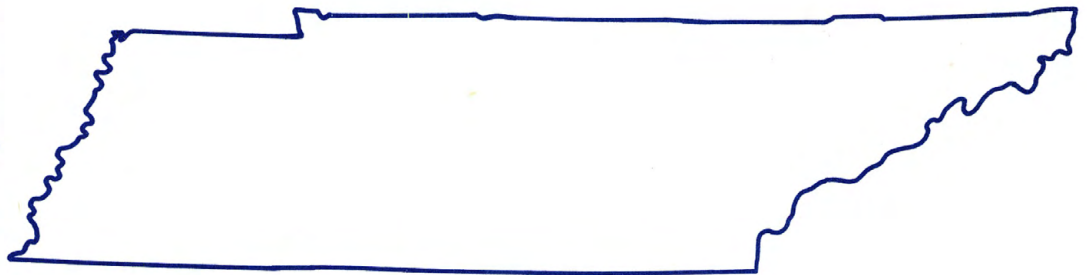
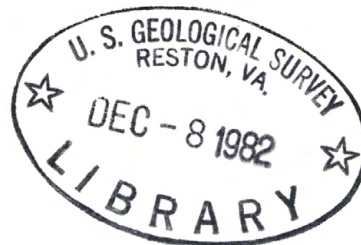


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Water Resources Data Tennessee Water Year 1981

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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-81-1
Prepared in cooperation with the Tennessee Department of
Conservation, Division of Water Resources; the Tennessee
Valley Authority; and with other State, municipal,
and Federal agencies

CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

S	M	T	W	T	F	S
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1981

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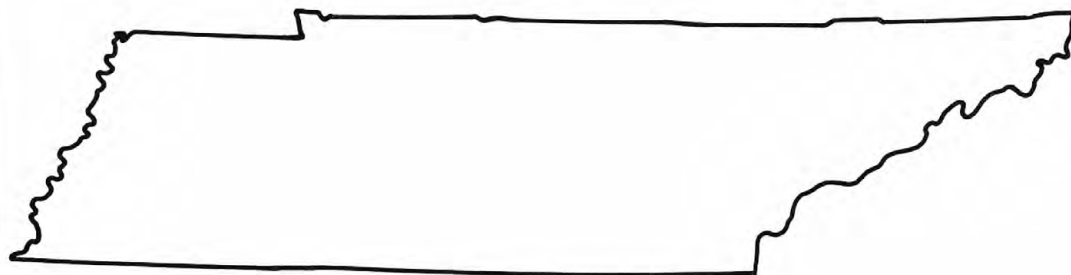
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27	28	29	30			



Water Resources Data Tennessee Water Year 1981



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and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, SECRETARY

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Tennessee write to
District Chief, Water Resources Division
U.S. Geological Survey
A-413 Federal Building, U.S. Courthouse
Nashville, Tennessee 37203
1981

PREFACE

This report was prepared by personnel of the Tennessee district of the Water Resources Division of the U.S. Geological Survey under the supervision of Arthur L. Putnam, District Chief, and James L. Cook, Regional Hydrologist, Southeastern Region. It was done in cooperation with the State of Tennessee and with other agencies.

This report is one of a series issued by State. General direction for the series is by Philip Cohen, Jr., Chief Hydrologist, U. S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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16. Abstract (Limit: 200 words) Water resources data for the 1981 water year for Tennessee consist of records of stage, discharge, and water quality of streams and springs; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells. This report contains discharge records for 114 gaging stations; stage only records for one lake gaging station; elevation and contents for 27 lakes and reservoirs; water quality for 73 stations and 45 wells; and water levels for 30 observation wells. Also included are 127 crest-stage partial-record stations, 77 low-flow partial-record stations, and 81 coal-hydrology partial-record stations. Additional water data were collected at various stream and spring sites not involved in the systematic data collection program and are published as miscellaneous measurements and analyses, or as seepage investigations of discharge and water quality. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Tennessee.			
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(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment, (e) elevation or contents, (p) pesticides.)

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INTRODUCTION

Water resources data for the 1981 water year for Tennessee consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 114 gaging stations; stage only at one gaging station; stage and contents at 27 lakes and reservoirs; water quality for 73 stations and 45 wells; and water levels at 30 observation wells. Also included are data for 127 crest-stage partial-record stations, 77 low-flow partial-record stations, and 81 coal-hydrology partial-record stations. Locations of these sites are shown on figures 5 and 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous stream and spring measurements and miscellaneous analyses or as seepage investigations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Tennessee.

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

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on the State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report TN 81-1." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on the back of the title page or by telephone (615) 251-5424.

COOPERATION

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

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

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

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

City of Franklin, Jeff Bethurum, Mayor.

City of Lawrenceburg, Ivan Johnston, Mayor.

City of Memphis, Wyeth Chandler, Mayor.

City of Murfreesboro, James Clark, Director, Water and Sewer Department.

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

Shelby County, William Morris, Mayor.

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

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, in collecting records for 19 gaging stations and 7 water-quality stations, by the Tennessee Valley Authority for 33 gaging stations and 2 thermograph stations, and by the University of Tennessee at Knoxville for 6 water-quality stations. Also the Tennessee Valley Authority assisted in collecting discharge and water-quality data at some miscellaneous and partial-record stations. All data are published in this report.

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

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SUMMARY OF HYDROLOGIC CONDITIONS

Floods

Few major floods are known to have occurred in Tennessee during the 1981 water year owing to the below-normal rainfall throughout the State. Rainfall during this water year was 86 percent of normal at Knoxville, 87 percent at McMinnville, 82 percent at Nashville and Memphis. Statewide, the largest rainfall deficiency was experienced in January. June was the wettest month, especially in middle and parts of western Tennessee, where heavy thunderstorms caused severe flooding in some areas.

Annual maximum floods, having recurrence intervals greater than 100 years, occurred June 10 at the gaging station on Red River near Portland, and June 6 at miscellaneous sites on Erin Branch and Wells Creek near Erin. Seventy-five percent of the gaging stations had annual maximums with recurrence intervals of less than 2 years, while about 25 percent experienced annual maximums with recurrence intervals between about 2 and 25 years. Sixty-two of the 65 gaging stations, for which peaks above a pre-selected base discharge are determined, experienced less than 2 peaks this year; 3 or 4 peaks per year are normal.

Mean flow

Due to less than normal precipitation for the 1981 water year, mean annual streamflow was below the long-term average at all gaging stations. Record low average flows occurred in some parts of the State. Comparison between monthly and yearly runoff for the 1981 water year and the base period 1951-80 is shown in figure 2 for three representative gaging stations..

In the Cumberland River basin, runoff was generally about 60 percent of the long-term average. However, record low flows occurred in the Stones River basin southeast of Nashville where runoff ranged from 22 to 31 percent of the long-term average.

In the Tennessee River basin, runoff ranged from a record low 26 percent of the long-term average at Duck River below Manchester to 80 percent at Cosby Creek above Cosby. Runoff for the remainder of the basin averaged about 55 percent of the long-term average.

In the Lower Mississippi River basin, mean annual flow was generally about 65 percent of the long-term average. No record low runoff occurred at gaging stations, but the 39 percent of long-term average runoff experienced at Nonconnah Creek near Germantown was the second lowest for the period of record (1969-81).

Low flow

Base flows were below normal in the eastern and central part of the State. In the western part of the State, base flows were higher than normal.

In the Cumberland River basin, most unregulated streams had annual minimum flows with average recurrence intervals of less than 5 years. However, the annual minimum at West Fork Stones River near Smyrna was less than the 20-year recurrence interval low flow. West Fork Stones River at Manson Pike at Murfreesboro set a new low of 0.34 ft³/s for the period of record (1973-81).

In the Tennessee River basin, below normal flow occurred at most stations. Minimum flows with average recurrence intervals greater than 20 years occurred at several stations in the upper reaches of the basin. Most streams in the lower reaches had minimum flows with average recurrence intervals between 2 and 5 years.

Suspended sediment

Suspended-sediment transport data in Tennessee have been collected on a statewide basis for about 3 years. In general the data show that for discharges less than about 1,000 ft³/s suspended-sediment concentrations are lowest in eastern Tennessee and progressively increase to their highest values in western Tennessee. This is a generalized statewide trend and may or may not hold true for comparisons of individual basins. For example, highly disturbed basins such as strip mined basins can be expected to yield unusually high concentrations when compared to other eastern Tennessee basins. At discharges greater than 1,000 ft³/s few sediment data are available and regional concentration differences become obscure.

One interesting comparison that can be made on a statewide basis is the percent of silt and clay being transported in suspension. Silt and clay-size material consistently accounts for more than 80 percent of the measured suspended-sediment discharge across the State. This high percentage of silt and clay in suspension appears to hold true even though the stream-bed material changes from bedrock in the east to bedrock and gravel in Middle Tennessee, to medium and fine sand in western Tennessee.

Surface-water quality

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

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

At main-stem stations on the Tennessee and Cumberland Rivers, observed dissolved-solids concentrations did not exceed 135 mg/L. Both streams contain calcium bicarbonate type water with most pH values ranging from about 7.0 to 8.0 units and 7.0 to 8.5 units, respectively. Trace constituent concentrations were low in samples collected; none exceeded the public-supply standards established for water delivered to a consumer. When compared to data from previous years, no significant differences were observed.

Dissolved-oxygen concentrations are critical because of environmental considerations. Municipal and industrial development has caused concern regarding the proper treatment of wastes. Dissolved-oxygen monitors are operated on the Cumberland River at Old Hickory Dam and below Cordell Hull Dam to aid in the evaluation of water quality. Observed dissolved-oxygen concentrations during the year ranged from 4.6 to 14 mg/L at Old Hickory Dam and from 5.0 to 13.3 mg/L below Cordell Hull Dam.

Water-quality data for other major streams do not indicate any severe, widespread problems which would render the water unsuitable for use following minimum treatment. Trace constituent concentrations were generally within recommended or mandatory water-quality standards. Dissolved-solids concentrations are typically less than 200 mg/L and are less than 100 mg/L in some streams. Water in several streams contained traces of three common herbicides, 2,4-D; 2,3,5-T; and Silvex. Small amounts of insecticides were also determined in some bottom-material samples.

In some streams which are affected by coal-mining activities, pH values less than 5.0 units were measured. Large amounts of total recoverable iron and manganese and high concentrations of suspended sediment were also determined. However, even in these areas the dissolved-solids concentrations in water were generally low. Dissolved-solids concentrations greater than 200 mg/L were uncommon.

Ground-water levels

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

At the beginning of the 1981 water year, ground-water levels throughout the State were slightly below the normal seasonal levels. Tennessee received well below normal precipitation from December to March, causing ground-water levels to fall to new record lows throughout most of the State (fig. 3). In April, May, and June, ground-water levels rose in response to near or above normal rainfall over most of the State. During the remainder of the water year, rainfall was below normal for all parts of the State except the Knoxville area, resulting in a general decline in ground water levels. Due to below normal rainfall, water levels at the end of the year were lower than at the beginning indicating an overall decrease in the relative volume of ground water in storage. In most network observation wells shown in figure 5, the highest water levels occurred in March and April and the lowest water levels occurred in January or September.

Ground-water levels in the network of observation wells in Shelby County are strongly affected by pumping large volumes of water in Memphis and surrounding areas. Hence, the fluctuations throughout the year reflect changes in the rates of pumpage and location of the principal pumping centers. As pumping rates increase and new pumping centers are developed to keep pace with growing water demands, water levels in both confined and unconfined aquifers are prone to decline. Figure 4 shows that the Memphis index well (Sh:Q-1) has been steadily declining since 1969 and reached an all-time low in September 1981. The occurrence of new record low levels is not indicative of any long-term reduction in the available water supply. It is merely a reflection of the response of the aquifer system to the additional stress of increased pumpage.

Ground-water quality

During the year water samples were collected from 45 wells, 39 of which are in the Memphis area. Most of the Memphis wells were sampled as part of programs designed either to monitor or to define water quality in the Memphis Sand, an artesian aquifer used as the principal source of public and industrial water supplies. No significant water-quality changes from previous years were observed. Concentrations of all common constituents in the Memphis Sand were low; dissolved-solids concentrations ranged from 42 to 194 mg/L. Trace constituents did not exceed public-supply limits in water from any of the eight sampled wells. No detectable amounts of pesticides were determined in water from wells in the Memphis Sand.

Twelve of the wells in the Memphis area are recently drilled wells that tap the shallow, unconfined, unused aquifer. These wells were completed in conjunction with a project to evaluate potential water-quality problems in the vicinity of waste-disposal sites in the Memphis area. The quality of water from these wells varied widely. Eleven of the wells contained detectable concentrations of chlordane, ranging from 0.10 to 7.2 micrograms per liter. Concentrations of other pesticides such as endrin, heptachlor epoxide, and mirex were found in water from four wells. Trace-constituent concentrations of barium and cadmium in water from one or more wells exceeded Primary Drinking Water Standards established by EPA. The maximum dissolved iron concentration was 80,000 µg/L. However, it must be emphasized that none of these analyses are considered representative of drinking water in the Memphis area. Rather, the analyses show some effects of leachate from the waste-disposal sites.

The remaining six samples were collected in Dickson, Lauderdale and Williamson Counties. Concentrations of dissolved iron and dissolved manganese exceeded criteria for public supply in the Lauderdale County wells. The dissolved-solids concentration of water from Wm:K-5, in Williamson County, exceeded the 500 mg/L limit recommended by EPA for water delivered to a consumer. No other constituent analyzed exceeded established limits for public supply.

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C $\pm$ 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C $\pm$ 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C $\pm$ 1.0°C on M-enterococcus 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.

Benthic invertebrates are animals without backbones that inhabit the bottoms of streams, lakes, ponds, reservoirs, and estuaries. The organisms are frequently used as biological indicators of environmental quality. Fauna retained on a U.S. Standard Sieve No. 70 (210- μ m mesh opening) are identified, counted, and reported.

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in g/m³ (grams per cubic meter), and periphyton and benthic organisms in g/m² (grams per square meter).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

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

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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

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

Coal is the part of a bottom material sample that can be separated by floating it on a bromoform-acetone solution with a specific gravity of 1.65. The material containing coal is filtered, dried, weighted, and corrected for moisture.

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

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

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

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

Cubic foot per second (FT³/s, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

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

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

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

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

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

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

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

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

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (LSD) is a datum plane that is approximately at land surface at each well.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

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

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

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

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

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

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

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

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

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

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

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Sodium-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 derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

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

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

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

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.

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

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

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

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

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

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

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

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

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

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

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of 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 1975.

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

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of stations in the front of the 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.

As an added means of identification, 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 8-digit 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 6-digit downstream order number "540500".

NUMBERING SYSTEM FOR WELLS

The 8-digit downstream order station numbers are not assigned to wells.

The well numbering system of the U.S. Geological Survey is based on the grid system of 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. See figure 1 below.

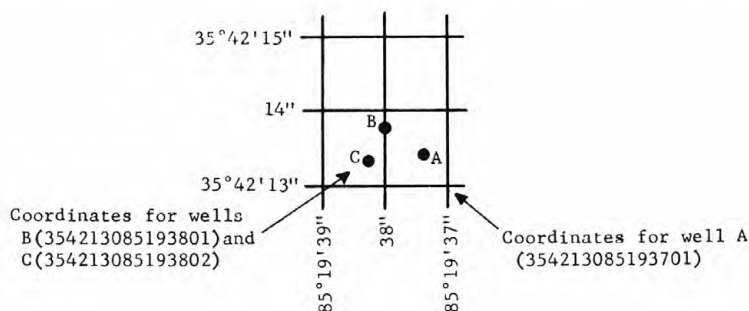


Figure 1.--System for numbering wells (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Coal Resources Area Monitoring Program is a data collection network implemented to fulfill the hydrologic data requirements of Public Law 95-87, the "Surface Mining Control and Reclamation Act of 1977." The data will be used to satisfy the requirement of the law that "an appropriate Federal or State agency" provide to each mining-permit applicant "hydrologic information on the general area prior to mining." The data will also establish a data base from which hydrologically significant changes can be monitored.

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

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the

network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

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

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

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

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

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

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

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

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

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

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 7.

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

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

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

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions.

