019,700	+295,100	649.93	667,400	+82,800	500.81	112,600	+600
Apr. 30...	724.12	2,042,400	+22,700	651.27	686,100	+18,700	504.24	132,100	+19,500
May 31...	727.70	2,134,700	+92,300	651.19	685,000	-11,000	504.10	131,200	-900
June 30...	722.22	1,994,200	-140,500	650.50	675,400	-9,600	504.18	131,700	+500
July 31...	716.81	1,860,000	-134,200	647.48	634,000	-41,400	504.29	132,400	+700
Aug. 31...	706.94	1,627,100	-232,900	643.83	585,900	-48,100	504.22	132,000	-400
Sept. 30...	701.33	1,501,000	-126,100	640.86	548,100	-37,800	504.04	130,900	-1,100
WTR YR 1996	-	-	-76,400	-	-	+38,000	-	-	-1,500



CUMBERLAND RIVER BASIN  
RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at pen-stock inlet on Collins River, 700 ft southwest of powerhouse of Tennessee Valley Authority, 1.5 mi northwest of Rock Island, 1.8 mi upstream from mouth of Collins River, and 2.0 mi upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi<sup>2</sup>. 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, 27,000 cfs-days, Jan. 14, elevation, 806.31 ft; minimum, 13,100 cfs-days, Mar. 6, elevation, 790.18 ft.

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi north of Smithville, 14 mi southeast of Carthage, and at mile 26.6. DRAINAGE AREA, 2,174 mi<sup>2</sup>. 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, 683,400 cfs-days, April 2, elevation, 649.42 ft; minimum, 489,500 cfs-days, Nov. 9, elevation, 626.81 ft.

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2. DRAINAGE AREA, 11,673 mi<sup>2</sup>. 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, 217,800 cfs-days, Nov. 7, elevation, 445.53 ft; minimum, 184,800 cfs-days, Oct. 15, elevation, 442.50 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
03422000 GREAT FALLS LAKE				03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30...	798.78	19,700	-	630.91	522,300	-	444.75	208,800	-
Oct. 31...	794.03	15,700	-4,000	629.79	513,300	-9,000	443.90	199,400	-9,400
Nov. 30...	792.52	14,600	-1,100	634.45	551,500	+38,200	444.91	210,600	+11,200
Dec. 31...	795.10	16,500	+1,900	631.81	529,600	-21,900	444.53	206,300	-4,300
CAL YEAR 1995	-	-	-2,300	-	-	+67,100	-	-	-2,500
Jan. 31...	806.01	26,100	+9,600	634.56	552,400	+22,800	444.82	209,600	+3,300
Feb. 28...	791.60	14,000	-12,100	637.49	577,100	+24,700	444.89	210,400	+800
Mar. 31...	805.48	25,500	+11,500	648.71	676,800	+99,700	444.66	207,800	-2,600
Apr. 30...	805.70	25,700	+200	648.66	676,400	-400	444.65	207,700	-100
May 31...	795.93	17,200	-8,500	647.13	662,300	-14,100	444.55	206,600	-1,100
June 30...	791.02	13,600	-3,600	647.99	670,200	+7,900	444.63	207,400	+800
July 31...	803.88	23,900	+10,300	643.97	633,800	-36,400	445.09	212,600	+5,200
Aug. 31...	800.27	20,700	-3,200	637.28	575,400	-58,400	444.61	207,200	-5,400
Sept. 30...	804.13	24,100	+3,400	634.08	548,400	-27,000	444.97	211,300	+4,100
WTR YR 1996	-	-	+4,400	-	-	+26,100	-	-	+2,500

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 mi<sup>2</sup>. 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, 230,600 cfs-days, Oct. 6, elevation, 494.35 ft; minimum, 148,200 cfs-days, Dec. 30, Feb. 6, elevation, 482.32 ft.

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi west of Ashland City, 16 mi southeast of the courthouse in Clarksville, and at mile 148.7. DRAINAGE AREA, 14,159 mi<sup>2</sup>.

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

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, KY, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi northeast of Grand Rivers, KY, and at mile 30.6. DRAINAGE AREA, 17,598 mi<sup>2</sup>. 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, 567,400 cfs-days, May 18, elevation, 363.10 ft; minimum content, 279,200 cfs-days, Jan. 31, minimum, 352.69 ft. Contents based on backwater profile.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03430050 J. PERCY PRIEST LAKE				*03438210 LAKE BARKLEY		
Sept. 30.....	490.20	199,100	-	355.44	341,800	-
Oct. 31.....	488.33	186,000	-13,100	355.17	334,400	-7,400
Nov. 30.....	483.96	157,800	-28,200	354.55	320,300	-14,100
Dec. 31.....	482.51	149,200	-8,600	354.50	324,400	+4,100
CAL YR 1995	-	-	+300	-	-	+5,300
Jan. 31.....	483.11	152,600	+3,400	353.96	320,300	-4,100
Feb. 28.....	483.75	156,500	+3,900	355.40	340,800	+20,500
Mar. 31.....	486.99	176,900	+20,400	354.45	340,300	-500
Apr. 30.....	490.90	204,200	+27,300	359.83	462,600	+122,300
May 31.....	490.11	198,400	-5,800	359.50	462,000	-600
June 30.....	490.16	198,800	+400	359.20	443,900	-18,100
July 31.....	492.40	215,300	+16,500	357.97	415,300	-28,600
Aug. 31.....	490.26	199,500	-15,800	357.02	384,900	-30,400
Sept. 30.....	490.29	199,700	+200	356.40	366,200	-18,700
WTR YR 1996	-	-	+900	-	-	+24,400

\* Contents based on backwater profile.

TENNESSEE RIVER BASIN  
03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN  
WATER-QUALITY RECORDS

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

DRAINAGE AREA.--1,858 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1946-47, 1960-61, 1969-70, 1974-75, 1979-80, April to September 1996.

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
APR											
02...	1245	51	7.5	8.5	742	11.2	99	--	--	16	0
16...	1415	59	7.6	14.0	735	10.2	103	--	--	18	0
MAY											
16...	1230	77	7.5	15.0	739	9.6	98	--	--	14	0
JUL											
02...	1115	83	7.5	27.5	729	8.3	110	K74	370	20	0
12...	1200	97	7.6	24.5	736	7.9	98	K38	200	21	0
AUG											
07...	1200	83	7.6	25.5	740	7.4	93	500	1300	20	0
SEP											
16...	1400	92	8.2	20.0	729	8.6	99	K62	220	20	0

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
APR											
02...	4.2	1.3	3.9	33	0.4	1.0	16	4.0	2.6	<0.10	9.5
16...	4.8	1.4	4.6	34	0.5	1.2	20	4.6	2.7	<0.10	7.5
MAY											
16...	3.8	1.1	3.8	35	0.4	1.1	19	5.0	3.7	<0.10	7.6
JUL											
02...	5.4	1.6	6.7	39	0.7	1.8	24	5.1	4.2	<0.10	9.8
12...	5.6	1.6	8.7	45	0.8	2.1	27	6.1	5.8	0.10	8.5
AUG											
07...	5.5	1.6	6.7	39	0.6	1.9	25	5.4	3.5	<0.10	11
SEP											
16...	5.4	1.6	8.5	45	0.8	2.0	34	6.3	5.4	<0.10	10

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

TENNESSEE RIVER BASIN  
03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
APR											
02...	39	39	0.05	0.560	0.010	0.03	0.560	0.570	0.570	0.04	0.030
16...	40	42	0.05	0.480	0.030	0.10	0.480	0.510	0.510	0.03	0.020
MAY											
16...	58	40	0.08	0.450	0.050	0.16	0.450	0.500	0.500	0.03	0.020
JUL											
02...	56	49	0.08	0.550	0.010	0.03	0.550	0.560	0.56	0.04	0.030
12...	61	58	0.08	0.660	0.020	0.07	0.660	0.680	0.680	0.03	0.020
AUG											
07...	57	54	0.08	0.740	0.040	0.13	0.740	0.780	0.780	--	<0.015
SEP											
16...	54	63	0.07	0.630	0.020	0.07	0.630	0.650	0.650	--	<0.015

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
APR											
02...	<0.20	0.20	0.77	0.050	0.020	0.020	71	4	1.2	0.8	17
16...	<0.20	0.20	0.71	0.050	0.030	0.040	83	4	1.4	0.5	10
MAY											
16...	<0.20	0.30	0.80	0.080	0.020	0.020	65	5	1.4	1.4	25
JUL											
02...	<0.20	0.30	0.86	0.10	0.080	0.090	130	6	3.1	0.4	52
12...	0.30	0.20	0.88	0.080	0.070	0.080	120	8	3.1	0.4	7
AUG											
07...	<0.20	0.20	0.98	0.110	0.090	0.070	130	6	2.0	1.3	50
SEP											
16...	<0.20	<0.20	--	0.090	0.060	0.080	91	7	1.9	0.6	13



TENNESSEE RIVER BASIN  
03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
APR										
02...	73	<0.001	0.005	<0.005	0.03	<0.001	<0.002	<0.02	<0.02	<0.02
16...	70	<0.001	E0.002	<0.005	<0.002	E0.003	<0.002	<0.02	<0.02	<0.02
MAY										
16...	92	<0.001	0.01	<0.005	<0.002	0.03	0.005	<0.02	<0.02	<0.02
JUL										
02...	29	<0.001	0.02	<0.005	E0.002	0.01	E0.002	<0.02	<0.02	<0.02
12...	81	<0.001	0.02	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
AUG										
07...	92	--	--	--	--	--	--	<0.02	<0.02	<0.02
SEP										
16...	97	<0.001	0.01	<0.005	0.01	0.01	<0.002	<0.02	<0.02	<0.02

E--Estimated

TENNESSEE RIVER BASIN  
03461500 PIGEON RIVER AT NEWPORT, TN  
WATER-QUALITY RECORDS

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft upstream from bridge on U.S. Highway 25 and 70 at Newport, 0.6 mi downstream from Morell Branch, and at mile 6.8

DRAINAGE AREA.--66 mi<sup>2</sup>.

PERIOD OF RECORD.-- Water years 1974-75, 1979-80, April to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) UNITS (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
APR 25...	1415	--	139	8.6	13.5	733	11.8	117	470	150	30	0
JUL 11...	1115	153	207	8.1	22.0	737	9.1	108	K58	550	41	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR 25...	8.7	2.1	16	52	1	1.8	33	18	6.9	<0.10	5.8	84
JUL 11...	12	2.7	22	52	1	1.9	487	25	12	0.10	8.3	115

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, ORGANICAMMONIA DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
APR 25...	80	0.11	--	--	<0.010	--	0.290	0.290	0.290	--	--	<0.015
JUL 11...	115	0.16	47.5	0.400	0.010	0.03	0.400	0.410	0.410	0.03	0.28	0.020

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

TENNESSEE RIVER BASIN  
03461500 PIGEON RIVER AT NEWPORT, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
APR 25...	<0.20	0.30	--	0.59	0.020	<0.010	<0.010	56	7	1.8	0.7	11
JUL 11...	0.30	0.20	0.71	0.61	0.020	0.020	0.030	70	7	3.0	0.2	5

DATE	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)
APR 25...	--	90	<0.001	<0.002	<0.005	<0.002	<0.001	<0.002	<0.02	<0.02	<0.02
JUL 11...	2.1	78	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02

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 mi<sup>2</sup>.

WATER-DISCHARGE RECORD

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.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft<sup>3</sup>/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1420	33,600	10.16	Jan. 27	0715	28,600	9.19
Jan. 19	0900	*34,200	*10.27	Feb. 9	1445	11,600	5.55

Minimum discharge, 395 ft<sup>3</sup>/s, Sept. 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563	679	1210	926	e2900	1610	2760	2390	1280	629	1620	652
2	549	918	1080	1010	e2300	1550	2700	1970	1150	663	1130	574
3	535	1170	995	1300	e1900	1480	2460	1760	1070	1120	765	565
4	1370	1010	967	e1150	e1600	1390	2340	1600	1040	874	797	846
5	e19000	867	915	e1000	e1300	1360	2200	1470	1040	678	884	1510
6	e8500	806	881	990	e1000	1570	2110	1690	964	612	951	1600
7	3510	1530	885	1050	e1500	2000	2070	2210	882	587	869	966
8	2350	2760	869	840	e2500	2020	1960	2470	1150	580	758	838
9	1850	e1750	983	706	9730	1680	2010	2180	1440	670	1880	713
10	1540	e1400	1040	1010	6570	1550	1900	1870	2530	662	1450	670
11	1350	e1200	780	938	4930	1550	1800	1800	1760	555	1020	677
12	1200	e1800	807	927	4170	1510	1760	1990	1420	519	2110	684
13	1100	e2300	948	869	3370	1480	1760	1650	1320	548	3080	596
14	1150	1950	902	875	3020	1430	1720	1520	1200	569	1610	531
15	1390	1730	854	1140	3000	1510	1630	1520	1040	766	1260	489
16	1110	1480	1020	1910	2820	2050	1820	1680	992	1070	1170	498
17	978	1360	1140	2190	2560	1930	1810	1550	1190	765	1060	708
18	915	1300	1070	3500	2370	1820	1660	1400	1370	616	865	736
19	881	1350	1510	21300	2160	2460	1610	1280	1210	562	779	566
20	847	1360	2260	7790	2180	3720	1670	1190	1410	573	747	506
21	816	1280	1840	4310	2730	2890	2090	1120	1350	627	684	474
22	787	1170	1460	3100	e2400	2450	1920	1130	1060	526	700	477
23	753	1080	1230	2490	e2300	2230	1580	1030	932	523	760	468
24	731	1040	1080	2960	2250	2140	1500	954	863	484	796	424
25	721	987	917	3370	2000	2240	1380	1340	969	453	828	409
26	704	936	937	2830	1850	2390	1760	1590	843	502	884	411
27	695	902	868	19900	1800	2200	2280	1960	767	548	842	400
28	801	949	874	7960	1880	2530	1810	2930	721	460	928	1190
29	752	1630	731	4860	1780	3770	1640	2470	681	508	747	3710
30	673	1460	768	3770	---	3160	2070	1810	651	532	670	1540
31	653	---	845	3410	---	2820	---	1490	---	692	663	---
TOTAL	58774	40154	32666	110381	80870	64490	57780	53014	34295	19473	33307	24428
MEAN	1896	1338	1054	3561	2789	2080	1926	1710	1143	628	1074	814
MAX	19000	2760	2260	21300	9730	3770	2760	2930	2530	1120	3080	3710
MIN	535	679	731	706	1000	1360	1380	954	651	453	663	400
CFSM	2.36	1.66	1.31	4.42	3.46	2.58	2.39	2.12	1.42	.78	1.33	1.01
IN.	2.72	1.86	1.51	5.10	3.74	2.98	2.67	2.45	1.58	.90	1.54	1.13

e Estimated



## TENNESSEE RIVER BASIN

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1996, BY WATER YEAR (WY)

MEAN	832	1026	1299	1707	2049	2343	2012	1577	1131	938	929	778
MAX	2630	4720	3073	4020	4494	5102	4169	3171	3196	2525	4876	2648
(WY)	1930	1978	1962	1995	1957	1963	1983	1984	1992	1949	1940	1928
MIN	246	294	353	382	635	649	699	597	376	351	182	187
(WY)	1954	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1925

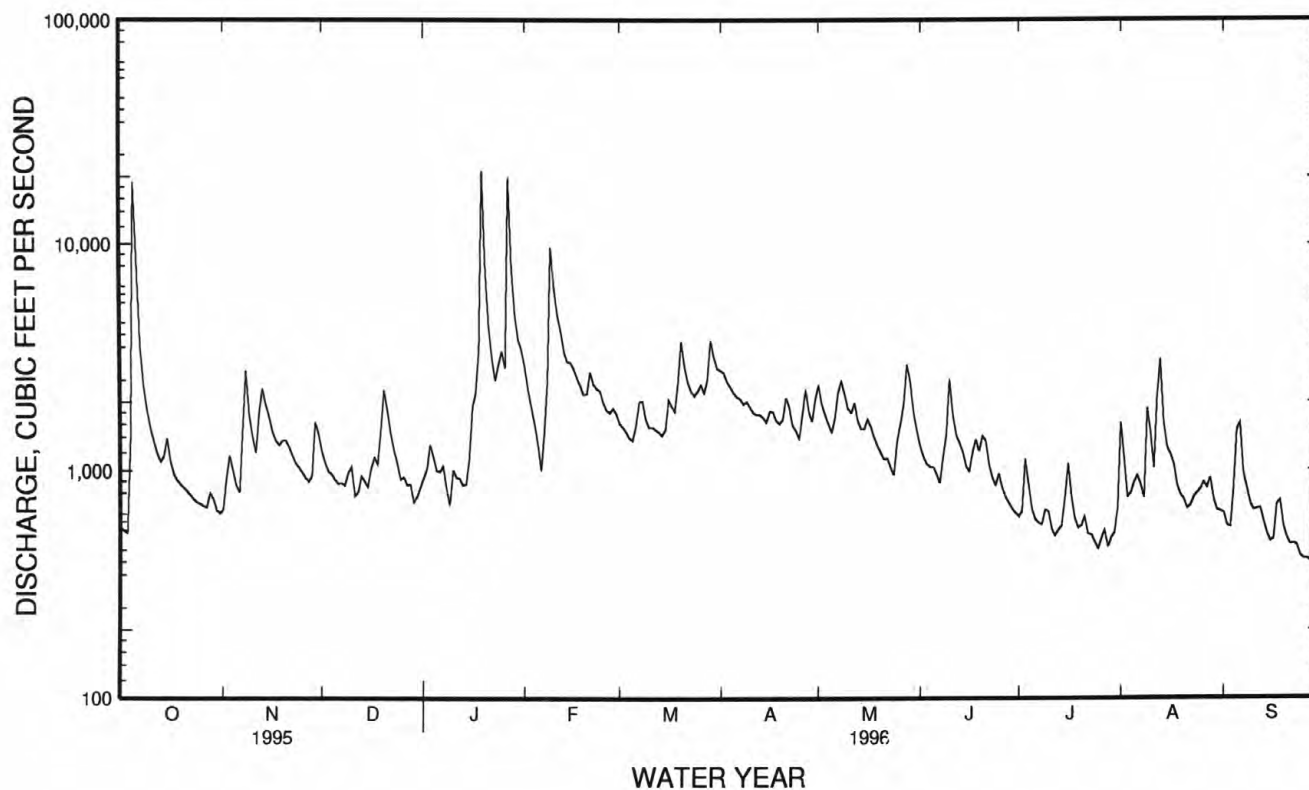
## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1920 - 1996

ANNUAL TOTAL	651206			609632								
ANNUAL MEAN	1784			1666						1381		
HIGHEST ANNUAL MEAN										1948		1974
LOWEST ANNUAL MEAN										694		1988
HIGHEST DAILY MEAN	40500	Jan 15		21300	Jan 19					50800	Nov 6	1977
LOWEST DAILY MEAN	535	Oct 3		400	Sep 27					88	Sep 8	1925
ANNUAL SEVEN-DAY MINIMUM	580	Sep 27		438	Sep 21					121	Sep 3	1925
INSTANTANEOUS PEAK FLOW				34200	Jan 19					a110000	Nov 6	1977
INSTANTANEOUS PEAK STAGE				10.27	Jan 19					21.52	Nov 6	1977
INSTANTANEOUS LOW FLOW				b395	Sep 27					c85	Sep 8	1925
ANNUAL RUNOFF (CFSM)	2.22			2.07						1.72		
ANNUAL RUNOFF (INCHES)	30.09			28.17						23.31		
10 PERCENT EXCEEDS	2850			2710						2580		
50 PERCENT EXCEEDS	1200			1210						1010		
90 PERCENT EXCEEDS	654			615						406		

a From rating curve extended above 48,000 ft<sup>3</sup>/s on basis of contracted opening and slope-area measurements of peak flow.

b Also occurred on Sept. 28.

c Also occurred on Sept. 9, 1925.



TENNESSEE RIVER BASIN  
03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years August 1979 to September 1982, March to September 1996.

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL KF AGAR (COLS./100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
MAR 25...	1415	50	7.4	8.0	722	11.3	101	--	--	17	3
APR 23...	1515	53	7.4	16.0	720	9.8	105	K36	K22	20	3
MAY 16...	1430	52	7.4	13.0	727	10.0	99	--	--	19	3
JUN 19...	1200	61	7.1	23.0	725	7.7	94	900	270	21	2
JUL 31...	1315	95	8.0	21.5	724	7.9	94	--	--	29	0
AUG 08...	1000	75	7.4	23.5	725	7.7	95	K92	400	27	1
SEP 19...	1030	72	7.7	16.0	725	9.2	98	K38	370	26	3

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
MAR 25...	4.4	1.5	2.7	25	0.3	0.70	15	3.2	3.2	0.20	8.7
APR 23...	5.3	1.7	3.3	25	0.3	1.0	18	3.7	2.7	0.20	7.8
MAY 16...	4.8	1.6	2.6	22	0.3	0.90	15	3.1	2.7	0.20	9.5
JUN 19...	5.5	1.7	2.9	22	0.3	1.2	19	3.6	3.2	0.20	9.0
JUL 31...	7.8	2.4	3.6	20	0.3	1.3	30	4.7	3.4	0.40	8.7
AUG 08...	7.3	2.2	3.5	21	0.3	1.2	27	4.1	3.7	0.30	9.2
SEP 19...	6.8	2.2	3.6	22	0.3	1.4	23	4.2	3.6	0.30	9.3

DATE	SOLIDS RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
MAR 25...	36	35	0.05	--	<0.010	--	0.400	0.400	0.400	--	<0.015
APR 23...	33	38	0.05	--	<0.010	--	0.300	0.300	0.300	0.03	0.020
MAY 16...	45	36	0.06	--	<0.010	--	0.360	0.360	0.360	0.05	0.040
JUN 19...	45	42	0.06	0.530	0.010	0.03	0.530	0.540	0.540	0.03	0.020
JUL 31...	45	52	0.06	0.260	0.010	0.03	0.260	0.270	0.270	0.03	0.020
AUG 08...	50	48	0.07	--	--	--	--	--	--	--	--
SEP 19...	32	47	0.04	0.300	0.010	0.03	0.300	0.310	0.310	0.04	0.030

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

TENNESSEE RIVER BASIN  
03465500 - NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
MAR 25...	<0.20	<0.20	--	0.010	<0.010	<0.010	45	6	--	--	4
APR 23...	<0.20	0.30	0.60	0.030	<0.010	<0.010	40	8	1.0	0.6	8
MAY 16...	<0.20	<0.20	--	0.030	<0.010	<0.010	49	7	1.4	0.6	6
JUN 19...	<0.20	0.30	0.84	0.050	<0.010	<0.010	56	6	1.4	1.7	58
JUL 31...	<0.20	0.30	0.57	0.050	<0.010	0.020	49	13	1.6	0.8	>24
AUG 08...	--	--	--	--	--	--	51	18	1.5	0.7	26
SEP 19...	<0.20	<0.20	--	0.020	<0.010	<0.010	48	14	1.4	0.3	15

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC. (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC. (UG/L) (46342)	ALDI- CARB. WATER, FLTRD, GF 0.7U REC. (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC. (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC. (UG/L) (49314)
MAR 25...	79	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	--	--	--
APR 23...	83	--	--	--	--	--	--	<0.02	<0.02	<0.02
MAY 16...	51	<0.001	E0.004	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
JUN 19...	97	<0.001	<0.002	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02
JUL 31...	87	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
AUG 08...	77	--	--	--	--	--	--	<0.02	<0.02	<0.02
SEP 19...	93	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02

E--Estimated

TENNESSEE RIVER BASIN  
03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN  
WATER-QUALITY RECORDS

LOCATION.--Lat 36°12'21", long 82°39'03", Greene County, Hydrologic Unit 06010108, on right bank, 0.6 mile above mouth at Nolichucky River, 1.8 miles southwest of Limestone, and at river mile 0.6.

DRAINAGE AREA.--79.0 mi<sup>2</sup>.

PERIOD OF RECORD.--March to September 1996.

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
MAR											
20...	1315	422	7.9	5.5	715	12.6	107	--	--	220	14
27...	1350	430	8.2	10.5	735	11.9	111	--	--	210	4
APR											
04...	1255	444	8.3	13.0	724	10.5	105	--	--	240	25
11...	1230	435	8.4	10.0	730	12.6	117	--	--	220	5
18...	1215	428	8.3	12.5	730	12.0	118	--	--	230	27
24...	1145	445	8.3	13.0	733	11.2	110	400	100	230	14
MAY											
01...	1200	417	7.9	11.5	729	10.5	101	K10000	7600	210	17
07...	1400	446	7.8	17.0	732	9.4	101	4600	950	220	0
15...	1245	457	8.3	14.5	732	9.4	97	2300	700	220	1
20...	1415	462	8.2	21.0	723	8.0	94	5100	440	220	9
29...	1430	419	8.1	18.5	727	7.6	85	--	1600	200	5
JUN											
05...	1315	454	8.3	17.0	734	8.9	96	2200	610	200	0
13...	1215	452	8.2	18.0	732	8.0	88	K7200	K6000	220	12
20...	1000	451	7.9	21.0	728	7.5	88	1700	420	220	8
25...	1245	418	8.2	20.5	731	7.7	90	--	7100	200	12
JUL											
01...	1230	445	8.3	23.0	--	9.1	--	1100	460	220	4
10...	1245	441	8.3	21.0	734	8.8	102	--	--	230	24
17...	1315	458	8.0	21.5	737	8.8	103	--	670	230	18
25...	1215	446	8.2	21.0	731	7.8	91	2000	3300	220	9
30...	1215	413	8.2	20.5	734	8.4	97	K15000	>3300	220	17
AUG											
05...	1115	333	8.1	21.0	732	8.9	104	>2000	K20000	150	10
12...	1130	443	8.2	20.0	728	9.0	103	3200	7100	220	11
21...	1315	450	8.2	22.0	732	10.2	122	--	820	230	15
27...	1215	445	8.3	21.5	731	8.9	105	1200	2900	220	10
SEP											
04...	1415	436	8.2	20.5	729	10.8	126	760	870	230	13
09...	1245	442	8.1	21.5	724	8.9	106	500	1000	230	13
18...	1115	445	8.3	17.0	729	9.4	101	590	560	230	36
25...	1200	449	8.3	18.0	--	9.4	--	630	K200	230	17

K--Results based on non-ideal colony count



TENNESSEE RIVER BASIN  
03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT II FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
MAR											
20...	68	12	2.8	3	0.1	3.2	205	11	6.2	0.20	7.2
27...	66	12	3.0	3	0.1	2.7	209	10	6.2	0.20	5.4
APR											
04...	73	13	2.8	2	0.1	2.8	210	11	6.3	0.20	7.6
11...	67	12	2.7	3	0.1	2.7	211	11	6.1	0.20	6.5
18...	70	13	2.6	2	0.1	3.0	202	2.1	1.1	<0.10	5.4
24...	70	13	2.9	3	0.1	2.9	214	11	5.4	0.20	7.3
MAY											
01...	67	11	3.1	3	0.1	4.5	195	13	6.6	0.20	8.2
07...	67	12	2.6	3	0.1	3.1	216	8.7	5.6	0.20	8.9
15...	69	12	2.4	2	0.1	2.8	221	8.8	5.7	0.20	8.9
20...	68	13	2.5	2	0.1	4.3	214	8.9	5.6	0.20	9.7
29...	62	9.9	2.7	3	0.1	4.7	190	12	6.4	0.20	8.5
JUN											
05...	61	12	2.3	2	0.1	2.9	221	8.2	5.9	0.20	8.8
13...	70	12	2.7	3	0.1	3.9	212	9.6	5.8	0.30	8.6
20...	69	12	2.0	2	0.1	3.6	213	6.7	5.4	0.20	8.5
25...	62	11	2.2	2	0.1	5.2	188	7.9	6.2	0.20	8.2
JUL											
01...	67	13	2.1	2	0.1	3.6	217	7.1	5.2	0.20	8.6
10...	72	13	2.4	2	0.1	3.5	210	7.0	5.3	0.20	9.4
17...	70	13	3.0	3	0.1	4.3	211	11	5.9	0.20	9.2
25...	68	13	2.4	2	0.1	3.7	214	8.3	5.5	0.20	8.7
30...	67	12	2.3	2	0.1	3.7	199	7.6	5.0	0.20	8.5
AUG											
05...	49	7.7	2.4	3	0.1	6.7	144	10	6.1	0.20	7.3
12...	68	12	2.7	3	0.1	4.2	208	9.4	6.1	0.20	8.3
21...	70	13	2.5	2	0.1	3.8	213	11	5.5	0.20	7.7
27...	67	13	2.4	2	0.1	4.1	211	8.2	5.4	0.20	8.3
SEP											
04...	71	13	2.3	2	0.1	3.7	217	7.9	5.3	0.20	8.9
09...	69	13	2.4	2	0.1	4.0	212	7.6	5.3	0.20	8.9
18...	69	13	2.4	2	0.1	3.8	190	7.9	5.3	0.20	9.3
25...	68	14	2.5	2	0.1	3.7	210	8.1	5.4	0.20	8.9

## TENNESSEE RIVER BASIN

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

## WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAR											
20...	255	243	0.35	1.98	0.020	0.07	1.98	2.00	2.00	0.03	0.020
27...	230	240	0.31	1.98	0.020	0.07	1.98	2.00	2.00	0.04	0.030
APR											
04...	254	254	0.35	2.38	0.020	0.07	2.38	2.40	2.40	0.06	0.050
11...	236	244	0.32	--	<0.010	--	2.10	2.10	2.10	--	<0.015
18...	--	227	--	1.87	0.030	0.10	1.87	1.90	1.90	0.06	0.050
24...	249	249	0.34	1.78	0.020	0.07	1.78	1.80	1.80	0.04	0.030
MAY											
01...	252	238	0.34	1.48	0.020	0.07	1.48	1.50	1.50	0.09	0.070
07...	273	246	0.37	1.67	0.030	0.10	1.67	1.70	1.70	0.08	0.060
15...	260	251	0.35	1.77	0.030	0.10	1.77	1.80	1.80	0.03	0.020
20...	272	247	0.37	1.31	0.090	0.30	1.31	1.40	1.40	0.21	0.160
29...	246	221	0.33	1.97	0.030	0.10	1.97	2.00	2.00	0.03	0.020
JUN											
05...	259	244	0.35	2.06	0.040	0.13	2.06	2.10	2.10	0.05	0.040
13...	240	251	0.33	2.25	0.050	0.16	2.25	2.30	2.30	0.12	0.090
20...	279	245	0.38	2.16	0.040	0.13	2.16	2.20	2.20	0.05	0.040
25...	239	216	0.33	2.24	0.06	0.20	2.24	2.30	2.30	0.09	0.070
JUL											
01...	257	237	0.35	1.97	0.030	0.10	1.97	2.00	2.00	0.05	0.04
10...	248	246	0.34	1.77	0.030	0.10	1.77	1.80	1.80	0.04	0.030
17...	256	250	0.35	1.48	0.020	0.07	1.48	1.50	1.50	0.06	0.050
25...	258	246	0.35	1.57	0.030	0.10	1.57	1.60	1.60	0.08	0.060
30...	242	226	0.33	1.48	0.020	0.07	1.48	1.50	1.50	0.06	0.05
AUG											
05...	189	184	0.26	1.67	0.030	0.10	1.67	1.70	1.70	0.05	0.040
12...	260	244	0.35	1.88	0.020	0.07	1.88	1.90	1.90	0.05	0.040
21...	258	250	0.35	1.88	0.020	0.07	1.88	1.90	1.90	0.03	0.020
27...	260	244	0.35	1.88	0.020	0.07	1.88	1.90	1.90	0.04	0.030
SEP											
04...	247	249	0.34	1.47	0.030	0.10	1.47	1.50	1.50	--	<0.015
09...	243	246	0.33	1.68	0.020	0.07	1.68	1.70	1.70	0.03	0.020
18...	242	233	0.33	1.68	0.020	0.07	1.68	1.70	1.70	0.03	0.020
25...	254	244	0.35	--	<0.010	--	1.70	1.70	1.70	0.03	0.020

## TENNESSEE RIVER BASIN

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

## WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)
MAR											
20...	<0.20	0.20	2.2	0.050	0.030	0.030	45	16	2.0	0.4	26
27...	<0.20	0.20	2.2	0.030	0.020	0.020	24	17	1.5	0.5	9
APR											
04...	<0.20	0.40	2.8	0.060	0.040	0.030	37	20	1.5	0.7	49
11...	<0.20	0.30	2.4	0.030	0.030	0.020	28	19	1.3	0.3	32
18...	0.20	<0.20	--	0.030	0.020	0.020	35	22	1.4	0.5	21
24...	0.20	0.30	2.1	0.030	0.030	0.020	29	25	1.4	0.4	18
MAY											
01...	0.50	0.70	2.2	0.130	0.060	0.040	32	29	3.5	1.0	32
07...	0.30	0.50	2.2	0.100	0.040	0.040	24	27	1.8	0.8	54
15...	0.20	0.40	2.2	0.080	0.020	0.030	22	25	1.4	0.8	44
20...	0.60	0.70	2.1	0.150	0.110	0.080	21	20	1.9	0.6	24
29...	0.20	0.30	2.3	<0.010	0.020	<0.010	19	11	1.3	0.4	89
JUN											
05...	<0.20	0.30	2.4	0.090	0.050	0.010	6	11	1.1	0.8	41
13...	0.20	0.50	2.8	0.150	0.090	0.050	12	13	1.8	0.7	48
20...	<0.20	0.30	2.5	0.060	0.030	0.050	8	10	1.2	0.8	43
25...	--	--	--	--	--	--	10	8	3.0	1.6	101
JUL											
01...	<0.20	0.30	2.3	0.070	0.050	0.060	10	13	2.0	0.4	30
10...	<0.20	0.20	2.0	0.080	0.030	--	20	15	1.7	0.7	38
17...	0.30	0.40	1.9	0.110	0.060	0.080	11	16	2.3	--	40
25...	<0.20	0.40	2.0	0.060	0.030	--	8	14	1.6	0.4	32
30...	<0.20	0.60	2.1	0.120	0.090	0.09	14	14	1.8	0.9	57
AUG											
05...	0.60	1.1	2.8	0.380	0.240	0.240	74	15	5.7	2.1	110
12...	0.20	0.40	2.3	0.100	0.070	0.070	9	14	2.3	1.2	49
21...	<0.20	<0.20	--	0.070	0.060	0.050	24	14	1.4	0.4	29
27...	0.20	0.30	2.2	0.050	0.050	0.050	5	13	1.7	0.5	26
SEP											
04...	<0.20	0.20	1.7	0.050	0.030	<0.010	6	13	1.5	0.5	16
09...	0.20	0.30	2.0	0.060	0.040	0.060	7	11	3.3	0.4	15
18...	<0.20	<0.20	--	0.050	0.040	0.060	6	9	1.4	0.6	12
25...	<0.20	0.20	1.9	0.070	0.050	0.050	5	10	2.0	0.3	14

TENNESSEE RIVER BASIN  
03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	SED. SUSP DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THON, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
MAR										
20...	81	<0.001	0.004	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
27...	97	<0.001	E0.004	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02
APR										
04...	56	<0.001	E0.004	<0.005	<0.002	0.04	<0.002	<0.02	--	<0.02
11...	66	<0.001	0.005	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02
18...	87	<0.001	E0.003	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
24...	80	<0.001	E0.004	<0.005	<0.002	0.04	<0.002	--	--	--
MAY										
01...	96	<0.001	0.02	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02
07...	79	<0.001	0.07	<0.005	<0.002	0.11	<0.002	<0.02	<0.02	<0.02
15...	98	<0.001	0.01	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
20...	95	<0.001	0.005	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
29...	97	<0.001	0.70	<0.005	<0.002	1.1	<0.002	<0.02	<0.02	<0.02
JUN										
05...	99	<0.001	0.15	0.01	E0.002	0.33	<0.002	<0.02	<0.02	<0.02
13...	95	<0.001	0.13	0.01	<0.002	0.28	<0.002	<0.02	<0.02	<0.02
20...	88	<0.001	0.06	<0.005	<0.002	0.20	<0.002	<0.02	<0.02	<0.02
25...	97	<0.001	0.18	<0.005	<0.002	0.33	<0.002	<0.02	<0.02	<0.02
JUL										
01...	95	<0.001	0.04	<0.005	<0.002	0.18	<0.002	--	--	--
10...	M95	<0.001	0.10	<0.005	<0.002	0.32	<0.002	<0.02	<0.02	<0.02
17...	99	<0.001	0.07	<0.005	<0.002	0.24	<0.002	<0.02	<0.02	<0.02
25...	95	<0.001	0.03	<0.005	<0.002	0.19	<0.002	<0.02	<0.02	<0.02
30...	98	<0.001	0.02	<0.005	<0.002	0.16	<0.002	<0.02	<0.02	<0.02
AUG										
05...	97	<0.001	0.11	<0.005	0.005	0.25	<0.002	<0.02	<0.02	<0.02
12...	95	<0.001	0.02	<0.005	<0.002	0.13	<0.002	<0.02	<0.02	<0.02
21...	83	<0.001	0.02	<0.005	<0.002	0.13	<0.002	<0.02	<0.02	<0.02
27...	71	<0.001	0.01	<0.005	<0.002	0.11	<0.002	<0.02	<0.02	<0.02
SEP										
04...	80	<0.001	0.01	<0.005	<0.002	0.11	<0.002	<0.02	<0.02	<0.02
09...	75	<0.001	0.01	<0.005	<0.002	0.09	<0.002	<0.02	<0.02	<0.02
18...	98	<0.001	0.01	<0.005	<0.002	0.09	<0.002	<0.02	<0.02	<0.02
25...	92	<0.001	0.01	<0.005	<0.002	0.08	<0.002	<0.02	<0.02	<0.02

E--Estimated



TENNESSEE RIVER BASIN  
03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)
JUN											
20...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.01	<0.05	<0.05	<0.05	<0.1	<0.05
25...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.01	<0.05	<0.05	<0.05	<0.1	<0.05
JUL											
10...	<0.1	<0.05	<0.05	<0.2	<0.1	E0.01	<0.05	<0.05	<0.05	<0.1	<0.05
17...	<0.1	<0.05	<0.05	<0.2	<0.1	E0.01	<0.05	<0.05	<0.05	<0.1	<0.05
25...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.01	E0.05	<0.05	<0.05	<0.1	<0.05
30...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.01	<0.05	<0.05	<0.05	<0.1	<0.05
AUG											
05...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.01	<0.05	<0.05	<0.05	<0.1	<0.05

DATE	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2- TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)
JUN											
20...	<0.1	<0.2	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
25...	<0.1	<0.2	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
JUL											
10...	<0.1	<0.2	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
17...	<0.1	<0.3	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
25...	<0.1	<0.3	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
30...	<0.1	<0.2	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
AUG											
05...	<0.1	<0.2	<0.1	<0.0	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05

DATE	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANS DI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)
JUN										
20...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
25...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
JUL										
10...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
17...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
25...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
30...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
AUG										
05...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05

## 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 mi<sup>2</sup>.

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

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1,459.36 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0245	*724	*5.46	May 26	2100	226	3.49
Feb. 9	0430	458	4.55				

Minimum discharge, 3.4 ft<sup>3</sup>/s, Oct. 17, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.2	11	11	36	19	26	23	16	9.4	61	7.9
2	4.0	6.3	10	14	35	19	26	19	15	26	21	7.9
3	4.1	6.4	9.1	22	33	18	24	18	14	39	17	8.1
4	6.1	6.1	10	16	30	18	22	16	14	16	15	7.9
5	6.7	5.4	9.4	14	28	18	21	16	13	14	14	7.9
6	5.9	5.0	8.8	38	27	19	21	19	12	13	13	7.6
7	4.9	50	11	59	27	28	20	20	16	12	12	7.5
8	4.5	28	12	29	66	25	20	18	31	12	18	7.4
9	4.3	13	21	24	218	21	24	16	18	12	19	7.3
10	4.3	11	17	23	65	20	20	15	15	11	13	7.2
11	4.2	12	13	21	53	19	19	16	14	11	12	7.1
12	4.2	15	12	21	43	18	18	15	14	11	14	6.9
13	4.1	11	12	20	38	18	18	14	14	10	13	7.1
14	4.2	11	12	20	36	17	18	14	12	11	12	6.7
15	4.3	11	11	22	47	19	18	14	12	12	11	6.6
16	4.0	9.6	21	25	38	20	20	14	11	11	11	6.8
17	3.9	8.7	17	27	34	23	17	13	11	10	10	6.8
18	4.0	8.2	15	24	32	20	17	13	14	10	10	6.6
19	4.1	8.0	20	83	30	21	17	12	13	9.7	9.8	6.5
20	3.9	7.6	23	34	29	21	21	12	19	9.7	9.6	6.3
21	4.0	7.1	18	29	28	22	22	12	13	9.4	9.3	6.3
22	4.0	6.7	16	26	27	22	18	11	11	9.2	9.2	6.2
23	4.0	6.6	15	24	25	22	17	11	11	11	8.9	6.1
24	3.9	6.7	14	45	23	20	16	11	11	9.2	8.9	6.0
25	3.9	6.3	13	33	22	20	15	25	17	9.5	8.8	5.9
26	4.0	6.2	13	54	21	20	20	62	11	9.6	8.6	5.9
27	4.4	6.0	12	267	21	18	17	43	10	8.8	10	6.1
28	4.7	8.0	12	48	21	33	15	49	9.9	8.6	8.9	9.6
29	4.3	24	11	40	20	33	15	25	9.5	8.6	8.5	8.7
30	4.2	14	11	37	---	27	39	20	9.2	12	8.2	6.5
31	4.2	---	11	41	---	24	---	17	---	25	8.0	---
TOTAL	135.3	329.1	421.3	1191	1153	662	601	603	410.6	390.7	412.7	211.4
MEAN	4.36	11.0	13.6	38.4	39.8	21.4	20.0	19.5	13.7	12.6	13.3	7.05
MAX	6.7	50	23	267	218	33	39	62	31	39	61	9.6
MIN	3.9	4.2	8.8	11	20	17	15	11	9.2	8.6	8.0	5.9
CFSM	.32	.80	.99	2.80	2.90	1.56	1.46	1.42	1.00	.92	.97	.51
IN.	.37	.89	1.14	3.23	3.13	1.80	1.63	1.64	1.11	1.06	1.12	.57

TENNESSEE RIVER BASIN  
03466228 SINKING CREEK AT AFTON, TN--Continued

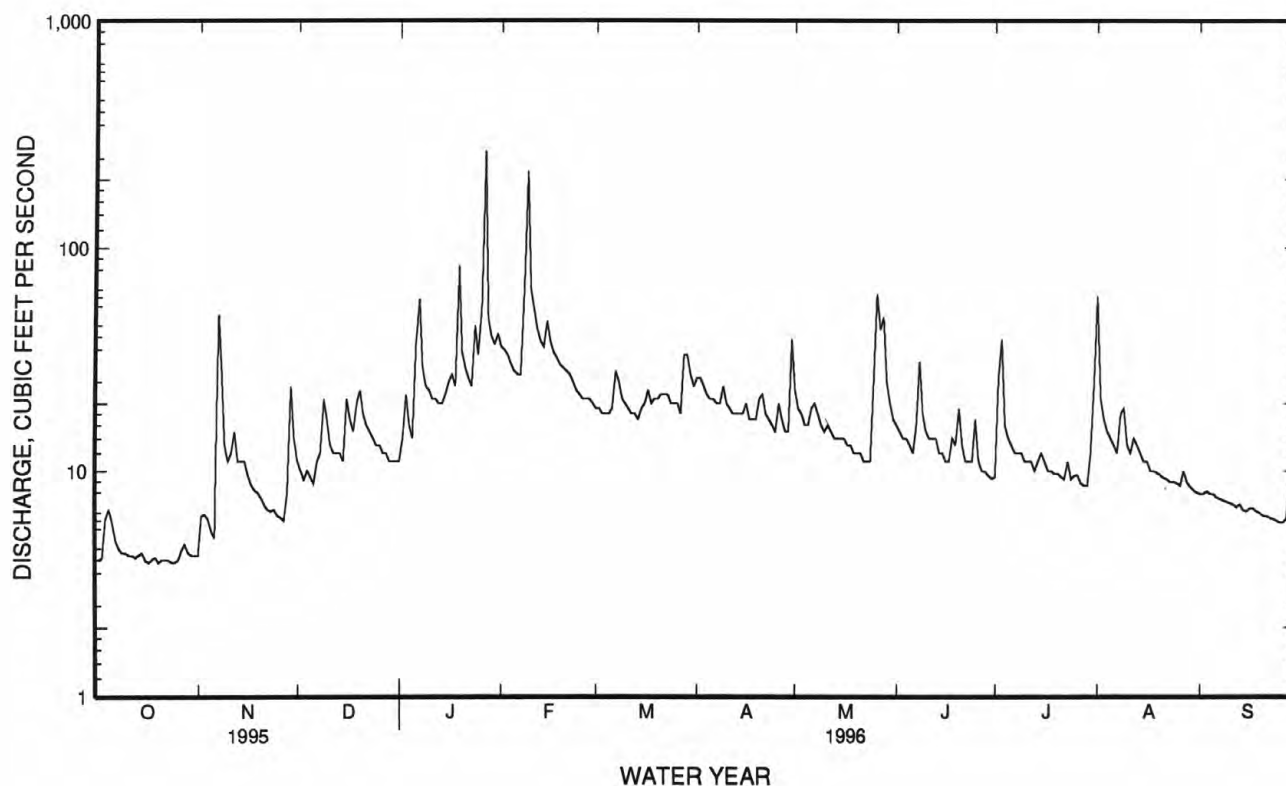
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

MEAN	4.79	6.89	11.6	18.8	25.7	24.1	17.8	14.8	11.4	10.6	7.11	5.78
MAX	10.5	26.0	32.6	38.4	57.1	53.1	48.9	50.6	20.9	32.5	14.6	18.5
(WY)	1990	1978	1992	1996	1994	1994	1994	1984	1989	1979	1984	1982
MIN	1.28	2.16	3.04	3.23	10.7	5.96	4.13	3.49	2.11	1.86	1.68	1.49
(WY)	1989	1987	1988	1981	1981	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1977 - 1996

ANNUAL TOTAL	4740.8	6521.1	
ANNUAL MEAN	13.0	17.8	13.2
HIGHEST ANNUAL MEAN			21.5
LOWEST ANNUAL MEAN			3.62
HIGHEST DAILY MEAN	96      Feb 16	267      Jan 27	561      May 7 1984
LOWEST DAILY MEAN	3.9      Oct 17	3.9      Oct 17	1.1      Sep 22 1988
ANNUAL SEVEN-DAY MINIMUM	4.0      Oct 20	4.0      Oct 20	1.1      Oct 20 1988
INSTANTANEOUS PEAK FLOW		724      Jan 27	1510      Jul 21 1979
INSTANTANEOUS PEAK STAGE		5.46      Jan 27	7.79      Jul 21 1979
INSTANTANEOUS LOW FLOW		a3.4      Oct 17	.90      Jul 9 1988
ANNUAL RUNOFF (CFSM)	.95	1.30	.96
ANNUAL RUNOFF (INCHES)	12.87	17.71	13.10
10 PERCENT EXCEEDS	23	30	25
50 PERCENT EXCEEDS	11	14	8.7
90 PERCENT EXCEEDS	4.3	6.1	3.0

a Also occurred Oct. 20.



TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND  
WATER-QUALITY RECORD

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 miles southeast of Lowland, and at river mile 10.3.

DRAINAGE AREA.--1,687 mi<sup>2</sup>.

PERIOD OF RECORD.--March to September 1996.

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
MAR											
19...	1245	203	7.7	11.5	718	9.7	95	--	--	89	12
28...	1240	212	7.8	10.0	737	9.4	85	--	--	91	14
APR											
03...	1145	199	7.9	10.0	738	11.2	102	--	--	94	19
10...	1235	233	8.0	8.5	739	11.4	100	--	--	100	12
17...	1115	218	7.9	13.0	740	10.1	99	--	--	98	11
23...	1300	196	7.8	16.5	--	9.0	--	160	K31	88	11
30...	1415	194	7.4	16.5	732	9.2	98	1800	2500	94	16
MAY											
07...	1315	219	7.9	19.0	742	7.7	85	5400	1200	95	11
14...	1215	171	8.1	16.0	743	9.8	102	--	--	73	4
21...	1200	188	7.9	23.0	731	7.7	94	K57	K11	83	4
29...	1245	184	7.7	22.0	731	7.1	85	K290	1200	77	9
JUN											
04...	1130	221	8.2	--	739	7.9	--	--	--	98	7
10...	1145	232	8.0	22.0	739	7.5	89	K2000	600	100	14
21...	1130	205	7.9	25.5	738	6.9	87	410	K49	87	4
24...	1315	180	8.1	26.5	740	7.0	90	--	--	73	1
JUL											
01...	1245	212	8.4	27.5	740	7.9	103	--	K20	96	9
09...	1300	211	8.2	25.5	735	7.7	98	K33	170	93	--
15...	1245	215	8.0	26.0	739	6.9	88	--	620	97	9
26...	1300	234	8.2	24.5	742	8.0	99	760	370	--	--
AUG											
01...	1300	225	7.9	22.0	740	7.3	86	--	--	97	13
06...	1100	228	8.1	25.0	746	7.2	89	K200	370	100	0
13...	1215	210	7.9	22.5	735	7.6	91	K300	--	92	9
19...	1245	189	8.1	24.5	--	7.4	--	K70	210	79	0
26...	1245	217	8.2	26.0	740	8.1	103	K38	230	93	0
SEP											
03...	1300	204	8.2	24.0	742	9.1	111	K44	350	87	0
12...	1200	179	8.2	23.5	737	8.2	100	K12	K85	83	10
16...	1300	203	8.0	21.0	734	8.1	94	--	310	87	5
26...	1045	208	8.2	20.0	738	9.0	103	K24	K67	94	4

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



TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CA CO <sub>3</sub> (39086)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)
MAR											
19...	27	5.2	3.5	8	0.2	1.5	76	15	4.6	0.20	6.3
28...	28	5.2	3.9	8	0.2	1.3	77	15	4.4	0.20	6.9
APR											
03...	29	5.3	3.5	7	0.2	1.3	75	16	4.0	0.10	7.7
10...	31	6.0	3.3	6	0.1	1.6	90	19	4.0	0.20	6.9
17...	30	5.7	4.2	8	0.2	1.6	87	16	5.0	0.20	5.2
23...	27	4.9	3.3	7	0.2	1.4	76	15	4.2	0.20	5.7
30...	29	5.3	3.4	7	0.2	1.7	78	15	3.8	0.20	7.0
MAY											
07...	29	5.4	2.9	6	0.1	1.9	84	14	3.3	0.20	7.3
14...	22	4.4	2.8	8	0.1	1.4	69	9.0	3.2	0.10	8.4
21...	25	5.0	3.2	8	0.2	1.6	79	10	3.4	0.20	8.1
29...	24	4.1	2.8	7	0.1	2.9	68	11	3.5	0.10	7.9
JUN											
04...	30	5.7	3.1	6	0.1	1.6	92	9.8	3.9	0.20	8.7
10...	31	5.8	3.5	7	0.2	2.0	88	10	4.5	0.30	7.6
21...	26	5.4	3.6	8	0.2	1.8	83	8.9	4.3	0.30	7.9
24...	22	4.5	3.4	9	0.2	1.7	72	8.8	4.1	0.20	8.0
JUL											
01...	29	5.7	4.3	9	0.2	2.1	86	8.9	5.2	0.20	6.8
09...	28	5.7	3.3	7	0.1	2.2	--	8.7	3.9	0.30	6.7
15...	29	6.0	3.4	7	0.2	2.3	88	8.5	4.2	0.20	6.5
26...	--	--	--	--	--	--	95	--	--	--	--
AUG											
01...	30	5.4	3.9	8	0.2	3.4	84	15	4.6	0.20	7.5
06...	31	5.6	3.4	7	0.1	2.2	100	9.3	4.0	0.20	8.8
13...	28	5.3	3.2	7	0.1	2.4	83	12	3.8	0.20	8.7
19...	24	4.7	3.5	9	0.2	1.9	79	8.2	4.6	0.20	8.4
26...	28	5.6	4.6	9	0.2	2.3	93	8.3	5.7	0.20	6.9
SEP											
03...	26	5.3	3.6	8	0.2	2.0	87	8.1	4.1	0.20	6.6
12...	25	5.1	3.4	8	0.2	1.7	74	7.5	3.6	0.20	7.4
16...	26	5.3	4.7	10	0.2	2.2	82	7.9	5.5	0.20	7.2
26...	28	5.8	4.0	8	0.2	1.8	90	8.7	4.1	0.30	6.8

TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
MAR											
19...	122	112	0.17	--	<0.010	--	0.620	0.620	0.620	--	<0.015
28...	121	114	0.16	--	<0.010	--	0.590	0.590	0.590	--	<0.015
APR											
03...	116	115	0.16	--	<0.010	--	0.740	0.740	0.740	--	<0.015
10...	129	126	0.18	--	<0.010	--	0.820	0.820	0.820	0.05	0.040
17...	122	123	0.17	0.610	0.020	0.07	0.610	0.630	0.630	0.03	0.020
23...	104	109	0.14	0.340	0.020	0.07	0.340	0.360	0.360	--	<0.015
30...	109	114	0.15	0.450	0.020	0.07	0.450	0.470	0.470	0.03	0.020
MAY											
07...	131	117	0.18	0.530	0.010	0.03	0.530	0.540	0.540	0.10	0.080
14...	106	95	0.14	0.540	0.010	0.03	0.540	0.550	0.550	0.04	0.030
21...	125	105	0.17	0.340	0.040	0.13	0.340	0.380	0.380	0.03	0.020
29...	117	100	0.16	0.560	0.020	0.07	0.560	0.580	0.580	0.03	0.020
JUN											
04...	122	122	0.17	0.880	0.030	0.10	0.880	0.910	0.910	0.05	0.040
10...	124	121	0.17	0.870	0.030	0.10	0.870	0.900	0.900	0.05	0.040
21...	116	112	0.16	0.690	0.010	0.03	0.690	0.700	0.700	0.04	0.030
24...	104	99	0.14	0.560	0.050	0.16	0.560	0.610	0.610	0.03	0.020
JUL											
01...	124	116	0.17	--	<0.010	--	0.430	0.430	0.430	0.03	0.020
09...	115	116	0.16	0.620	0.020	0.07	0.620	0.640	0.640	0.03	0.020
15...	124	116	0.17	0.620	0.010	0.03	0.620	0.630	0.630	0.04	0.030
26...	--	--	--	0.780	0.010	0.03	0.780	0.790	0.790	0.05	0.040
AUG											
01...	128	120	0.17	0.690	0.020	0.07	0.690	0.710	0.710	0.08	0.060
06...	134	125	0.18	0.860	0.010	0.03	0.860	0.870	0.870	0.03	0.020
13...	128	117	0.17	0.790	0.020	0.07	0.790	0.810	0.810	0.04	0.030
19...	112	106	0.15	0.670	0.010	0.03	0.670	0.680	0.680	0.03	0.020
26...	109	120	0.15	--	<0.010	--	0.600	0.600	0.600	--	<0.015
SEP											
03...	114	110	0.16	--	<0.010	--	0.530	0.530	0.530	--	<0.015
12...	103	100	0.14	0.480	0.010	0.03	0.480	0.490	0.490	--	<0.015
16...	110	110	0.15	0.450	0.020	0.07	0.450	0.470	0.470	--	<0.015
26...	116	116	0.16	--	<0.010	--	0.540	0.540	0.540	--	<0.015

TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE TOTAL (MG/L) (80154)
MAR											
19...	0.20	0.20	0.82	0.040	0.030	<0.010	57	8	1.9	0.2	20
28...	<0.20	0.40	0.99	0.080	0.030	0.030	120	10	3.6	1.6	59
APR											
03...	<0.20	0.30	1.0	0.060	<0.010	0.010	49	7	1.8	0.7	26
10...	--	--	--	--	--	--	41	9	1.8	0.4	20
17...	<0.20	<0.20	--	0.030	0.010	0.010	34	6	1.4	0.4	18
23...	0.20	0.30	0.66	0.070	0.030	0.020	34	6	1.2	1.2	21
30...	0.50	0.60	1.1	0.110	0.010	0.010	43	8	2.6	1.6	69
MAY											
07...	0.30	0.70	1.2	0.130	0.030	0.030	49	5	3.2	--	69
14...	<0.20	0.20	0.75	0.050	<0.010	<0.010	27	8	1.5	0.5	22
21...	<0.20	0.20	0.58	0.030	0.020	<0.010	29	7	1.4	0.5	13
29...	0.40	1.0	1.6	0.230	0.060	0.040	78	4	4.5	1.3	109
JUN											
04...	<0.20	0.20	1.1	0.030	0.020	0.010	19	5	--	--	30
10...	<0.20	0.30	1.2	0.100	0.050	<0.010	24	5	1.7	0.7	43
21...	<0.20	<0.20	--	0.110	<0.010	0.020	21	3	1.4	1.1	33
24...	0.20	0.20	0.81	0.020	<0.010	<0.010	18	3	1.7	0.7	22
JUL											
01...	<0.20	0.20	0.63	0.040	<0.010	0.020	26	5	1.5	0.5	14
09...	0.30	0.20	0.84	0.030	0.030	0.030	19	4	1.7	0.3	19
15...	<0.20	0.30	0.93	0.060	0.030	0.040	19	3	1.9	0.9	45
26...	<0.20	<0.20	--	0.040	0.040	0.040	--	--	1.4	0.5	18
AUG											
01...	0.04	1.5	2.2	0.410	0.070	0.090	67	2	4.8	8.0	365
06...	<0.02	<0.02	--	0.060	0.050	0.040	14	4	1.6	0.8	31
13...	<0.20	0.40	1.2	0.090	0.030	0.040	11	3	2.4	1.7	47
19...	<0.20	0.20	0.88	0.010	0.030	0.030	10	4	1.4	0.7	23
26...	<0.20	0.20	0.80	0.020	0.020	0.020	10	4	1.3	0.6	18
SEP											
03...	<0.20	<0.20	--	0.030	0.040	0.020	13	4	1.7	0.6	11
12...	<0.20	0.20	0.69	0.040	0.030	0.040	20	4	1.7	0.6	10
16...	<0.20	<0.20	--	0.040	0.020	0.030	20	4	1.4	0.4	8
26...	<0.20	<0.20	--	0.020	<0.010	0.020	18	4	1.4	0.3	5

TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
MAR										
19...	93	<0.001	E0.003	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
28...	93	<0.001	0.004	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
APR										
03...	86	<0.001	0.01	<0.005	0.04	<0.001	<0.002	<0.02	--	<0.02
10...	89	<0.001	E0.004	<0.005	0.01	0.04	<0.002	<0.02	<0.02	<0.02
17...	94	<0.001	E0.003	<0.005	E0.004	0.01	<0.002	<0.02	<0.02	<0.02
23...	92	<0.001	0.01	<0.005	<0.002	0.01	<0.002	--	--	--
30...	95	<0.001	0.01	<0.005	<0.002	0.13	<0.002	<0.02	<0.02	<0.02
MAY										
07...	97	<0.001	0.02	<0.005	0.005	0.67	<0.002	<0.02	<0.02	<0.02
14...	82	<0.001	0.01	<0.005	<0.002	0.03	<0.002	<0.02	<0.02	<0.02
21...	89	<0.001	0.01	<0.005	<0.002	0.09	<0.002	<0.02	<0.02	<0.02
29...	96	<0.001	0.50	<0.005	<0.002	2.0	<0.002	<0.02	<0.02	<0.02
JUN										
04...	94	<0.001	0.04	<0.005	<0.002	0.11	<0.002	<0.02	<0.02	<0.02
10...	93	<0.001	0.07	<0.005	<0.002	0.41	<0.002	<0.02	<0.02	<0.02
21...	93	<0.001	0.02	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
24...	94	<0.001	0.03	<0.005	<0.002	0.10	<0.002	<0.02	<0.02	<0.02
JUL										
01...	98	<0.001	0.03	<0.005	<0.002	0.08	<0.002	<0.02	<0.02	<0.02
09...	96	<0.001	0.04	<0.005	<0.002	0.13	<0.002	<0.02	<0.02	<0.02
15...	97	<0.001	0.03	<0.005	<0.002	0.17	<0.002	<0.02	<0.02	<0.02
26...	96	<0.001	0.04	<0.005	<0.002	0.07	<0.002	<0.02	<0.02	<0.02
AUG										
01...	93	<0.001	0.08	<0.005	<0.002	0.26	<0.002	<0.02	<0.02	<0.02
06...	96	<0.001	0.02	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
13...	95	<0.001	0.02	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02
19...	95	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
26...	99	<0.001	0.01	<0.005	E0.003	0.02	<0.002	<0.02	<0.02	<0.02
SEP										
03...	98	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
12...	93	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
16...	95	<0.001	E0.004	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
26...	80	<0.001	E0.003	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02

E--Estimated



TENNESSEE RIVER BASIN  
03467609 NOLICHUCKY RIVER NEAR LOWLAND--Continued

WATER-QUALITY DATA, WATER YEAR MARCH TO SEPTEMBER 1996

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)
JUN 21...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05
JUL 01...	<0.1	<0.05	<0.05	<0.2	<0.1	E0.03	0.4	<0.05	<0.05	<0.1	<0.05
15...	<0.1	<0.05	<0.05	<0.2	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05
AUG 01...	<0.1	<0.05	<0.05	<0.2	<0.1	E0.01	<0.05	<0.05	<0.05	<0.1	<0.05

DATE	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2- TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)
JUN 21...	<0.1	<0.2	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
JUL 01...	<0.1	<0.2	0.7	<0.05	E0.1	<0.05	<0.1	E0.02	<0.1	<0.1	<0.05
15...	<0.1	<0.2	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05
AUG 01...	<0.1	E0.1	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.05

DATE	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANS DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)
JUN 21...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
JUL 01...	<0.05	<0.05	<0.05	<0.05	0.5	<0.1	<0.1	<0.1	<0.05	<0.1
15...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05
AUG 01...	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05

E--Estimated

## 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 mi<sup>2</sup>.

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

REVISED RECORD.--WDR TN-94-1: 1989-91 (M): 1992, 1993(P).

GAGE.--Data collection platform. Datum of gage is 898.08 ft above sea level.

REMARKS.--Records good. The town of Sevierville diverts an average of about 1.5 ft<sup>3</sup>/s (1.0 MGD) for municipal supply. Periodic observations of water temperature and conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft<sup>3</sup>/s, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 19	0615	5,190	8.89	Feb. 9	0915	5,760	9.47
Jan. 27	0230	*10,200	*13.11				

Minimum discharge 42 ft<sup>3</sup>/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	64	281	e300	477	309	454	736	232	136	2020	113
2	46	164	228	e600	557	270	484	526	202	127	1020	100
3	44	331	191	847	521	240	460	417	184	246	521	108
4	174	265	232	418	e400	211	432	345	166	181	367	218
5	1460	166	240	299	e350	198	386	292	152	140	368	227
6	640	129	203	430	e300	638	347	732	138	124	350	155
7	252	994	202	1110	e275	1530	316	1870	129	112	289	128
8	165	902	181	571	e800	1300	283	1260	145	110	276	190
9	126	366	267	389	4070	694	310	790	1220	122	2400	144
10	104	246	283	325	1880	495	268	595	675	111	716	128
11	92	836	215	279	1400	401	247	477	355	97	431	129
12	83	736	188	275	1000	351	234	451	742	93	629	115
13	78	368	170	249	698	312	230	360	929	88	797	105
14	73	279	158	233	570	282	249	312	465	104	845	98
15	83	229	149	227	506	416	229	460	330	162	550	91
16	75	183	290	256	426	541	267	440	279	247	397	109
17	67	159	359	340	361	398	239	345	369	142	329	277
18	62	149	265	584	329	342	214	291	385	142	373	158
19	58	146	420	2970	298	463	212	251	362	104	273	129
20	56	149	441	1170	336	453	408	225	537	94	229	111
21	55	152	303	665	372	395	770	202	330	100	204	102
22	55	147	244	465	362	342	496	185	255	128	178	109
23	53	134	205	375	404	311	387	172	208	139	159	98
24	49	129	176	804	409	292	324	158	198	113	170	88
25	47	124	154	665	317	380	280	175	509	165	154	84
26	47	114	141	1010	275	493	765	397	305	295	145	80
27	61	106	132	5830	267	373	699	678	231	166	133	99
28	201	132	123	1670	472	521	462	1090	194	291	125	678
29	107	872	111	992	428	547	372	565	168	794	117	687
30	81	410	e110	686	---	460	925	366	150	857	112	259
31	69	---	e150	592	---	408	---	281	---	1600	124	---
TOTAL	4612	9181	6812	25626	18860	14366	11749	15444	10544	7330	14801	5117
MEAN	149	306	220	827	650	463	392	498	351	236	477	171
MAX	1460	994	441	5830	4070	1530	925	1870	1220	1600	2400	687
MIN	44	64	110	227	267	198	212	158	129	88	112	80
CFSM	.81	1.66	1.19	4.49	3.53	2.52	2.13	2.71	1.91	1.29	2.59	.93
IN.	.93	1.86	1.38	5.18	3.81	2.90	2.38	3.12	2.13	1.48	2.99	1.03

e Estimated

## TENNESSEE RIVER BASIN

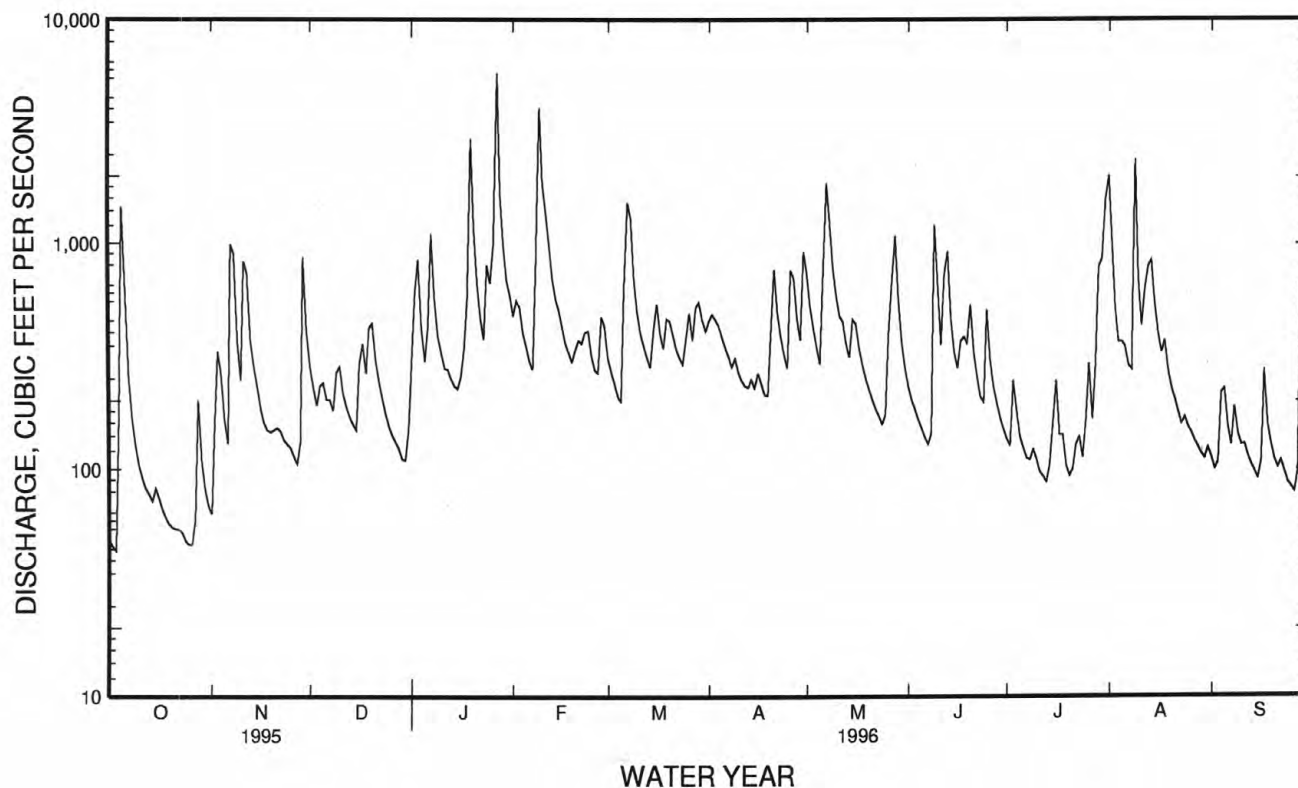
03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	153	224	416	572	648	750	418	363	310	223	229	176
MAX	335	374	743	873	1024	1426	1141	576	552	412	477	530
(WY)	1990	1990	1992	1994	1994	1994	1994	1989	1989	1989	1996	1989
MIN	54.8	101	135	317	240	463	124	192	121	90.7	89.4	68.7
(WY)	1992	1991	1989	1991	1993	1996	1995	1995	1990	1993	1990	1995

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1988 - 1996

ANNUAL TOTAL	91010		144442									
ANNUAL MEAN	249		395							374		
HIGHEST ANNUAL MEAN										573		1994
LOWEST ANNUAL MEAN										221		1995
HIGHEST DAILY MEAN	3940	Feb 16	5830	Jan 27	10900	Mar 28	1994					
LOWEST DAILY MEAN	31	Aug 19	44	Oct 3	31	Aug 19	1995					
ANNUAL SEVEN-DAY MINIMUM	37	Sep 7	52	Oct 20	37	Sep 7	1995					
INSTANTANEOUS PEAK FLOW			10200	Jan 27	19700	Mar 28	1994					
INSTANTANEOUS PEAK STAGE			13.11	Jan 27	17.50	Mar 28	1994					
INSTANTANEOUS LOW FLOW			42	Oct 3	29	Aug 20	1995					
ANNUAL RUNOFF (CFSM)	1.36		2.14							2.03		
ANNUAL RUNOFF (INCHES)	18.40		29.20							27.62		
10 PERCENT EXCEEDS	467		776							784		
50 PERCENT EXCEEDS	143		275							223		
90 PERCENT EXCEEDS	53		101							69		



TENNESSEE RIVER BASIN  
03490500 HOLSTON RIVER AT SURGOINSVILLE, TN  
WATER-QUALITY RECORDS

LOCATION.--Lat 36°28'19", long 82°50'50", Hawkins County, Hydrologic Unit 06010104, on right bank 1,500 ft upstream from Surgoinsville Creek and county bridge at Surgoinsville, 0.8 mi upstream from Big Creek, and at mile 118.7.

DRAINAGE AREA.--2,874 mi<sup>2</sup>, includes that of Surgoinsville Creek.

PERIOD OF RECORD.--Water years 1974-82, April to September 1996.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1974 TO September 1982.

INSTRUMENTATION.--Temperature recorder from November 1974 to September 1982.

COOPERATION.--Temperature records furnished by Tennessee Valley Authority

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 30.5°C July 6, 1982; minimum, 0.0°C on several days during winter periods.