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole number between 10 and 1,000 ft³/s; and 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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

Publications

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

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

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

Other data available

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

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

Records of discharge collected by agencies other than the Geological Survey

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

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

Water analysis

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

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

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

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 diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentra-

tion times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

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

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

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

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (LSD). See "DEFINITION OF TERMS" on page 5. If known, the altitude of the land-surface datum (NGVD) is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

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

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

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

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

WATER RESOURCES DATA FOR TENNESSEE, 1981

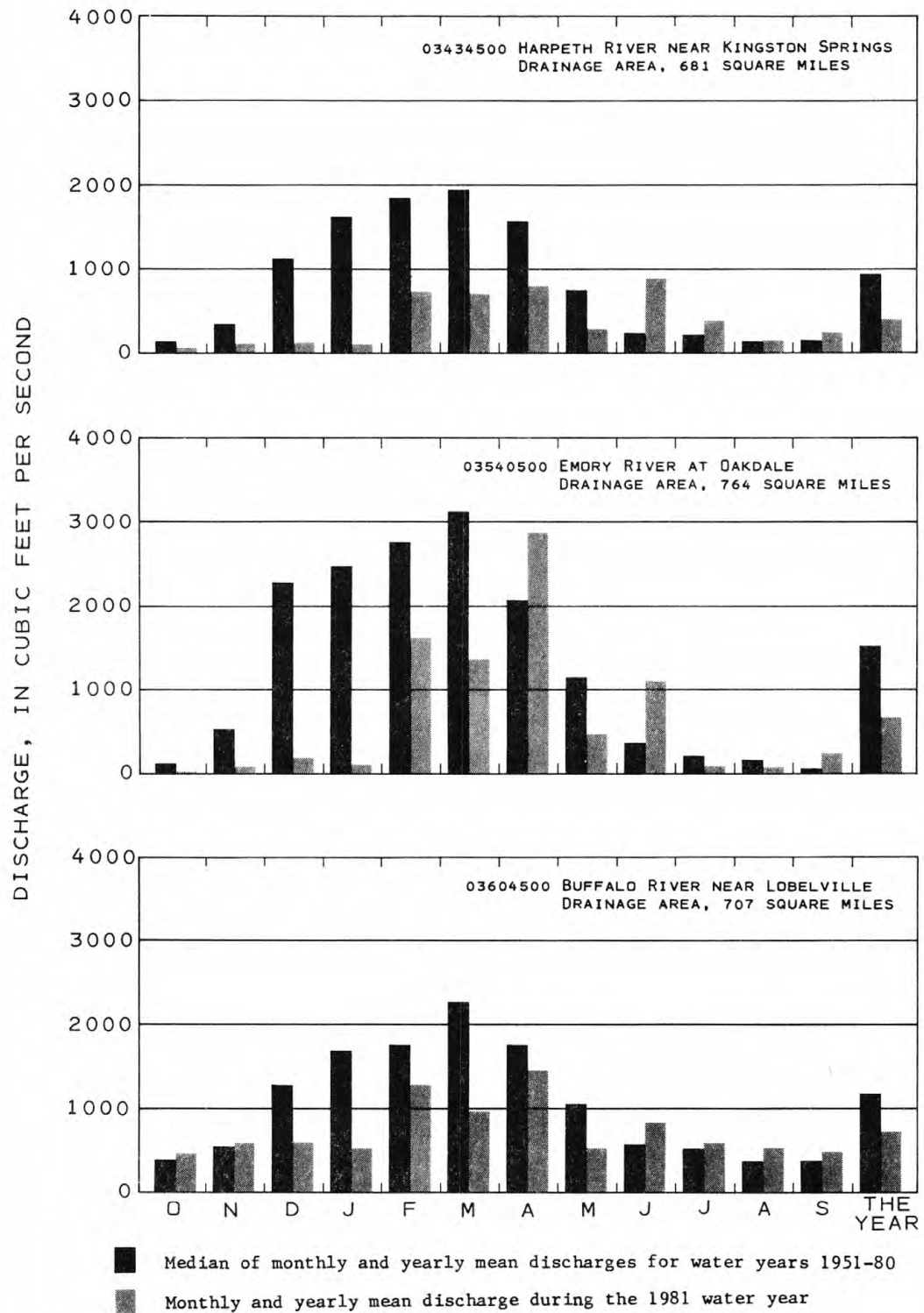


Figure 2.-- Runoff during 1981 water year compared with median runoff for period 1951-80 for three representative gaging stations.

WATER RESOURCES DATA FOR TENNESSEE, 1981

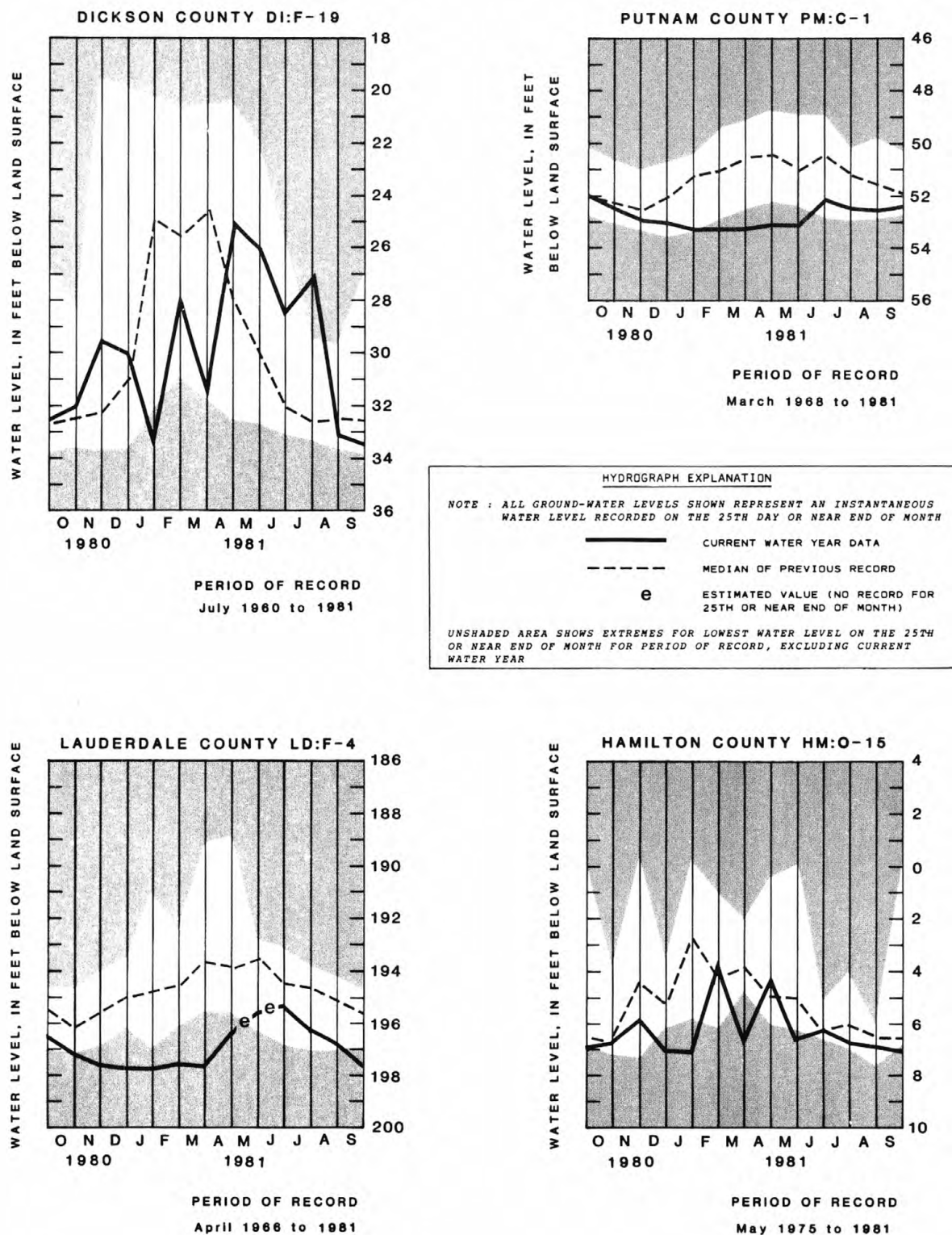


Figure 3.-- Ground-water levels on the 25th of each month for the 1981 water year compared to the maximum, minimum, and median water levels on the 25th of each month for the previous years of record.

WATER RESOURCES DATA FOR TENNESSEE, 1981

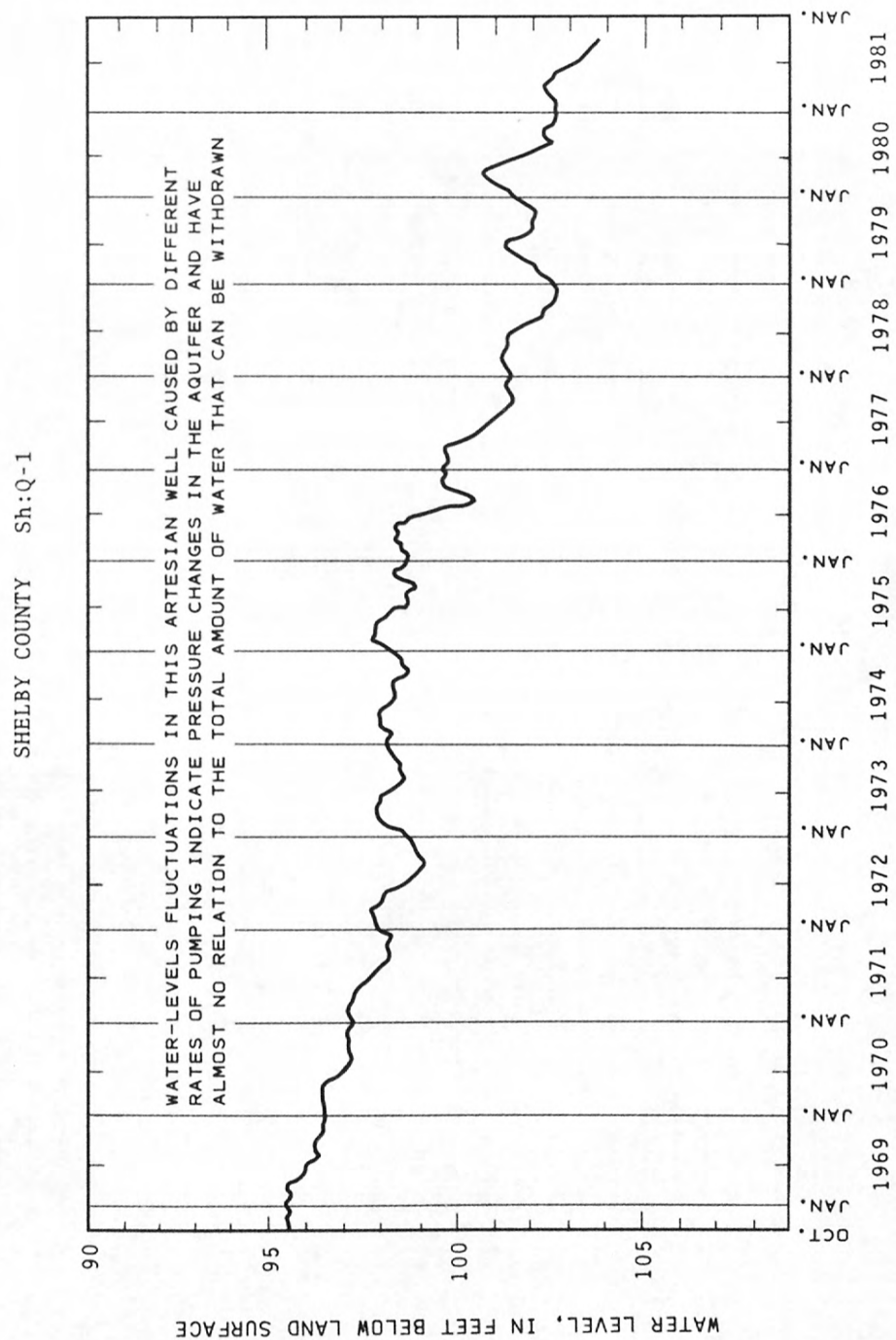


Figure 4.-- Hydrograph of well Sh:Q-1 showing long term decline in the water level.

WATER RESOURCES DATA FOR TENNESSEE, 1981

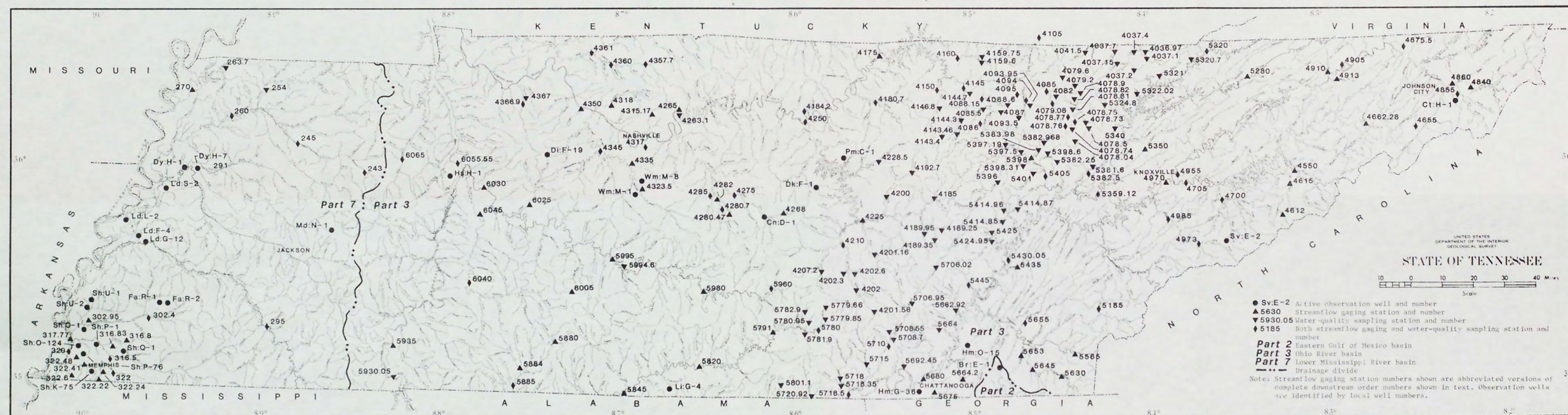


Figure 5.-- Location of streamflow gaging and water-quality sampling stations and observation wells.

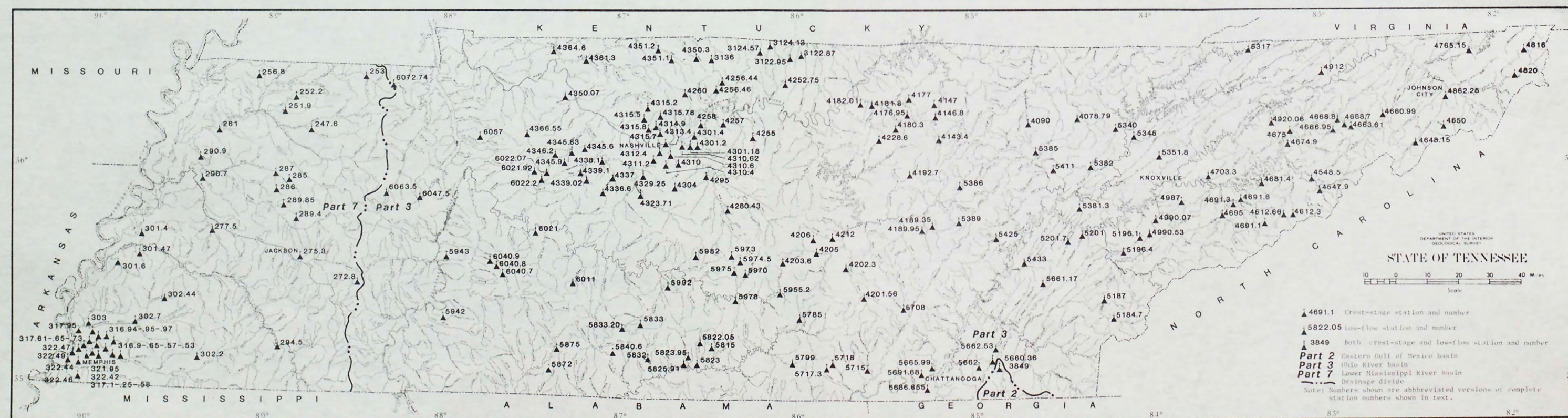


Figure 6.-- Location of partial record stations.

CUMBERLAND RIVER BASIN

03403718 CRABAPPLE BRANCH NEAR LA FOLLETTE, TN

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

DRAINAGE AREA.--1.07 mi² (2.77 km²).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to September 1981.

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

REMARKS.--Records good above 3 ft³/s (0.085 m³/s) and poor below.

EXTREMES FOR PERIOD OF RECORD.--June 1981 to September 1981: Maximum discharge, 34 ft³/s (0.96 m³/s) July 28, 1981, gage height, 1.89 ft (0.576 m); minimum, no flow June 30, July 1, Sept. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE 1981 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	.00	1.4	.09
2									---	.04	1.2	.09
3									---	.09	.96	.11
4									---	.06	.81	.12
5									---	.08	.59	.09
6									---	.10	2.4	.25
7									---	.07	1.9	.19
8									---	.06	1.3	.19
9									---	.05	.95	.20
10									---	.03	.65	.14
11									4.3	.03	.47	.12
12									3.1	.03	.50	.19
13									2.0	.02	.40	.12
14									1.1	.02	.30	.16
15									.61	.02	.26	.46
16									.50	.24	.37	.46
17									.36	.17	.24	.37
18									.30	.12	.22	.21
19									.26	.14	.42	.14
20									.23	.15	.33	.12
21									.26	.12	.94	.10
22									.30	.09	.64	.06
23									.46	.07	.42	.06
24									.19	1.50	.27	.02
25									.15	1.40	.19	.00
26									.15	.86	.12	.00
27									.10	.60	.09	.00
28									.09	5.9	.04	.00
29									.03	8.0	.04	.00
30									.00	3.2	.06	.00
31									---	2.2	.06	---
TOTAL									---	25.46	18.54	4.06
MEAN									---	.82	.60	.14
MAX									---	8.0	2.4	.46
MIN									---	.00	.04	.00
CFSM									---	.77	.56	.13
IN.									---	.88	.64	.14

03403718 CRABAPPLE BRANCH NEAR LA FOLLETTE, TN--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--June 1981 to September 1981.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1981 to September 1981.

WATER TEMPERATURE: June 1981 to September 1981.

INSTRUMENTATION.--Two parameter water-quality monitor.

WATER QUALITY DATA, JUNE 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	OXYGEN, DIS- SOLVED (MG/L)	PH (UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)
JUN , 1981					
24...	1400	.19	8.8	--	--
JUL					
10...	1200	.04	9.2	7.3	12
22...	1200	.12	8.6	7.1	--
27...	1230	.53	8.8	7.2	--
AUG					
06...	1200	3.6	9.2	7.2	--
SEP					
16...	1130	.56	--	8.3	--

CUMBERLAND RIVER BASIN

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03403718 CRABAPPLE BRANCH NEAR LA FOLLETTE, TN--Continued

TEMPERATURE, WATER (DEG. C), JUNE 1981 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	20.0	18.0	19.0	18.0	16.5	17.5	---	---	---
2	---	---	---	20.0	18.0	18.5	18.0	17.5	18.0	20.5	19.0	20.0
3	---	---	---	20.0	18.0	19.0	19.5	17.5	18.5	20.5	19.5	20.0
4	---	---	---	20.0	18.0	19.0	20.5	18.0	19.0	20.5	19.5	20.0
5	---	---	---	19.5	18.5	19.0	21.0	19.0	20.0	20.5	19.0	20.0
6	---	---	---	20.0	19.0	19.5	---	---	---	20.0	19.0	19.5
7	---	---	---	20.0	19.0	19.5	---	---	---	20.0	18.5	19.0
8	---	---	---	21.0	19.0	20.0	---	---	---	19.0	17.5	19.0
9	---	---	---	22.5	19.5	20.5	---	---	---	17.5	16.0	17.0
10	---	---	---	---	---	---	---	---	---	17.0	14.5	16.0
11	---	---	---	22.5	20.5	21.5	---	---	---	17.5	15.0	16.5
12	---	---	---	23.0	20.5	21.5	---	---	---	18.0	16.0	17.0
13	17.0	16.0	16.5	23.0	20.5	21.5	---	---	---	18.0	16.0	17.0
14	18.0	16.0	17.0	24.0	21.0	22.0	---	---	---	18.5	16.5	17.5
15	19.0	16.5	17.5	23.0	21.0	21.5	---	---	---	18.0	17.5	18.0
16	19.5	17.0	18.5	21.0	20.5	20.5	---	---	---	17.5	16.0	17.0
17	18.5	17.0	18.0	22.0	20.0	21.0	---	---	---	16.0	13.5	15.0
18	18.0	15.5	17.0	22.0	20.0	21.0	---	---	---	13.5	12.0	12.5
19	18.5	16.0	17.5	21.5	20.0	20.5	---	---	---	13.0	10.5	12.0
20	18.5	17.0	18.0	21.5	20.0	20.5	---	---	---	13.0	10.5	12.0
21	20.0	17.5	18.5	21.0	19.5	20.0	---	---	---	14.0	11.5	12.5
22	21.0	18.5	19.5	20.5	19.0	20.0	---	---	---	14.5	12.0	13.5
23	20.0	18.0	19.0	20.5	18.5	19.5	---	---	---	15.0	12.5	14.0
24	19.5	16.5	18.5	21.0	19.0	20.0	---	---	---	13.0	10.5	12.0
25	20.0	17.5	18.5	19.5	18.5	19.0	---	---	---	13.5	11.0	12.5
26	19.5	17.5	18.5	20.5	19.0	19.5	---	---	---	15.5	12.5	14.0
27	18.5	16.0	17.0	21.0	19.5	20.0	---	---	---	15.5	13.5	14.5
28	19.0	16.0	17.5	20.5	18.5	20.0	---	---	---	16.5	13.0	14.5
29	19.5	17.0	18.0	18.5	17.5	18.5	---	---	---	15.0	11.0	12.5
30	20.5	17.5	18.5	18.0	17.0	17.5	---	---	---	16.0	11.5	13.5
31	---	---	---	18.5	17.0	18.0	---	---	---	---	---	---
MONTH	---	---	---	24.0	17.0	20.0	---	---	---	20.5	10.5	16.0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), JUNE 1981 TO SEPTEMBER 1981

		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	39	36	38	27	25	26	37	34	35
2	---	---	---	48	32	36	28	26	27	35	33	34
3	---	---	---	38	33	35	29	27	28	36	32	35
4	---	---	---	40	33	36	31	29	30	33	31	32
5	---	---	---	50	30	36	32	30	31	34	32	33
6	---	---	---	43	27	32	34	29	31	37	31	33
7	---	---	---	32	28	30	---	---	---	33	31	32
8	---	---	---	37	30	33	---	---	---	33	31	32
9	---	---	---	38	32	35	---	---	---	31	30	31
10	---	---	---	61	34	43	---	---	---	32	30	31
11	---	---	---	49	37	44	---	---	---	33	31	32
12	---	---	---	63	38	46	---	---	---	33	32	32
13	20	18	19	49	38	44	---	---	---	34	32	33
14	21	19	20	50	39	44	---	---	---	37	33	34
15	23	20	21	53	31	42	---	---	---	34	31	33
16	41	21	22	34	28	30	---	---	---	31	30	31
17	27	21	23	33	29	30	---	---	---	31	29	30
18	24	22	23	41	30	32	---	---	---	30	29	30
19	---	---	---	32	29	31	---	---	---	30	29	30
20	---	---	---	34	29	32	---	---	---	31	29	30
21	---	---	---	31	29	30	---	---	---	31	30	30
22	---	---	---	33	30	31	---	---	---	32	30	31
23	33	26	28	34	31	32	---	---	---	32	31	32
24	33	25	28	40	26	33	---	---	---	33	31	32
25	33	26	30	28	25	26	---	---	---	33	30	31
26	32	26	28	28	26	27	---	---	---	34	32	33
27	34	28	31	32	27	28	---	---	---	38	32	34
28	36	28	31	30	25	29	---	---	---	39	33	36
29	36	31	33	25	22	23	---	---	---	36	32	34
30	39	33	36	25	23	24	---	---	---	37	33	35
31	---	---	---	26	24	25	---	---	---	---	---	---
MONTH	---	---	---	63	22	33	---	---	---	39	29	32

CUMBERLAND RIVER BASIN

03407804 INDIAN FORK ABOVE BRAYTOWN, TN

LOCATION.--Lat 36°09'37", long 84°23'15", Anderson County, Hydrologic Unit 05130104, on left bank 0.7 mi (1.1 km) northwest of Braytown, 0.8 mi (1.3 km) north of Moores Camp, 2.4 mi (3.9 km) southwest of Rosedale, and at mile 0.9 (1.4 km).

DRAINAGE AREA.--4.32 mi² (11.19 km²).

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

COOPERATION.--Samples collected and analyzed by the University of Tennessee at Knoxville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		PH	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
DATE	TIME	(UNITS)										
NOV 28...	1215	7.0	4.0	14	330	80	32	18	700	16	--	
FEB 14...	1035	6.6	1.0	5.0	180	40	20	16	235	8	440	
APR 24...	1345	7.1	13.0	69	180	41	19	31	190	64	516	
JUL 02...	1910	7.1	19.0	67	290	70	29	51	340	72	716	
AUG 07...	2015	7.0	21.0	11	330	78	32	56	425	12	852	
SEP 17...	1025	7.6	14.0	31	260	58	27	41	305	10	622	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
DATE												
NOV 28...	--	--	--	0	0	16	14	21	3	2	1	
FEB 14...	.60	1000	0	0	0	8	1	2	4	1	0	
APR 24...	.70	3000	0	0	1	6	3	--	23	10	1	
JUL 02...	.97	3000	0	0	0	7	4	4	2	11	0	
AUG 07...	1.1	--	--	0	0	2	2	1	1	1	0	
SEP 17...	.85	--	--	--	--	--	--	--	--	0	0	
		IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	
DATE												
NOV 28...	--	2900	0	0	0	900	900	30	30	50	30	
FEB 14...	1400	400	0	0	0	400	400	20	19	18	13	
APR 24...	3600	0	1	1	400	400	18	12	27	26		
JUL 02...	4500	0	1	0	500	400	14	8	20	0		
AUG 07...	1800	0	0	0	350	300	7	4	0	0		
SEP 17...	2400	0	--	--	400	400	14	8	15	0		

Zeros for trace constituents represent values below detection limits.

CUMBERLAND RIVER BASIN

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03407874 GREEN BRANCH NEAR HEMBREE, TN

LOCATION.--Lat 36°12'09", long 84°24'59", Scott County, Hydrologic Unit 05130104, on left bank 1.9 mi (3.1 km) south of Hembree, 4.0 mi (6.4 km) northwest of Braytown, 4.7 mi (7.6 km) west of Charleys Branch, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--1.38 mi² (3.57 km²).

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

COOPERATION.--Samples collected and analyzed by the University of Tennessee at Knoxville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 28...	1310	6.6	3.0	7.0	310	70	32	39	290	28	556
FEB 14...	1125	8.0	3.0	2.0	200	40	23	24	198	9	431
APR 24...	1445	7.8	13.0	7.0	180	34	22	33	154	8	448
JUL 02...	1830	6.7	19.0	59	300	62	35	48	154	772	732
AUG 07...	1925	6.8	22.5	22	250	52	30	47	244	28	580
SEP 17...	1125	7.3	14.5	22	190	39	22	44	152	22	446

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
NOV 28...	.76	0	0	0	0	0	1	0	0	0	0
FEB 14...	.59	0	0	0	0	--	7	4	4	1	0
APR 24...	.61	1000	0	0	0	2	2	1	3	4	2
JUL 02...	1.0	20000	0	0	0	18	2	22	3	15	0
AUG 07...	.79	--	--	0	0	2	2	2	2	1	0
SEP 17...	.61	--	--	--	--	--	--	--	--	3	0

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 28...	200	100	0	0	200	200	4	4	0	0
FEB 14...	300	0	0	0	100	100	4	4	10	0
APR 24...	750	300	0	0	200	200	4	4	0	0
JUL 02...	16500	0	10	0	600	200	55	2	115	0
AUG 07...	1600	0	0	0	250	200	3	2	0	0
SEP 17...	800	100	--	--	150	150	2	2	0	0

Zeros for trace constituents represent values below detection limits.

CUMBERLAND RIVER BASIN

03407875 BILLS BRANCH NEAR HEMBREE, TN

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

DRAINAGE AREA.--0.67 mi² (1.74 km²).

WATER-DISCHARGE RECORDS

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

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

AVERAGE DISCHARGE.--6 years, 1.76 ft³/s (0.050 m³/s), 35.67 in/yr (906 mm/yr).

REMARKS.--Records fair except those below 0.5 ft³/s (0.152 m³/s) which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s (17.8 m³/s) Apr. 4, 1977, gage height, 5.12 ft (corrected) (1.561 m); minimum, no flow Oct. 17, 18, 1978, Sept. 18, Oct. 11-24, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft³/s (1.42 m³/s) July 24, gage height, 2.94 ft (0.896 m), no peak above base of 60 ft³/s (1.70 m³/s); minimum, no flow Oct. 11-24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.06	.16	1.8	.64	3.2	.61	1.3	.22	.63	.09
2	.02	.01	.06	.14	5.3	.52	2.1	.59	1.2	.54	.63	.06
3	.03	.01	.06	.14	1.5	.93	1.8	.52	1.4	.23	.56	.18
4	.03	.02	.06	.14	1.5	1.1	2.5	.52	1.6	.22	.55	.19
5	.03	.03	.06	.31	1.5	6.9	14	.37	.94	.18	.53	.09
6	.01	.03	.06	.29	1.4	4.7	4.3	.24	12	.12	.59	.08
7	.01	.03	.06	.16	1.1	2.6	2.9	.29	7.1	.14	2.0	.09
8	.01	.03	.06	.12	.59	1.8	2.3	.34	4.3	.13	3.1	.06
9	.01	.03	.74	.12	.56	1.3	2.6	.40	2.2	.13	1.3	.06
10	.01	.03	.51	.12	3.8	.97	2.4	.46	2.2	.10	1.0	.06
11	.00	.04	.31	.10	6.7	.77	2.6	.46	2.7	.09	.80	.06
12	.00	.04	.24	.09	5.4	.74	2.2	.49	2.1	.37	.72	.05
13	.00	.04	.21	.09	4.6	.83	1.5	.40	1.4	.35	.62	.05
14	.00	.04	.16	.09	1.3	.71	1.9	.63	.96	.15	.57	.73
15	.00	.05	.14	.09	.96	.65	2.0	.64	.82	.48	.69	3.9
16	.00	.05	.14	.08	.71	.82	1.7	.58	.66	2.5	.52	2.2
17	.00	.12	.12	.08	.69	.70	11	.38	.40	1.4	.39	.91
18	.00	.10	.12	.08	.57	.65	7.6	.27	.37	5.1	.30	.47
19	.00	.05	.12	.06	.62	.65	5.4	2.4	.34	2.4	.34	.29
20	.00	.05	.10	.06	.61	.65	9.3	1.5	.29	1.1	.29	.18
21	.00	.05	.16	.24	.61	.60	5.1	1.2	.29	.76	.48	.15
22	.00	.05	.29	.24	.52	1.4	2.9	.87	.32	.51	.52	.15
23	.00	.20	.22	.14	.65	2.3	2.2	.55	.48	.35	.36	.13
24	.02	.62	.31	.08	.78	2.9	1.8	.52	.21	2.9	.34	.12
25	.06	.12	.34	.08	1.1	2.7	1.4	.52	1.3	2.6	.24	.12
26	.02	.07	.24	.06	1.1	2.1	1.2	.52	.68	1.2	.21	.12
27	.01	.50	.22	.12	.89	1.9	1.1	.60	.31	.76	.15	.12
28	.02	.21	.21	.10	.75	2.2	.81	1.0	.23	.51	.15	.12
29	.01	.12	.16	.06	---	2.1	.80	.74	.19	.53	.10	.12
30	.02	.06	.16	.07	---	11	.79	.81	.19	.40	.12	.12
31	.01	---	.16	.08	---	5.0	---	1.1	---	.52	.09	---
TOTAL	.34	2.81	5.86	3.79	47.61	62.83	101.40	20.52	48.48	26.79	18.89	11.07
MEAN	.011	.094	.19	.12	1.70	2.03	3.38	.66	1.62	.86	.61	.37
MAX	.06	.62	.74	.31	6.7	11	14	2.4	12	5.1	3.1	3.9
MIN	.00	.01	.06	.06	.52	.52	.79	.24	.19	.09	.09	.05
CFSM	.02	.14	.28	.18	2.54	3.03	5.05	.99	2.42	1.28	.91	.55
IN.	.02	.16	.32	.21	2.64	3.48	5.62	1.14	2.69	1.49	1.05	.61

CAL YR 1980 TOTAL 439.78 MEAN 1.20 MAX 25 MIN .00 CFSM 1.79 IN 24.38
WTR YR 1981 TOTAL 350.39 MEAN .96 MAX 14 MIN .00 CFSM 1.43 IN 19.43

CUMBERLAND RIVER BASIN

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03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1980 to current year.

WATER TEMPERATURE: August 1980 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1980 to current year.

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

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

COOPERATION.--Samples on April 17 and September 17 were collected and analyzed by USGS; the remainder were collected and analyzed by the University of Tennessee at Knoxville.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 307 micromhos May 13, 1981; minimum, 113 micromhos March 30, 1981.

WATER TEMPERATURE: Maximum, 24.0°C August 8, 9, 1980; minimum, 0.0°C many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,780 mg/L July 24, 1981; minimum daily mean, 2 mg/L

October 6, 27, November 12, 1981.

SEDIMENT LOADS: Maximum daily, 95 tons (86.5 tonnes) July 24, 1981; minimum daily, 0 ton (0 tonne) many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 307 micromhos May 13; minimum 113 micromhos March 30.

WATER TEMPERATURE: Maximum, 23.0°C July 12, 15; minimum, 0.0°C many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,780 mg/L July 24; minimum daily mean, 2 mg/L October 6, 27, November 12.

SEDIMENT LOADS: Maximum daily, 95 tons (86.5 tonnes) July 24; minimum daily, 0 ton (0 tonne) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
DATE FEB	TIME										
14...	1235	1.4	--	7.8	2.0	.00	67	12	9.0	6	69
APR											
17...	1230	25	135	7.4	13.6	--	--	--	--	--	47
17...	1430	19	135	7.4	13.6	--	--	--	--	--	46
17...	1745	15	141	7.2	13.5	--	--	--	--	--	49
24...	1505	1.8	--	8.0	11.5	1.0	71	12	10	12	69
JUL											
02...	1755	.58	--	7.4	19.0	14	78	13	11	21	64
AUG											
07...	1850	.58	--	6.6	21.0	1.0	69	11	10	18	64
SEP											
15...	1725	11	168	6.8	17.9	--	--	--	--	16	58
15...	2045	5.0	165	6.7	17.7	--	--	--	--	14	56
17...	1200	.94	--	7.1	14.0	8.0	66	10	10	15	65
		SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)
DATE FEB											
14...	4	200	.27	0	0	0	0	0	0	0	4
APR											
17...	--	96	.13	--	--	--	--	--	--	--	--
17...	--	81	.11	--	--	--	--	--	--	--	--
17...	--	100	.14	--	--	--	--	--	--	--	--
24...	2	238	.32	0	0	0	0	1	0	0	2
JUL											
02...	30	226	.31	1000	0	0	0	1	1	1	3
AUG											
07...	2	226	.31	--	--	0	0	0	0	0	2
SEP											
15...	--	121	.16	--	--	--	--	--	--	--	--
15...	--	115	.16	--	--	--	--	--	--	--	--
17...	6	214	.29	--	--	--	--	--	--	--	--

Zeros for trace constituents represent values below analytical detection limits.

CUMBERLAND RIVER BASIN

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 14...	0	100	0	0	0	0	0	1	1	0	0
APR 17...	--	7900	20	--	--	300	60	--	--	--	--
17...	--	3500	20	--	--	170	40	--	--	--	--
17...	--	1800	40	--	--	120	50	--	--	--	--
24...	1	250	0	0	0	0	0	2	2	0	0
JUL 02...	5	700	0	0	0	0	0	2	0	0	0
AUG 07...	0	200	0	0	0	0	0	1	1	0	0
SEP 15...	--	4800	60	--	--	190	60	--	--	--	--
15...	--	1900	50	--	--	80	20	--	--	--	--
17...	1	300	0	--	--	0	0	0	0	0	0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1							---	---	---	205	191	201
2							---	---	---	204	199	201
3							---	---	---	204	197	200
4							187	184	186	203	196	200
5							197	183	186	210	196	200
6							199	185	187	203	197	200
7							189	185	187	202	196	200
8							192	184	187	216	194	199
9							204	165	187	202	195	199
10							179	167	176	203	178	189
11							185	177	180	194	189	191
12							186	178	181	200	191	193
13							192	179	183	204	191	194
14							221	155	194	211	192	195
15							208	188	203	212	192	196
16							201	182	193	211	192	195
17							213	173	198	213	192	198
18							215	193	202	215	193	197
19							218	213	216	214	187	197
20							216	202	213	203	165	193
21							210	199	205	208	172	190
22							212	206	207	190	186	188
23							208	203	205	192	181	189
24							213	202	205	191	164	184
25							208	202	204	186	175	183
26							214	201	204	197	186	189
27							212	200	203	206	185	191
28							205	200	203	205	173	187
29							205	200	202	214	173	192
30							204	199	202	216	189	195
31							210	199	203	---	---	---
MONTH							221	155	197	216	164	194

Zeros for trace constituents represent values below analytical detection limits.