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
APR											
17...	1615	364	8.3	13.5	732	10.4	104	--	--	130	25
JUN											
17...	1430	294	8.0	22.5	734	8.5	102	K26	K70	110	12
AUG											
28...	1330	273	8.2	21.0	740	9.6	111	520	560	100	8
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
APR											
17...	39	8.7	18	22	0.7	1.9	108	28	22	<0.10	1.4
JUN											
17...	31	7.3	11	18	0.5	2.0	96	19	12	0.10	3.9
AUG											
28...	29	7.3	11	18	0.5	2.5	94	21	11	0.20	4.2
DATE	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
APR											
17...	194	187	0.26	0.590	0.020	0.07	0.590	0.610	0.610	--	<0.015
JUN											
17...	143	147	0.19	0.700	0.030	0.10	0.700	0.730	0.730	0.05	0.040
AUG											
28...	136	146	0.18	0.670	0.020	0.07	0.670	0.690	0.690	--	<0.020

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

TENNESSEE RIVER BASIN  
03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
APR 17...	0.20	0.30	0.81	0.91	0.080	0.040	0.040	36	8	2.8	1.0
JUN 17...	<0.20	0.30	--	1.0	0.090	0.070	0.040	9	5	2.1	0.2
AUG 28...	<0.20	<0.20	--	--	0.080	0.050	0.050	6	5	2.3	0.4

DATE	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THON, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WATFLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE WATFLT GF 0.7U REC (UG/L) (49314)
APR 17...	21	86	<0.001	E0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
JUN 17...	10	90	<0.001	0.03	<0.005	<0.002	0.06	<0.002	<0.02	<0.02	<0.02
AUG 28...	13	94	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02



## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1941 to June 1949. Occasional low-flow measurements, water years 1950-55, 1957. Annual maximum, water years 1955-57; October 1957 to current year.

REVISED RECORDS.--WSP 1436: 1945.

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

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0615	*3,420	*7.07	No other peak greater than base discharge.			

Minimum discharge, 2.6 ft<sup>3</sup>/s, Oct. 1, 2, 3, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.1	31	18	108	45	140	90	76	17	582	13
2	2.6	4.6	23	34	103	43	147	75	61	34	165	13
3	2.7	15	19	238	90	40	121	65	54	251	93	13
4	3.9	10	17	97	75	36	103	57	49	65	64	13
5	7.3	6.3	15	64	73	36	88	50	47	39	49	15
6	13	4.8	13	63	75	122	77	47	39	30	45	14
7	8.9	156	15	91	66	310	69	54	35	25	37	12
8	5.3	96	15	79	153	225	64	66	44	23	32	13
9	4.0	36	21	67	754	128	72	83	62	39	53	12
10	3.3	22	51	63	435	96	61	60	155	35	33	11
11	3.1	20	35	56	441	81	56	50	73	23	27	11
12	3.0	57	27	58	259	71	53	46	102	20	112	12
13	3.0	30	23	51	179	63	52	39	93	20	132	16
14	2.9	25	23	49	148	56	59	36	69	122	61	18
15	2.8	28	30	56	131	130	59	40	55	151	42	12
16	3.5	22	44	118	111	265	193	44	46	139	33	13
17	3.7	17	54	275	95	226	109	36	40	135	29	18
18	3.6	14	39	345	85	159	83	32	36	164	26	14
19	2.9	13	116	740	75	140	75	29	33	101	23	12
20	2.9	11	168	254	80	134	87	27	41	65	21	11
21	2.7	10	88	166	83	122	166	25	33	48	19	9.7
22	2.9	8.9	60	125	75	114	125	45	29	39	35	9.3
23	3.4	8.8	45	105	70	108	101	32	26	34	23	8.9
24	3.2	9.6	36	293	62	97	82	26	25	29	19	8.5
25	3.1	10	30	208	55	91	70	74	30	27	18	8.5
26	3.2	9.1	27	206	51	81	98	125	27	40	17	8.4
27	4.9	8.2	24	1450	49	70	105	180	22	29	15	7.7
28	15	8.9	22	305	53	180	81	303	20	25	32	11
29	9.4	75	19	199	49	210	70	338	18	23	22	42
30	5.1	52	17	154	---	142	88	161	18	22	16	19
31	3.6	---	17	132	---	116	---	101	---	79	14	---
TOTAL	141.5	791.3	1164	6159	4083	3737	2754	2436	1458	1893	1889	399.0
MEAN	4.56	26.4	37.5	199	141	121	91.8	78.6	48.6	61.1	60.9	13.3
MAX	15	156	168	1450	754	310	193	338	155	251	582	42
MIN	2.6	3.1	13	18	49	36	52	25	18	17	14	7.7
CFSM	.10	.56	.79	4.20	2.98	2.55	1.94	1.66	1.03	1.29	1.29	.28
IN.	.11	.62	.92	4.84	3.21	2.94	2.17	1.92	1.15	1.49	1.49	.31

## TENNESSEE RIVER BASIN

03491000 BIG CREEK NEAR ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1996, BY WATER YEAR (WY)

MEAN	15.1	30.6	73.0	105	136	132	86.4	57.9	30.5	23.5	17.8	12.2	
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 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1941 - 1996				
ANNUAL TOTAL			18271.8			26904.8							
ANNUAL MEAN			50.1			73.5			59.6				
HIGHEST ANNUAL MEAN									123				
LOWEST ANNUAL MEAN									20.9				
HIGHEST DAILY MEAN			796			Mar 8			1450			Jan 27	
LOWEST DAILY MEAN			2.6			Oct 1			a2.6			Oct 1	
ANNUAL SEVEN-DAY MINIMUM			3.0			Oct 19			3.0			Oct 9	
INSTANTANEOUS PEAK FLOW									3420			Jan 27	
INSTANTANEOUS PEAK STAGE									7.07			Jan 27	
INSTANTANEOUS LOW FLOW									f2.6			Oct 1	
ANNUAL RUNOFF (CF5M)			1.06						1.55			1.26	
ANNUAL RUNOFF (INCHES)			14.37						21.16			17.11	
10 PERCENT EXCEEDS			103						155			127	
50 PERCENT EXCEEDS			22						44			24	
90 PERCENT EXCEEDS			3.6						8.7			5.4	

a Also occurred on Oct. 2.

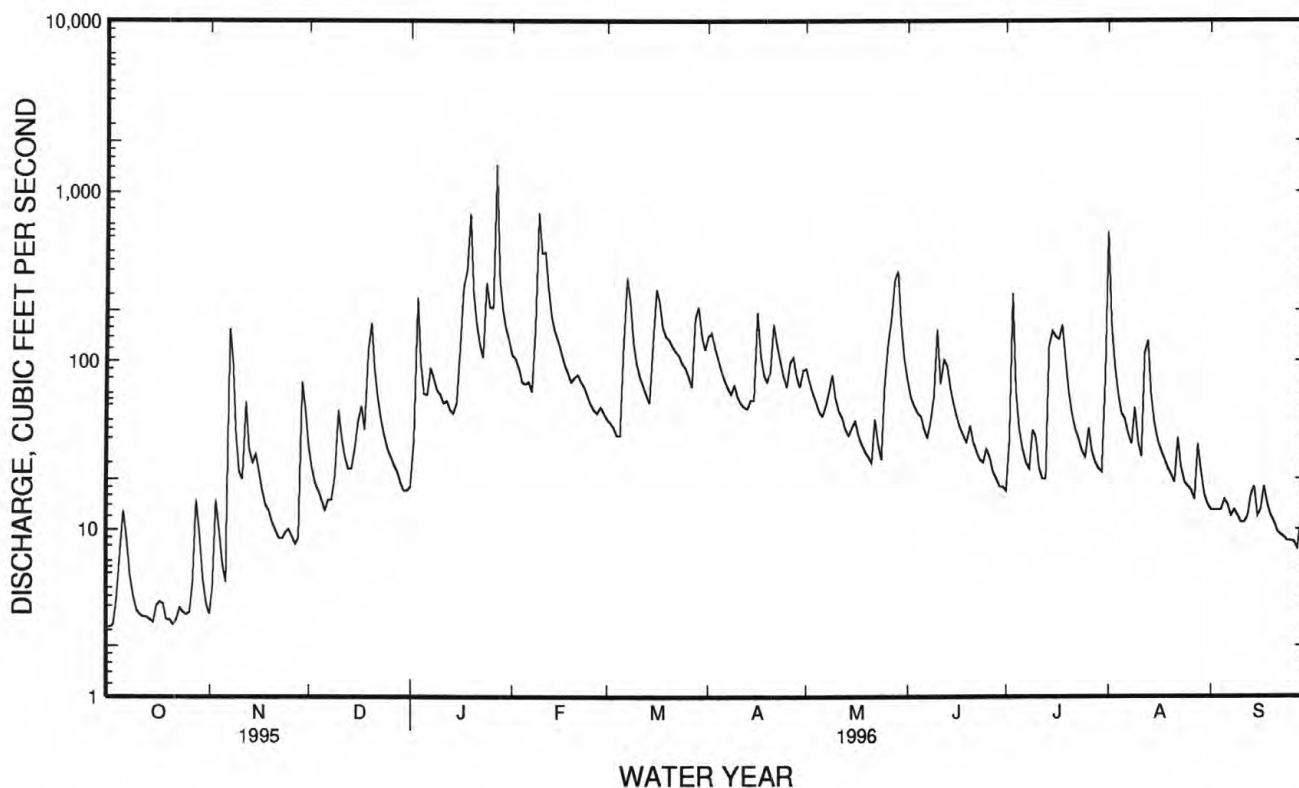
b From rating curve extended above 3,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow.

c Due to backwater from log jam.

d From flood marks.

e Estimated.

f Also occurred on Oct. 2, 3, and 21.



## 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 mi<sup>2</sup>.

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.--Records good, except estimated days which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 15	1445	*294	*3.25	No other peak greater than base discharge.			

Minimum discharge, 0.81 ft<sup>3</sup>/s, Oct. 20, 23, 24, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	e1.1	4.2	2.8	9.6	3.6	9.0	4.6	5.7	3.9	38	e1.6
2	.96	e1.5	3.5	19	9.2	3.4	7.5	3.9	4.9	7.0	9.9	e1.5
3	1.1	e2.5	3.0	14	8.1	3.3	6.9	3.4	4.4	17	7.7	e1.5
4	2.2	e2.1	2.9	8.1	7.3	3.0	6.3	3.2	4.9	5.0	6.1	e1.7
5	5.4	e1.9	2.6	5.9	6.4	4.3	5.6	2.8	3.7	4.1	4.7	e1.8
6	2.0	e1.7	2.3	18	5.9	7.0	5.0	3.6	3.3	3.5	4.1	e1.7
7	1.6	e20	4.3	19	7.5	21	4.6	3.0	3.5	3.2	3.7	e1.5
8	1.4	e10	3.2	12	29	13	6.1	3.0	3.7	3.1	3.4	e1.3
9	1.3	e6.0	6.9	9.5	65	8.8	5.3	2.4	15	3.5	3.5	e1.2
10	1.2	4.6	5.6	8.5	32	7.3	4.5	2.3	6.4	2.9	3.1	1.9
11	1.1	7.1	4.6	7.5	31	6.7	4.2	3.0	5.9	2.7	3.7	1.8
12	1.1	5.9	3.9	7.3	19	6.1	4.2	3.0	21	2.6	9.7	2.2
13	1.1	5.0	3.7	6.5	14	5.8	5.9	2.7	8.2	2.9	4.2	1.8
14	1.4	6.7	3.5	6.6	11	5.2	4.5	2.5	6.3	16	3.3	1.3
15	1.2	4.7	3.3	6.9	11	11	11	4.6	5.2	e45	2.9	1.2
16	1.1	3.6	6.6	11	8.6	8.2	8.9	3.0	4.4	e9.0	2.8	5.5
17	1.1	3.0	4.9	16	7.4	8.5	6.7	2.6	4.2	e8.0	2.8	2.2
18	1.0	2.7	4.6	17	6.7	7.2	5.9	2.4	3.7	e20	2.9	1.7
19	1.0	2.4	12	45	6.0	8.9	6.2	2.2	3.3	e10	2.7	1.5
20	1.1	2.2	14	16	5.8	8.4	13	2.1	5.3	e6.0	2.6	1.4
21	1.1	2.1	9.8	12	5.2	7.7	9.0	2.0	3.4	e3.5	2.3	1.3
22	1.0	2.0	7.7	9.4	4.9	7.8	7.5	1.9	3.1	e2.5	1.8	1.3
23	.99	2.0	6.5	8.0	4.6	8.3	6.8	1.8	2.9	e2.0	1.7	1.2
24	.96	1.9	5.6	28	4.3	7.4	5.8	1.7	14	1.8	2.8	1.3
25	.95	1.7	4.8	14	4.1	7.8	5.6	11	11	6.7	1.8	1.2
26	e1.0	1.6	4.3	42	3.9	6.3	11	18	4.9	2.7	1.8	1.0
27	e1.3	1.5	3.9	72	3.7	5.8	5.1	18	4.0	2.3	2.6	1.0
28	e1.5	5.9	3.6	21	5.2	15	4.2	25	3.5	2.2	2.1	9.2
29	e1.2	9.2	3.3	15	3.9	10	3.9	14	3.0	2.1	e1.9	2.5
30	e1.1	5.3	3.0	12	---	8.2	8.3	9.2	3.0	2.7	e1.8	1.8
31	e1.1	---	2.9	12	---	7.8	---	7.0	---	29	e1.7	---
TOTAL	41.56	127.9	155.0	502.0	340.3	242.8	198.5	169.9	175.8	232.9	144.1	58.1
MEAN	1.34	4.26	5.00	16.2	11.7	7.83	6.62	5.48	5.86	7.51	4.65	1.94
MAX	5.4	20	14	72	65	21	13	25	21	45	38	9.2
MIN	.95	1.1	2.3	2.8	3.7	3.0	3.9	1.7	2.9	1.8	1.7	1.0
CFSM	.29	.91	1.07	3.47	2.51	1.68	1.42	1.17	1.25	1.61	1.00	.41
IN.	.33	1.02	1.23	4.00	2.71	1.93	1.58	1.35	1.40	1.86	1.15	.46

e Estimated

## TENNESSEE RIVER BASIN

03491544 CROCKETT CREEK BELOW ROGERSVILLE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

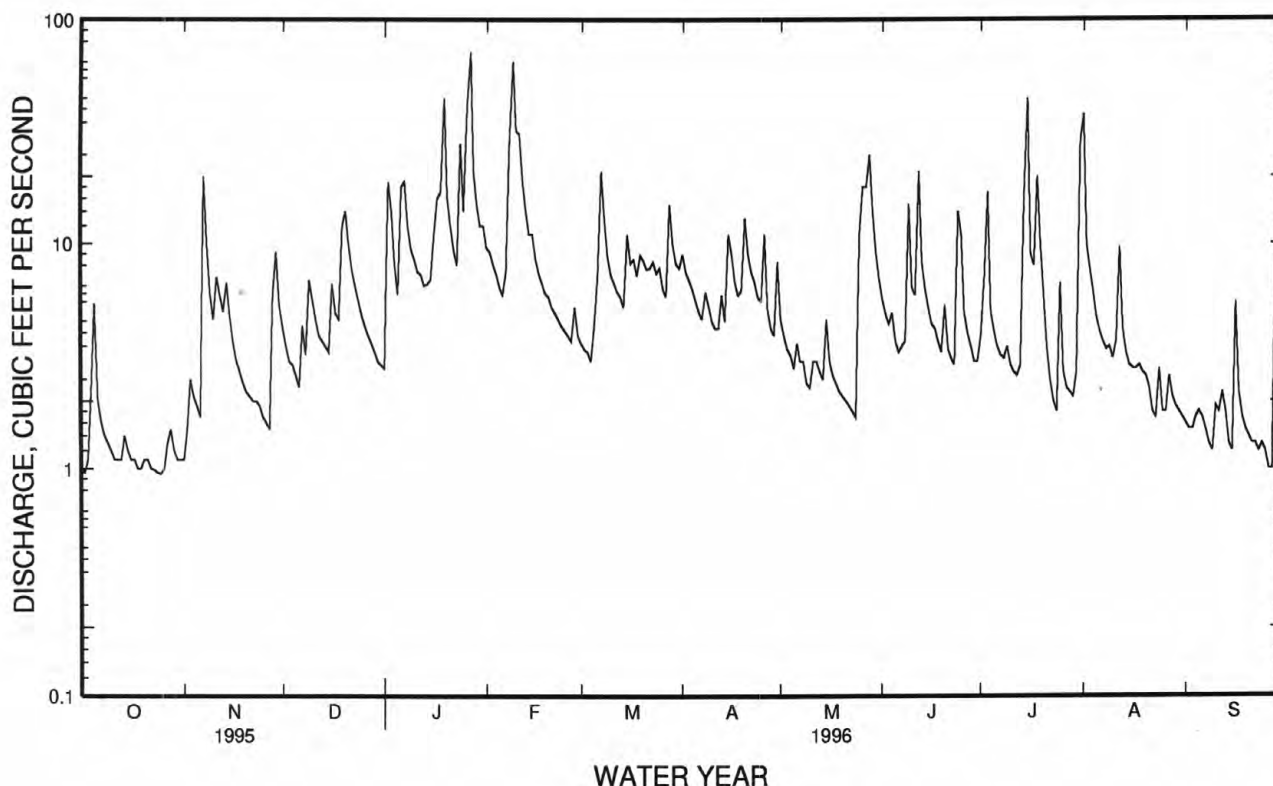
MEAN	1.65	3.10	7.89	10.2	14.5	11.7	6.69	5.40	4.76	3.08	3.21	2.58
MAX	3.75	4.69	18.7	16.2	31.3	26.4	18.1	9.82	9.95	7.51	5.39	7.63
(WY)	1990	1990	1992	1996	1994	1994	1994	1995	1989	1996	1994	1989
MIN	.53	1.37	2.41	7.30	6.73	6.38	1.62	2.37	1.01	.59	1.70	.80
(WY)	1989	1991	1995	1991	1992	1992	1995	1994	1993	1993	1992	1992

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1989 - 1996

ANNUAL TOTAL	1776.77	2388.86	
ANNUAL MEAN	4.87	6.53	6.19
HIGHEST ANNUAL MEAN			10.1
LOWEST ANNUAL MEAN			4.42
HIGHEST DAILY MEAN	105	72	223
LOWEST DAILY MEAN	.51	.95	.31
ANNUAL SEVEN-DAY MINIMUM	.57	1.0	.34
INSTANTANEOUS PEAK FLOW		294	UNKNOWN
INSTANTANEOUS PEAK STAGE		3.25	5.10
INSTANTANEOUS LOW FLOW		a.81	b.31
ANNUAL RUNOFF (CFSM)	1.04	1.40	1.33
ANNUAL RUNOFF (INCHES)	14.15	19.03	18.01
10 PERCENT EXCEEDS	9.9	14	13
50 PERCENT EXCEEDS	2.1	4.2	3.0
90 PERCENT EXCEEDS	.89	1.4	.89

a Also occurred Oct. 23, 24, 26.

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 mi<sup>2</sup>.

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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 19	0415	3,950	6.22	Jan. 26	2330	*9,410	*9.38

Minimum discharge, 58 ft<sup>3</sup>/s, July 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	109	360	242	498	341	529	694	174	86	1120	100
2	67	414	308	413	678	313	508	555	161	84	586	85
3	66	477	271	557	563	280	490	461	154	187	372	97
4	319	402	306	407	429	255	459	387	144	114	282	e150
5	1620	305	266	338	382	257	419	335	134	93	278	e140
6	807	257	246	436	369	989	383	454	124	85	246	100
7	412	1350	243	902	344	1510	343	594	118	80	200	90
8	285	1030	224	576	449	1140	324	499	127	79	188	108
9	223	584	356	435	1560	737	313	439	559	86	456	84
10	184	420	300	362	1070	562	275	394	367	77	247	80
11	159	1010	275	314	942	466	260	391	268	68	204	83
12	139	923	259	311	753	407	250	372	322	66	329	74
13	125	621	242	270	601	361	251	327	326	72	339	80
14	130	494	224	259	517	329	252	302	265	78	325	69
15	126	385	212	291	456	540	243	402	228	158	261	64
16	106	316	297	358	393	596	267	367	200	153	223	181
17	98	277	269	476	343	522	232	333	197	93	195	277
18	92	264	268	849	315	457	222	301	236	93	177	149
19	87	263	505	2270	291	623	220	273	189	75	158	117
20	86	254	487	1030	369	583	391	250	168	72	151	101
21	91	248	402	703	358	518	539	230	153	96	133	94
22	80	231	344	535	372	452	443	214	138	114	121	116
23	76	219	297	451	394	405	395	196	125	154	115	89
24	72	220	261	745	387	395	343	182	119	96	138	81
25	71	197	235	632	331	554	307	239	145	137	153	77
26	68	184	215	1840	303	632	524	207	120	184	122	73
27	156	176	201	4860	298	549	460	225	109	114	111	123
28	228	286	183	1530	484	648	399	338	102	143	103	483
29	136	646	168	954	389	599	365	240	96	235	96	441
30	117	437	163	720	---	515	851	212	91	532	91	258
31	109	---	171	604	---	490	---	190	---	730	105	---
TOTAL	6407	12999	8558	24670	14638	17025	11257	10603	5659	4434	7625	4064
MEAN	207	433	276	796	505	549	375	342	189	143	246	135
MAX	1620	1350	505	4860	1560	1510	851	694	559	730	1120	483
MIN	66	109	163	242	291	255	220	182	91	66	91	64
CFSM	1.95	4.09	2.60	7.51	4.76	5.18	3.54	3.23	1.78	1.35	2.32	1.28
IN.	2.25	4.56	3.00	8.66	5.14	5.97	3.95	3.72	1.99	1.56	2.68	1.43

e Estimated



TENNESSEE RIVER BASIN  
03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued  
(Hydrologic bench-mark station)

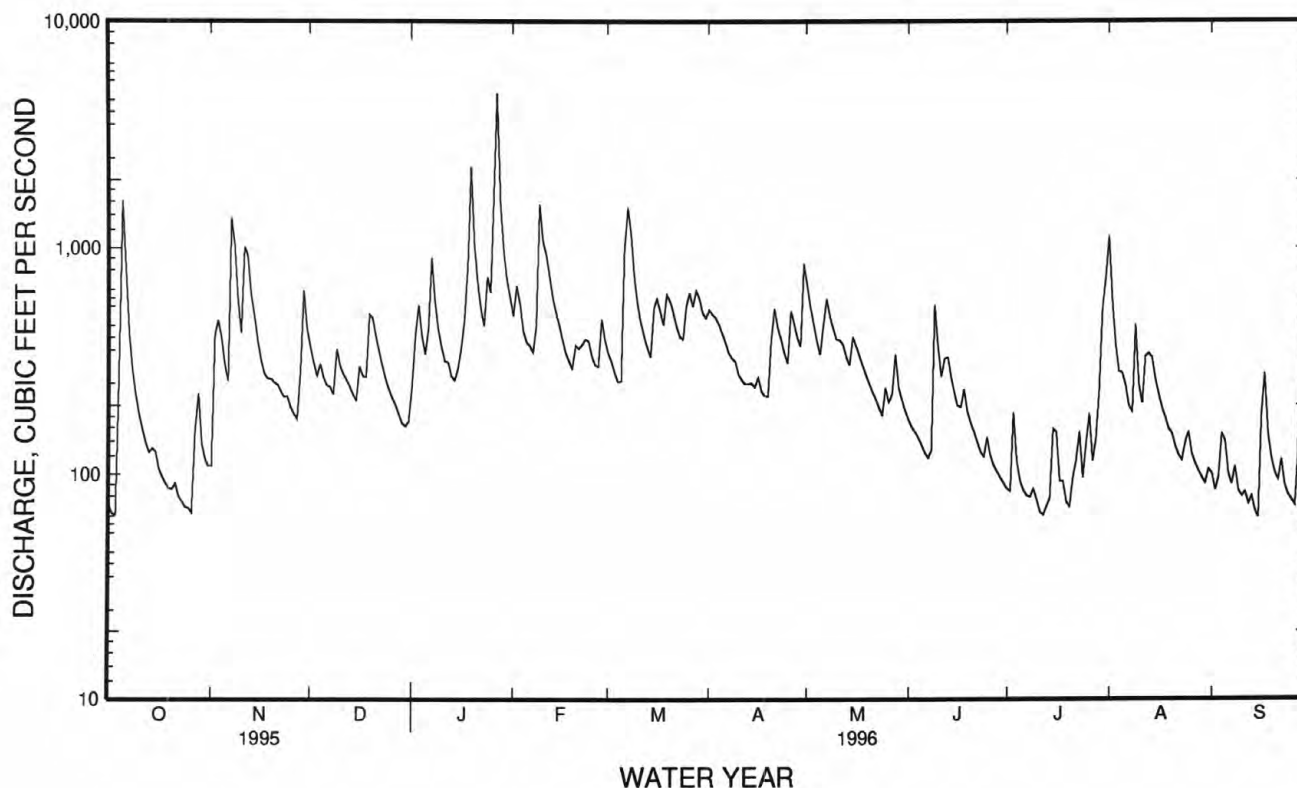
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	130	212	349	413	454	522	381	279	213	195	180	122
MAX	373	436	725	796	857	1195	808	774	648	815	530	492
(WY)	1973	1967	1992	1996	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	1995	1986	1988	1993	1987	1987

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1964 - 1996

ANNUAL TOTAL	93529		127939									
ANNUAL MEAN	256		350							287		
HIGHEST ANNUAL MEAN										460		1994
LOWEST ANNUAL MEAN										141		1988
HIGHEST DAILY MEAN	3500	Feb 16	4860	Jan 27	9000	Mar 28	1994					
LOWEST DAILY MEAN	39	Sep 10	64	Sep 15	23	Oct 18	1987					
ANNUAL SEVEN-DAY MINIMUM	46	Jul 24	75	Jul 8	25	Oct 14	1987					
INSTANTANEOUS PEAK FLOW			9410	Jan 26	27100	Mar 27	1994					
INSTANTANEOUS PEAK STAGE			9.38	Jan 26	a15.75	Mar 27	1994					
INSTANTANEOUS LOW FLOW			58	Jul 13	b21	Jan 18	1981					
ANNUAL RUNOFF (CFSM)	2.42		3.30		2.71							
ANNUAL RUNOFF (INCHES)	32.82		44.90		36.79							
10 PERCENT EXCEEDS	440		609		559							
50 PERCENT EXCEEDS	175		268		196							
90 PERCENT EXCEEDS	64		91		63							

a From floodmarks in gage house.  
b Result 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 TEMPERATURE: 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 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 29...	1030	80020	639	16	6.8	7.5	--	0.40	--	--	6	
FEB 14...	1000	80020	521	15	6.8	5.0	722	0.20	14.3	118	K2	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CaCO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	
NOV 29...	130	5	2	1.3	0.38	0.70	22	0.1	0.50	3	2.0	
FEB 14...	21	4	1	1.0	0.30	0.80	29	0.2	0.40	3	1.1	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 29...	0.50	<0.10	4.5	--	13	0.02	21.9	<0.010	0.280	0.280	<0.015	
FEB 14...	0.40	<0.10	5.8	14	13	0.02	19.7	<0.010	0.210	0.210	<0.015	

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

TENNESSEE RIVER BASIN  
03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 29...	<0.20	<0.010	<0.010	<0.010	60	8	<3	16	<4	<1
FEB 14...	<0.20	<0.010	<0.010	<0.010	20	6	<3	9	<4	<1

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
NOV 29...	<10	<1	<1	<1.0	9	<6
FEB 14...	<10	<1	<1	<1.0	8	<6

DATE	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)
NOV 29...	0.04	<0.01	0.0	0.010

## 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 mi<sup>2</sup>.

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.--Records good. Diurnal fluctuations at flow caused by small mills above station. The town of Maryville diverted an average of about 4.0 ft<sup>3</sup>/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 ft<sup>3</sup>/s, and flood of April 1, 1896, reached a stage of 26 ft, discharge, 36,000 ft<sup>3</sup>/s, from reports by Tennessee Valley Authority. 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 6,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0445	*11,100	*15.51	Feb. 9	1045	6,080	12.65

Minimum discharge, 90 ft<sup>3</sup>/s, Oct. 2, 3, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	144	503	399	843	535	905	1010	333	e140	e2500	173
2	97	317	428	1020	953	504	910	831	306	e130	e1000	152
3	96	594	375	1900	895	465	849	703	293	e160	e700	160
4	251	516	381	871	702	426	777	611	280	e200	e500	185
5	1340	384	356	655	600	416	708	538	264	e150	e400	217
6	1020	323	328	851	596	1350	645	573	248	e140	410	179
7	505	1520	334	2470	563	2910	597	1070	235	e125	323	155
8	351	1470	315	1290	1010	2090	557	974	238	e120	294	165
9	276	753	508	880	4250	1230	616	772	626	e130	618	152
10	227	544	484	738	2200	950	527	664	605	e125	398	145
11	194	847	413	636	1680	799	494	641	436	e110	342	143
12	173	1080	381	653	1310	711	472	655	445	e105	534	136
13	159	724	353	589	1040	643	458	561	511	e100	557	139
14	152	581	328	569	904	587	467	515	403	e150	465	132
15	163	488	306	572	814	707	436	710	356	e150	383	122
16	141	403	458	661	716	946	472	705	e310	e230	326	128
17	129	351	489	739	632	829	423	590	e280	e150	289	381
18	121	328	420	867	586	733	401	523	e330	e140	268	220
19	114	321	647	2500	541	879	397	472	e290	e130	240	177
20	113	311	730	1360	572	881	584	435	e250	e120	230	158
21	122	301	599	992	582	815	1050	400	e230	e150	213	150
22	114	285	517	798	569	723	790	372	e220	e200	196	165
23	104	269	449	687	583	663	675	345	e200	e290	188	150
24	99	273	396	1030	578	633	595	323	e190	e200	205	136
25	e95	251	356	968	522	726	532	370	e200	e150	222	129
26	e95	234	330	1270	486	863	963	536	e210	e300	194	124
27	125	223	305	7940	471	769	898	553	e180	e200	183	118
28	e400	279	284	2370	641	1030	719	809	e160	e350	172	328
29	202	e1050	255	1440	613	1060	631	498	e150	e750	164	692
30	163	627	249	1120	---	893	1020	416	e150	e900	155	352
31	149	---	253	1000	---	825	---	367	---	e1500	162	---
TOTAL	7394	15791	12530	39835	26452	27591	19568	18542	8929	7795	12831	5763
MEAN	239	526	404	1285	912	890	652	598	298	251	414	192
MAX	1340	1520	730	7940	4250	2910	1050	1070	626	1500	2500	692
MIN	95	144	249	399	471	416	397	323	150	100	155	118
CFSM	.89	1.96	1.50	4.78	3.39	3.31	2.42	2.22	1.11	.93	1.54	.71
IN.	1.02	2.18	1.73	5.51	3.66	3.82	2.71	2.56	1.23	1.08	1.77	.80

e Estimated

## TENNESSEE RIVER BASIN

03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	203	347	635	801	956	1018	741	490	360	316	263	182
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

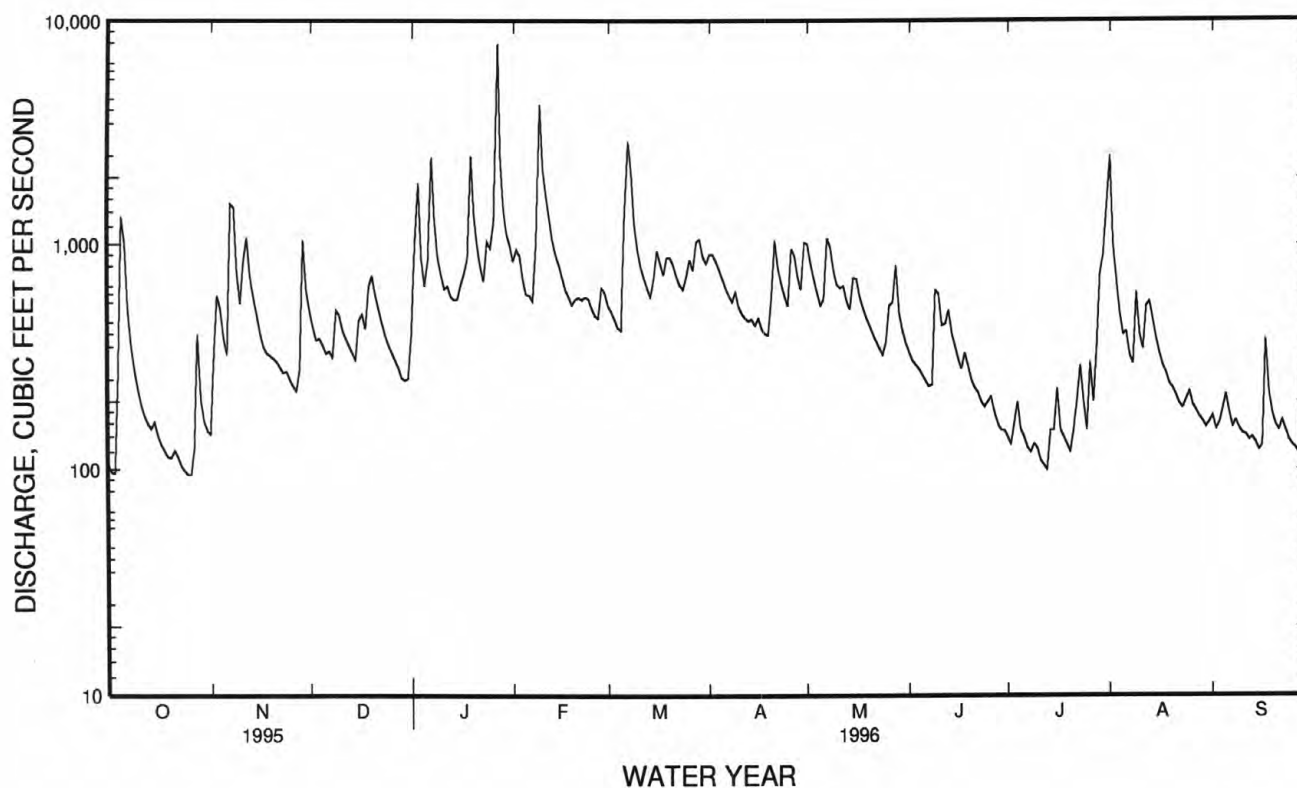
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1951 - 1996

ANNUAL TOTAL	151710		203021									
ANNUAL MEAN	416		555									
HIGHEST ANNUAL MEAN									524			
LOWEST ANNUAL MEAN									862			1994
HIGHEST DAILY MEAN	5760	Feb 16	7940	Jan 27	23100	Mar 28	1994					
LOWEST DAILY MEAN	69	Sep 10	a95	Oct 25	43	Oct 19	1987					
ANNUAL SEVEN-DAY MINIMUM	80	Sep 5	106	Oct 20	45	Oct 14	1987					
INSTANTANEOUS PEAK FLOW			11100	Jan 27	b42100	Mar 28	1994					
INSTANTANEOUS PEAK STAGE			15.51	Jan 27	27.95	Mar 28	1994					
INSTANTANEOUS LOW FLOW			c90	Oct 2	32	Aug 27	1956					
ANNUAL RUNOFF (CFSM)	1.55		2.06		1.95							
ANNUAL RUNOFF (INCHES)	20.98		28.08		26.48							
10 PERCENT EXCEEDS	719		1000		1040							
50 PERCENT EXCEEDS	292		427		316							
90 PERCENT EXCEEDS	112		141		102							

a Also occurred Oct. 26.

b From rating curve extended above 14,800 ft<sup>3</sup>/s on the basis of a contracted opening measurement and road overflow computations.

c Also occurred Oct. 3 and 27.





## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1986 to current year, discharge for gage height 14.7 ft and below only.

GAGE.--Water-stage recorder. Datum of gage is 814.22 ft above sea level.

REMARKS.--Records good. Djurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverts an average of about 4.0 ft<sup>3</sup>/s (2.6 MGD) for municipal supply 7.6 mi upstream from gage and the town of Alcoa at the gage diverts about 17.2 ft<sup>3</sup>/s (11.1 MDG).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height 16.15 ft Jan. 27; minimum 75 ft<sup>3</sup>/s, Oct. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	138	565	407	874	539	914	1060	343	146	2950	179
2	110	246	471	878	955	512	918	840	308	141	1390	149
3	106	640	407	2220	942	476	872	701	289	171	783	168
4	197	576	388	935	727	433	789	606	285	228	576	224
5	1240	438	400	676	613	414	727	536	266	157	481	224
6	1260	345	345	814	614	1370	650	552	246	141	494	185
7	556	1210	338	2950	579	3010	611	1070	230	133	381	160
8	372	1890	334	1570	989	2560	558	1020	228	129	333	145
9	284	840	483	965	4820	1330	631	784	546	132	671	162
10	225	592	539	782	2910	969	535	662	700	131	495	139
11	190	677	445	661	2050	805	498	627	481	117	369	136
12	165	1300	405	671	1490	718	478	669	453	112	591	132
13	144	795	372	618	1120	650	470	566	566	111	669	131
14	140	627	341	594	945	595	470	519	427	160	527	134
15	152	534	321	575	843	636	442	690	363	151	453	112
16	140	432	431	665	740	989	475	737	319	259	373	120
17	124	371	547	732	660	840	432	605	291	164	323	396
18	116	335	454	849	604	753	406	531	344	158	297	249
19	112	324	646	2750	556	854	401	484	299	139	265	176
20	106	316	788	1540	570	905	523	443	260	128	249	154
21	120	313	647	1040	593	824	1130	409	246	164	228	143
22	111	288	556	816	567	741	812	370	229	220	208	162
23	99	268	480	698	589	674	684	346	204	312	194	141
24	89	275	429	1080	576	632	619	330	197	223	218	125
25	99	249	382	1030	523	697	542	369	208	155	253	128
26	88	228	354	1160	490	864	956	485	222	357	196	117
27	100	219	317	e9000	477	766	969	641	187	228	172	112
28	376	254	294	3100	604	1010	735	850	170	361	180	244
29	220	1070	261	1680	629	1130	641	535	153	921	165	759
30	161	715	247	1210	---	923	971	423	153	840	155	377
31	144	---	253	1040	---	838	---	371	---	2270	166	---
TOTAL	7458	16505	13240	43706	28649	28457	19859	18831	9213	9059	14805	5783
MEAN	241	550	427	1410	988	918	662	607	307	292	478	193
MAX	1260	1890	788	9000	4820	3010	1130	1070	700	2270	2950	759
MIN	88	138	247	407	477	414	401	330	153	111	155	112

e Estimated

## TENNESSEE RIVER BASIN

03498850 LITTLE RIVER NEAR ALCOA, TN--Continued

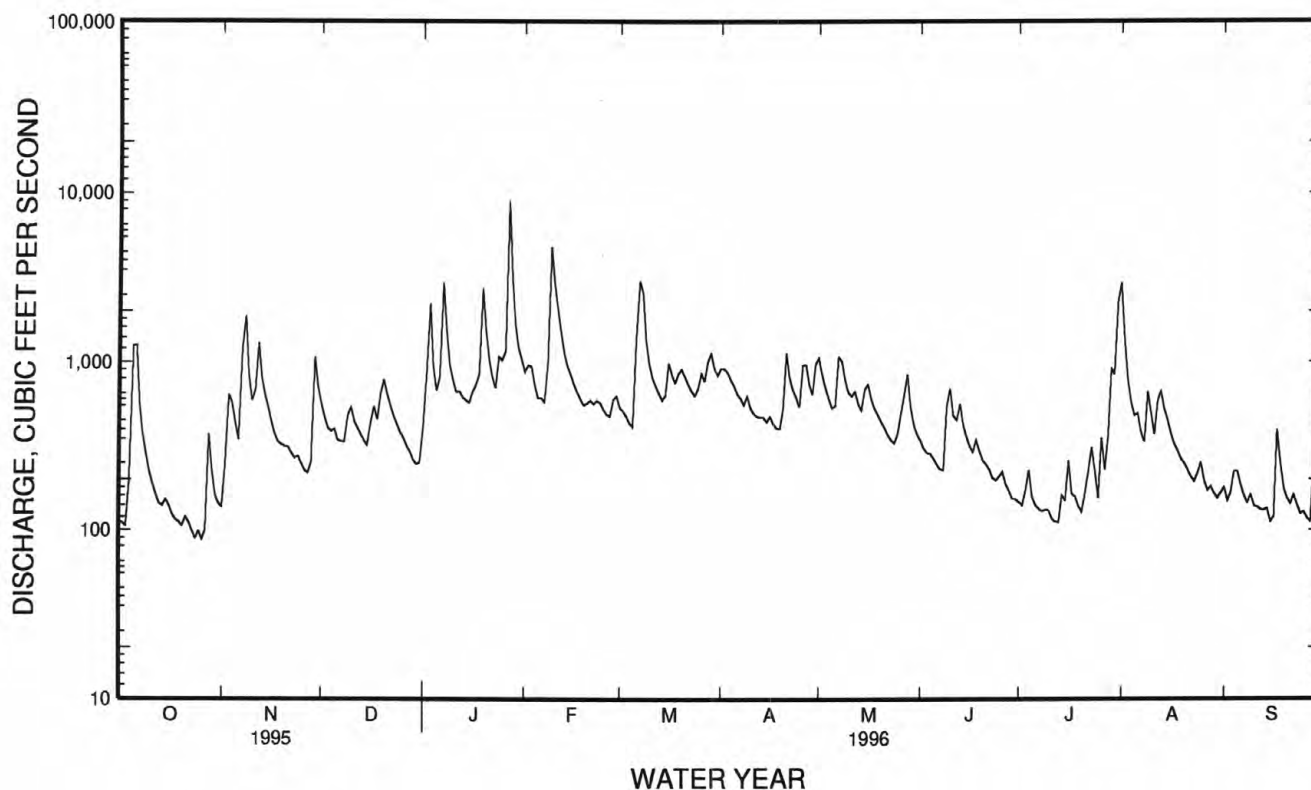
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	211	326	690	928	1082	1162	726	500	428	296	265	249
MAX	779	783	1624	1410	1980	2764	2008	989	1335	775	586	1123
(WY)	1990	1990	1992	1996	1994	1994	1994	1989	1989	1989	1994	1989
MIN	43.4	60.6	176	432	435	403	295	199	73.6	106	69.0	64.1
(WY)	1988	1988	1988	1988	1988	1988	1995	1988	1988	1988	1987	1987

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1987 - 1996

ANNUAL TOTAL	162276		215565									
ANNUAL MEAN	445		589							570		
HIGHEST ANNUAL MEAN										953		1994
LOWEST ANNUAL MEAN										220		1988
HIGHEST DAILY MEAN	5850	Feb 17	e9000	Jan 27	e28000	Mar 28	1994					
LOWEST DAILY MEAN	66	Jul 27	88	Oct 26	28	Jul 10	1988					
ANNUAL SEVEN-DAY MINIMUM	77	Sep 5	101	Oct 21	35	Oct 14	1987					
INSTANTANEOUS PEAK STAGE			16.15	Jan 27	25.63	Mar 28	1994					
INSTANTANEOUS LOW FLOW			75	Oct 27	23	Jul 10	1988					
10 PERCENT EXCEEDS	781		1020		1130							
50 PERCENT EXCEEDS	307		453		343							
90 PERCENT EXCEEDS	101		140		91							

e Estimated



TENNESSEE RIVER BASIN  
03528000 CLINCH RIVER ABOVE TAZEWEILL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi upstream from Grissom Island, 4.6 mi downstream from Big War Creek, 10 mi east of Tazewell, and at mile 159.8.

DRAINAGE AREA.--1,474 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1918 to current year. Published as "near Lone Mountain" October 1918 to September 1927; as "near Tazewell" August 1927 to December 1936; and as "above Tazewell" July 1935 to current year. Prior to April 1919, monthly discharge only, published in WSP 1306. Gage-height record "near Tazewell" January 1937 to July 1941.

REVISED RECORDS.--WSP 803: Drainage area at site "near Tazewell". WSP 1306: Drainage area at site "near Lone Mountain". WSP 1336: 1928.

GAGE.--Data collection platform. Datum of gage is 1,060.7 ft above sea level. April 1, 1919, to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi downstream at datum 102.7 ft lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi downstream at datum 47.2 ft lower. Water-stage recorder at present site and datum since July 29, 1935.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft, present site and datum, from information by local resident, discharge, about 66,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 20	0630	23,000	12.85	Feb. 10	2400	16,400	10.49
Jan. 28	1330	*23,600	*13.05				

Minimum discharge, 214 ft<sup>3</sup>/s, Oct. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	305	1400	803	4100	3830	4840	3170	3680	528	8070	565
2	276	341	1420	969	3460	3120	4820	3400	2700	582	10100	522
3	253	620	1190	2920	2990	2630	4650	2880	2200	1000	4210	502
4	254	798	1010	4800	2520	2250	4180	2490	1880	1460	2460	531
5	306	732	885	4100	2080	1940	3620	2180	1700	1430	1710	660
6	378	596	793	3040	1650	2920	3140	1950	1510	1000	1330	1010
7	480	1670	766	2980	1840	9450	2800	2340	1330	766	1170	847
8	572	4690	750	2500	2780	10800	2510	7440	1240	650	1210	628
9	570	3430	790	2130	6770	8550	2400	8000	1480	638	1030	554
10	466	2250	1020	1770	13800	5420	2240	6520	1790	875	947	536
11	378	1650	1130	1760	14500	3990	2060	4560	1620	785	1000	551
12	319	2150	1060	1680	10800	3300	1890	3600	1620	643	2550	537
13	280	2660	942	1590	7540	2860	1790	3020	1610	559	6040	540
14	263	2270	943	1550	5310	e2500	1850	2620	1540	687	4430	655
15	258	1730	1020	1550	4290	e2400	1810	2340	1360	808	3100	610
16	250	1450	1700	2210	3870	3170	1930	2360	1170	1360	2130	602
17	255	1300	2830	4370	3580	3850	2930	4250	1030	1220	1720	642
18	279	1110	2710	8260	3180	5490	3340	6070	907	e1240	2030	613
19	272	948	3150	16000	2800	5250	2930	3730	828	871	1860	573
20	266	840	5980	22000	2590	5320	2990	2770	787	743	1400	564
21	256	760	6980	14400	2780	5920	4260	2240	794	690	1140	570
22	240	726	4870	6730	3070	5250	3880	2000	835	772	1030	525
23	226	711	3160	4440	3070	4550	3240	1780	783	879	1010	481
24	221	709	2330	4510	2950	4030	2750	1560	701	691	879	447
25	220	701	1830	6240	2670	3700	2390	2750	689	633	825	423
26	215	669	1520	5980	2380	3570	2280	7000	978	848	756	401
27	233	632	1310	12400	2160	3260	2460	7940	957	702	765	387
28	323	622	1160	22600	2090	3740	2500	6630	729	615	812	456
29	361	1060	1020	16600	3350	6050	2270	9090	623	567	836	751
30	338	1390	909	7560	---	7120	2240	11200	566	520	732	1800
31	333	---	833	5220	---	5650	---	5770	---	858	625	---
TOTAL	9655	39520	57411	193662	124970	141880	86990	133650	39637	25620	67907	18483
MEAN	311	1317	1852	6247	4309	4577	2900	4311	1321	826	2191	616
MAX	572	4690	6980	22600	14500	10800	4840	11200	3680	1460	10100	1800
MIN	215	305	750	803	1650	1940	1790	1560	566	520	625	387
CFSM	.21	.89	1.26	4.24	2.92	3.11	1.97	2.92	.90	.56	1.49	.42
IN.	.24	1.00	1.45	4.89	3.15	3.58	2.20	3.37	1.00	.65	1.71	.47

e Estimated

TENNESSEE RIVER BASIN  
03528000 CLINCH RIVER ABOVE TAZEWEEL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1996, BY WATER YEAR (WY)

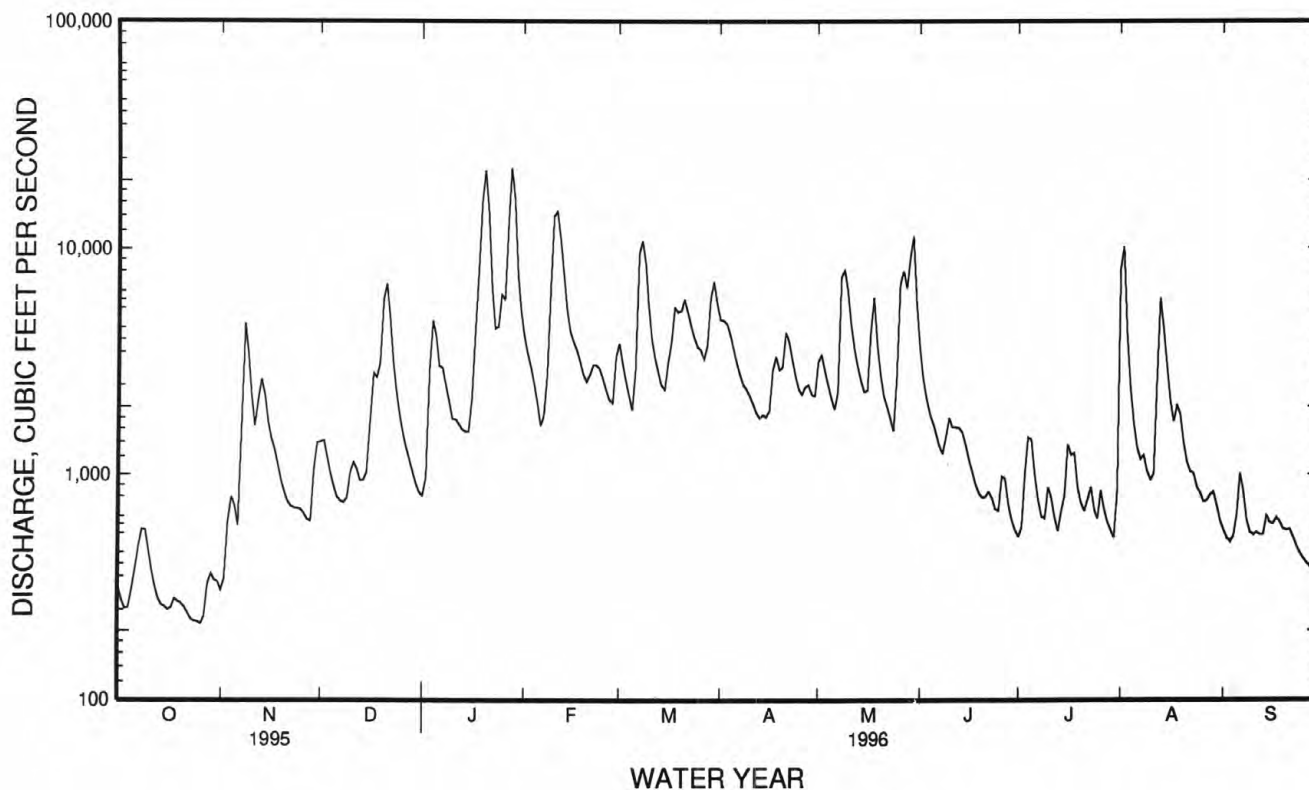
MEAN	665	1109	2354	3491	4170	4286	3054	2309	1278	962	875	541
MAX	2871	4794	9107	9500	9426	11950	8860	6382	3865	3251	4411	2939
(WY)	1990	1978	1927	1937	1957	1963	1977	1929	1989	1938	1942	1989
MIN	145	159	217	285	571	990	711	547	301	239	169	136
(WY)	1964	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1955

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1919 - 1996

ANNUAL TOTAL	682123			939385				2082		
ANNUAL MEAN	1869			2567				3269		1927
HIGHEST ANNUAL MEAN								850		1941
LOWEST ANNUAL MEAN										
HIGHEST DAILY MEAN	20800	Jan 16		22600	Jan 28			83300	Apr 5	1977
LOWEST DAILY MEAN	146	Sep 15		215	Oct 26			108	Sep 11	1925
ANNUAL SEVEN-DAY MINIMUM	153	Sep 10		230	Oct 21			116	Sep 17	1955
INSTANTANEOUS PEAK FLOW				23600	Jan 28			98100	Apr 5	1977
INSTANTANEOUS PEAK STAGE				13.05	Jan 28			a29.32	Apr 5	1977
INSTANTANEOUS LOW FLOW				b214	Oct 26			108	Sep 11	1925
ANNUAL RUNOFF (CFSM)	1.27			1.74				1.41		
ANNUAL RUNOFF (INCHES)	17.22			23.71				19.19		
10 PERCENT EXCEEDS	4240			5810				4670		
50 PERCENT EXCEEDS	1010			1660				1110		
90 PERCENT EXCEEDS	237			481				272		

a From floodmarks.

b Also occurred Oct. 27.



TENNESSEE RIVER BASIN  
03528000 CLINCH RIVER ABOVE TAZEWEEL, TN--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-65, 1971-80, April to September 1996.

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CaCO3) (00904)
APR											
02...	1350	245	8.3	11.0	739	10.4	97	--	--	11-	18
MAY											
09...	1345	253	8.0	16.5	742	8.2	86	--	1300	110	3
22...	1500	282	8.3	23.5	731	9.6	118	K28	K8	120	14
JUN											
18...	1330	306	8.5	26.5	732	8.7	113	K23	K88	140	22
JUL											
18...	1345	315	8.5	25.5	737	7.8	98	--	--	140	9
AUG											
30...	1130	319	8.3	25.5	735	10.1	128	--	--	140	11
SEP											
17...	1400	334	8.4	20.0	733	9.4	108	270	280	160	20

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
APR										
02...	32	7.8	6.6	11	0.3	1.3	95	20	5.0	<0.10
MAY										
09...	31	6.8	3.7	7	0.2	1.4	102	14	3.7	<0.10
22...	35	8.9	6.1	10	0.2	1.5	110	24	4.6	<0.10
JUN										
18...	36	12	7.7	11	0.3	1.8	118	28	5.4	<0.10
JUL										
18...	38	11	6.7	9	0.2	2.2	131	21	4.6	<0.10
AUG										
30...	36	12	7.9	11	0.3	2.0	128	24	5.2	<0.10
SEP										
17...	39	14	8.8	11	0.3	2.4	135	26	5.7	<0.10

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



TENNESSEE RIVER BASIN  
03528000- CLINCH RIVER ABOVE TAZEWELL, TN--Continued

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
APR 02...	150	141	0.20	0.650	0.020	0.07	0.650	0.670	0.670	--	<0.015
MAY 09...	136	131	0.18	--	<0.010	--	0.850	0.850	0.850	--	<0.015
22...	165	154	0.22	0.490	0.040	0.13	0.490	0.530	0.530	--	<0.015
JUN 18...	159	164	0.22	--	<0.010	--	0.290	0.290	0.290	0.03	0.020
JUL 18...	180	170	0.24	0.490	0.010	0.03	0.490	0.500	0.500	0.05	0.040
AUG 30...	176	169	0.24	--	<0.010	--	0.340	0.340	0.340	0.03	0.020
SEP 17...	182	182	0.25	0.380	0.020	0.07	0.380	0.400	0.400	--	<0.015

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)
APR 02...	<0.20	<0.20	--	0.030	<0.010	<0.010	48	3	1.7	0.4	22
MAY 09...	<0.20	0.80	1.7	0.150	<0.010	0.010	20	1	2.1	2.0	139
22...	<0.20	<0.20	--	0.020	<0.010	<0.010	6	3	1.2	0.3	10
JUN 18...	<0.20	0.20	0.49	0.060	0.040	<0.010	16	3	2.7	0.2	4
JUL 18...	0.20	0.30	0.80	0.040	0.010	0.020	13	5	2.5	0.6	36
AUG 30...	<0.20	<0.20	--	0.020	<0.010	0.010	6	3	1.9	0.3	9
SEP 17...	<0.20	<0.20	--	0.030	<0.010	<0.010	12	3	1.8	0.5	8

TENNESSEE RIVER BASIN  
03528000- CLINCH RIVER ABOVE TAZEWELL, TN--Continued

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1996

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
APR 02...	93	<0.001	<0.002	<0.005	<0.002	E0.004	<0.002	<0.02	<0.02	<0.02
MAY 09...	91	<0.001	0.01	<0.005	0.005	0.02	<0.002	<0.02	<0.02	<0.02
22...	92	<0.001	0.01	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
JUN 18...	97	<0.001	0.01	<0.005	0.002	0.03	<0.002	<0.02	<0.02	<0.02
JUL 18...	97	<0.001	E0.003	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02
AUG 30...	92	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02
SEP 17...	95	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02

E--Estimated

TENNESSEE RIVER BASIN  
03532000 POWELL RIVER NEAR ARTHUR, TN  
WATER-QUALITY RECORDS

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, Hydrologic Unit 06010206, on left bank 500 ft upstream from bridge on U.S. Highway 25E, 2.3 mi east of Arthur, 2.4 mi downstream from Indian Creek, and at mile 65.4.

DRAINAGE AREA.--685 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1995 to September 1996.

WATER-QUALITY DATA, WATER YEAR DECEMBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD AS CaCO3 (MG/L) (00904)
DEC 13...	1215	366	8.0	3.5	741	12.9	100	--	--	--	--
MAY 23...	1215	300	8.6	21.0	734	8.5	99	K23	K4	130	15
JUN 20...	1145	328	8.3	24.5	731	10.8	136	K89	K31	140	7

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
MAY 23...	32	11	9.2	14	0.4	1.7	109	35	3.4	<0.10	1.1
JUN 20...	36	11	9.8	13	0.4	1.9	128	33	3.9	<0.10	2.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)
MAY 23...	175	160	0.24	<0.010	0.260	0.260	0.260	--	<0.015	<0.20
JUN 20...	178	178	0.24	<0.010	0.640	0.640	0.640	0.03	0.020	<0.20

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

TENNESSEE RIVER BASIN  
03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

WATER-QUALITY DATA, WATER YEAR DECEMBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE TOTAL (MG/L) (80154)
MAY 23...	0.40	0.66	<0.010	<0.010	<0.010	8	3	1.1	0.3	4
JUN 20...	<0.20	--	0.010	<0.010	<0.010	11	5	1.1	0.3	10

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
MAY 23...	76	<0.001	E0.002	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02
JUN 20...	93	<0.001	0.005	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02

E--Estimated

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## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1987 to September 1996 (discontinued).

REVISED RECORDS.--WDR TN-89-1: 1987-88 (M).

GAGE.--Data logger and concrete weir. Datum of gage is 772.78 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated at times by Oak Ridge National Laboratory.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 19	0410	129	3.35	July 26	0215	33	2.53
May 6	1530	32	2.50	July 31	0525	33	2.53
May 26	1510	*241	*3.90	Aug. 1	0040	35	2.56
May 27	2020	26	2.38				

Minimum discharge, 0.16 ft<sup>3</sup>/s, Nov. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.67	.91	.42	1.2	.70	2.1	1.1	1.2	.35	6.8	.27
2	.21	1.8	.71	2.5	1.2	.73	1.8	1.0	.99	.34	2.4	.28
3	.49	1.2	.59	1.6	1.0	.68	1.6	.92	.80	.33	1.6	.30
4	.69	.68	.53	1.2	.81	.59	1.5	.80	.67	.31	1.1	.29
5	3.5	.46	.47	.97	.68	1.1	1.3	.70	.57	.30	.81	.29
6	.53	1.0	.48	4.3	.63	3.2	1.1	2.8	.49	.28	.64	.29
7	.32	4.1	.67	4.4	.93	6.6	.99	1.8	.44	.29	.54	.31
8	.26	1.5	.52	2.6	3.4	3.4	1.0	1.5	1.1	.36	.49	.29
9	.24	.98	.64	1.9	6.2	2.4	.86	1.3	6.3	.29	.44	.37
10	.24	.63	.49	1.5	3.9	1.9	.74	1.2	3.4	.27	.39	.31
11	.23	2.8	.48	1.3	3.5	1.6	.68	1.0	2.4	.27	1.3	.29
12	.23	1.3	.48	1.3	2.6	1.4	.66	.80	2.3	.27	1.8	.29
13	.24	1.0	.42	1.1	2.2	1.2	1.3	.66	2.1	.27	.85	.28
14	.32	.92	.35	.91	1.9	1.1	.82	.57	1.8	.67	.62	.26
15	.22	.61	.34	.94	1.6	1.5	.87	2.9	1.6	.96	.52	.26
16	.21	.49	.89	1.1	1.3	1.2	.74	1.2	1.3	.32	.44	1.5
17	.21	.41	.47	1.2	1.1	1.1	.68	1.1	1.1	.28	.39	.38
18	.20	.37	1.1	2.2	.93	1.1	.66	.95	.91	.28	.36	.30
19	.20	.33	7.0	2.9	.84	2.5	.74	.76	.77	.28	.35	.28
20	.30	.29	2.4	2.0	2.0	1.6	2.7	.66	.67	.45	.34	.28
21	.20	.29	1.7	1.7	1.3	1.5	2.4	.57	.58	.68	.34	.42
22	.19	.27	1.2	1.3	1.2	1.3	1.9	.51	.52	.52	.32	.30
23	.19	.32	.95	1.2	1.1	1.2	1.7	.47	.47	.29	.29	.29
24	.19	.27	.71	3.0	1.0	1.0	1.4	.59	.90	.27	.55	.29
25	.19	.25	.55	1.7	.89	1.2	1.3	1.5	.51	.94	.37	.29
26	.20	.29	.47	4.3	.82	.90	2.0	16	.42	1.6	.36	.28
27	1.6	.36	.41	4.5	.77	.81	1.3	6.7	.40	.34	.31	.38
28	.52	2.2	.34	2.8	1.2	3.0	1.2	6.2	.38	1.3	.30	2.3
29	.31	1.8	.32	2.2	.74	2.1	1.3	3.0	.36	1.2	.30	.64
30	.25	1.2	.32	1.8	---	1.9	1.5	1.9	.35	1.6	.29	.43
31	.24	---	.49	1.5	---	2.4	---	1.5	---	7.5	.28	---
TOTAL	13.13	28.79	27.40	62.34	46.94	52.91	38.84	62.66	35.80	23.41	25.89	12.74
MEAN	.42	.96	.88	2.01	1.62	1.71	1.29	2.02	1.19	.76	.84	.42
MAX	3.5	4.1	7.0	4.5	6.2	6.6	2.7	16	6.3	7.5	6.8	2.3
MIN	.19	.25	.32	.42	.63	.59	.66	.47	.35	.27	.28	.26

## TENNESSEE RIVER BASIN

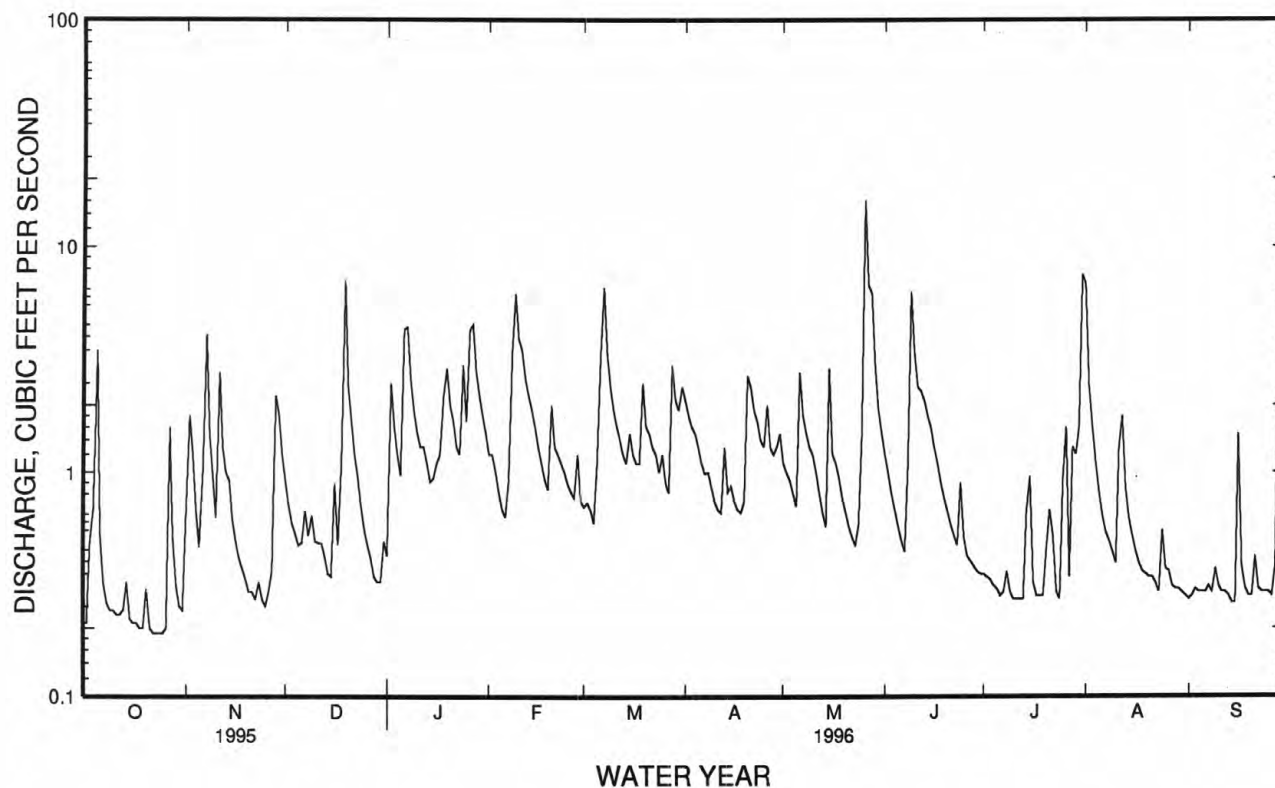
03536450 FIRST CREEK NEAR OAK RIDGE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	.37	.66	1.28	1.64	1.77	1.74	1.19	.87	.67	.51	.42	.40
MAX	1.01	1.44	2.90	2.33	3.38	3.21	3.14	2.02	2.14	.94	.84	.96
(WY)	1990	1990	1991	1989	1994	1994	1994	1996	1989	1989	1996	1989
MIN	.20	.23	.28	.83	.75	.97	.50	.32	.32	.27	.27	.22
(WY)	1988	1988	1988	1988	1988	1988	1995	1992	1988	1993	1992	1990

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1987 - 1996

ANNUAL TOTAL	304.37	430.85	
ANNUAL MEAN	.83	1.18	.98
HIGHEST ANNUAL MEAN			1.33
LOWEST ANNUAL MEAN			.49
HIGHEST DAILY MEAN	7.8	16	26
LOWEST DAILY MEAN	.19	.19	.14
ANNUAL SEVEN-DAY MINIMUM	.21	.21	.15
INSTANTANEOUS PEAK FLOW		a241	a295
INSTANTANEOUS PEAK STAGE		3.90	4.10
INSTANTANEOUS LOW FLOW		.16	.09
10 PERCENT EXCEEDS	1.8	2.4	2.0
50 PERCENT EXCEEDS	.46	.77	.50
90 PERCENT EXCEEDS	.25	.28	.23

a From rating curve extended above 10 ft<sup>3</sup>/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 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1985 to September 1996 (discontinued).

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.--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 ft<sup>3</sup>/s, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 19	0445	430	5.75	June 9	0830	466	5.86
May 26	1500	*728	*6.55	Aug. 1	0115	205	4.88
May 27	2030	238	5.05				

Minimum discharge, 3.1 ft<sup>3</sup>/s, Sept. 14, gage height 2.56 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	7.9	8.4	6.0	10	7.3	16	8.8	9.6	4.4	55	4.1
2	4.4	16	7.7	21	10	7.2	13	7.7	8.6	4.5	18	4.1
3	6.4	11	7.3	14	8.9	6.6	12	7.2	7.5	4.2	12	4.4
4	8.2	8.0	6.5	11	7.8	6.0	11	6.6	7.0	3.9	9.5	4.2
5	25	6.7	6.4	9.2	7.2	10	9.0	6.2	6.0	3.7	7.7	4.3
6	6.9	9.3	5.6	35	7.5	27	8.4	21	5.4	3.7	6.9	4.2
7	5.7	34	7.1	42	9.6	51	7.8	15	5.5	4.0	6.1	4.7
8	5.3	13	6.9	21	25	25	8.4	12	16	4.5	5.9	4.0
9	4.7	8.8	7.6	15	51	16	7.3	9.9	77	4.1	5.6	4.7
10	4.8	7.5	6.2	12	32	13	6.5	8.4	29	4.0	5.2	4.0
11	4.7	24	5.8	11	31	11	6.3	8.3	19	4.3	11	4.4
12	5.6	12	5.8	12	21	10	6.1	10	18	4.0	16	4.1
13	4.6	9.5	5.9	10	16	9.0	10	6.4	16	4.0	8.7	4.0
14	5.2	9.8	5.3	9.4	14	8.1	7.5	5.6	13	7.3	6.8	3.6
15	4.3	7.7	5.4	9.7	12	11	8.1	21	11	9.2	5.8	3.7
16	4.3	6.6	9.2	11	10	10	7.1	10	8.9	5.1	5.8	12
17	4.3	6.2	6.3	11	8.9	8.4	8.5	8.8	7.8	4.8	5.1	5.6
18	4.3	5.8	9.7	14	8.3	8.0	6.1	7.5	7.1	4.7	5.0	4.6
19	4.5	5.2	65	30	8.0	18	6.8	6.4	6.4	4.4	4.9	4.5
20	5.5	4.9	21	16	18	12	20	6.0	5.7	5.7	e4.9	4.5
21	4.7	4.8	13	13	11	11	20	5.7	5.9	6.9	e4.9	5.4
22	4.4	4.7	10	11	10	9.6	16	5.1	5.6	6.5	4.9	4.6
23	4.4	5.3	8.7	9.9	10	8.9	13	5.2	5.4	5.0	4.9	4.5
24	4.5	4.6	7.0	25	8.7	8.2	11	5.2	9.4	4.7	6.9	4.6
25	4.9	4.4	6.5	14	7.9	9.4	9.4	16	6.4	8.8	5.1	4.4
26	4.9	4.4	6.1	33	7.7	7.5	15	63	5.2	13	4.7	5.0
27	15	5.1	5.9	41	7.2	6.5	9.3	57	4.9	5.2	4.7	5.5
28	6.9	17	5.7	22	11	24	8.3	47	4.8	11	4.6	17
29	5.5	16	5.4	17	7.2	17	9.2	24	4.7	13	4.4	7.0
30	5.1	9.7	5.2	14	---	14	12	16	4.5	16	4.3	5.8
31	4.9	---	6.5	12	---	17	---	12	---	60	4.1	---
TOTAL	188.2	289.9	289.1	532.2	396.9	407.7	309.1	449.0	341.3	244.6	259.4	157.5
MEAN	6.07	9.66	9.33	17.2	13.7	13.2	10.3	14.5	11.4	7.89	8.37	5.25
MAX	25	34	65	42	51	51	20	63	77	60	55	17
MIN	4.3	4.4	5.2	6.0	7.2	6.0	6.1	5.1	4.5	3.7	4.1	3.6

e Estimated

## TENNESSEE RIVER BASIN

03536550 WHITEOAK CREEK BELOW MELTON VALLEY DRIVE NEAR OAK RIDGE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

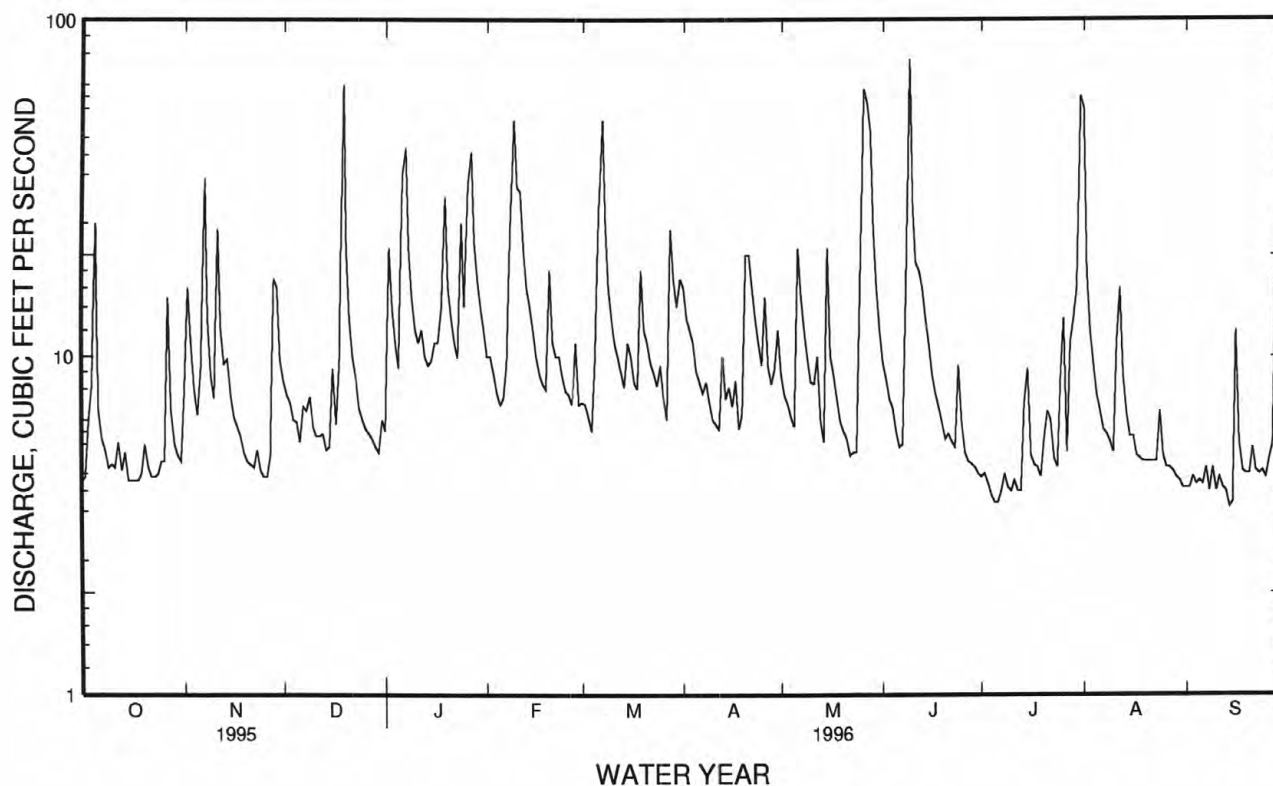
MEAN	6.31	8.33	12.3	14.3	16.4	15.3	10.9	9.27	8.87	7.64	7.53	6.64
MAX	11.2	14.8	25.4	19.8	29.1	26.7	27.1	15.5	21.9	11.9	13.6	13.9
(WY)	1990	1990	1991	1989	1994	1994	1994	1990	1989	1989	1985	1989
MIN	4.66	5.94	6.39	7.10	8.84	10.4	6.78	6.09	5.76	5.29	5.62	5.25
(WY)	1994	1988	1988	1986	1988	1988	1995	1992	1992	1995	1992	1994

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1985 - 1996

ANNUAL TOTAL	3322.5			3864.9								
ANNUAL MEAN	9.10			10.6						10.3		
HIGHEST ANNUAL MEAN										12.9		1994
LOWEST ANNUAL MEAN										7.47		1988
HIGHEST DAILY MEAN	66	Jan	15	77	Jun	9	202	Mar	27	1994		
LOWEST DAILY MEAN	4.2	Sep	29	3.6	Sep	14	3.6	Sep	14	1996		
ANNUAL SEVEN-DAY MINIMUM	4.5	Oct	13	4.0	Jul	4	4.0	Jul	4	1996		
INSTANTANEOUS PEAK FLOW				a728	May	26	a728	May	26	1996		
INSTANTANEOUS PEAK STAGE				6.55	May	26	6.55	May	26	1996		
INSTANTANEOUS LOW FLOW				3.1	Sep	14	b3.1	Jul	1	1995		
10 PERCENT EXCEEDS	16			18			17					
50 PERCENT EXCEEDS	6.6			7.5			7.1					
90 PERCENT EXCEEDS	4.8			4.4			5.0					

a From rating curve extended above 100 ft<sup>3</sup>/s on the basis of theoretical weir formula.

b Also occurred Sept. 14, 1996.



## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1992 to September 1996 (discontinued).

GAGE.--Water-stage recorder, crest-stage gage, and flume. Datum of gage is 930 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by operations of the Department of Energy Y-12 Plant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 385 ft<sup>3</sup>/s, July 31, gage height, 6.04 ft; minimum, 2.7 ft<sup>3</sup>/s, Dec. 3, 14, 15, 16, gage height 1.57, May 12; minimum daily, 2.7 ft<sup>3</sup>/s, Dec. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.8	3.1	3.1	3.2	3.8	4.8	3.5	3.7	3.1	24	10
2	3.3	11	2.9	10	3.2	3.7	4.2	3.3	3.7	3.2	9.3	10
3	5.1	4.9	2.8	3.7	3.3	3.6	3.8	3.3	3.9	3.2	9.6	11
4	5.9	3.8	2.9	3.3	3.3	3.6	4.0	3.2	3.7	3.0	9.6	14
5	20	3.6	3.0	3.3	3.2	6.2	3.7	3.2	3.6	3.0	9.9	11
6	4.0	6.8	3.0	15	3.2	11	3.6	7.0	3.8	3.0	10	11
7	3.4	19	4.0	8.9	4.7	16	3.5	4.0	3.6	3.4	10	11
8	3.3	5.7	3.2	4.4	14	5.0	4.6	3.4	15	3.3	11	11
9	3.3	5.0	3.4	3.9	12	4.3	3.8	3.3	29	3.4	10	11
10	3.3	4.7	2.9	3.5	4.8	3.9	3.6	3.3	4.5	3.0	10	11
11	3.3	13	2.9	3.4	4.1	3.8	3.5	3.2	3.6	3.1	22	11
12	3.3	3.6	2.9	4.4	3.7	3.8	3.4	3.1	14	3.0	18	12
13	3.5	4.0	2.9	3.9	3.5	3.7	5.5	3.3	5.0	3.2	12	10
14	4.0	3.9	2.8	3.7	3.3	3.6	3.6	3.5	4.0	8.8	12	10
15	3.3	3.2	2.7	3.6	3.3	5.1	4.5	13	3.6	11	11	10
16	3.3	3.1	5.0	3.5	3.3	4.3	3.6	3.7	3.5	3.3	11	16
17	3.3	3.1	2.9	3.5	3.2	3.7	3.5	3.6	3.5	3.2	10	11
18	3.2	3.0	5.9	8.7	3.1	3.6	3.5	3.4	3.5	3.2	10	11
19	3.2	2.9	17	7.2	3.2	7.5	3.5	3.4	3.6	3.2	11	11
20	3.8	3.0	4.1	4.4	7.2	4.3	8.8	3.5	3.6	15	11	11
21	3.4	3.2	3.5	3.3	3.4	4.1	6.0	3.5	3.5	5.2	11	12
22	3.3	3.1	3.2	3.2	3.2	3.8	3.8	3.6	3.3	5.1	11	10
23	3.4	3.4	3.1	3.2	3.2	3.6	3.7	3.7	3.5	4.6	10	10
24	3.4	3.0	3.0	9.4	3.2	3.5	3.5	3.7	6.6	4.6	11	11
25	3.4	3.0	3.0	3.5	3.2	4.8	3.5	7.5	3.5	7.1	10	11
26	3.4	2.9	2.9	13	3.1	3.7	8.2	14	3.2	6.9	10	9.6
27	12	3.0	3.0	6.9	3.2	3.6	3.5	16	3.2	4.6	11	7.3
28	4.0	10	3.0	3.9	6.0	11	3.4	7.0	3.1	10	11	23
29	3.6	4.0	2.9	3.5	3.9	4.5	5.4	4.7	3.0	8.7	11	11
30	3.5	3.3	2.8	3.5	---	4.0	5.3	4.1	3.1	6.4	10	11
31	3.6	---	3.7	3.4	---	6.5	---	3.9	---	49	10	---
TOTAL	136.0	152.0	114.4	162.2	125.2	157.6	129.3	152.9	158.4	200.8	357.4	339.9
MEAN	4.39	5.07	3.69	5.23	4.32	5.08	4.31	4.93	5.28	6.48	11.5	11.3
MAX	20	19	17	15	14	16	8.8	16	29	49	24	23
MIN	3.2	2.9	2.7	3.1	3.1	3.5	3.4	3.1	3.0	3.0	9.3	7.3



## 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 - 1996, BY WATER YEAR (WY)

MEAN	4.52	5.05	5.59	6.14	6.64	6.84	6.14	5.24	5.17	5.28	6.51	6.56
MAX	4.66	5.36	7.80	7.34	11.1	10.5	11.1	5.52	6.98	6.48	11.5	11.3
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1996	1996	1996
MIN	4.39	4.72	3.69	5.23	4.32	4.25	3.37	4.93	3.55	3.41	3.71	4.04
(WY)	1996	1995	1996	1996	1996	1995	1995	1996	1995	1995	1995	1995

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

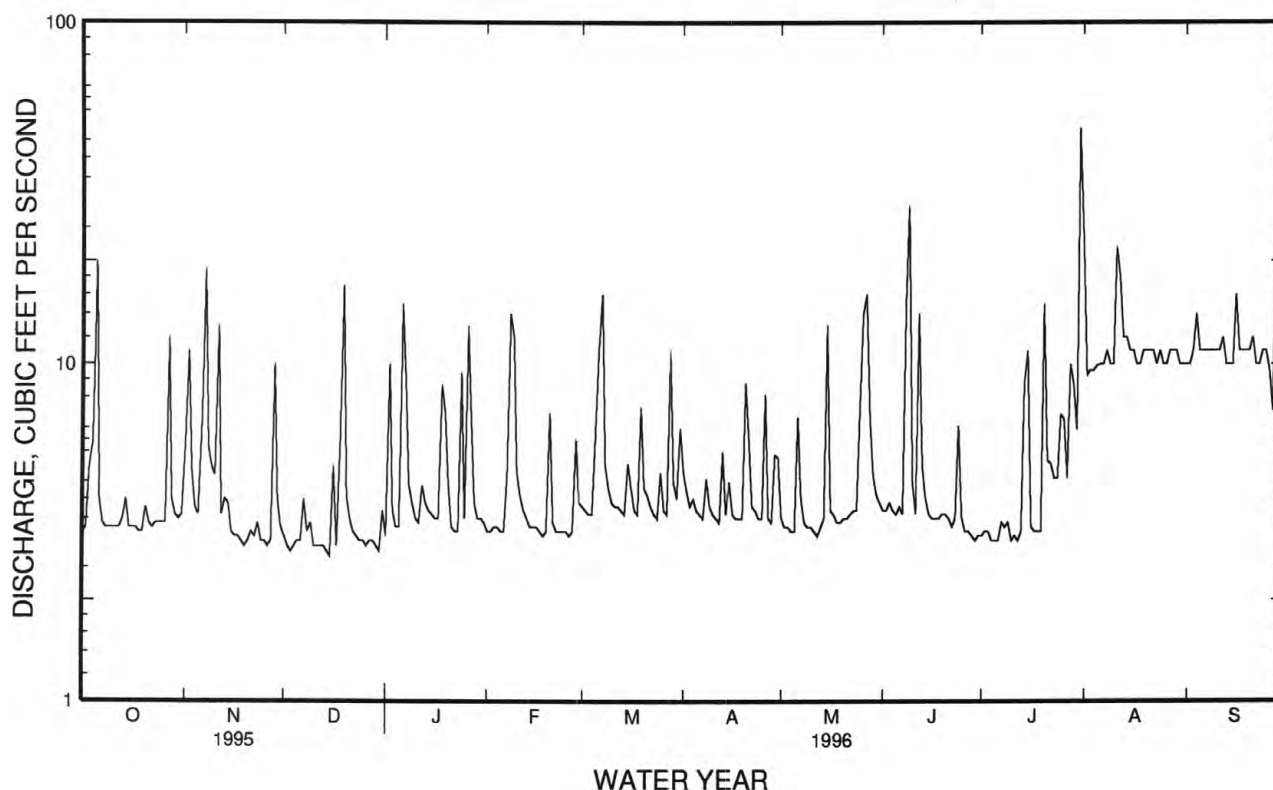
ANNUAL TOTAL	1584.3	2186.1	
ANNUAL MEAN	4.34	5.97	5.88
HIGHEST ANNUAL MEAN			7.28
LOWEST ANNUAL MEAN			4.37
HIGHEST DAILY MEAN	26	May 9	49
LOWEST DAILY MEAN	2.7	Dec 15	2.7
ANNUAL SEVEN-DAY MINIMUM	2.9	Apr 4	2.9
INSTANTANEOUS PEAK FLOW			a385
INSTANTANEOUS PEAK STAGE			6.04
INSTANTANEOUS LOW FLOW			c2.7
10 PERCENT EXCEEDS	5.8	11	10
50 PERCENT EXCEEDS	3.4	3.7	4.6
90 PERCENT EXCEEDS	3.0	3.1	3.2

a From rating curve extended above 57 ft<sup>3</sup>/s based on a theoretical culvert computation.

b From crest-stage gage.

c Also occurred Dec. 14, 15, 16.

d Also occurred April 10, 16, 29, Dec. 3, 14, 15, 16, 1995.



## 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 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 890 ft above sea level, from topographic map.

REMARKS.--Records good below 100 ft<sup>3</sup>/s, fair above. Flow affected by operations of the Department of Energy, Y-12 Plant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1540 ft<sup>3</sup>/s, gage height, 7.53 ft, July 31; minimum, 3.3 ft<sup>3</sup>/s, gage height, 1.21 ft, Oct. 1, 17, 18, 19, 22, 23; minimum daily, 3.3 ft<sup>3</sup>/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	5.5	4.6	4.9	5.7	5.1	9.0	5.4	5.7	4.5	83	e11
2	3.6	23	4.0	19	6.2	5.0	6.8	5.1	5.7	4.6	13	e11
3	6.4	7.6	3.8	6.8	6.1	4.8	6.0	4.9	6.0	4.8	12	e12
4	9.4	4.9	3.9	5.2	5.7	4.7	6.3	4.7	5.4	4.1	11	16
5	37	4.2	3.9	4.9	5.4	9.5	5.7	4.7	5.1	4.3	11	13
6	5.9	6.5	4.0	30	5.3	22	5.3	11	5.3	4.2	11	12
7	4.3	36	6.4	21	7.7	32	5.1	6.8	5.2	4.7	11	11
8	3.9	7.3	4.3	8.8	26	9.7	6.9	5.1	25	5.1	13	11
9	3.7	5.3	5.8	6.8	29	7.2	5.8	4.9	73	5.0	11	12
10	3.7	4.8	3.9	6.1	11	6.3	5.1	5.0	11	4.1	11	12
11	3.7	24	3.8	5.7	9.5	5.9	5.0	4.5	8.3	4.3	32	12
12	3.6	6.3	3.9	8.1	7.6	5.8	4.9	4.3	48	4.1	30	12
13	4.1	5.9	3.9	6.9	7.0	5.6	8.2	4.5	11	4.2	15	11
14	5.0	7.3	3.7	6.5	6.5	5.4	5.4	4.7	7.7	13	13	11
15	3.6	4.7	3.6	6.3	6.1	8.6	7.1	21	6.0	23	13	11
16	3.5	4.4	8.6	6.0	5.9	6.7	5.5	6.1	5.6	5.8	13	20
17	3.4	4.2	4.2	5.8	5.5	5.6	4.9	5.4	5.4	5.0	12	12
18	3.4	4.1	8.0	11	5.3	5.3	4.9	5.1	5.5	4.9	12	11
19	3.4	3.9	41	20	5.2	13	5.0	5.0	5.4	4.9	12	11
20	4.4	4.0	8.0	6.8	15	6.7	16	5.3	5.5	34	12	11
21	3.5	4.1	5.9	5.8	6.4	6.3	11	5.3	5.3	13	12	13
22	3.4	3.9	5.1	5.4	5.9	5.7	6.4	5.1	4.8	8.8	12	11
23	3.5	4.5	4.6	5.1	5.7	5.3	5.8	5.3	5.0	7.4	12	11
24	3.5	3.9	4.4	19	5.2	5.1	5.3	5.3	10	7.0	12	11
25	3.6	3.7	4.2	6.5	5.0	7.6	5.2	13	5.9	11	e12	11
26	3.6	3.7	4.1	25	5.0	5.4	15	30	4.8	11	e11	11
27	20	3.7	4.1	18	5.2	5.0	5.6	36	4.7	7.4	e12	7.1
28	5.8	17	4.1	8.3	9.4	21	5.2	15	4.5	17	e12	30
29	4.1	9.1	4.1	7.0	5.4	8.5	7.4	8.6	4.4	23	e12	13
30	3.9	5.1	4.0	6.5	---	6.6	10	6.8	4.4	13	e12	12
31	4.0	---	5.5	6.4	---	11	---	6.1	---	134	e11	---
TOTAL	178.2	232.6	183.4	309.6	234.9	262.4	205.8	260.0	309.6	401.2	481	373.1
MEAN	5.75	7.75	5.92	9.99	8.10	8.46	6.86	8.39	10.3	12.9	15.5	12.4
MAX	37	36	41	30	29	32	16	36	73	134	83	30
MIN	3.3	3.7	3.6	4.9	5.0	4.7	4.9	4.3	4.4	4.1	11	7.1

e Estimated

## 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 - 1996, BY WATER YEAR (WY)

MEAN	5.60	6.94	8.34	9.41	10.5	10.4	9.32	7.70	7.68	7.86	8.39	7.68
MAX	5.75	7.75	12.6	10.3	18.1	15.0	17.9	9.33	10.3	12.9	15.5	12.4
(WY)	1996	1996	1994	1994	1994	1994	1994	1995	1996	1996	1996	1996
MIN	5.47	6.47	5.82	7.56	7.42	7.37	4.87	6.04	4.53	4.14	5.03	5.28
(WY)	1995	1995	1995	1993	1995	1995	1995	1994	1995	1995	1995	1995

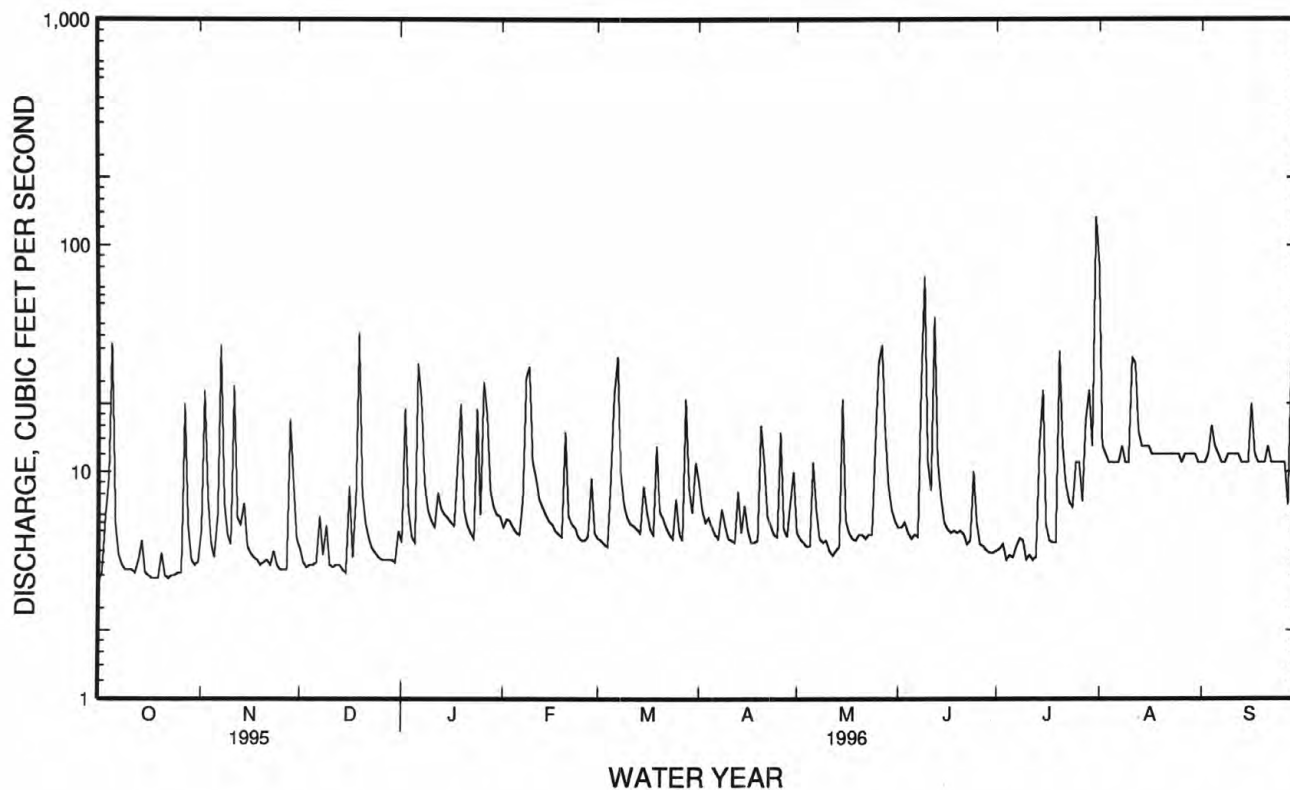
## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

ANNUAL TOTAL	2348.5			3431.8			8.60		
ANNUAL MEAN	6.43			9.38			10.1		
HIGHEST ANNUAL MEAN							1994		
LOWEST ANNUAL MEAN							1995		
HIGHEST DAILY MEAN	74	May	9	134	Jul	31	163	Dec	4 1993
LOWEST DAILY MEAN	3.3	Sep	30	3.3	Oct	1	3.3	Sep	30 1995
ANNUAL SEVEN-DAY MINIMUM	3.6	Oct	16	3.6	Oct	16	3.6	Oct	16 1995
INSTANTANEOUS PEAK FLOW				a1540	Jul	31	a1540	Jul	31 1996
INSTANTANEOUS PEAK STAGE				7.53	Jul	31	7.53	Jul	31 1996
INSTANTANEOUS LOW FLOW				b3.3	Oct	1	c3.3	Sep	30 1995
10 PERCENT EXCEEDS	9.6			16			13		
50 PERCENT EXCEEDS	4.4			5.9			5.7		
90 PERCENT EXCEEDS	3.7			4.0			4.1		

a From rating curve extended above 102 ft<sup>3</sup>/s.

b Also occurred Oct. 17, 18, 19, 22, 23.

c Also occurred Oct. 1, 17, 18, 19, 22, 23, 1995.



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 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1993 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 960 ft above sea level, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 19	0425	50	2.36	June 9	0810	81	2.60
May 26	1420	62	2.46	July 31	0525	*143	*2.96
June 8	1950	41	2.26	Aug. 1	0015	77	2.57

Minimum discharge, 0.03 ft<sup>3</sup>/s, July 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.30	.32	.21	.23	.17	.86	.13	.19	e.10	7.0	.04
2	.08	2.4	.24	2.0	.33	.16	.62	.10	.18	e.08	.47	.04
3	.17	.51	.20	.83	.26	.15	.52	.09	.19	.08	.19	.05
4	.58	.34	.18	.45	.23	.13	.42	.08	.16	.07	.13	.06
5	4.4	.28	.17	.31	.20	.55	.35	.08	.16	.03	.11	.08
6	.26	.52	.14	3.6	.20	2.9	.31	.52	.13	.05	.10	.09
7	.11	4.8	.30	2.6	.32	4.6	.26	.19	.12	.06	.08	.08
8	.09	.82	.17	.85	2.1	1.0	.37	.09	3.2	.05	.08	.08
9	.08	.48	.35	.70	3.6	.73	.30	.07	10	.07	.11	.07
10	.07	.37	.18	.65	1.0	.60	.24	.07	2.0	.08	.10	.07
11	.06	2.7	.16	.51	.80	.51	.22	.07	.96	.08	1.8	.06
12	.05	.58	.16	.50	.53	.46	.22	.06	2.4	.07	2.2	.07
13	.07	.48	.15	.52	.42	.41	.39	.06	1.4	.07	.42	.07
14	.09	.60	.14	.53	.27	.32	.25	.05	.54	.14	.14	.06
15	.07	.29	.13	.62	.21	.57	.30	1.8	.28	2.6	.11	.04
16	.07	.22	.60	.76	.20	.51	.23	.15	.18	.24	.10	.54
17	.05	.19	.23	.69	.19	.42	.17	.09	.14	.11	.10	.26
18	.05	.16	.63	1.2	.17	.40	.14	.07	.12	.09	.09	.18
19	.05	.14	5.8	2.4	.17	1.2	.13	.07	.12	.08	.09	.17
20	.07	.13	.86	.46	1.3	.61	1.2	.06	.12	.15	.09	.12
21	.07	.13	.52	.33	.48	.54	.96	.06	.12	.24	.08	.12
22	.06	.13	.36	.29	.34	.46	.33	.06	.12	.12	.08	.10
23	.06	.15	.26	.21	.27	.40	.13	.05	.11	.10	.07	.09
24	.05	.14	.23	1.7	.22	.34	.11	.05	.77	.09	.06	.10
25	.05	.13	.21	.46	.17	.50	.10	.28	.37	.28	.07	.08
26	.06	.12	.19	2.8	.16	.45	.93	3.9	.15	1.1	.07	.07
27	1.9	.13	.18	1.7	.15	.34	.17	4.3	.11	.10	.06	.08
28	.29	1.8	.18	.50	.66	2.1	.13	2.8	.10	1.1	.06	2.0
29	.13	.98	.14	.43	.25	.91	.22	.96	.10	1.1	.04	.32
30	.12	.47	.15	.31	---	.67	.70	.62	.08	.57	.04	.26
31	.14	---	.22	.28	---	1.1	---	.24	---	13	.04	---
TOTAL	9.47	20.49	13.75	29.40	15.43	24.21	11.28	17.22	24.62	22.10	14.18	5.45
MEAN	.31	.68	.44	.95	.53	.78	.38	.56	.82	.71	.46	.18
MAX	4.4	4.8	5.8	3.6	3.6	4.6	1.2	4.3	10	13	7.0	2.0
MIN	.05	.12	.13	.21	.15	.13	.10	.05	.08	.03	.04	.04
CFSM	.73	1.63	1.06	2.26	1.27	1.86	.90	1.32	1.95	1.70	1.09	.43
IN.	.84	1.81	1.22	2.60	1.37	2.14	1.00	1.53	2.18	1.96	1.26	.48

e Estimated

TENNESSEE RIVER BASIN  
03538256 BEAR CREEK AT BEAR CREEK ROAD NEAR OAK RIDGE--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	.18	.47	.64	1.00	.92	.95	.73	.39	.40	.27	.23	.19
MAX	.31	.68	1.25	1.06	1.84	1.31	1.71	.62	.82	.71	.46	.28
(WY)	1996	1996	1994	1994	1994	1994	1994	1995	1996	1996	1996	1993
MIN	.086	.33	.23	.95	.53	.56	.23	.20	.064	.016	.037	.14
(WY)	1994	1995	1995	1996	1996	1995	1995	1994	1995	1995	1995	1995

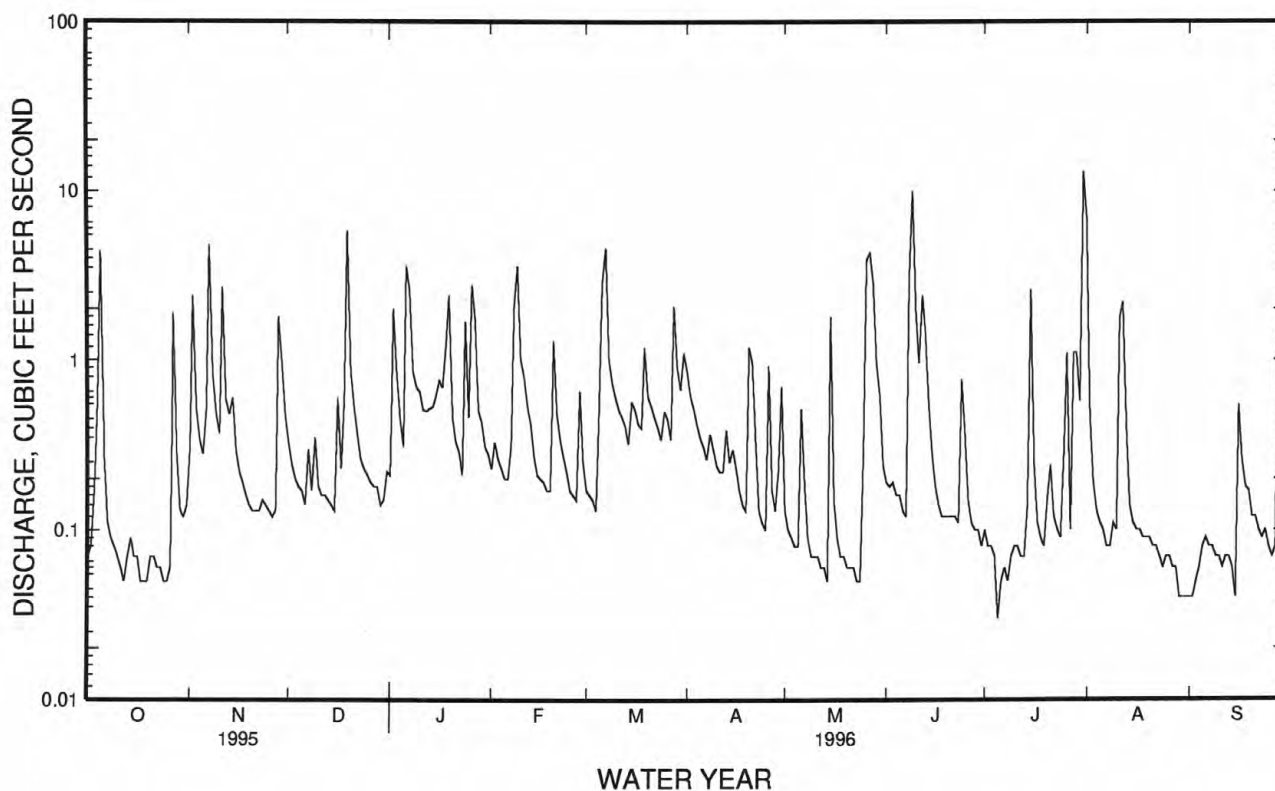
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1993 - 1996

ANNUAL TOTAL	144.51	207.60										
ANNUAL MEAN	.40	.57								.55		
HIGHEST ANNUAL MEAN										.76		1994
LOWEST ANNUAL MEAN										.33		1995
HIGHEST DAILY MEAN	6.4	Mar 8	13	Jul 31	21	Dec 4	1993					
LOWEST DAILY MEAN	.00	Jul 8	.03	Jul 5	a.00	Jul 8	1995					
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 12	.04	Aug 28	.00	Jul 12	1995					
INSTANTANEOUS PEAK FLOW			b143	Jul 31	b143	Jul 31	1996					
INSTANTANEOUS PEAK STAGE			2.96	Jul 31	2.96	Jul 31	1996					
INSTANTANEOUS LOW FLOW			c.03	Jul 5	a.00	Jul 8	1995					
ANNUAL RUNOFF (CFSM)	.94		1.35		1.32							
ANNUAL RUNOFF (INCHES)	12.80		18.39		17.91							
10 PERCENT EXCEEDS	.81		1.2		1.1							
50 PERCENT EXCEEDS	.14		.19		.16							
90 PERCENT EXCEEDS	.00		.07		.03							

a Occurred many days during 1995 water year.

b From rating curve extended above 42 ft<sup>3</sup>/s.

c Also occurred July 6.





## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1993 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 882.17 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair above 0.2 ft<sup>3</sup>/s, poor below.EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 26	1535	219	3.32	July 31	0630	*353	*4.65
June 9	0945	296	3.93	Aug. 1	0145	344	4.51
June 24	1725	202	3.22				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.65	1.3	.86	1.7	1.2	5.1	1.3	.92	.16	65	.10
2	.00	12	.97	9.7	1.8	1.1	3.0	.94	.80	.16	4.7	.07
3	.17	3.0	.73	4.7	1.5	.89	2.0	.69	.74	.15	2.2	.12
4	1.8	1.4	.59	2.3	1.3	.68	1.6	.51	.52	.13	1.2	.12
5	18	.71	.49	1.5	1.3	2.2	1.3	.36	.42	.11	.82	.15
6	1.0	.76	.38	18	1.3	14	1.1	2.1	.37	.09	.54	.14
7	.30	22	.87	19	2.3	25	.87	1.3	.33	.10	.38	.12
8	.20	4.0	.55	5.9	12	7.1	1.0	.68	7.8	.14	.34	.09
9	.13	1.7	1.3	3.9	26	3.8	.98	.42	66	.16	.31	.12
10	.05	1.1	.73	2.9	11	2.4	.65	.27	10	.13	.27	.06
11	.02	13	.60	2.2	9.6	1.6	.57	.23	5.3	.09	4.6	.05
12	.01	3.8	.57	2.2	5.6	1.4	.54	.18	8.2	.08	8.3	.03
13	.01	2.0	.48	1.8	3.9	1.2	1.1	.14	5.6	.05	2.0	.04
14	.07	3.2	.36	1.9	3.1	.94	.77	.11	3.7	.40	.91	.03
15	.04	1.5	.34	2.9	2.2	1.6	.85	7.5	2.7	5.7	.47	.02
16	.01	1.0	2.9	3.5	1.7	1.3	.74	1.4	2.0	.35	.30	.68
17	.00	.74	1.2	3.5	1.3	1.1	.61	.75	1.6	.22	.26	.05
18	.00	.55	1.9	3.7	1.1	.92	.57	.43	1.5	.16	.24	.03
19	.00	.35	31	15	.99	5.4	.57	.25	1.3	.13	.23	.04
20	.02	.29	6.2	4.8	6.4	2.5	5.2	.18	1.3	.14	.19	.05
21	.01	.24	3.3	3.2	2.7	1.8	5.8	.13	1.2	.19	.13	.08
22	.00	.18	2.0	2.2	2.0	1.4	3.0	.08	1.1	.24	.11	.04
23	.00	.21	1.3	1.8	1.7	1.1	1.7	.04	1.1	.19	.10	.04
24	.00	.19	1.0	10	1.3	.89	1.2	.02	12	.14	.18	.03
25	.00	.15	.78	3.9	1.1	1.4	.99	2.8	1.1	.35	.11	.03
26	.00	.14	.58	15	1.0	.93	4.0	23	.41	3.6	.07	.02
27	5.6	.16	.44	17	.92	.74	1.4	19	.29	.23	.05	.07
28	1.8	6.2	.31	6.1	3.3	11	1.1	14	.26	3.3	.04	7.4
29	1.1	7.3	.22	4.2	1.4	5.4	1.1	4.3	.22	1.4	.05	.58
30	.85	2.4	.18	3.1	---	3.2	3.0	2.2	.19	1.3	.09	.24
31	.66	---	.46	2.3	---	4.8	---	1.2	---	79	.11	---
TOTAL	31.85	90.92	64.03	179.06	111.51	108.99	52.41	86.51	138.97	98.59	94.30	10.64
MEAN	1.03	3.03	2.07	5.78	3.85	3.52	1.75	2.79	4.63	3.18	3.04	.35
MAX	18	22	31	19	26	25	5.8	23	66	79	65	7.4
MIN	.00	.14	.18	.86	.92	.68	.54	.02	.19	.05	.04	.02
CFM	.65	1.93	1.32	3.68	2.45	2.24	1.11	1.78	2.95	2.03	1.94	.23
IN.	.75	2.15	1.52	4.24	2.64	2.58	1.24	2.05	3.29	2.34	2.23	.25

## TENNESSEE RIVER BASIN

03538260 BEAR CREEK AT COUNTY LINE NEAR OAK RIDGE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	.53	1.66	3.15	5.52	6.50	5.46	4.37	1.95	1.76	1.15	1.01	.40
MAX	1.03	3.03	6.10	6.00	12.4	9.46	10.5	3.81	4.63	3.18	3.04	.53
(WY)	1996	1996	1994	1995	1994	1994	1994	1995	1996	1996	1996	1993
MIN	.15	.87	1.28	4.77	3.33	3.41	.92	.60	.092	.037	.052	.33
(WY)	1994	1994	1995	1994	1995	1995	1995	1994	1995	1995	1995	1995

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

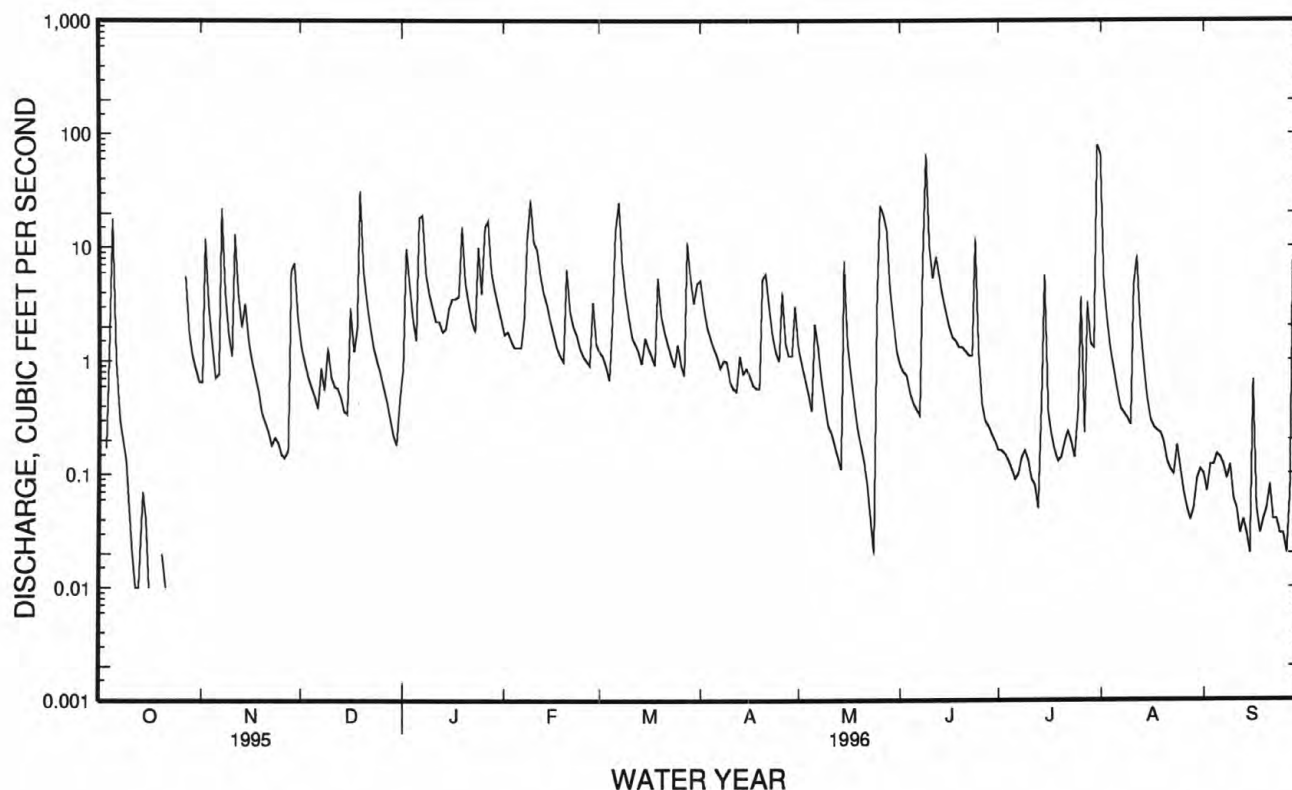
## FOR 1996 WATER YEAR

## WATER YEARS 1993 - 1996

ANNUAL TOTAL	732.81	1067.78	
ANNUAL MEAN	2.01	2.92	2.90
HIGHEST ANNUAL MEAN			4.05
LOWEST ANNUAL MEAN			1.73
HIGHEST DAILY MEAN	40	79	121
LOWEST DAILY MEAN	.00	a.00	b.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		c353	c398
INSTANTANEOUS PEAK STAGE		4.65	5.55
INSTANTANEOUS LOW FLOW		a.00	b.00
ANNUAL RUNOFF (CFSM)	1.28	1.86	1.85
ANNUAL RUNOFF (INCHES)	17.36	25.30	25.09
10 PERCENT EXCEEDS	4.7	6.2	5.1
50 PERCENT EXCEEDS	.47	.92	.51
90 PERCENT EXCEEDS	.00	.05	.02

a Occurred many days.

b Occurred many days each year.

c From rating curve extended above 83 ft<sup>3</sup>/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 Highway 95, in triangle formed by intersection of Highway 95 and Bear Creek Road, 6.8 mi southwest of Oak Ridge, and at mile 2.8.

DRAINAGE AREA.--4.34 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1959 to June 1964 (discharge measurements only), March 1985 to current year.

REVISED RECORDS.--WDR TN-87-1: Drainage area. WDR TN-89-1: 1985-88 (M).

GAGE.--Water-stage recorder and Cippolletti-weir. Datum of gage is 801.15 ft above sea level.

REMARKS.--Records poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 19	0015	197	2.48	June 9	1200	308	2.93
May 26	1445	*522	*3.48	July 31	0915	270	2.79
May 27	2100	235	2.65	Aug. 1	0400	317	2.96

Minimum discharge, 0.74 ft<sup>3</sup>/s, Oct. 12, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.85	1.1	6.3	3.5	12	6.9	17	6.5	7.8	2.3	109	2.6
2	e.80	14	4.9	16	11	6.5	11	5.6	6.7	2.0	20	2.0
3	e.80	7.4	3.7	15	11	6.1	9.2	4.8	6.0	1.8	11	1.3
4	e1.5	5.1	3.1	9.2	9.8	5.6	7.8	3.8	5.2	1.8	7.1	1.3
5	13	3.1	2.7	6.6	9.8	6.4	6.7	3.3	4.5	1.7	5.5	1.1
6	3.2	2.4	2.3	31	9.8	30	5.9	9.7	3.8	1.4	4.3	1.1
7	2.2	37	2.8	57	8.9	67	5.4	11	3.4	1.3	3.4	1.3
8	1.6	13	2.5	22	23	28	5.0	8.0	9.3	1.3	3.3	2.1
9	1.2	7.1	3.4	15	73	17	5.3	6.0	108	1.4	2.8	2.1
10	1.1	5.0	3.0	12	39	12	4.2	4.8	35	1.3	2.8	2.3
11	.85	22	2.7	9.7	37	10	3.7	3.9	20	1.2	6.0	2.2
12	.80	13	2.6	9.0	25	8.8	3.1	3.4	20	1.2	18	2.1
13	.95	7.9	2.4	7.6	18	7.6	3.8	2.8	17	1.2	8.5	2.2
14	.89	8.2	2.3	7.1	15	6.8	4.4	2.4	13	1.6	5.3	2.3
15	.91	5.9	2.1	7.9	12	7.2	3.9	17	10	9.0	3.8	2.1
16	.86	4.4	5.7	10	10	6.8	4.1	9.4	8.3	3.4	3.0	2.6
17	.80	3.5	5.0	11	8.4	6.6	3.5	6.5	7.0	2.1	2.5	2.0
18	1.0	2.9	4.4	11	7.5	6.1	3.2	5.3	6.0	2.5	2.3	1.8
19	1.1	2.6	79	39	6.6	15	3.3	3.9	5.6	4.6	2.5	1.8
20	1.3	2.2	25	19	16	11	12	3.2	5.3	5.0	2.4	1.8
21	1.5	2.0	14	14	12	9.9	18	2.7	4.6	5.5	2.5	1.7
22	2.0	1.8	10	11	10	8.3	13	2.6	4.0	6.1	2.8	1.9
23	2.1	1.7	7.7	9.2	9.0	7.5	10	3.0	3.7	3.1	2.0	1.9
24	2.0	1.8	6.0	23	8.0	6.8	7.8	3.0	20	2.7	2.8	1.9
25	1.5	1.6	5.1	14	7.3	7.5	6.6	16	7.4	2.4	2.7	2.0
26	1.4	1.5	4.0	31	6.5	6.6	11	106	4.4	8.2	2.7	2.0
27	3.6	1.5	3.5	66	6.1	6.1	7.8	70	3.6	3.1	3.0	2.2
28	3.0	6.7	3.0	29	9.7	23	6.3	61	2.9	7.6	3.0	5.7
29	2.2	17	2.7	21	7.6	19	5.8	25	2.7	7.5	3.1	2.8
30	1.8	9.0	2.5	17	---	13	9.0	15	2.5	9.0	3.1	2.4
31	1.4	---	2.7	15	---	13	---	10	---	99	3.0	---
TOTAL	58.21	212.4	227.1	568.8	439.0	392.1	217.8	435.6	357.7	202.3	254.2	62.6
MEAN	1.88	7.08	7.33	18.3	15.1	12.6	7.26	14.1	11.9	6.53	8.20	2.09
MAX	13	37	79	66	73	67	18	106	108	99	109	5.7
MIN	.80	1.1	2.1	3.5	6.1	5.6	3.1	2.4	2.5	1.2	2.0	1.1
CFSM	.43	1.63	1.69	4.23	3.49	2.91	1.67	3.24	2.75	1.50	1.89	.48
IN.	.50	1.82	1.95	4.88	3.76	3.36	1.87	3.73	3.07	1.73	2.18	.54

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 - 1996, BY WATER YEAR (WY)

MEAN	2.01	4.47	11.6	13.7	17.2	13.8	8.77	5.73	4.84	2.83	2.97	1.90
MAX	10.3	12.9	34.8	24.2	40.2	30.0	32.6	14.1	19.3	6.53	8.92	9.26
(WY)	1990	1990	1991	1989	1994	1994	1994	1996	1989	1996	1990	1989
MIN	.43	.62	1.54	2.85	4.67	5.52	2.41	1.26	.32	.75	.31	.55
(WY)	1988	1988	1988	1986	1988	1985	1986	1988	1988	1995	1987	1987

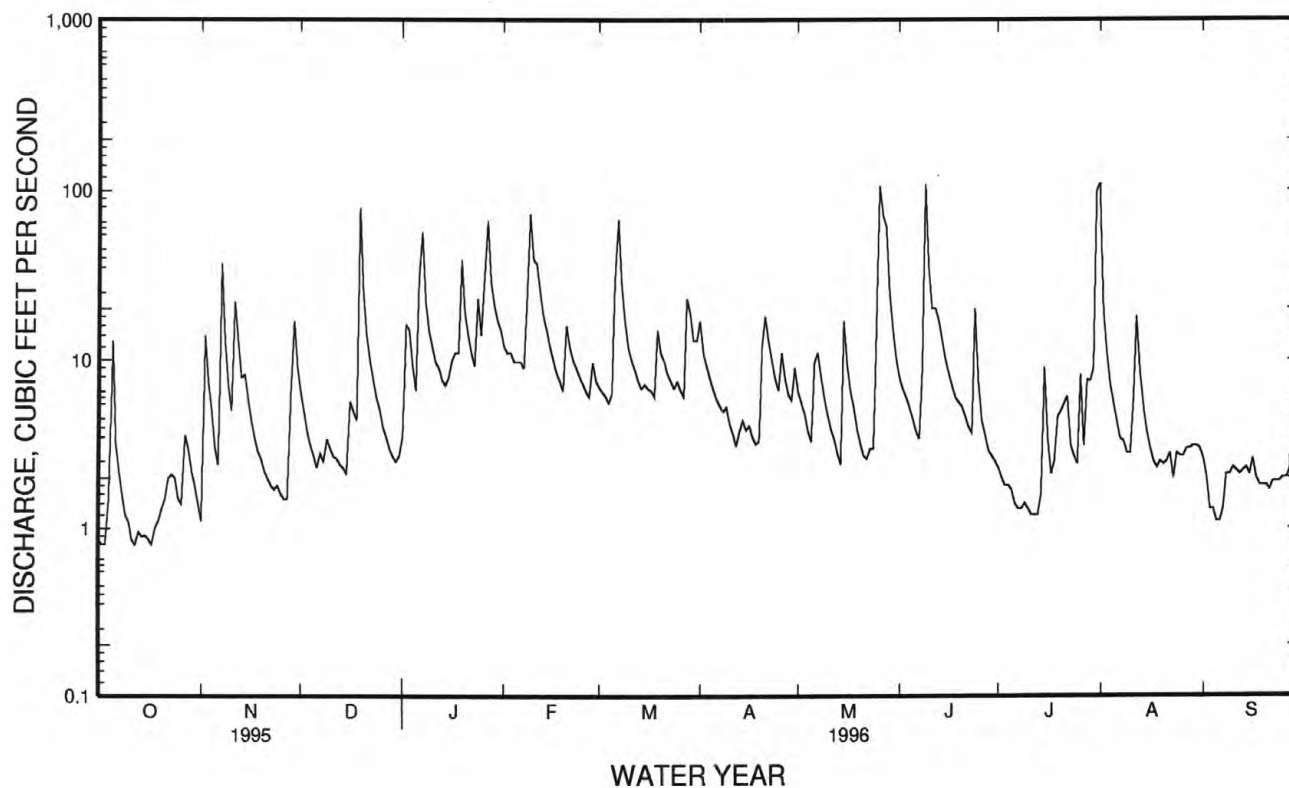
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1985 - 1996

ANNUAL TOTAL	2322.07	3427.81	
ANNUAL MEAN	6.36	9.37	7.54
HIGHEST ANNUAL MEAN			12.7
LOWEST ANNUAL MEAN			2.57
HIGHEST DAILY MEAN	109	109	329
LOWEST DAILY MEAN	.48	.80	.19
ANNUAL SEVEN-DAY MINIMUM	.55	.87	.21
INSTANTANEOUS PEAK FLOW		a522	a783
INSTANTANEOUS PEAK STAGE		3.48	3.88
INSTANTANEOUS LOW FLOW		b.74	c.18
ANNUAL RUNOFF (CFSM)	1.47	2.16	1.74
ANNUAL RUNOFF (INCHES)	19.90	29.38	23.61
10 PERCENT EXCEEDS	14	18	15
50 PERCENT EXCEEDS	2.7	5.3	2.9
90 PERCENT EXCEEDS	.70	1.6	.56

a From rating curve extended above 120 ft<sup>3</sup>/s based on indirect measurement of peak flow.

b Also occurred Oct. 16.

c Also occurred Sept. 4, 1987.



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 mi<sup>2</sup>.

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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1330	*29,300	*19.65	Mar. 7	1630	19,000	16.40

Minimum discharge, 25 ft<sup>3</sup>/s, July 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	310	673	886	1900	1080	5550	2640	666	85	3040	134
2	60	801	634	2630	1730	1020	4540	1960	539	75	1340	110
3	58	2450	598	8450	1490	934	3270	1530	550	67	704	95
4	62	1680	687	4510	1200	815	2520	1250	493	60	438	90
5	9610	1140	888	2930	1010	771	2100	1030	403	53	531	95
6	8750	879	834	3520	1140	1920	1750	1040	321	49	574	89
7	2560	7720	898	12700	1090	11800	1510	4040	281	44	328	86
8	1300	8660	1070	6150	1460	8810	1320	5090	621	41	226	197
9	855	4170	1360	3700	9160	4480	1290	3140	6870	37	226	254
10	639	2460	1750	2770	8160	3070	1150	2190	6200	33	309	273
11	468	4230	1470	2270	5820	2380	1000	1760	2810	30	233	235
12	357	6000	1320	2090	4120	1970	906	1430	2060	27	446	181
13	293	3590	e1200	1810	2930	1660	840	1150	3180	25	1180	144
14	266	2600	e1050	1700	2360	1400	797	954	4550	47	994	118
15	256	2120	912	1950	1930	1480	749	3830	2300	70	635	106
16	249	1690	936	2600	1600	2380	741	6550	1510	49	428	106
17	228	1390	1200	2690	1360	2710	709	3570	1040	41	310	139
18	191	1190	1420	2340	1210	2430	632	2280	826	34	316	116
19	165	1040	4690	8120	1090	3170	585	1580	755	31	481	98
20	148	899	5960	5440	1230	4060	875	1190	588	34	385	85
21	135	798	3580	3490	1420	3410	3200	916	484	36	265	79
22	127	707	2480	2600	1320	2860	2910	742	397	48	207	92
23	144	641	1880	2080	1230	2860	2230	646	306	58	200	87
24	142	620	1520	3710	1130	2830	1770	514	249	55	198	76
25	126	589	1290	4610	993	2670	1420	622	210	61	329	72
26	112	535	1130	3540	901	2530	1500	580	171	121	252	69
27	133	497	995	8800	844	2040	2090	870	146	72	267	207
28	267	486	880	6130	1010	5360	1720	2610	129	84	330	2370
29	519	554	751	3850	1210	7860	1480	2390	110	271	315	2950
30	438	697	673	2840	---	4770	2400	1360	95	368	226	1400
31	351	---	663	2340	---	3570	---	909	---	1470	169	---
TOTAL	29075	61143	45392	123246	62048	99100	53554	60363	38860	3576	15882	10153
MEAN	938	2038	1464	3976	2140	3197	1785	1947	1295	115	512	338
MAX	9610	8660	5960	12700	9160	11800	5550	6550	6870	1470	3040	2950
MIN	58	310	598	886	844	771	585	514	95	25	169	69
CFSM	1.23	2.67	1.92	5.20	2.80	4.18	2.34	2.55	1.70	.15	.67	.44
IN.	1.42	2.98	2.21	6.00	3.02	4.83	2.61	2.94	1.89	.17	.77	.49

e Estimated



TENNESSEE RIVER BASIN  
03540500 EMORY RIVER AT OAKDALE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1996, BY WATER YEAR (WY)

MEAN	297	1090	2251	2816	3017	3178	2150	1315	653	483	289	243
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

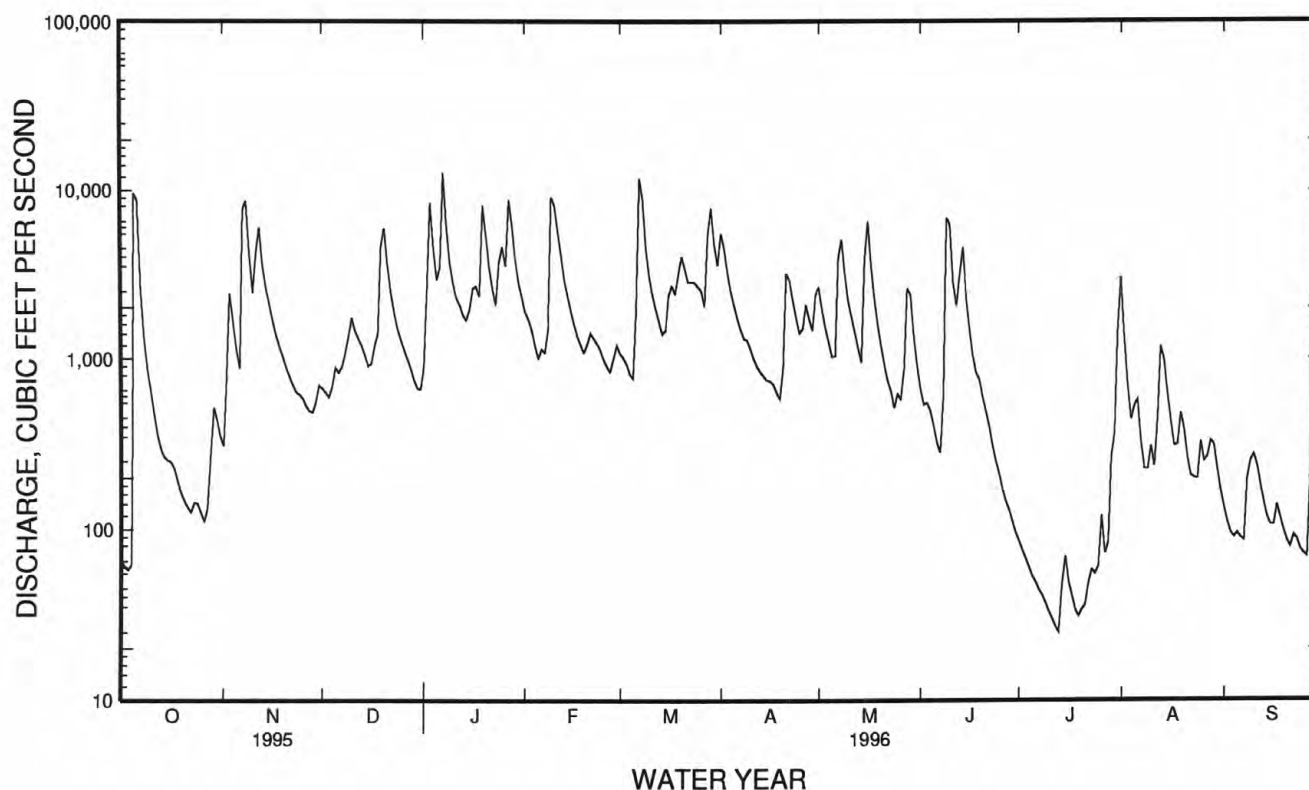
SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1927 - 1996

ANNUAL TOTAL	475537		602392									
ANNUAL MEAN	1303		1646							1475		
HIGHEST ANNUAL MEAN										2653		1973
LOWEST ANNUAL MEAN										670		1981
HIGHEST DAILY MEAN	21200	Jan 15	12700	Jan 7						103000	Dec 23	1990
LOWEST DAILY MEAN	13	Sep 13	25	Jul 13						a.00	Aug 13	1944
ANNUAL SEVEN-DAY MINIMUM	14	Sep 7	34	Jul 7						.00	Nov 7	1953
INSTANTANEOUS PEAK FLOW			29300	Oct 5						b195000	Mar 23	1929
INSTANTANEOUS PEAK STAGE			19.65	Oct 5						c41.20	Mar 23	1929
INSTANTANEOUS LOW FLOW			25	Jul 13						a.00	Aug 13	1944
ANNUAL RUNOFF (CFSM)	1.71		2.15							1.93		
ANNUAL RUNOFF (INCHES)	23.15		29.33							26.23		
10 PERCENT EXCEEDS	3240		4050							3420		
50 PERCENT EXCEEDS	634		973							555		
90 PERCENT EXCEEDS	62		86							21		

a Also occurred Aug. 14, 15, 1944; Nov. 7, 8, 9, 1952.

b From rating curve extended above 85,000 ft<sup>3</sup>/s.

c From floodmarks and flood profile, present site and datum, 61.1 ft at site and datum then in use.



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 mi<sup>2</sup>.

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.--No estimated daily discharges. Records fair. Flow regulated by Blue Ridge Lake (station 03558500), in Water Resources Data for Georgia, Ocoee No. 3 Lake (station 03562500) (see p. 233), and by powerplant above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 62,000 ft<sup>3</sup>/s, was the greatest known since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,100 ft<sup>3</sup>/s, Jan. 27, gage height 10.78 ft; minimum, 41 ft<sup>3</sup>/s, July 7, gage height 2.55 ft; minimum daily 692 ft<sup>3</sup>/s, July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	1110	1240	1680	2940	1650	3300	1540	1590	969	1270	1240
2	773	1450	1600	1730	3440	1400	2500	1620	1580	1090	1240	1220
3	708	2290	1590	1790	3260	1630	1690	1640	1600	1080	1240	1180
4	1500	1460	1600	1710	3920	1300	2480	1640	1680	1230	1240	1340
5	7270	1390	1600	1660	3330	1110	3150	1610	1290	1300	1190	1590
6	2460	1510	1590	1870	3480	3790	2970	1640	1240	1280	1100	1530
7	1190	2790	1620	2970	3130	6280	2420	1660	1230	845	1150	1370
8	1130	2980	1610	1830	3100	2580	2680	1640	1250	886	1240	1310
9	1260	1710	1720	1740	3650	2090	1650	1670	1640	692	1330	1230
10	1260	1700	2080	1710	3530	1470	1630	1630	1760	1030	1320	973
11	1260	1720	1670	1690	3450	1520	1620	1620	1680	738	1280	1230
12	1250	1780	1640	1690	2640	1120	1580	1620	1700	781	1290	1160
13	1260	1740	1630	1650	3410	1670	1590	1610	1640	810	1210	1170
14	1320	1530	1630	1660	3190	1210	1570	1630	1590	808	1220	1270
15	1320	1420	1620	1690	2940	1160	1600	1620	1550	756	1210	1290
16	789	1700	1630	1740	2870	1580	1200	1860	1520	1180	1260	1280
17	802	1690	1620	1720	3030	1650	1330	1620	1950	884	1280	1240
18	1250	1670	1630	1720	3010	1640	1350	1620	1560	1000	1260	1200
19	1280	1680	1880	2160	2350	1980	1360	1640	1570	982	1210	959
20	1300	1660	1750	1810	1670	3180	1440	1630	1410	962	1200	1240
21	1310	1340	1680	1740	1660	3070	2370	1200	1170	823	1200	1330
22	1310	1630	1680	1690	1660	2970	1710	881	1300	823	1470	1330
23	1260	1630	1670	1420	1660	3050	1690	1350	1270	861	1520	1170
24	1110	1630	1660	1720	1650	3000	1230	1370	1330	739	1280	1200
25	1250	1630	1650	1700	1640	3170	1500	2010	1310	872	1230	1250
26	1330	1620	1630	3760	1630	2430	1710	1450	1090	1280	1180	1260
27	1310	1610	1630	10800	1630	1670	1630	1690	1310	1030	1240	1400
28	1350	1630	1620	3080	1650	2510	1580	1750	1280	887	1410	1410
29	1310	1620	1620	2610	1640	3320	1600	1670	961	807	1330	1950
30	1300	1240	1630	2940	---	3270	1500	1610	1010	1140	1250	1640
31	1130	---	1640	2970	---	3230	---	1640	---	1240	1220	---
TOTAL	44682	50560	51060	70650	77160	71700	55630	49381	43061	29805	39070	38962
MEAN	1441	1685	1647	2279	2661	2313	1854	1593	1435	961	1260	1299
MAX	7270	2980	2080	10800	3920	6280	3300	2010	1950	1300	1520	1950
MIN	708	1110	1240	1420	1630	1110	1200	881	961	692	1100	959
(†) MEAN‡	+3600	+900	-11900	+19000	-3600	+12500	+6600	+2700	-1500	-3000	-10100	-9800
MEAN‡	1557	1715	1263	2892	2537	2716	2074	1680	1385	865	935	972
CFSM‡	2.97	3.27	2.41	5.52	4.84	5.18	3.96	3.21	2.64	1.65	1.78	1.86
IN‡	3.43	3.65	2.78	6.36	5.22	5.98	4.42	3.70	2.94	1.90	2.06	2.07
CAL YR 1995	MEAN‡	1378	CFSM‡	2.63	IN‡	35.70						
WTR YR 1996	MEAN‡	1713	CFSM‡	3.27	IN‡	44.51						

† Change in contents, in cfs-days, in Blue Ridge Lake (Georgia).

‡ Adjusted for change in contents in lake listed above.

NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

## TENNESSEE RIVER BASIN

03563000 OCOEE RIVER AT EMF, TN--Continued

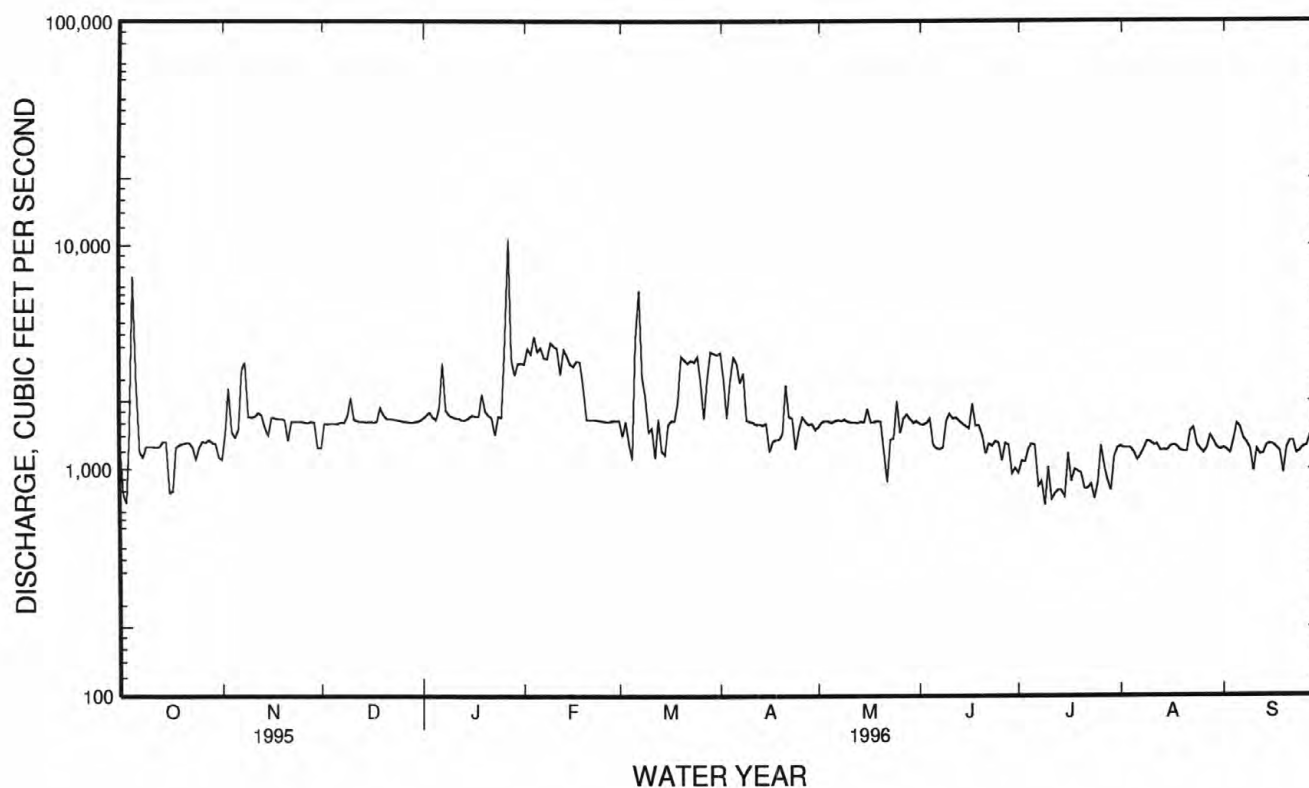
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1996, BY WATER YEAR (WY)

MEAN	1056	1006	1128	1290	1431	1489	1534	1318	1169	1115	1115	1080
MAX	2312	1685	3415	2780	4687	4111	4040	2786	2272	2439	2014	1604
(WY)	1965	1996	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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1931 - 1996	
ANNUAL TOTAL	501527		621721		1226	
ANNUAL MEAN	1374		1699		1868	
HIGHEST ANNUAL MEAN					570	
LOWEST ANNUAL MEAN					24000	
HIGHEST DAILY MEAN	8050	Feb 16	10800	Jan 27	4.6	Feb 16 1990
LOWEST DAILY MEAN	425	Jul 21	692	Jul 9	6.0	Sep 14 1962
ANNUAL SEVEN-DAY MINIMUM	550	Jul 20	802	Jul 9	6.0	Jul 27 1944
INSTANTANEOUS PEAK FLOW			17100	Jan 27	a51400	Feb 16 1990
INSTANTANEOUS PEAK STAGE			10.78	Jan 27	b17.06	Feb 16 1990
INSTANTANEOUS LOW FLOW			41	Jul 7	3.4	Sep 20 1962
10 PERCENT EXCEEDS	1700		2940		1740	
50 PERCENT EXCEEDS	1290		1600		1080	
90 PERCENT EXCEEDS	793		1110		590	

a From rating curve extended above 17,000 ft<sup>3</sup>/s.

b From high-water mark in gage house.



## TENNESSEE RIVER BASIN

## 03566000 HIWASSEE RIVER AT CHARLESTON, TN

LOCATION.--Lat 35°17'16", long 84°45'07", until April 9, 1996, lat 35°17'17", long 84°45'10" thereafter, Hydrologic Unit 06020002, on left bank 250 ft upstream from Norfolk Southern Railway bridge until April 9, 1996, at Norfolk Southern Railway bridge thereafter, 0.3 mi upstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.9.

DRAINAGE AREA.--2,298 mi<sup>2</sup>.

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, non-recording gages, and July 18, 1925 to September 6, 1926, water-stage recorder, at present site, at datum 1.50 ft higher. September 1926 to January 1940, January 1963 to January 1977, September 1979 to December 1981, August 1987 to April 1996, on left bank 250 ft upstream of present site, at same datum.