CUMBERLAND RIVER BASIN

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03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	199	196	197	196	194	195				---	---	---
2	198	175	196	196	195	195				---	---	---
3	204	195	196	197	195	196				---	---	---
4	208	190	195	207	182	192				---	---	---
5	213	193	195	200	191	193				---	---	---
6	196	194	195	216	192	199				276	268	274
7	199	193	196	218	194	207				270	259	265
8	227	194	199	218	196	209				272	264	269
9	223	195	204	222	196	209				269	261	265
10	218	197	203	219	198	207				273	264	268
11	225	198	203	202	200	201				275	272	273
12	228	197	201	224	199	205				297	273	279
13	223	195	204	236	201	212				286	271	278
14	223	193	203	---	---	---				272	261	266
15	233	189	201	---	---	---				262	256	258
16	212	190	194	---	---	---				262	257	259
17	213	196	200	---	---	---				267	262	264
18	201	181	196	---	---	---				273	267	269
19	199	197	198	---	---	---				268	259	264
20	199	195	196	---	---	---				260	208	246
21	196	193	194	---	---	---				241	213	234
22	194	192	193	---	---	---				241	238	239
23	194	192	193	---	---	---				244	240	242
24	195	170	188	---	---	---				248	243	246
25	196	169	186	---	---	---				246	240	243
26	200	196	199	---	---	---				243	237	239
27	199	182	195	---	---	---				253	240	248
28	199	194	197	---	---	---				253	251	252
29	198	196	197	---	---	---				252	249	251
30	200	195	196	---	---	---				250	241	244
31	196	194	195	---	---	---				251	244	247
MONTH	233	169	197	---	---	---				297	208	257
	FEBRUARY			MARCH			APRIL			MAY		
1	250	137	216	---	---	---	186	174	179	219	213	217
2	157	135	147	---	---	---	187	162	180	219	213	216
3	171	154	161	225	218	222	192	182	186	217	211	214
4	175	145	161	268	217	237	215	184	194	217	212	214
5	179	139	173	234	163	194	176	122	134	216	208	212
6	182	172	176	189	164	173	164	130	156	215	208	212
7	186	177	181	193	180	187	173	134	166	215	209	211
8	195	165	178	197	186	191	187	168	178	213	209	211
9	201	180	196	203	194	198	199	174	185	212	207	209
10	197	121	158	209	197	204	196	173	180	208	191	206
11	137	119	126	213	175	204	191	175	181	203	197	201
12	143	127	134	222	162	211	192	173	179	299	199	216
13	148	137	141	225	201	220	194	180	186	307	257	266
14	151	138	144	228	222	225	201	176	183	296	198	257
15	151	144	148	231	223	228	175	163	168	252	236	244
16	161	147	154	243	205	233	172	161	166	250	244	247
17	167	158	163	252	158	198	174	130	134	247	241	245
18	172	164	166	248	182	229	164	151	158	252	201	239
19	178	156	167	238	195	227	174	157	163	237	187	192
20	---	---	---	233	197	219	175	158	167	195	179	185
21	---	---	---	231	220	228	176	170	173	187	173	179
22	---	---	---	242	177	220	180	175	177	194	177	187
23	---	---	---	215	184	196	190	180	185	198	172	188
24	---	---	---	206	180	191	196	191	194	200	169	194
25	---	---	---	200	181	190	205	194	196	201	194	198
26	---	---	---	186	173	179	206	195	200	207	197	201
27	---	---	---	186	176	180	211	204	208	231	193	208
28	---	---	---	195	170	184	215	211	213	216	182	204
29	---	---	---	193	163	189	223	215	219	202	136	181
30	---	---	---	209	113	159	221	216	218	196	143	184
31	---	---	---	179	146	165	---	---	---	220	159	199
MONTH	---	---	---	268	113	203	223	122	180	307	136	211

CUMBERLAND RIVER BASIN

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	218	181	208	219	195	215	181	177	179	204	198	202
2	218	207	211	214	185	208	187	177	180	249	203	206
3	217	185	207	220	210	217	187	178	183	208	196	199
4	207	193	199	220	211	216	225	183	186	217	204	212
5	196	187	191	216	207	214	190	162	182	218	215	216
6	190	142	166	220	207	215	197	175	185	218	159	211
7	177	156	168	221	216	219	189	114	180	213	201	208
8	179	163	170	263	220	225	169	143	157	227	207	213
9	181	171	176	263	230	235	173	151	165	236	211	213
10	211	164	184	253	233	234	178	161	171	225	210	213
11	200	184	191	238	235	236	179	170	174	223	210	212
12	195	179	187	263	236	236	---	---	---	216	210	212
13	191	179	185	247	231	235	---	---	---	214	210	212
14	195	185	190	282	235	238	---	---	---	214	192	204
15	203	192	196	246	225	240	---	---	---	218	134	175
16	207	175	201	235	181	214	---	---	---	154	123	134
17	210	203	207	188	172	177	---	---	---	169	147	160
18	212	208	209	177	142	164	---	---	---	170	151	162
19	214	203	211	163	152	157	---	---	---	175	160	169
20	219	207	214	166	146	153	---	---	---	177	172	174
21	226	218	221	160	149	154	200	188	194	181	174	176
22	272	170	235	171	156	162	201	191	197	182	177	179
23	239	218	233	176	168	172	202	197	200	181	168	175
24	243	234	238	178	122	168	203	198	200	207	169	188
25	288	185	231	155	139	149	216	197	201	193	190	191
26	215	205	210	168	141	156	203	198	200	196	193	194
27	217	210	213	169	141	163	203	199	201	199	195	197
28	219	213	216	174	165	170	203	198	201	201	198	199
29	220	215	217	178	170	175	203	193	200	221	202	205
30	220	215	218	185	158	176	203	198	200	208	205	206
31	---	---	---	181	175	178	203	200	202	---	---	---
MONTH	288	142	203	282	122	196	---	---	---	249	123	194

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

	JUNE			JULY			AUGUST			SEPTEMBER		
1							---	---	---	22.0	18.5	20.5
2							---	---	---	22.5	19.0	20.5
3							---	---	---	21.5	18.0	19.5
4							22.5	20.5	21.5	21.5	18.0	20.0
5							22.5	19.0	21.0	22.5	18.5	20.0
6							23.0	19.0	21.0	22.0	18.0	20.0
7							23.0	19.0	21.0	20.5	17.5	19.0
8							24.0	19.5	21.5	21.5	16.5	19.0
9							24.0	19.5	21.5	21.5	16.5	19.0
10							22.5	20.0	20.5	20.0	17.0	19.0
11							22.5	17.0	19.5	18.5	15.0	17.0
12							21.5	17.5	19.5	19.5	15.5	17.5
13							22.0	19.0	20.5	20.5	16.0	18.0
14							23.5	20.0	21.0	21.0	17.0	19.0
15							22.0	20.5	21.0	19.5	16.5	18.0
16							22.5	20.5	21.5	19.5	15.0	17.0
17							21.0	20.0	20.5	20.5	17.5	18.5
18							22.0	20.0	20.5	19.5	16.0	17.5
19							22.0	19.5	21.0	19.5	14.5	17.0
20							22.5	20.0	21.5	21.0	17.0	19.0
21							22.0	20.0	21.0	20.5	18.5	19.5
22							21.5	18.5	20.0	21.5	18.0	19.5
23							21.0	17.5	19.0	21.5	18.5	20.0
24							21.0	17.5	19.0	21.0	18.5	19.5
25							20.5	17.0	18.5	20.5	18.5	19.0
26							20.5	16.5	18.5	19.0	14.0	16.5
27							20.0	16.5	18.5	16.0	12.5	14.0
28							21.0	17.5	19.0	15.0	12.5	13.5
29							21.5	18.0	19.5	16.0	14.0	14.5
30							21.0	18.5	19.5	16.0	14.5	15.0
31							21.5	18.5	20.0	---	---	---
MONTH							24.0	16.5	20.5	22.5	12.5	18.0

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	15.0	15.5	19.5	18.0	18.5	19.5	18.0	18.5	20.5	19.0	19.5
2	17.0	15.5	16.0	19.5	17.0	18.0	19.5	18.0	18.5	20.5	19.0	19.5
3	18.0	16.0	17.0	19.5	17.5	18.5	20.5	18.0	19.0	20.5	19.5	20.0
4	17.5	16.5	16.5	20.0	17.5	18.5	20.5	18.5	19.5	20.5	19.0	19.5
5	17.5	16.0	17.0	19.5	18.5	19.0	21.5	19.5	20.5	20.5	19.0	19.5
6	18.0	16.0	16.5	20.0	18.5	19.0	21.5	20.0	20.5	21.0	19.0	19.5
7	16.5	15.5	16.0	21.0	18.5	19.5	21.5	20.0	20.5	20.5	18.5	19.5
8	17.5	15.5	16.5	21.5	19.0	20.0	20.0	18.5	19.5	19.5	17.5	19.0
9	18.5	17.0	17.5	22.0	19.5	20.5	19.5	17.5	18.5	17.5	16.0	17.0
10	19.0	17.5	18.0	22.5	20.0	21.0	20.0	17.5	19.0	17.0	15.0	16.0
11	18.5	17.0	17.5	22.5	20.0	21.5	20.0	18.0	18.5	18.0	15.5	16.5
12	19.0	17.0	18.0	23.0	20.5	21.5	---	---	---	18.5	16.0	17.5
13	19.0	17.5	18.5	22.0	20.0	21.0	---	---	---	19.0	16.5	17.5
14	20.0	18.0	19.0	22.5	20.0	21.5	---	---	---	19.5	16.5	18.0
15	20.0	17.5	18.5	23.0	20.0	21.0	---	---	---	18.0	17.5	17.5
16	20.0	17.5	19.0	20.5	19.5	20.0	---	---	---	17.5	16.0	17.0
17	19.0	17.5	18.5	21.0	19.0	20.0	---	---	---	16.0	14.0	15.0
18	19.0	16.0	17.5	20.5	19.0	19.5	---	---	---	14.0	13.0	13.0
19	19.5	16.5	18.0	21.0	19.0	19.5	---	---	---	14.0	12.0	13.0
20	19.5	17.5	18.5	21.0	19.5	20.0	---	---	---	14.5	11.5	13.0
21	20.5	18.0	19.0	20.5	19.0	20.0	19.0	18.0	18.5	14.5	12.5	13.5
22	21.5	19.0	20.0	20.5	19.0	19.5	19.0	17.5	18.0	15.5	12.5	14.0
23	20.0	17.5	19.0	20.5	18.0	19.5	19.5	17.5	18.5	15.0	13.0	14.5
24	20.5	17.0	18.5	21.0	18.5	19.5	19.5	17.5	18.5	14.0	11.0	12.5
25	20.5	17.5	18.5	20.0	18.0	19.0	19.5	18.0	18.5	14.0	11.5	13.0
26	19.0	17.0	18.0	20.5	19.0	20.0	19.5	17.5	18.5	15.5	13.0	14.0
27	18.5	15.5	17.0	21.0	19.5	20.5	20.0	18.0	19.0	16.5	13.5	15.0
28	19.5	16.0	17.5	21.0	19.5	20.5	20.0	18.0	18.5	15.5	13.0	14.5
29	19.5	16.5	18.0	20.5	19.0	20.0	19.5	17.5	18.5	14.5	11.5	13.0
30	20.0	17.0	19.5	19.5	17.5	18.5	20.0	18.0	19.0	14.5	12.0	13.0
31	---	---	---	20.0	18.5	19.0	20.5	18.5	19.5	---	---	---
MONTH	21.5	15.0	18.0	23.0	17.0	20.0	---	---	---	21.0	11.0	16.0

CUMBERLAND RIVER BASIN

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03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.01	11	.00	.01	3	.00	.06	20	.00
2	.02	9	.00	.01	3	.00	.06	18	.00
3	.03	7	.00	.01	10	.00	.06	12	.00
4	.03	6	.00	.02	8	.00	.06	12	.00
5	.03	3	.00	.03	10	.00	.06	24	.00
6	.01	2	.00	.03	22	.00	.06	8	.00
7	.01	5	.00	.03	30	.00	.06	30	.00
8	.01	6	.00	.03	10	.00	.06	8	.00
9	.01	8	.00	.03	6	.00	.74	135	.27
10	.01	6	.00	.03	14	.00	.51	10	.01
11	.00	7	.00	.04	6	.00	.31	10	.00
12	.00	15	.00	.04	2	.00	.24	10	.00
13	.00	12	.00	.04	18	.00	.21	10	.00
14	.00	10	.00	.04	192	.02	.16	10	.00
15	.00	8	.00	.05	112	.02	.14	10	.00
16	.00	8	.00	.05	6	.00	.14	10	.00
17	.00	16	.00	.12	13	.00	.12	10	.00
18	.00	33	.00	.10	8	.00	.12	10	.00
19	.00	11	.00	.05	8	.00	.12	10	.00
20	.00	10	.00	.05	4	.00	.10	10	.00
21	.00	11	.00	.05	4	.00	.16	10	.00
22	.00	4	.00	.05	5	.00	.29	10	.00
23	.00	4	.00	.20	7	.00	.22	10	.00
24	.02	4	.00	.62	165	.28	.31	50	.04
25	.06	10	.00	.12	93	.03	.34	10	.00
26	.02	8	.00	.07	46	.00	.24	10	.00
27	.01	2	.00	.50	150	.20	.22	10	.00
28	.02	6	.00	.21	70	.04	.21	10	.00
29	.01	10	.00	.12	14	.00	.16	10	.00
30	.02	4	.00	.06	63	.01	.16	10	.00
31	.01	8	.00	---	---	---	.16	10	.00
TOTAL	0.34	---	0.00	2.81	---	0.60	5.86	---	0.32
JANUARY			FEBRUARY			MARCH			
1	.16	10	.00	1.8	50	.24	.64	10	.02
2	.14	10	.00	5.3	80	1.1	.52	10	.01
3	.14	10	.00	1.5	10	.04	.93	10	.03
4	.14	10	.00	1.5	10	.04	1.1	40	.12
5	.31	10	.00	1.5	10	.04	6.9	90	1.7
6	.29	65	.05	1.4	10	.04	4.7	16	.20
7	.16	50	.02	1.1	10	.03	2.6	26	.18
8	.12	20	.00	.59	10	.02	1.8	32	.16
9	.12	15	.00	.56	10	.02	1.3	22	.08
10	.12	7	.00	3.8	100	1.0	.97	8	.02
11	.10	17	.00	6.7	80	1.4	.77	6	.01
12	.09	9	.00	5.4	75	1.1	.74	8	.02
13	.09	10	.00	4.6	50	.62	.83	34	.08
14	.09	10	.00	1.3	15	.05	.71	14	.03
15	.09	10	.00	.96	15	.04	.65	6	.01
16	.08	10	.00	.71	15	.03	.82	50	.11
17	.08	10	.00	.69	15	.03	.70	12	.02
18	.08	10	.00	.57	15	.02	.65	13	.02
19	.06	10	.00	.62	10	.02	.65	11	.02
20	.06	10	.00	.61	10	.02	.65	20	.04
21	.24	10	.00	.61	10	.02	.60	38	.06
22	.24	10	.00	.52	10	.01	1.4	110	.42
23	.14	10	.00	.65	15	.03	2.3	99	.61
24	.08	10	.00	.78	15	.03	2.9	27	.21
25	.08	10	.00	1.1	50	.15	2.7	26	.19
26	.06	10	.00	1.1	30	.09	2.1	25	.14
27	.12	10	.00	.89	15	.04	1.9	13	.07
28	.10	10	.00	.75	15	.03	2.2	34	.20
29	.06	10	.00	---	---	---	2.1	14	.08
30	.07	10	.00	---	---	---	11	1270	85
31	.08	10	.00	---	---	---	5.0	400	5.4
TOTAL	3.79	---	0.07	47.61	---	6.30	62.83	---	95.26

CUMBERLAND RIVER BASIN

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	3.2	310	2.7	.61	16	.03	1.3	68	.24
2	2.1	700	4.0	.59	19	.03	1.2	16	.05
3	1.8	120	.58	.52	13	.02	1.4	16	.06
4	2.5	218	5.5	.52	23	.03	1.6	30	.13
5	14	327	22	.37	33	.03	.94	14	.04
6	4.3	31	.36	.24	43	.03	12	462	17
7	2.9	115	.90	.29	20	.02	7.1	79	1.8
8	2.3	94	.58	.34	20	.02	4.3	44	.51
9	2.6	106	.74	.40	15	.02	2.2	36	.21
10	2.4	32	.21	.46	15	.02	2.2	40	.24
11	2.6	155	1.1	.46	10	.01	2.7	22	.16
12	2.2	33	.20	.49	10	.01	2.1	30	.17
13	1.5	112	.45	.40	10	.01	1.4	18	.07
14	1.9	116	.97	.63	43	.07	.96	14	.04
15	2.0	17	.09	.64	14	.02	.82	12	.03
16	1.7	11	.05	.58	19	.03	.66	12	.02
17	11	367	19	.38	20	.02	.40	10	.01
18	7.6	30	.62	.27	10	.00	.37	18	.02
19	5.4	42	.61	2.4	287	3.3	.34	15	.01
20	9.3	52	1.4	1.5	14	.06	.29	15	.01
21	5.1	22	.30	1.2	16	.05	.29	15	.01
22	2.9	12	.09	.87	8	.02	.32	40	.03
23	2.2	18	.11	.55	10	.01	.48	20	.03
24	1.8	13	.06	.52	18	.03	.21	15	.00
25	1.4	10	.04	.52	24	.03	1.3	307	4.5
26	1.2	10	.03	.52	30	.04	.68	55	.10
27	1.1	10	.03	.60	34	.06	.31	30	.03
28	.81	10	.02	1.0	16	.04	.23	25	.02
29	.80	23	.05	.74	20	.04	.19	20	.01
30	.79	43	.09	.81	36	.08	.19	25	.01
31	---	---	---	1.1	153	.45	---	---	---
TOTAL	101.40	---	62.88	20.52	---	4.63	48.48	---	25.56
JULY			AUGUST			SEPTEMBER			
1	.22	25	.01	.63	20	.03	.09	10	.00
2	.34	25	.02	.63	15	.03	.06	10	.00
3	.23	20	.01	.56	15	.02	.18	10	.00
4	.22	20	.01	.55	10	.01	.19	10	.00
5	.18	15	.00	.53	10	.01	.09	10	.00
6	.12	15	.00	.59	5	.00	.08	10	.00
7	.14	10	.00	2.0	288	8.2	.09	15	.00
8	.13	10	.00	3.1	47	.39	.06	15	.00
9	.13	12	.00	1.3	40	.14	.06	15	.00
10	.10	10	.00	1.0	30	.08	.06	20	.00
11	.09	10	.00	.80	24	.05	.06	20	.00
12	.37	180	.18	.72	10	.02	.05	30	.00
13	.35	30	.03	.62	10	.02	.05	30	.00
14	.15	20	.00	.57	10	.02	.73	337	3.5
15	.48	200	.26	.69	10	.02	3.9	290	3.9
16	2.5	255	3.8	.52	10	.01	2.2	40	.24
17	1.4	50	.19	.39	10	.01	.91	30	.07
18	5.1	418	23	.30	10	.00	.47	20	.03
19	2.4	75	.49	.34	5	.00	.29	20	.02
20	1.1	50	.15	.29	5	.00	.18	20	.00
21	.76	30	.06	.48	5	.00	.15	20	.00
22	.51	20	.03	.52	5	.00	.15	20	.00
23	.35	10	.00	.36	5	.00	.13	18	.00
24	2.9	1780	95	.34	5	.00	.12	20	.00
25	2.6	130	.91	.24	23	.01	.12	20	.00
26	1.2	30	.10	.21	20	.01	.12	15	.00
27	.76	25	.05	.15	20	.00	.12	15	.00
28	.51	25	.03	.15	20	.00	.12	10	.00
29	.53	25	.04	.10	15	.00	.12	10	.00
30	.40	20	.02	.12	15	.00	.12	5	.00
31	.52	20	.03	.09	15	.00	---	---	---
TOTAL	26.79	---	124.42	18.89	---	9.08	11.07	---	7.56

CUMBERLAND RIVER BASIN

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03407876 SMOKY CREEK AT HEMBREE, TN

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

DRAINAGE AREA.--17.2 mi² (44.5 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1,310 ft (399 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft³/s (249 m³/s) Apr. 4, 1977, gage height, 14.6 ft (4.45 m), from floodmarks; minimum, 0.02 ft³/s (0.0006 m³/s) Sept. 6-9, 18, 1980.

EXTREMES FOR WATER YEARS 1977-80.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 12, 1977	2015	1520	43.0	5.63	1.716	Jan. 1, 1979	1445	1530	43.3	6.36	1.939
Apr. 4, 1977	Unknown	*8800	249	14.6	4.450	Jan. 7, 1979	0745	1640	46.4	6.55	1.996
June 25, 1977	1930	1880	53.2	7.70	2.347	Feb. 25, 1979	0800	1680	47.6	6.62	2.018
						May 4, 1979	0645	1390	39.4	6.08	1.853
Oct. 9, 1977	0315	2900	82.1	8.51	2.594	May 31, 1979	0815	*2320	65.7	7.67	2.338
Jan. 10, 1978	0930	*3940	112	9.83	2.996						
Jan. 25, 1978	2315	2370	67.1	7.74	2.359	Nov. 2, 1979	0230	1430	40.5	6.17	1.881
Dec. 9, 1978	0315	1680	47.6	6.62	2.018	Mar. 21, 1980	0115	*3330	94.3	9.07	2.765

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) Apr. 5, gage height, 5.32 ft (1.622 m), no peaks above base of 1,300 ft³/s (36.8 m³/s); minimum, 0.33 ft³/s (0.009 m³/s) Oct. 7-10, 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	1.0	1.7	2.9	184	22	74	18	26	4.5	5.3	1.4
2	.63	.89	1.4	2.6	278	19	46	16	24	6.0	4.4	1.5
3	.55	.89	1.1	2.4	64	16	37	13	23	4.5	4.3	2.6
4	.48	1.6	.84	2.4	28	20	34	12	26	4.1	3.3	24
5	.41	2.2	.69	1.7	45	158	408	11	19	3.5	2.6	11
6	.39	1.7	.60	1.6	11	116	125	10	243	4.6	4.7	8.2
7	.35	1.4	.60	1.8	8.7	65	75	9.8	164	5.0	7.6	10
8	.33	1.3	.54	1.6	23	41	56	8.5	99	3.6	64	6.3
9	.33	1.1	60	1.6	17	29	77	7.5	53	2.5	18	4.7
10	.35	1.1	29	1.4	280	22	75	7.5	55	2.4	11	3.0
11	.39	1.1	9.0	1.2	233	19	82	11	74	2.3	7.2	2.5
12	.39	1.0	4.8	1.2	155	16	66	8.5	56	3.4	6.0	2.0
13	.40	.70	2.8	1.2	90	15	52	7.1	38	4.4	4.5	1.7
14	.43	.52	1.9	1.4	56	14	71	15	31	2.3	3.5	21
15	.52	1.1	1.5	1.5	37	12	80	18	22	9.7	3.1	109
16	.45	2.0	1.4	1.5	25	14	58	10	16	24	8.7	60
17	.52	5.4	1.1	1.5	20	14	276	8.4	13	16	4.8	25
18	.46	6.6	1.0	1.4	20	13	199	8.7	10	45	5.0	16
19	.45	2.3	1.0	1.4	40	12	178	105	8.2	26	7.8	11
20	.42	1.1	1.0	1.5	106	11	300	58	9.1	13	4.9	9.4
21	.39	.73	.71	3.4	84	11	151	36	8.7	11	10	7.7
22	.37	.55	.69	3.6	60	20	90	24	13	6.9	11	6.1
23	.39	2.7	.88	3.6	191	49	71	16	15	5.0	6.6	4.8
24	.39	31	7.3	3.9	83	55	59	13	7.5	42	4.9	3.6
25	1.0	6.7	5.4	3.6	49	51	45	12	36	40	3.9	3.1
26	.88	2.7	5.0	3.6	38	39	36	12	23	15	2.9	2.8
27	1.0	18	4.8	3.6	29	31	31	16	11	13	2.4	2.4
28	1.2	7.4	3.9	3.6	24	24	26	38	7.6	15	1.8	2.2
29	1.2	3.4	3.4	3.9	---	21	25	23	5.9	11	1.7	2.0
30	1.2	2.1	3.6	3.9	---	341	21	17	5.1	8.6	1.8	1.8
31	1.1	---	3.0	2.9	---	129	---	25	---	6.8	1.7	---
TOTAL	18.06	110.28	160.65	73.4	2278.7	1419	2924	595.0	1142.1	361.1	297.8	390.2
MEAN	.58	3.68	5.18	2.37	81.4	45.8	97.5	19.2	38.1	11.6	9.61	13.0
MAX	1.2	31	60	3.9	280	341	408	105	243	45	76	109
MIN	.33	.52	.54	1.2	8.7	11	21	7.1	5.1	2.3	1.7	1.4
CFSM	.03	.21	.30	.14	4.73	2.66	5.67	1.12	2.22	.67	.56	.76
IN.	.04	.24	.35	.16	4.93	3.07	6.32	1.29	2.47	.78	.64	.84
CAL YR 1980	TOTAL	12117.50	MEAN	33.1	MAX	843	MIN	.02	CFSM	1.92	IN	26.21
WTR YR 1981	TOTAL	9770.29	MEAN	26.8	MAX	408	MIN	.33	CFSM	1.56	IN	21.13

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1980 to current year.

pH: May 1980 to current year.

WATER TEMPERATURE: May 1980 to current year.

DISSOLVED OXYGEN: May 1980 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1978 to current year.

INSTRUMENTATION.--Sediment pumping sampler since October 1978. Four parameter water-quality monitor since May 1980.

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

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 468 micromhos May 8, 1981; minimum, 128 micromhos Aug. 11, 1980.

pH: Maximum, 9.3 units Oct. 3, 4, 1980; minimum, 6.2 units Oct. 19, 1980.

WATER TEMPERATURE: Maximum, 31.0°C July 16, 1980; minimum, 0.0°C on many days during winter months.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L Jan. 10, 11, 1981; minimum, 4.2 mg/L July 28, 1980.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,080 mg/L Aug. 7, 1981; minimum daily mean, 1 mg/L Nov. 20, 22, 1979, June 28, 29, 1980.

SEDIMENT LOADS: Maximum daily, 9,190 tons (8,340 tonnes) May 31, 1979; minimum daily, 0.00 ton (0.00 tonnes) many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 468 micromhos May 8; minimum, 148 micromhos Mar. 30.

pH: Maximum, 9.3 units Oct. 3, 4; minimum, 6.2 units Oct. 19.

WATER TEMPERATURE: Maximum, 28.5°C July 14, 27; minimum 0.0°C on many days during winter months.

DISSOLVED OXYGEN: Maximum 13.5 mg/L Jan. 10, 11; minimum, 5.7 mg/L July 13, 14.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,080 mg/L Aug. 7; minimum daily mean, 3 mg/L Dec. 14, 16, Jan. 23, Mar. 17.

SEDIMENT LOADS: Maximum daily, 7,250 tons (6,580 tonnes) Aug. 7; minimum daily, 0.00 ton (0.00 tonnes) many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 27...	1030	.92	345	7.1	8.0	--	40	120	235
DEC 10...	1515	20	326	--	8.0	--	30	110	202
JAN 23...	1300	3.5	321	7.3	3.0	12.5	26	120	205
FEB 19...	1430	40	275	7.6	11.0	10.6	26	88	169
MAR 25...	1600	55	194	7.2	12.0	--	22	66	126
APR 07...	1430	65	188	7.2	14.0	9.9	22	54	114
MAY 19...	1145	96	176	7.8	16.0	9.4	34	58	126
JUN 18...	1130	9.6	259	7.4	19.5	8.6	40	68	163
JUL 30...	1430	7.4	248	7.7	21.0	--	28	72	160
AUG 17...	1400	4.0	260	--	22.0	--	38	72	169
SEP 16...	1230	55	225	7.1	18.5	8.6	32	64	136

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (I/DAY)	
	OCT 27...	.58	.32	300	40	20	10	2	.00	
	DEC 10...	10.9	.27	490	40	30	20	13	.70	
	JAN 23...	1.9	.28	390	30	110	50	3	.03	
	FEB 19...	18.5	.23	1100	--	40	30	41	4.4	
	MAR 25...	18.8	.17	440	20	40	30	17	2.5	
	APR 07...	20.1	.16	490	30	50	20	20	3.5	
	MAY 19...	32.8	.17	5900	30	120	30	229	60	
	JUN 18...	4.2	.22	60	20	30	20	17	.44	
	JUL 30...	3.2	.22	910	50	60	40	29	.58	
	AUG 17...	1.8	.23	640	40	50	40	10	.11	
	SEP 16...	20.3	.18	2700	30	100	40	--	--	
		HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
	DATE AUG 17...	1400	100	65	23	11	7.8	.3	14	1.8
		CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
	DATE AUG 17...	.9	<.1	5.1	143	.38	<.010	1	100	<1
		CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
	DATE AUG 17...	20	7	6	<.1	1	<1	30	<.01	

CUMBERLAND RIVER BASIN

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	292	280	288	278	270	275	---	---	---	328	326	326
2	286	257	274	270	264	267	---	---	---	326	324	325
3	264	234	246	262	254	259	---	---	---	326	320	323
4	270	230	242	254	228	236	---	---	---	322	316	320
5	235	227	230	252	230	239	---	---	---	---	---	---
6	235	216	221	264	254	261	---	---	---	306	296	301
7	252	215	232	268	264	267	---	---	---	304	294	299
8	254	231	241	268	262	265	---	---	---	318	296	306
9	256	233	243	262	218	250	---	---	---	316	302	309
10	254	232	222	254	252	254	328	324	327	310	298	305
11	240	228	234	252	244	248	332	330	330	332	304	318
12	225	211	249	244	240	242	332	330	332	354	304	337
13	208	192	200	240	238	239	334	332	334	---	---	---
14	204	185	191	239	235	237	334	332	334	---	---	---
15	226	182	205	237	219	226	334	312	332	---	---	---
16	232	210	220	266	222	240	338	334	336	---	---	---
17	244	224	233	364	270	294	338	336	337	---	---	---
18	252	244	246	389	307	374	336	332	334	---	---	---
19	250	242	245	380	362	372	334	332	332	---	---	---
20	242	223	232	364	338	354	332	328	330	---	---	---
21	240	214	227	345	333	339	344	308	327	---	---	---
22	242	216	228	334	320	327	332	310	319	---	---	---
23	246	220	231	354	276	310	320	310	315	---	---	---
24	234	224	228	365	329	354	366	290	316	---	---	---
25	229	206	213	371	367	370	364	338	346	---	---	---
26	348	233	300	370	366	368	362	328	346	---	---	---
27	348	330	342	---	---	---	328	320	322	---	---	---
28	328	298	312	---	---	---	328	310	319	---	---	---
29	300	286	294	---	---	---	324	320	322	---	---	---
30	286	282	283	---	---	---	326	320	324	---	---	---
31	282	278	281	---	---	---	330	326	327	---	---	---
MONTH	348	182	246	389	218	287	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	250	230	239	188	174	181	352	250	260
2	---	---	---	244	238	241	194	186	190	390	256	313
3	---	---	---	246	240	243	208	194	199	---	---	---
4	---	---	---	294	234	254	---	---	---	330	262	293
5	---	---	---	266	164	215	196	150	167	306	268	284
6	---	---	---	182	164	176	186	158	173	326	268	292
7	---	---	---	184	166	175	194	180	185	378	296	318
8	---	---	---	182	172	177	188	184	186	468	294	328
9	---	---	---	190	182	186	232	180	205	378	278	304
10	---	---	---	218	188	202	206	180	196	416	274	297
11	---	---	---	224	218	221	216	192	200	368	276	309
12	---	---	---	234	224	230	194	190	193	316	300	307
13	---	---	---	238	230	236	202	196	200	358	316	331
14	---	---	---	246	240	243	218	196	205	366	150	309
15	---	---	---	248	240	245	---	---	---	278	192	261
16	---	---	---	266	226	257	---	---	---	300	276	279
17	---	---	---	258	252	253	---	---	---	282	278	279
18	---	---	---	252	246	248	---	---	---	302	216	288
19	---	---	---	248	244	246	---	---	---	---	---	---
20	---	---	---	250	244	247	---	---	---	---	---	---
21	---	---	---	254	250	251	---	---	---	---	---	---
22	---	---	---	254	236	248	---	---	---	---	---	---
23	---	---	---	190	176	181	---	---	---	244	228	236
24	196	184	191	206	172	182	---	---	---	267	241	250
25	208	172	196	204	194	200	---	---	---	268	226	256
26	234	206	214	202	194	197	---	---	---	276	262	269
27	238	216	224	206	196	202	---	---	---	299	277	287
28	242	224	231	214	206	210	---	---	---	309	255	279
29	---	---	---	218	214	215	278	214	232	256	244	250
30	---	---	---	208	148	170	306	218	257	261	239	254
31	---	---	---	172	158	167	---	---	---	285	215	265
MONTH	---	---	---	294	148	218	---	---	---	468	150	285