REMARKS.--Records fair. Some diversions above gage for industrial and municipal water supplies. Flow regulated by seven reservoirs (see p.227 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 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3380	4200	9130	5010	16300	5150	5850	3990	4550	4190	4980	3710
2	2680	4570	8350	6030	15900	4420	5920	3540	4450	3490	4220	3700
3	2640	5590	8080	8420	15800	4190	4610	3050	4400	3560	2710	4280
4	3770	6130	8260	7120	14400	4220	4730	3060	4370	2800	2750	4270
5	13700	5350	8320	6670	14300	3770	4700	2850	4290	2500	3670	4630
6	16000	5130	8190	6090	14200	5430	4450	2940	4340	2230	4300	5170
7	7060	7450	8310	9360	13700	14800	4210	4170	4360	2190	4180	3970
8	5290	11700	8350	9700	13600	9850	4090	3250	4120	2440	3960	4100
9	5040	7690	6860	9160	e20000	e6500	4070	3880	4120	2590	4500	4210
10	3850	6760	7190	8540	e17000	e7000	3890	3380	6660	2650	4580	3930
11	3350	6080	6920	8250	e12000	e7000	3670	3640	6220	2680	4600	4520
12	3010	7640	6330	8780	e13000	e6000	3540	3390	5470	2990	4660	4080
13	2790	5780	5810	7360	e12000	e6000	3310	3270	5550	2560	4700	3990
14	2640	5270	5030	6080	e10000	5790	2820	3210	5410	2350	4470	3800
15	3120	5330	5670	6120	e9000	5720	2690	3250	4900	3080	4440	3660
16	3700	5030	5210	6900	e8000	e6000	3310	3500	5100	3620	4080	4090
17	4040	4880	5550	6870	e7000	e6000	2960	3650	4560	4400	3900	5400
18	4130	4640	5520	6670	e6400	e4750	2540	3470	5180	3880	4160	4570
19	4010	4670	6580	7720	e6200	4970	2660	3170	4900	3610	4300	3700
20	3490	4960	6770	7550	e6000	6020	2740	3240	5110	3270	3900	3810
21	3530	4790	6750	5700	e5200	6020	5210	3290	5070	2740	4120	3570
22	3770	4720	5850	5730	e5200	5800	6200	3000	4590	3640	4240	4300
23	3950	4370	5410	6110	e5200	5380	4110	3860	4100	4100	4520	4040
24	4000	4560	5070	6420	e5200	4960	3510	4000	4330	4040	3980	4020
25	3590	4630	4610	6210	e5100	4630	3240	5070	4470	3970	4040	3870
26	3600	4520	4960	7470	4960	4850	3890	5130	4300	4070	4140	3930
27	4190	4490	5040	22900	4840	4940	4320	5070	4200	3400	4400	3820
28	4540	5710	4920	17600	4920	5300	3810	5500	4200	2960	4190	4110
29	4410	8000	5060	17300	4440	e6000	3820	5910	3410	3350	4380	4540
30	4240	8870	4840	17000	---	e7500	3620	5080	3380	3860	4220	4350
31	4090	---	4390	16600	---	e7000	---	4730	---	4020	3910	---
TOTAL	141600	173510	197330	277440	289860	185960	118490	118540	140110	101230	129200	124140
MEAN	4568	5784	6365	8950	9995	5999	3950	3824	4670	3265	4168	4138
MAX	16000	11700	9130	22900	20000	14800	6200	5910	6660	4400	4980	5400
MIN	2640	4200	4390	5010	4440	3770	2540	2850	3380	2190	2710	3570

e Estimated

## TENNESSEE RIVER BASIN

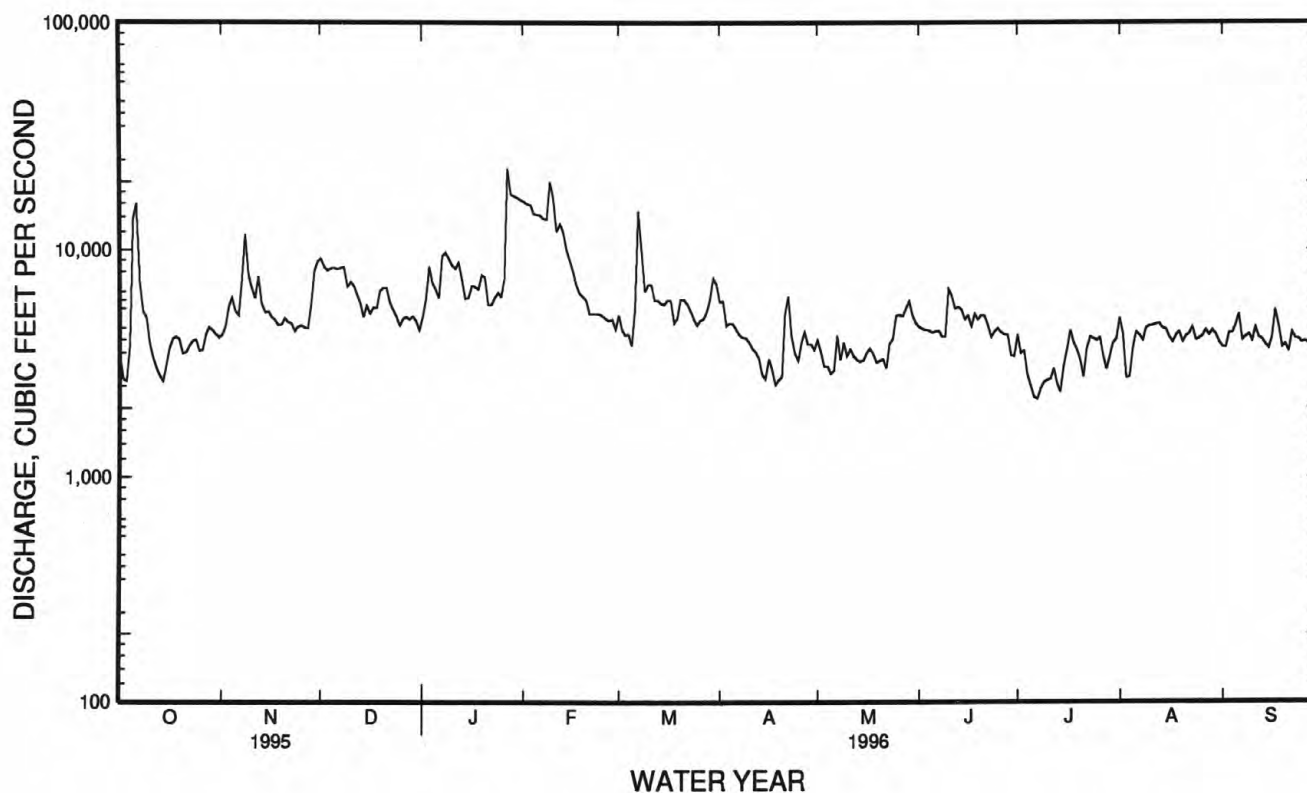
03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	4029	4427	5653	6282	6700	6322	4508	3763	3938	3876	3927	3662
MAX	9332	8638	12980	13060	16270	13860	11950	7922	8897	6975	6201	5118
(WY)	1990	1968	1968	1974	1990	1990	1994	1973	1989	1967	1967	1967
MIN	1442	1681	2070	2601	2680	1866	1110	971	1395	1750	1810	1747
(WY)	1989	1982	1988	1981	1988	1988	1988	1988	1988	1988	1988	1987

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1964 - 1996

ANNUAL TOTAL	1580820			1997410								
ANNUAL MEAN	4331			5457						4781		
HIGHEST ANNUAL MEAN										6891		1990
LOWEST ANNUAL MEAN										1940		1988
HIGHEST DAILY MEAN	16000	Oct	6	22900	Jan	27	54000	Mar	17	1973		
LOWEST DAILY MEAN	1350	May	4	2190	Jul	7	524	May	24	1981		
ANNUAL SEVEN-DAY MINIMUM	1730	May	3	2470	Jul	5	817	Oct	29	1988		
INSTANTANEOUS PEAK FLOW				26900	Jan	27	57000	Mar	17	1973		
INSTANTANEOUS PEAK STAGE				20.78	Oct	5	29.42	Mar	28	1994		
10 PERCENT EXCEEDS	7700			8310			7710					
50 PERCENT EXCEEDS	3850			4550			4110					
90 PERCENT EXCEEDS	2110			3240			2190					





## 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 culvert at county road, 1.5 mi west of Athens.

DRAINAGE AREA.--42.1 mi<sup>2</sup>

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

GAGE.--Water-stage recorder. Datum of gage is 775 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0400	*1,290	*12.48	No other peak greater than base discharge.			

Minimum discharge, 25 ft<sup>3</sup>/s, Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	41	86	72	160	72	148	85	74	e38	e70	31
2	28	162	78	249	175	69	132	78	69	e37	54	31
3	31	112	72	188	146	65	122	73	66	e80	48	42
4	41	80	76	137	127	65	115	68	63	e50	43	67
5	460	65	71	120	114	68	106	65	59	e45	42	36
6	106	66	65	291	106	250	99	84	56	e40	42	34
7	70	525	68	548	105	346	94	85	54	e35	40	33
8	59	235	65	266	167	243	92	83	63	e35	61	38
9	55	145	98	209	352	191	91	70	586	e38	42	43
10	52	119	76	182	275	164	82	65	210	e35	39	35
11	49	171	72	161	237	149	78	63	142	e33	45	34
12	47	144	70	155	196	139	75	60	146	e30	48	34
13	46	123	66	143	167	129	72	59	292	e29	41	34
14	46	124	64	137	153	118	69	57	145	e32	39	31
15	44	105	62	133	140	169	68	131	114	e70	37	31
16	42	96	70	136	124	179	66	82	99	e65	36	68
17	43	89	61	134	112	142	63	69	90	e50	35	53
18	40	80	68	136	105	129	62	63	84	e40	34	36
19	39	74	177	299	101	158	60	59	88	e37	35	31
20	41	70	113	184	117	134	95	58	79	e35	34	29
21	40	67	99	162	99	126	146	56	71	e40	34	33
22	39	63	90	146	94	116	93	54	66	e50	34	33
23	39	60	83	135	88	106	87	51	62	e65	33	29
24	39	58	77	225	81	101	78	50	60	e60	34	28
25	39	55	72	157	76	104	74	177	62	e60	34	27
26	38	52	68	364	76	97	163	74	e59	e75	33	27
27	70	52	67	901	74	90	102	104	e50	e60	32	28
28	53	95	63	345	96	189	91	191	e45	e65	32	70
29	42	167	61	254	77	146	88	114	e42	e70	32	48
30	40	97	57	212	---	130	103	95	e40	e100	31	36
31	39	---	60	182	---	140	---	83	---	e150	31	---
TOTAL	1844	3392	2375	6963	3940	4324	2814	2506	3136	1649	1225	1130
MEAN	59.5	113	76.6	225	136	139	93.8	80.8	105	53.2	39.5	37.7
MAX	460	525	177	901	352	346	163	191	586	150	70	70
MIN	27	41	57	72	74	65	60	50	40	29	31	27
CFSM	1.41	2.69	1.82	5.34	3.23	3.31	2.23	1.92	2.48	1.26	.94	.89
IN.	1.63	3.00	2.10	6.15	3.48	3.82	2.49	2.21	2.77	1.46	1.08	1.00

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 - 1996, BY WATER YEAR (WY)

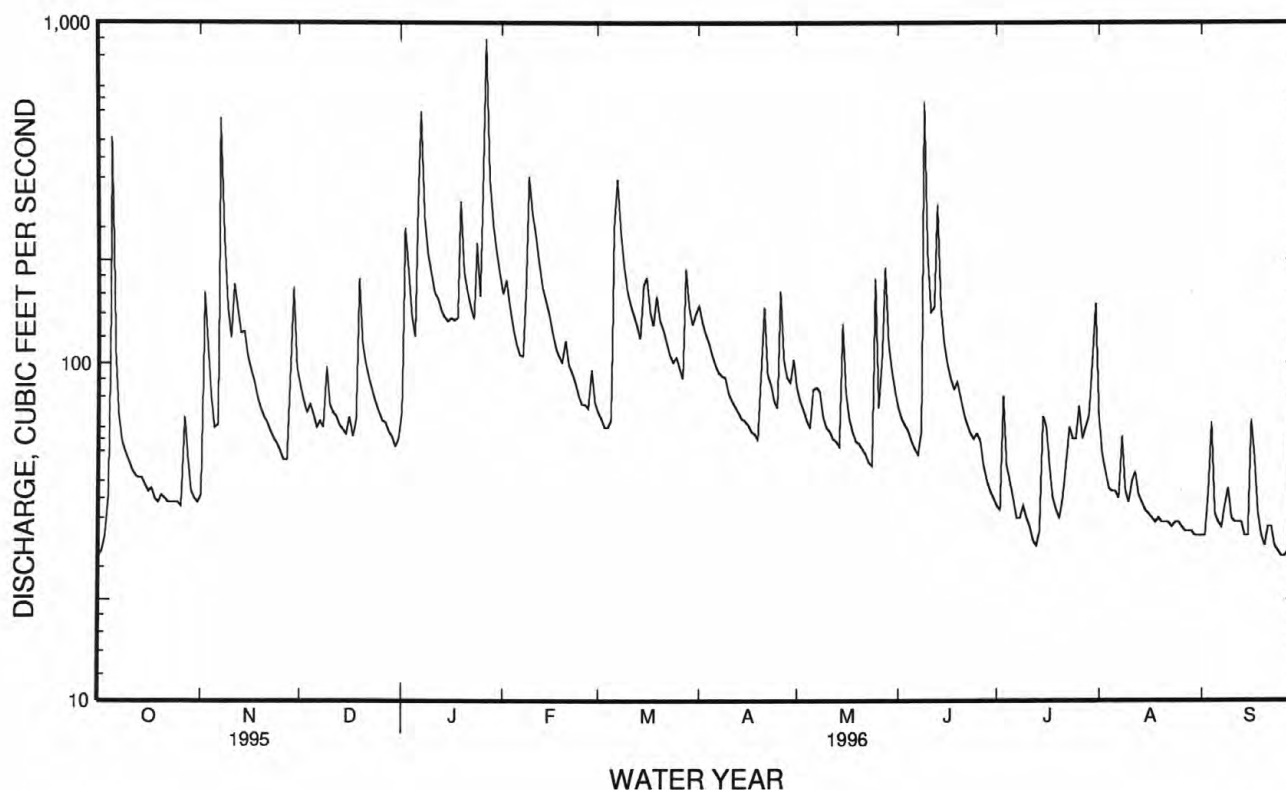
MEAN	39.6	58.6	68.0	166	170	194	176	80.6	68.7	65.7	50.0	34.8
MAX	59.5	113	76.6	225	258	297	381	92.0	105	113	80.7	37.7
(WY)	1996	1996	1996	1996	1994	1994	1994	1995	1996	1994	1994	1996
MIN	15.1	20.0	57.2	125	119	139	53.1	69.0	39.4	30.7	29.7	30.5
(WY)	1994	1994	1994	1994	1995	1996	1995	1994	1995	1995	1995	1995

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1994 - 1996

ANNUAL TOTAL	28493			35298								
ANNUAL MEAN	78.1			96.4						97.3		
HIGHEST ANNUAL MEAN										125		1994
LOWEST ANNUAL MEAN										70.4		1995
HIGHEST DAILY MEAN	747	Mar 8		901	Jan 27				2580	Apr 11	1994	
LOWEST DAILY MEAN	21	Sep 10		27	Oct 1				13	Oct 28	1993	
ANNUAL SEVEN-DAY MINIMUM	22	Sep 4		29	Sep 21				14	Nov 8	1993	
INSTANTANEOUS PEAK FLOW				1290	Jan 27				5790	Apr 11	1994	
INSTANTANEOUS PEAK STAGE				12.48	Jan 27				15.74	Apr 11	1994	
INSTANTANEOUS LOW FLOW				a25	Sep 26				b12	Oct 28	1993	
ANNUAL RUNOFF (CFSM)	1.85			2.29					2.31			
ANNUAL RUNOFF (INCHES)	25.18			31.19					31.41			
10 PERCENT EXCEEDS	143			172					172			
50 PERCENT EXCEEDS	54			70					61			
90 PERCENT EXCEEDS	27			34					27			

a Also occurred Sept. 27.

b Also occurred Oct. 29, 1993.



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 mi<sup>2</sup>, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1874 to current year. Monthly discharges only for some periods, published in WSP 1306. July 1930 to December 1935, published as "at Hales Bar, near Chattanooga." Gage-height records collected in this vicinity since 1874 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1306: 1916(M). WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft above sea level. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi upstream from Chattanooga to Hales Bar Dam 33 mi downstream at or within 0.2 ft of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi downstream from base gage at same datum.

REMARKS.--No estimated discharges. Records good. Flow regulated since 1936 by many upstream reservoirs (see p.227 and Water Resources Data for adjoining states).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft<sup>3</sup>/s, Mar. 1, 1875, gage height, 53.8 ft, present datum, at Walnut Street, from rating curve extended above 250,000 ft<sup>3</sup>/s; minimum daily, 1,200 ft<sup>3</sup>/s, Nov. 1, 1953; minimum gage height, 0.0 ft, Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft, Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 145,000 ft<sup>3</sup>/s, Jan. 28; maximum gage height, 27.38 ft, Jan. 28; minimum daily discharge, 8,230 ft<sup>3</sup>/s, April 19; minimum gage height, 11.06 ft, Aug. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41700	35400	46300	24700	123000	37000	27100	24300	40500	36100	32800	24500
2	24700	35200	39000	33200	119000	39700	26200	25400	40400	28500	40900	26300
3	28000	37500	42300	43400	102000	41300	24300	30100	40800	20400	39300	39500
4	37600	44400	42500	42400	99200	41100	28300	17700	40500	15700	28800	41200
5	56300	42800	41700	46500	94600	40800	26100	11800	39900	20700	34900	40800
6	78500	44200	43600	47300	87100	44100	25300	20100	40200	17600	36600	42900
7	71500	45700	43200	58400	87800	55400	13400	22100	38000	16800	34800	43200
8	48300	52700	44800	75900	88000	63600	13400	32100	31900	27400	35400	42000
9	46200	50100	45300	73400	88700	67400	13100	32500	36500	23800	35500	29300
10	45900	47800	37500	71800	88200	62600	14300	32700	52000	24500	30700	32900
11	42500	49500	42500	70200	87200	61100	14000	30600	59400	27500	29600	32000
12	41700	60900	43900	63800	88800	56200	20800	29300	59000	27900	36100	32200
13	41500	58600	37000	46100	106000	46800	14000	27900	59400	21900	40500	32100
14	31400	57400	43300	47200	104000	47000	13900	25200	58700	23400	40500	24200
15	28300	56900	38400	46100	92600	47000	14500	26700	39200	27800	40300	22200
16	38600	57100	34100	46800	81200	46600	14300	28400	43400	25900	40000	31100
17	41800	57200	32100	46400	72500	47300	12700	31900	38600	29700	30000	30400
18	39000	56700	43000	46000	72300	46600	11000	32000	32400	32400	33000	33000
19	39800	56600	38000	42600	68700	38700	8230	28600	31600	31700	39300	31500
20	41400	55900	44000	53300	63700	37800	11300	27900	31400	26200	40100	31600
21	40100	51800	47400	58600	62700	42100	19100	20600	30900	27200	40600	24500
22	35200	44700	46700	61100	58000	43900	36200	23600	30200	29400	41200	29600
23	38600	45300	40800	68700	53200	43200	35900	28100	30900	31200	41400	32600
24	38600	44600	35900	67900	45600	31700	34300	27500	31300	33900	26800	39100
25	40400	39400	30800	69700	45600	28900	23700	19200	32000	30900	21200	23800
26	41200	37700	40500	69000	44500	33900	20500	30600	31300	29700	38900	37700
27	40900	41700	40200	82500	44600	36600	24000	32200	30500	26500	40000	40200
28	44100	45800	40700	140000	46300	34200	29600	37400	30900	24100	39500	31900
29	44300	46400	45100	137000	37600	44200	29900	50400	25300	29800	41000	36200
30	34500	46100	22400	135000	---	31800	14000	45500	28900	26200	41900	32000
31	35600	---	15900	129000	---	37300	---	43900	---	29400	28900	---
TOTAL	1298200	1446100	1228900	2044000	2252700	1375900	613430	896300	1156000	824200	1120500	990500
MEAN	41880	48200	39640	65940	77680	44380	20450	28910	38530	26590	36150	33020
MAX	78500	60900	47400	140000	123000	67400	36200	50400	59400	36100	41900	43200
MIN	24700	35200	15900	24700	37600	28900	8230	11800	25300	15700	21200	22200

TENNESSEE RIVER BASIN  
03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

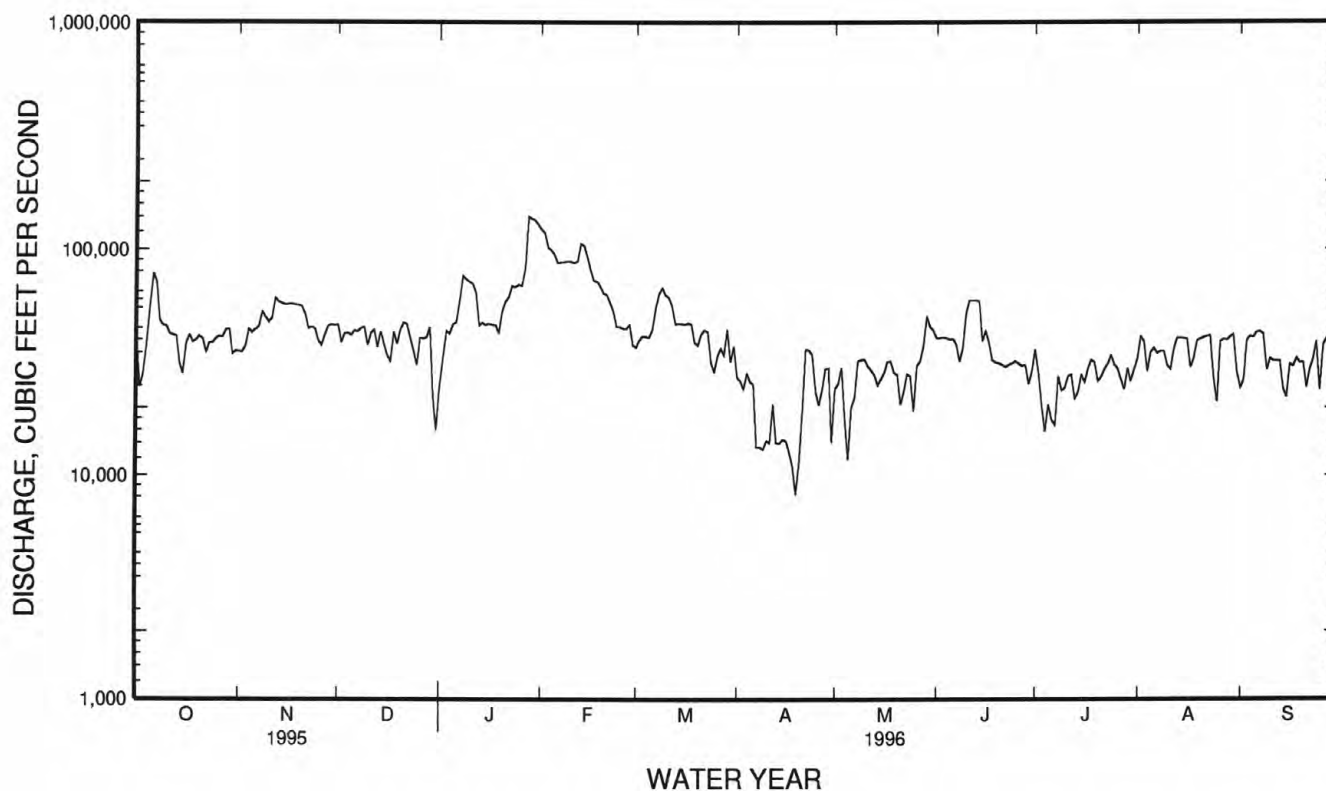
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

MEAN	29190	34370	44650	49180	50760	47110	28550	28280	29330	29590	31400	28750
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 1995 CALENDAR YEAR                      FOR 1996 WATER YEAR                      \*WATER YEARS 1954 - 1996

ANNUAL TOTAL	12728200		15246730									
ANNUAL MEAN	34870		41660									
HIGHEST ANNUAL MEAN										35880		
LOWEST ANNUAL MEAN										53260		1973
HIGHEST DAILY MEAN	98400	Jan 17	140000	Jan 28	251000	Mar 18	1973					
LOWEST DAILY MEAN	5740	May 6	8230	Apr 19	1200	Nov 1	1953					
ANNUAL SEVEN-DAY MINIMUM	6840	May 1	12300	Apr 14	6790	May 29	1986					
INSTANTANEOUS PEAK FLOW			145000	Jan 28	267000	Mar 18	1973					
INSTANTANEOUS PEAK STAGE			27.38	Jan 28	38.98	Mar 18	1973					
10 PERCENT EXCEEDS	59000		63700		57700							
50 PERCENT EXCEEDS	34400		39000		31400							
90 PERCENT EXCEEDS	9920		23800		16100							

\* Regulated period only.



TENNESSEE RIVER BASIN  
03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1995 to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DISSOLVED (MG/L AS Mg) (00925)
MAY 28...	1430	158	7.8	25.0	745	K9	K8	59	4	17	4.1
JUL 16...	1400	172	7.6	27.0	754	--	--	67	7	19	4.8
SEP 30...	1400	183	7.6	22.5	754	K20	--	71	8	20	5.0

DATE	SODIUM, DISSOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY WATER TOTAL FIELD (MG/L AS CaCO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
MAY 28...	5.3	16	0.3	1.2	55	11	5.7	<0.10	2.0	88	89
JUL 16...	5.9	16	0.3	1.4	60	11	6.7	<0.10	4.9	97	91
SEP 30...	6.8	17	0.4	1.5	63	13	7.6	<0.10	5.8	105	98

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N) (00623)
MAY 28...	0.12	0.14	0.01	0.03	0.140	0.150	2.00	0.04	0.37	0.030	0.40
JUL 16...	0.13	0.190	0.020	0.07	0.190	0.210	0.210	0.12	0.21	0.090	0.30
SEP 30...	0.14	0.180	0.020	0.07	0.180	0.200	0.200	0.08	0.34	0.060	0.40

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



TENNESSEE RIVER BASIN  
03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE TOTAL (MG/L) (80154)
MAY 28...	0.80	0.95	0.95	0.190	0.090	0.080	7	5	3.2	1.4	8
JUL 16...	0.30	0.51	0.51	0.040	0.030	0.030	3	3	1.6	0.6	6
SEP 30...	0.40	0.60	0.60	0.020	<0.010	0.020	6	5	1.6	0.4	7

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THON, DIS- SOLVED (UG/L) (39532)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)
MAY 28...	82	<0.001	0.01	<0.005	<0.002	0.03	<0.002	--	--	--
JUL 16...	85	<0.001	0.01	<0.005	<0.002	0.03	<0.002	<0.02	<0.02	<0.02
SEP 30...	85	<0.001	0.01	<0.005	<0.002	0.05	<0.002	<0.02	<0.02	<0.02

## 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.

PERIOD OF RECORD.--April 1993 to April 1996 (discontinued).

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1064.36 ft above sea level.

REMARKS.--Records good. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--October 1995 to April 1996: Maximum discharge, 117 ft<sup>3</sup>/s, at 0800 hours Nov. 2, gage height 7.86 ft; minimum daily discharge, 0.38 ft<sup>3</sup>/s, Nov. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO APRIL 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.9	2.5	3.0	2.4	1.8	3.2	---	---	---	---	---
2	3.0	8.6	2.5	7.6	2.2	1.5	2.9	---	---	---	---	---
3	5.9	3.1	2.7	3.2	2.1	2.3	2.7	---	---	---	---	---
4	5.9	2.4	2.7	2.8	2.2	2.3	2.9	---	---	---	---	---
5	13	2.3	2.4	2.7	2.3	2.9	2.7	---	---	---	---	---
6	3.0	3.4	2.4	7.6	2.4	7.8	2.5	---	---	---	---	---
7	2.4	18	2.4	3.9	2.7	6.7	2.4	---	---	---	---	---
8	2.4	3.3	3.3	3.4	7.3	3.0	2.6	---	---	---	---	---
9	2.5	2.7	3.0	3.0	4.9	2.7	2.5	---	---	---	---	---
10	2.6	2.7	2.4	2.9	3.5	2.7	2.4	---	---	---	---	---
11	2.6	6.5	2.5	4.7	3.0	2.6	2.5	---	---	---	---	---
12	3.1	2.9	2.6	4.7	2.8	2.4	2.5	---	---	---	---	---
13	2.8	3.0	2.5	3.2	2.7	2.8	2.8	---	---	---	---	---
14	4.6	2.7	2.5	2.9	2.8	2.7	2.5	---	---	---	---	---
15	2.4	2.6	2.7	2.9	2.7	4.5	2.7	---	---	---	---	---
16	2.5	2.5	4.0	2.7	2.5	3.4	2.5	---	---	---	---	---
17	2.8	2.7	3.3	2.8	2.3	2.7	2.6	---	---	---	---	---
18	2.6	2.5	6.0	5.3	2.3	4.0	2.8	---	---	---	---	---
19	3.2	2.4	3.9	3.6	2.4	8.4	2.6	---	---	---	---	---
20	3.3	2.6	2.8	3.0	2.7	3.6	7.0	---	---	---	---	---
21	1.1	2.5	2.7	2.8	2.6	3.2	7.1	---	---	---	---	---
22	1.3	2.4	2.4	2.7	2.5	2.7	3.6	---	---	---	---	---
23	2.7	2.2	2.3	2.7	2.7	2.5	3.1	---	---	---	---	---
24	2.8	.79	2.3	5.8	1.3	2.5	3.0	---	---	---	---	---
25	2.7	.38	2.3	2.7	.80	3.6	2.8	---	---	---	---	---
26	2.7	.68	2.3	5.1	2.3	2.8	4.9	---	---	---	---	---
27	7.5	2.6	2.2	3.4	3.0	3.4	3.0	---	---	---	---	---
28	2.6	3.2	2.2	2.7	3.0	7.9	2.8	---	---	---	---	---
29	2.5	2.5	2.2	2.6	2.5	3.4	3.4	---	---	---	---	---
30	2.5	2.5	2.2	2.5	---	3.0	3.0	---	---	---	---	---
31	2.6	---	3.9	2.3	---	3.8	---	---	---	---	---	---
TOTAL	104.2	100.55	86.1	111.2	78.90	109.6	94.0	---	---	---	---	---
MEAN	3.36	3.35	2.78	3.59	2.72	3.54	3.13	---	---	---	---	---
MAX	13	18	6.0	7.6	7.3	8.4	7.1	---	---	---	---	---
MIN	1.1	.38	2.2	2.3	.80	1.5	2.4	---	---	---	---	---
CAL YR 1995	TOTAL 1196.64			MEAN 3.28		MAX 20		MIN .38				

## 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.

PERIOD OF RECORD.--April 1993 to April 1996 (discontinued).

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1079.16 ft above sea level, April 1993 to September 1995 at present site at datum 0.94 ft higher.

REMARKS.--Records good. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--October 1995 to April 1996: Maximum discharge, 74 ft<sup>3</sup>/s, at 0705 hours Nov. 2, 1995, gage height, 2.92 ft; minimum daily discharge, 0.23 ft<sup>3</sup>/s, Nov. 25, 1995.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO APRIL 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.5	1.2	1.2	1.8	.80	.97	---	---	---	---	---
2	.98	4.2	1.1	3.4	1.9	.64	1.1	---	---	---	---	---
3	3.2	2.6	1.2	1.6	1.9	.36	.92	---	---	---	---	---
4	3.0	1.8	1.4	1.5	1.9	.48	1.1	---	---	---	---	---
5	5.7	1.0	1.8	1.5	2.1	.79	1.1	---	---	---	---	---
6	1.1	2.4	1.3	3.9	2.5	3.3	.52	---	---	---	---	---
7	.97	7.9	3.6	1.4	2.6	2.0	.45	---	---	---	---	---
8	.95	2.0	4.8	1.5	4.8	.70	.60	---	---	---	---	---
9	1.0	1.2	4.4	1.5	2.6	.64	.77	---	---	---	---	---
10	1.2	1.1	2.0	1.2	1.4	.71	.62	---	---	---	---	---
11	1.2	3.4	1.7	2.2	.98	.69	.65	---	---	---	---	---
12	1.1	1.2	1.3	1.9	.96	.72	.90	---	---	---	---	---
13	1.1	1.7	.98	1.6	1.2	.80	.80	---	---	---	---	---
14	2.0	1.5	.61	1.4	.89	.96	.56	---	---	---	---	---
15	1.0	1.5	1.5	1.2	1.2	1.8	.73	---	---	---	---	---
16	1.5	1.3	1.6	.98	.98	1.1	.71	---	---	---	---	---
17	2.0	1.3	1.3	1.2	.66	.59	.74	---	---	---	---	---
18	1.2	1.5	2.7	2.7	.56	1.4	.86	---	---	---	---	---
19	1.3	1.4	1.4	1.6	.98	2.4	.61	---	---	---	---	---
20	1.5	1.5	1.6	1.2	1.1	1.1	2.6	---	---	---	---	---
21	1.7	1.4	1.6	1.4	1.1	.92	2.4	---	---	---	---	---
22	.32	1.2	1.3	1.4	.86	.63	.86	---	---	---	---	---
23	.64	1.3	.88	1.5	1.1	.54	1.0	---	---	---	---	---
24	2.2	1.7	.95	2.6	.70	.52	.84	---	---	---	---	---
25	.81	.23	.96	1.3	.24	1.1	.79	---	---	---	---	---
26	.85	.55	.94	3.5	.57	.75	1.9	---	---	---	---	---
27	3.6	1.5	.91	2.1	.86	1.3	.98	---	---	---	---	---
28	.98	1.7	.95	1.9	.75	2.6	.63	---	---	---	---	---
29	.88	1.4	.94	2.0	.66	.92	1.5	---	---	---	---	---
30	1.1	1.2	.98	1.9	---	.87	.89	---	---	---	---	---
31	1.5	---	1.9	1.8	---	1.2	---	---	---	---	---	---
TOTAL	47.28	54.18	49.80	56.08	39.85	33.33	29.10	---	---	---	---	---
MEAN	1.53	1.81	1.61	1.81	1.37	1.08	.97	---	---	---	---	---
MAX	5.7	7.9	4.8	3.9	4.8	3.3	2.6	---	---	---	---	---
MIN	.32	.23	.61	.98	.24	.36	.45	---	---	---	---	---
CAL YR 1995	TOTAL 559.50			MEAN 1.53		MAX 7.9		MIN .23				

## 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.--October 1994 to April 1996 (discontinued).

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1065.17 ft above sea level.

REMARKS.--Records good. Flow regulated by Arnold Engineering Development Center.

EXTREMES FOR CURRENT PERIOD.--October 1995 to April 1996: Maximum discharge, 795 ft<sup>3</sup>/s, at 1330 hours Nov. 27, gage height, 7.51 ft; minimum daily discharge, 3.2 ft<sup>3</sup>/s, Apr. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO APRIL 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	125	86	36	77	95	29	---	---	---	---	---
2	146	108	89	20	79	90	70	---	---	---	---	---
3	83	105	118	65	76	66	33	---	---	---	---	---
4	112	78	156	37	63	47	73	---	---	---	---	---
5	82	25	106	23	71	72	44	---	---	---	---	---
6	108	8.0	132	59	60	117	3.2	---	---	---	---	---
7	65	103	90	41	126	145	45	---	---	---	---	---
8	59	150	105	65	106	63	102	---	---	---	---	---
9	61	114	157	25	110	102	38	---	---	---	---	---
10	105	154	124	20	80	133	30	---	---	---	---	---
11	109	80	92	90	91	97	80	---	---	---	---	---
12	161	64	117	46	68	68	60	---	---	---	---	---
13	64	35	136	28	22	124	86	---	---	---	---	---
14	81	35	133	98	53	96	76	---	---	---	---	---
15	38	94	65	64	79	25	97	---	---	---	---	---
16	61	38	168	90	91	75	91	---	---	---	---	---
17	136	122	128	64	93	94	164	---	---	---	---	---
18	135	24	94	112	100	58	23	---	---	---	---	---
19	152	17	109	69	61	66	46	---	---	---	---	---
20	41	142	53	107	73	96	40	---	---	---	---	---
21	34	45	62	135	96	102	64	---	---	---	---	---
22	41	53	176	156	80	12	89	---	---	---	---	---
23	109	77	157	105	164	81	79	---	---	---	---	---
24	69	118	199	89	78	82	153	---	---	---	---	---
25	162	61	173	107	52	65	59	---	---	---	---	---
26	168	42	124	63	103	32	98	---	---	---	---	---
27	59	267	99	55	86	58	55	---	---	---	---	---
28	14	153	46	111	70	60	47	---	---	---	---	---
29	18	45	57	80	127	51	66	---	---	---	---	---
30	104	125	84	56	---	41	98	---	---	---	---	---
31	73	---	43	38	---	37	---	---	---	---	---	---
TOTAL	2715	2607.0	3478	2154	2435	2350	2038.2	---	---	---	---	---
MEAN	87.6	86.9	112	69.5	84.0	75.8	67.9	---	---	---	---	---
MAX	168	267	199	156	164	145	164	---	---	---	---	---
MIN	14	8.0	43	20	22	12	3.2	---	---	---	---	---

e Estimated

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## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1991 to September 30 (discontinued). 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, 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.--Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0530	*1,140	*7.94	Mar. 19	0300	891	7.22
Nov. 7	1100	878	7.18				

Minimum discharge 1.5 ft<sup>3</sup>/s, July 18, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	5.4	e5.6	e35	12	10	39	19	e5.6	e2.7	3.6	1.8
2	3.0	244	e5.0	e90	12	9.6	26	15	e6.0	e2.6	1.9	1.7
3	50	22	e8.0	e65	11	9.0	22	13	e7.0	e2.5	1.8	3.4
4	97	11	e10	e45	11	8.4	20	12	e9.0	e2.3	1.8	1.8
5	599	8.1	e8.0	22	9.8	10	18	10	e7.4	e2.3	11	1.7
6	21	9.3	e7.0	175	9.6	129	18	41	e5.8	e2.2	2.6	1.8
7	9.4	540	e6.0	54	9.8	140	17	51	e7.8	e25	2.0	3.3
8	6.6	32	e16	22	73	19	16	28	e11	e8.2	14	2.6
9	5.3	12	e33	19	60	14	15	16	e14	e3.6	7.1	3.7
10	4.8	9.4	e25	18	24	12	12	13	e12	e1.7	2.8	1.8
11	4.3	116	e16	66	18	11	12	12	e10	1.6	2.8	1.7
12	4.2	e50	e14	103	13	11	11	12	161	1.6	69	1.7
13	4.1	e25	e12	23	12	10	11	10	63	1.7	8.3	1.6
14	6.0	e18	e11	19	11	10	12	9.2	16	2.0	3.5	1.6
15	5.0	e13	e10	16	10	94	12	23	9.4	4.5	2.1	1.6
16	4.3	e11	e21	15	10	45	12	14	e8.1	1.7	1.9	18
17	3.9	e9.0	e35	15	10	21	10	11	e6.2	1.6	1.9	3.4
18	3.8	e8.0	e50	45	10	26	9.8	9.6	e5.3	1.6	1.8	1.8
19	3.5	e6.7	e140	43	9.4	389	9.6	9.6	e7.5	1.6	1.8	1.8
20	6.4	e6.4	e52	17	10	47	64	9.8	e10	2.3	1.8	1.7
21	5.0	e5.7	e32	15	10	32	189	e9.2	e7.0	4.6	1.8	10
22	4.4	e5.0	e22	14	9.5	24	52	e8.3	e5.4	32	1.7	2.5
23	4.0	e5.3	e15	14	9.2	20	44	e7.7	e4.5	4.1	3.1	1.9
24	4.1	e7.3	e12	69	8.5	19	30	e7.1	e4.7	1.9	1.8	1.8
25	4.0	e6.4	e10	19	8.1	35	25	e6.7	e5.4	1.8	2.0	1.8
26	4.0	e5.3	e9.0	29	7.9	25	57	e6.2	e4.5	1.7	1.8	1.8
27	48	e4.5	e8.0	28	8.5	22	28	e7.0	e4.0	1.6	1.7	11
28	17	e5.0	e7.0	16	18	97	21	e13	e3.5	1.6	1.7	30
29	7.7	e6.8	e6.4	14	12	38	28	e9.8	e3.2	2.0	1.7	8.2
30	5.8	e6.4	e6.0	14	---	27	40	e8.0	e2.9	8.0	2.8	3.8
31	5.2	---	e18	13	---	39	---	e6.2	---	7.5	2.2	---
TOTAL	953.9	1214.0	630.0	1152	437.3	1403.0	880.4	427.4	427.2	140.1	165.8	131.3
MEAN	30.8	40.5	20.3	37.2	15.1	45.3	29.3	13.8	14.2	4.52	5.35	4.38
MAX	599	540	140	175	73	389	189	51	161	32	69	30
MIN	3.0	4.5	5.0	13	7.9	8.4	9.6	6.2	2.9	1.6	1.7	1.6
CFSM	2.50	3.29	1.65	3.02	1.23	3.68	2.39	1.12	1.16	.37	.43	.36
IN.	2.88	3.67	1.91	3.48	1.32	4.24	2.66	1.29	1.29	.42	.50	.40

e Estimated

## TENNESSEE RIVER BASIN

03579620 ROCK CREEK AT TULLAHOMA, TN--Continued

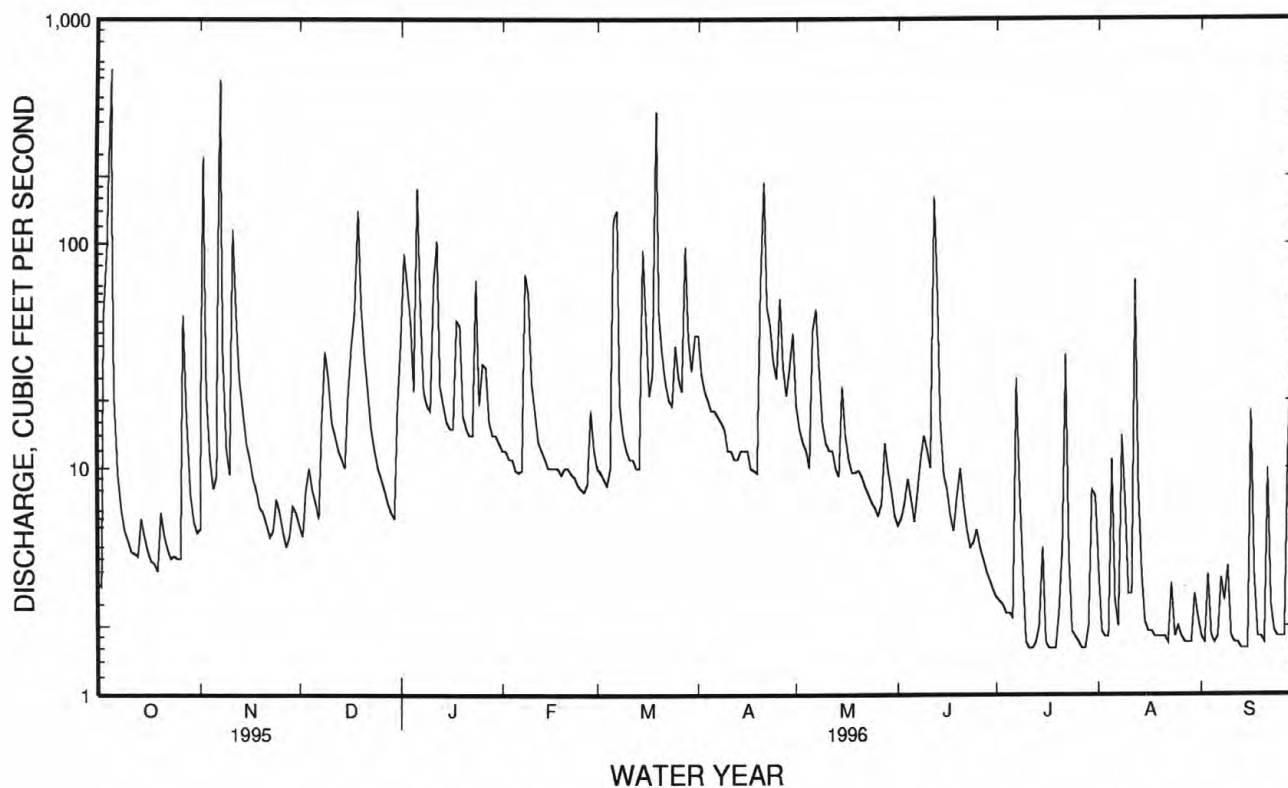
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	8.28	17.8	35.1	30.1	33.4	50.6	30.5	14.1	7.36	2.76	5.58	7.98
MAX	30.8	40.5	93.5	37.5	108	101	57.9	31.4	14.2	4.52	9.28	25.1
(WY)	1996	1996	1992	1992	1994	1994	1994	1993	1996	1996	1995	1992
MIN	1.25	1.97	10.2	20.7	11.9	28.9	17.1	3.44	2.58	1.74	2.42	1.41
(WY)	1992	1994	1994	1995	1995	1992	1995	1992	1995	1993	1993	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1992 - 1996

ANNUAL TOTAL	6496.3	7962.4	
ANNUAL MEAN	17.8	21.8	20.3
HIGHEST ANNUAL MEAN			27.0
LOWEST ANNUAL MEAN			12.9
HIGHEST DAILY MEAN	599	Oct 5	1110
LOWEST DAILY MEAN	1.1	Jul 31	.82
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 13	.87
INSTANTANEOUS PEAK FLOW			2350
INSTANTANEOUS PEAK STAGE			10.70
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (CFSM)	1.45	1.77	1.65
ANNUAL RUNOFF (INCHES)	19.65	24.08	22.37
10 PERCENT EXCEEDS	32	45	37
50 PERCENT EXCEEDS	5.3	9.7	5.6
90 PERCENT EXCEEDS	1.8	1.8	1.3

a Also occurred July 20.



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 mi<sup>2</sup> 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: 1985. WRD TN-90-1: 1989.

GAGE.--Data collection platform. Datum of gage is 350.06 ft above sea level (Levels by Tennessee Valley Authority). Prior to Oct. 1, 1992, at datum 50.06 ft lower, prior to Apr. 7, 1945, at datum 8.45 ft lower. Oct. 1, 1948 to Apr. 13, 1978 and Oct. 1, 1989 to present, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam Apr. 13, 1978 to Sept. 30, 1989, auxiliary water-stage recorder over tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, both sites 16.8 mi. upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi downstream from base gage at same datum.

REMARKS.--Records good. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station ((see p.227) and Water Resources Data for adjoining states). Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft, Mar. 21, 1897, datum then in use, from floodmarks, discharge, 450,000 ft<sup>3</sup>/s, from rating curve extended above 320,000 ft<sup>3</sup>/s. Flood of Jan. 2, 1927, reached a stage of 92.7 ft datum then in use, discharge, 349,000 ft<sup>3</sup>/s. Minimum stage since 1905, 38.8 ft datum then in use, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 205,000 ft<sup>3</sup>/s, Jan. 30; maximum gage height, 25.82 ft, Feb. 1; minimum daily discharge, 8,480 ft<sup>3</sup>/s, Apr. 13, minimum gage height, 4.63 ft, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14100	67200	68000	36000	200000	58500	89400	46500	45500	35100	46700	33800
2	43300	63200	48900	e70000	189000	61300	72200	41100	35800	33200	51200	42200
3	40400	65200	33900	e77000	177000	65000	64300	39800	38400	19600	35300	44900
4	44100	67200	56600	e78000	173000	73200	44900	15800	46400	11000	20800	47800
5	76600	66900	67100	e85000	159000	70000	33100	12800	32500	11000	47800	61400
6	104000	66500	63900	88500	120000	91800	40400	e27000	39000	13000	51700	62400
7	130000	71200	59700	e103000	102000	139000	33600	28100	37900	12000	51500	41600
8	121000	83500	62700	e140000	100000	152000	36800	46100	19000	42500	57700	38600
9	111000	95200	62500	e161000	103000	160000	33700	44000	32900	33300	62900	42600
10	92200	107000	66000	e160000	109000	159000	25200	43500	47300	32700	30100	53500
11	82600	114000	68000	152000	109000	143000	38100	28500	56700	23400	17200	55400
12	76300	130000	69200	139000	120000	124000	35200	20200	60000	20000	43400	53800
13	76200	131000	67300	128000	145000	109000	8480	36200	65700	14500	76000	58000
14	62500	131000	66100	113000	153000	89500	9650	33300	67200	13500	51700	19800
15	61300	129000	69300	99300	145000	88600	12700	32200	48500	37200	40300	17800
16	63800	119000	64600	96300	121000	88300	37300	34000	46400	34800	e44000	35600
17	62700	105000	62200	e83000	106000	87800	36900	10300	61800	48500	e24000	40500
18	57800	93500	71800	e79000	104000	87400	31800	9980	53700	44800	e22000	47500
19	57900	91700	71600	e81000	97000	90500	29600	8930	43000	28100	e60000	57000
20	55500	74200	75100	99400	89700	75700	17600	39500	37700	16800	e70000	45400
21	32800	74200	73600	99300	88000	69800	47600	24300	40000	17600	e45000	13200
22	17700	72400	73700	103000	79700	68100	121000	44600	24100	31700	e44000	11500
23	43000	52300	73600	107000	60100	73400	161000	45900	18100	48400	e42500	43700
24	46600	49400	73800	108000	43400	66700	164000	45300	43200	49500	e20000	60100
25	50400	49800	73200	108000	41200	74800	136000	30700	40000	44400	e17000	62700
26	44300	48600	73300	113000	62000	76000	102000	24500	32400	29100	e49000	60200
27	44800	55800	73000	136000	69100	72700	60300	23700	44500	22500	e50000	63200
28	43000	59000	73700	174000	73100	65700	56100	24700	49500	21700	e53000	32100
29	28700	65800	73400	187000	53300	62600	60000	53600	11500	35600	e50000	25200
30	49400	66200	44300	201000	---	70900	37300	55400	10400	36700	35700	52300
31	66900	---	33900	201000	---	88300	---	49100	---	36100	32000	---
TOTAL	1900900	2465000	2014000	3605800	3191600	2802600	1676230	1019610	1229100	898300	1342500	1323800
MEAN	61320	82170	64970	116300	110100	90410	55870	32890	40970	28980	43310	44130
MAX	130000	131000	75100	201000	200000	160000	164000	55400	67200	49500	76000	63200
MIN	14100	48600	33900	36000	41200	58500	8480	8930	10400	11000	17000	11500

e Estimated

## TENNESSEE RIVER BASIN

03593500 TENNESSEE RIVER AT SAVANNAH, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1996, BY WATER YEAR (WY)

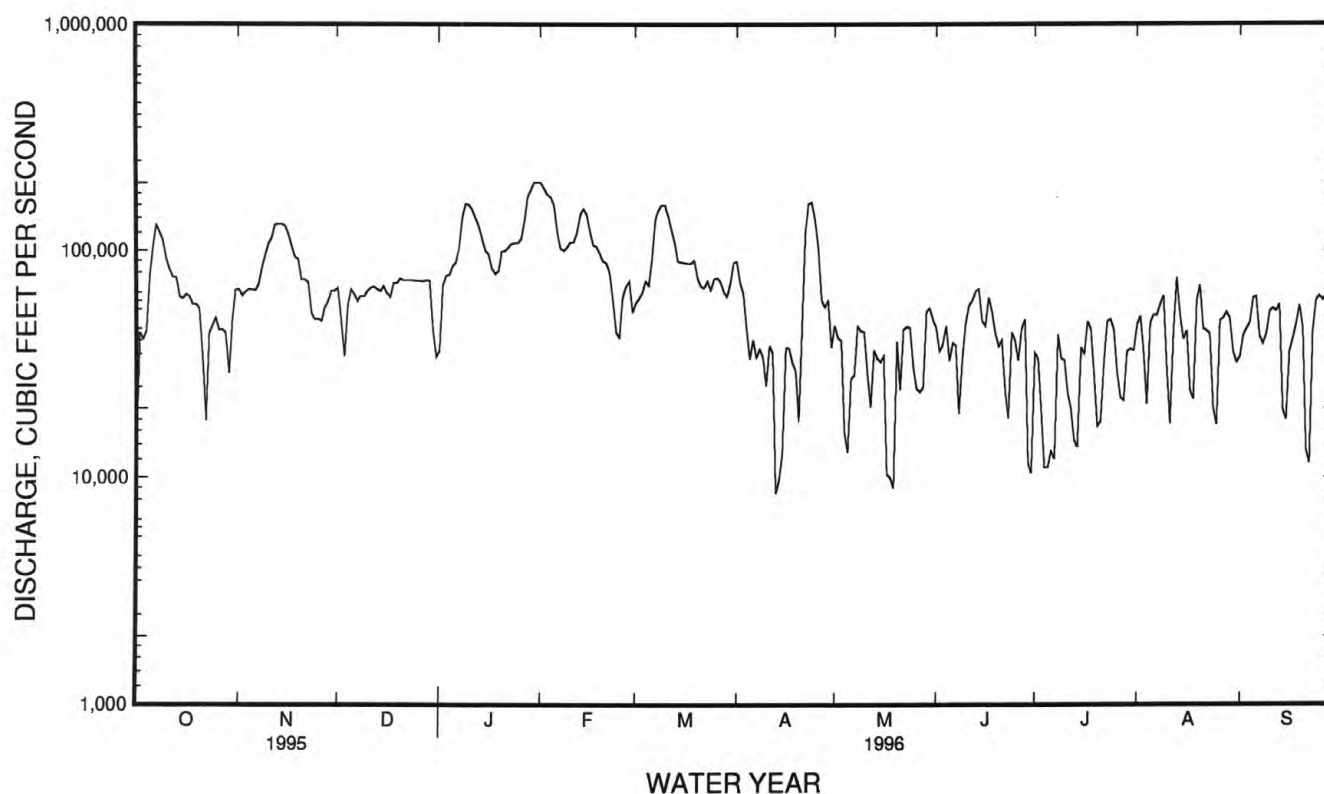
MEAN	36590	47690	73100	88920	94570	86080	56050	47880	39670	38540	37540	35310
MAX	97010	147000	160100	223100	228100	179600	172300	140400	103100	84810	64740	71700
(WY)	1990	1958	1992	1974	1957	1973	1994	1984	1989	1989	1967	1950
MIN	18820	20510	26850	23710	39170	19840	11150	8977	10490	12910	15910	15800
(WY)	1955	1954	1981	1986	1988	1988	1986	1988	1988	1988	1988	1968

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      \*WATER YEARS 1946 - 1996

ANNUAL TOTAL	19016770		23469440				
ANNUAL MEAN	52100		64120			56680	
HIGHEST ANNUAL MEAN						86040	1973
LOWEST ANNUAL MEAN						23090	1988
HIGHEST DAILY MEAN	192000	Mar 9	201000	Jan 30	554000	Mar 17	1973
LOWEST DAILY MEAN	7860	May 13	8480	Apr 13	60	Apr 23	1966
ANNUAL SEVEN-DAY MINIMUM	9050	Apr 14	18800	Jun 29	5890	May 20	1986
INSTANTANEOUS PEAK FLOW			205000	Jan 30	507000	Mar 18	1973
INSTANTANEOUS PEAK STAGE			25.82	Feb 01	a96.11	Mar 20	1973
INSTANTANEOUS LOW FLOW					60	Apr 23	1966
10 PERCENT EXCEEDS	103000		120000		107000		
50 PERCENT EXCEEDS	43000		56300		42600		
90 PERCENT EXCEEDS	15200		22300		22700		

\* Regulated period only.

a Datum then in use; see GAGE paragraph.



## TENNESSEE RIVER BASIN

03597210 GARRISON FORK ABOVE L&amp;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 mi<sup>2</sup>.

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 through August 1996. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 3	1400	4,710	12.34	Nov. 7	1230	3,200	10.81
Oct. 5	1015	*7,100	*14.45	July 22	0700	3,830	11.50

Minimum discharge, 9 ft<sup>3</sup>/s, July 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	66	49	167	124	93	364	120	32	15	270	19
2	11	702	46	802	122	88	282	106	34	15	106	19
3	1470	344	45	396	108	79	232	96	36	14	61	25
4	900	181	77	248	109	71	202	87	52	13	42	28
5	3740	126	76	182	112	72	170	79	36	13	34	25
6	635	107	68	452	82	339	146	78	33	12	68	25
7	257	1840	67	499	85	832	132	151	45	12	61	22
8	151	734	70	322	662	416	122	172	80	22	51	22
9	105	289	189	246	738	254	110	115	69	21	38	104
10	80	191	152	215	435	189	100	93	56	16	29	47
11	66	632	124	346	292	153	94	86	82	13	309	32
12	57	380	108	687	208	134	90	77	224	12	828	26
13	52	242	93	404	166	118	88	69	138	13	253	23
14	52	178	83	291	149	105	83	64	75	13	123	21
15	49	134	74	230	127	149	80	100	54	19	78	19
16	43	109	162	195	109	172	75	84	42	21	56	22
17	39	92	179	168	96	175	70	70	35	14	45	36
18	37	81	376	361	90	168	67	61	31	12	39	28
19	35	73	722	578	86	1430	66	56	50	11	44	24
20	46	66	344	317	87	591	241	52	69	11	34	22
21	51	60	224	227	78	373	644	49	38	11	30	34
22	41	55	169	174	75	277	315	47	30	748	27	51
23	38	56	133	148	72	224	416	43	26	91	27	34
24	37	54	111	506	68	192	278	40	27	46	31	28
25	36	47	97	276	63	272	210	37	35	32	25	26
26	35	45	87	256	63	211	272	36	26	26	29	25
27	234	45	80	285	63	187	190	39	22	21	29	74
28	243	46	71	218	120	486	155	56	19	19	25	370
29	127	58	65	194	103	383	139	46	18	21	23	149
30	90	51	61	165	---	290	153	38	16	40	21	81
31	74	---	121	144	---	345	---	34	---	267	20	---
TOTAL	8842	7084	4323	9699	4692	8868	5586	2281	1530	1614	2856	1461
MEAN	285	236	139	313	162	286	186	73.6	51.0	52.1	92.1	48.7
MAX	3740	1840	722	802	738	1430	644	172	224	748	828	370
MIN	11	45	45	144	63	71	66	34	16	11	20	19
CFSM	3.34	2.76	1.63	3.66	1.89	3.35	2.18	.86	.60	.61	1.08	.57
IN.	3.85	3.08	1.88	4.22	2.04	3.86	2.43	.99	.67	.70	1.24	.64



## TENNESSEE RIVER BASIN

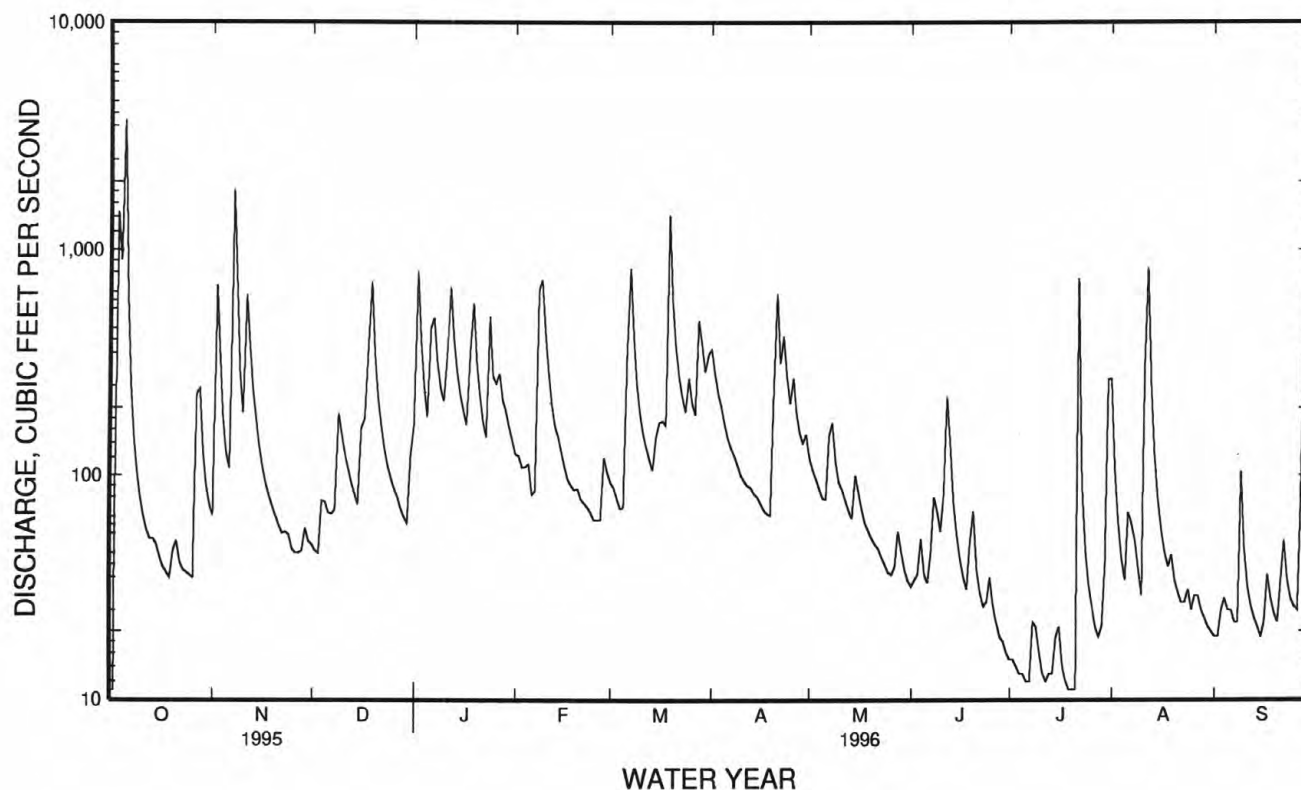
03597210 GARRISON FORK ABOVE L&amp;N RAILROAD AT WARTRACE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	88.8	127	362	262	347	346	190	108	56.3	40.1	35.9	54.8
MAX	285	236	825	335	793	726	503	179	88.1	78.5	92.1	240
(WY)	1996	1996	1991	1990	1991	1994	1994	1993	1991	1994	1996	1992
MIN	7.93	24.8	121	183	106	195	84.1	30.8	19.5	13.9	8.76	9.92
(WY)	1994	1994	1990	1995	1995	1992	1992	1992	1990	1993	1990	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1990 - 1996

ANNUAL TOTAL	48822.7	58836	
ANNUAL MEAN	134	161	167
HIGHEST ANNUAL MEAN			233
LOWEST ANNUAL MEAN			113
HIGHEST DAILY MEAN	3740	3740	7390
LOWEST DAILY MEAN	6.9	11	2.2
ANNUAL SEVEN-DAY MINIMUM	7.2	13	4.8
INSTANTANEOUS PEAK FLOW		7100	9800
INSTANTANEOUS PEAK STAGE		14.45	16.45
INSTANTANEOUS LOW FLOW		9.0	2.2
ANNUAL RUNOFF (CFSM)	1.56	1.88	1.96
ANNUAL RUNOFF (INCHES)	21.24	25.60	26.61
10 PERCENT EXCEEDS	260	350	336
50 PERCENT EXCEEDS	59	79	58
90 PERCENT EXCEEDS	12	22	10



## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 781.66 ft above sea level.

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1045	*3,190	*10.84	Sept. 28	0145	2,670	10.08

Minimum discharge, 0.48 ft<sup>3</sup>/s, July 5, 7, 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	16	16	98	36	34	123	39	4.4	.86	69	5.8
2	.85	309	14	585	35	29	84	31	4.7	.78	23	5.1
3	588	91	13	138	41	24	65	27	5.2	.69	14	8.2
4	372	44	23	79	31	20	58	23	5.1	.62	8.5	11
5	1700	29	23	58	25	21	48	21	4.6	.55	6.0	7.1
6	164	25	20	312	22	255	39	22	4.3	.55	5.5	6.1
7	58	1090	20	197	26	459	34	105	5.1	.54	9.5	11
8	33	207	21	107	546	125	31	83	12	.83	5.2	16
9	22	89	83	84	344	75	28	42	15	1.3	5.3	213
10	16	56	50	82	131	56	24	30	9.9	1.3	3.8	42
11	12	426	36	271	82	45	22	30	25	.95	423	26
12	9.9	127	31	462	56	38	21	25	25	.92	837	18
13	8.3	73	27	145	43	33	20	20	14	1.5	105	13
14	8.1	54	23	95	38	28	19	18	7.3	1.4	43	10
15	7.7	39	21	70	32	70	17	50	4.9	1.7	25	8.3
16	5.9	31	67	58	27	108	16	30	3.7	2.2	18	14
17	4.8	26	56	49	24	78	14	22	3.0	1.4	14	20
18	4.3	22	230	215	22	73	14	17	2.4	.89	75	12
19	3.9	20	463	244	21	1050	13	15	2.1	.72	51	8.7
20	6.3	18	126	90	22	209	174	12	2.4	.57	19	7.1
21	8.3	16	75	67	20	118	372	11	2.0	.58	13	22
22	5.4	14	55	51	19	81	97	9.6	1.6	48	9.5	25
23	4.9	15	43	43	18	61	473	8.2	1.3	12	7.4	15
24	5.8	16	34	295	16	49	117	7.2	4.4	5.5	7.2	11
25	6.5	13	29	88	15	141	72	6.2	8.9	3.5	23	9.2
26	6.0	12	25	103	15	72	146	5.5	3.2	2.5	60	7.9
27	138	12	22	138	15	56	67	5.9	2.1	1.7	38	246
28	96	12	20	78	76	298	49	9.9	1.6	1.4	18	682
29	38	19	18	61	42	132	44	7.7	1.2	1.4	12	92
30	24	17	17	50	---	88	63	5.8	1.0	5.4	8.6	46
31	19	---	83	43	---	159	---	4.9	---	140	7.1	---
TOTAL	3377.89	2938	1784	4456	1840	4085	2364	743.9	187.4	242.25	1963.6	1618.5
MEAN	109	97.9	57.5	144	63.4	132	78.8	24.0	6.25	7.81	63.3	53.9
MAX	1700	1090	463	585	546	1050	473	105	25	140	837	682
MIN	.85	12	13	43	15	20	13	4.9	1.0	.54	3.8	5.1
CFSM	3.05	2.74	1.61	4.03	1.78	3.69	2.21	.67	.17	.22	1.77	1.51
IN.	3.52	3.06	1.86	4.64	1.92	4.26	2.46	.78	.20	.25	2.05	1.69

## TENNESSEE RIVER BASIN

03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

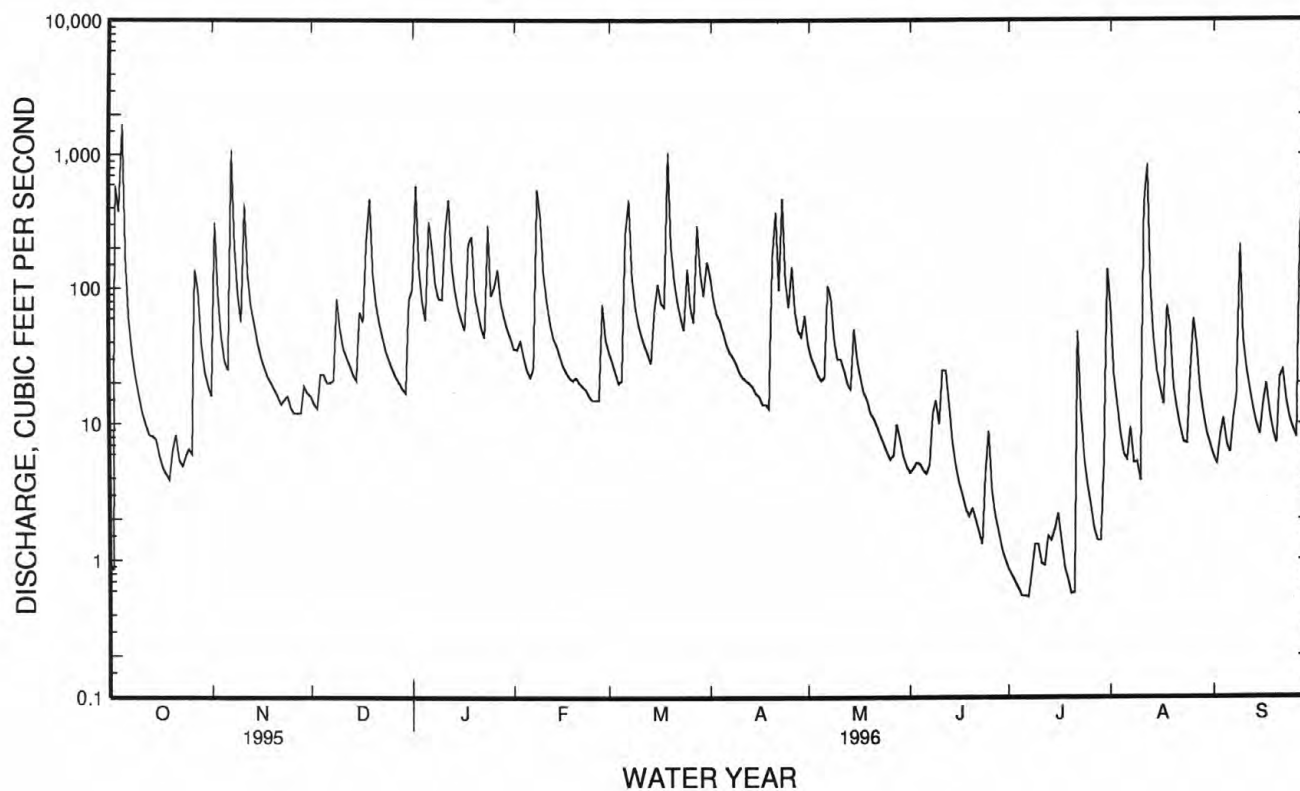
MEAN	36.5	58.4	162	117	143	145	74.4	33.2	10.3	10.7	24.2	34.0
MAX	109	110	350	147	326	311	207	62.2	19.4	23.7	79.5	167
(WY)	1996	1993	1991	1990	1991	1994	1994	1991	1993	1992	1992	1992
MIN	.065	2.93	55.4	84.5	43.3	78.8	20.4	2.23	1.57	1.73	.012	.18
(WY)	1994	1994	1990	1995	1995	1992	1992	1992	1990	1995	1991	1993

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1989 - 1996

ANNUAL TOTAL	19299.65	25600.54	
ANNUAL MEAN	52.9	69.9	70.5
HIGHEST ANNUAL MEAN			97.2
LOWEST ANNUAL MEAN			46.8
HIGHEST DAILY MEAN	1700	1700	4000
LOWEST DAILY MEAN	.04	.54	a.00
ANNUAL SEVEN-DAY MINIMUM	.08	.65	.00
INSTANTANEOUS PEAK FLOW		3190	8690
INSTANTANEOUS PEAK STAGE		10.84	15.12
INSTANTANEOUS LOW FLOW		b.48	a.00
ANNUAL RUNOFF (CFSM)	1.48	1.96	1.97
ANNUAL RUNOFF (INCHES)	20.11	26.68	26.81
10 PERCENT EXCEEDS	90	142	126
50 PERCENT EXCEEDS	15	22	17
90 PERCENT EXCEEDS	.75	2.5	.31

a No flow many days most years.

b Also occurred July 7, 20, 21.



## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year, discharge for gage height of 12.00 ft and below only. Continuous stage records were collected by Tennessee Valley Authority from December 1981 to September 1991.

GAGE.--Data collection platform. Datum of gage is 680.00 ft above sea level. Prior to Oct. 10, 1991 at datum 10.00 ft higher.

REMARKS.--Records good. Flow regulated by Normandy Reservoir (station 03596460) since January 1976.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 33.13 ft, Mar. 28, 1994; minimum discharge, 129 ft<sup>3</sup>/s, May 20, 1992; minimum daily discharge, 131 ft<sup>3</sup>/s, May 20, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 22.96 ft, Oct. 5; minimum discharge, 157 ft<sup>3</sup>/s, May 22 minimum daily discharge, 166 ft<sup>3</sup>/s, May 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	311	441	---	---	285	---	677	186	180	---	177
2	179	---	430	---	---	260	---	621	191	183	429	176
3	---	---	426	---	594	238	---	586	232	191	308	186
4	---	---	448	---	545	211	---	559	209	178	259	200
5	---	---	467	---	514	205	502	534	178	176	234	188
6	---	---	438	---	516	---	417	555	168	174	304	179
7	---	---	274	---	502	---	372	---	178	183	---	179
8	---	---	272	---	---	---	339	---	291	214	266	207
9	661	---	545	---	---	---	317	---	283	208	303	---
10	572	---	507	---	---	---	287	635	246	186	219	340
11	524	---	424	---	---	---	268	595	195	178	---	243
12	485	---	448	---	---	---	249	574	---	178	---	209
13	462	---	420	---	---	---	245	532	---	181	---	192
14	455	---	396	---	---	---	241	486	417	188	600	185
15	443	---	383	---	---	---	222	376	343	200	451	180
16	429	---	634	---	---	---	213	348	307	191	384	178
17	408	---	613	---	---	---	200	258	280	190	343	218
18	240	---	---	---	---	---	192	220	200	197	320	201
19	230	---	---	---	749	---	189	197	235	190	399	188
20	249	---	---	---	752	---	---	183	415	193	252	173
21	262	---	---	---	689	---	---	168	236	221	215	230
22	244	---	---	---	500	---	---	166	206	---	207	290
23	231	470	---	---	461	---	---	192	190	420	227	239
24	228	460	---	---	263	---	---	191	183	234	212	214
25	224	442	---	---	237	---	---	188	199	181	187	205
26	223	432	753	---	227	---	---	179	189	207	311	180
27	---	428	694	---	229	---	---	185	176	208	258	---
28	---	434	494	---	379	---	733	234	170	206	207	---
29	556	462	451	---	373	---	686	446	182	204	189	---
30	425	449	308	---	---	---	---	417	186	235	181	440
31	351	---	367	---	---	---	---	203	---	---	181	---
TOTAL	8262	3888	10633	---	7530	1199	5672	10505	6471	5875	7446	5597
MEAN	359	432	462	---	471	240	334	375	231	203	286	215
MAX	661	470	753	---	752	285	733	677	417	420	600	440
MIN	179	311	272	---	227	205	189	166	168	174	181	173

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.9°C, July 13, 14, 1995, May 25, 1996; minimum, 0.1°C, Feb. 4, 5, 6, 1996.

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, 26.9°C, May 25; minimum, 0.1°C, Feb. 4, 5, 6.

DISSOLVED OXYGEN: Maximum, 13.8 mg/L, Dec. 11, 12; minimum, 6.5 mg/L, July 3.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	15.6	13.8	14.7	8.8	7.6	8.2	7.3	5.3	6.4
2	22.0	19.4	20.5	17.5	15.6	16.7	9.2	8.6	8.9	10.2	7.3	9.0
3	---	---	---	17.3	14.0	16.1	10.4	9.2	9.5	10.2	7.5	9.2
4	---	---	---	14.0	13.4	13.7	11.0	10.4	10.6	7.5	6.3	6.6
5	---	---	---	13.8	13.0	13.3	10.8	10.0	10.3	7.1	6.3	6.6
6	---	---	---	13.8	13.4	13.6	10.2	9.4	9.8	---	---	---
7	---	---	---	14.0	12.8	13.5	9.4	8.0	8.8	4.9	4.5	4.6
8	---	---	---	13.6	13.0	13.3	8.0	6.7	7.3	4.9	4.5	4.6
9	---	---	---	13.4	12.2	12.7	6.7	5.9	6.4	5.2	4.0	4.5
10	18.8	17.4	18.1	13.8	12.8	13.3	---	---	---	6.2	5.2	5.8
11	19.0	18.2	18.7	14.2	11.9	13.4	---	---	---	6.2	5.6	5.9
12	19.2	18.6	19.0	11.9	11.2	11.6	---	---	---	6.3	5.3	5.8
13	20.0	19.2	19.5	12.3	11.6	12.0	---	---	---	7.0	6.2	6.5
14	20.0	19.0	19.6	12.5	11.2	11.9	9.2	7.1	8.2	7.2	6.6	6.9
15	19.0	16.9	17.9	11.2	10.4	10.7	11.2	9.2	10.4	7.4	6.9	7.1
16	17.1	16.3	16.6	11.2	10.8	11.0	11.6	11.2	11.4	7.9	7.2	7.5
17	17.1	16.5	16.7	11.8	10.8	11.2	11.2	10.0	10.5	8.1	7.9	8.1
18	17.8	16.7	17.1	11.9	11.4	11.7	10.7	9.8	10.1	8.6	8.1	8.5
19	18.4	16.5	17.3	11.9	11.4	11.7	11.5	10.7	11.3	8.6	5.3	7.2
20	17.8	16.9	17.3	11.9	11.2	11.5	11.3	8.1	9.6	5.5	4.5	5.0
21	16.9	15.5	16.5	11.9	10.8	11.6	8.1	6.8	7.3	6.3	5.5	6.0
22	15.7	14.5	15.1	10.8	9.8	10.0	6.8	6.6	6.6	6.3	5.7	5.9
23	15.5	13.9	14.7	10.0	9.8	9.9	6.6	6.4	6.4	6.9	6.1	6.5
24	16.7	14.9	15.6	9.8	9.4	9.5	6.4	5.8	6.1	8.6	6.9	7.9
25	16.7	15.5	16.0	9.4	8.4	8.8	5.8	5.4	5.5	7.4	5.7	6.2
26	15.9	14.6	15.2	9.2	8.2	8.6	5.6	5.2	5.4	6.7	5.9	6.2
27	15.0	14.2	14.5	10.6	9.2	9.8	5.4	5.0	5.2	7.0	6.2	6.7
28	15.0	14.2	14.5	11.0	10.6	10.8	5.0	4.2	4.7	6.2	5.2	5.6
29	14.4	13.2	13.7	10.6	8.4	9.6	4.2	3.8	4.0	6.2	5.6	5.9
30	13.2	12.6	12.9	8.4	7.4	7.9	4.3	3.9	4.1	6.7	6.2	6.4
31	13.8	12.8	13.3	---	---	---	5.3	4.1	4.7	6.5	4.5	5.6
MONTH	22.0	12.6	16.5	17.5	7.4	11.8	11.6	3.8	7.8	10.2	4.0	6.5



TENNESSEE RIVER BASIN  
03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4.5	3.3	4.1	10.1	8.3	9.3	12.0	10.2	11.2	15.1	14.0	14.6
2	3.3	.9	1.9	8.9	8.0	8.4	11.2	9.4	10.2	16.2	14.6	15.4
3	.9	.5	.6	8.6	7.7	8.1	12.5	10.8	11.5	17.0	15.4	16.2
4	.5	.1	.2	8.8	7.3	8.0	12.7	12.0	12.4	18.0	16.4	17.1
5	.1	.1	.1	9.6	8.0	8.6	12.3	11.4	11.8	18.8	17.6	18.1
6	1.8	.1	.6	12.5	9.6	10.9	11.4	10.4	10.6	19.0	17.6	18.4
7	3.3	1.8	2.7	12.5	7.6	10.2	10.8	10.2	10.5	17.6	16.1	16.4
8	4.3	3.3	3.8	7.6	5.7	6.4	11.0	10.4	10.7	18.1	16.0	17.1
9	8.1	3.6	6.1	6.3	5.1	5.7	11.0	10.2	10.5	18.8	17.9	18.4
10	8.1	7.2	7.5	7.1	5.9	6.4	11.8	10.0	10.9	19.4	18.0	18.7
11	8.5	7.5	8.1	7.4	6.9	7.1	13.5	10.8	12.1	19.2	17.2	18.3
12	7.9	5.6	6.5	8.2	7.4	7.7	15.1	12.0	13.6	17.2	15.7	16.1
13	5.6	4.6	5.0	9.3	8.2	8.7	16.4	14.3	15.3	16.1	14.1	15.6
14	6.1	5.1	5.7	9.7	9.3	9.6	17.7	15.6	16.5	15.3	14.1	14.8
15	6.5	5.9	6.2	14.0	9.5	11.3	17.5	16.4	16.8	17.2	15.3	16.3
16	5.9	4.1	5.0	14.2	13.6	13.9	17.1	16.0	16.6	20.0	17.2	18.8
17	4.1	3.3	3.6	13.6	13.0	13.4	17.9	15.2	16.3	22.6	19.2	20.6
18	4.5	3.9	4.2	13.0	12.3	12.7	17.5	15.4	16.5	24.6	20.7	22.4
19	5.6	4.4	4.8	12.6	8.1	9.6	18.0	16.7	17.2	26.2	22.4	24.0
20	7.0	5.6	6.5	8.1	7.5	7.8	18.0	17.0	17.5	26.6	23.6	25.0
21	7.1	6.7	6.9	8.3	7.4	7.8	17.0	15.3	15.9	26.2	24.4	25.2
22	8.7	7.1	7.6	9.0	7.7	8.4	16.7	15.3	15.8	25.4	24.6	25.0
23	9.9	8.7	9.2	9.6	8.2	8.9	16.9	14.9	16.0	26.2	23.8	24.8
24	11.1	9.9	10.5	11.2	9.4	10.0	14.9	12.9	13.7	26.4	23.6	24.8
25	12.6	10.3	11.3	12.3	11.2	11.5	15.3	13.9	14.4	26.9	24.2	25.4
26	13.1	11.4	12.2	12.3	10.0	10.7	16.5	15.3	15.9	26.3	24.9	25.6
27	13.7	12.4	13.0	10.0	9.0	9.4	16.2	14.3	15.1	26.7	24.9	25.4
28	13.9	12.6	13.4	10.4	9.4	9.8	15.4	13.9	14.5	25.9	24.3	24.9
29	12.6	10.1	11.3	10.8	10.4	10.5	16.8	15.4	16.1	24.3	22.0	23.6
30	---	---	---	12.5	10.8	11.4	16.9	15.1	15.8	22.0	19.2	20.2
31	---	---	---	12.5	11.8	12.1	---	---	---	21.0	18.8	19.6
MONTH	13.9	.1	6.2	14.2	5.1	9.5	18.0	9.4	14.1	26.9	14.0	20.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.8	19.0	19.9	26.4	25.0	25.5	23.0	20.5	21.4	24.3	22.9	23.5
2	20.7	20.2	20.5	26.5	25.0	25.4	25.2	22.4	23.4	23.5	22.9	23.2
3	21.1	19.9	20.4	25.1	24.3	24.8	25.4	24.2	24.7	23.1	22.3	22.8
4	21.1	19.3	20.2	24.9	23.3	24.1	25.1	23.9	24.6	22.5	21.8	22.1
5	22.3	20.1	20.9	24.3	21.4	23.1	25.1	24.3	24.6	22.1	21.6	21.8
6	22.9	20.9	21.6	---	---	---	25.1	23.9	24.6	22.9	21.4	22.2
7	22.3	21.2	21.8	24.5	23.1	23.7	25.5	23.5	24.3	24.0	22.2	23.0
8	22.1	21.2	21.8	23.7	22.9	23.3	25.7	23.3	24.3	23.8	22.8	23.3
9	21.2	20.0	20.6	22.9	22.0	22.5	24.7	23.9	24.6	24.2	22.8	23.3
10	21.6	19.6	20.4	23.1	21.6	22.2	24.9	23.3	24.1	23.2	22.3	22.8
11	21.6	20.0	20.6	23.1	22.1	22.6	24.1	22.9	23.7	23.3	22.5	22.9
12	21.4	20.2	20.8	22.7	22.0	22.3	22.9	21.4	22.0	23.4	22.1	22.8
13	21.2	20.4	20.8	23.1	21.6	22.3	21.8	21.0	21.3	22.8	21.9	22.2
14	22.1	20.6	21.4	24.3	22.1	23.0	21.6	21.0	21.3	22.1	20.7	21.3
15	22.7	22.0	22.4	24.1	22.7	23.4	22.0	21.4	21.7	20.7	19.9	20.2
16	23.3	22.0	22.6	24.7	22.9	23.7	22.8	22.0	22.2	20.3	19.7	20.0
17	24.1	22.3	23.1	25.7	23.3	24.4	23.5	22.2	22.8	20.2	19.8	20.0
18	25.3	22.5	23.6	---	---	---	23.7	22.6	23.0	20.0	19.4	19.8
19	25.6	23.1	24.1	26.7	24.7	25.5	23.3	22.8	23.1	20.2	19.0	19.6
20	24.4	23.4	24.0	25.7	25.1	25.3	24.5	22.8	23.7	20.2	19.0	19.5
21	24.8	23.2	23.8	25.5	24.7	25.1	25.3	23.5	24.4	19.5	19.1	19.3
22	26.0	23.4	24.6	---	---	---	25.9	24.1	25.0	19.5	18.5	19.0
23	26.0	24.2	25.1	---	---	---	25.7	24.7	25.1	20.0	18.3	19.1
24	26.8	24.8	25.6	---	---	---	25.0	24.2	24.6	20.6	18.8	19.6
25	26.0	25.0	25.5	26.3	24.3	24.7	25.4	24.0	24.7	21.3	19.5	20.3
26	26.0	24.8	25.4	26.2	23.7	24.7	25.4	24.0	24.6	21.5	20.3	20.8
27	25.6	24.2	24.9	25.2	23.5	24.2	24.0	23.2	23.6	21.5	20.7	21.1
28	25.6	24.0	24.8	23.5	22.1	22.7	23.8	22.8	23.3	21.3	19.2	20.5
29	26.4	24.2	25.2	22.7	21.5	21.8	24.2	23.2	23.7	19.2	17.6	18.0
30	26.4	24.6	25.5	22.7	21.0	21.8	24.0	23.2	23.6	17.6	17.0	17.3
31	---	---	---	21.8	21.2	21.5	24.3	23.1	23.6	---	---	---
MONTH	26.8	19.0	22.7	26.7	21.0	23.6	25.9	20.5	23.6	24.3	17.0	21.0

TENNESSEE RIVER BASIN  
03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.6	8.9	9.2	9.6	9.1	9.4	12.5	11.9	12.3	12.7	11.7	12.2
2	9.7	8.7	9.3	9.2	7.5	8.4	12.3	12.0	12.1	11.8	10.1	11.0
3	9.5	7.1	8.3	9.4	7.7	8.6	12.3	11.8	12.1	12.0	10.1	11.0
4	8.2	6.8	7.3	9.6	8.2	9.1	12.0	11.5	11.8	12.2	10.2	11.3
5	7.6	6.9	7.3	9.7	9.4	9.6	12.0	11.5	11.8	12.1	11.1	11.6
6	8.1	7.1	7.6	9.7	9.4	9.6	12.0	11.7	11.8	11.3	10.6	11.0
7	8.7	7.7	8.2	9.6	8.9	9.2	12.1	11.7	11.9	11.2	10.4	10.9
8	9.3	7.9	8.6	9.5	8.9	9.2	12.6	11.9	12.3	11.1	9.5	10.1
9	9.3	8.6	9.0	9.7	9.0	9.4	13.0	12.4	12.8	10.3	9.0	9.6
10	9.6	8.9	9.3	9.8	8.9	9.5	13.4	12.8	13.1	10.6	9.5	10.0
11	9.4	8.4	9.0	9.8	9.4	9.6	13.8	13.3	13.6	11.0	9.9	10.6
12	9.0	8.4	8.7	10.1	9.6	9.9	13.8	13.0	13.5	11.4	10.7	11.2
13	8.6	8.0	8.3	10.1	9.7	9.9	13.2	12.5	12.9	11.4	10.7	11.0
14	8.7	8.0	8.4	10.3	9.8	10.1	12.8	12.0	12.5	10.9	10.4	10.7
15	9.3	7.8	8.4	10.7	10.2	10.5	12.1	11.5	11.9	10.5	9.7	10.0
16	9.8	9.2	9.5	10.8	10.4	10.6	12.0	11.5	11.7	10.3	9.8	10.0
17	9.9	8.9	9.5	10.8	10.5	10.7	12.0	11.4	11.7	10.8	10.1	10.4
18	9.6	8.8	9.4	10.8	10.4	10.6	12.1	11.4	11.9	11.1	10.4	10.7
19	9.4	8.4	8.7	10.9	10.4	10.7	11.4	10.4	10.8	12.0	10.4	11.3
20	9.6	8.5	8.8	10.9	10.5	10.7	12.1	10.9	11.5	12.4	12.0	12.1
21	10.2	8.6	9.4	11.1	10.7	10.9	12.6	11.9	12.4	12.2	11.9	12.0
22	10.6	9.3	10.1	11.4	10.9	11.1	12.7	12.3	12.6	12.5	12.0	12.2
23	10.2	9.1	9.6	11.5	11.2	11.3	12.9	12.5	12.7	12.3	11.8	12.0
24	9.6	8.0	8.8	11.6	11.1	11.4	12.9	12.4	12.8	11.9	10.6	11.1
25	10.4	8.0	9.1	11.9	11.4	11.7	13.1	12.7	12.9	12.1	11.1	11.7
26	10.3	9.2	9.7	11.9	11.5	11.7	13.1	12.7	12.9	12.0	11.6	11.8
27	9.8	9.0	9.4	11.6	10.9	11.3	13.1	12.7	12.9	12.0	11.3	11.6
28	9.5	8.8	9.1	11.4	10.9	11.2	13.1	12.7	12.9	12.5	11.8	12.2
29	10.0	9.5	9.7	12.1	11.3	11.8	13.4	12.5	13.0	12.3	11.9	12.0
30	10.2	9.8	10.0	12.4	12.0	12.2	13.3	12.2	12.8	12.1	11.7	11.9
31	10.0	9.4	9.8	---	---	---	13.0	12.2	12.6	12.4	11.8	12.0
MONTH	10.6	6.8	9.0	12.4	7.5	10.3	13.8	10.4	12.4	12.7	9.0	11.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	12.4	12.0	12.2	11.1	10.5	10.9	11.4	10.1	10.8	10.4	9.8	10.0
2	13.2	12.2	12.6	11.6	10.8	11.3	11.8	10.7	11.4	---	---	---
3	13.4	13.0	13.2	12.0	11.3	11.6	11.6	10.4	11.0	---	---	---
4	13.5	13.3	13.4	12.2	11.5	11.8	11.2	10.3	10.8	---	---	---
5	13.5	13.1	13.3	11.8	11.3	11.5	11.3	10.3	10.9	---	---	---
6	13.3	12.9	13.1	11.3	10.0	10.7	11.9	10.8	11.3	8.7	8.4	8.6
7	12.9	12.4	12.6	11.3	10.0	10.5	12.0	10.9	11.4	8.8	8.6	8.7
8	12.5	11.5	12.2	12.4	11.3	11.9	11.8	11.0	11.3	---	---	---
9	11.6	10.5	10.9	12.7	12.2	12.5	11.9	10.6	11.3	---	---	---
10	11.1	10.4	10.8	12.7	12.2	12.4	12.0	10.9	11.5	10.9	10.0	10.4
11	11.1	10.7	10.9	12.6	12.1	12.3	11.7	10.4	11.0	10.9	10.2	10.5
12	11.9	11.1	11.4	12.3	11.6	11.9	11.7	10.3	11.0	11.1	10.0	10.5
13	12.3	11.8	12.0	12.0	11.4	11.7	11.4	10.1	10.9	11.1	10.3	10.6
14	12.0	11.3	11.6	11.6	10.9	11.2	10.5	8.9	9.7	10.8	10.2	10.5
15	11.7	11.1	11.4	10.9	9.4	10.4	10.1	8.5	9.1	11.2	10.4	10.8
16	12.0	11.4	11.7	9.6	9.1	9.3	10.2	8.6	9.2	10.4	9.7	10.1
17	12.6	11.9	12.2	9.8	9.3	9.5	9.5	8.8	9.2	10.2	9.8	10.0
18	12.4	12.0	12.2	10.3	9.4	9.8	10.0	8.9	9.2	10.2	9.6	9.9
19	12.1	11.4	11.6	10.3	9.0	9.6	9.7	8.6	9.3	9.9	8.9	9.5
20	11.5	11.0	11.2	10.9	9.4	10.4	10.0	9.3	9.6	9.3	8.3	9.0
21	11.5	11.0	11.3	10.9	10.4	10.7	9.9	9.3	9.6	9.4	8.1	8.7
22	11.5	10.7	11.1	11.2	10.4	10.8	9.9	9.0	9.7	8.9	8.0	8.6
23	11.0	10.5	10.8	11.4	10.7	11.1	10.0	9.4	9.7	9.4	8.4	8.9
24	10.8	10.3	10.5	11.2	10.4	10.8	10.9	9.8	10.5	9.5	8.6	9.2
25	10.5	9.9	10.2	10.8	9.8	10.4	10.9	10.5	10.7	9.6	8.2	9.2
26	10.3	9.8	10.0	11.3	9.8	10.7	11.2	10.2	10.6	9.2	8.2	8.7
27	10.1	9.7	9.9	11.4	10.7	11.2	11.9	10.0	10.9	8.9	7.8	8.3
28	10.1	9.5	9.8	11.4	10.3	10.8	---	---	---	10.1	8.0	9.0
29	10.6	10.1	10.4	11.0	10.2	10.6	11.0	10.4	10.6	10.4	9.4	9.9
30	---	---	---	11.1	10.3	10.8	11.0	10.1	10.5	10.9	10.2	10.6
31	---	---	---	10.8	10.3	10.7	---	---	---	10.9	9.9	10.6
MONTH	13.5	9.5	11.5	12.7	9.0	11.0	12.0	8.5	10.4	11.2	7.8	9.6

TENNESSEE RIVER BASIN  
03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.9	10.0	10.5	---	---	---	8.6	8.0	8.4	8.0	7.7	7.9
2	10.5	8.8	9.8	7.5	6.9	7.3	8.6	8.4	8.5	7.9	7.7	7.8
3	10.7	9.1	10.2	7.4	6.5	7.0	8.5	8.3	8.4	8.0	7.8	7.9
4	10.0	9.2	9.6	7.5	6.6	7.2	8.4	8.0	8.2	8.1	7.8	8.0
5	10.1	9.1	9.6	8.1	7.2	7.6	8.2	7.9	8.1	8.1	8.0	8.1
6	9.4	8.8	9.2	8.6	7.2	8.0	8.6	7.9	8.2	8.7	8.0	8.2
7	9.0	7.9	8.5	8.6	7.6	8.4	8.5	7.8	8.2	---	---	---
8	9.1	8.5	8.8	8.3	7.0	7.6	8.4	7.9	8.0	---	---	---
9	9.2	8.2	8.9	8.2	7.3	7.9	8.3	8.0	8.1	---	---	---
10	9.3	8.6	9.1	8.6	7.5	8.1	8.2	7.4	7.8	8.0	7.4	7.7
11	9.3	9.0	9.1	8.1	7.8	7.9	8.4	7.6	8.1	7.7	7.3	7.5
12	9.3	8.9	9.1	8.3	7.4	8.0	8.3	7.0	7.6	8.1	7.5	7.9
13	9.1	8.6	8.9	8.2	7.7	8.0	8.9	8.2	8.7	8.3	7.6	8.0
14	9.1	8.4	8.8	8.0	7.3	7.8	9.2	8.9	9.0	8.7	8.0	8.3
15	8.8	8.3	8.6	7.8	7.2	7.6	9.1	8.3	8.9	8.8	8.5	8.6
16	8.7	8.1	8.5	7.9	7.4	7.6	8.8	8.2	8.6	8.8	8.4	8.6
17	8.6	8.1	8.4	7.8	7.3	7.6	8.9	8.3	8.5	8.8	8.5	8.7
18	8.3	7.4	7.9	7.7	7.2	7.4	---	---	---	8.8	8.3	8.6
19	8.3	6.9	7.7	7.4	6.6	7.1	---	---	---	8.8	8.2	8.6
20	8.3	7.7	8.1	7.4	6.7	7.1	8.2	7.6	8.0	8.8	8.0	8.5
21	8.2	7.5	7.9	7.2	6.9	7.0	8.0	7.6	7.9	9.0	8.0	8.5
22	7.9	7.3	7.6	7.4	6.6	7.0	8.1	7.7	7.9	9.0	8.5	8.8
23	7.8	7.1	7.6	7.3	6.9	7.1	8.1	7.7	7.9	9.1	8.1	8.6
24	7.9	7.3	7.5	7.2	6.6	7.0	8.1	7.2	7.7	8.9	8.0	8.6
25	7.7	7.1	7.5	7.3	6.6	7.0	8.0	7.6	7.8	9.2	8.8	9.0
26	7.8	6.9	7.5	7.4	6.9	7.1	8.3	7.9	8.1	9.6	9.1	9.4
27	7.9	7.2	7.7	---	---	---	8.4	7.8	8.2	9.8	9.3	9.5
28	7.7	6.9	7.2	---	---	---	8.2	7.8	8.0	---	---	---
29	7.4	6.6	7.1	---	---	---	8.2	7.7	7.9	---	---	---
30	8.3	6.7	7.6	7.8	7.6	7.7	8.1	7.7	7.9	9.4	9.0	9.3
31	---	---	---	8.2	7.6	7.9	8.1	7.8	7.9	---	---	---
MONTH	10.9	6.6	8.5	8.6	6.5	7.5	9.2	7.0	8.2	9.8	7.3	8.4

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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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1934. WSP 853: Drainage area.

GAGE.--Data collection platform. Datum of gage is 683.51 ft above sea level. Prior to Sept. 2, 1966, at datum 2.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge prior to regulation, 62,900 ft<sup>3</sup>/s, Feb. 13, 1948, gage height, 38.40 ft, present datum, from floodmarks, from rating curve extended above 35,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow. Prior to 1948, diurnal fluctuation caused by powerplant upstream. Flow regulated by Normandy Reservoir (station 03596460) since January 1976. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft present datum, discharge, about 70,000 ft<sup>3</sup>/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, 13,100 ft<sup>3</sup>/s, at 1730 hours Oct. 5, gage height 21.64 ft; minimum, 195 ft<sup>3</sup>/s, Oct. 2, 3; minimum daily, 200 ft<sup>3</sup>/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	406	497	823	1150	409	2460	769	243	227	1050	219
2	200	3360	484	3210	1090	377	1890	697	247	227	518	217
3	2660	2280	478	2160	662	347	1630	655	282	235	371	228
4	5010	2050	497	1720	627	311	1350	626	259	222	311	243
5	9800	1710	518	1390	591	303	634	600	233	218	283	231
6	5140	1560	502	2260	560	1490	540	690	217	215	379	220
7	1660	5790	341	3480	552	4020	492	1020	223	217	362	217
8	1040	5200	329	2280	1610	2730	451	1370	339	282	300	254
9	813	3000	610	1970	3300	1850	422	875	348	263	392	424
10	692	2420	595	1780	2360	1480	388	726	308	234	277	438
11	628	3810	501	1920	1760	1280	364	669	260	222	282	296
12	583	3350	516	4100	1360	1170	343	639	548	220	3590	253
13	555	2570	490	2700	1150	1090	339	592	1780	224	1530	231
14	546	2230	461	2090	1060	972	336	560	551	232	710	221
15	530	1950	441	1740	979	1010	311	510	440	250	530	215
16	508	1760	725	1540	904	1090	299	474	383	238	446	222
17	488	1610	713	1410	844	1010	283	354	350	228	397	276
18	331	1500	1000	1440	817	781	273	299	271	221	368	254
19	298	1390	3440	3210	793	6100	268	269	274	215	458	234
20	312	1240	2130	2060	803	3460	601	251	500	216	314	214
21	331	912	1480	1680	754	2450	2120	237	307	262	267	279
22	307	844	1200	1430	563	1910	1380	236	267	1330	255	356
23	290	541	1050	1290	544	1620	2240	251	248	570	264	294
24	286	522	946	2780	358	1430	1630	252	238	314	279	260
25	278	503	875	1990	320	1870	1220	245	246	243	234	247
26	275	492	824	1750	310	1640	1280	240	240	252	341	223
27	844	486	767	2070	311	1410	1040	247	226	256	300	514
28	1430	492	556	1680	497	2670	842	293	219	251	253	2670
29	708	521	518	1510	506	2420	775	478	226	249	232	998
30	534	508	381	1360	---	1940	951	466	233	288	223	567
31	450	---	437	1250	---	2040	---	277	---	418	222	---
TOTAL	37731	55007	24302	62073	27135	52680	27152	15867	10506	9039	15738	11515
MEAN	1217	1834	784	2002	936	1699	905	512	350	292	508	384
MAX	9800	5790	3440	4100	3300	6100	2460	1370	1780	1330	3590	2670
MIN	200	406	329	823	310	303	268	236	217	215	222	214
(†)	+3000	-9000	-1200	+100	+1100	+7500	+6800	+100	-400	-400	-400	-700
MEAN‡	1324	1534	745	2006	974	1941	1132	515	337	279	495	360
CFSM†	2.75	3.19	1.55	4.17	2.02	4.04	2.35	1.07	.70	.58	1.03	.75
IN.‡	3.17	3.56	1.79	4.81	2.18	4.65	2.63	1.23	.78	.67	1.19	.84
CAL YR 1995	MEAN†		742	CFMS†	1.54	IN.‡	20.95					
WTR YR 1996	MEAN†		971	CFMS†	2.02	IN.‡	27.49					

† 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

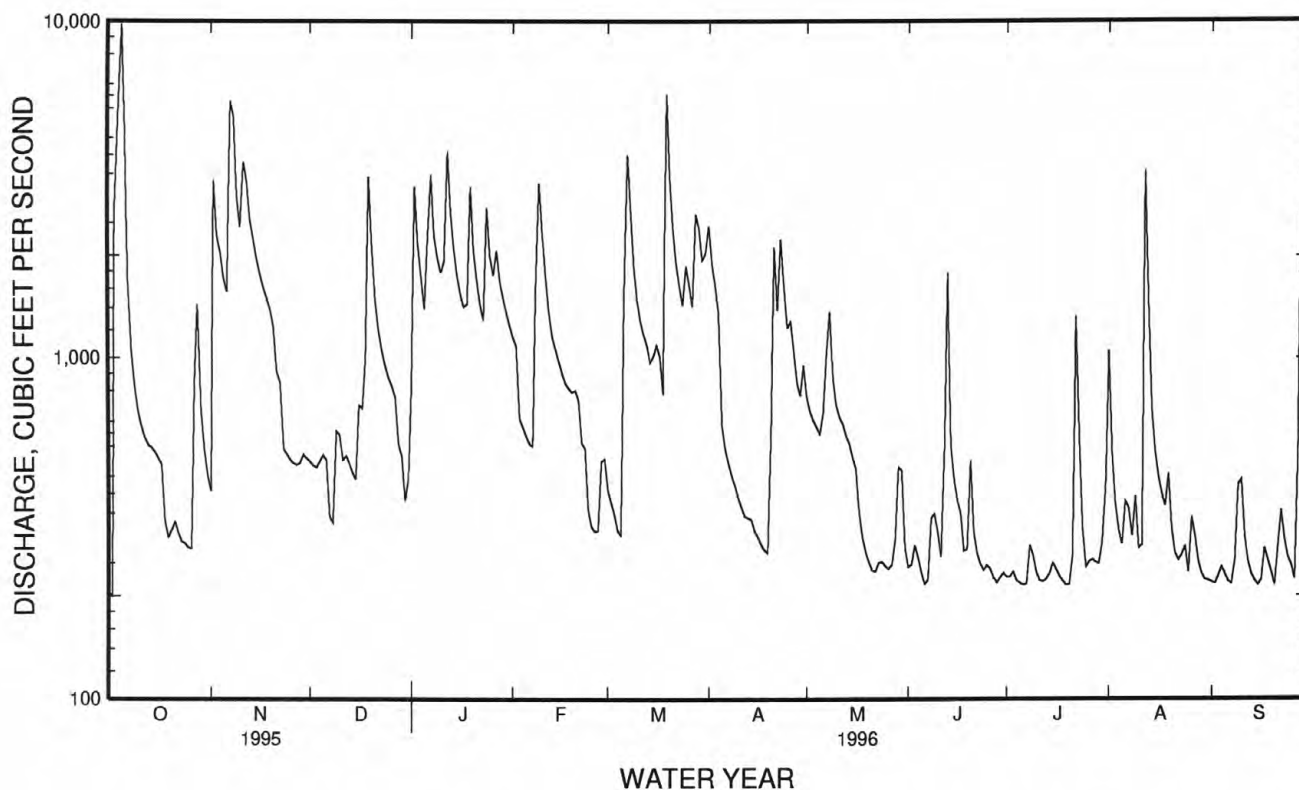
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

MEAN	413	1005	1383	1265	1286	1432	923	734	453	332	273	320
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      \*WATER YEARS 1977 - 1996

ANNUAL TOTAL	270532			348745								
ANNUAL MEAN	741			953						816		
HIGHEST ANNUAL MEAN										1253		1991
LOWEST ANNUAL MEAN										257		1981
HIGHEST DAILY MEAN	9800	Oct	5	9800	Oct	5	21700	Dec	23	1990		
LOWEST DAILY MEAN	188	Sep	8	200	Oct	2	72	Oct	1	1982		
ANNUAL SEVEN-DAY MINIMUM	194	Sep	4	223	Jul	1	88	Sep	25	1982		
INSTANTANEOUS PEAK FLOW				13100	Oct	5	26100	Dec	23	1990		
INSTANTANEOUS PEAK STAGE				21.64	Oct	5	29.88	Dec	23	1990		
INSTANTANEOUS LOW FLOW				a195	Oct	2	71	Sep	30	1982		
10 PERCENT EXCEEDS	1710			2180			2030					
50 PERCENT EXCEEDS	392			517			306					
90 PERCENT EXCEEDS	216			233			169					

\* Regulated period only.  
a Also occurred Oct. 3.



TENNESSEE RIVER BASIN  
03599000 BIG ROCK CREEK AT LEWISBURG, TN

LOCATION.--Lat 35°26'56", long 86°47'09", Marshall County, Hydrologic Unit 06040002, on downstream side of center pier of bridge on U.S. Highway 431, State Highway 50/431, 800 ft east of Marshall County courthouse in Lewisburg, and at mile 17.9.

DRAINAGE AREA.--24.9 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1953 to September 1961, March 1966 to September 1968, July 1995 to September 1996. Occasional measurements, water years, 1902, 1932-33 (published as West Rock Creek) 1945, 1950-52, 1955, 1963-64, 1988, 1990; water years 1962-66, 1969-70, annual maximums. Prior to December 1953 monthly discharges only published in WSP 1726.

GAGE.--Data collection platform. Datum of gage is 699.78 ft (supplement adjustment of 1955) above sea level. Prior to July 1, 1995 at datum 5.00 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.--Flood in July 1939 (discharge, 16,300 ft<sup>3</sup>/s) exceeded all previously known floods, including those in 1902, and 1856, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--July 1995 to September 1996: Peak discharge greater than base discharge of 1500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5, 1995	0645	*6,920	*14.94	Mar. 19, 1996	0145	1,660	9.67
Nov. 2, 1995	0900	1,900	10.00	Sept. 3, 1996	1030	2,240	10.49

Minimum discharge, 0.24 ft<sup>3</sup>/s, Sept. 6, 1995.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR JULY TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	e5.0	e1.3	2.5
2	---	---	---	---	---	---	---	---	---	e3.8	e2.1	1.0
3	---	---	---	---	---	---	---	---	---	e3.5	e.61	.63
4	---	---	---	---	---	---	---	---	---	e20	e2.0	.55
5	---	---	---	---	---	---	---	---	---	e15	7.9	.40
6	---	---	---	---	---	---	---	---	---	e12	43	.31
7	---	---	---	---	---	---	---	---	---	e9.4	28	.31
8	---	---	---	---	---	---	---	---	---	e8.0	47	.34
9	---	---	---	---	---	---	---	---	---	e6.8	34	.33
10	---	---	---	---	---	---	---	---	---	e5.9	18	.40
11	---	---	---	---	---	---	---	---	---	e4.3	12	.51
12	---	---	---	---	---	---	---	---	---	e3.3	9.9	78
13	---	---	---	---	---	---	---	---	---	2.7	7.5	163
14	---	---	---	---	---	---	---	---	---	2.1	6.5	73
15	---	---	---	---	---	---	---	---	---	1.9	5.4	24
16	---	---	---	---	---	---	---	---	---	1.6	4.2	346
17	---	---	---	---	---	---	---	---	---	1.2	3.5	173
18	---	---	---	---	---	---	---	---	---	1.1	2.9	55
19	---	---	---	---	---	---	---	---	---	.93	2.7	28
20	---	---	---	---	---	---	---	---	---	.92	2.6	19
21	---	---	---	---	---	---	---	---	---	.99	2.7	16
22	---	---	---	---	---	---	---	---	---	.87	2.0	14
23	---	---	---	---	---	---	---	---	---	1.4	1.3	13
24	---	---	---	---	---	---	---	---	---	4.8	1.1	12
25	---	---	---	---	---	---	---	---	---	3.8	1.1	9.8
26	---	---	---	---	---	---	---	---	---	2.5	1.1	9.3
27	---	---	---	---	---	---	---	---	---	2.6	.98	8.3
28	---	---	---	---	---	---	---	---	---	3.5	.68	7.2
29	---	---	---	---	---	---	---	---	---	3.5	.61	6.5
30	---	---	---	---	---	---	---	---	---	2.7	.50	5.9
31	---	---	---	---	---	---	---	---	---	e1.8	.49	---
TOTAL	---	---	---	---	---	---	---	---	---	137.91	253.67	1068.28
MEAN	---	---	---	---	---	---	---	---	---	4.45	8.18	35.6
MAX	---	---	---	---	---	---	---	---	---	20	47	346
MIN	---	---	---	---	---	---	---	---	---	.87	.49	.31
CFSM	---	---	---	---	---	---	---	---	---	.18	.33	1.43
IN.	---	---	---	---	---	---	---	---	---	.21	.38	1.60

e Estimated

TENNESSEE RIVER BASIN  
03599000 BIG ROCK CREEK AT LEWISBURG, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	14	12	62	30	26	76	51	3.1	.92	21	7.4
2	5.1	383	12	355	e28	23	59	36	4.0	.83	13	18
3	53	109	12	118	e26	19	47	30	4.5	.84	9.8	540
4	49	52	13	e70	e25	18	36	27	3.6	.72	7.3	121
5	1830	33	14	e200	e24	19	28	27	3.3	.67	5.5	50
6	265	38	13	e690	e22	79	24	25	3.0	.62	5.2	30
7	116	655	13	131	20	163	22	48	3.2	1.5	5.6	22
8	62	207	15	86	238	83	20	40	7.3	4.1	9.4	18
9	38	109	29	68	168	56	19	27	27	4.2	15	15
10	29	67	23	57	105	39	17	21	11	1.7	9.2	14
11	23	216	20	133	74	31	16	47	10	1.2	7.8	13
12	20	107	19	175	51	27	16	26	10	1.2	358	10
13	17	70	18	100	38	24	16	18	7.6	1.2	76	8.8
14	16	50	17	71	33	22	16	16	7.1	1.7	31	7.6
15	14	35	17	52	27	59	15	32	5.9	4.9	20	6.4
16	12	28	55	39	24	64	14	16	4.8	2.3	15	8.3
17	10	25	99	32	22	51	13	12	4.2	1.4	13	8.1
18	9.7	22	280	100	21	97	13	10	3.9	1.0	11	6.2
19	9.2	20	301	106	21	709	13	8.6	3.9	.78	8.9	5.4
20	9.9	18	134	62	23	217	49	7.5	8.8	4.9	7.5	5.0
21	9.0	15	81	47	22	128	95	12	4.5	10	6.1	14
22	8.1	14	55	37	22	93	47	8.8	3.4	9.2	5.2	13
23	7.2	15	39	31	21	67	463	6.3	2.6	74	4.7	9.4
24	6.6	14	30	124	19	45	119	5.4	2.4	13	4.2	7.8
25	6.2	12	25	58	18	175	72	4.6	2.1	10	4.0	6.1
26	6.2	12	22	88	18	82	85	4.2	1.5	7.7	21	5.4
27	41	12	19	87	20	61	42	3.9	1.4	5.0	21	23
28	42	12	17	62	50	94	29	6.2	1.3	5.3	11	40
29	22	13	16	51	30	75	81	4.6	1.1	7.3	8.8	27
30	17	12	15	43	---	60	103	3.9	1.0	17	12	18
31	15	---	64	35	---	88	---	3.3	---	32	11	---
TOTAL	2773.3	2389	1499	3370	1240	2794	1665	588.3	157.5	227.18	758.2	1077.9
MEAN	89.5	79.6	48.4	109	42.8	90.1	55.5	19.0	5.25	7.33	24.5	35.9
MAX	1830	655	301	690	238	709	463	51	27	74	358	540
MIN	5.1	12	12	31	18	18	13	3.3	1.0	.62	4.0	5.0
CFSM	3.59	3.20	1.94	4.37	1.72	3.62	2.23	.76	.21	.29	.98	1.44
IN.	4.14	3.57	2.24	5.03	1.85	4.17	2.49	.88	.24	.34	1.13	1.61

e Estimated

## TENNESSEE RIVER BASIN

03599000 BIG ROCK CREEK AT LEWISBURG, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

MEAN	14.5	36.7	65.3	69.5	80.4	89.3	50.3	42.4	9.65	9.86	8.67	15.1
MAX	89.5	146	106	174	172	234	109	168	41.5	75.3	49.4	74.3
(WY)	1996	1958	1968	1957	1956	1955	1958	1967	1961	1967	1967	1957
MIN	.002	1.16	9.08	24.0	23.3	12.6	11.4	5.65	1.77	.029	.007	.005
(WY)	1956	1955	1959	1967	1968	1966	1967	1956	1956	1954	1954	1955

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1954 - 1996

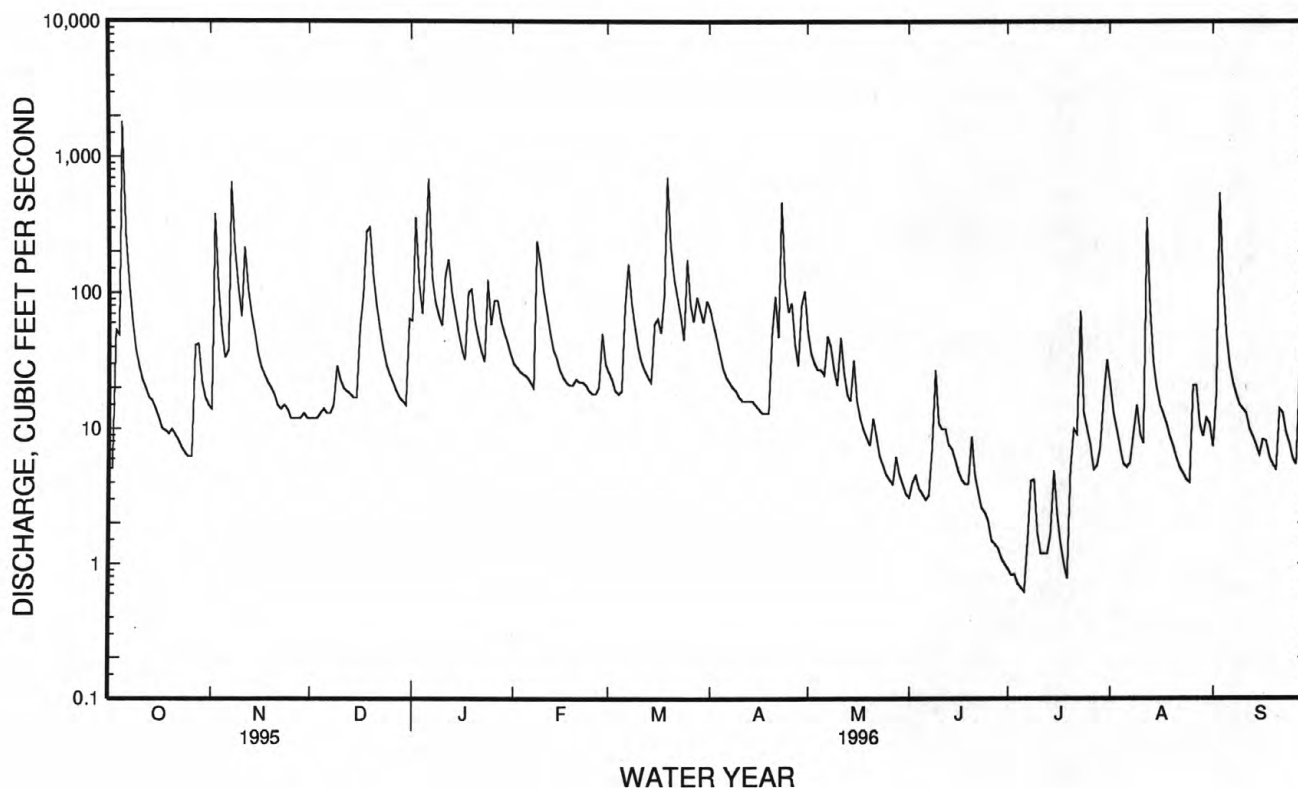
ANNUAL TOTAL	18539.38											
ANNUAL MEAN	50.7											
HIGHEST ANNUAL MEAN												
LOWEST ANNUAL MEAN												
HIGHEST DAILY MEAN	1830	Oct	5									
LOWEST DAILY MEAN	.62	Jul	6									
ANNUAL SEVEN-DAY MINIMUM	.80	Jun	30									
INSTANTANEOUS PEAK FLOW	6920	Oct	5									
INSTANTANEOUS PEAK STAGE	14.94	Oct	5									
INSTANTANEOUS LOW FLOW	d.54	Jul	6									
ANNUAL RUNOFF (CFSM)	2.03											
ANNUAL RUNOFF (INCHES)	27.70											
10 PERCENT EXCEEDS	101											
50 PERCENT EXCEEDS	19											
90 PERCENT EXCEEDS	4.0											

a Occurred at times, 1954-57, 1968.

b From rating curve extended above 2,400 ft<sup>3</sup>/s on basis of contracted opening measurement of peak flow at site 0.6 mi upstream (drainage area 19.0 mi<sup>2</sup>).

c Current datum, from floodmarks.

d Also occurred July 7, 1996.



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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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau. Discharge records furnished by Tennessee Valley Authority, 1983-1991.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Data collection platform. Datum of gage is 535.33 ft above sea level, supplementary adjustment of 1955. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft higher prior to Oct. 1, 1933.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Maximum discharge prior to regulation, 61,500 ft<sup>3</sup>/s, Mar. 17, 1973; maximum gage height, 51.75 ft Feb. 14, 1948; no flow Oct. 22, 1922, caused by regulation by power plant .75 mi upstream. Flow regulated by Normandy Lake (station 03596460) since January 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1902, reached a stage of 48.0 ft, present datum, discharge, 50,700 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,400 ft<sup>3</sup>/s, at 2100 hours Oct. 6, gage height, 30.11 ft; minimum, 177 ft<sup>3</sup>/s, July 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	1040	872	2280	2390	1810	4510	2730	529	205	4560	265
2	269	2620	819	5390	2200	1450	4760	2030	352	207	2930	332
3	318	7510	782	8830	2030	1190	3660	1670	290	198	1530	1010
4	1700	6040	761	5620	1600	1020	3050	1450	277	188	1000	2080
5	14400	3440	764	3750	1270	907	2640	1270	299	191	749	1180
6	20700	2800	812	3190	1190	1160	1900	1280	271	184	587	751
7	17000	7450	822	5440	1170	5290	1500	1880	255	189	484	572
8	5180	15200	760	6580	1890	8510	1290	2870	286	219	540	496
9	2660	12200	703	4590	6110	5620	1130	2990	323	253	545	425
10	1940	6090	1230	3770	7090	3740	1010	1960	1190	296	1020	416
11	1560	5000	1490	3600	4790	2930	902	1550	828	266	658	622
12	1290	7600	1170	6170	3510	2470	810	1440	622	233	472	568
13	1100	6470	1050	8480	2720	2170	743	1360	654	206	5260	416
14	974	4500	997	5670	2280	1970	690	1140	1960	194	3560	326
15	884	3640	924	4120	2030	1890	655	1830	1020	248	1500	281
16	829	3070	1410	3300	1850	2420	614	2530	737	244	1000	270
17	756	2690	2530	2830	1690	3150	554	1810	589	244	785	303
18	689	2410	4110	2720	1570	2630	506	1170	491	232	653	290
19	618	2190	7150	5040	1580	8100	463	885	429	214	558	319
20	452	2020	9440	6030	1940	16400	676	715	356	212	491	307
21	381	1870	5620	4200	1820	10600	2050	595	726	343	537	330
22	380	1560	3700	3300	1680	6100	4480	521	739	361	387	408
23	396	1410	2820	2780	1420	4500	10100	500	472	1250	306	550
24	367	1190	2320	3160	1220	3510	9880	459	358	1550	277	585
25	325	1000	2000	5290	1020	5240	5120	404	298	786	270	447
26	306	917	1790	4220	818	6280	3500	362	266	547	305	354
27	692	857	1630	4360	770	4480	3370	342	253	437	340	344
28	2590	819	1500	4540	1410	3550	2670	365	249	355	571	449
29	3350	795	1230	3580	2030	5360	2090	378	230	336	487	3720
30	1910	834	1020	3060	---	4870	2430	437	216	344	354	2280
31	1330	---	1130	2690	---	3990	---	581	---	1070	295	---
TOTAL	85627	115232	63356	138580	63088	133307	77753	39504	15565	11802	33011	20696
MEAN	2762	3841	2044	4470	2175	4300	2592	1274	519	381	1065	690
MAX	20700	15200	9440	8830	7090	16400	10100	2990	1960	1550	5260	3720
MIN	269	795	703	2280	770	907	463	342	216	184	270	265
(†)	+3300	-9000	-1200	+100	+1100	+7500	+6800	+100	-400	-400	-400	-700
MEAN†	2869	3541	2005	4474	2213	4542	2818	1278	506	368	1052	667
CFMSM†	2.38	2.93	1.66	3.70	1.83	3.76	2.33	1.06	.42	.30	.87	.55
IN.†	2.74	3.27	1.91	4.27	1.98	4.33	2.60	1.22	.47	.35	1.00	.62
CAL YR 1995	MEAN†		1861	CFMS†	1.54	IN.†	20.91					
WTR YR 1996	MEAN†		2198	CFMS†	1.82	IN.†	24.76					

† 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

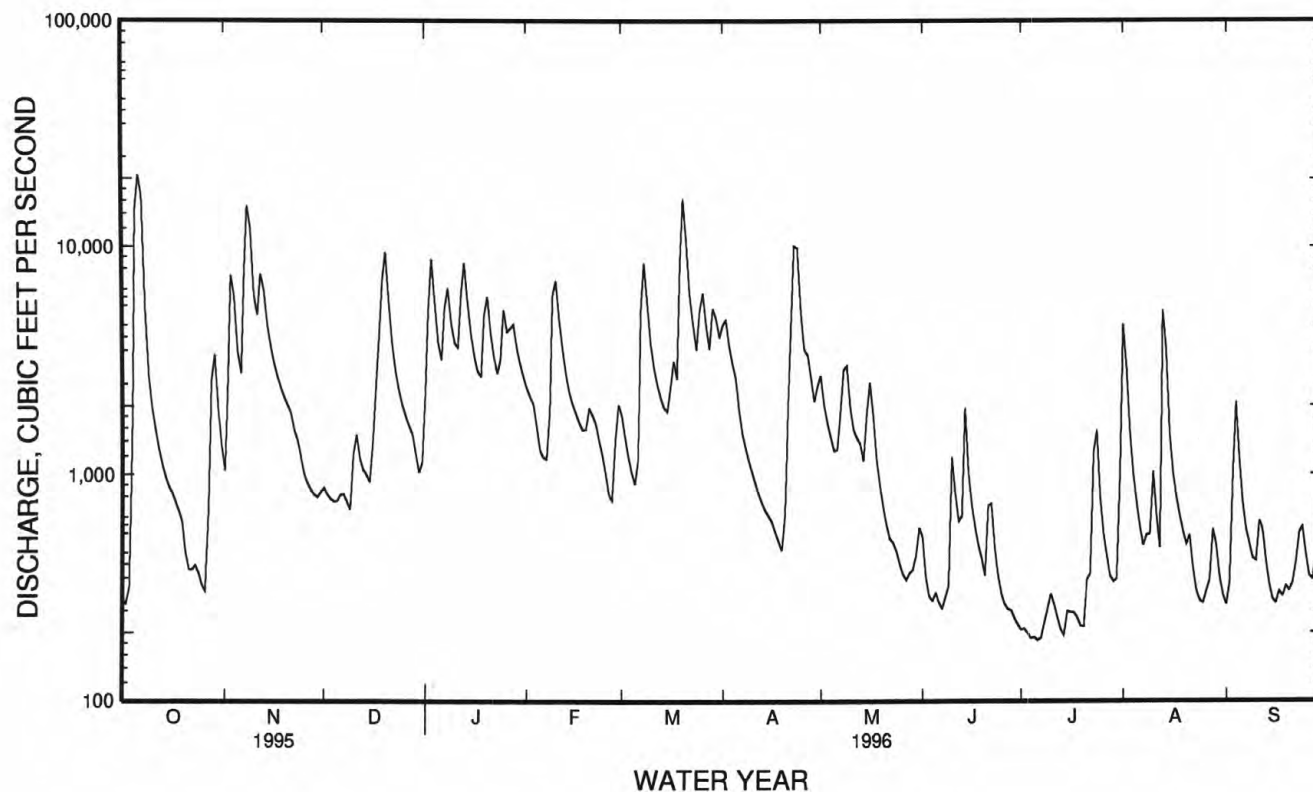
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

MEAN	893	2319	3644	3463	3575	4101	2689	2091	836	653	436	680
MAX	3642	5925	10360	8513	9901	10090	7464	9105	4117	4740	1065	3832
(WY)	1990	1987	1991	1979	1991	1980	1994	1983	1989	1989	1996	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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      \*WATER YEARS 1977 - 1996

ANNUAL TOTAL	678802			797521								
ANNUAL MEAN	1860			2179						2109		
HIGHEST ANNUAL MEAN										3282		1989
LOWEST ANNUAL MEAN										553		1981
HIGHEST DAILY MEAN	21900	Mar 9		20700	Oct 6					52300	Feb 20 1991	
LOWEST DAILY MEAN	180	Sep 10		184	Jul 6					86	Oct 4 1982	
ANNUAL SEVEN-DAY MINIMUM	188	Sep 6		195	Jul 1					100	Sep 28 1982	
INSTANTANEOUS PEAK FLOW				21400	Oct 6					52300	Feb 20 1991	
INSTANTANEOUS PEAK STAGE				30.11	Oct 6					45.82	Feb 20 1991	
INSTANTANEOUS LOW FLOW				177	Jul 7							
10 PERCENT EXCEEDS	4460			5290						4930		
50 PERCENT EXCEEDS	831			1180						780		
90 PERCENT EXCEEDS	277			290						190		

\* 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1986 to current year

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 25...	0915	80020	4.4	466	10.5	7.3	755	8.7	79
FEB 27...	0915	80020	20	343	13.5	7.6	748	9.5	93
MAY 22...	0900	80020	16	386	18.0	7.5	750	9.0	97
JUL 17...	0900	80020	1.7	396	22.0	7.3	760	5.8	67

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 25...	230	330	1	<100	<1	<1	<1	<1	<0.10
FEB 27...	350	240	<1	<100	<1	<1	1	<1	0.10
MAY 22...	580	2500	<1	<100	<1	<1	1	<1	<0.10
JUL 17...	K970	K1300	<1	<100	<1	<1	<1	<1	<0.10

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV- ERABLE GRAVI- METRIC (MG/L) (00556)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY ) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 25...	<1	<1	<1	<10	<0.010	<1	2	0.02	100
FEB 27...	<1	<1	<1	20	<0.010	<1	6	0.33	90
MAY 22...	<1	<1	<1	20	<0.010	<1	8	0.34	91
JUL 17...	<1	<1	<1	<10	<0.010	<1	6	0.03	75

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 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 25...	1050	80020	1.5	766	13.0	7.1	755	8.9	85
FEB 27...	1045	80020	3.3	772	13.5	7.7	748	10.3	101
MAY 22...	1030	80020	3.1	691	20.5	7.5	750	10.8	122
JUL 17...	1000	80020	1.0	542	24.5	7.4	760	6.6	80

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 25...	K830	210	<1	<100	<1	<1	<1	<1	<0.10
FEB 27...	K8	43	<1	<100	<1	<1	1	<1	<0.10
MAY 22...	90	650	<1	<100	<1	<1	<1	<1	<0.10
JUL 17...	42	730	<1	<100	<1	<1	<1	<1	<0.10

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L) (00556)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 25...	<1	<1	<1	<10	<0.010	<1	11	0.04	100
FEB 27...	<1	<1	<1	10	<0.010	<1	13	0.12	47
MAY 22...	<1	<1	2	10	<0.010	<1	5	0.04	81
JUL 17...	<1	<1	<1	<10	<0.010	3	7	0.02	68

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 Terrell Branch, 3.7 mi upstream from Rutherford Creek, and at mile 3.7.

DRAINAGE AREA.--20.1 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to current year. Occasional low-flow measurements, water year 1986.

GAGE.--Data collection platform, crest-stage gage and concrete weir. Datum of gage is 605.94 ft above sea level.

REMARKS.--Records good, except for estimated daily discharges which are fair. Diurnal fluctuation caused by industrial development upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	0730	1,090	8.26	Nov. 7	0945	932	7.69
Nov. 2	0730	*1,150	*8.46				

Minimum discharge, 0.82 ft<sup>3</sup>/s, Aug. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	15	9.9	45	31	35	47	37	7.2	2.5	26	1.2
2	1.7	308	9.2	148	28	31	42	31	7.7	2.5	13	3.8
3	12	91	9.2	82	27	26	38	27	7.8	2.5	8.1	145
4	15	54	9.8	58	25	24	34	24	6.9	2.5	6.1	32
5	279	40	9.2	45	23	29	31	21	6.8	2.4	4.5	18
6	66	37	8.5	40	21	71	28	e40	6.4	2.2	3.4	12
7	39	267	8.6	36	35	181	26	e120	6.3	2.1	3.1	18
8	29	105	8.7	32	60	84	24	e100	95	5.8	3.1	21
9	23	68	9.7	31	49	60	21	e60	43	5.6	5.4	13
10	18	49	8.8	31	41	46	19	e47	29	3.6	3.6	9.2
11	15	111	9.1	65	35	39	18	e38	23	2.8	2.9	7.0
12	13	71	9.3	100	31	35	17	e32	19	2.4	3.1	5.7
13	11	52	8.7	67	28	31	16	e26	15	2.2	2.8	5.1
14	10	41	8.1	50	26	28	15	e21	12	2.0	2.4	4.3
15	8.7	35	8.1	41	24	28	14	e63	10	3.0	2.1	3.8
16	7.7	30	43	36	22	33	13	e49	8.4	2.7	1.9	5.8
17	6.8	27	47	33	20	31	12	e35	7.2	2.2	1.7	6.2
18	6.3	24	86	72	18	29	11	e24	6.4	1.9	2.0	4.7
19	5.8	21	98	83	67	234	11	e20	6.8	1.6	2.4	3.8
20	5.7	19	67	56	118	131	50	e17	5.5	1.7	1.8	3.0
21	5.6	17	48	44	67	104	93	e15	4.8	1.6	1.6	16
22	5.0	15	39	38	48	93	42	e14	4.4	2.6	1.4	16
23	4.5	18	34	34	40	71	354	e13	3.9	3.2	1.3	9.8
24	5.0	17	29	77	33	54	100	12	3.7	2.6	1.2	7.0
25	5.0	15	25	49	29	255	66	11	3.6	2.2	1.2	5.7
26	4.4	14	23	71	27	107	54	9.6	3.1	1.9	1.1	4.6
27	68	13	20	72	28	76	39	11	2.8	1.7	1.1	68
28	45	12	18	54	62	67	33	16	2.6	1.4	1.2	40
29	27	11	16	45	40	59	43	12	2.3	2.8	.98	29
30	21	10	15	39	---	48	50	9.2	2.2	7.8	.95	21
31	16	---	47	35	---	53	---	7.8	---	50	.98	---
TOTAL	781.0	1607	789.9	1709	1103	2193	1361	962.6	362.8	132.0	112.41	539.7
MEAN	25.2	53.6	25.5	55.1	38.0	70.7	45.4	31.1	12.1	4.26	3.63	18.0
MAX	279	308	98	148	118	255	354	120	95	50	26	145
MIN	1.7	10	8.1	31	18	24	11	7.8	2.2	1.4	.95	1.2
CFSM	1.25	2.67	1.27	2.74	1.89	3.52	2.26	1.54	.60	.21	.18	.90
IN.	1.45	2.97	1.46	3.16	2.04	4.06	2.52	1.78	.67	.24	.21	1.00

e Estimated



## TENNESSEE RIVER BASIN

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK--Continued

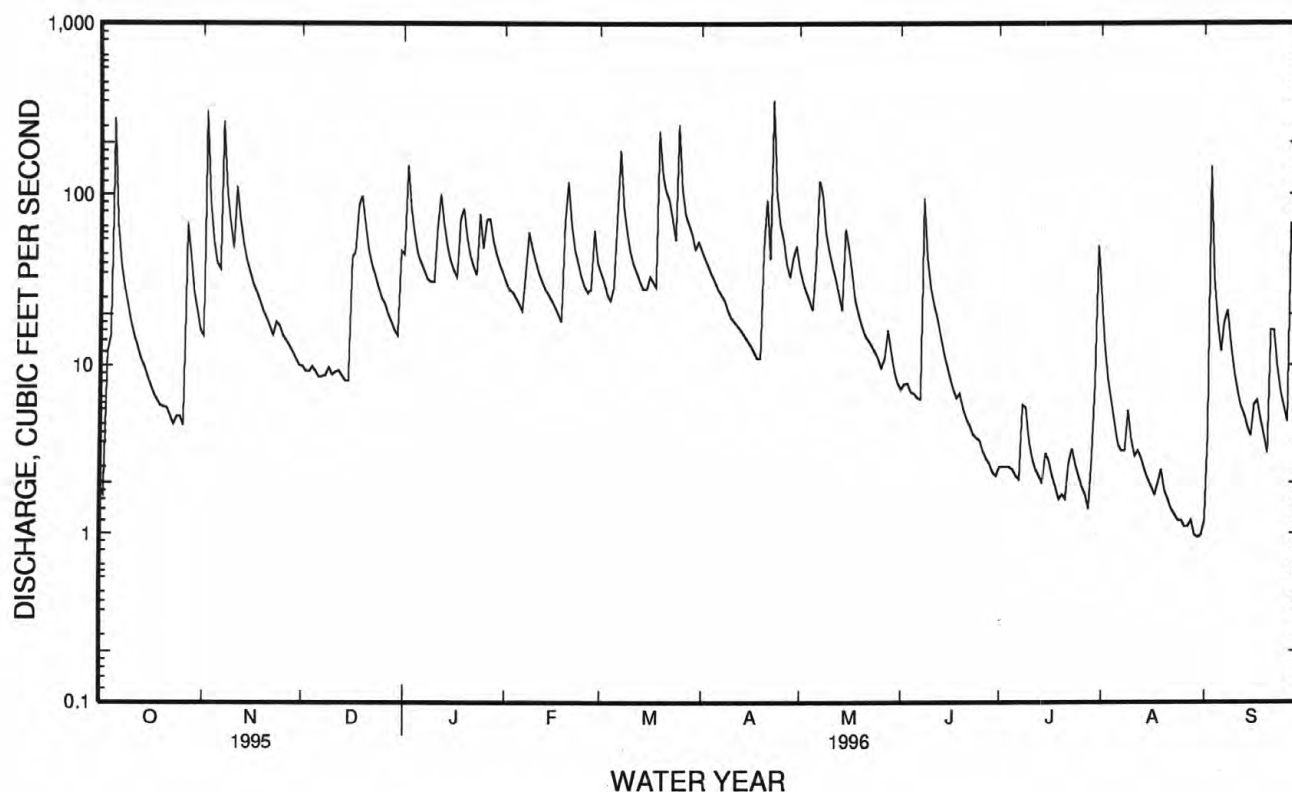
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	9.22	32.2	59.6	57.9	74.7	65.0	38.7	29.2	12.4	10.2	3.61	7.27
MAX	44.8	64.7	126	93.4	146	138	97.2	93.4	42.0	45.5	8.05	20.3
(WY)	1990	1989	1991	1989	1990	1994	1994	1991	1989	1989	1995	1989
MIN	.51	2.49	18.7	33.6	20.8	20.5	13.9	3.11	.51	.54	.47	.99
(WY)	1988	1994	1990	1987	1995	1988	1992	1988	1988	1988	1987	1987

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1987 - 1996

ANNUAL TOTAL	9985.35	11653.41	
ANNUAL MEAN	27.4	31.8	33.1
HIGHEST ANNUAL MEAN			50.0
LOWEST ANNUAL MEAN			17.4
HIGHEST DAILY MEAN	390	Mar 8	1430
LOWEST DAILY MEAN	.69	Sep 8	.12
ANNUAL SEVEN-DAY MINIMUM	.72	Sep 6	.15
INSTANTANEOUS PEAK FLOW		1150	2990
INSTANTANEOUS PEAK STAGE		8.46	14.83
INSTANTANEOUS LOW FLOW		.82	a.11
ANNUAL RUNOFF (CFSM)	1.36	1.58	1.65
ANNUAL RUNOFF (INCHES)	18.48	21.57	22.40
10 PERCENT EXCEEDS	60	69	69
50 PERCENT EXCEEDS	13	19	12
90 PERCENT EXCEEDS	2.2	2.4	.84

a Also occurred Aug. 16, 1987, June 26, 1988.



## TENNESSEE RIVER BASIN

03600088 CARTERS CREEK AT BUTLER RD AT CARTERS CREEK, TN--Continued

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 25...	1300	80020	5.3	555	13.0	7.6	755	11.6	112
FEB 27...	1215	80020	24	400	14.0	8.0	748	10.9	108
MAY 22...	1200	80020	18	442	19.5	7.7	750	10.6	118
JUL 17...	1045	80020	2.4	454	24.0	7.6	760	6.6	79
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 25...	91	100	<1	<100	<1	<1	<1	<1	<0.10
FEB 27...	430	180	<1	<100	<1	<1	1	1	0.10
MAY 22...	440	760	<1	<100	<1	<1	<1	<1	0.30
JUL 17...	180	560	<1	<100	<1	<1	<1	<1	<0.10
DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L) (00556)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 25...	<1	<1	<1	<10	<0.010	<1	3	0.04	100
FEB 27...	1	<1	<1	<10	<0.010	<1	5	0.33	71
MAY 22...	<1	<1	<1	<10	<0.010	<1	7	0.35	87
JUL 17...	<1	<1	<1	<10	<0.010	2	17	0.11	92

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1987 to current year, discharge for stage of 7.00 ft and below only.

GAGE.--Data collection platform. Datum of gage is 552.20 ft above sea level.

REMARKS.--Records good. The City of Dickson diverts water for municipal water supply at confluence of West Piney River, 1.6 mi upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 19.78 ft, May 27, 1991; minimum discharge, 7.6 ft<sup>3</sup>/s, Sept. 4, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 9.33 ft, Feb. 19; minimum discharge, 14 ft<sup>3</sup>/s, Oct. 1, 11, 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	17	28	39	70	124	228	62	38	26	37	20
2	15	35	27	59	64	107	171	56	41	25	29	22
3	15	32	27	70	57	91	141	52	38	23	27	24
4	16	24	27	67	52	81	121	49	37	22	24	21
5	20	21	26	61	49	97	103	46	36	22	23	20
6	18	21	26	57	47	260	93	59	34	22	22	20
7	17	---	26	54	50	376	85	94	35	23	21	20
8	16	121	25	50	54	239	79	105	61	35	33	19
9	16	75	25	47	53	173	71	90	48	27	27	19
10	15	59	24	46	50	135	65	79	46	23	22	18
11	15	163	24	55	48	113	60	79	45	23	21	18
12	15	108	24	93	45	102	56	71	57	21	20	18
13	15	78	24	85	44	93	55	64	48	21	20	19
14	17	63	24	77	44	84	52	59	42	29	20	19
15	16	54	24	66	43	89	50	---	39	43	20	19
16	16	47	26	59	42	87	46	231	36	29	19	81
17	15	43	31	55	41	82	44	147	34	24	19	34
18	15	39	74	73	40	76	42	110	33	23	19	27
19	15	37	85	115	---	272	43	91	33	22	19	24
20	16	34	73	91	---	276	78	80	77	22	21	23
21	17	33	61	80	327	227	69	72	47	23	21	47
22	16	32	54	70	210	226	64	63	40	27	21	35
23	16	34	49	68	156	182	142	57	36	23	21	29
24	15	32	45	246	119	147	128	52	34	21	19	27
25	16	30	42	153	98	---	110	49	33	20	18	26
26	16	29	40	133	87	258	114	46	31	19	18	25
27	48	29	37	131	99	190	95	47	29	19	19	---
28	23	28	35	107	217	158	84	54	28	19	18	179
29	19	27	34	97	148	131	79	---	27	19	18	104
30	18	27	33	87	---	113	71	41	26	58	17	75
31	17	---	37	80	---	201	---	39	---	49	21	---
TOTAL	524	---	1137	2571	---	---	2639	---	1189	802	674	---
MEAN	17.5	---	36.7	82.9	---	---	88.0	---	39.6	25.9	21.7	---
MAX	48	---	85	246	---	---	228	---	77	58	37	---
MIN	15	---	24	39	---	---	42	---	26	19	17	---
CFSM	.37	---	.79	1.78	---	---	1.89	---	.85	.56	.47	---
IN.	.42	---	.91	2.05	---	---	2.11	---	.95	.64	.54	---



TENNESSEE RIVER BASIN  
03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued  
(Hydrologic bench-mark station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1996, BY WATER YEAR (WY)

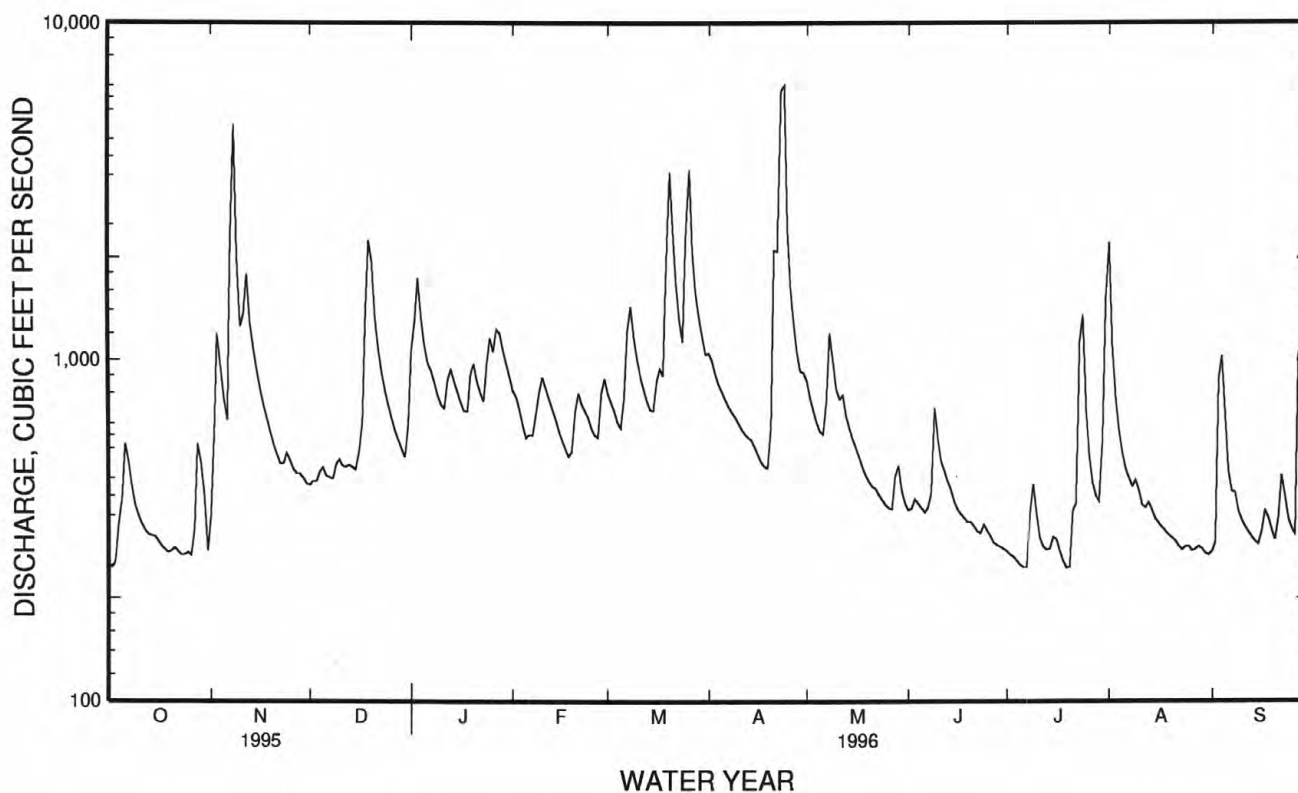
MEAN	281	524	925	1200	1369	1468	1187	887	449	350	286	270
MAX	1418	2554	3568	3854	4901	4405	3034	5227	1642	1824	1008	1286
(WY)	1933	1958	1927	1937	1948	1973	1964	1991	1974	1932	1923	1979
MIN	112	174	213	234	316	458	303	210	146	121	117	94.2
(WY)	1932	1925	1964	1940	1926	1966	1986	1942	1941	1943	1925	1925

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1920 - 1996

ANNUAL TOTAL	254264			263681								
ANNUAL MEAN	697			720						763		
HIGHEST ANNUAL MEAN										1583		1973
LOWEST ANNUAL MEAN										323		1942
HIGHEST DAILY MEAN	13000	Mar	8	6530	Apr	24	75800	May	27	1991		
LOWEST DAILY MEAN	223	Sep	8	246	Jul	19	65	Sep	9	1925		
ANNUAL SEVEN-DAY MINIMUM	227	Sep	6	259	Jul	1	71	Sep	5	1925		
INSTANTANEOUS PEAK FLOW				10200	Apr	23	a96300	May	27	1991		
INSTANTANEOUS PEAK STAGE				14.44	Apr	23	b32.19	May	27	1991		
INSTANTANEOUS LOW FLOW				238	Jul	20	65	Sep	9	1925		
ANNUAL RUNOFF (CFSM)	1.56			1.61						1.71		
ANNUAL RUNOFF (INCHES)	21.16			21.94						23.19		
10 PERCENT EXCEEDS	1230			1220			1450					
50 PERCENT EXCEEDS	477			546			389					
90 PERCENT EXCEEDS	268			284			178					

a Maximum discharge rating curve extended above 50,000 ft<sup>3</sup>/s on basis of slope-area and contracted opening measurements and rainfall-runoff study.

b From high-water mark in gage house.