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	258	230	243	264	256	259	268	264	266	258	248	254
2	273	205	242	358	264	315	272	268	269	262	254	258
3	285	215	228	318	294	303	278	270	274	266	224	251
4	296	230	265	294	284	289	280	256	271	292	250	274
5	254	234	240	290	286	288	262	256	259	283	275	280
6	---	---	---	322	286	294	312	236	263	293	253	286
7	---	---	---	330	306	317	328	248	290	289	271	284
8	---	---	---	308	298	305	---	---	---	296	288	293
9	---	---	---	304	296	299	---	---	---	356	298	323
10	226	174	205	300	284	292	---	---	---	393	335	352
11	230	190	202	300	286	291	214	210	212	332	320	325
12	214	188	204	308	282	292	240	214	224	317	309	313
13	218	210	213	316	288	298	238	228	232	305	297	301
14	224	218	222	298	292	295	228	226	227	294	222	281
15	236	222	229	294	246	288	228	212	225	295	233	243
16	244	232	237	256	224	245	264	180	243	258	212	227
17	254	240	249	262	254	258	266	252	258	264	170	217
18	260	248	255	260	240	250	270	228	249	284	240	266
19	266	248	257	---	---	---	306	278	292	288	284	286
20	298	260	280	---	---	---	280	264	275	---	---	---
21	296	278	286	286	214	248	318	258	288	---	---	---
22	286	194	269	266	256	262	300	278	286	---	---	---
23	266	214	253	264	258	261	278	266	269	---	---	---
24	274	256	265	274	240	260	268	258	263	---	---	---
25	274	260	270	284	216	259	262	256	260	---	---	---
26	209	201	206	268	256	264	260	254	257	---	---	---
27	218	190	208	278	216	266	256	252	254	---	---	---
28	222	210	214	274	252	264	254	250	252	---	---	---
29	221	203	215	264	246	258	252	240	247	---	---	---
30	222	212	216	268	254	260	262	246	255	---	---	---
31	---	---	---	266	262	263	264	256	259	---	---	---
MONTH	298	174	237	358	214	277	328	180	258	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.5	7.2	7.2	7.1	---	---	7.5	7.4	---	---	7.4	7.3
2	7.3	7.2	7.1	7.1	---	---	7.5	7.4	---	---	7.5	7.3
3	9.3	7.2	7.1	7.1	---	---	7.5	7.4	---	---	7.5	7.3
4	9.3	7.6	7.1	7.0	---	---	7.5	7.4	---	---	7.9	7.3
5	7.6	7.4	7.2	7.1	---	---	---	---	---	---	7.5	7.2
6	7.4	7.3	7.2	7.1	---	---	7.4	7.0	---	---	7.2	7.2
7	7.4	7.0	7.2	7.1	---	---	7.5	7.4	---	---	7.3	7.2
8	7.3	7.2	7.1	7.1	---	---	7.4	7.3	---	---	7.3	7.2
9	7.3	7.1	7.1	7.0	---	---	7.5	7.4	---	---	7.4	7.2
10	7.2	7.1	7.1	7.0	7.4	7.4	7.4	7.4	---	---	7.4	7.3
11	7.1	7.0	7.1	7.1	7.5	7.4	7.4	7.4	---	---	7.4	7.3
12	7.1	7.0	7.2	7.1	7.5	7.4	7.4	7.3	---	---	7.5	7.3
13	7.1	7.1	7.2	7.1	7.5	7.4	---	---	---	---	7.5	7.3
14	7.2	7.1	7.2	7.1	7.5	7.4	---	---	---	---	7.5	7.3
15	7.1	6.9	7.2	7.0	7.5	7.4	---	---	---	---	7.5	7.3
16	7.1	7.0	7.2	7.1	7.5	7.4	---	---	---	---	7.5	7.3
17	7.0	6.9	7.4	7.2	7.5	7.4	---	---	---	---	7.5	7.3
18	6.9	6.9	7.5	7.4	7.5	7.4	---	---	---	---	7.5	7.4
19	6.9	6.2	7.5	7.5	7.5	7.4	---	---	---	---	7.5	7.4
20	6.9	6.8	7.6	7.5	7.5	7.4	---	---	---	---	7.5	7.4
21	7.0	6.9	7.5	7.5	7.5	7.4	---	---	---	---	7.5	7.4
22	7.0	6.9	7.5	7.4	7.5	7.4	---	---	---	---	7.5	7.2
23	7.0	6.9	7.5	7.3	7.4	7.4	---	---	---	---	7.3	7.2
24	7.0	6.9	7.5	7.4	7.5	7.4	---	---	7.3	7.1	7.3	7.2
25	7.1	7.0	7.5	7.4	7.5	7.4	---	---	7.4	7.3	7.4	7.3
26	7.2	7.1	7.5	7.4	7.5	7.4	---	---	7.4	7.3	7.5	7.3
27	7.2	7.2	---	---	7.5	7.4	---	---	7.4	7.3	7.5	7.3
28	7.2	7.1	---	---	7.4	7.4	---	---	7.4	7.3	7.6	7.3
29	7.1	7.1	---	---	7.5	7.4	---	---	---	---	7.5	7.3
30	7.1	7.1	---	---	7.5	7.4	---	---	---	---	7.5	7.1
31	7.2	7.1	---	---	7.5	7.4	---	---	---	---	7.2	7.1
MONTH	9.3	6.2	7.6	7.0	---	---	---	---	---	---	7.9	7.1

CUMBERLAND RIVER BASIN

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.0	17.0	18.0	11.5	6.0	8.5	---	---	---	4.0	3.0	3.5
2	18.5	16.5	17.5	12.0	7.0	9.0	---	---	---	4.0	2.0	3.0
3	16.5	15.0	15.5	11.5	7.5	10.0	---	---	---	4.5	1.5	3.0
4	14.5	12.5	13.0	13.5	10.5	12.0	---	---	---	3.5	.5	1.5
5	13.5	11.5	12.5	11.5	8.5	10.0	---	---	---	---	---	---
6	14.0	10.0	12.0	10.5	6.0	8.0	---	---	---	---	---	---
7	15.0	10.0	12.0	11.5	6.5	9.0	---	---	---	1.5	.5	1.0
8	17.0	12.0	14.0	15.0	11.0	13.0	---	---	---	1.0	.0	.5
9	19.0	14.0	16.0	15.5	13.5	14.5	---	---	---	2.0	.5	1.0
10	19.5	15.5	17.0	13.5	10.5	12.0	8.5	5.5	7.5	1.0	.0	.5
11	17.5	15.5	16.5	10.5	7.5	9.0	8.0	5.0	6.0	.5	.0	.5
12	15.0	12.5	13.5	9.0	5.0	7.0	8.0	3.5	5.5	.0	.0	.0
13	13.5	10.0	11.5	9.0	5.0	6.5	8.0	4.0	6.0	---	---	---
14	13.5	9.5	11.0	10.5	7.0	9.0	6.0	2.5	4.5	---	---	---
15	14.0	9.5	11.5	12.0	10.5	11.0	5.0	2.0	3.5	---	---	---
16	15.0	10.5	12.5	11.5	9.5	10.5	6.5	5.0	5.5	---	---	---
17	16.5	13.0	14.5	11.0	9.5	10.0	6.0	3.5	5.0	---	---	---
18	18.5	16.0	17.5	11.0	6.0	8.5	6.0	2.0	4.0	---	---	---
19	18.0	16.0	17.0	7.5	5.0	6.0	5.5	3.0	5.0	---	---	---
20	15.5	12.0	13.5	6.5	3.0	5.0	2.5	.5	1.5	---	---	---
21	15.0	10.0	12.0	6.5	3.0	4.5	1.5	.0	.5	---	---	---
22	14.5	10.0	12.0	5.5	2.5	4.0	2.0	.0	1.0	---	---	---
23	15.0	10.5	12.5	9.0	5.5	7.0	3.5	2.0	3.0	---	---	---
24	13.0	10.5	12.0	13.0	9.0	12.0	5.0	2.5	4.0	---	---	---
25	12.5	10.5	11.5	11.0	7.5	10.0	2.0	.0	.5	---	---	---
26	11.0	7.5	9.5	7.0	5.5	6.5	1.5	.0	1.0	---	---	---
27	10.5	8.5	9.5	---	---	---	3.5	.5	1.5	---	---	---
28	15.0	9.0	12.5	---	---	---	4.5	.0	2.0	---	---	---
29	12.5	10.0	11.0	---	---	---	4.5	1.5	3.0	---	---	---
30	11.0	9.0	10.0	---	---	---	4.0	3.0	3.5	---	---	---
31	11.0	6.5	8.5	---	---	---	5.5	2.5	4.0	---	---	---
MONTH	20.0	6.5	13.0	15.5	2.5	9.0	---	---	---	---	---	---

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	10.5	8.0	9.0	---	---	---	16.5	12.5	14.5
2	---	---	---	11.5	6.5	8.5	17.5	8.0	12.0	18.0	11.0	14.0
3	---	---	---	10.5	3.5	6.5	16.0	8.5	12.5	20.0	10.0	14.5
4	---	---	---	7.0	5.0	6.0	---	---	---	19.5	11.0	15.0
5	---	---	---	9.5	6.0	7.5	---	---	---	22.0	13.5	17.5
6	---	---	---	9.0	5.0	8.0	15.0	9.0	12.0	18.5	15.5	17.0
7	---	---	---	8.0	4.0	5.5	16.5	7.5	11.0	18.0	13.5	15.5
8	---	---	---	9.5	2.5	5.5	14.5	8.5	11.5	20.0	12.5	15.5
9	---	---	---	10.0	2.0	5.5	15.0	12.0	13.0	21.5	13.0	17.0
10	---	---	---	10.0	2.5	5.5	---	---	---	18.5	15.5	17.0
11	---	---	---	10.5	4.0	6.5	---	---	---	16.0	12.0	14.0
12	---	---	---	12.5	2.5	6.5	---	---	---	17.5	11.0	13.5
13	---	---	---	9.5	3.0	6.5	---	---	---	20.5	11.5	15.5
14	---	---	---	12.0	3.5	7.0	17.5	14.0	15.5	19.0	14.0	15.5
15	---	---	---	10.0	2.0	6.0	---	---	---	13.5	11.5	12.5
16	---	---	---	9.5	4.5	7.5	---	---	---	19.0	10.0	14.0
17	---	---	---	11.5	2.0	6.5	---	---	---	16.0	13.0	14.5
18	---	---	---	9.0	4.5	7.0	---	---	---	21.0	14.0	17.0
19	---	---	---	5.5	3.0	4.0	---	---	---	16.5	14.5	15.5
20	---	---	---	6.5	2.0	4.0	---	---	---	14.0	12.0	13.0
21	---	---	---	7.5	1.5	4.5	---	---	---	19.0	11.0	14.5
22	---	---	---	6.0	4.5	5.0	---	---	---	20.5	11.0	15.0
23	---	---	---	7.5	5.0	6.5	---	---	---	21.5	12.0	17.0
24	9.5	5.5	7.5	13.0	6.0	8.5	---	---	---	21.5	13.5	17.0
25	10.5	3.5	6.5	12.5	5.5	8.5	---	---	---	19.0	14.0	16.5
26	12.0	4.5	7.5	11.5	4.5	8.0	---	---	---	18.0	15.5	17.0
27	12.0	4.0	7.5	12.5	7.0	9.5	---	---	---	17.5	16.0	16.5
28	11.0	7.0	9.0	15.5	6.0	10.0	---	---	---	20.0	15.5	17.0
29	---	---	---	13.5	9.5	11.5	---	---	---	22.0	14.0	17.5
30	---	---	---	---	---	---	21.0	16.0	17.0	20.0	15.0	17.5
31	---	---	---	---	---	---	---	---	---	21.0	16.0	18.0
MONTH	---	---	---	15.5	1.5	7.0	---	---	---	22.0	10.0	15.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.0	16.0	17.5	23.5	20.0	21.5	22.5	19.0	21.0	23.5	21.0	22.5
2	21.5	18.0	18.5	22.0	18.5	20.5	22.0	19.5	20.5	23.5	20.5	22.0
3	22.0	17.5	19.5	23.0	19.0	21.0	25.5	19.5	22.0	22.5	21.0	21.5
4	22.5	17.5	20.0	24.5	19.0	21.5	26.0	21.0	23.0	---	---	---
5	22.0	17.5	19.5	22.5	20.0	21.0	27.5	22.0	24.5	24.0	20.0	21.5
6	21.0	18.0	19.0	24.0	20.5	21.5	26.0	22.0	24.0	25.0	20.0	22.0
7	25.0	20.5	22.0	25.0	20.5	22.5	26.0	22.5	23.5	25.0	19.5	22.0
8	24.5	20.0	22.0	27.0	21.5	24.0	24.0	20.5	22.0	22.0	19.0	21.0
9	24.5	19.0	21.5	27.0	22.5	24.5	24.5	19.0	21.5	22.0	16.5	19.0
10	23.0	18.5	21.0	26.5	22.5	24.5	25.5	19.0	22.0	23.0	16.0	19.0
11	22.5	17.5	19.5	28.0	23.0	25.0	24.5	19.5	22.0	23.5	17.0	20.0
12	23.5	18.0	20.5	26.5	23.0	24.5	25.0	20.0	22.0	23.5	18.5	20.5
13	22.5	18.5	20.5	27.5	22.5	25.0	25.0	18.0	21.5	23.5	19.0	21.0
14	25.5	18.5	21.5	28.5	23.5	25.5	24.5	18.5	21.5	24.0	19.0	21.0
15	26.5	19.0	22.5	27.0	21.5	24.0	25.0	20.0	22.0	---	---	---
16	26.5	19.5	23.0	23.5	21.0	21.5	23.5	20.5	22.0	20.0	17.0	18.5
17	26.0	20.0	22.5	27.0	20.5	23.0	25.0	20.5	22.5	18.0	14.5	16.0
18	25.5	17.5	21.0	22.5	20.0	21.5	22.5	20.0	21.0	14.5	12.5	13.5
19	25.0	18.0	21.5	26.0	19.5	22.0	21.5	19.5	20.5	17.0	12.0	14.0
20	24.5	19.0	22.0	24.5	20.0	22.0	22.0	19.5	20.5	---	---	---
21	26.5	19.5	22.5	26.5	19.5	23.0	22.0	19.0	20.5	---	---	---
22	26.5	21.0	23.0	26.5	20.0	22.5	22.0	18.0	20.0	---	---	---
23	27.0	19.0	22.5	26.5	19.5	22.5	24.0	18.0	20.5	---	---	---
24	28.0	19.0	23.0	26.0	20.5	22.5	25.0	19.0	21.5	---	---	---
25	24.0	20.0	22.0	27.5	23.5	25.5	25.5	20.0	22.0	---	---	---
26	24.0	18.5	21.5	27.0	23.0	24.5	24.0	19.5	21.5	---	---	---
27	24.0	16.0	19.5	28.5	22.0	24.5	24.5	19.5	21.5	---	---	---
28	24.5	16.5	20.0	27.0	22.5	24.5	24.5	19.5	22.0	---	---	---
29	25.5	17.5	21.0	24.0	21.5	23.0	22.0	19.5	20.5	---	---	---
30	26.0	19.0	22.0	23.5	19.0	21.5	23.5	19.5	21.0	---	---	---
31	---	---	---	24.0	19.5	21.5	24.5	20.0	22.5	---	---	---
MONTH	28.0	16.0	21.0	28.5	18.5	23.0	27.5	18.0	21.5	---	---	---

CUMBERLAND RIVER BASIN

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	9.0	7.7	8.5	9.5	8.7	9.1	---	---	---	11.1	10.7	11.0
2	8.6	7.7	8.2	9.4	8.8	9.1	---	---	---	11.6	10.9	11.2
3	9.3	8.2	8.8	9.5	8.7	9.2	---	---	---	11.5	10.6	11.1
4	9.7	8.7	9.2	9.0	8.6	8.8	---	---	---	11.9	10.7	11.4
5	10.3	9.3	9.8	9.7	9.1	9.5	---	---	---	---	---	---
6	10.6	9.3	10.0	10.3	9.8	10.0	---	---	---	---	---	---
7	10.4	9.2	9.9	10.5	9.6	10.1	---	---	---	13.1	12.6	13.0
8	10.0	8.8	9.6	9.8	9.1	9.5	---	---	---	13.3	12.7	13.0
9	9.5	8.6	9.1	9.3	8.7	9.1	---	---	---	13.3	12.7	12.9
10	9.1	8.0	8.6	10.0	9.3	9.7	11.6	10.8	11.1	13.5	12.8	13.2
11	8.8	8.0	8.4	10.9	10.0	10.5	12.1	11.4	11.7	13.5	13.0	13.3
12	9.2	8.1	8.8	11.7	11.0	11.3	12.3	11.1	11.8	13.3	13.1	13.2
13	9.6	9.0	9.3	12.2	10.9	11.6	12.1	11.0	11.6	---	---	---
14	9.7	8.9	9.4	10.7	9.7	10.3	12.5	11.4	11.9	---	---	---
15	9.9	9.2	9.5	9.7	9.3	9.5	12.5	11.1	11.9	---	---	---
16	9.6	8.7	9.1	9.8	9.4	9.7	11.5	10.8	11.1	---	---	---
17	9.1	7.7	8.6	10.0	9.7	9.8	11.8	11.0	11.4	---	---	---
18	8.0	6.9	7.4	10.9	9.4	10.2	12.2	10.9	11.6	---	---	---
19	7.3	6.7	7.1	11.3	10.7	11.0	11.6	10.9	11.2	---	---	---
20	8.1	7.1	7.6	11.8	10.9	11.3	12.6	11.7	12.2	---	---	---
21	8.8	8.2	8.6	11.7	11.1	11.4	12.6	12.0	12.3	---	---	---
22	9.0	8.2	8.6	11.8	11.0	11.4	12.6	11.7	12.2	---	---	---
23	8.9	8.4	8.6	11.0	10.0	10.6	11.8	11.1	11.6	---	---	---
24	9.0	8.7	8.8	---	---	---	11.2	10.8	11.0	---	---	---
25	9.5	9.1	9.3	---	---	---	12.1	10.5	11.3	---	---	---
26	9.9	9.3	9.6	---	---	---	12.1	11.7	11.8	---	---	---
27	9.8	9.1	9.5	---	---	---	12.1	11.3	11.7	---	---	---
28	9.3	7.9	8.6	---	---	---	12.1	10.9	11.7	---	---	---
29	8.5	8.1	8.3	---	---	---	11.7	10.8	11.3	---	---	---
30	8.6	8.4	8.5	---	---	---	11.4	10.8	11.2	---	---	---
31	9.3	8.7	9.0	---	---	---	11.3	10.5	11.0	---	---	---
MONTH	10.6	6.7	8.9	---	---	---	---	---	---	---	---	---
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	10.2	9.6	9.9	9.9	9.0	9.5	10.2	9.3	9.7
2	---	---	---	10.7	9.6	10.2	9.8	7.7	8.8	10.6	9.1	9.8
3	---	---	---	11.3	10.0	10.6	10.3	8.8	9.2	10.8	8.7	9.8
4	---	---	---	11.0	10.4	10.7	9.7	8.7	9.2	10.5	8.6	9.5
5	---	---	---	11.0	10.1	10.5	---	---	---	9.8	8.1	9.0
6	---	---	---	10.8	9.9	10.2	11.0	9.5	10.3	9.3	8.5	8.9
7	---	---	---	11.1	9.1	10.6	11.5	9.7	10.8	9.6	8.5	9.1
8	---	---	---	11.2	9.1	10.0	11.2	9.3	10.2	9.9	8.1	9.0
9	---	---	---	10.6	8.9	9.9	9.9	9.6	9.8	9.4	7.9	8.6
10	---	---	---	11.2	10.2	10.7	---	---	---	8.8	7.9	8.4
11	---	---	---	12.1	10.4	11.3	---	---	---	9.0	8.1	8.6
12	---	---	---	12.3	10.4	11.4	---	---	---	9.6	8.1	9.0
13	---	---	---	12.1	10.5	11.3	---	---	---	9.5	7.9	8.8
14	---	---	---	12.2	10.5	11.3	---	---	---	9.7	8.2	8.9
15	---	---	---	12.7	10.7	11.6	---	---	---	9.7	9.0	9.2
16	---	---	---	11.7	11.0	11.2	---	---	---	10.0	8.3	9.1
17	---	---	---	12.6	9.9	11.3	---	---	---	9.5	8.7	9.1
18	---	---	---	11.0	10.3	10.6	---	---	---	9.5	8.2	8.9
19	---	---	---	11.6	10.8	11.2	---	---	---	9.5	8.1	9.1
20	---	---	---	11.7	10.7	11.2	---	---	---	9.8	9.3	9.6
21	---	---	---	11.8	10.3	11.1	---	---	---	10.2	8.5	9.4
22	---	---	---	10.8	10.4	10.6	---	---	---	10.1	8.1	9.1
23	---	---	---	---	---	---	---	---	---	10.0	8.1	8.9
24	10.1	9.4	9.7	---	---	---	---	---	---	9.4	7.9	8.6
25	10.7	9.3	10.1	11.1	10.2	10.5	---	---	---	8.9	7.7	8.4
26	10.9	9.3	10.2	11.8	10.1	11.0	---	---	---	8.7	7.9	8.3
27	11.2	9.6	10.4	11.3	9.7	10.6	---	---	---	8.8	8.2	8.5
28	10.5	9.5	10.0	11.5	9.3	10.4	---	---	---	9.4	8.3	8.9
29	---	---	---	10.7	9.2	9.9	9.7	8.9	9.2	9.8	8.1	8.9
30	---	---	---	---	---	---	10.1	9.0	9.7	9.4	7.8	8.6
31	---	---	---	---	---	---	---	---	---	8.6	7.4	7.9
MONTH	---	---	---	12.7	8.9	10.7	---	---	---	10.8	7.4	9.0

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER				NOVEMBER			
1	.69	10	.02	1.0	6	.02	1.7	8	.04
2	.63	8	.01	.89	4	.00	1.4	8	.03
3	.55	11	.02	.89	10	.02	1.1	8	.02
4	.48	7	.00	1.6	10	.04	.84	6	.01
5	.41	4	.00	2.2	7	.04	.69	6	.01
6	.39	4	.00	1.7	6	.03	.60	6	.00
7	.35	4	.00	1.4	4	.02	.60	4	.00
8	.33	6	.00	1.3	8	.03	.54	4	.00
9	.33	6	.00	1.1	14	.04	60	125	20
10	.35	7	.00	1.1	6	.02	29	11	.86
11	.39	8	.00	1.1	6	.02	9.0	4	.10
12	.39	6	.00	1.0	4	.01	4.8	9	.12
13	.40	5	.00	.70	9	.02	2.8	12	.09
14	.43	10	.01	.52	10	.01	1.9	3	.02
15	.52	16	.02	1.1	10	.03	1.5	6	.02
16	.45	16	.02	2.0	6	.03	1.4	3	.01
17	.52	16	.02	5.4	87	1.3	1.1	5	.01
18	.46	8	.00	6.6	60	1.1	1.0	6	.02
19	.45	5	.00	2.3	15	.09	1.0	13	.04
20	.42	20	.02	1.1	12	.04	1.0	7	.02
21	.39	6	.00	.73	10	.02	.71	10	.02
22	.37	5	.00	.55	8	.01	.69	10	.02
23	.39	14	.01	2.7	30	.22	.88	10	.02
24	.39	4	.00	31	90	7.5	7.3	50	.99
25	1.0	11	.03	6.7	30	.54	5.4	30	.44
26	.88	18	.04	2.7	5	.04	5.0	10	.14
27	1.0	7	.02	18	85	4.1	4.8	10	.13
28	1.2	6	.02	7.4	10	.20	3.9	10	.11
29	1.2	6	.02	3.4	10	.09	3.4	10	.09
30	1.2	4	.01	2.1	10	.06	3.6	9	.09
31	1.1	4	.01	---	---	---	3.0	9	.07
TOTAL	18.06	---	0.30	110.28	---	15.69	160.65	---	23.54

CUMBERLAND RIVER BASIN

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	2.9	9	.07	184	1000	497	22	10	.59
2	2.6	8	.06	278	500	375	19	10	.51
3	2.4	8	.05	64	50	8.6	16	10	.43
4	2.4	8	.05	28	20	1.5	20	70	3.8
5	1.7	7	.03	45	300	36	158	197	103
6	1.6	9	.04	11	20	.59	116	23	7.2
7	1.8	8	.04	8.7	20	.47	65	7	1.2
8	1.6	10	.04	23	20	1.2	41	10	1.1
9	1.6	8	.03	17	20	.92	29	10	.78
10	1.4	6	.02	280	1200	907	22	10	.59
11	1.2	10	.03	233	300	189	19	10	.51
12	1.2	8	.03	155	50	21	16	10	.43
13	1.2	6	.02	90	35	8.5	15	16	.65
14	1.4	10	.04	56	25	3.8	14	11	.42
15	1.5	8	.03	37	15	1.5	12	12	.39
16	1.5	6	.02	25	10	.68	14	23	.87
17	1.5	10	.04	20	15	.81	14	3	.11
18	1.4	8	.03	20	15	.81	13	7	.25
19	1.4	6	.02	40	41	4.4	12	5	.16
20	1.5	10	.04	106	60	17	11	10	.30
21	3.4	8	.07	84	20	4.5	11	11	.33
22	3.6	6	.06	60	25	4.1	20	31	1.7
23	3.6	3	.03	191	500	258	49	32	4.2
24	3.9	8	.08	83	40	9.0	55	31	4.6
25	3.6	6	.06	49	30	4.0	51	12	1.7
26	3.6	10	.10	38	20	2.1	39	20	2.1
27	3.6	8	.08	29	10	.78	31	17	1.4
28	3.6	6	.06	24	10	.65	24	17	1.1
29	3.9	10	.11	---	---	---	21	16	.91
30	3.9	8	.08	---	---	---	341	667	1020
31	2.9	6	.05	---	---	---	129	20	7.0
TOTAL	73.4	---	1.51	2278.7	---	2358.91	1419	---	1168.33
APRIL			MAY			JUNE			
1	74	15	3.0	18	25	1.2	26	112	7.9
2	46	25	3.1	16	27	1.2	24	24	1.6
3	37	14	1.4	15	15	.53	23	16	.99
4	34	130	12	12	16	.52	26	42	2.9
5	408	555	963	11	19	.56	19	22	1.1
6	125	21	7.1	10	50	1.4	243	1370	913
7	75	20	4.1	9.8	22	.58	164	283	144
8	56	24	3.6	8.5	7	.16	99	142	38
9	77	80	17	7.5	17	.34	53	47	6.7
10	75	62	15	7.5	27	.55	55	380	104
11	82	76	17	11	34	1.0	74	230	46
12	66	20	3.6	8.5	20	.46	56	80	12
13	52	24	3.4	7.1	11	.21	38	58	6.0
14	71	508	199	15	246	32	31	36	3.0
15	80	86	19	18	175	8.5	22	23	1.4
16	58	27	4.2	10	21	.57	16	17	.73
17	276	533	691	8.4	20	.45	13	18	.63
18	199	110	59	8.7	40	.94	10	17	.46
19	178	310	247	105	579	190	8.2	19	.42
20	300	329	336	58	62	9.7	9.1	24	.59
21	151	59	24	36	34	3.3	8.7	20	.47
22	90	61	15	24	19	1.2	13	366	46
23	71	63	12	16	16	.69	15	320	13
24	59	40	6.4	13	14	.49	7.5	23	.47
25	45	49	6.0	12	107	3.5	36	804	298
26	36	31	3.0	12	24	.78	23	117	7.3
27	31	21	1.8	16	30	1.3	11	37	1.1
28	26	44	3.1	38	127	13	7.6	31	.64
29	25	92	6.2	23	27	1.7	5.9	28	.45
30	21	21	1.2	17	54	2.5	5.1	30	.41
31	---	---	---	25	35	2.4	---	---	---
TOTAL	2924	---	2685.2	595.0	---	281.73	1142.1	---	1659.26

CUMBERLAND RIVER BASIN

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03407876 SMOKY CREEK AT HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	4.5	25	.30	5.3	20	.29	1.4	4	.02
2	6.0	25	.41	4.4	18	.21	1.5	7	.03
3	4.5	25	.30	4.3	13	.15	26	1910	790
4	4.1	25	.28	3.3	10	.09	24	620	40
5	3.5	25	.24	2.6	10	.07	11	95	2.8
6	4.6	25	.31	4.7	48	.61	8.2	120	2.7
7	5.0	21	.28	76	5080	7250	10	290	7.8
8	3.6	20	.19	64	1490	472	6.3	33	.56
9	2.5	24	.16	18	432	21	4.7	15	.19
10	2.4	14	.09	11	400	12	3.0	9	.07
11	2.3	14	.09	7.2	115	2.2	2.5	9	.06
12	3.4	62	.57	6.0	28	.45	2.0	8	.04
13	4.4	108	1.3	4.5	19	.23	1.7	6	.03
14	2.3	52	.32	3.5	16	.15	21	510	196
15	9.7	698	70	3.1	22	.18	109	1440	800
16	24	1630	204	8.7	600	24	60	108	17
17	16	800	35	4.8	51	.66	25	57	3.8
18	45	993	370	5.0	34	.46	16	22	.95
19	26	135	9.5	7.8	58	1.2	11	10	.30
20	13	58	2.0	4.9	24	.32	9.4	6	.15
21	11	64	1.9	10	66	1.8	7.7	8	.17
22	6.9	38	.71	11	42	1.2	6.1	9	.15
23	5.0	28	.38	6.6	14	.25	4.8	7	.09
24	42	1740	1460	4.9	8	.11	3.6	6	.06
25	40	677	117	3.9	11	.12	3.1	7	.06
26	15	90	3.6	2.9	234	1.8	2.8	6	.05
27	13	212	11	2.4	4	.03	2.4	4	.03
28	15	80	3.2	1.8	6	.03	2.2	8	.05
29	11	74	2.2	1.7	10	.05	2.0	10	.05
30	8.6	36	.84	1.8	4	.02	1.8	6	.03
31	6.8	38	.70	1.7	5	.02	---	---	---
TOTAL	361.1	---	2296.87	297.8	---	7791.70	390.2	---	1863.24

CUMBERLAND RIVER BASIN

03407877 BOWLING BRANCH ABOVE SMOKY JUNCTION, TN

LOCATION.--Lat 36°16'14", long 84°24'17", Scott County, Hydrologic Unit 05130104, on left bank 2.5 mi (4.0 km) southwest of Smoky Junction, 3.0 mi (4.8 km) northeast of Hembree, 4.3 mi (6.9 km) southwest of Montgomery, and at mile 0.8 (1.3 km).

DRAINAGE AREA.--2.19 mi² (5.67 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1975 to September 1981 (discontinued).

GAGE.--Water-stage recorder and 170-degree V-notch weir. Altitude of gage is 1,350 ft (411 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 3.83 ft³/s (.108 m³/s), 23.75 in/yr (603 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft³/s (7.19 m³/s), Apr. 4, 1977, gage height, 3.96 ft (1.207 m); minimum discharge, 0.01 ft³/s (0.0003 m³/s) Aug. 24, 25, 1976, Aug. 5-8, 1977, Oct. 17-26, 1978, Sept. 20, Oct. 23, 24, 1980; minimum gage height, 1.60 ft (0.488 m) Aug. 5-8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft³/s (1.42 m³/s) Feb. 1, gage height, 2.86 ft (0.872 m); minimum, 0.01 ft³/s (0.0003 m³/s) Oct. 23, 24, gage height, 1.69 ft (0.515 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.02	.20	.18	9.2	2.2	9.0	1.4	2.6	.11	.29	.34
2	.06	.02	.18	.17	21	1.7	5.4	1.3	2.5	.91	.28	.29
3	.05	.02	.16	.14	7.7	1.4	4.1	1.1	2.3	.53	.28	.61
4	.04	.07	.12	.14	5.0	2.2	3.6	.98	1.8	.17	.21	.96
5	.04	.05	.10	.14	3.0	18	17	.89	1.4	.14	.84	.55
6	.04	.03	.09	.16	2.2	15	13	.82	5.7	.17	1.9	1.4
7	.04	.02	.08	.18	1.5	8.3	7.5	.73	7.4	.16	5.4	1.3
8	.04	.02	.07	.18	1.4	5.5	4.7	.65	5.2	.13	20	.52
9	.02	.02	1.8	.18	1.5	3.8	5.6	.58	3.2	.09	13	.34
10	.02	.02	1.5	.18	17	2.9	5.7	.59	5.1	.09	7.6	.26
11	.02	.02	.88	.18	19	2.6	6.0	.99	8.8	.08	3.9	.22
12	.02	.02	.58	.18	13	2.2	4.5	.64	5.6	.07	2.3	.21
13	.02	.02	.38	.18	9.3	2.0	3.1	.50	3.6	.07	1.1	.18
14	.02	.02	.26	.18	3.4	1.6	3.5	.78	2.5	.06	.66	.43
15	.02	.04	.22	.17	2.7	1.2	3.3	1.1	1.7	3.5	.41	4.1
16	.02	.05	.17	.18	2.2	1.3	2.9	.63	1.2	2.9	3.6	5.6
17	.02	.27	.17	.18	1.8	1.4	17	.40	.91	1.7	1.3	2.7
18	.02	.45	.14	.18	1.8	1.4	22	1.4	.66	2.8	.90	1.6
19	.02	.17	.12	.17	2.6	1.4	20	23	.52	1.7	1.1	1.2
20	.02	.10	.12	.18	4.6	1.4	30	17	.47	1.5	.80	.92
21	.02	.09	.12	.66	4.7	1.3	17	12	.43	3.0	1.4	.74
22	.02	.06	.13	.63	4.3	2.2	9.5	8.6	1.3	1.1	1.4	.59
23	.01	.34	.14	.73	20	6.3	6.8	6.2	1.2	.62	1.1	.49
24	.01	3.8	.52	.73	11	8.3	5.3	4.6	.45	.92	.84	.35
25	.16	.90	.82	.73	6.2	7.6	3.7	3.1	.59	1.1	.66	.30
26	.07	.34	.78	.70	4.3	6.1	2.9	2.2	.53	.48	.50	.26
27	.04	2.8	.65	.51	3.0	4.7	2.5	1.7	.25	.33	.40	.22
28	.04	1.1	.47	.30	2.5	3.5	2.2	2.1	.25	1.0	.34	.21
29	.04	.56	.36	.19	---	2.9	2.0	1.5	.21	1.4	.30	.18
30	.03	.29	.26	.19	---	25	1.7	3.4	.16	.70	.30	.18
31	.02	---	.23	.21	---	13	---	2.7	---	.41	.32	---
TOTAL	1.08	11.73	11.82	9.01	185.9	158.4	241.5	103.58	68.53	27.94	73.43	27.25
MEAN	.035	.39	.38	.29	6.64	5.11	8.05	3.34	2.28	.90	2.37	.91
MAX	.16	3.8	1.8	.73	21	25	30	23	8.8	3.5	20	5.6
MIN	.01	.02	.07	.14	1.4	1.2	1.7	.40	.16	.06	.21	.18
CFSM	.02	.18	.17	.13	3.03	2.33	3.68	1.53	1.04	.41	1.08	.42
IN.	.02	.20	.20	.15	3.16	2.69	4.10	1.76	1.16	.47	1.25	.46
CAL YR 1980	TOTAL	1037.81	MEAN	2.84	MAX	45	MIN	.01	CFSM	1.30	IN	17.62
WTR YR 1981	TOTAL	920.17	MEAN	2.52	MAX	30	MIN	.01	CFSM	1.15	IN	15.62

CUMBERLAND RIVER BASIN

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03407877 BOWLING BRANCH ABOVE SMOKY JUNCTION, TN--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Samples collected and analyzed by the University of Tennessee at Knoxville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- RID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, TOTAL, RESIDUE AT 110 DEG. C (MG/L)
NOV 28...	1450	1.0	6.8	4.0	92	37	5.1	5.8	9	35	85
FEB 14...	1320	3.3	6.9	3.0	7.0	26	4.0	4.0	3	33	12
APR 24...	1550	5.1	7.7	12.5	51	20	3.0	3.0	5	20	46
JUL 02...	1715	7.4	5.3	19.0	--	110	17	17	4	144	--
AUG 07...	1800	.59	7.1	22.5	120	39	4.0	7.0	10	47	193
SEP 17...	1420	2.7	6.9	15.0	38	19	2.0	3.5	10	19	32
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
NOV 28...	159	.22	6500	1500	0	0	10	6	7	3	16
FEB 14...	148	.20	0	0	0	0	9	9	0	6	1
APR 24...	166	.23	3000	0	0	0	5	3	1	2	12
JUL 02...	420	.57	60000	0	1	1	94	41	95	3	31
AUG 07...	183	.25	--	--	0	0	10	1	8	2	14
SEP 17...	132	.18	--	--	--	--	--	--	--	--	0
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 28...	0	3200	300	2	0	800	700	26	16	40	0
FEB 14...	0	300	0	0	0	600	600	19	21	18	20
APR 24...	0	1500	0	1	0	300	300	13	9	10	0
JUL 02...	1	41000	1000	--	0	4200	2800	175	85	570	150
AUG 07...	0	3100	0	10	2	400	400	27	6	24	0
SEP 17...	0	1000	100	--	--	300	300	8	6	0	0

Zeroes for trace constituents represent values below detection limits.

CUMBERLAND RIVER BASIN

03407881 ANDERSON BRANCH NEAR MONTGOMERY, TN

LOCATION.--Lat 36°18'34", long 84°23'14", Scott County, Hydrologic Unit 05130104, on left bank 1.3 mi (2.1 km) southwest of Montgomery, 1.9 mi (3.1 km) south of Norma, 2.0 mi (3.2 km) northwest of Smoky Junction, and at mile 0.3 (0.5 km).

DRAINAGE AREA.--0.69 mi² (1.79 km²).