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 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 24...	1045	80020	264	95	7.7	15.0	756	1.2	9.4	94	32
MAY 29...	1100	80020	490	90	7.2	22.5	749	1.1	7.7	91	100

DATE	STREP- TOCOC- CI FECAL AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CaCO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 24...	89	43	0	14	1.9	1.2	6	0.1	0.90	43	1.8
MAY 29...	140	37	1	12	1.7	1.2	6	0.1	1.0	36	2.7

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)
OCT 24...	1.8	0.20	6.1	47	55	0.06	33.5	<0.010	0.080	0.080	--
MAY 29...	1.8	<0.10	6.1	56	52	0.08	74.1	<0.010	0.340	0.340	0.03

TENNESSEE RIVER BASIN  
03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
OCT 24...	<0.015	<0.20	0.050	0.040	0.03	0.010	<10	19	<3	33	<4
MAY 29...	0.020	<0.20	0.030	0.030	0.03	0.010	20	19	<3	25	<4

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 24...	6	<10	<1	<1	<1.0	54	<6	2	1.4	100
MAY 29...	9	<10	<1	<1	<1.0	48	<6	7	9.3	86

DATE	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)
OCT 24...	0.03	0.03	0.0	0.010

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1992 to current year, discharge for stage of 4.30 ft and below only.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 9.64 ft, Feb. 19; minimum discharge, 1.6 ft<sup>3</sup>/s, Sept. 14 and 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	18	8.7	---	19	30	---	15	e22	e8.4	2.7	e2.5
2	24	---	8.7	---	18	27	---	---	e18	e6.0	8.9	---
3	11	21	8.9	---	15	21	44	---	e17	e5.4	4.5	9.1
4	7.4	13	10	52	12	20	e35	---	---	e5.2	4.8	4.0
5	4.7	9.2	8.9	35	11	---	e30	53	15	e5.0	2.6	3.6
6	4.2	---	8.1	33	11	---	e25	30	9.2	---	---	3.5
7	3.2	---	9.2	28	15	---	e23	27	6.1	---	---	3.2
8	3.0	---	9.0	22	16	---	e20	22	4.5	---	20	2.8
9	2.9	31	11	21	16	50	e18	17	3.7	---	8.7	2.5
10	3.1	23	7.6	23	15	37	e17	---	2.8	e28	5.5	2.3
11	2.7	---	7.0	---	16	32	e17	---	22	e18	---	2.1
12	---	48	7.7	---	12	29	e17	42	5.5	e13	15	2.0
13	e2.1	29	8.4	44	12	26	e16	---	8.9	e12	7.4	1.8
14	e1.9	23	8.7	35	13	24	e15	34	10	---	6.1	1.7
15	e1.8	19	9.5	28	11	30	e15	29	3.8	---	e3.6	1.7
16	e1.7	17	23	24	10	30	e14	---	18	e30	e3.4	17
17	e1.7	15	38	23	10	26	e13	e39	---	e20	e3.2	6.7
18	e1.9	14	---	---	10	---	e13	e25	45	e8.6	e3.1	2.7
19	e2.5	13	---	---	---	---	e15	e22	---	e7.6	e2.9	2.1
20	---	12	36	34	---	---	e20	e21	39	e7.2	e2.9	1.8
21	3.1	10	26	29	---	---	e19	e26	18	9.7	e2.8	---
22	2.7	9.4	21	25	61	55	e17	e33	14	9.7	e2.6	14
23	2.4	19	18	---	40	41	---	e35	12	8.0	e2.5	7.0
24	2.1	16	18	---	30	34	42	e23	9.9	6.5	e2.4	4.9
25	2.1	12	18	---	26	---	34	e17	e9.0	4.4	e2.2	4.0
26	2.2	12	17	---	24	---	28	e14	e8.0	---	e2.1	3.2
27	---	11	16	---	---	53	23	---	e7.4	---	e2.0	---
28	14	10	15	35	---	42	20	---	e7.0	6.2	e1.8	---
29	6.7	9.3	14	33	34	37	21	---	e6.6	3.8	e1.8	40
30	5.5	9.3	14	27	---	32	19	e36	e8.0	8.9	e2.2	27
31	5.4	---	---	22	---	---	---	e29	---	3.2	e3.9	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
CFSM	---	---	---	---	---	---	---	---	---	---	---	---
IN.	---	---	---	---	---	---	---	---	---	---	---	---

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 mi<sup>2</sup>. 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, 630,100 cfs-days, June 1, elevation, 994.92 ft; minimum, 110,400 cfs-days, Dec. 29, elevation, 940.93 ft.

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft upstream from South Holston Dam on South Fork Holston River, 7.0 mi southeast of Bristol, Virginia-Tennessee, and at mile 49.8. DRAINAGE AREA, 703 mi<sup>2</sup>. 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.--Maximum contents, 339,100 cfs-days, June 1, elevation 1,730.92 ft; minimum, 220,600 cfs-days, Dec. 15, elevation, 1,695.91 ft.

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi east of Elizabethton, and at mile 36.7. DRAINAGE AREA, 468 mi<sup>2</sup>. 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, 290,800 cfs-days, June 2, elevation, 1,960.28 ft; minimum, 210,500 cfs-days, Jan. 12, elevation, 1,933.43 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
03468500 DOUGLAS LAKE				03476000 SOUTH HOLSTON LAKE			03483500 WATAUGA LAKE		
Sept. 30...	970.43	334,000	-	1,703.05	242,100	-	1,940.43	230,100	-
Oct. 31...	963.05	264,200	-69,800	1,699.32	230,700	-11,400	1,939.32	227,000	-3,100
Nov. 30...	954.77	196,800	-67,400	1,699.05	229,900	-800	1,938.23	223,900	-3,100
Dec. 31...	942.14	116,600	-80,200	1,697.82	226,200	-3,700	1,934.75	214,100	-9,800
CAL YR 1995	-	-	-7,600	-	-	+7,100	-	-	-2,800
Jan. 31...	964.89	280,800	+164,200	1,709.76	263,500	+37,300	1,941.72	233,800	+19,700
Feb. 29...	951.57	173,900	-106,900	1,708.76	260,200	-3,300	1,942.68	236,600	+2,800
Mar. 31...	970.27	332,400	+158,500	1,718.00	291,400	+31,200	1,948.75	254,400	+17,800
Apr. 30...	987.47	527,700	+195,300	1,726.43	322,000	+30,600	1,954.91	273,400	+19,000
May 31...	994.77	627,900	+100,200	1,730.83	338,800	+16,800	1,960.15	290,400	+17,000
June 30...	993.23	605,900	-22,000	1,726.42	321,900	-16,900	1,955.78	276,200	-14,200
July 31...	991.38	580,000	-25,900	1,722.08	305,900	-16,000	1,950.34	259,200	-17,000
Aug. 31...	986.36	513,400	-66,600	1,716.65	286,700	-19,200	1,947.11	249,500	-9,700
Sept. 30...	976.88	401,600	-111,800	1,707.96	257,600	-29,100	1,941.95	234,400	-15,100
WTR YR 1996	-	-	+67,600	-	-	+15,500	-	-	+4,300



TENNESSEE RIVER BASIN  
RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi northeast of Spurgeon, 1.3 mi downstream from Watauga River, and at mile 18.6. DRAINAGE AREA, 1,840 mi<sup>2</sup>. 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, 96,800 cfs-days, May 26, elevation, 1,384.69 ft; minimum, 46,300 cfs-days, Jan. 12, elevation, 1,354.27 ft.

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi upstream from bridge on U. S. Highway 23, 4.5 mi southeast of Kingsport, and at mile 8.2.

DRAINAGE AREA, 1,903 mi<sup>2</sup>. 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, May 26, elevation, 1,263.17 ft; minimum, 11,200 cfs-days, June 12, elevation, 1,257.56 ft.

03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi upstream from bridge on State Highway 92, 2.7 mi upstream from Mill Spring Creek, 2.8 mi north of Jefferson City, and at mile 52.3. DRAINAGE AREA, 3,429 mi<sup>2</sup>. 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, 726,100 cfs-days, June 2, elevation, 1,071.60 ft; minimum, 251,700 cfs-days, Dec. 29, elevation, 1,027.98 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
03486800 BOONE LAKE				03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30...	1,378.93	84,700	-	1,261.73	13,000	-	1,036.51	319,700	-
Oct. 31...	1,371.99	72,000	-12,700	1,261.07	12,700	-300	1,032.12	283,300	-36,400
Nov. 30...	1,371.99	72,000	0	1,260.96	12,700	0	1,034.34	301,300	+18,000
Dec. 31...	1,355.92	48,300	-23,700	1,262.01	13,100	+400	1,028.65	256,600	-44,700
CAL YR 1995	-	-	+200	-	-	+600	-	-	+17,900
Jan. 31...	1,362.95	57,800	+9,500	1,261.82	13,000	-100	1,038.45	336,800	+80,200
Feb. 29...	1,362.11	56,600	-1,200	1,261.98	13,100	+100	1,039.99	350,800	+14,000
Mar. 31...	1,376.95	80,900	+24,300	1,260.80	12,600	-500	1,052.05	468,300	+117,500
Apr. 30...	1,379.01	84,900	+4,000	1,260.28	12,400	-200	1,060.41	573,900	+105,600
May 31...	1,382.96	93,100	+8,200	1,261.48	12,900	+500	1,071.33	722,200	+148,300
June 30...	1,381.59	90,200	-2,900	1,261.66	13,000	+100	1,068.57	682,700	-39,500
July 31...	1,382.00	91,000	+800	1,262.06	13,200	+200	1,062.55	601,300	-81,400
Aug. 31...	1,381.94	90,900	-100	1,259.95	12,200	-1,000	1,057.36	536,100	-65,200
Sept. 30...	1,378.68	84,200	-6,700	1,260.32	12,400	+200	1,052.30	476,900	-59,200
WTR YR 1996	-	-	-500	-	-	-600	-	-	+157,200



TENNESSEE RIVER BASIN  
RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi northeast of Lenoir City, and at mile 602.3. DRAINAGE AREA, 9,550 mi<sup>2</sup>. PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates, each 32 ft high by 40 ft wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Revised capacity table put into use Jan. 19, 1980. Total level pool capacity at elevation 815.00 ft, top of gates, is 424,000 cfs-days, of which 120,000 cfs-days is controlled flood storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 815.14 ft, May 8, 1984; minimum after first filling, 805.54 ft, Jan. 18, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 183,800 cfs-days, Sept. 28; maximum elevation, 813.34 ft, Aug. 1; minimum midnight contents, 149,400 cfs-days, Dec. 26, minimum elevation, 807.64 ft, Feb. 16. Contents based on backwater profile.

03519800 TELlico LAKE.--Lat 35°46'53", long 84°15'10", Loudon County, Hydrologic Unit 06010201, at Tellico Dam on Little Tennessee River, 1.1 mi south of Lenoir City, and at mile 0.4. DRAINAGE AREA, 2,627 mi<sup>2</sup>. PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates, each 42 ft high by 40 ft wide. Closure of dam was made Nov. 29, 1979; water in reservoir first reached ordinary minimum pool elevation Dec. 24, 1979. Total capacity at elevation 815.00 ft, top of gates, is 225,500 cfs-days, of which 63,800 cfs-days is controlled storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and indirectly, power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 228,700 cfs-days, May 8, 1984, elevation, 815.37 ft; minimum after first filling, 155,400 cfs-days, Jan. 11, 1985, elevation, 807.31 ft; minimum elevation, 806.96 ft, Jan. 14, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 200,900 cfs-days, Aug. 1, elevation, 813.42 ft; minimum, 158,900 cfs-days, Feb. 16, elevation, 807.81 ft.

03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi northwest of Norris, and at mile 79.8. DRAINAGE AREA, 2,912 mi<sup>2</sup>. 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, 1,022,300 cfs-days, May 31, elevation, 1022.39 ft; minimum, 527,300 cfs-days, Dec. 16, elevation, 983.55 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
	*03499500 FORT LOUDOUN LAKE			03519800 TELlico LAKE			03532500 NORRIS LAKE		
Sept. 30...	812.35	178,500	-	812.41	193,000	-	999.02	711,000	-
Oct. 31...	811.50	172,800	-5,700	811.55	186,400	-6,600	988.70	584,100	-126,900
Nov. 30...	810.73	168,800	-4,000	811.29	184,400	-2,000	986.03	554,100	-30,000
Dec. 31...	808.52	151,800	-17,000	808.55	164,200	-20,200	985.78	551,400	-2,700
CAL YR 1995	-	-	-2,300	-	-	-2,600	-	-	+104,700
Jan. 31...	808.13	153,200	+1,400	808.29	162,300	-1,900	999.14	712,600	+161,200
Feb. 29...	809.00	155,900	+2,700	809.11	168,200	+5,900	996.54	678,900	-33,700
Mar. 31...	809.24	156,500	+600	809.32	169,700	+1,500	1,008.53	844,000	+165,100
Apr. 30...	812.66	180,600	+24,100	812.75	195,700	+26,000	1,014.11	929,700	+85,700
May 31...	812.11	177,100	-3,500	812.18	191,200	-4,500	1,022.37	1,067,600	+137,900
June 30...	812.22	177,700	+600	812.28	192,000	+800	1,018.07	994,100	-73,500
July 31...	813.01	183,100	+5,400	813.04	197,900	+5,900	1,014.46	935,200	-58,900
Aug. 31...	812.22	177,400	-5,700	812.30	192,200	-5,700	1,013.63	922,100	-13,100
Sept. 30...	812.70	181,600	+4,200	812.75	197,600	+5,400	1,004.89	791,200	-130,900
WTR YR 1996-	-	+3,100	-	-	+4,600	-	-	+80,200	

\* Contents based on backwater profile.

TENNESSEE RIVER BASIN  
RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03535900 MELTON HILL LAKE.--Lat 35°53'04", long 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi southwest of Oak Ridge, 19 mi west of Knoxville, 57 mi downstream from Norris Dam on Clinch River, and at mile 23.1. DRAINAGE AREA, 3,343 mi<sup>2</sup>. 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, 61,000 cfs-days, Aug. 1, elevation, 795.18 ft; minimum, 47,400 cfs-days, Nov. 4, 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 mi<sup>2</sup>, 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, 530,500 cfs-days, June 10; maximum elevation, 742.02 ft, June 10; minimum midnight contents, 415,100 cfs-days, Feb. 19; minimum elevation, 735.39 ft, Feb. 20. Contents based on backwater profile.

03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi east of Cleveland, and at mile 11.9. DRAINAGE AREA, 595 mi<sup>2</sup>. 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, 43,000 cfs-days, Oct. 5, elevation, 838.7 ft; minimum 32,400 cfs-days, Feb. 20, elevation, 826.9 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
	03535900 MELTON HILL LAKE			*03543000 WATTS BAR LAKE			03564000 LAKE OCOEE		
Sept. 30...	793.24	55,500	-	740.53	500,700	-	835.0	39,400	-
Oct. 31...	791.80	51,800	-3,700	740.39	497,700	-3,000	834.5	38,900	-500
Nov. 30...	793.95	57,500	+5,700	736.83	433,200	-64,500	831.3	36,000	-2,900
Dec. 31...	793.41	56,000	-1,500	736.21	421,500	-11,700	827.4	32,800	-3,200
CAL YR 1995	-	-	-200	-	-	-500	-	-	+300
Jan. 31...	793.88	57,300	+1,300	737.41	448,200	+26,700	831.8	36,400	+3,600
Feb. 29...	793.20	55,400	-1,900	736.15	421,100	-27,100	827.2	32,600	-3,800
Mar. 31...	792.57	53,800	-1,600	737.64	446,300	+25,200	830.9	36,100	+3,500
Apr. 30...	793.24	55,500	+1,700	740.45	498,400	+52,100	835.1	39,400	+3,300
May 31...	793.25	55,600	+100	741.23	514,200	+15,800	835.1	39,500	+100
June 30...	793.90	57,300	+1,700	740.89	507,600	-6,600	835.2	39,600	+100
July 31...	794.04	57,700	+400	740.84	506,100	-1,500	835.3	39,700	+100
Aug. 31...	793.50	56,200	-1,500	740.43	498,200	-7,900	834.9	39,300	-400
Sept. 30...	793.61	56,500	+300	741.14	512,400	+14,200	835.1	39,500	+200
WTR YR 1996	-	-	+1,000	-	-	+11,700	-	-	+100

\* Contents based on backwater profile.

TENNESSEE RIVER BASIN  
RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi northeast of Chattanooga, 58.9 mi downstream from Watts Bar Dam, and at mile 471.0. DRAINAGE AREA, 20,790 mi<sup>2</sup>, 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, 345,200 cfs-days, Oct. 5; maximum elevation, 684.50 ft, Oct. 5; minimum midnight contents, 209,600 cfs-days, Dec. 14; minimum elevation, 675.15 ft, Dec. 15. Contents based on backwater profile.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi upstream from Sequatchie River, 5 mi south of Jasper, 46.3 mi downstream from Chickamauga Dam, and at mile 424.7. DRAINAGE AREA, 21,870 mi<sup>2</sup>, 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, 141,400 cfs-days, Jan. 27; maximum elevation, 634.39 ft, Oct. 5; minimum midnight contents, 115,300 cfs-days, June 18; minimum elevation, 631.55 ft, Feb. 16. Contents based on backwater profile.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi upstream from Spring Creek, 2.5 mi northeast of Estill Springs, 6.8 mi upstream from bridge on U.S. Highway 41-A, and at mile 170.0. DRAINAGE AREA, 263 mi<sup>2</sup>. PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, each 25 ft high by 50 ft wide, and two sluice gates, each 6 ft high by 4 ft wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft, surcharge pool, is 44,400 cfs-days, of which 9,900 cfs-days is controlled storage above elevation 957.0 ft, normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes.

COOPERATION.--Twice-daily gage readings (0600 and 2400 hours) furnished by U.S. Air Force.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 42,300 cfs-days, April 21 and 22, 1956, elevation, 960.98 ft; minimum after first filling, 26,300 cfs-days, Nov. 8-11, 1953, elevation, 951.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 39,500 cfs-days, Aug. 24, elevation, 959.63 ft; minimum midnight contents, 31,000 cfs-days, Feb. 25; elevation, 954.93 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
*03566500 CHICKAMAUGA LAKE				*03570520 NICKAJACK LAKE			03579000 WOODS RESERVOIR		
Sept. 30...	681.37	296,200	-	633.00	118,600	-	959.51	39,300	-
Oct. 31...	678.84	252,200	-44,000	633.54	121,100	+2,500	958.80	36,500	-2,800
Nov. 30...	677.39	231,300	-20,900	633.65	123,300	+2,200	958.02	36,400	-100
Dec. 31...	677.04	225,400	-5,900	633.74	120,000	-3,300	957.95	36,300	-100
CAL YR 1995	-	-	+13,600	-	-	-900	-	-	0
Jan. 31...	677.14	244,500	+19,100	632.15	136,200	+16,200	957.95	36,300	0
Feb. 29...	676.50	221,700	-22,800	633.72	122,400	-13,800	954.96	31,100	-5,200
Mar. 31...	677.44	232,400	+10,700	633.10	119,000	-3,400	959.44	39,200	+8,100
Apr. 30...	682.24	309,100	+76,700	633.52	118,800	-200	959.54	39,400	+200
May 31...	682.21	308,600	-500	633.62	122,100	+3,300	959.50	39,300	-100
June 30...	681.37	294,100	-14,500	633.50	119,100	-3,000	959.58	39,400	+100
July 31...	681.79	302,000	+7,900	633.45	120,700	+1,600	959.50	39,300	-100
Aug. 31...	680.86	285,200	-16,800	633.97	121,400	+700	959.50	39,300	0
Sept. 30...	682.06	306,100	+20,900	633.14	118,700	-2,700	959.45	39,200	-100
WTR YR 1996	-	-	+9,900	-	-	+100	-	-	-100

\* Contents based on backwater profile.



TENNESSEE RIVER BASIN  
RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03580740 TIMS FORD LAKE.--Lat 35°11'51", long 86°16'41", Franklin County, Hydrologic Unit 06030003, in intake tower near left bank at Tims Ford Dam on Elk River, 0.4 mi upstream from bridge on State Highway 50, 9.5 mi west of Winchester, and at mile 133.4. DRAINAGE AREA, 529 mi<sup>2</sup>. 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, 267,200 cfs-days, Oct. 7, elevation, 888.00 ft; minimum, 196,200 cfs-days, Feb. 7 elevation, 873.08 ft.

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi north of town of Pickwick Dam, 6.1 mi upstream from Lick Creek, 52.7 mi downstream from Wilson Dam, and at mile 206.7. DRAINAGE AREA, 38,820 mi<sup>2</sup>, 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, 658,900 cfs-days, April 23; maximum elevation, 417.56 ft, April 23 minimum midnight contents, 433,700 cfs-days, Feb. 6, minimum elevation, 408.14 ft, Dec. 18. Contents based on backwater profile.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'55", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi northeast of Normandy, 2.6 mi downstream from Riley Creek, 8 mi north of Tullahoma, and at mile 248.6. DRAINAGE AREA, 195 mi<sup>2</sup>. 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, 56,500 cfs-days, May 28, elevation, 875.75 ft; minimum 39,800 cfs-days, Feb. 11, elevation, 864.32 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Content (cfs-days)	Change in contents (cfs-days)
	03580740	TIMS FORD LAKE		*03593000	PICKWICK LAKE		03596460	NORMANDY LAKE	
Sept. 30...	884.52	249,000	-	410.82	485,300	-	869.74	47,300	-
Oct. 31...	882.28	237,800	-11,200	410.90	488,800	+3,500	871.96	50,600	+3,300
Nov. 30...	879.17	223,000	-14,800	409.47	455,400	-33,400	865.70	41,600	-9,000
Dec. 31...	873.48	197,900	-25,100	410.53	477,500	+22,100	864.74	40,400	-1,200
CAL YR 1995	-	-	+12,600	-	-	+19,100	-	-	+400
Jan. 31...	875.43	206,200	+8,300	409.71	486,300	+8,800	864.84	40,500	+100
Feb. 29...	876.04	208,900	+2,700	410.30	475,800	-10,500	865.66	41,600	+1,100
Mar. 31...	883.80	245,400	+36,500	412.71	534,600	+58,800	870.98	49,100	+7,500
Apr. 30...	885.92	256,200	+10,800	413.35	546,600	+12,000	875.38	55,900	+6,800
May 31...	886.83	261,000	+4,800	413.50	553,200	+6,600	875.43	56,000	+100
June 30...	886.25	257,900	-3,100	413.69	557,000	+3,800	875.17	55,600	-400
July 31...	887.35	263,700	+5,800	413.59	551,700	-5,300	874.96	55,200	-400
Aug. 31...	885.63	254,700	-9,000	411.77	509,400	-42,300	874.71	54,800	-400
Sept. 30...	885.79	255,500	+800	411.87	510,200	+800	874.22	54,100	-700
WTR YR 1996	-	-	+6,500	-	-	+24,900	-	-	+6,800

\* 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 mi<sup>2</sup>, approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with 24 lift gates 50 ft high by 40 ft wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft, top of gates, is 3,090,000 cfs-days, of which 2,020,700 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.87 ft, May 24, 1983; minimum after first filling, 348.02 ft, Mar. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 1,749,800 cfs-days May 20; maximum elevation, 363.00 ft, May 19; minimum midnight contents, 1,081,500 cfs-days, Nov. 27, minimum elevation, 353.45 ft, Jan. 31.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Content (cfs-days)	Change contents (cfs-days)
*03609000 KENTUCKY LAKE			
Sept. 30...	355.44	1,167,500	-
Oct. 31...	355.40	1,198,800	+31,300
Nov. 30...	354.56	1,120,500	-78,300
Dec. 31...	354.84	1,139,500	+19,000
CAL YR 1995		-	+53,800
Jan. 31...	354.27	1,338,600	+199,100
Feb. 29...	354.48	1,188,100	-150,500
Mar. 31...	354.55	1,209,200	+21,100
Apr. 30...	359.87	1,499,600	+290,400
May 31...	359.50	1,490,700	-8,900
June 30...	359.18	1,428,800	-61,900
July 31...	358.03	1,384,200	-44,600
Aug. 31...	357.02	1,275,300	-108,900
Sept. 30...	356.82	1,279,300	+4,000
WTR YR 1996	-	-	+111,800

\* 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.



## OBION RIVER BASIN

07024305 BEAVER CREEK AT HIGHWAY 22 BYPASS NEAR HUNTINGDON, TN

LOCATION.--Lat 36°00'47", long 88°26'42", Carroll County, Hydrologic Unit 08010203, on left upstream side of main channel bridge on Highway 22 Bypass, 0.8 mi northwest of Huntingdon, 3.0 mi upstream of Crooked Creek, and at mile 4.5.

DRAINAGE AREA.--58.6 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1994 to April 1996 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 350 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--October 1995 to April 1996: Maximum discharge, 594 ft<sup>3</sup>/s, Feb. 20, gage height, 18.83 ft; minimum daily discharge, 37 ft<sup>3</sup>/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	49	45	180	74	87	338	---	---	---	---	---
2	65	124	44	332	68	79	224	---	---	---	---	---
3	102	104	44	328	59	72	106	---	---	---	---	---
4	55	65	45	188	58	68	84	---	---	---	---	---
5	48	57	44	108	55	136	76	---	---	---	---	---
6	46	65	42	99	59	341	71	---	---	---	---	---
7	42	370	45	81	66	472	68	---	---	---	---	---
8	42	497	45	67	75	408	67	---	---	---	---	---
9	41	417	55	68	75	173	63	---	---	---	---	---
10	40	143	42	76	68	99	61	---	---	---	---	---
11	40	174	41	152	65	83	61	---	---	---	---	---
12	40	152	45	214	60	78	61	---	---	---	---	---
13	40	93	48	130	59	75	65	---	---	---	---	---
14	40	76	47	92	61	72	63	---	---	---	---	---
15	39	65	48	74	57	115	60	---	---	---	---	---
16	39	65	96	67	55	113	57	---	---	---	---	---
17	39	66	102	67	58	87	55	---	---	---	---	---
18	39	63	242	233	58	76	55	---	---	---	---	---
19	39	52	233	420	291	376	56	---	---	---	---	---
20	42	49	137	369	561	479	145	---	---	---	---	---
21	43	46	86	148	514	337	112	---	---	---	---	---
22	41	45	69	99	308	135	77	---	---	---	---	---
23	40	76	61	123	133	90	142	---	---	---	---	---
24	42	72	57	362	93	79	87	---	---	---	---	---
25	41	57	52	368	81	301	73	---	---	---	---	---
26	42	53	49	208	79	312	68	---	---	---	---	---
27	125	51	48	163	93	158	57	---	---	---	---	---
28	109	49	46	105	207	101	57	---	---	---	---	---
29	57	46	44	95	109	97	84	---	---	---	---	---
30	49	45	45	86	---	84	93	---	---	---	---	---
31	48	---	142	77	---	237	---	---	---	---	---	---
TOTAL	1552	3286	2189	5179	3599	5420	2686	---	---	---	---	---
MEAN	50.1	110	70.6	167	124	175	89.5	---	---	---	---	---
MAX	125	497	242	420	561	479	338	---	---	---	---	---
MIN	37	45	41	67	55	68	55	---	---	---	---	---
CFSM	.85	1.87	1.20	2.85	2.12	2.98	1.53	---	---	---	---	---
IN.	.99	2.09	1.39	3.29	2.28	3.44	1.71	---	---	---	---	---

## OBION RIVER BASIN

07024305 BEAVER CREEK AT HIGHWAY 22 BYPASS NEAR HUNTINGDON, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

MEAN	47.5	89.1	103	189	197	224	107	87.9	77.1	82.8	82.0	37.8
MAX	50.1	110	124	264	376	381	254	87.9	96.8	86.9	120	38.2
(WY)	1996	1996	1994	1994	1994	1994	1994	1995	1994	1994	1995	1995
MIN	43.1	77.8	70.6	136	92.0	115	61.4	87.9	57.3	78.7	44.2	37.5
(WY)	1994	1994	1996	1995	1995	1995	1995	1995	1995	1995	1994	1994

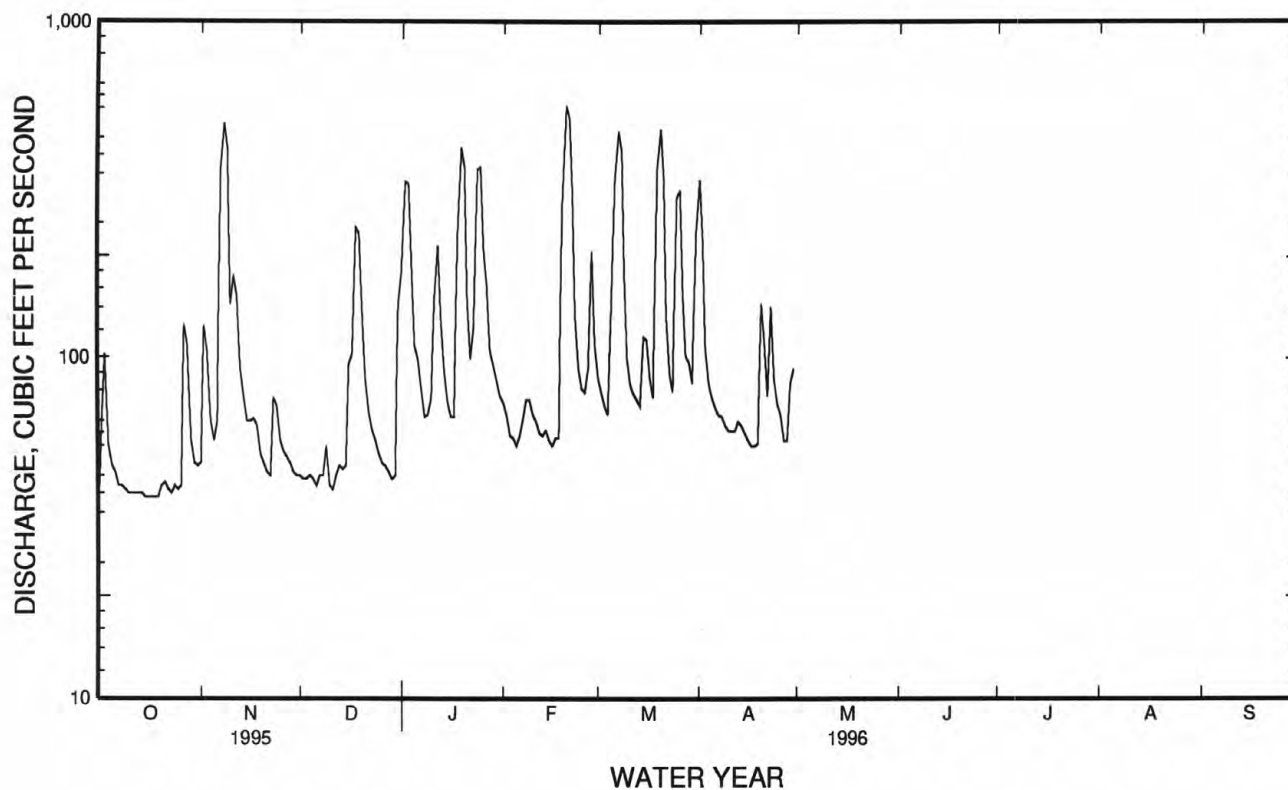
## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## WATER YEARS 1994 - 1996

ANNUAL TOTAL	30961	
ANNUAL MEAN	84.8	117
HIGHEST ANNUAL MEAN		156 1994
LOWEST ANNUAL MEAN		86.0 1995
HIGHEST DAILY MEAN	497	Nov 8
LOWEST DAILY MEAN	31	Sep 4
ANNUAL SEVEN-DAY MINIMUM	32	Aug 30
ANNUAL RUNOFF (CFSM)	1.45	2190 Jan 28 1994
ANNUAL RUNOFF (INCHES)	19.65	30 Oct6 1993
10 PERCENT EXCEEDS	175	a31 Oct1 1993
50 PERCENT EXCEEDS	50	2.00
90 PERCENT EXCEEDS	36	27.13
		251
		61
		36

a Also occurred Sept. 5.



## OBION RIVER BASIN

0702700 REELFOOT LAKE NEAR TIPTONVILLE, TN

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mi east of Blue Bank, 0.8 mi west of the spillway, and 3.3 mi southeast of Tiptonville.

DRAINAGE AREA.--240 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft above sea level.

REMARKS.--Missing record Jan. 7-14, Feb. 1-9. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft, from recorded range in stage, about Apr. 26, 1973; minimum, 9.59 ft, July 6, 7, 8, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft, at spillway, present datum, from information by local resident. Minimum stage at spillway, 9.30 ft, Nov. 20, 21, 1953 at a datum of 270.29 ft above sea level.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.02 ft, Jan. 30, 31; minimum 11.56 ft, Oct. 21.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.82	11.79	11.80	11.99	11.90	11.94	12.44	12.37	12.40	12.56	12.38	12.44
2	11.85	11.81	11.83	11.95	11.91	11.92	12.44	12.42	12.43	12.58	12.38	12.46
3	11.86	11.77	11.85	11.96	11.90	11.92	12.53	12.41	12.43	12.59	12.43	12.49
4	11.92	11.82	11.86	12.20	11.96	12.11	12.49	12.44	12.45	12.47	12.40	12.44
5	11.82	11.77	11.79	12.21	12.13	12.17	12.53	12.41	12.44	12.56	12.44	12.50
6	11.81	11.79	11.80	12.43	12.14	12.23	12.55	12.42	12.48	12.73	12.48	12.57
7	11.81	11.78	11.79	12.45	12.35	12.39	12.53	12.41	12.46	---	---	---
8	11.79	11.78	11.78	12.48	12.40	12.45	12.47	12.38	12.42	---	---	---
9	11.78	11.77	11.77	12.52	12.48	12.50	12.52	12.35	12.42	---	---	---
10	11.77	11.74	11.76	12.51	12.49	12.50	12.48	12.36	12.40	---	---	---
11	11.79	11.73	11.74	12.50	12.44	12.48	12.38	12.36	12.37	---	---	---
12	11.81	11.69	11.73	12.51	12.49	12.50	12.39	12.36	12.38	---	---	---
13	11.72	11.69	11.71	12.51	12.50	12.50	12.39	12.32	12.35	---	---	---
14	11.74	11.69	11.71	12.56	12.47	12.50	12.37	12.29	12.34	---	---	---
15	11.69	11.66	11.67	12.53	12.43	12.48	12.49	12.37	12.40	12.61	12.57	12.59
16	11.67	11.60	11.66	12.61	12.44	12.50	12.46	12.37	12.42	12.61	12.54	12.58
17	11.73	11.62	11.65	12.60	12.51	12.56	12.44	12.38	12.40	12.54	12.46	12.51
18	11.73	11.62	11.69	12.51	12.45	12.48	12.44	12.39	12.41	12.57	12.37	12.48
19	11.70	11.64	11.66	12.49	12.39	12.45	12.66	12.38	12.47	12.67	12.48	12.61
20	11.64	11.59	11.62	12.48	12.34	12.40	12.58	12.46	12.51	12.72	12.65	12.68
21	11.62	11.56	11.59	12.56	12.39	12.51	12.51	12.45	12.48	12.71	12.68	12.70
22	11.63	11.60	11.62	12.51	12.51	12.51	12.51	12.46	12.48	12.69	12.65	12.67
23	11.63	11.59	11.62	12.52	12.51	12.52	12.55	12.44	12.46	12.75	12.64	12.67
24	11.83	11.58	11.68	12.52	12.52	12.52	12.47	12.42	12.44	12.81	12.68	12.77
25	11.87	11.76	11.82	12.52	12.51	12.51	12.47	12.42	12.44	12.83	12.79	12.81
26	11.87	11.80	11.85	12.52	12.51	12.52	12.44	12.36	12.41	12.86	12.71	12.81
27	11.87	11.84	11.86	12.52	12.51	12.52	12.52	12.41	12.46	12.85	12.71	12.81
28	11.87	11.85	11.86	12.55	12.46	12.51	12.52	12.41	12.45	12.86	12.78	12.84
29	11.89	11.86	11.87	12.52	12.46	12.48	12.42	12.42	12.42	12.95	12.78	12.85
30	12.09	11.88	11.94	12.46	12.37	12.43	12.43	12.40	12.42	13.02	12.86	12.92
31	12.06	11.92	11.98	---	---	---	12.43	12.41	12.42	13.02	12.82	12.89
MONTH	12.09	11.56	11.76	12.61	11.90	12.40	12.66	12.29	12.43	---	---	---

OBION RIVER BASIN  
0702700 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	12.59	12.49	12.55	12.78	12.62	12.68	12.69	12.59	12.65
2	---	---	---	12.58	12.50	12.54	12.63	12.56	12.60	12.72	12.68	12.70
3	---	---	---	12.63	12.54	12.59	12.58	12.45	12.54	12.78	12.69	12.73
4	---	---	---	12.59	12.47	12.54	12.66	12.50	12.57	12.71	12.60	12.66
5	---	---	---	12.53	12.44	12.48	12.69	12.53	12.63	12.70	12.55	12.62
6	---	---	---	12.77	12.52	12.62	12.64	12.54	12.59	12.77	12.66	12.70
7	---	---	---	12.91	12.55	12.75	12.61	12.52	12.55	12.70	12.57	12.65
8	---	---	---	12.80	12.55	12.65	12.63	12.53	12.57	12.67	12.58	12.63
9	---	---	---	12.65	12.59	12.60	12.57	12.52	12.53	12.64	12.57	12.60
10	12.64	12.53	12.60	12.60	12.58	12.59	12.52	12.48	12.50	12.68	12.44	12.60
11	12.64	12.56	12.61	12.60	12.57	12.59	12.49	12.40	12.45	12.83	12.68	12.73
12	12.64	12.59	12.61	12.59	12.54	12.57	12.44	12.28	12.39	12.72	12.64	12.68
13	12.60	12.45	12.54	12.57	12.47	12.53	12.58	12.42	12.51	12.69	12.63	12.65
14	12.59	12.48	12.54	12.55	12.46	12.53	12.57	12.47	12.52	12.66	12.63	12.65
15	12.65	12.53	12.59	12.60	12.53	12.56	12.51	12.40	12.46	12.65	12.45	12.55
16	12.66	12.49	12.56	12.59	12.51	12.56	12.50	12.43	12.47	12.60	12.49	12.56
17	12.62	12.38	12.49	12.59	12.55	12.56	12.50	12.42	12.46	12.58	12.53	12.56
18	12.60	12.50	12.53	12.75	12.55	12.62	12.46	12.38	12.42	12.57	12.50	12.55
19	12.60	12.49	12.56	12.75	12.45	12.58	12.46	12.28	12.39	12.56	12.47	12.52
20	12.58	12.56	12.57	12.57	12.49	12.52	12.51	12.31	12.47	12.54	12.43	12.49
21	12.60	12.56	12.58	12.56	12.47	12.52	12.53	12.40	12.51	12.58	12.50	12.53
22	12.59	12.57	12.58	12.53	12.49	12.51	12.59	12.46	12.51	12.54	12.49	12.52
23	12.58	12.43	12.52	12.51	12.47	12.49	12.66	12.45	12.58	12.51	12.41	12.47
24	12.64	12.50	12.56	12.47	12.28	12.44	12.55	12.46	12.51	12.47	12.42	12.45
25	12.56	12.52	12.54	12.57	12.43	12.51	12.54	12.30	12.43	12.47	12.43	12.45
26	12.54	12.48	12.51	12.65	12.54	12.60	12.60	12.44	12.52	12.44	12.37	12.41
27	12.74	12.51	12.55	12.65	12.55	12.60	12.56	12.50	12.53	12.64	12.34	12.48
28	12.74	12.54	12.64	12.61	12.53	12.58	12.56	12.43	12.49	12.63	12.54	12.57
29	12.71	12.59	12.63	12.57	12.53	12.55	12.68	12.45	12.62	12.63	12.53	12.59
30	---	---	---	12.57	12.54	12.55	12.68	12.63	12.66	12.62	12.56	12.59
31	---	---	---	12.78	12.55	12.61	---	---	---	12.59	12.53	12.56
MONTH-	--	---	---	12.91	12.28	12.56	12.78	12.28	12.52	12.83	12.34	12.58

OBION RIVER BASIN  
0702700 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.55	12.48	12.52	12.40	12.36	12.38	12.49	12.40	12.45	12.12	12.08	12.10
2	12.59	12.54	12.56	12.39	12.34	12.36	12.57	12.49	12.54	12.14	12.06	12.10
3	12.58	12.48	12.54	12.42	12.31	12.36	12.57	12.54	12.55	12.13	12.10	12.11
4	12.58	12.52	12.54	12.35	12.29	12.31	12.54	12.50	12.52	12.14	12.08	12.10
5	12.56	12.51	12.54	12.30	12.25	12.28	12.51	12.47	12.49	12.13	12.07	12.09
6	12.57	12.44	12.51	12.26	12.20	12.24	12.54	12.51	12.53	12.11	12.04	12.08
7	12.62	12.53	12.56	12.35	12.12	12.21	12.54	12.51	12.53	12.08	12.04	12.06
8	12.64	12.56	12.60	12.31	12.21	12.23	12.61	12.52	12.54	12.04	11.97	12.02
9	12.72	12.56	12.66	12.28	12.22	12.25	12.62	12.51	12.54	12.06	12.01	12.03
10	12.81	12.71	12.75	12.29	12.22	12.25	12.52	12.48	12.50	12.07	12.00	12.03
11	12.88	12.81	12.85	12.27	12.23	12.24	12.50	12.46	12.47	12.03	11.98	12.00
12	12.92	12.84	12.88	12.24	12.22	12.23	12.49	12.43	12.46	12.02	11.96	11.99
13	12.90	12.85	12.87	12.24	12.17	12.22	12.46	12.41	12.43	12.01	11.94	11.97
14	12.85	12.82	12.84	12.33	12.17	12.26	12.41	12.38	12.40	11.96	11.93	11.94
15	12.82	12.75	12.79	12.35	12.31	12.32	12.38	12.33	12.36	12.00	11.92	11.94
16	12.75	12.66	12.71	12.32	12.25	12.30	12.35	12.31	12.33	12.27	11.97	12.13
17	12.66	12.60	12.63	12.29	12.23	12.25	12.33	12.27	12.32	12.27	12.18	12.22
18	12.63	12.59	12.61	12.25	12.17	12.21	12.31	12.27	12.29	12.32	12.23	12.27
19	12.62	12.58	12.60	12.21	12.16	12.19	12.29	12.26	12.28	12.32	12.29	12.31
20	12.63	12.59	12.60	12.43	12.17	12.21	12.27	12.25	12.26	12.32	12.30	12.31
21	12.59	12.54	12.58	12.24	12.16	12.21	12.25	12.23	12.24	12.48	12.32	12.43
22	12.55	12.52	12.54	12.27	12.20	12.23	12.23	12.20	12.22	12.48	12.44	12.46
23	12.52	12.47	12.49	12.22	12.18	12.20	12.20	12.17	12.19	12.52	12.44	12.48
24	12.52	12.40	12.45	12.26	12.16	12.18	12.20	12.16	12.19	12.55	12.46	12.50
25	12.57	12.48	12.52	12.22	12.16	12.18	12.18	12.14	12.16	12.52	12.48	12.50
26	12.56	12.50	12.52	12.19	12.14	12.16	12.17	12.04	12.13	12.57	12.39	12.46
27	12.52	12.47	12.50	12.16	12.11	12.13	12.15	12.12	12.13	12.72	12.56	12.63
28	12.50	12.45	12.47	12.13	12.08	12.11	12.17	12.13	12.14	12.70	12.67	12.69
29	12.46	12.42	12.45	12.20	12.07	12.13	12.16	12.11	12.14	12.72	12.70	12.71
30	12.43	12.40	12.41	12.27	12.16	12.21	12.15	12.09	12.12	12.74	12.71	12.72
31	---	---	---	12.43	12.24	12.36	12.13	12.07	12.09	---	---	---
MONTH	12.92	12.40	12.60	12.43	12.07	12.24	12.62	12.04	12.34	12.74	11.92	12.25



## OBION RIVER BASIN

07028930 TURKEY CREEK AT MEDINA, TN

LOCATION.--Lat 35°48'26", long 88°48'07", Gibson County, Hydrologic Unit 08010204, at upstream side of bridge on Highway 152, at the sewage treatment plant at Medina.

DRAINAGE AREA.--4.75 mi<sup>2</sup>.

PERIOD OF RECORD.--May to September 1996.

GAGE.--Data collection platform. Datum of gage is 370.00 ft above sea level.

REMARKS.--Records fair.

EXTREMES FOR CURRENT PERIOD.--May to September 1996: Maximum discharge; not determined, maximum gage height, 14.83 ft, June 9; no flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR MAY TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	e.45	14	.00	.46	.00
2	---	---	---	---	---	---	---	e.15	63	.00	.09	.30
3	---	---	---	---	---	---	---	e.10	.07	.00	.01	e.01
4	---	---	---	---	---	---	---	.06	.00	.00	.00	.00
5	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
6	---	---	---	---	---	---	---	.07	.01	.00	.00	e.00
7	---	---	---	---	---	---	---	1.5	4.8	.00	.00	.00
8	---	---	---	---	---	---	---	.14	38	e.54	.02	.00
9	---	---	---	---	---	---	---	.05	e430	e1.2	.02	.00
10	---	---	---	---	---	---	---	.00	13	e.00	.00	.00
11	---	---	---	---	---	---	---	31	5.3	e.00	.00	.00
12	---	---	---	---	---	---	---	.42	1.6	e.00	.00	.00
13	---	---	---	---	---	---	---	.12	11	e.00	.00	.00
14	---	---	---	---	---	---	---	.12	2.5	e.00	.00	.00
15	---	---	---	---	---	---	---	.06	.50	e.00	.00	.01
16	---	---	---	---	---	---	---	.01	.34	e.00	.00	.09
17	---	---	---	---	---	---	---	.00	.37	.00	.00	.03
18	---	---	---	---	---	---	---	.00	.30	.00	.00	.01
19	---	---	---	---	---	---	---	.00	.26	.00	.00	.01
20	---	---	---	---	---	---	---	.00	.21	.00	.00	.01
21	---	---	---	---	---	---	---	.00	.12	.00	.00	79
22	---	---	---	---	---	---	---	.00	.00	6.2	.00	.15
23	---	---	---	---	---	---	---	.00	.00	2.1	.00	.03
24	---	---	---	---	---	---	---	.00	.00	49	.00	.00
25	---	---	---	---	---	---	---	.00	e.17	.64	.00	.01
26	---	---	---	---	---	---	---	.00	.00	.09	.00	.07
27	---	---	---	---	---	---	---	.23	.00	.00	.00	65
28	---	---	---	---	---	---	---	.06	.00	.00	.01	54
29	---	---	---	---	---	---	---	.00	.00	56	.00	.17
30	---	---	---	---	---	---	---	.00	.00	29	.00	.08
31	---	---	---	---	---	---	---	.00	---	41	.00	---
TOTAL	---	---	---	---	---	---	---	34.54	585.55	185.77	0.61	198.99
MEAN	---	---	---	---	---	---	---	1.11	19.5	5.99	.020	6.63
MAX	---	---	---	---	---	---	---	31	430	56	.46	79
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
CFSM	---	---	---	---	---	---	---	.23	4.11	1.26	.00	1.40
IN.	---	---	---	---	---	---	---	.27	4.59	1.45	.00	1.56

e Estimated

## HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TN

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank 25 ft upstream from bridge on State Highway 18, 250 ft upstream from Illinois Central Gulf Railroad bridge, 0.6 mi downstream from Spring Creek, 1.5 mi northeast of Bolivar, and at mile 135.1.

DRAINAGE AREA.--1,480 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Data collection platform. Datum of gage is 323.49 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 28	1030	*8,490	*15.37				

Minimum discharge, 289 ft<sup>3</sup>/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	334	508	694	2700	4640	2770	6940	6530	3300	429	3230	363
2	330	720	682	3320	4450	2560	6530	5650	2600	414	3080	473
3	335	1030	669	3880	3950	2420	5750	4870	2140	403	2970	1100
4	344	1380	735	3940	3390	2250	4980	4050	1780	385	2580	1710
5	356	1350	763	3890	2770	2060	4340	2900	1500	370	2350	1860
6	369	1010	765	3830	2310	2030	3770	1860	1230	354	1800	1360
7	373	1320	760	3790	1980	2460	3160	1710	1270	344	1030	868
8	369	2260	734	3590	1850	2970	2530	2070	1560	348	696	667
9	361	3060	770	3330	2000	3170	2020	1960	2900	371	617	560
10	352	3460	862	2900	2180	3360	1580	1470	4600	412	624	492
11	346	3580	947	2530	2330	3770	1290	1340	4420	427	556	448
12	341	3820	931	2440	2480	4400	1140	1880	4880	425	492	417
13	338	4010	884	2520	2620	4990	1060	2240	4380	377	447	392
14	338	4070	850	2610	2760	5160	1020	2100	3630	355	419	376
15	333	3920	816	2660	2780	4980	979	1630	3010	378	406	367
16	334	3740	872	2710	2630	4550	951	1210	2470	387	396	427
17	343	3450	1240	2680	2340	3810	920	987	1830	439	381	954
18	334	2940	2280	2700	1890	2990	887	858	1170	443	364	1620
19	324	2270	3610	3370	1650	3000	857	771	862	402	360	1880
20	326	1540	4230	3580	2400	3370	1410	707	736	361	345	1720
21	326	1070	4320	3600	2910	3570	3310	657	667	333	337	1460
22	324	882	4330	3370	3290	3590	3860	616	617	321	327	1960
23	328	819	4620	3180	3380	3710	4060	581	573	457	316	2620
24	327	840	5110	4000	3550	3940	4110	552	548	496	306	3080
25	322	879	5440	4280	3750	5810	4540	529	519	817	297	3140
26	319	860	5350	4480	3790	6180	5360	528	519	721	297	3170
27	382	814	4940	4500	3620	6630	7150	510	506	540	319	4340
28	485	777	4410	4460	3510	6730	8400	672	483	435	361	4020
29	656	748	3670	4540	3120	6830	8120	1660	453	508	403	3840
30	695	720	2460	4650	---	7060	7490	4100	453	1150	394	3770
31	597	---	2140	4710	---	7210	---	4290	---	2670	389	---
TOTAL	11641	57847	70884	108740	84320	128330	108514	61488	55606	16272	26889	49454
MEAN	376	1928	2287	3508	2908	4140	3617	1983	1854	525	867	1648
MAX	695	4070	5440	4710	4640	7210	8400	6530	4880	2670	3230	4340
MIN	319	508	669	2440	1650	2030	857	510	453	321	297	363
CFSM	.25	1.30	1.54	2.37	1.96	2.80	2.44	1.34	1.25	.35	.59	1.11
IN.	.29	1.45	1.78	2.73	2.12	3.23	2.73	1.55	1.40	.41	.68	1.24

HATCHIE RIVER BASIN  
07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

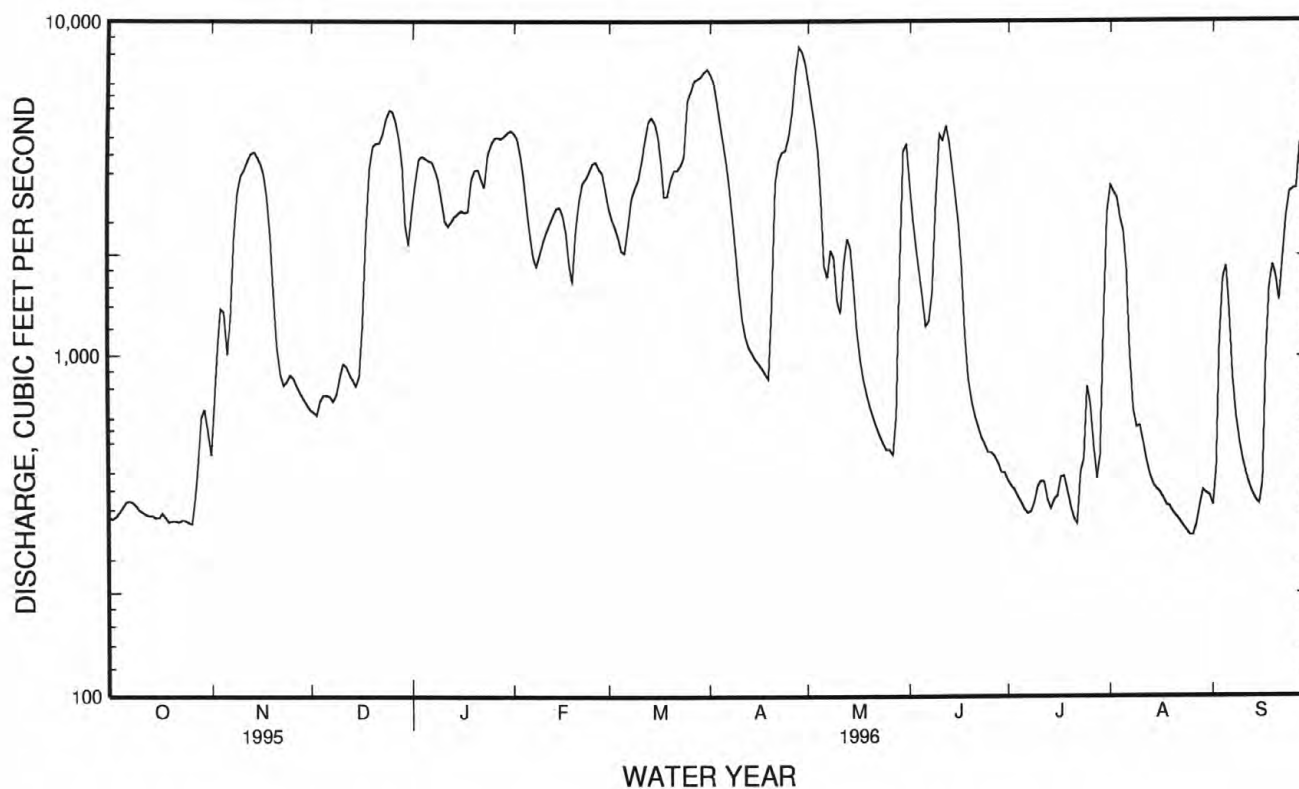
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

MEAN	704	1678	3241	4477	4674	4534	3987	2702	1392	926	618	725
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 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1929 - 1996

ANNUAL TOTAL	674942		779985			
ANNUAL MEAN	1849		2131			2460
HIGHEST ANNUAL MEAN						5003
LOWEST ANNUAL MEAN						971
HIGHEST DAILY MEAN	11100	Mar 12	8400	Apr 28	59300	Mar 18 1973
LOWEST DAILY MEAN	271	Sep 12	297	Aug 25	80	Sep 1 1943
ANNUAL SEVEN-DAY MINIMUM	280	Sep 6	314	Aug 21	85	Aug 26 1943
INSTANTANEOUS PEAK FLOW			8490	Apr 28	a61600	Mar 18 1973
INSTANTANEOUS PEAK STAGE			15.37	Apr 28	21.66	Mar 18 1973
INSTANTANEOUS LOW FLOW			289	Aug 26	78	Sep 2 1943
ANNUAL RUNOFF (CFSM)	1.25		1.44			1.66
ANNUAL RUNOFF (INCHES)	16.96		19.61			22.58
10 PERCENT EXCEEDS	4470		4490			6030
50 PERCENT EXCEEDS	1120		1650			1100
90 PERCENT EXCEEDS	341		359			271

a From rating curve extended above 34,000 ft<sup>3</sup>/s.



## 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 mi<sup>2</sup>.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 25	0800	5,730	15.85	June 9	1310	*6,690	*17.55

Minimum discharge, 68 ft<sup>3</sup>/s, Sept. 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	83	97	834	139	310	524	141	128	111	764	100
2	87	343	96	1500	133	268	296	136	2050	110	243	251
3	90	199	96	476	118	239	247	125	504	106	183	141
4	91	106	97	241	111	223	224	121	272	103	158	99
5	89	98	97	182	107	228	203	117	194	103	143	94
6	86	100	94	155	112	405	194	119	179	101	137	89
7	85	1710	96	136	121	1010	186	3270	1020	101	132	84
8	84	451	96	124	129	421	178	1140	555	104	127	81
9	85	156	107	123	128	269	169	296	5610	114	122	81
10	85	124	98	120	121	237	164	191	1580	98	117	79
11	83	371	94	216	116	228	162	1080	806	95	114	77
12	83	205	95	424	105	216	161	472	634	95	113	75
13	83	124	95	196	104	210	166	220	284	94	111	72
14	82	113	95	150	109	203	166	173	210	93	109	70
15	82	109	94	127	106	459	152	159	183	98	107	71
16	82	107	102	115	101	541	146	147	170	92	105	99
17	82	105	99	112	101	348	141	137	159	107	106	120
18	81	104	368	775	102	252	139	132	248	90	105	75
19	82	102	607	786	966	1190	164	127	208	87	102	73
20	84	102	211	236	1190	494	1220	124	154	87	100	71
21	82	101	137	181	421	303	456	121	143	86	99	272
22	81	101	118	154	301	250	259	120	137	107	97	143
23	80	105	112	314	261	227	584	117	132	1310	96	81
24	80	104	108	3480	235	217	292	115	129	734	94	72
25	79	101	107	588	213	3700	202	111	133	1120	95	69
26	82	101	105	405	211	1030	169	110	124	188	293	70
27	97	101	104	410	339	428	151	113	120	135	591	2320
28	96	97	102	224	1400	341	142	202	117	158	135	1630
29	80	97	101	189	445	324	140	502	116	269	105	315
30	79	97	101	171	---	284	188	167	112	1780	98	169
31	80	---	1660	154	---	690	---	128	---	3260	148	---
TOTAL	2609	5817	5589	13298	8045	15545	7585	10233	16411	11136	5049	7043
MEAN	84.2	194	180	429	277	501	253	330	547	359	163	235
MAX	97	1710	1660	3480	1400	3700	1220	3270	5610	3260	764	2320
MIN	79	83	94	112	101	203	139	110	112	86	94	69
CFSM	.32	.74	.69	1.64	1.06	1.91	.97	1.26	2.09	1.37	.62	.90
IN.	.37	.83	.79	1.89	1.14	2.21	1.08	1.45	2.33	1.58	.72	1.00

## LOOSAHATCHIE RIVER BASIN

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

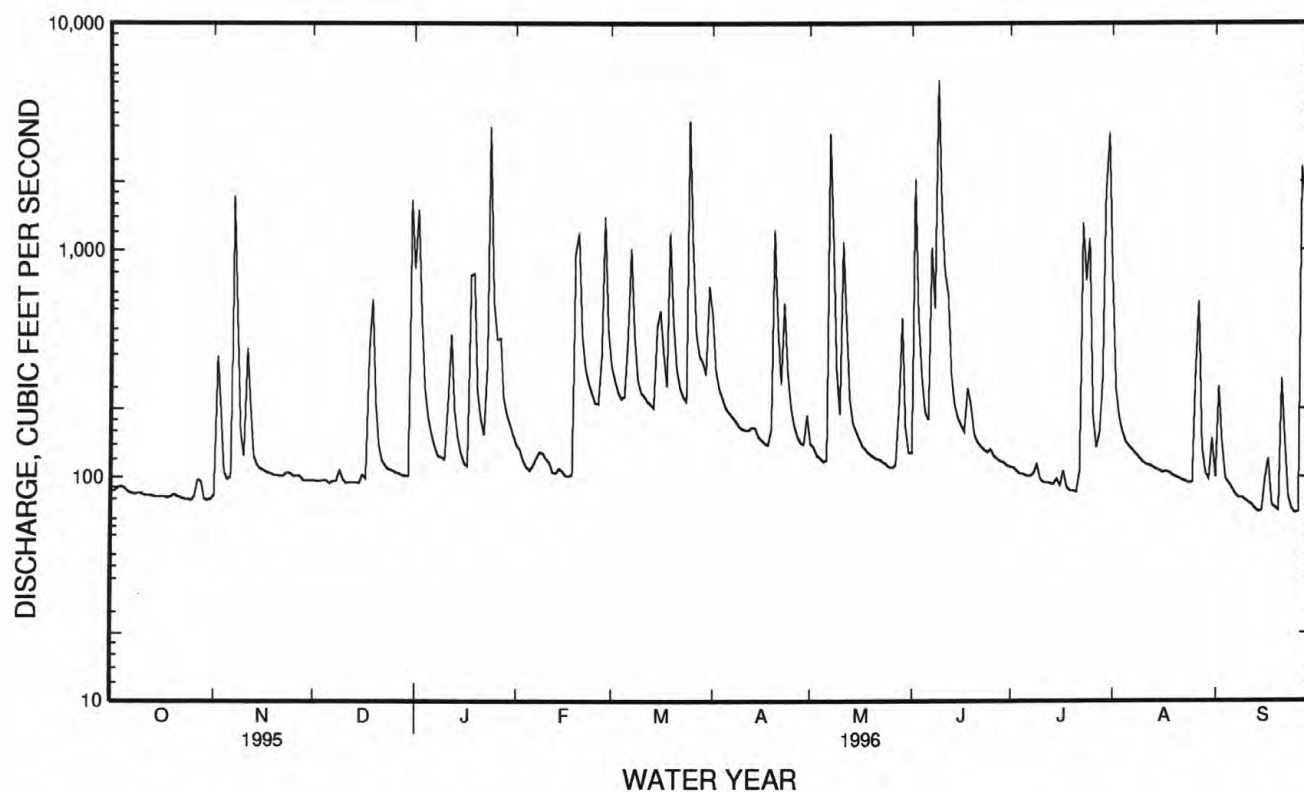
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

MEAN	131	331	613	510	638	590	588	382	288	206	153	145
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	128	141	107	93.8	86.7	87.5	84.3	80.7
(WY)	1970	1972	1977	1981	1995	1986	1978	1988	1972	1970	1982	1982

SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1970 - 1996

ANNUAL TOTAL	87624		108360									
ANNUAL MEAN	240		296							380		
HIGHEST ANNUAL MEAN										769		1989
LOWEST ANNUAL MEAN										154		1986
HIGHEST DAILY MEAN	6260	Aug 5	5610	Jun 9						19900	Dec 26	1987
LOWEST DAILY MEAN	79	Oct 25	69	Sep 25						66	Apr 7	1974
ANNUAL SEVEN-DAY MINIMUM	81	Oct 19	75	Sep 9						68	Nov 5	1982
INSTANTANEOUS PEAK FLOW			6690	Jun 9						27400	Dec 25	1987
INSTANTANEOUS PEAK STAGE			17.55	Jun 9						25.27	Dec 25	1987
INSTANTANEOUS LOW FLOW			a68	Sep 25						66	Apr 6	1974
ANNUAL RUNOFF (CFSM)	.92		1.13							1.45		
ANNUAL RUNOFF (INCHES)	12.44		15.39							19.70		
10 PERCENT EXCEEDS	317		585							592		
50 PERCENT EXCEEDS	117		128							117		
90 PERCENT EXCEEDS	90		84							85		

a Also occurred Sept. 26.





## WOLF RIVER BASIN

07030392 WOLF RIVER AT LAGRANGE, TN

LOCATION.---Lat 35°01'57" long 89°14'48", Fayette County, Hydrologic Unit 08010210, on right bank on upstream side of bridge on Yager Road, 0.95 mi south LaGrange, and at mile 72.6.

DRAINAGE AREA.--210 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1995 to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 350 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.--September 1995 to September 1996: Maximum discharge, 1230 ft<sup>3</sup>/s, Mar. 27, 1996, gage height 11.18; minimum daily discharge, 68 ft<sup>3</sup>/s, Sept. 3, 1995.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR SEPTEMBER TO SEPTEMBER 1995  
DAILY MEAN VALUES

[illegible]

WOLF RIVER BASIN  
07030392 WOLF RIVER AT LAGRANGE, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	120	133	275	228	294	588	154	368	92	379	103
2	75	214	133	412	222	244	494	140	290	91	286	348
3	79	173	134	485	188	199	397	127	351	88	232	646
4	79	156	142	472	185	182	294	117	274	87	153	795
5	78	153	141	399	191	183	241	108	180	93	120	733
6	79	152	137	281	187	236	222	104	134	89	107	331
7	78	353	136	221	209	359	211	163	144	86	100	170
8	77	417	139	188	260	430	201	186	277	86	98	127
9	77	479	171	185	296	385	189	153	613	93	101	110
10	77	511	183	182	319	292	178	129	687	90	101	100
11	77	436	179	199	280	236	170	214	512	85	95	94
12	76	335	166	254	228	213	165	472	358	83	95	89
13	74	263	159	311	197	201	164	690	236	84	95	85
14	76	236	153	347	181	193	165	589	177	84	95	82
15	77	205	150	271	168	192	163	323	156	93	94	83
16	77	183	188	220	161	190	159	205	140	93	91	111
17	76	167	249	193	158	185	156	164	130	90	89	175
18	76	157	450	205	154	183	152	142	124	89	89	254
19	76	148	621	284	208	270	174	127	128	89	86	344
20	80	142	724	338	378	347	266	117	121	88	87	222
21	82	136	619	409	368	438	308	112	113	87	87	231
22	80	135	413	302	387	338	300	106	109	88	89	358
23	79	153	269	251	297	251	347	100	105	90	87	393
24	80	165	212	572	227	215	396	97	101	96	84	377
25	78	168	188	593	197	589	588	92	98	107	84	218
26	79	163	176	667	182	896	402	90	100	100	93	137
27	121	157	168	509	179	1060	240	96	97	93	116	316
28	176	147	159	385	254	608	179	522	95	95	116	570
29	178	140	151	357	265	397	150	808	93	96	123	559
30	159	135	147	294	---	331	160	693	93	140	117	477
31	131	---	192	247	---	426	---	582	---	301	112	---
TOTAL	2776	6499	7182	10308	6754	10563	7819	7722	6404	3066	3701	8638
MEAN	89.5	217	232	333	233	341	261	249	213	98.9	119	288
MAX	178	511	724	667	387	1060	588	808	687	301	379	795
MIN	69	120	133	182	154	182	150	90	93	83	84	82
CFSM	.43	1.03	1.10	1.58	1.11	1.62	1.24	1.19	1.02	.47	.57	1.37
IN.	.49	1.15	1.27	1.83	1.20	1.87	1.39	1.37	1.13	.54	.66	1.53

## WOLF RIVER BASIN

07030392 WOLF RIVER AT LAGRANGE, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

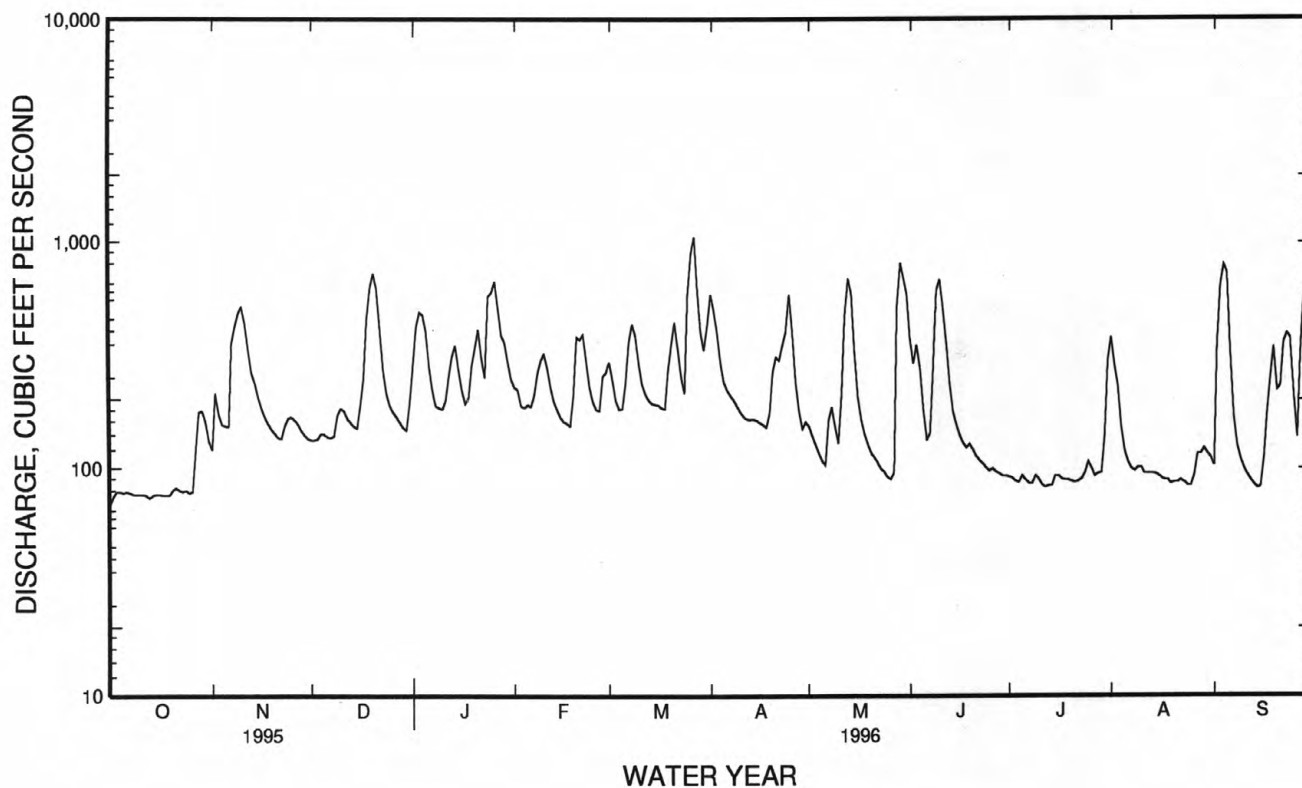
MEAN	89.5	217	232	333	233	341	261	249	213	98.9	119	181
MAX	89.5	217	232	333	233	341	261	249	213	98.9	119	288
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	89.5	217	232	333	233	341	261	249	213	98.9	119	73.5
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1995 - 1996

ANNUAL TOTAL	81432		
ANNUAL MEAN	222		222
HIGHEST ANNUAL MEAN			222
LOWEST ANNUAL MEAN			222
HIGHEST DAILY MEAN	1060	Mar 27	1060
LOWEST DAILY MEAN	69	Oct 1	68
ANNUAL SEVEN-DAY MINIMUM	76	Oct 12	70
INSTANTANEOUS PEAK FLOW	1230	Mar 27	1230
INSTANTANEOUS PEAK STAGE	11.18	Mar 27	11.18
ANNUAL RUNOFF (CFSM)	1.06		1.06
ANNUAL RUNOFF (INCHES)	14.43		14.40
10 PERCENT EXCEEDS	437		420
50 PERCENT EXCEEDS	169		159
90 PERCENT EXCEEDS	86		77



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## 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1969 to September 1986, October 1990 to current year. Prior to September 1977 published as "near Germantown".

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft above sea level. Apr. 21, 1986, to Dec. 30, 1990, water-stage recorder at site 2.1 mi downstream at datum 9.94 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. National Weather Service rain gage and telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 10	----	Unknown	Unknown				

Minimum discharge, 224 ft<sup>3</sup>/s, Oct. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	524	351	1920	749	794	1480	547	1430	368	2450	463
2	257	1510	345	2360	669	655	1430	487	1780	363	2320	489
3	248	896	340	1900	602	594	1260	453	1800	358	1840	615
4	245	766	345	1460	552	561	1060	430	1780	347	1240	800
5	249	644	354	1030	523	585	877	411	1470	338	756	769
6	249	521	352	866	491	837	745	412	897	334	617	847
7	242	1000	348	777	501	1520	640	1180	2010	344	526	892
8	236	941	385	678	545	1170	582	767	1410	456	470	893
9	234	828	412	595	585	926	543	692	2900	518	449	748
10	234	771	406	558	565	768	510	589	e6850	411	398	563
11	234	1160	378	686	560	703	488	1540	e5100	360	378	458
12	233	935	369	799	552	642	474	1340	e4700	343	368	409
13	233	855	379	708	543	581	483	1090	e2700	337	362	374
14	232	791	384	625	524	538	464	788	2210	363	353	349
15	229	670	388	588	500	513	448	725	1530	350	346	359
16	228	583	399	583	473	496	430	779	924	355	339	538
17	230	523	439	583	448	472	426	755	714	337	353	446
18	233	475	897	1150	431	500	421	618	955	331	333	441
19	232	438	1260	1250	1730	941	465	504	804	324	325	398
20	240	413	1120	1040	1830	955	1360	435	722	316	323	401
21	230	393	982	792	1740	792	1670	391	606	311	319	521
22	230	374	883	650	1350	650	1730	366	538	308	318	588
23	231	457	842	863	995	611	1830	343	496	319	315	632
24	229	422	786	2530	800	634	1490	335	470	1010	311	596
25	229	407	677	2330	705	2510	1070	320	446	799	307	541
26	230	389	576	2390	622	2260	817	309	423	426	321	562
27	375	382	505	2110	742	2250	722	340	407	366	588	1910
28	326	377	462	1850	1330	2040	721	582	403	380	589	1640
29	344	370	432	1400	1030	1910	695	1030	386	801	487	1560
30	338	359	412	1080	---	1720	609	1000	375	1020	500	1520
31	344	---	2190	879	---	1550	---	1170	---	3380	476	---
TOTAL	7879	19174	18398	37030	22687	31678	25940	20728	47236	16373	19077	21322
MEAN	254	639	593	1195	782	1022	865	669	1575	528	615	711
MAX	375	1510	2190	2530	1830	2510	1830	1540	6850	3380	2450	1910
MIN	228	359	340	558	431	472	421	309	375	308	307	349
CFSM	.36	.91	.85	1.71	1.12	1.46	1.24	.96	2.25	.76	.88	1.02
IN.	.42	1.02	.98	1.97	1.21	1.69	1.38	1.10	2.51	.87	1.02	1.13

e Estimated



## WOLF RIVER BASIN

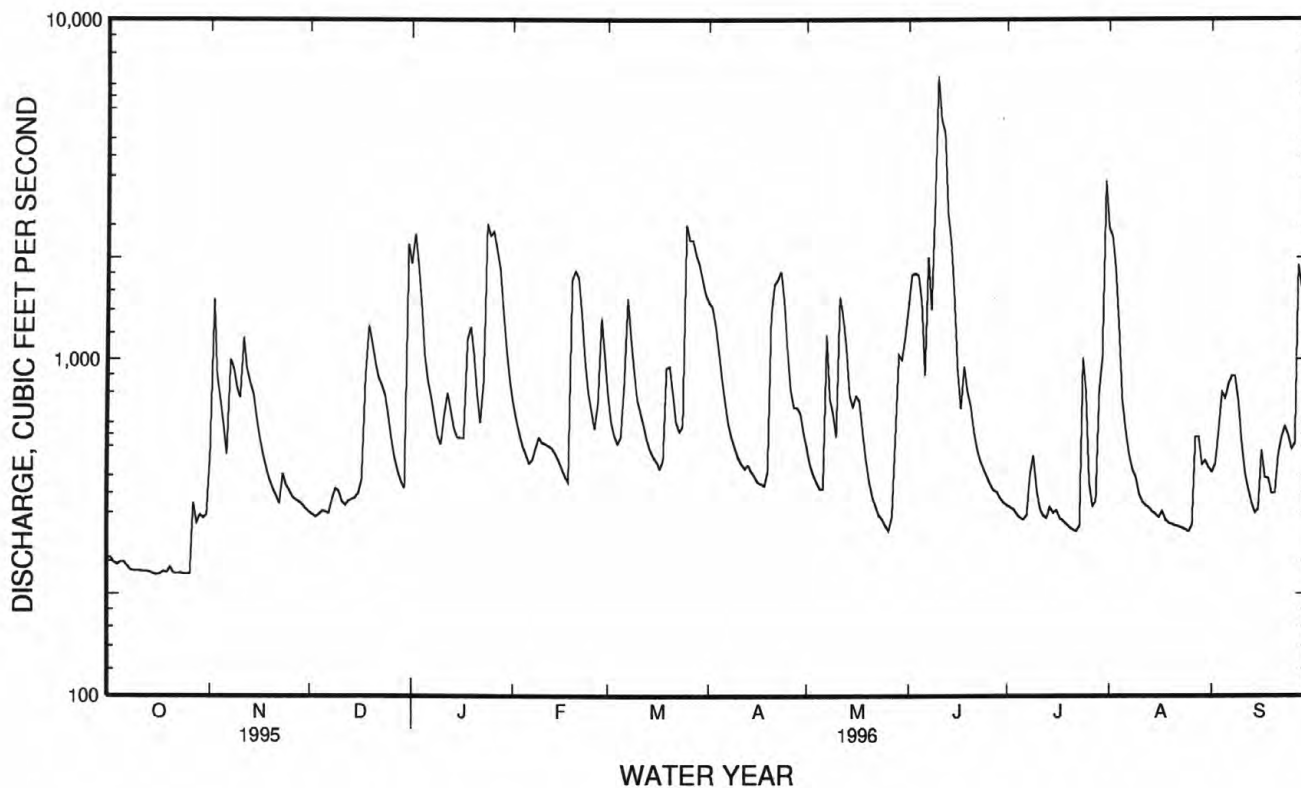
07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1995, BY WATER YEAR (WY)

MEAN	416	759	1587	1394	1299	1672	1666	1310	765	455	409	430
MAX	1063	1991	4939	3504	3256	4854	4805	4542	1986	985	776	1345
(WY)	1985	1980	1983	1974	1991	1980	1991	1991	1974	1994	1995	1979
MIN	213	239	439	372	532	569	448	364	271	258	240	244
(WY)	1970	1972	1981	1981	1995	1986	1986	1992	1972	1971	1986	1986

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1970 - 1996

ANNUAL TOTAL	228794		287522									
ANNUAL MEAN	627		786							1013		
HIGHEST ANNUAL MEAN										1807		1991
LOWEST ANNUAL MEAN										497		1986
HIGHEST DAILY MEAN	3860	Mar 8	6850	Jun 10						30400	Mar 14	1975
LOWEST DAILY MEAN	228	Oct 16	228	Oct 16						196	Sep 15	1972
ANNUAL SEVEN-DAY MINIMUM	231	Oct 13	231	Oct 13						199	Sep 12	1972
INSTANTANEOUS PEAK FLOW			UNKNOWN	Jun 10						33400	Mar 14	1975
INSTANTANEOUS PEAK STAGE			UNKNOWN	Jun 10						27.98	Mar 14	1975
INSTANTANEOUS LOW FLOW			224	Oct 16						184	Oct 8	1987
ANNUAL RUNOFF (CFSM)	.90		1.12							1.45		
ANNUAL RUNOFF (INCHES)	12.18		15.30							19.68		
10 PERCENT EXCEEDS	1150		1650							2170		
50 PERCENT EXCEEDS	466		555							524		
90 PERCENT EXCEEDS	262		320							278		



NONCONNAH CREEK BASIN  
07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, Hydrologic Unit 08010211, on right bank, 100 ft upstream from bridge on Winchester Road, 2.6 mi south of Germantown, and at mile 17.3.

DRAINAGE AREA.--68.2 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional low-flow measurements, 1959-1964 and 1969; October 1969 to May 1985, October 1985 to January 1995, June 1996 to current year.

REVISED RECORDS.--WRD TN-74-1: Drainage area, WRD TN-87-1 (P).

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft above sea level, (from levels by National Resources Conservation Service).

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

EXTREMES FOR CURRENT PERIOD.--June to September 1996: Peak discharges greater than base discharge of 3,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 31	1045	*7,620	19.81	No other peak greater than base discharge.			

Minimum discharge, 0.12 ft<sup>3</sup>/s, July 18, 19, 21, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR JUNE TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	50	2.3	e710	2.8
2	---	---	---	---	---	---	---	---	318	2.6	e440	48
3	---	---	---	---	---	---	---	---	61	6.5	e45	17
4	---	---	---	---	---	---	---	---	18	4.6	e18	15
5	---	---	---	---	---	---	---	---	14	2.4	e13	12
6	---	---	---	---	---	---	---	---	20	2.3	e15	6.6
7	---	---	---	---	---	---	---	---	899	2.3	e130	5.5
8	---	---	---	---	---	---	---	---	209	51	e70	2.5
9	---	---	---	---	---	---	---	---	655	13	e90	5.9
10	---	---	---	---	---	---	---	---	225	3.8	e35	2.5
11	---	---	---	---	---	---	---	---	51	2.3	e18	2.9
12	---	---	---	---	---	---	---	---	20	1.7	e11	1.9
13	---	---	---	---	---	---	---	---	14	.90	e5.0	1.5
14	---	---	---	---	---	---	---	---	8.4	63	e2.1	.67
15	---	---	---	---	---	---	---	---	8.0	46	e1.3	16
16	---	---	---	---	---	---	---	---	5.3	2.7	e1.0	207
17	---	---	---	---	---	---	---	---	4.4	1.5	e40	20
18	---	---	---	---	---	---	---	---	298	.64	e35	6.5
19	---	---	---	---	---	---	---	---	122	.54	e6.0	3.2
20	---	---	---	---	---	---	---	---	19	.97	e1.5	3.6
21	---	---	---	---	---	---	---	---	8.8	.74	e1.1	96
22	---	---	---	---	---	---	---	---	6.7	3.0	e.70	31
23	---	---	---	---	---	---	---	---	5.4	7.6	e.99	15
24	---	---	---	---	---	---	---	---	4.3	370	e.82	9.3
25	---	---	---	---	---	---	---	---	9.3	151	e.90	8.5
26	---	---	---	---	---	---	---	---	5.1	11	e1.3	26
27	---	---	---	---	---	---	---	---	3.0	13	e40	992
28	---	---	---	---	---	---	---	---	2.1	44	20	367
29	---	---	---	---	---	---	---	---	2.3	106	5.6	63
30	---	---	---	---	---	---	---	---	2.8	111	147	15
31	---	---	---	---	---	---	---	---	---	3360	15	---
TOTAL	---	---	---	---	---	---	---	---	3068.9	4388.39	1920.31	2003.87
MEAN	---	---	---	---	---	---	---	---	102	142	61.9	66.8
MAX	---	---	---	---	---	---	---	---	899	3360	710	992
MIN	---	---	---	---	---	---	---	---	2.1	.54	.70	.67
CFSM	---	---	---	---	---	---	---	---	1.50	2.08	.91	.98
IN.	---	---	---	---	---	---	---	---	1.67	2.39	1.05	1.09

e Estimated

## NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

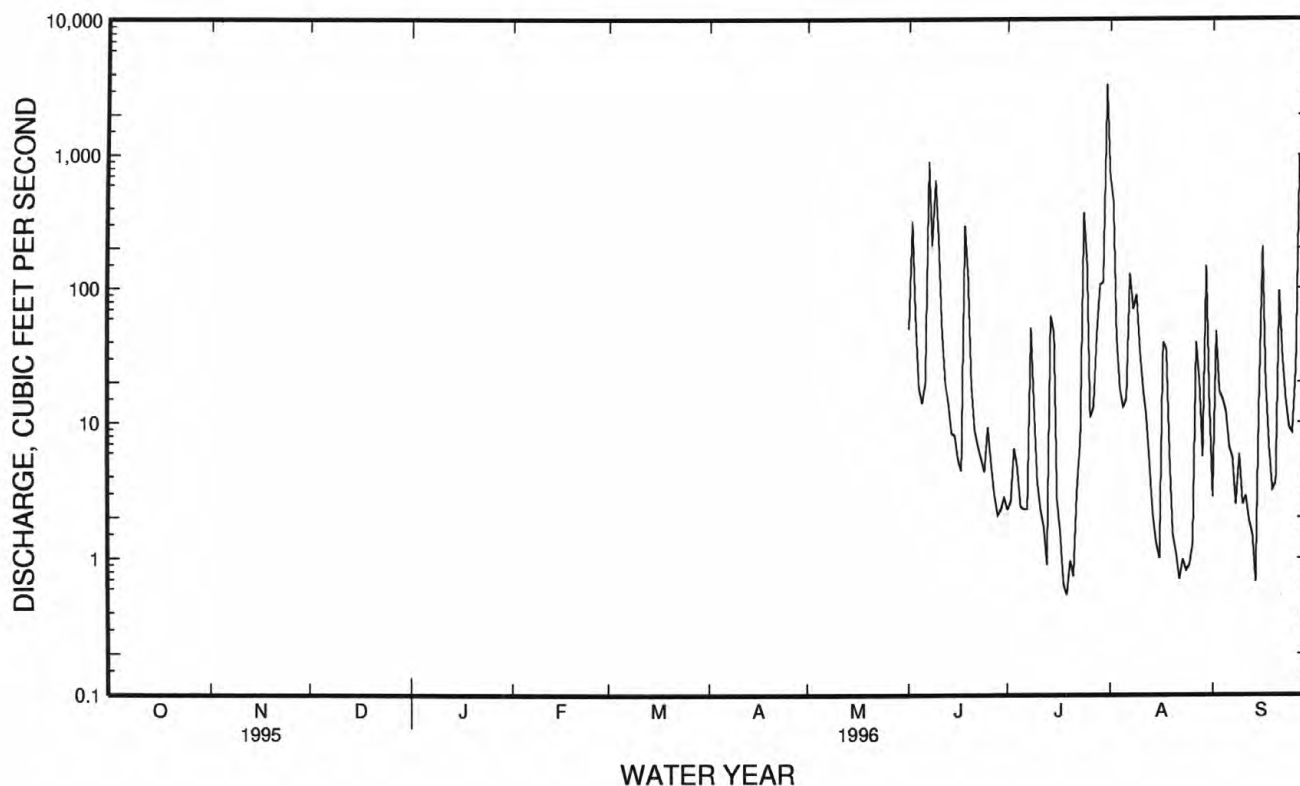
MEAN	14.1	99.1	181	156	187	203	191	114	62.4	43.4	15.4	23.2
MAX	69.4	323	616	531	604	659	834	407	300	354	77.4	164
(WY)	1990	1989	1983	1974	1989	1980	1991	1979	1974	1989	1978	1977
MIN	.000	.21	2.24	.41	14.6	15.2	9.44	3.74	3.09	.70	.37	.087
(WY)	1970	1972	1977	1986	1978	1986	1978	1988	1988	1976	1980	1984

## SUMMARY STATISTICS      FOR 1995 CALENDAR YEAR      FOR 1996 WATER YEAR      WATER YEARS 1970 - 1996

ANNUAL MEAN										108		
HIGHEST ANNUAL MEAN										215		1979
LOWEST ANNUAL MEAN										22.4		1986
HIGHEST DAILY MEAN							3360	Jul	31	5900	Jul	2 1989
LOWEST DAILY MEAN							.54	Jul	19	.00	Oct	1 1969
ANNUAL SEVEN-DAY MINIMUM							1.0	Aug	20	.00	Oct	1 1969
INSTANTANEOUS PEAK FLOW							7620	Jul	31	13100	Jul	2 1989
INSTANTANEOUS PEAK STAGE							19.81	Jul	31	27.11	Mar	12 1975
INSTANTANEOUS LOW FLOW							b.12	Jul	18	.00	Oct	1 1969
ANNUAL RUNOFF (CFSM)										1.58		
ANNUAL RUNOFF (INCHES)										21.50		
10 PERCENT EXCEEDS							208			186		
50 PERCENT EXCEEDS							10			4.9		
90 PERCENT EXCEEDS							1.2			.13		

a No flow at times most years.

b Also occurred on July 19, 21, 22.



## 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 hydrologic studies reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from current meter or indirect measurements of peak flow. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 <sup>2</sup> .	1934, 1955-82, 1985-96	6- 9-96	6.22	-	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 <sup>2</sup> includes 6.0 mi <sup>2</sup> without surface drainage.	1942-91, † 1992-96	11-07-95	13.34	8,550	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 <sup>2</sup> .	1942-91†, 11-07-95 1992-96		7.89	6,710	9- 2-82	17.14	23,500

See footnotes at the end of 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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 <sup>2</sup> , includes 34 mi <sup>2</sup> without surface drainage.	1974-91†, 1992-96	11-07-95	11.57	4,860	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 <sup>2</sup> .	1978-96	10-5-95	2.27	-	8-31-82	7.28	-
Charles Creek near McMinn- ville, 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 <sup>2</sup> .	1955-96	7-22-96	8.27	2,440	6-22-89	17.03	24,800
Mulherrin Creek near Gordons- ville, 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 <sup>2</sup> .	1982, 1986-96	5-15-96	15.11	-	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 <sup>2</sup> .	1986-96	5-7-96	33.20	-	3- 6-89	40.41	-
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 <sup>2</sup> .	1986-96	5-7-96	27.76	-	9-23-89	29.24	-
Station Camp Creek at Cottontown, TN (03425637)	Lat 36°27'06", long 86°32'16", Sumner County, Hydrologic Unit 05130201, at State Highway 25 bridge in Cottontown.	1995-96	5-7-96	13.96	-	11-27-94	14.73	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
CUMBERLAND RIVER BASIN--Continued								
East Fork Stones River at Wood- bury, 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 <sup>2</sup> .	1962-89† 1990-96	7-21-96	11.21	3,200	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 <sup>2</sup> .	1983-96	7-21-96	26.78	2,580	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 <sup>2</sup> .	1983-96	7-21-96	3.35	-	4-20-95	5.86	-
East Fork Stones River near Lascassas, TN (03427500)	Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 50 ft upstream from highway bridge, 2.5 mi southwest of Lascassas, 3.7 mi downstream of Bradley Creek, 6.0 mi northeast of the courthouse in Murfreesboro, and at mi 15.4. Datum of gage is 507.88 ft, Sandy Hook Datum. Drainage area is 262 mi <sup>2</sup> .	1950-58†, 1963-91†, 1992-96	7-22-96	27.79	16,400	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 <sup>2</sup> .	1989-92†, 1993-96	7-21-96	7.24	2,020	7-21-96	7.24	2,020
Lytle Creek at Sanbyrne Drive at Murfreesboro, TN (03428043)	Lat 35°49'38", long 86°23'28", Rutherford County, Hydrologic Unit 05130203, at bridge on Sanbyrne Drive, 1 mi south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft above sea level.	1978-90, 1991-92†, 1993-96	7-21-96	2.36	-	9- 4-86	2.55	-
Unnamed Sink near Almaville, TN (03428270)	Lat 35°51'21", Long 86°32'21" Rutherford Count, Hydrologic Unit 05130203, on left down- stream wingwall of culvert on Shored Road, 2.4 miles south- east of Almaville. Datum of gage is sea level.	1994-96	7-21-96	603.40	-	3-27-94	607.36	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 <sup>2</sup> , includes 43 mi <sup>2</sup> without surface drainage.	1965-91†, 1992-96	10-5-95	10.17	9,440	3-13-75	19.18	63,800
Unnamed Sink on I-840 at Leanna, TN (03428513)	Lat 35°56'13", long 86°26'14", Rutherford County, Hydrologic Unit 05130203, 100 ft above culvert on I-840, 0.4 mile southwest of Leanna. Datum of gage is sea level.	1994-96	7-21-96	531.85	-	6-26-94	532.37	-
Unnamed Sink at Leanna, TN (03428515)	Lat 35°56'19", long 86°26'49", Rutherford County, Hydrologic Unit 05130203, 100 ft south of intersection of E. Buckeye Bottom Road and Sulphur Springs Road 0.9 mi west of Leanna. Datum of gage is sea level. Datum of gage is sea level.	1994-96	7-21-96	512.20	-	3- 8-95	512.78	-
McCrary 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 inter- section 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 <sup>2</sup> .	1977-96b	10 -5-95	7.69	1,720	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 north- west of Nolensville. Datum of gage is 586.18 ft above sea level. Drainage area is 12.0 mi <sup>2</sup> .	1965-96	10-5-95	8.52	7,370	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 <sup>2</sup> .	1965-96	10-5-95	7.51	-	9-13-79	9.58	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
CUMBERLAND RIVER BASIN--Continued								
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 <sup>2</sup> .	1965-96	10-5-95	15.50	13,000	5- 4-79	20.63	26,200
Mill Creek trib- utary at Glen- rose 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 <sup>2</sup> .	1977-96b	7-21-96	7.00	550	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 <sup>2</sup> .	1965-96	10-5-95	6.24	1,520	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 <sup>2</sup> .	1965-96	7-21-96	5.09	607	5- 3-93	5.37	690
Browns Creek at Factory Street, at Nashville, TN (03431340)	Lat 36°08'26", long 86°45'31", Davidson County, Hydrologic Unit 05130202, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 mi southeast of State capitol in Nashville. Datum of gage is 420.66 ft above sea level. Drainage area is 13.2 mi <sup>2</sup> .	1965-96	10- 5-95	8.06	2,840	9-13-79	10.89	7,800

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
CUMBERLAND RIVER BASIN--Continued								
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. Drain- age area is 2.01 mi <sup>2</sup> .	1977-96b	10- 5-95	5.61	1,940	12- 3-78	6.20	-
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. Drain- age area is 6.29 mi <sup>2</sup> .	1965-96	7-21-96	6.41	1,054	5- 3-93	9.43	2,510
Ewing Creek at Richmond Hill Drive at Park- wood, 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 <sup>2</sup> .	1976-96	10- 5-95	495.89	-	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 <sup>2</sup> .	1976-96	10- 5-95	477.43	-	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 down- stream 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 <sup>2</sup> .	1976-96	10- 5-95	462.57	-	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 <sup>2</sup> .	1976-96	10- 5-95	448.72	-	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. Drain- age area is 1.51 mi <sup>2</sup> .	1976-96	10- 5-95	544.70	-	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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 inter- section of Bedford Avenue and Abbott Martin Road, at Green Hills. Datum of gage is sea level. Drainage area is 2.19 mi <sup>2</sup> .	1976-96	10- 5-95	531.54	-	11-27-94	531.54	-
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 topographic map. Drainage area is 97.2 mi <sup>2</sup> .	1961-87†, 1988-91†, 1992-96	11- 7-95	9.88	5,230	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 <sup>2</sup> .	1986-96	10- 5-95	18.68	-	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 <sup>2</sup> .	1978-96	11- 5-95	13.64	4,250	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 <sup>2</sup> .	1984-96	7-22-96	5.15	830	5- 6-84	9.87	3,750
Bartons Creek near Cumberland Furnace, TN (034350021)	Lat 36°15'02", long 87°20'00", Dickson County, Hydrologic Unit 05130205, at bridge on Stayton road, 1.9 mi south- east of Cumberland Furnace. Drainage area is 22.3 mi <sup>2</sup> .	1984-96	10- 2-95	10.42	-	5-27-91	14.93	-
Louise Creek near Grays Chapel, TN (034350035)	Lat 36°21'52", long 87°20'30", Montgomery County, Hydrologic Unit 05130206, at bridge on old State Highway 48, 2.8 mi south of Liverworth. Drainage area is 12.7 mi <sup>2</sup> .	1995-96	9-27-96	7.54	-	5- 9-95	8.50	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
CUMBERLAND RIVER BASIN--Continued								
Honey Run Creek near Cross Plains, TN (034351105)	Lat 36°31'52", long 87°40'10" Robertson County, Hydrologic Unit 05130206, at county road bridge, 1.2 mi north-northwest of Calistia. Drainage area is 17.0 mi <sup>2</sup> .	1995-96	10- 5-95	12.96	-	11-27-94	13.55	
Honey Run Creek below Cross Plains, TN (034351113)	Lat 36°32'31", long 86°42'14", Robertson County, Hydrologic Unit 05130206, at Empson Bridge on county road, 0.4 mi above mouth of Empson branch, 0.6 mi southwest of Cross Plains. Drainage area is 20.0 mi <sup>2</sup> .	1986-96	10- 5-95	21.94	-	2- 3-90	23.11	-
Beaver Dam Creek above Springfield (03435739)	Lat 36°31'40", long 86°49'29" Robertson County, Hydrologic Unit 05130206, at county road bridge 3.6 miles north- east of Springfield, and at mile 1.6. Drainage area is 12.9 mi <sup>2</sup> .	1995-96	11- 7-95	10.69	-	5- 9-95	12.03	
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 <sup>2</sup> .	1975-88†, 1988-96	11- 7-95	10.50	3,100	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 <sup>2</sup> .	1986-96	5-15-95	19.04	-	5-17-90	22.23	-
Sulphur Fork Red River above Port Royal, TN (03436082)	Lat 36°32'23", long 87°06'51", Robertson County, Hydrologic Unit 05130206, 1.7 miles south- east of Port Royal. Drainage area is 214 mi <sup>2</sup> .	1995-96	11- 7-95	28.63	-	5-19-95	35.67	
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 <sup>2</sup> , includes 437 mi <sup>2</sup> without surface drainage.	1961-91†, 1992-96	5- 8-96	23.63	11,000	3-13-75	48.26	60,300
Passenger Creek near Sango, TN (03436130)	Lat 36°32'07", long 87°11'50" Montgomery County, Hydrologic Unit 05130206 at county road bridge 2.0 mi northeast of Sango. Datum of gage is sea level. Drainage area is 20.5 mi <sup>2</sup> .	1995-96	-	<393.62	-	5- 9-95	396.37	-

See footnotes at the end of 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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
CUMBERLAND RIVER BASIN--Continued								
Cummings Creek near Dotson- ville, 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 <sup>2</sup> .	1984-96	5-15-96	7.61	-	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 Leather- wood 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 <sup>2</sup> .	1980-91†, 1992-96	5-20-96	8.82	2,150	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 <sup>2</sup> .	1957-80†, 1982-95	5-15-95	12.97	6,410	5- 6-84	17.75	16,200
TENNESSEE RIVER BASIN								
Caney Creek near Cosby, TN (03461230)	Lat 35°47'03", long 83°12'11", Coke County, Hydrologic Unit 06010106, at culvert under State Highway 32, 3.3 mi southeast of Cosby. Drainage area is 1.62 mi <sup>2</sup> .	1967-96	1-26-96	6.45	275	1-26-96	6.45	275
Cherokee Creek near Embree- ville, 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 <sup>2</sup> .	1984-96	1-19-96	15.06	-	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 <sup>2</sup> .	1983-96	5-29-96	7.45	-	5-29-96	7.46	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 <sup>2</sup> .	1984-96	1-27-96	15.00	5,680	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 <sup>2</sup> .	1986-96	1-27-96	13.18	1,680	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 north- east of Kimbrough Crossroad, 1.8 mi northwest of White Pine. Drainage area is 4.25 mi <sup>2</sup> .	1986-96	1-27-96	6.28	-	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 south- east of Witt, 2.2 mi northwest of White Pine. Drainage area is 2.01 mi <sup>2</sup> .	1986-96	1-27-96	11.91	99	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 north- west of White Pine, 2.7 mi northeast of Kimbrough Cross- road. Drainage area is 6.38 mi <sup>2</sup> .	1986-96	1-27-96	6.03	787	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 south- east of Jefferson City, 4.6 mi north of Dandridge. Drainage area is 3.65 mi <sup>2</sup> .	1986-96	1-27-96	10.33	115	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 <sup>2</sup> .	1983-96	5-26-96	9.10	-	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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /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 High- way 37 bridge, 1.5 mi south- east of Blountville. Datum of gage is 1500.00 ft above sea level. Drainage area is 2.50 mi <sup>2</sup> .	1983-96	5-25-96	12.68	98	5-25-96	12.68	98
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 <sup>2</sup> .	1963-89†, 1990-96	1-27-97	9.10	1470	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 <sup>2</sup> .	1986-96	7-3-96	<17.93	-	7- 7-89	21.03	-
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 <sup>2</sup> .	1986-96	1-27-96	11.54	575	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 <sup>2</sup> .	1986-96	1-26-96	10.69	-	6-27-94	12.86	-
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 <sup>2</sup> .	1986-96	7-31-96	10.97	-	12-23-90	12.37	-
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 <sup>2</sup> .	1966-77, 1979-96	8- 1-96	5.33	305	6-23-81	8.29	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
TENNESSEE RIVER BASIN--Continued								
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 <sup>2</sup> .	1965-75†, 1976-96	1-26-96	6.82	518	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 <sup>2</sup> .	1986-96	8- 1-96	6.54	975	6- 4-91	8.95	2,450
Crooked Creek near Maynard- ville, 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 north- east of Paulette. Drainage area is 2.23 mi <sup>2</sup> .	1986-96	5- 6-96	4.05	-	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 <sup>2</sup> .	1932-34†, 1955-96	6-9-96	5.27	2,140	4- 5-77	10.57	7,950d
Willow Fork near Halls Cross- roads, 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 <sup>2</sup> .	1967-96	8-1-96	5.88	135	3-16-73	8.08	878
Coker Creek near Ironsburg, TN (03555900)	Lat 35°13'05", long 84°20'28", Monroe County, Hydrologic Unit 06020002, at bridge on State Highway 68, 4.2 mi southwest of Coker Creek. Drainage area is 22.4 mi <sup>2</sup> .	1983-93e 1996	1-26-96	12.43	-	3- 8-95	11.93	-
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 <sup>2</sup> .	1964-89†, 1992-96	10-5-96	7.89	2,540	3-16-73	9.75	7,300

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
TENNESSEE RIVER BASIN--Continued								
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 <sup>2</sup> .	1925,1944, 1953-56, 1980-96	10- 5-95	36.19 36.19	- -	10- 5-95	36.19	-
Stringers Branch at Leawood Drive, at Red Bank, TN (03569168)	Lat 35°07'00", long 85°17'28", Hamilton County, Hydrologic Unit 06020001, at bridge on Leawood Drive at Red Bank. Drainage area is 1.54 mi <sup>2</sup> .	1980-96	8-11-96	28.24	-	8-11-96	28.24	-
Little Sequatchie River at Sequatchie, TN (03571500)	Lat 35°07'47", long 85°35'10", Marion County, Hydrologic Unit 06020004, at Highway 27 bridge, 1.0 mi northeast of Sequatchie. Drainage area is 116 mi <sup>2</sup> .	1925,1929, 1930, 1932-34†, 1944, 1951-54, 1965,1979-96	10- 5-95	10.87	8,960	12-22-90	11.78	10,600
Standifer Branch at Jasper, TN (03571730)	Lat 35°04'22", long 85°36'56", Marion County, Hydrologic Unit 06020004, at bridge on U.S. Highways 41, 64, and 72, 0.6 mi east of courthouse, 0.8 mi above Town Creek, at Jasper. Drainage area is 15.3 mi <sup>2</sup> .	1982-96	10- 5-95	17.06	-	12-22-90	19.59	-
Battle Creek near Mont- eagle, 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 <sup>2</sup> .	1955-96	10- 5-95	8.45	4,010	3-12-63	12.20	10,200
Richland Creek near Corners- ville, 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 Corners- ville. Datum of gage is 754.28 ft above sea level. Drainage area is 47.5 mi <sup>2</sup> .	1962-68†, 1969-96	10- 5-95	15.21	9,230	7-11-89	16.58	11,400
Owl Creek at Lexington, TN (035944242)	Lat 35°38'26", long 88°22'13", Henderson County, Hydrologic Unit 06040001, on State High- way 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 <sup>2</sup> .	1984-96	7-31-96	24.60	-	12- 3-90	26.35	-

See footnotes at the end of 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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
TENNESSEE RIVER BASIN--Continued								
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. Drain- age area is 4.99 mi <sup>2</sup> .	1966-96	7-22-96	5.39	508	3-15-73	12.64	3,220
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 <sup>2</sup> .	1984-96	5-28-96	22.72	175	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 down- stream side of bridge, 40 ft upstream from Pretty Creek, 0.2 mi northwest of Vernon, 2.3 mi downstream from Mill Creek, 6.5 mi north of Centerville, and at mile 8.3. Drainage area is 193 mi <sup>2</sup> .	1925-93†, 1996	2-19-96	9.23	3,950	5-27-91	24.42	49,400
Coon Creek above Chop Hollow, near Hohen- wald, 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 <sup>2</sup> .	1967-96	7-22-96	3.26	170	12- 9-72	6.80	3,150
Blue Creek near New Hope, TN (03604580)	Lat 36°03'52", long 87°38'58", Humphreys County, Hydrologic Unit 06040003, at county road bridge, 1.8 mi north- west of New Hope, 3.1 mi southeast of McEwen, and at mi 3.9. Drainage area is 13.2 mi <sup>2</sup> .	1984-96	1996 X	<17.04	-	6-13-89	18.82	-
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 Johnson- ville. Datum of gage is 377.05 ft above sea level. Drainage area is 31.9 mi <sup>2</sup> .	1963-88†, 1989-96	2-19-96	7.01	1,820	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 <sup>2</sup> .	1984-96	5-15-96	17.54	-	12-25-87	18.74	-

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 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
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 <sup>2</sup> .	1984-96	6- 9-96	9.87	-	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. High- way 70, 0.6 mi southwest of Leach, 5.6 mi northeast of Cedar Grove. Drainage area is 0.91 mi <sup>2</sup> .	1984-96	6-17-96	14.63	-	12-25-87	15.38	-
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 down- stream 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 <sup>2</sup> .	1929-66†, 1967-71†, 1989-93†, 1994-96	7-31-96	19.36	12,200	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 <sup>2</sup> .	1987-96	6-9-96	9.12	-	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 <sup>2</sup> .	1955-78, 1980-83, 1985-96	7-31-96	16.91	1,930	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 <sup>2</sup> .	1957-62†, 1963-70†, 1986-88†, 1989-96	11- 7-95	18.40	3,390	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<sup>3</sup>/s occurred on 5-30-27, from reports of Tennessee Valley Authority.d A peak discharge of 8,000 ft<sup>3</sup>/s occurred on 3-23-29, from reports of Tennessee Valley Authority.

e Datum of gage prior to 1995 water year unknown due to bridge replacement.

f Revised.

## 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 designated by an asterisk (\*); measurements of peak flow by a dagger(†).

Discharge measurements made at miscellaneous sites during water year 1996

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
TENNESSEE RIVER BASIN						
03578000 Elk River	Elk River to Tennessee River	Lat 35°17'48", long 85°52'12", Grundy County, Hydrologic Unit 06030003, on right bank at downstream side of bridge on U.S. Highway 41, 1.1 mi southeast of Pelham, 1.8 mi upstream from Caldwell Creek, and at mile 194.2.	65.6	a1952-88	10- 2-95	*8.7
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	1986-95	10-25-95 2-27-96 5-22-96 7-17-96	4.4 20.2 15.8 *1.7
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	1986-95	10-25-95 2-27-96 5-22-96 7-17-96	1.5 3.3 3.1 *1.4

a. Operated as a continuous-record gaging station.

#### DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

### Miscellaneous Sites--Continued

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
WOLF RIVER BASIN						
070303505 Big Creek	Loosahatchie River	Lat 35°19'33", long 89°49'50" Shelby County, Hydrologic Unit 08010209, at bridge on Sledge Road, 4.9 mi upstream from U.S. Highway 51, at Millington.	53.6		8-31-95 *1.2 10-25-95 *4.2 2- 6-96 *5.7 2-15-96 *7.4 2-21-96 33.4 3- 1-96 22.7 3-12-96 15.0 3-22-96 19.5 3-27-96 28.8 4- 3-96 18.3 4- 9-96 14.1 4-19-96 51.2 4-26-96 14.7 5- 2-96 14.7 5- 9-96 21.9 5-15-96 16.7 5-22-96 *4.5 6- 6-96 *5.5 6-12-96 42.5 6-27-96 *4.5 8- 9-96 17.0	
070303515 Big Creek	Loosahatchie River	Lat 35°19'59", long 89°53'53" Shelby County, Hydrologic Unit 08010209, at Raliegh- Millington Rd., 1.1 mi upstream from U.S. Highway 51, at Millington, and at mile 9.6	87.9		2- 6-96 *7.7 2-15-96 *9.2 2-21-96 58.9 3- 1-96 31.1 3-12-96 22.1 3-22-96 24.3 3-27-96 51.2 4- 3-96 24.8 4- 9-96 12.7 4-19-96 81.9 4-26-96 22.1 5- 2-96 18.3 5- 9-96 44.2 5-15-96 22.3 5-22-96 *8.9 6- 6-96 *6.2 6-12-96 68.0 8- 9-96 20.2	
07030352 Big Creek	Loosahatchie River	Lat 35°20'04", long 89°55'02" Shelby County, Hydrologic Unit 08010209, 1.5 mi southwest of Millington, at U.S. Highway 51 Bridge, and at mile 8.5.	91.0		8-31-95 *3.4 10-25-95 *3.9	



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Miscellaneous Sites--Continued

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
WOLF RIVER BASIN--Continued						
070303512 North Fork Creek	Big Creek to Loosahatchie River	Lat 35°20'28", long 89°53'21" Shelby County, Hydrologic Unit 08010209, at Navy Road, 1.2 mi east of U.S. Highway 51, at Millington.	17.1		2- 6-96	*.73
					2-15-96	*1.0
					2-21-96	16.9
					3- 1-96	7.6
					3-12-96	5.7
					3-22-96	5.2
					3-27-96	16.6
					4- 3-96	6.6
					4 -9-96	2.0
					4-19-96	27.2
					4-26-96	5.3
					5- 2-96	2.9
					5- 9-96	13.0
					5-15-96	4.5
					5-22-96	*.50
07030353 Royster Creek	Big Creek to Loosahatchie River	Lat 35°20'14", long 89°55'00" Shelby County, Hydrologic Unit 08010209, at Biloxi Avenue, 1.2 mi southwest of Millington, 0.1 mi west U.S. Highway 51.	18.2		6- 6-96	*1.14
					6-12-96	17.1
					4-18-96	2.1
					4-26-96	4.6
					5- 2-96	1.8\
					5- 9-96	6.1
					5-15-96	3.3
					5-22-96	*.55
					6- 6-96	*.36
					6-12-96	15.0

## 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 1996 water year are given in the following table.

## Discharge measurement of springs during water year 1996

Site number and name	Location	Tributary to	Date	Discharge (gpm) (ft <sup>3</sup> /sec)	
BEDFORD COUNTY					
0352331086183701 Sons Spring	Lat 35°23'31", long 86°18'37"01, Hydrologic Unit 06040002, 1.1 mi northeast of Raus.	Anderton Branch to Thompson Creek to Duck River	1-22-96	6.7	.015
			1-30-96	30.5	.068
			2- 9-96	26.9	.060
			2-14-96	14.4	.032
			3- 6-96	19.2	.043
			3-27-96	11.2	.025
			4-12-96	10.0	.022
			4-26-96	22.7	.051
			5-10-96	15.3	.034
			6- 6-96	4.0	.009
			7 -2-96	3.8	.008
8 -2-96	3.3	.007			
	8-30-96	4.4	.010		
GRUNDY COUNTY					
03420187 Unnamed Spring	Lat 35°29'45", long 85°40'01", Hydrologic Unit 05130107, 0.7 mi west of Tarlton, 2.2 mi north of Beersheba Springs.	Collins River to Caney Fork to Cumberland River	11-27-95	34,300	76.4

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES

Miscellaneous synoptic sampling sites are short-term sites at which water-quality data are collected during a selected seasonal or hydrologic period. These data are used to assess the spatial distribution of water-quality conditions as a result of factors, such as land use, for the period and conditions sampled. The sites shown on the following pages are synoptic sampling sites for the National Water-Quality Assessment (NAWQA) Program.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TENNESSEE RIVER BASIN

## 03461080 - PIGEON RIVER NEAR DENTON, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JUL 10...	1115	71	198	8.1	23.5	733	--	--	55	820	27	0
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUL 10...		7.4	2.1	26	66	2	1.9	37	29	14	<0.10	8.5
DATE		SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)
JUL 10...		122	114	0.17	23.4	0.290	0.020	0.07	0.290	0.310	0.310	0.03
DATE		NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JUL 10...		0.18	0.020	0.20	0.20	0.51	0.51	0.020	0.010	0.020	91	5
DATE		CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, SUS-PENDED TOTAL (MG/L AS C) (00689)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB, SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)
JUL 10...		3.4	0.2	<0.001	0.01	<0.005	E0.004	0.03	<0.002	<0.02	<0.02	<0.02

e Estimated

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03497450 - LITTLE RIVER ABOVE COULTER BRIDGE NEAR MARYVILLE, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCEI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
JUL 09...	1100	107	84	8.0	24.5	735	--	--	130	840	37	1
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
JUL 09...	11		2.4	1.5	8	0.1	0.70	36	2.4	0.80	<0.10	5.9
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)
JUL 09...	50		47	0.07	14.4	0.160	0.010	0.03	0.160	0.170	0.170	0.04
DATE		NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
JUL 09...	0.030		<0.20	<0.20	0.020	0.010	0.010	38	7	1.5	0.3	3
DATE		SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB, SULFONE WATFLT, GF 0.7U REC (UG/L) (49313)	ALDI-CARB SUL-FOXIDE, WATFLT, GF 0.7U REC (UG/L) (49314)
JUL 09...	0.87		81	<0.001	<0.002	<0.005	<0.002	<0.001	<0.002	<0.02	<0.02	<0.02

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03498863 - LITTLE RIVER ABOVE ROCKFORD, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CaCO3) (00904)
JUN 24...	1145	203	149	7.4	26.0	738	8.4	107	190	240	70	4
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WATER DIS-TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
JUN 24...		20	4.8	1.6	5	0.1	1.1	66	3.6	1.7	<0.10	6.6
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (PER DAY) (70302)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)
JUN 24...		86	81	0.12	47.1	0.410	0.010	0.03	0.410	0.420	0.420	0.03
DATE		NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)
JUN 24...		0.020	<0.20	<0.20	<0.010	<0.010	<0.010	37	15	1.2	0.4	13
DATE		SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	MALATHION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRAZINE, WATER, DISS. REC (UG/L) (39632)	ALACHLOR, WATER, DISS. REC (UG/L) (46342)	ALDICARB, WATER, FLTRD. GF 0.7U REC (UG/L) (49312)	ALDICARB, SULFONE, WATER, FLTRD. GF 0.7U REC (UG/L) (49313)	ALDICARB SULFOXIDE, WATER, FLTRD. GF 0.7U REC (UG/L) (49314)
JUN 24...		7.1	96	<0.001	0.01	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02



ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03538580 - EMORY RIVER NEAR LANCING, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JUN 26...	1200	18	76	7.5	27.0	739	7.8	101	K10	700	26
DATE	HARD-NESS NONCARB DISSOLV FLD AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
JUN 26...	10	5.9	2.7	2.2	15	0.2	1.0	16	12	2.5	<0.10
DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
JUN 26...	5.0	48	42	0.06	2.37	<0.010	0.110	0.110	0.110	0.03	0.020
DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUN 26...	<0.20	<0.20	<0.010	<0.010	<0.010	150	6	1.4	0.1	3	0.15
DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE WATER, DISS. REC (UG/L) (39632)	ALA-CHLOR WATER, DISS. REC (UG/L) (46342)	ALDI-CARB. WATER, FLTRD. GF 0.7U REC (UG/L) (49312)	ALDI-CARB. SULFONE WATER, FLT GF 0.7U REC (UG/L) (49313)	ALDI-CARB. SULF. FOXIDE, WATER, FLT GF 0.7U REC (UG/L) (49314)	
JUN 26...	64	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02	

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03538860 - OBED RIVER AT POTTER FORD NEAR CROSSVILLE, TN

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
JUL 25...	1115	152	7.7	23.0	733	6.5	79	55	350	36	0
DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
JUL 25...	12	1.5	12	40	0.9	2.9	38	7.4	16	0.10	0.58
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)
JUL 25...	--	76	--	<0.010	0.100	0.100	0.100	0.05	0.26	0.040	0.30
DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)
JUL 25...	0.20	0.40	0.30	<0.010	0.010	0.020	45	51	3.2	0.6	6
DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	MALATHION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRAZINE, WATER, DISS. REC (UG/L) (39632)	ALACHLOR, WATER, DISS. REC (UG/L) (46342)	ALDICARB, WATER, FLTRD. GF 0.7U REC (UG/L) (49312)	ALDICARB, Sulfone, WATER, FLTRD. GF 0.7U REC (UG/L) (49313)	ALDICARB, SULFOXIDE, WATER, FLTRD. GF 0.7U REC (UG/L) (49314)	
JUL 25...	80	<0.001	<0.002	<0.005	<0.002	0.01	<0.002	<0.02	<0.02	<0.02	

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03539690 - DADDYS CREEK AT DEVILS BREAKFAST TABLE, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
JUL 24...	1230	7.6	112	8.0	27.5	728	--	--	K7	73	44	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	
JUL 24...	1	15	1.5	3.7	15	0.2	1.6	42	5.5	5.5	<0.10	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
JUL 24...	0.97	63	60	0.09	1.29	0.150	0.010	0.03	0.150	0.160	0.160	
DATE		NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
JUL 24...	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	57	15	1.9	0.2	5	
DATE		SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THON, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE, WATER, DISS. REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS. REC. (UG/L) (46342)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT.FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT.FLT GF 0.7U REC (UG/L) (49314)
JUL 24...	0.10	31	<0.001	<0.002	<0.005	<0.002	0.02	<0.002	<0.02	<0.02	<0.02	

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03539717 - CLEAR CREEK AT NORRIS FORD NEAR JONES KNOB, TN

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	
JUL 23...	1215	50	6.9	25.0	719	6.3	81	K4	180	11	3	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WATER DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	
JUL 23...	2.7		1.1	2.6	30	0.3	1.6	8	6.4	4.8	<0.10	0.78
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)
JUL 23...	30		26	0.04	<0.010	0.120	0.120	0.120	0.10	0.12	0.080	0.20
DATE		NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, DIS-SOLVED (MG/L AS N) (00602)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)
JUL 23...	0.30		0.32	0.42	<0.010	<0.010	--	330	170	2.6	0.7	--
DATE		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	METOLACHLOR, WATER DISSOLV (UG/L) (39415)	MALATHION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALACHLOR, WATER, DISS, REC (UG/L) (46342)	ALDICARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDICARB, SULFONE, WATER, FLT, GF 0.7U REC (UG/L) (49313)	ALDICARB, SULFOXIDE, WATER, FLT, GF 0.7U REC (UG/L) (49314)	
JUL 23...	--		<0.001	<0.002	<0.005	<0.002	0.04	<0.002	<0.02	<0.02	<0.02	

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03539735 - CLEAR CREEK AT WALTMAN FORD BRIDGE, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CaCO3) (00904)
JUL 22...	1215	2.2	43	7.3	27.5	729	8.0	106	K8	2700	11	1
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM DIS-SOLVED (MG/L AS MG) (00925)	SODIUM DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY WATER DIS-SOLVED (MG/L AS CaCO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)
JUL 22...		2.7	0.92	2.6	32	0.3	1.3	10	4.4	3.6	<0.10	0.81
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
JUL 22...		--	23	--	--	<0.010	0.160	0.160	0.160	0.05	0.26	0.040
DATE		NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN DIS-SOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)
JUL 22...		0.30	<0.20	0.46	0.030	0.030	0.030	200	31	2.3	0.2	2
DATE		SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	MALATHION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRAZINE, WATER, DISS. REC (UG/L) (39632)	ALACHLOR, WATER, DISS. REC (UG/L) (46342)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB, SULFONE, WATER, FLTRD, GF 0.7U REC (UG/L) (49313)	ALDI-CARB, SULFOXIDE, WATER, FLTRD, GF 0.7U REC (UG/L) (49314)
JUL 22...		0.01	68	<0.001	E0.003	<0.005	<0.002	0.08	<0.002	<0.02	<0.02	<0.02

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

E Estimated



ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03541498 - WHITES CREEK NEAR RODDY, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
JUN 25...	1230	40	127	8.0	25.0	741	--	--	K120	240	51	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	
JUN 25...	7	16	2.6	3.5	13	0.2	1.3	44	9.6	3.6	<0.10	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
JUN 25...	4.1	72	68	0.10	7.80	<0.010	0.300	0.300	0.300	0.03	0.020	
DATE		NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUN 25...	<0.20	<0.20	0.010	0.010	0.020	33	16	2.2	0.3	4	0.43	
DATE		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE WATER, DISS, REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB, SULFONE, WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	
JUN 25...	97	<0.001	<0.002	<0.005	<0.002	E0.004	<0.002	<0.02	<0.02	<0.02		

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

E Estimated

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SITES  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TENNESSEE RIVER BASIN

03542495 - PINEY RIVER ABOVE SPRING CITY, TN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCOCCI KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
JUN 27...	1215	15	42	7.7	24.5	742	8.9	110	K4	54	16	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT II FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	
JUN 27...	6	4.2	1.3	0.90	10	0.1	0.70	10	6.7	1.0	<0.10	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
JUN 27...	3.1	32	25	0.04	1.30	<0.010	0.130	0.130	0.130	0.130	0.04	0.030
DATE		NITRO-GEN,AM-MONIA + ORGANIC DIS (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUN 27...	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010	21	6	1.3	0.1	5	0.20
DATE		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE WATER, DISS. REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS. REC (UG/L) (46342)	ALDI-CARB, WATER, FLTRD. GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDI-CARB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	
JUN 27...	70	<0.001	<0.002	<0.005	<0.002	0.09	<0.002	<0.02	<0.02	<0.02	<0.02	

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

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
GREEN RIVER BASIN									
03312255 - SALT LICK CREEK AT RED BOILING SPRINGS, TN									
OCT 04...	1445	16	221	19.0	MAR 25...	1231	99	140	13.0
NOV 21...	1304	10	159	11.5	MAY 13...	1602	19	137	15.5
JAN 12...	1058	33	146	4.5	JUL 31...	1133	47	151	20.0
FEB 12...	1606	24	128	6.5					
CUMBERLAND RIVER BASIN									
03414500 - EAST FORK OBEY RIVER NEAR JAMESTOWN, TN									
NOV 29...	0925	128	162	7.5	MAY 14...	1217	229	147	14.0
FEB 14...	0840	505	125	6.0					
03416000 - WOLF RIVER NEAR BYRDSTOWN, TN									
NOV 29...	1248	56	280	7.0	MAY 14...	1548	134	220	16.5
FEB 14...	1255	219	208	8.0	AUG 01...	1538	222	189	21.0
03418070 - ROARING RIVER ABOVE GAINESBORO, TN									
NOV 30...	0750	26	13	4.5	MAY 15...	0955	974	203	14.5
FEB 13...	1400	355	216	6.5	JUL 31...	1553	8.0	275	21.5
03424730 - SMITH FORK AT TEMPERANCE HALL, TN									
OCT 03...	1300	26	347	22.0	FEB 15...	0827	240	350	8.0
05...	1320	8340	202	19.0	MAR 26...	1425	697	339	12.0
DEC 01...	0940	88	326	7.5	JUL 29...	1248	239	256	22.5
JAN 11...	1448	385	377	6.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03425000 - CUMBERLAND RIVER AT CARTHAGE, TN									
NOV 30...	1416	10800	212	11.0	AUG 23...	1230	14500	197	19.5
FEB 12...	1000	18300	220	5.5					
03427500 - EAST FORK STONES RIVER NEAR LASCASSAS, TN									
NOV 02...	1215	102	292	10.0	JUL 29...	1240	207	369	22.5
FEB 20...	1250	269	377	11.0					
03428500 - WEST FORK STONES RIVER NEAR SMYRNA, TN									
NOV 22...	1300	200	304	10.0	JUL 29...	1110	240	240	21.0
FEB 20...	1020	368	481	11.5					
03430147 - STONERS CREEK NEAR HERMITAGE, TN									
OCT 04...	1330	13	481	19.5	APR 04...	1333	42	405	13.5
NOV 27...	1500	9.3	454	11.5	NOV 23...	0953	259	236	15.0
JAN 05...	1150	31	409	8.0	MAY 07...	1020	210	296	17.0
FEB 21...	1150	66	413	11.0	JUN 20...	0925	7.6	374	22.0
					AUG 01...	1005	24	433	20.0
03430550 - MILL CREEK NEAR NOLENSVILLE, TN									
OCT 10...	0835	34	515	15.0	MAY 06...	1010	33	621	14.5
NOV 21...	1120	27	482	8.5	JUL 08...	0901	17	297	23.0
FEB 20...	1030	203	405	9.5	AUG 08...	0915	11	477	25.5
APR 03...	1400	88	444	15.0					
23...	0930	861	288	15.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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03431000 - MILL CREEK NEAR ANTIOCH, TN

OCT					APR				
10...	1150	52	528	17.0	04...	1315	119	460	15.0
NOV					MAY				
20...	1420	36	468	10.5	09...	1110	127	460	20.0
JAN					JUL				
09...	1330	80	622	3.0	08...	1312	41	365	25.0
FEB					AUG				
22...	1055	144	479	11.5	02...	1330	84	503	22.5

03431300 - BROWNS CREEK AT STATE FAIRGROUNDS AT NASHVILLE, TN

OCT					APR				
02...	0915	2.3	312	21.0	05...	1100	13	585	10.5
05...	1315	341	540	20.5	MAY				
NOV					09...	0845	27	558	17.0
20...	1125	6.3	552	13.0	JUL				
JAN					08...	1025	2.8	434	24.0
05...	1435	11	571	9.5	AUG				
FEB					01...	1430	19	604	22.5
20...	1345	28	617	12.0					

03431490 - PAGES BRANCH AT AVONDALE, TN

OCT									
05...	0950	167	920	21.0					

03431500 - CUMBERLAND RIVER AT NASHVILLE, TN

DEC					APR				
12...	1000	16000	212	7.0	26...	1150	32200	252	15.5
FEB									
09...	1200	27200	252	4.5					



MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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CUMBERLAND RIVER BASIN--Continued

03431599 - WHITES CREEK NEAR BORDEAUX, TN

OCT					MAY				
05...	1015	4670	224	19.5	08...	1600	132	373	21.5
24...	0945	8.8	529	15.0	JUN				
NOV					13...	1430	54	360	22.5
22...	1045	17	486	6.0	JUL				
JAN					08...	0915	4.0	524	24.5
02...	1530	268	333	9.5	AUG				
FEB					01...	1230	43	489	22.5
21...	1445	185	357	11.0					
APR									
02...	1300	135	339	13.0					

03431700 - RICHLAND CREEK AT CHARLOTTE AVE AT NASHVILLE, TN

OCT					APR				
11...	0745	12	607	16.5	05...	0900	28	569	10.5
NOV					MAY				
21...	1455	11	470	12.0	09...	1050	64	550	18.0
JAN					JUN				
16...	1320	30	588	10.5	20...	1500	16	783	24.5
FEB					AUG				
22...	0830	48	577	11.5	02...	1105	28	568	20.5
MAR									
06...	1030	12	439	12.5					

03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TN

NOV					MAY				
29...	1600	53	280	7.5	13...	1530	117	245	16.5
FEB					AUG				
14...	1610	59	166	7.0	02...	1155	91	262	22.5

03432350 - HARPETH RIVER AT FRANKLIN, TN

OCT					MAY				
10...	1020	234	361	16.0	20...	1300	129	252	19.5
NOV					29...	1330	94	352	22.5
20...	1330	170	263	12.5	JUN				
JAN					12...	1145	96	357	20.0
02...	1400	1430	162	9.0	26...	1230	16	298	22.0
FEB					JUL				
27...	1300	198	322	14.5	29...	1445	19	346	21.5
APR									
16...	1230	105	248	10.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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CUMBERLAND RIVER BASIN--Continued

03432400 - HARPETH RIVER BELOW FRANKLIN, TN

OCT 10...	1139	281	387	16.5	MAY 20...	1330	160	160	20.0
NOV 20...	1430	184	298	12.0	JUN 26...	1330	29	300	22.0
FEB 27...	1130	234	385	14.5	JUL 30...	1045	146	198	21.5
APR 16...	1400	125	348	11.0					

03433500 - HARPETH RIVER AT BELLEVUE, TN

OCT 10...	1000	486	378	16.0	MAR 27...	1000	1720	333	10.5
NOV 28...	1020	249	418	9.5	JUN 20...	1200	140	415	24.0
JAN 12...	1100	1970	393	5.5	JUL 30...	1248	336	146	22.0
FEB 15...	1130	462	257	3.0					

03434500 - HARPETH RIVER NEAR KINGSTON SPRINGS, TN

OCT 03...	0930	119	336	20.5	MAR 27...	1100	2950	288	10.0
NOV 28...	1345	408	367	9.0	MAY 13...	1145	876	342	17.0
JAN 12...	1350	2060	354	5.0	JUN 9...	1210	278	348	28.0
FEB 15...	0730	737	221	2.5	JUL 30...	1425	354	226	22.0
FEB 21...	0950	3100	181	9.0					

03435305 - RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAIN, TN

OCT 06...	1120	1160	170	19.0	MAR 22...	1145	2300	315	10.0
NOV 30...	1300	267	410	7.0	MAY 08...	0900	5210	220	16.5
JAN 16...	0945	830	361	8.5	JUL 31...	1215	2360	272	19.5
FEB 13...	1145	411	404	6.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DISC CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03436100 - RED RIVER AT PORT ROYAL, TN									
NOV 29...	1200	549	371	8.5	AUG 01...	1115	4050	190	20.0
FEB 13...	1000	715	364	5.0					
03436400 - NOAHS SPRING BRANCH AT FORT CAMPBELL, KY-TN									
OCT 04...	1100	11	296	18.0	FEB 12...	1430	58	321	11.0
JAN 10...	0930	31	309	8.0					
03436420 - PINEY FORK AT FORT CAMPBELL, KY-TN									
JAN 10...	1530	13	180	5.0	MAY 15...	1630	3360	53	17.5
FEB 12...	1130	9.0	188	6.0	AUG 01...	1545	34	162	22.5
MAR 21...	1015	208	100	6.5					
03436426 - LITTLE WEST FORK NEAR FORT CAMPBELL, KY-TN									
OCT 04...	1420	13	302	17.5	MAR 21...	1450	502	170	9.5
NOV 22...	1150	25	365	8.0	MAY 15...	1200	5070	52	17.0
DEC 18...	0930	30	375	10.0	AUG 01...	1815	256	180	20.5
FEB 12...	1750	83	322	9.0					
03436690 - YELLOW CREEK AT ELLIS MILLS, TN									
NOV 20...	1420	66	279	12.5	MAY 14...	1600	108	245	17.5
FEB 09...	1100	103	261	8.5	JUL 30...	1340	53	276	21.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN									
03497300 - LITTLE RIVER ABOVE TOWNSEND, TN									
NOV 29...	1030	639	16	7.5	FEB 14...	1000	521	15	5.0
03579620 - ROCK CREEK AT TULLAHOMA, TN									
OCT 03...	1153	73	113	20.0	OCT 05...	0935	812	50	19.5
12...	0932	4.2	110	16.0					
03593500 - TENNESSEE RIVER AT SAVANNAH, TN									
JAN 19...	1110	90700	159	6.0	APR 05...	1100	41500	157	11.5
03597210 - GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN									
OCT 04...	1340	519	295	18.5	MAR 27...	1145	187	234	11.5
NOV 27...	1330	45	345	10.0	MAY 09...	1200	116	293	15.0
JAN 05...	1135	189	296	8.0	JUN 27...	1315	21	287	21.5
FEB 21...	1030	76	273	9.5	AUG 06...	1250	31	360	22.0
03597590 - WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN									
OCT 04...	1250	198	305	19.0	MAR 27...	1255	55	320	6.5
NOV 27...	1220	12	379	9.5	MAY 09...	1040	43	364	19.5
JAN 05...	1245	56	387	6.5	JUN 27...	1130	2.3	284	18.5
FEB 21...	0840	20	378	8.5	AUG 06...	1100	4.5	348	22.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03598000 - DUCK RIVER NEAR SHELBYVILLE, TN									
OCT 03...	0900	221	204	21.0	APR 01...	1055	2370	238	10.5
NOV 28...	1130	515	180	10.5	MAY 09...	1430	856	249	20.0
JAN 05...	0830	1490	272	6.5	AUG 07...	1015	411	242	21.5
23...	1120	1280	279	7.0					
FEB 22...	1050	567	182	8.5					
03599000 - BIG ROCK CREEK AT LEWISBURG, TN									
OCT 03...	1416	111	364	20.5	MAR 29...	1025	76	310	13.5
05...	1212	3620	208	20.0	MAY 07...	1245	32	278	18.5
NOV 28...	1230	12	269	11.5	JUL 03...	1235	0.89	346	30.0
JAN 03...	1410	104	168	6.0	AUG 08...	1145	4.2	434	27.5
FEB 22...	1145	23	367	13.0					
03599500 - DUCK RIVER AT COLUMBIA, TN									
OCT 02...	1150	269	320	20.5	MAR 28...	1110	3430	285	18.5
FEB 22...	1400	1610	293	9.0	AUG 07...	1100	487	334	25.5
03600086 - CARTERS CREEK TRIB NEAR CARTERS CREEK, TN									
OCT 25...	1050	1.5	766	13.0	MAY 22...	1030	3.1	691	20.5
FEB 27...	1045	3.3	772	13.5	JUL 17...	1000	1.0	542	24.5



MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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TENNESSEE RIVER BASIN--Continued

03600088 - CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN

OCT 25...	1300	5.3	555	13.0	MAY 22...	1200	18	442	19.5
FEB 27...	1215	24	400	14.0	JUL 17...	1045	2.4	454	24.0

03602219 - PINEY RIVER AT CEDAR HILL, TN

OCT 03...	1200	15	303	18.5	MAR 26...	1100	263	164	9.0
NOV 27...	1430	28	277	12.5	MAY 14...	0930	59	228	12.5
JAN 11...	1100	47	250	6.0	JUN 19...	1410	34	267	23.0
FEB 14...	1130	45	248	8.5	JUL 29...	1130	19	252	20.5

03605078 - CYPRESS CREEK AT CAMDEN, TN

APR 03...	1500	42	60	14.5	AUG 14...	1405	4.1	143	25.0
MAY 15...	1230	21	100	17.5					

HATCHIE RIVER BASIN

07029500 - HATCHIE RIVER AT BOLIVAR, TN

OCT 09...	1145	362	73	20.5	MAY 31...	1124	4220	40	20.5
MAR 12...	0935	4560	58	6.0	JUL 29...	0910	386	65	25.0
APR 30...	1010	7620	57	16.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INSTAN- TANEOUS (FT3/S) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)1
LOOSAHATCHIE RIVER BASIN									
07030240 - LOOSAHATCHIE RIVER NEAR ARLINGTON, TN									
OCT					MAY				
05...	1600	98	50	20.0	03...	1245	129	57	19.5
NOV					30...	1415	150	81	21.5
22...	1250	97	58	11.0	JUL				
JAN					12...	1000	101	59	20.5
04...	1217	219	68	6.5	AUG				
					29...	1410	104	60	23.0
WOLF RIVER BASIN									
07030392 - WOLF RIVER AT LAGRANGE, TN									
OCT					MAY				
04...	1200	78	38	18.5	02...	0940	142	40	16.5
NOV					JUN				
21...	1135	135	37	10.0	03...	0905	385	29	21.0
MAR									
12...	1420	217	35	9.5					
07031650 - WOLF RIVER AT GERMANTOWN, TN									
OCT					JUN				
04...	1530	245	45	21.5	03...	1340	1790	42	22.5
NOV					JUL				
21...	1510	389	45	11.0	15...	1030	344	61	25.0
MAR					25...	1330	510	59	27.0
11...	1335	694	46	9.0	AUG				
MAY					29...	1140	475	52	23.5
02...	1224	487	55	19.0					
07031740 - WOLF RIVER AT HOLLYWOOD ST AT MEMPHIS, TN									
OCT					MAY				
03...	1130	270	53	22.0	01...	1030	425	58	18.5
MAR					AUG				
11...	1230	789	53	7.0	26...	1300	316	28	28.0
07032200 - NONCONNAH CREEK NEAR GERMANTOWN, TN									
JUL					AUG				
30...	1320	43	106	24.0	28...	1100	29	121	25.5
31...	1050	7100	31	23.0					

## 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 well, diameter 6 in., depth 262 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Data logger -- 60-minute logging interval.

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.--Records good.

PERIOD OF RECORD.--June 1985 to current year.

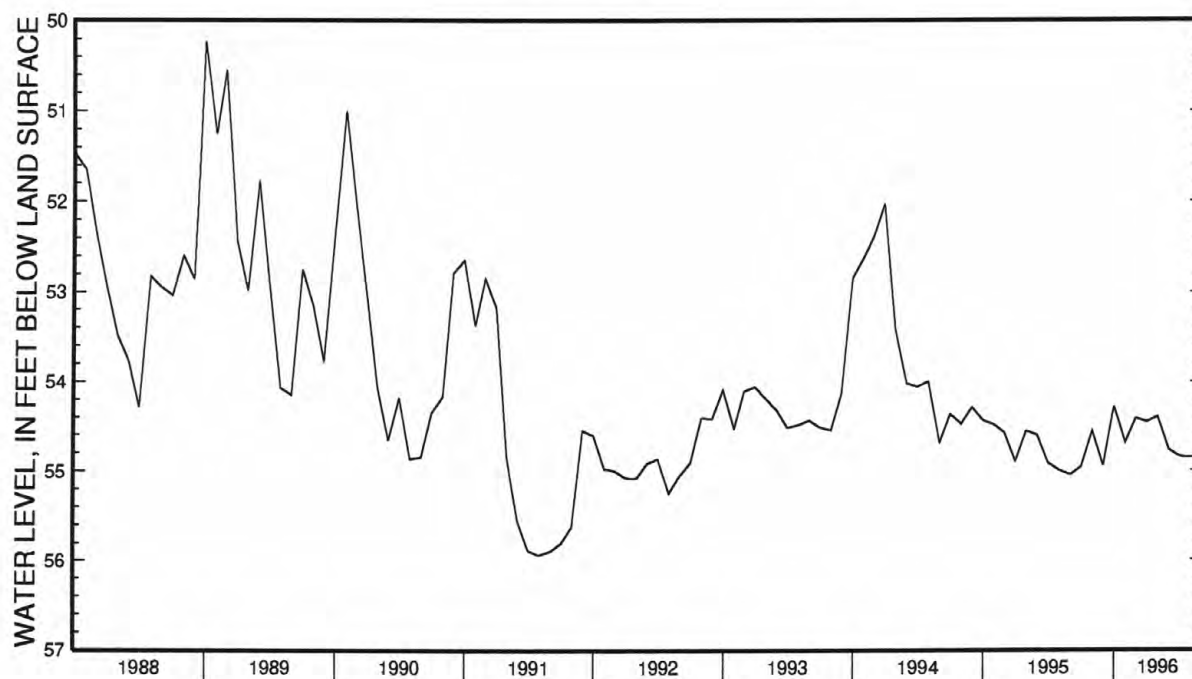
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.52 ft below land-surface datum, Feb. 21, 1989; lowest water level 55.94 ft below land-surface datum, Aug. 5, 6, 7, 8, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.89	54.01	54.48	53.94	54.36	54.42	52.40	54.18	54.34	54.84	53.93	54.23
10	52.95	51.33	54.61	53.61	54.42	52.10	53.77	52.85	52.03	54.82	54.30	54.42
15	54.36	52.70	54.95	53.68	54.60	53.70	54.29	53.93	53.61	54.71	54.41	54.78
20	54.64	54.19	53.26	52.59	50.96	46.70	54.46	53.67	54.13	54.84	54.58	54.62
25	54.76	54.32	54.50	52.46	54.26	51.92	52.31	54.31	54.42	53.63	54.83	54.50
EOM	54.43	54.56	54.74	53.94	53.81	52.30	51.60	54.24	54.77	50.50	54.86	53.75

WTR YR 1996      HIGHEST    43.43    OCT 5, 1995      LOWEST    54.96    OCT 23, 1995

## LOWEST MONTHLY WATER LEVEL



## 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, 1.50 ft above land-surface datum.

REMARKS.--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.

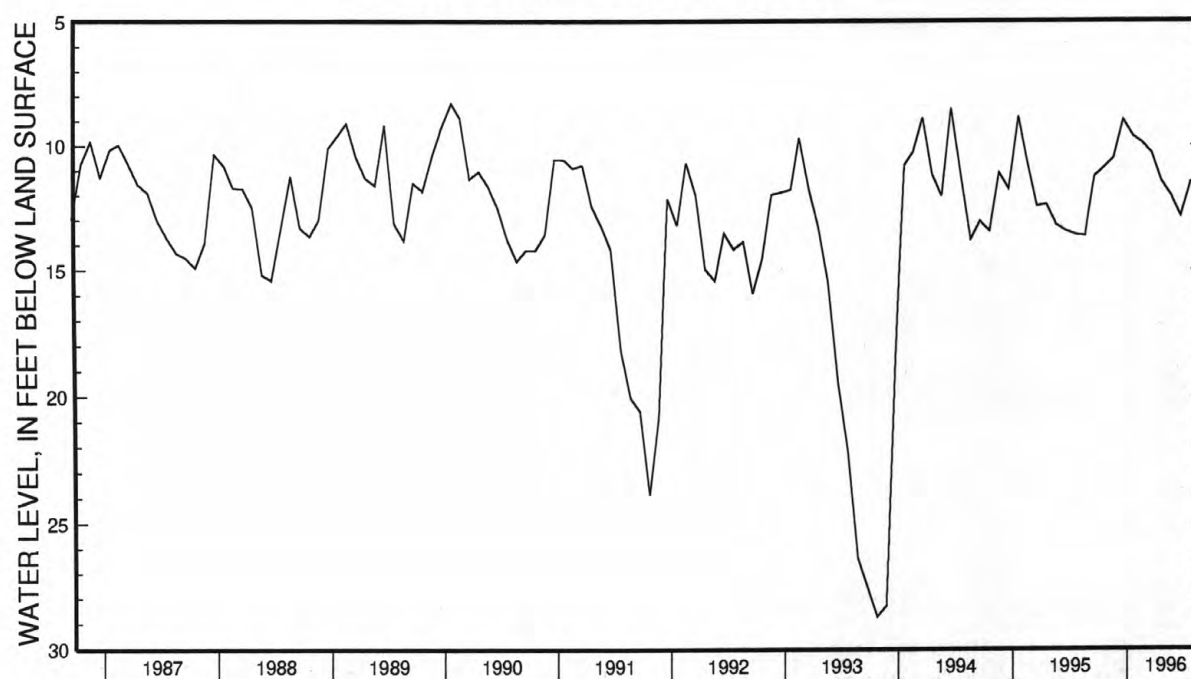
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.89 ft below land-surface datum, Mar. 28, 1994; lowest recorded, 28.59 ft below land-surface datum, Nov. 13, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.32	9.96	10.03	7.39	6.40	9.73	7.55	9.46	11.10	12.25	9.48	10.79
10	7.53	8.14	9.59	6.22	6.92	5.23	8.73	9.87	10.22	12.21	10.49	10.68
15	8.69	8.31	10.14	7.19	8.03	7.48	9.58	10.12	10.31	12.41	8.74	10.91
20	10.26	9.51	8.61	7.19	8.55	7.34	9.99	10.25	11.12	12.63	10.01	10.15
25	10.82	10.48	8.75	7.95	8.90	8.07	8.45	10.75	11.54	12.30	10.34	9.88
EOM	10.55	9.71	9.47	6.67	9.47	6.37	8.98	11.27	11.74	10.43	11.33	7.83

WTR YR 1996      HIGHEST    2.60    MAR 7, 1995      LOWEST    12.70    JULY 19, 1996

## LOWEST MONTHLY WATER LEVEL



## 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.--Records good. Well previously published as "at Savannah Valley". Water level affected by pumping from municipal supply well 300 ft south. Negative values indicate water levels above land-surface.

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

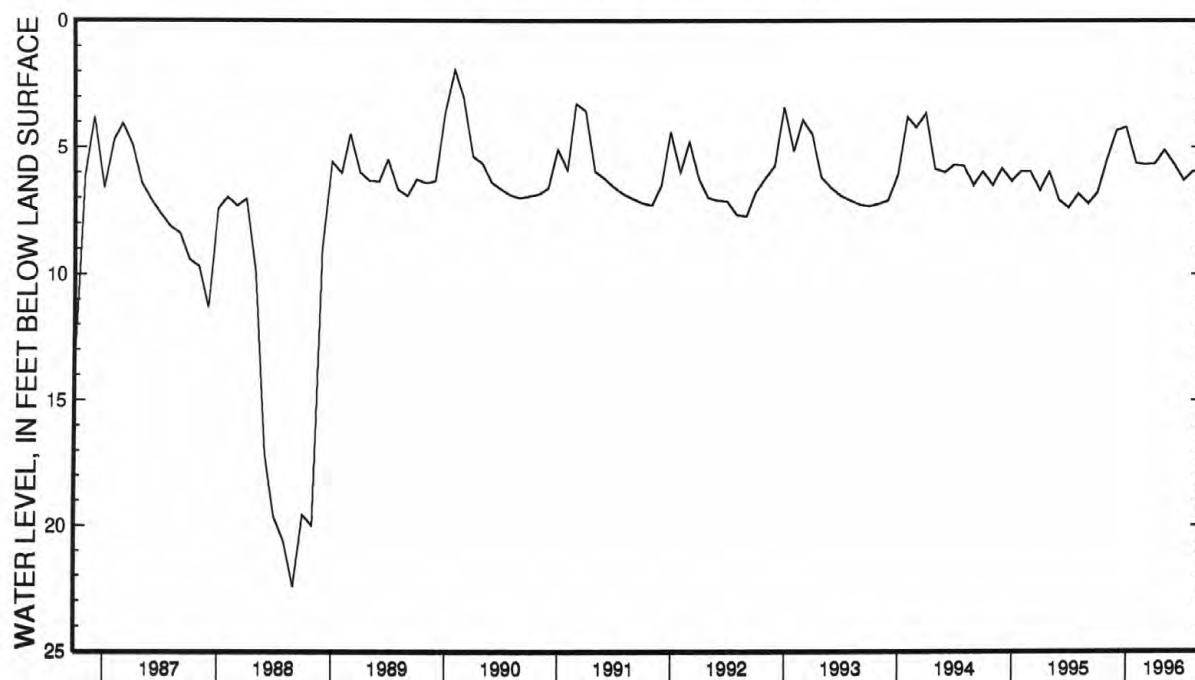
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.33 ft above land-surface datum, Feb. 11, 1994; lowest, 22.45 ft below land-surface datum, Sept. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.82	3.15	3.13	.81	.55	5.51	2.73	3.92	5.58	6.11	5.02	4.90
10	1.70	.22	3.72	-.40	.33	.29	4.12	5.12	5.15	5.42	5.73	6.06
15	4.56	.66	3.98	1.12	1.78	1.88	5.11	4.81	4.97	4.94	5.57	5.74
20	5.68	3.34	1.40	.29	3.81	1.66	5.65	4.86	4.70	4.80	5.51	5.53
25	6.17	4.74	2.77	.19	5.10	3.11	3.47	4.76	4.63	4.42	5.89	5.12
EOM	5.74	2.79	4.35	-.53	5.63	1.78	3.47	4.71	4.69	4.93	5.14	4.51

WTR YR 1996      HIGHEST   -3.50   JAN 27, 1996      LOWEST   6.79   OCT 1, 1995

## LOWEST MONTHLY WATER LEVEL





## 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.--Data logger and data collection platform -- 60-minute logging interval.

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.--Missing record May 9 to May 20. Records good.

PERIOD OF RECORD.--February 1962 to current year.

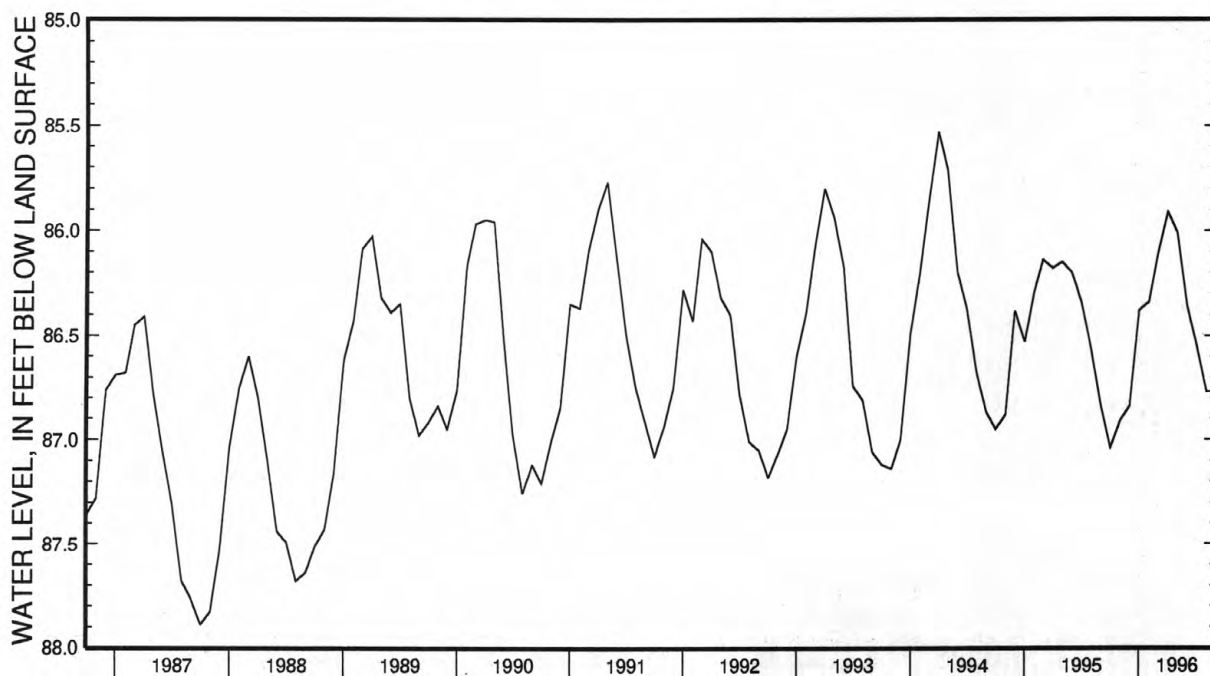
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.09 below land-surface datum, Apr. 21, 22, 23, 1994; lowest, 90.20 ft below land-surface datum, Nov. 25, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	86.74	86.88	86.77	86.37	86.25	86.02	85.66	85.88	86.08	86.42	86.37	86.65
10	86.88	86.51	86.84	86.36	86.16	85.92	85.76	---	85.93	86.34	86.46	86.75
15	86.87	86.52	86.73	86.27	86.27	85.81	85.85	---	86.03	86.43	86.55	86.77
20	86.90	86.60	86.51	86.23	85.97	85.66	85.86	---	86.12	86.48	86.63	86.75
25	87.04	86.66	86.53	86.08	86.03	85.67	85.64	85.90	86.27	86.49	86.66	86.69
EOM	86.92	86.69	86.49	86.06	86.08	85.58	85.76	86.01	86.36	86.40	86.77	86.49

WTR YR 1996      HIGHEST   85.49   APR 3, 1996      LOWEST   87.04   OCT 24, 25, 1995

## LOWEST MONTHLY WATER LEVEL



## 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 off Crutcher Lake Rd, at Fort Pillow State Park.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 to 6 to 3 in., depth 879 ft, cased to 869 ft, screened 869 to 879 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 437.05 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--Missing record March 10 to April 2.

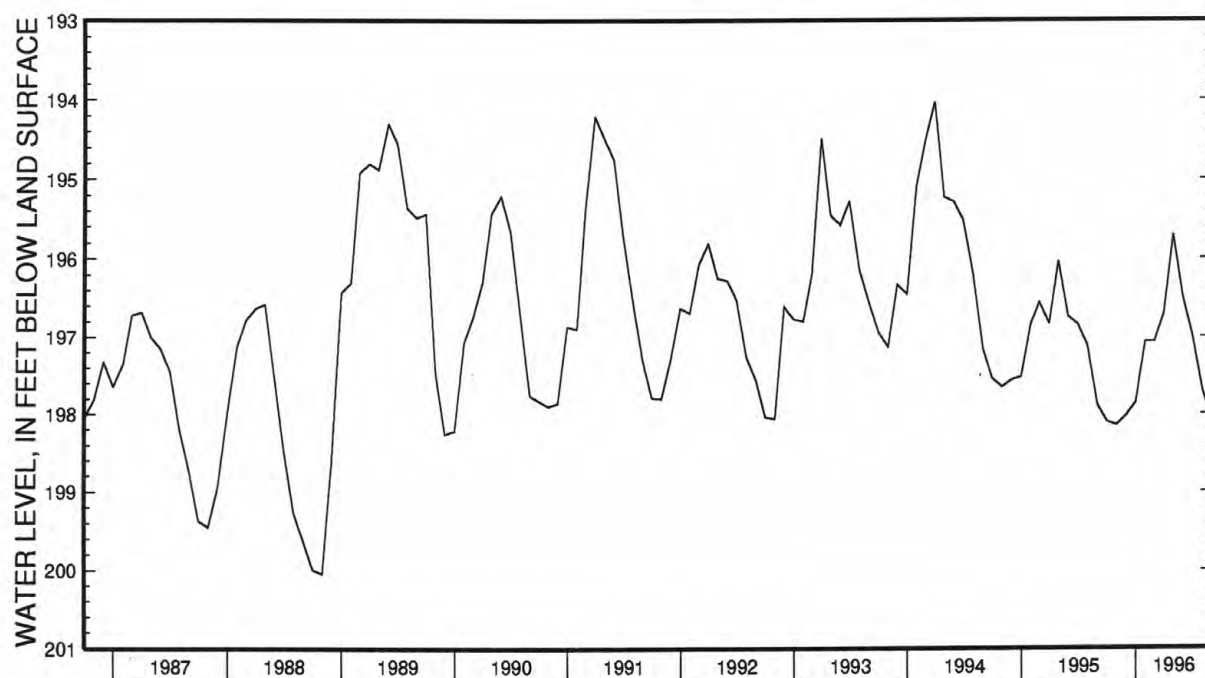
PERIOD OF RECORD.--April 1966 to current year.

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 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	197.72	198.14	197.79	197.71	196.33	196.83	196.06	194.86	194.79	196.56	196.82	197.80
10	197.95	197.73	198.00	197.75	196.39	---	196.10	194.38	194.40	196.72	196.90	198.00
15	197.84	197.68	197.93	197.56	196.96	---	196.40	193.06	195.00	196.80	197.20	198.08
20	197.93	197.49	197.91	197.47	196.71	---	196.62	192.00	195.04	196.90	197.40	198.10
25	198.06	197.53	197.79	197.09	196.97	---	196.36	192.49	196.26	197.00	197.55	198.09
EOM	198.10	197.67	197.52	196.30	197.06	---	195.70	194.24	196.50	196.60	197.70	198.00
WTR YR 1996	HIGHEST		192.00	MAY 19, 20, 21, 22, 1996				LOWEST	198.14	NOV 5, 1995		

## LOWEST MONTHLY WATER LEVEL



## GROUND-WATER LEVELS

## LINCOLN COUNTY

42  
350034086242800. Local number, Li:G-1.

LOCATION.--Lat 35°00'34", long 86°24'28", Hydrologic Unit 06030002, on west side of Pepper Road at Taft well field, 0.8 mi south of State Highway 110, at Taft.

Owner: Lincoln Count Board of Public Utilities.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 106.5 ft, cased to 106.5 ft, slotted from 53 to 87 ft.

INSTRUMENTATION.--Water-level recorder April 18 to Sept. 30, 1992, Oct. 1, 1995 to Sept. 30.

DATUM.--Altitude of land-surface datum is 904.00. Measuring point: Top of casing 2.10 ft above land-surface datum.

REMARKS.--Records poor. Missing record Jan. 31 to Feb. 20, Apr. 9 to May 10, May 31 to July 12. Water levels affected by pumpage from Taft Well field for municipal water supply.

PERIOD OF RECORD.--April 1992 to Sept. 1992, Oct. 1, 1995 to Sept. 30.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.23 ft below land-surface datum, Apr. 8; lowest, 56.53 ft below land-surface datum, Sept. 7, 8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.05	47.98	45.37	39.70	---	33.68	29.62	---	---	---	54.84	56.47
10	53.52	48.21	44.47	38.77	---	33.42	---	---	---	---	55.05	56.34
15	52.50	45.73	44.22	37.93	---	32.46	---	41.96	---	52.30	55.69	55.75
20	50.94	44.62	42.38	36.09	---	32.02	---	43.69	---	53.54	56.11	55.02
25	50.63	44.10	41.02	35.51	33.90	31.74	---	47.78	---	53.92	56.12	55.60
EOM	47.85	44.53	40.94	---	33.84	29.98	---	---	---	54.43	56.41	55.52
WTR YR 1996	HIGHEST			56.53	SEPT 7, 8, 1996		LOWEST	29.23	APR 8, 1996			

## 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.--Missing record Feb. 29 to Apr. 26 and May 1-15.

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.

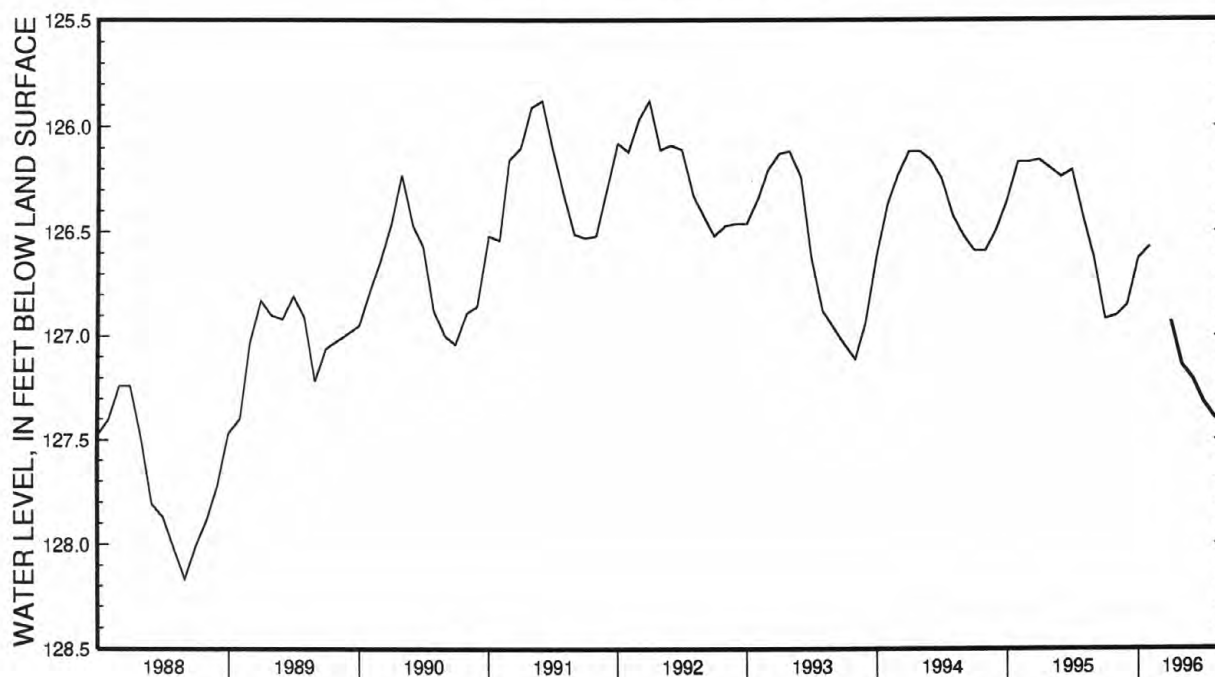
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 124.50 ft below land-surface datum, Mar. 10, 1952; lowest recorded, 129.13 ft below land-surface datum, Nov. 15, 1963; highest water level measured, 124.98 ft below land-surface datum, Apr. 8, 1980; lowest measured, 131.17 ft below land-surface datum, June 20, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.56	126.89	126.68	126.61	126.52	---	---	---	127.09	127.23	127.22	127.30
10	126.79	126.62	126.85	126.59	126.28	---	---	---	126.94	127.27	127.26	127.40
15	126.81	126.66	126.69	126.56	126.28	---	---	---	126.97	127.25	127.31	127.37
20	126.83	126.68	126.63	126.51	126.19	---	---	126.99	127.02	127.30	127.40	127.36
25	126.91	126.68	126.65	126.42	126.24	---	---	127.10	127.11	127.18	127.40	127.30
EOM	126.89	126.71	126.48	126.36	---	---	126.90	127.12	127.19	127.14	127.40	127.20

WTR YR 1996      HIGHEST    126.11    FEB 19, 1996      LOWEST    127.43    AUG 30, 1996

## LOWEST MONTHLY WATER LEVEL



## 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, 2.38 ft above land-surface datum.

REMARKS.--Missing record Jan. 3, 4, 7, 24, 25, 27, 28, 31, Feb. 1. Highest water level readings may be influenced for short periods by surface inflow. Records fair.

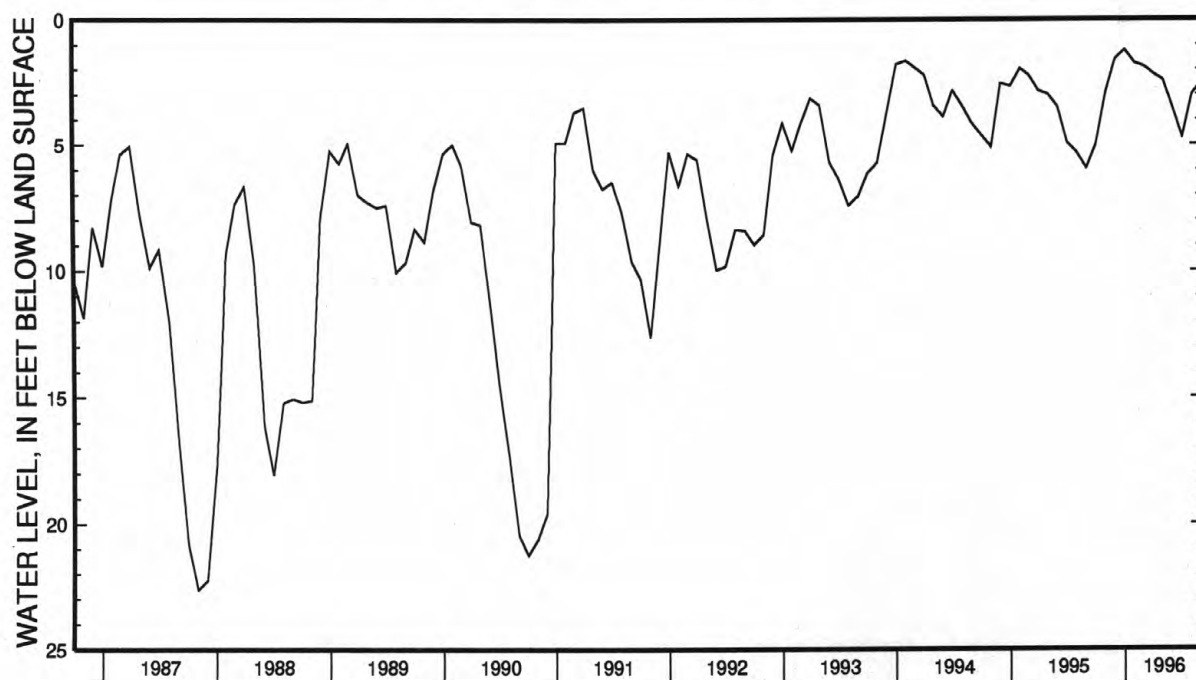
PERIOD OF RECORD.--November 1984 to current year.

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 missing record Oct. 21 to Nov. 18, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.82	1.64	1.43	1.03	1.52	1.86	1.15	1.99	2.14	4.11	2.36	2.17
10	3.19	1.11	1.27	.91	.61	1.21	1.62	1.33	.74	4.56	2.97	1.52
15	3.07	.97	1.42	.92	1.31	1.55	1.96	1.92	1.38	4.62	2.00	2.09
20	3.31	1.55	.88	.79	1.68	.77	2.19	1.80	2.27	4.73	2.04	2.27
25	3.59	1.76	1.27	---	1.68	1.35	1.62	2.44	3.00	4.73	1.74	2.46
EOM	2.93	1.64	1.53	---	1.45	.99	1.45	1.69	3.55	2.31	1.87	.95
WTR YR 1996	HIGHEST		0.00	JAN 6, 1996		LOWEST		5.03	OCT 2, 1995			

## LOWEST MONTHLY WATER LEVEL





## 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 observation water well, diameter 6 in., depth 175 ft, cased to 60 ft, open end.

INSTRUMENTATION.--Data logger and data collection platform -- 60-minute logging interval.

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.--Records good.

PERIOD OF RECORD.--March 1968 to current year.

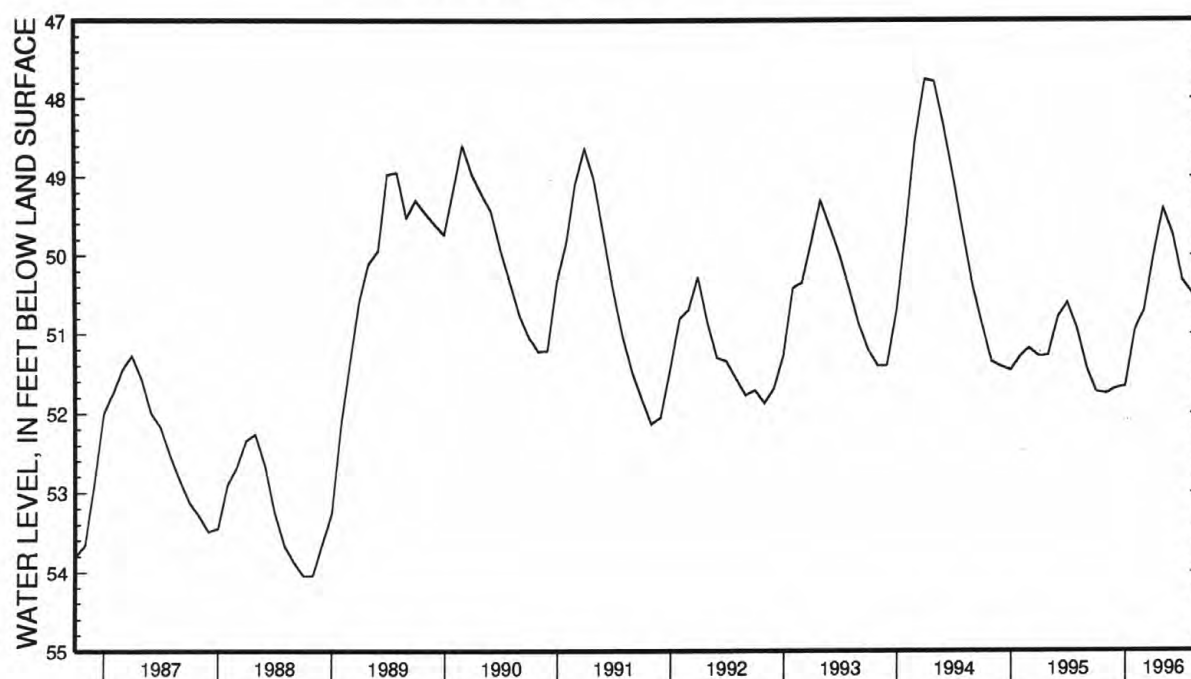
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.50 ft below land-surface datum, Apr. 25, 1994; lowest, 54.04 ft below land-surface datum, Oct. 28, Nov. 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.58	51.72	51.51	51.66	50.85	50.56	49.82	49.34	49.44	49.82	50.38	50.54
10	51.58	51.58	51.59	51.60	50.62	50.63	49.62	49.31	49.48	49.95	50.36	50.62
15	51.58	51.44	51.58	51.51	50.61	50.42	49.59	49.32	49.54	50.06	50.38	50.68
20	51.61	51.34	51.69	51.35	50.55	50.41	49.55	49.22	49.58	50.13	50.41	50.73
25	51.64	51.35	51.62	51.21	50.54	50.35	49.33	49.31	49.69	50.26	50.38	50.83
EOM	51.67	51.39	51.58	50.95	50.61	49.91	49.40	49.40	49.72	50.29	50.48	50.91

WTR YR 1996      HIGHEST    49.14    MAY 20, 28, 1996      LOWEST    51.75    NOV 4, 1995

LOWEST MONTHLY WATER LEVEL



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 interval.

DATUM.--Elevation of land-surface is 2,150 ft above sea level, from topographic map. Measuring point: Floor of recorder shelter 1.5 ft above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface inflow. Missing record Sept. 3-5. Records good.

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

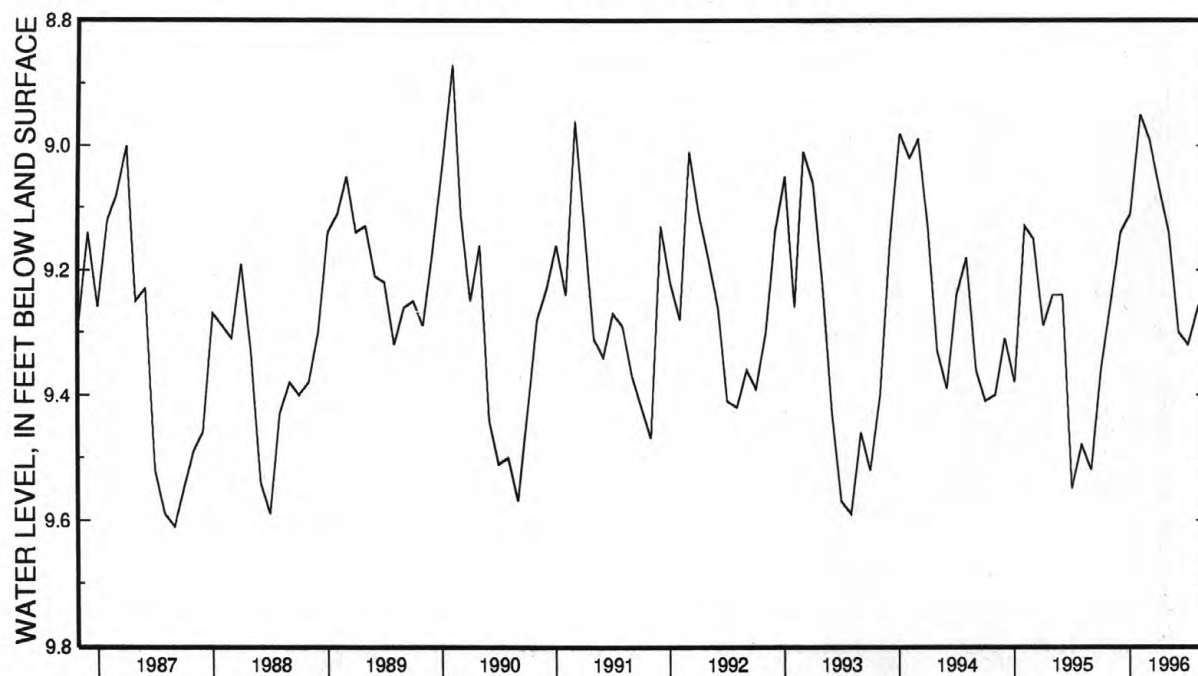
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 27, 1994; lowest, 9.68 ft below land-surface datum, Aug. 10, Sept. 16, 17, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.84	8.90	8.93	8.85	8.80	8.99	8.78	8.90	9.23	9.21	8.90	---
10	9.07	8.72	8.91	8.87	8.10	8.55	8.95	8.80	8.70	9.29	8.86	9.25
15	9.20	8.73	9.04	9.01	8.78	8.91	9.02	8.93	8.92	9.25	8.86	9.31
20	9.30	9.01	8.64	8.08	8.95	8.41	9.07	9.00	9.06	9.31	9.13	9.18
25	9.35	9.09	9.02	8.44	8.83	8.75	8.93	9.14	9.20	9.21	9.11	9.27
EOM	9.24	8.67	9.14	8.61	8.74	8.62	8.86	9.06	9.30	8.26	9.26	8.76

WTR YR 1996      HIGHEST    5.11    JAN 27, 1996      LOWEST      9.36    OCT 3, 26, 27, 1995

LOWEST MONTHLY WATER LEVEL



## GROUND-WATER LEVELS

## SHELBY COUNTY

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. Missing record June 3 to June 7, July 25 to August 15, and August 29 to September 30

PERIOD OF RECORD.--October 1928 to current year.

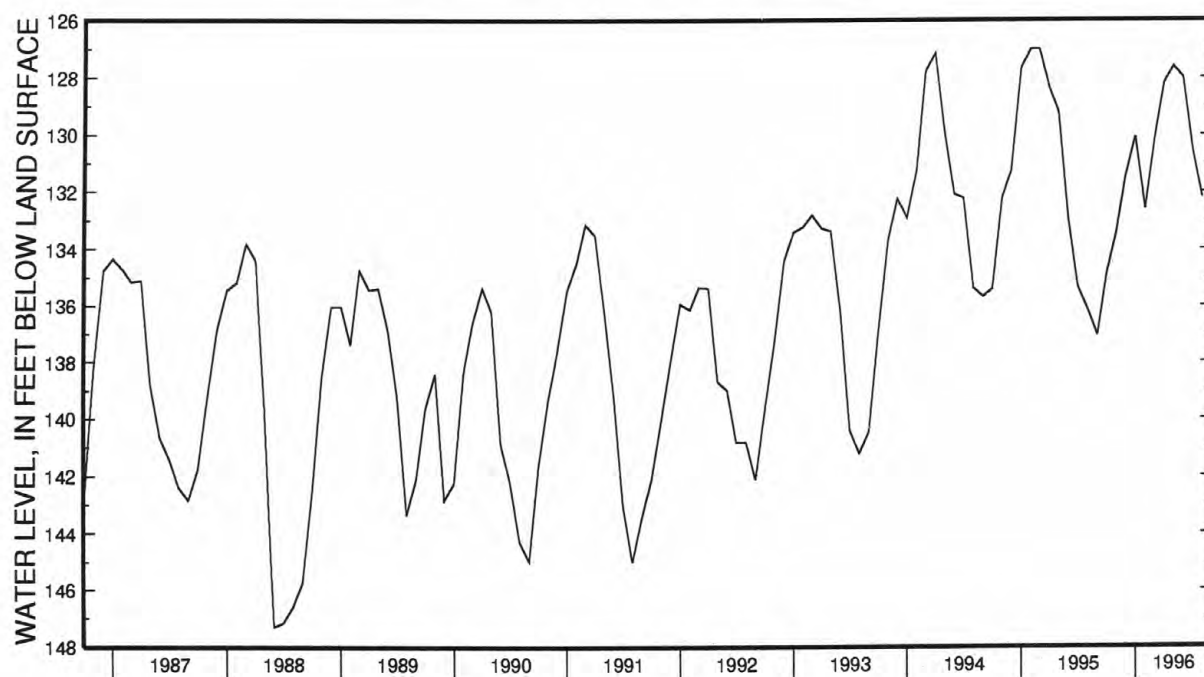
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft below land-surface datum, Apr. 3, 1933; lowest, 147.31 ft below land-surface datum, June 30, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.54	132.02	129.72	128.93	130.51	129.18	127.46	126.12	---	126.48	---	---
10	133.26	130.85	130.46	128.80	132.46	129.18	127.20	125.91	126.90	126.90	---	---
15	134.39	130.43	130.63	129.39	130.58	129.12	126.64	125.13	126.70	127.96	---	---
20	134.01	131.09	129.89	128.77	129.56	128.58	126.11	126.08	125.85	129.08	131.07	---
25	132.87	131.01	130.52	128.77	130.90	128.47	124.74	127.27	126.11	---	132.20	---
EOM	131.72	129.89	129.25	128.05	130.35	128.21	125.75	127.24	126.89			

WTR YR 1996      HIGHEST      124.94      MAY 14, 1996      LOWEST      136.39      AUG 29, 1996

LOWEST MONTHLY WATER LEVEL



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.

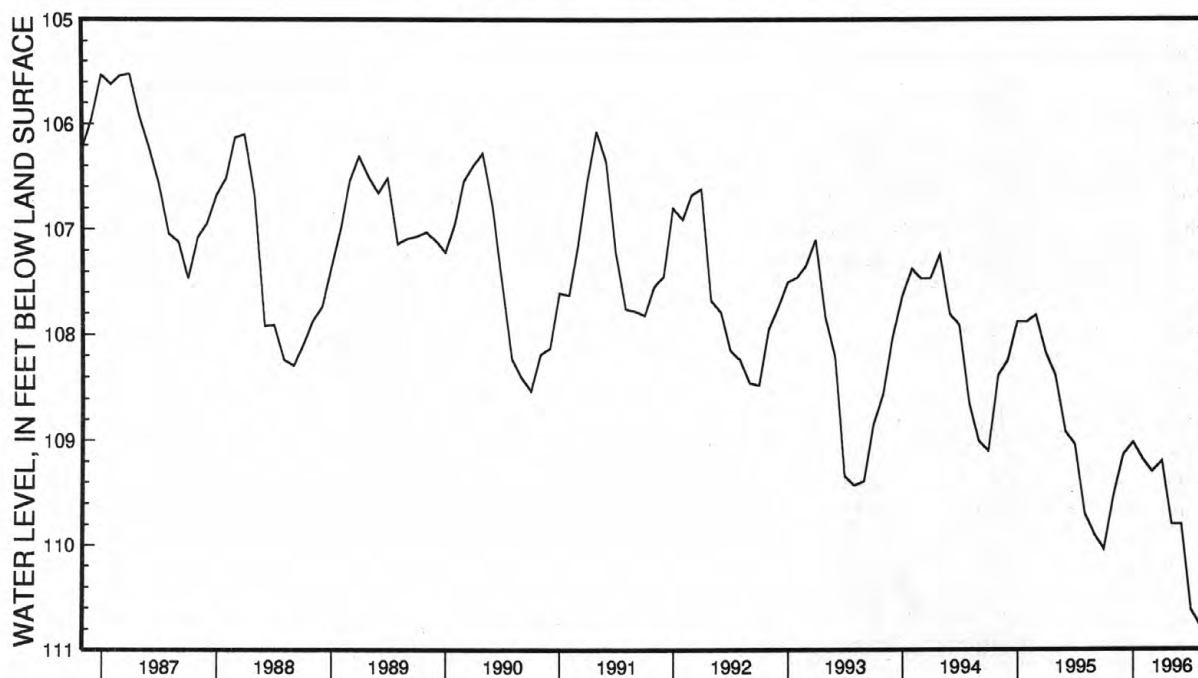
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft below land-surface datum, December 27, 1940; lowest 110.80 ft below land-surface datum, September 13, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	109.44	109.42	108.74	108.99	108.93	108.84	108.89	109.20	109.60	110.05	110.22	110.50
10	109.87	109.06	109.12	108.83	108.64	109.27	108.94	109.27	109.50	110.14	110.44	110.52
15	109.99	109.14	108.83	108.85	108.69	108.67	108.76	109.20	109.53	110.24	110.56	110.58
20	109.69	109.01	108.92	108.93	108.72	108.90	108.88	109.35	109.58	110.25	110.66	110.54
25	109.97	109.03	108.96	108.80	108.98	108.87	108.82	109.80	109.70	110.32	110.66	110.48
EOM	109.51	108.95	108.63	108.71	109.15	108.60	109.06	109.70	109.80	110.17	110.57	110.48

WTR YR 1996    HIGHEST    108.43    JAN 18, 1996    LOWEST    110.80    SEP 13, 1996

LOWEST MONTHLY WATER LEVEL



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, Apr. 28, 1976; lowest measured, 88.95 ft below land-surface datum, Nov. 29, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	88.82	NOV 29	88.95	JAN 02	88.60	FEB 06	88.84	MAR 06	88.67	MAR 29	88.70
APR 30	88.65	MAY 29	88.05	JUL 01	87.66	JUL 29	87.71	AUG 28	88.25		

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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	40.89	NOV 29	40.58	JAN 02	40.52	FEB 06	40.83	MAR 06	40.50	MAR 29	40.49
APR 30	40.40	MAY 29	40.33	JUL 01	40.11	JUL 29	40.33	AUG 28	40.66		



PERIODIC MEASUREMENTS OF 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.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 260 ft above sea level, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--August 1948 to September 1994 water-level recorder, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.28 ft below land-surface datum, Apr. 2, 1950; lowest, 52.03 ft below land-surface datum, Jan. 13, 1988; highest water level measured, 47.25 ft below land surface-datum, Oct. 3, 1994; lowest measured, 48.90 ft below land-surface datum, Apr. 01, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	48.28	NOV 29	48.45	JAN 03	48.61	FEB 05	48.61	MAR 06	48.69	APR 01	48.90
APR 30	48.85	MAY 31	48.62	JUL 01	48.54	JUL 31	48.67	AUG 29	48.74		

351435090005200. Local number, Sh:O-1.

LOCATION.--Lat 35°14'35", long 90°00'52", Hydrologic Unit 08010209, west side of O.K. Robertson Road, 0.4 mi north of U.S. Highway 51, at Memphis.

Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 434 ft, cased to 424 ft, screened 424 to 434 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 228.70 ft above sea level. Measuring point: Top of casing, 4.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--September 1940 to current year. Analog record September 1940 to January 1992, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 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, Mar. 29, 1994; lowest measured, 63.03 ft below land-surface datum, Sept. 25, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	61.33	NOV 30	60.36	JAN 02	60.30	FEB 01	58.38	MAR 01	58.54	APR 01	58.19
MAY 02	54.57	MAY 31	54.66	JUL 02	58.00	JUL 30	61.50	AUG 29	62.43		

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS  
SHELBY COUNTY--Continued

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville.

Owner: Mrs. T.S. Welch

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 16 in., depth 1,558 ft, cased to 1,497 ft, screened 1,497 to 1,558 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 264.20 ft above sea level. Measuring point: Top of casing, 0.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--August 1946 to current year. Analog record March 1948 to January 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.5 ft below land-surface datum, Apr. 11, 1948; lowest recorded, 60.42 ft below land-surface datum, Dec. 20, 1970; highest water level measured, 33.20 ft, Apr. 21, 1947; lowest measured, 83.05 ft below land-surface datum, Sept. 25, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	82.03	NOV 30	80.96	JAN 02	80.10	FEB 01	79.70	MAR 05	80.58	APR 01	80.10
MAY 02	79.83	MAY 31	79.32	JUN 28	80.28	JUL 30	81.49	AUG 29	82.37		

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville.

Owner: Mrs. F.E. Byrd

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in., depth 440 ft, cased to 360 ft, screened 360 to 440 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 268.76 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.

REMARKS.--Water levels affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--June 1953 to current year. Analog record June 1953 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.59 ft below land-surface datum, June 29, 1953; lowest, 63.74 ft below land-surface datum, Sept. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	59.41	NOV 30	59.84	JAN 02	59.92	FEB 01	59.73	MAR 05	59.27	APR 01	59.14
MAY 02	57.97	MAY 31	56.57	JUN 28	57.22	JUL 30	59.19	AUG 29	60.27		

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS  
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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 22	90.75	FEB 23	90.56	MAY 10	90.91	AUG 7	90.92

CRITTENDEN COUNTY, AR

350344090130000. Local number, Ar:H-2.

LOCATION.--Lat 35°03'44", long 90°13'00", Hydrologic Unit 08020203, 0.7 mi east of Millers.

Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 502 ft, cased to 482 ft, screened 482 to 502 ft.

INSTRUMENTATION.--Periodic measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 211 ft above sea level, from topographic map. Measuring point: Inside top of shelter base plate, 3.30 ft above land-surface datum.

REMARKS.--Well affected by pumpage in the Memphis, Tennessee area. Records good.

PERIOD OF RECORD.--May 1983 to current year. Analog record from May 1983 to October 1995, periodic measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.28 ft below land-surface datum, May 30, 31, 1983; lowest, 31.71 ft below land-surface datum, September 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	27.46	NOV 30	26.72	JAN 03	26.65	FEB 01	24.57	MAR 05	25.10	APR 02	23.86
APR 30	23.35	JUN 03	21.20	JUL 02	22.65	JUL 31	23.95	AUG 29	26.06		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350100090070301 - SH:J-139

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CA CO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CA CO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
SEP 06...	1000	17.5	1028	80020	155	6.2	70	59	14	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
SEP 06...	5.9	7.3	0.4	21	1.0	3.0	3.0	<0.10	13	71
DATE		COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
SEP 06...		<3	510	9	<10	<1	<1.0	61	<6	<5
DATE		LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)		
SEP 06...		<4	<1	91	93	0.12	292	466.00		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350446090013500 - SH:J-154 MLGW-ALLEN

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CaCO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CaCO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	
SEP 06...	1130	17.0	1028	80020	141	6.2	64	50	12	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)
SEP 06...		4.9	7.8	0.5	25	1.1	3.2	2.1	<0.10	12
DATE		BARIUM, DIS- SOLVED (UG/L AS Ba) (01005)	COBALT, DIS- SOLVED (UG/L AS Co) (01035)	IRON, DIS- SOLVED (UG/L AS Fe) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS Mn) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS Mo) (01060)	NICKEL, DIS- SOLVED (UG/L AS Ni) (01065)	SILVER, DIS- SOLVED (UG/L AS Ag) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS Sr) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
SEP 06...		68	4	820	12	10	<1	<1.0	52	<6
DATE		ALUM- INUM, DIS- SOLVED (UG/L AS Al) (01106)	LITHIUM DIS- SOLVED (UG/L AS Li) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS Se) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	DEPTH OF WELL, TOTAL (FEET) (72008)		
SEP 06...		<5	<4	<1	82	83	0.11	370.00		



## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350642089555000 - SH:K-142 MLGW 99 SHEAHAN WELL FIELD

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CA CO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CA CO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
SEP 05...	1430	18.0	1028	80020	97	6.0	40	32	7.3

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> ) (00955)
SEP 05...	3.3	8.1	0.6	35	0.70	4.7	5.1	<0.10	14

DATE	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
SEP 05...	22	<3	120	10	<10	<1	<1.0	20	<6

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT.) ABOVE NGVD) (72000)
SEP 05...	<5	<4	<1	72	69	0.10	278

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350218089511701 - SH:L-36

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	
SEP 05...	1330	18.5	1028	80020	86	6.2	38	33	8.4	2.9	3.2	
DATE	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> ) (00955)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
SEP 05...	0.2	17	0.50	1.9	2.7	<0.10	9.9	13	<3	260	3	<10
DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)		
SEP 05...	<1	<1.0	16	<6	<5	<4	<1	53	53	0.07		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350507089482401 - SH:L-90-GERMANTOWN 7

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO <sub>3</sub> (00419)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)		
SEP 04...	1030	17.0	1028	80020	82	6.0	31	<0.015	<0.010	0.150		
DATE		NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	
SEP 04...	<0.20	0.150	0.150	<0.010	<0.010	<0.010	21	5.2	2.0	7.5	0.7	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	
SEP 04...	43	0.60	5.2	2.3	<0.10	12	19	<3	5	<1	<10	
DATE		NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	DI- BROMO- METHANE WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)
SEP 04...	<1	<1.0	15	<6	<5	<4	<1	<0.2	<0.2	<0.2	<0.2	

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350507089482401 - SH:L-90-GERMANTOWN 7--Continued

DATE	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)
SEP 04...	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2
DATE	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2- TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)
SEP 04...	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
DATE	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
SEP 04...	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	50	54
DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	CIS-1,2- DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)	1,1-DI- CHLORO- PRO- PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI- CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77170)	1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77173)	PSEUDO- CUMENE WATER UNFLTRD REC (UG/L) (77222)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-PROPYL WATER UNFLTRD REC (UG/L) (77224)
SEP 04...	0.07	360	304.00	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350507089482401 - SH:L-90-GERMANTOWN 7--Continued

DATE	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)
SEP 04...	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20

DATE	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	METHYL ETHER TERT- BUTYL WAT UNF REC (UG/L) (78032)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	ETHANE 12DICL SURROG S2090 UNFLTRD REC PERCENT (99832)	TOLUENE D8 SURROG S2090 UNFLTRD REC PERCENT (99833)	BENZENE 14BRFL- SURROG S2090 UNFLTRD REC PERCENT (99834)
SEP 04...	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	100	100	96

350449089480501 - SH:L-92-GERMANTOWN 9

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CAO <sub>3</sub> (00419)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)
SEP 04...	0915	17.5	1028	80020	65	6.0	28	<0.015	<0.010	0.120

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CAO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)
SEP 04...	<0.20	0.120	0.120	<0.010	<0.010	<0.010	16	4.1	1.5	6.1	0.7



## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350449089480501 - SH:L-92-GERMANTOWN 9--Continued

DATE	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
SEP 04...	44	0.50	3.1	1.8	<0.10	11	13	<3	3	<1	<10
DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	DI- BROMO- METHANE WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)
SEP 04...	<1	<1.0	12	<6	<5	<4	<1	<0.2	<0.2	<0.2	<0.2
DATE	BROMO- FORM TOTAL (UG/L) (32104)	DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)
SEP 04...	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2
DATE	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2- TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANS DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)
SEP 04...	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350449089480501 - SH:L-92-GERMANTOWN 9--Continued

DATE	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
SEP 04...	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	40	44
DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	CHLORO- PRO- PENE, STYRENE TOTAL (UG/L) (77128)	1,1-DI CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77168)	2,2-DI 1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77170)	PSEUDO- CUMENE WATER TOTAL (UG/L) (77173)	ISO- PROPYL- BENZENE UNFLTRD REC (UG/L) (77222)	BENZENE N-PROPY WHOLE REC (UG/L) (77223)	UNFLTRD REC (UG/L) (77224)
SEP 04...	0.05	380	309.00	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20
DATE	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)
SEP 04...	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20
DATE	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	METHYL ETHER TERT- BUTYL WAT UNF REC (UG/L) (78032)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	ETHANE 12DICL SURROG S2090 UNFLTRD REC PERCENT (99832)	TOLUENE D8 SURROG S2090 UNFLTRD REC PERCENT (99833)	BENZENE 14BRFL- SURROG S2090 UNFLTRD REC PERCENT (99834)		
SEP 04...	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0	110	98	93		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350917090012000 - SH:O-231 MLGW-MALLORY

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CA CO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CA CO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
SEP 05...	1100	17.5	1028	80020	138	6.1	65	49	11	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)
SEP 05...	5.3	7.2	0.4	24	0.80	2.0	2.6	<0.10	15	
DATE		BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
SEP 05...	59	7	860	12	<10	<1	<1.0	49	<6	
DATE		ALUM- NIUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	DEPTH OF WELL, TOTAL (FEET) (72008)		
SEP 05...		<5	<4	<1	87	84	0.12	518.0		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

351420089570900 - SH:P-131

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
SEP 05...	0930	18.0	1028	80020	126	6.4	57	42	10	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)	
SEP 05...	4.0	7.0	0.5	26	1.1	2.5	3.8	<0.10	10	
DATE		BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
SEP 05...	59	10	910	14	<10	<1	<1.0	54	<6	
DATE		ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)		
SEP 05...		<5	<4	<1	75	73	0.10	247		

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

351109089512901 - SH:Q-40

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CACO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
SEP 04...	1430	17.5	1028	80020	119	6.1	44	37	8.7	3.8	6.9

DATE	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> ) (00955)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
SEP 04...	0.5	28	0.90	4.7	6.7	<0.10	11	55	8	1200	16	<10

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ALUM- INIUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
SEP 04...	<1	<1.0	36	<6	<5	<4	<1	73	70	0.10



## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## SHELBY COUNTY

350835089434100 - SH:R-29

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CA CO <sub>3</sub> (00419)	HARD- NESS TOTAL (MG/L AS CA CO <sub>3</sub> ) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
SEP 04...	1300	18.5	1028	80020	50	6.0	22	15	3.7
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> ) (00955)
SEP 04...	1.3	3.4	0.4	33	0.50	1.8	1.4	<0.10	9.7
DATE	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
SEP 04...	7	<3	56	1	<10	<1	<1.0	8	<6
DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)		
SEP 04...	<5	<4	<1	37	34	0.05	315		

## 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.

NOTE.--Records for 1996 were not available in time for inclusion in this report. Data for 1996 will be published in "Water Resources Data for Tennessee, Water Year 1997."

## 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 <sup>2</sup> )	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
East Branch Bear Creek near Oneida (d)	03409700	USGS		1994-95
East Branch Bear Creek Tributary near Oneida (d)	03409710	FUSGS		1994-95
Pine Creek tributary at Oneida (d)	03410000	USGS	1.21	1932-33
South Fork Cumberland River at Leatherwood Ford (d)	03410210	USGS	806	1983-87
West Fork Obey River near Alpine (d)	03415000	USGS	115	1943-71, 1980-81
Obey River near Byrdstown (d)	03415500	USGS	445	1919-43
Obey River below Dale Hollow Dam (d)	03417000	USGS	936	1939-42, 1945-58
Roaring River near Hilham (d)	03418000	USGS	78.7	1932-75
Roaring River near Gainesboro (d)	03418188	USGS	276	1975
Caney Fork at Clifty (d)	03418500	USGS	111	1931-49
Bee Creek at Herbert (d)	03419000	USGS	101	1931-37
Calfkiller River at Sparta (d)	03419500	USGS	157	1932-41
Calfkiller River below Sparta (d)	03420000	USGS	175	1940-71
Collins River at Beersheba Springs (d)	03420185	USGS	157	1994-95
Collins River near Tarlton (d)	03420200	USGS	174	1994-95
Barren Fork near Trousdale (d)	03420500	USGS	126	1932-57
Collins River near Rowland (d)	03421500	USGS	755	1916-24
Falling Water River near Cookeville (d)	03423000	USGS	67.0	1932-56
Falling Water River below Burgess Falls Dam (d)	03423152	USGS	124	1990-93
Taylor Creek near Cassville (d)	03423400	USGS	34.2	1989-93
Caney Fork below Center Hill Dam, near Lancaster (d)	03424500	USGS	2,183	1923-58
Spring Creek near Lebanon (d)	03425500	USGS	35.3	1955-61
Town Creek at Maple Street at Gallatin (d)	03425646	USGS	4.74	1984
Drakes Creek above Hendersonville (d)	03426000	USGS	19.2	1955-61
Cumberland River at Dam 3, near Old Hickory (d)	03426210	USGS	11,688	1931-42, 1947-53
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

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

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

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



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

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);  
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Station name	Station number	Agency	Drainage area (mi <sup>2</sup> )	Period of record
Baker Creek near Greenback (d)	03519640*	USGS	16.0	1966-75
Tennessee River at Loudon (d)	03520000	USGS	12,220	1923-55
Sweetwater Creek below Sweetwater (d)	03520045	TVA	26.4	1970-81
Sweetwater Creek near Sweetwater (d)	03520050	TVA	28.2	1964-70
Big Sycamore Creek near Sneedville (d)	03528100	TVA	5.49	1935-45
Big Barren Creek near New Tazewell (d)	03528300	TVA	22.5	1935-45
White Creek near Sharps Chapel (d)	03528400	TVA	2.68	1935-72
Powell River near Arthur (d)	03532000	USGS	685	1920-82
Davis Creek near Speedwell (d)	03532100	TVA	31.2	1936-37
Big Creek near La Follette (d)	03532220	TVA	26.2	1936-38
Clinch River below Norris Dam (d)	03533000	USGS	2,913	1904-74
Clear Creek near Norris (d)	03533100	TVA	2.83	1934-38
Coal Creek at Lake City (d)	03534000*	USGS	24.5	1932-34
Buffalo Creek at Norris (d)	03534500	USGS	9.92	1947-51
Bullrun Creek near Halls Crossroads (d)	03535000	USGS	68.5	1957-86
Scarboro Creek Tributary near Haw Ridge near Oak Ridge (d)	03535102	USGS	0.41	1989-91
Scarboro Creek Tributary near Oak Ridge (d)	03535103	USGS	0.41	1989-91
Whiteoak Creek near Melton Hill (d)	03536320	USGS	1.31	1987-95
Whiteoak Creek near Wheat (d)	03536380	USGS	2.10	1986-95
Northwest Tributary near Oak Ridge (d)	03536440	USGS	0.67	1987-95
Whiteoak Creek at ORNL, near Oak Ridge (d)	03536500	USGS	2.08	1950-55
Whiteoak Creek below ORNL, near Oak Ridge (d)	03537000	USGS	3.62	1950-53, 1955-64
Melton Branch tributary (East Seven) near Oak Ridge (d)	03537050	USGS	.24	1987-91 1992-93
Melton Branch near Melton Hill, near Oak Ridge (d)	03537100	USGS	0.52	1985-95
Melton Branch tributary (Center Seven) near Oak Ridge (d)	03537200	USGS	.07	1987-91 1992-93
Melton Branch tributary (West Seven) near Oak Ridge (d)	03537300	USGS	.15	1987-89 1992-93
Melton Branch near Oak Ridge (d)	03537500	USGS	1.48	1955-64
Whiteoak Creek at Whiteoak Dam, near Oak Ridge (d)	03538000	USGS	6.01	1953-55, 1960-64
Clinch River near Oak Ridge (d)	03538150	USGS	3,385	1937-64, 1968
Poplar Creek near Oak Ridge (d)	03538225	USGS	82.5	1960-89
East Fork Poplar Creek 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
Obed River at Crossville (d)	03538600	USGS	12.0	1950-51, 1955-85, 1991-95
Daddys Creek near Grassy Cove (d)	03539000	USGS	51.2	1925-30
Daddys Creek near Crab Orchard (d)	03539500	USGS	93.5	1931-58
Daddys Creek near Hebbertsburg (d)	03539600	USGS	139	1957-68
Clear Creek near Lancing (d)	03539750	USGS	153	1966-68
Obed River near Lancing (d)	03539800	USGS	518	1956-68, 1973-88
Crooked Fork near Wartburg (d)	03539860	USGS	50.3	1966-68

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

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);  
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Station name	Station number	Agency	Drainage area (mi <sup>2</sup> )	Period of record
Emory River at Deermont (d)	03540000	USGS	704	1920-28
Crab Orchard Creek near Deermont (d)	03540100	USGS	33.7	1966-68
Bitter Creek near Oakdale (d)	03541300	USGS	12.6	1967-75
Kingston Creek at Kingston (d)	03541400	TVA	.74	1940-41
Whites Creek near Glen Alice (d)	03541500	USGS	108	1934-55
Whites Creek at Glen Alice (d)	03542000	USGS	120	1931-34
Piney River at Spring City (d)	03542500	USGS	95.9	1927-31
Sewee Creek near Decatur (d)	03543500	USGS	117	1934-94
Tennessee River at Breedenton (d)	03544000	USGS	17,440	1934-40
Richland Creek near Dayton (d)	03544500	USGS	50.2	1927-31, 1934-55, 1979-82
Turtletown Creek at Turtletown (d)	03556000	USGS	26.9	1934-71
Hiwassee River near McFarland (d)	03556500	USGS	1,136	1943-81
Hiwassee River near Reliance (d)	03557000	USGS	1,233	1900-14, 1918-48
Ocoee River at Copperhill (d)	03559500	USGS	352	1903-14, 1943-70
North Potato Creek tributary, Copper Basin area 6, near Ducktown (d)	03560700	TVA	.01	1940-51
Burra-burra Creek tributary, Copper Basin area 5, near Ducktown (d)	03560800	TVA	.02	1940-51
North Potato Creek near Ducktown (d)	03561000	USGS	13.0	1934-70
North Potato Creek tributary No. 2, Copper Basin area 1-W, near Ducktown (d)	03561200	TVA	.01	1942-52
North Potato Creek tributary No. 3, Copper Basin area 1-E, near Ducktown (d)	03561300	TVA	.01	1942-52
Ocoee River at McHarg (d)	03561500	USGS	447	1917-43
Walkertown Branch tributary, Copper Basin area 4, near Ducktown (d)	03561700	TVA	.01	1940-45
Ocoee River tributary, Copper Basin area 3, near Ducktown (d)	03561800	TVA	.01	1940-51
Brush Creek near Ducktown (d)	03562000	USGS	14.4	1934-42
Hiwassee River above Charleston (d)	03565000	USGS	2,001	1954-76
Chestuee Creek above Englewood (d)	03565040	TVA	14.8	1944-57
Little Chestuee Creek below Wilson Station (d)	03565080	TVA	8.54	1947-57
Chestuee Creek at Zion Hill (d)	03565120	TVA	37.8	1944-62
Middle Creek below Hwy 39 near Englewood (d)	03565160	TVA	32.7	1944-62
Chestuee Creek near Athens (d)	03565200	TVA	77.9	1944-54
Chestuee Creek at Dentville (d)	03565250	USGS	114	1944-62
South Chestuee Creek near Benton (d)	03565300	USGS	31.8	1957-86
Oostanaula Creek near Sanford (d)	03565500	USGS	57.0	1954-89
Oostanaula Creek near Calhoun (d)	03565700	TVA	67.0	1940-44
Wolftever Creek near Ooltewah (d)	03566420*	USGS	18.8	1964-89
Long Savannah Creek near Snow Hill (d)	03566450	TVA	28.3	1939-44
North Chickamauga Creek at Upper Mill, near Hixson (d)	03566600	TVA	99.5	1937-43
North Chickamauga Creek near Hixson (d)	03566630	TVA	114	1937-43
South Chickamauga Creek near Chickamauga (d)	03567500	TVA	428	1928-78 1980-94
South Chickamauga Creek near McCarty (d)	03567600	TVA	458	1937-45
Sequatchie River near College Station (d)	03570650	USGS	154	1966-68
Sequatchie River near Whitwell (d)	03571000	TVA	402	1920-94
Little Sequatchie River at Sequatchie (d)	03571500*	USGS	116	1932-34
Tennessee River at South Pittsburg (d)	03571850	USGS	22,640	1930-87
Elk River near Pelham (d)	03578000	USGS	65.6	1952-88
Bradley Creek near Prairie Plains (d)	03578500	USGS	41.3	1952-60
Elk River near Estill Springs (d)	03579100	USGS	275	1921-81

# WATER RESOURCES DATA - TENNESSEE, 1996

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

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);

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Station name	Station number	Agency	Drainage area (mi <sup>2</sup> )	Period of record
Boiling Fork Creek south of Cowan (d)	03580000	USGS	20.2	1932
Boiling Fork Creek above Winchester (d)	03580300	USGS	55.9	1962-70
Boiling Fork Creek at Winchester (d)	03580500	USGS	77.1	1932-34
Elk River below Tims Ford Dam (d)	03580750	USGS	534	1966-76
Jack Daniel Spring at Lynchburg (d)	03580990	USGS		1970-78
East Fork Mulberry Creek below Jack Daniel Distillery at Lynchburg (d)	03580995	USGS	23.4	1987-94
East Fork Mulberry Creek at Lynchburg (d)	03581000	USGS	23.1	1932
East Fork Mulberry Creek near Lynchburg (d)	03581100	TVA	29.5	1967-69
East Fork Mulberry Creek near Mulberry (d)	03581200	TVA	49.4	1967-69
West Fork Mulberry Creek near Booneville at Mt. Herman (d)	03581400	TVA	17.4	1967-69
West Fork Mulberry Creek at Mulberry (d)	03581500	USGS	41.2	1954-62, 1966-68
Elk River above Fayetteville (d)	03582000	USGS	827	1934-82
Union Branch below Belleville (d)	03582140	USGS	2.37	1977
Elk River near Fayetteville (d)	03582500	USGS	897	1926-34
Bradshaw Creek at Frankewing (d)	03583000	USGS	36.5	1955-61, 1966-68
Richland Creek near Cornersville (d)	03583300*	USGS	47.5	1961-68
Factory Creek (head of Big Creek) near Campbellsville (d)	03583330	USGS	38.2	1966-68
Yokley Creek near Campbellsville (d)	03583360	USGS	20.2	1966-68
Weakley Creek near Bodenham (d)	03583500	USGS	24.4	1955-61, 1966-68
Richland Creek near Pulaski (d)	03584000	USGS	366	1934-75
Elk River at Prospect (d)	03584600	USGS	1805	1904-08, 1919-94
Shoal Creek at Lawrenceburg (d)	03588000	USGS	55.4	1932-34, 1967-91
Chisholm Creek at Westpoint (d)	03588400	USGS	43.0	1962-88
Shoal Creek at Iron City (d)	03588500	USGS	348	1925-94
Snake Creek near Adamsville (d)	03593300	TVA	49.4	1940-59
Holland Creek near Lowryville (d)	03593700	TVA	14.9	1965-78
Horse Creek near Savannah (d)	03594000	USGS	114	1929-34
Turkey Creek near Savannah (d)	03594040	TVA	53.7	1940-59
White Oak Creek near Milledgeville (d)	03594058	TVA	46.1	1940-59
White Oak Creek at Milledgeville (d)	03594110	TVA	49.2	1961-65
Middleton Creek near Milledgeville (d)	03594120	TVA	45.5	1940-59
Indian Creek near Cerro Gordo (d)	03594160	TVA	201	1940-59
Banjo Branch near Waynesboro (d)	03594164	USGS	2.14	1988-89
Beech River near Lexington (d)	03594415	TVA	15.9	1953-63
Wolf Creek at Graper Springs (d)	03594420	TVA	11.7	1953-55
Pine Tree Branch near Lexington (d)	03594425	TVA	.14	1941-78
Harmon Creek near Lexington (d)	03594430	TVA	6.87	1953-73
Piney Creek at Hwy 104 near Lexington (d)	03594435	TVA	19.2	1953-55, 1957-73
Cane Creek near Shady Hill (d)	03594437	TVA	20.7	1966-73
Haley Creek near Chesterfield (d)	03594441	TVA	8.30	1953-55
Beech River near Chesterfield (old channel before channelization) (d)	03594445	TVA	11.5	1940-54, 1960-65
Browns Creek near Chesterfield (d)	03594450	TVA	202	1953-63
Cane Creek near Shady Hill (d)	03594455	TVA	16.8	1953-64
Cane Creek near Chesterfield (old channel before channelization) (d)	03594460	TVA	222	1940-54
Beech River near Darden (old channel before channelization) (d)	03594465	TVA	165	1954-60
Flat Creek near Middleburg (d)	03594470	TVA	13.8	1953-55

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

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);  
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Station name	Station number	Agency	Drainage area (mi <sup>2</sup> )	Period of record
Big Creek near Darden (d)	03594475	TVA	10.6	1953-55, 1966-73
Turkey Creek near Decaturville (d)	03594480	TVA	8.40	1953-63
Turkey Creek at Middleburg Road, near Decaturville (d)	03594482	TVA	11.5	1964-73
Rushing Creek near Decaturville (d)	03594485	TVA	17.0	1953-55
Tennessee River at Perryville (d)	03594500	USGS	34,550	1931-32
Duck River near Manchester (d)	03595000	USGS	55.2	1932-34
Little Duck River at Manchester (d)	03595500	USGS	40.4	1932-34
Duck River below Manchester (d)	03596000	USGS	107	1934-88
Duck River at Normandy (d)	03596500	USGS	208	1920-31, 1972-75
Garrison Fork at Fairfield (d)	03597000	USGS	66.3	1953-58, 1966-68
Wartrace Creek at Bell Buckle (d)	03597500	USGS	16.3	1953-61, 1966-75
Wartrace Creek at Wartrace (d)	03597600	USGS	36.4	1966-68
Fall Creek near Deason (d)	03598173	USGS	16.4	1994-95
Fall Creek near Halls Mill (d)	03598179	USGS	39.0	1994-95
North Fork Creek near Poplins Crossroad (d)	03598250	USGS	71.9	1994-95
Big Rock Creek at Lewisburg (d)	03599000	USGS	24.9	1953-61, 1966-68
Fountain Creek near Culleoka (d)	03599430	USGS	26.9	1966-68
Fountain Creek near Fountain Heights (d)	03599450	USGS	74.0	1966-68
Rutherford Creek near Carters Creek (d)	03600000	USGS	68.8	1953-58
Rutherford Creek (No. 4) near Columbia (d)	03600100	TVA	112	1948-53
Rutherford Creek (No. 3) near Columbia (d)	03600200	TVA	116	1948-49
Little Bigby Creek at Experiment Lane at Columbia (d)	03600258	USGS	42.6	1990-92
Big Bigby Creek at Sandy Hook (d)	03600500	USGS	17.5	1953-87, 1988-89
Big Bigby Creek near Mount Pleasant (d)	03601000	USGS	25.8	1953-57
Big Bigby Creek at Cross Bridges (d)	03601500	USGS	112	1938-39
Duck River at Centerville (d)	03602000	USGS	2,048	1919-55
Piney River at Vernon (d)	03602500	USGS	193	1925-93
Duck River above Hurricane Mills (d)	03603000	USGS	2,557	1925-94
Hurricane Creek at Hurricane Mills (d)	03603500	USGS	75.1	1932-33
Coon Creek near Hohenwald (d)	03604100	USGS	10.0	1967-74
Buffalo River below Lobelville (d)	03604400	USGS	702	1927-89, 1989-94
Buffalo River near Lobelville (d)	03604500	USGS	707	1987-89
Blue Creek at State Hwy 13 near Waverly (d)	03604600	TVA	24.8	1964-71
Birdsong Creek near Holladay (d)	03604800	TVA	44.9	1940-68
Trace Creek at Waverly (d)	03605500	USGS	20.1	1932-33
Cotton Creek near Camden (d)	03606400	TVA	.43	1941-45
Big Sandy River at Big Sandy (d)	03607000	USGS	379	1935-44
Clifty Creek at Clifty Creek Road near Paris (d)	03607198	USGS	8.06	1994-95
Holly Fork Creek at Nobles (d)	03607225	USGS	26.8	1994-95
Beaverdam Creek at Sulphur Well Road near Nobles (d)	03607232	USGS	6.69	1994-95
Tennessee River near Buchanan (d)	03607500	USGS	39,730	1930-43
Crooked Creek at Highway 22 near Huntingdon (d)	07024200	USGS	89.8	1994-95
Beaver Creek at Huntingdon (d)	07024300*	USGS	55.5	1946, 1948, 1952-54, 1958-88
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



## WATER RESOURCES DATA - TENNESSEE, 1996

## 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 <sup>2</sup> )	Period of record
Obion River at U.S. Highway 51 near Obion (d)	07026040	USGS	1,875	1929-1958, 1966-1995
North Reelfoot Creek at State Hwy 22 near Clayton (d)	07026370	USGS	56.3	1980-83, 1984-89
South Reelfoot Creek near Clayton (d)	07026400	USGS	36.6	1984-89
Reelfoot Creek near Samburg (d)	07026500	USGS	110	1951-73
Reelfoot Lake near Phillippy (e)	07026690	USGS	240	1984-88
Indian Creek near Samburg (d)	07026795	USGS	8.01	1982-86
South Fork Forked Deer River at Jackson (d)	07027500	USGS	495	1929-73 1988-91
South Fork Forked Deer River at Chestnut Bluff (d)	07028000	USGS	1,003	1929-57
North Fork Forked Deer River at Trenton (d)	07028500	USGS	73.5	1950-71
Middle Fork Forked Deer River near Alamo (d)	07029000	USGS	369	1929-73
Hatchie River near Stanton (d)	07030000	USGS	1,975	1929-58
Cane Creek at Three Point (d)	07030137	USGS	79.8	1985-87
Kelly Branch near Clopton (d)	07030245	USGS	7.79	1975-76
Beaver Creek near Arlington (d)	07030250	USGS	148	1994-95
Loosahatchie River tributary at New Allen Road at Memphis (d)	07030295	USGS	1.26	1977-83
Wolf River at Rossville (d)	07030500	USGS	503	1929-72
Marys Creek at Pisgah Road, near Fisherville (d)	07031500	USGS	13.6	1955-57
Fletcher Creek near Cordova (d)	07031680	USGS	1.45	1974-83
Fletcher Creek at Whitten Road at Memphis (d)	07031683	USGS	21.4	1978-82
Unnamed tributary at Charles Bryan Road, near Cordova (d)	07031685	USGS	3.18	1975-77
Lick Creek at Dickinson Street, at Memphis (d)	07031777	USGS	2.96	1975-83
Nonconnah Creek near Germantown (d)	07032200	USGS	68.2	1969-1985 1985-1995
Johns Creek tributary at Holmes Road, near Memphis (d)	07032222	USGS	5.83	1975-85
Johns Creek at Raines Road, at Memphis (d)	07032224	USGS	19.4	1975-82, 1985
Black Bayou at Southern Avenue, at Memphis (d)	07032241	USGS	.59	1975-83
Cane Creek at East Person Avenue, at Memphis (d)	07032248	USGS	4.98	1975-85
Cypress Creek at Neely Road, at Memphis (d)	07032260	USGS	3.18	1975-85



## DISCONTINUED SURFACE-WATER QUALITY STATIONS

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

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

Station name	Station number	Agency	Drainage area (mi <sup>2</sup> )	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
Muddy Fork near Leesburg	03465830	USGS	13.5	C,S,T	1993-95
Nolichucky River at Embreeville	03465500	USGS	805	C,S	1979-82
Jockey Creek near Mount Bethel Church near Limestone	03466098	USGS	18.5	C,S,T	1993-95

## 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 <sup>2</sup> )	Type of record	Period of record (water years)
Nolichucky River below Nolichucky Dam	03466500	TVA	1,184	C	1974-79
		TVA		T	1962
Lick Creek near Holland Mill	03466825	USGS	53.0	C,S,T	1993-95
French Broad River at Douglas Dam (tailwater)	03468510	TVA	4,541	C	1975-80
Little Pigeon River at Sevierville	03470000	TVA	353	C	1967-68, 1970
		TVA		T	1969-74
		USGS		C,S	1979-82
French Broad River near Knoxville	03470500	USGS	5,101	C,T	1975-82
		USGS		B,C,S,T	1975-86
South Fork Holston River at South Holston Dam	03476010	TVA	703	C	1975-80
Watauga River at Stump Knob	03480000	TVA	171	T	1962
Elk River at Elk Mills	03481450	TVA	74.0	C	1975-76
Roan Creek near Doevoile	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 Centerville	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

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

## 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 <sup>2</sup> )	Type of record	Period of record (water years)
Richland Creek near Pulaski	03584000	TVA	366	T	1965-73
Elk River near Prospect	03584500	TVA	1,784	T	1961-64
Shoal Creek at Iron City	03588500	TVA	348	C,S	1974-80
		USGS		C,S	1980-83
Tennessee River at Pickwick Landing Dam	03593005	USGS	32,820	C,T	1976-82
Beech River near Chesterfield	03594439	TVA	121	C	1969-71, 1976
Duck River below Manchester	03596000	TVA	107	C	1967-68, 1970-71
		TVA		T	1976-80
		USGS		C,S	1975, 1979-83
Duck River at Normandy	03596500	TVA	208	T	1969-75
Duck River at Shelbyville Waterworks	03597850	TVA	425	C	1975-80
Duck River near Shelbyville	03598000	TVA	481	T	1961-64, 1976-78
Duck River near Columbia	03599460	TVA	1,176	T	1974-82
Duck River at Columbia Waterworks	03599482	TVA	1,195	C	1975-80
Piney River at Vernon	03602500	TVA	193	T	1964-67
Duck River above Hurricane Mills	03603000	TVA	2,557	C	1966-67, 1974-80
		TVA		T	1961-64
Buffalo River near Flat Woods	03604000	TVA	447	T	1964-68
Buffalo River near Lobelville	03604500	TVA	707	T	1961-64
		TVA		C	1967-68, 1973-76
Trace Creek above Denver	03605555	USGS	31.9	C	1979-83
Big Sandy River at Bruceton	03606500	TVA	205	T	1971-78
		TVA		C	1968, 1970-72
		USGS		C,S	1976, 1979-83
North Reelfoot Creek at Clayton	07026360	USGS	54.7	C,S	1982-84
North Reelfoot Creek at State Hwy 22 near Clayton	07026370	USGS	56.3	C,S	1983-89
Obion River at Hwy 51 near Obion	07026040	USGS	1,875	C,S,T	1975-95
South Reelfoot Creek near Clayton	07026400	USGS	38.6	C,S	1984-89
Bayou Du Chien near Walnut Log	07026695	USGS	27.8	C,T	1986-88
Indian Creek near Samburg	07026795	USGS	8.01	C,S	1982-84
Reelfoot Lake Spillway near Tiptonville	07027002	USGS	240	C,T	1975-76, 1986-88
Mosses Creek near Pocahtontas	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



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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<i>Area</i>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<i>Volume</i>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<i>Mass</i>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

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



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