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

COOPERATION.--Samples collected and analyzed by the University of Tennessee at Knoxville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 28...	1605	6.7	4.0	101	130	32	10	68	56	80	320
FEB 14...	1420	6.9	4.5	12	53	13	5.0	20	31	16	188
APR 24...	1650	6.6	13.0	7.0	46	10	5.0	27	21	5	188
JUL 02...	1420	7.5	21.0	14	100	25	10	92	39	23	313
AUG 07...	1555	7.4	23.5	30	100	26	9.0	81	30	42	262
SEP 17...	1610	7.6	15.0	35	110	27	10	74	38	19	341

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
NOV 28...	.44	7000	0	0	0	2	0	--	12	18	0
FEB 14...	.26	0	0	0	0	1	0	--	8	2	1
APR 24...	.26	0	0	0	0	0	0	--	2	3	2
JUL 02...	.43	1000	0	0	0	1	0	1	1	4	0
AUG 07...	.36	--	--	0	0	3	0	4	2	4	0
SEP 17...	.46	--	--	--	--	--	--	--	--	3	0

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 28...	3100	0	1	0	200	200	--	23	20	20
FEB 14...	600	100	0	1	100	100	0	0	0	0
APR 24...	450	100	0	0	100	100	1	1	0	0
JUL 02...	500	0	0	0	100	0	0	0	0	0
AUG 07...	1700	0	1	2	50	0	3	1	0	0
SEP 17...	1100	200	--	--	150	150	2	1	0	0

Zeros for trace constituents represent values below detection limits.

CUMBERLAND RIVER BASIN

51

03407882 LOWE BRANCH NEAR MONTGOMERY, TN

LOCATION.--Lat 36°19'04", long 84°23'07", Scott County, Hydrologic Unit 05130104, on right bank 1.0 mi (1.6 km) southwest of Montgomery, 1.3 mi (2.1 km) south of Norma, 2.4 mi (3.9 km) northwest of Smoky Junction, and at mile 0.3 (0.5 km).

DRAINAGE AREA.--0.92 mi² (2.38 km²).

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

COOPERATION.--Samples collected and analyzed by the University of Tennessee at Knoxville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 28...	1630	6.0	5.0	3.0	11	1.5	1.7	6	11	6	110
FEB 14...	1445	6.0	4.5	1.5	7	1.0	1.0	4	7.0	6	106
APR 24...	1710	6.0	11.0	.00	9	1.0	1.5	5	.0	0	108
JUL 02...	1520	7.4	19.0	.00	13	2.0	2.0	9	6.0	0	92
AUG 07...	1635	7.5	22.0	.00	11	1.0	2.0	10	2.0	8	120
SEP 17...	1525	6.7	16.0	2.0	13	2.0	2.0	10	7.0	2	126

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
NOV 28...	.15	0	0	0	0	0	0	--	5	1	0
FEB 14...	.14	0	0	0	1	1	0	--	6	1	0
APR 24...	.15	0	0	0	0	0	0	0	1	0	0
JUL 02...	.13	0	0	0	0	1	1	2	2	0	0
AUG 07...	.16	--	--	0	1	--	9	0	--	0	0
SEP 17...	.17	--	--	--	--	--	--	--	--	0	0

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 28...	300	100	0	0	0	0	--	4	--	20
FEB 14...	150	0	0	0	0	0	0	1	0	0
APR 24...	0	0	0	0	0	0	0	0	0	0
JUL 02...	1000	0	0	0	0	0	1	0	0	0
AUG 07...	0	0	0	0	0	0	0	1	0	0
SEP 17...	0	0	--	--	0	0	0	0	0	0

Zeroes for trace constituents represent values below detection limits.

CUMBERLAND RIVER BASIN

03407908 NEW RIVER AT CORDELL, TN

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

DRAINAGE AREA.--198 mi² (513 km²).

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft³/s (592 m³/s) Mar. 21, 1980, gage height, 24.58 ft (7.492 m); minimum, 1.8 ft³/s (0.051 m³/s) Oct. 17, 1980, gage height, 1.72 ft (0.524 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,750 ft³/s (191 m³/s) at 0815 hours, Apr. 5, gage height, 10.62 ft (3.237 m), no peak above base of 8,000 ft³/s (227 m³/s); minimum, 1.8 ft³/s (0.051 m³/s) Oct. 17, gage height, 1.72 ft (0.524 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.1	35	26	52	166	984	153	300	43	75	24
2	10	6.7	28	24	2620	140	584	139	267	89	61	65
3	8.6	6.0	23	22	600	120	391	132	210	100	56	50
4	7.1	5.4	20	19	226	119	311	115	293	69	52	81
5	6.7	4.6	18	18	175	981	4070	113	227	55	43	71
6	5.8	4.9	16	19	135	1460	1860	121	959	49	45	47
7	5.9	5.2	15	17	102	821	1040	119	1620	71	76	78
8	4.9	8.7	14	15	115	457	771	102	798	69	2350	60
9	4.4	8.0	81	16	114	305	753	91	392	53	381	45
10	3.7	8.2	291	15	902	234	886	84	296	43	177	35
11	3.2	7.2	121	14	2990	195	844	92	498	36	111	28
12	3.0	5.9	77	12	1120	162	732	89	340	37	114	24
13	3.0	5.5	56	10	552	142	606	74	262	36	121	21
14	2.9	5.8	44	8.7	325	130	504	69	205	36	76	20
15	2.9	6.0	36	8.9	231	112	583	122	150	44	58	221
16	2.6	6.3	31	12	192	129	491	88	115	140	67	668
17	2.3	8.7	27	13	196	129	1590	75	96	215	73	203
18	2.9	63	25	10	230	117	2250	73	81	130	55	116
19	2.9	57	22	9.3	302	112	1830	846	71	207	78	86
20	2.5	29	20	11	651	106	3810	532	69	96	72	69
21	2.4	19	16	15	644	97	1990	300	76	185	67	57
22	2.1	14	13	27	419	118	1140	195	64	107	88	47
23	1.9	13	13	30	970	772	773	142	118	71	67	41
24	3.1	150	17	26	781	804	669	112	71	53	54	34
25	4.9	125	52	23	437	738	472	93	52	292	46	29
26	5.9	58	45	24	297	551	385	97	236	134	38	26
27	18	75	41	27	222	406	328	99	104	90	32	24
28	14	143	35	29	184	297	277	287	72	220	28	23
29	10	72	31	28	---	238	243	252	54	203	25	20
30	8.0	46	32	26	---	2630	193	185	45	132	25	19
31	7.0	---	30	26	---	1800	---	359	---	97	25	---
TOTAL	174.6	974.2	1325	580.9	15784	14588	31360	5350	8141	3202	4636	2332
MEAN	5.63	32.5	42.7	18.7	564	471	1045	173	271	103	150	77.7
MAX	18	150	291	30	2990	2630	4070	846	1620	292	2350	668
MIN	1.9	4.6	13	8.7	52	97	193	69	45	36	25	19
CFSM	.03	.16	.22	.09	2.85	2.38	5.28	.87	1.37	.52	.76	.39
IN.	.03	.18	.25	.11	2.97	2.74	5.89	1.01	1.53	.60	.87	.44
CAL YR 1980	TOTAL	122789.3	MEAN	335	MAX	12200	MIN	1.9	CFSM	1.69	IN	23.07
WTR YR 1981	TOTAL	88447.7	MEAN	242	MAX	4070	MIN	1.9	CFSM	1.22	IN	16.62

CUMBERLAND RIVER BASIN

03407908 NEW RIVER AT CORDELL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-77, May 1979 to current year.

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 27...	1500	17	615	7.4	11.5	--	71	230	444
DEC 17...	1130	28	390	7.0	4.5	--	36	150	265
JAN 23...	1000	34	572	7.5	1.0	12.5	54	220	400
FEB 27...	1300	245	242	7.4	6.0	11.6	18	82	147
MAR 25...	1045	749	188	6.8	5.0	11.4	38	66	125
APR 29...	1700	211	250	7.5	18.5	8.9	32	89	178
JUN 02...	1530	277	265	7.5	18.5	--	--	78	176
JUN 30...	1000	50	286	7.8	23.0	8.1	--	87	200
JUL 30...	1430	141	280	7.3	23.0	7.9	40	93	217
AUG 17...	1830	68	318	7.8	24.5	--	50	100	215

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 27...	20.4	.60	200	0	100	70	4	.18
DEC 17...	20.0	.36	210	10	160	140	4	.30
JAN 23...	36.7	.54	230	0	--	270	2	.18
FEB 27...	97.4	.20	500	10	170	150	13	8.6
MAR 25...	253	.17	780	10	110	110	19	38
APR 29...	101	.24	800	30	120	110	13	7.4
JUN 02...	132	.24	1500	10	100	110	44	33
JUN 30...	27.2	.27	2400	30	130	80	75	10
JUL 30...	82.6	.30	3900	20	150	80	115	44
AUG 17...	39.5	.29	--	10	--	110	--	--

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN

LOCATION.--Lat 36°23'08", long 84°33'17", Scott County, Hydrologic Unit 05130104, on left bank at town of New River, 700 ft (210 m) downstream from Phillips Creek, 1,000 ft (300 m) downstream from bridge on U. S. Highway 27, 1.7 mi (2.7 km) downstream from Brimstone Creek, and at mile 8.6 (13.8 km).

DRAINAGE AREA.--382 mi² (989 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--47 years, 738 ft³/s (20.90 m³/s), 26.24 in/yr (666 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft³/s (1,810 m³/s) May 27, 1973, gage height, 37.91 ft (11.555 m), from high water mark in gage well, from rating curve extended above 27,000 ft³/s (765 m³/s) on basis of slope-area and contracted-opening measurements of peak flow; no flow part of each day Aug. 12-15, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 41.2 ft (12.56 m), discharge, 74,700 ft³/s (2,120 m³/s), estimated, based on field survey at old U. S. Weather Bureau gage, 1,200 ft (400 m) upstream at datum 3.41 ft (1.039 m) higher.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft³/s (309 m³/s) at 1200 hours, Apr. 5, gage height, 14.67 ft (4.471 m), no peak above base of 12,000 ft³/s (340 m³/s); minimum, 0.19 ft³/s (0.005 m³/s) Oct. 22, 23, gage height, 1.30 ft (0.396 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	6.0	80	53	142	368	1490	292	479	70	137	43
2	14	5.1	64	48	3970	317	1040	258	656	76	109	46
3	16	4.8	53	44	1250	267	790	224	553	138	95	104
4	13	5.1	45	40	559	269	659	192	1130	125	88	129
5	11	4.3	40	32	379	1140	6930	171	690	91	76	123
6	8.1	3.8	36	33	314	2200	2950	155	1240	80	73	99
7	6.7	3.1	33	29	230	1320	1550	145	2970	82	156	125
8	6.7	3.0	31	27	253	902	1080	137	1490	116	3230	115
9	6.3	3.3	106	50	294	673	994	125	914	91	735	87
10	5.7	4.0	585	29	503	528	1240	114	781	74	346	69
11	4.3	5.1	284	26	5710	430	1220	133	1430	76	212	55
12	4.0	5.1	170	24	1590	361	1050	125	939	67	170	46
13	3.1	4.5	126	20	951	312	882	114	860	61	182	39
14	2.3	4.5	98	20	697	286	719	106	922	59	131	40
15	1.5	6.0	80	21	504	247	689	152	515	136	103	195
16	1.2	5.4	68	23	413	271	590	150	348	382	90	1050
17	.93	7.7	59	25	453	293	1740	112	276	366	123	422
18	.76	21	53	23	466	254	3450	105	208	208	100	221
19	.84	114	48	22	624	247	2500	1260	164	301	91	150
20	.63	57	42	21	904	233	5190	1420	153	179	128	118
21	.30	33	36	35	1000	209	3150	795	166	220	114	97
22	.24	23	31	64	790	261	1730	502	146	197	189	80
23	.19	22	29	80	1490	1330	1220	340	227	125	135	67
24	.46	490	34	71	1410	1320	1070	251	180	93	103	57
25	.93	357	53	65	934	1160	817	190	117	246	84	49
26	1.0	147	96	61	688	949	655	173	219	239	70	43
27	1.2	160	74	66	519	784	538	197	207	143	58	38
28	9.0	307	71	72	416	625	446	701	128	529	51	35
29	16	171	62	70	---	506	388	625	100	582	46	32
30	10	112	60	70	---	3120	360	401	83	308	43	30
31	7.7	---	58	61	---	2700	---	506	---	191	41	---
TOTAL	168.08	2094.8	2705	1305	25413	23882	47127	10171	18291	5651	7309	3804
MEAN	5.42	69.8	87.3	42.1	908	770	1571	328	610	182	236	127
MAX	16	490	585	80	3970	3120	6930	1420	2970	582	3230	1050
MIN	.19	3.0	29	20	142	209	360	105	83	59	41	30
CFSM	.01	.18	.23	.11	2.38	2.02	4.11	.86	1.60	.48	.62	.33
IN.	.02	.20	.26	.13	2.47	2.33	4.59	.99	1.78	.55	.71	.37

CAL YR 1980 TOTAL 186451.58 MEAN 509 MAX 22600 MIN .19 CFSM 1.33 IN 18.16
WTR YR 1981 TOTAL 147920.88 MEAN 405 MAX 6930 MIN .19 CFSM 1.06 IN 14.40

CUMBERLAND RIVER BASIN

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03408500 NEW RIVER AT NEW RIVER, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

pH: October 1976 to current year.

WATER TEMPERATURE: October 1976 to current year.

DISSOLVED OXYGEN: October 1976 to current year.

TURBIDITY: December 1976 to September 1980.

OXIDATION-REDUCTION POTENTIAL: December 1976 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1976 to current year.

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

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

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 694 micromhos June 30, 1978; minimum, 44 micromhos Apr. 4, 1977.

pH: 8.0 units May 28, 1977; minimum, 5.3 units Nov. 17, 1978.

WATER TEMPERATURE: Maximum, 32.5°C July 16, 1980; minimum, 0.0°C Jan. 1, 2, 13, 17, 19, Feb. 6, 1977.

DISSOLVED OXYGEN: Maximum, 14.4 mg/L Dec. 6, 1976; minimum, 5.6 mg/L July 26, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,190 mg/L Aug. 8, 1981; minimum daily mean, 1 mg/L on many days in 1976.

SEDIMENT LOADS: Maximum daily, 262,000 tons (238,000 tonnes) Apr. 5, 1977; minimum daily, 0.00 ton (0.00 tonne) Oct. 21-24, 27, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 572 micromhos Oct. 1; minimum not determined.

pH: Maximum not determined; minimum not determined.

WATER TEMPERATURE: Maximum, 30.0°C July 14; minimum not determined.

DISSOLVED OXYGEN: Maximum not determined; minimum, 6.1 mg/L July 16.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,190 mg/L Aug. 8; minimum daily mean, 3 mg/L Oct. 27.

SEDIMENT LOADS: Maximum daily, 41,500 tons (37,600 tonnes) Apr. 5; minimum daily, 0.00 ton (0.00 tonne) Oct. 21-24, 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 28...	1415	12	530	--	13.5	--	36	190	348
DEC 03...	1300	54	380	7.3	6.0	--	28	130	244
JAN 22...	1630	67	456	7.2	1.0	13.3	36	190	314
MAR 11...	1100	383	200	7.1	6.0	10.0	36	71	124
26...	1408	1000	175	7.4	8.0	10.9	16	59	110
APR 27...	1630	510	215	7.7	17.0	9.1	28	72	123
MAY 12...	1145	127	525	--	16.0	8.8	30	110	206
JUN 07...	1000	3490	182	7.3	18.0	--	44	49	115
JUL 28...	1615	463	270	7.4	25.0	7.0	42	79	188
AUG 17...	1130	138	278	7.3	25.0	7.4	37	83	187
SEP 17...	1530	362	339	7.4	19.0	8.4	40	86	227

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
	OCT 28...	11.3	.47	470	30	220	190	5	.16	--	
	DEC 03...	35.6	.33	630	10	--	380	15	2.2	--	
	JAN 22...	56.8	.43	270	140	--	590	4	.72	--	
	MAR 11...	128	.17	290	10	300	270	6	6.2	--	
	26...	297	.15	620	20	200	190	16	43	--	
	APR 27...	169	.17	700	40	210	210	12	17	--	
	MAY 12...	70.6	.28	620	20	270	230	11	3.8	--	
	JUN 07...	1080	.16	11000	50	690	100	684	6450	--	
	JUL 28...	235	.26	7100	30	290	130	210	263	98	
	AUG 17...	69.7	.25	870	20	240	240	--	--	--	
	SEP 17...	222	.31	6000	30	270	110	--	--	--	
			HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	
DATE AUG	17...	1130	110	73	26	11	8.4	.3	14	2.0	3.1
		FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	
DATE AUG	17...	.1	6.2	161	.14	.010	1	5	100	<1	
		CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	
DATE AUG	17...	<1	10	<10	10	4	<10	5100	6	10	
		MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG	17...	510	<.1	<.01	<1	<1	<1	10	26	<.01	

CUMBERLAND RIVER BASIN

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03408500 NEW RIVER AT NEW RIVER, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	572	554	566	546	540	543	400	392	396	460	452	456
2	556	546	551	552	546	549	392	382	387	460	452	456
3	544	524	535	554	550	551	390	380	385	458	452	454
4	526	514	521	---	---	---	392	382	386	470	458	464
5	518	508	513	---	---	---	398	392	395	492	470	484
6	510	502	507	---	---	---	406	398	402	500	488	497
7	504	498	501	---	---	---	412	404	408	504	500	502
8	504	498	500	---	---	---	418	408	413	---	---	---
9	512	500	505	---	---	---	418	386	406	---	---	---
10	516	506	511	---	---	---	420	374	397	---	---	---
11	514	504	509	---	---	---	506	422	463	---	---	---
12	512	504	508	---	---	---	506	406	461	---	---	---
13	514	508	511	---	---	---	400	340	363	---	---	---
14	518	512	514	---	---	---	342	330	336	---	---	---
15	518	514	516	---	---	---	342	334	338	---	---	---
16	524	514	519	---	---	---	348	340	343	---	---	---
17	524	522	523	---	---	---	354	344	349	---	---	---
18	526	520	523	---	---	---	358	352	355	---	---	---
19	526	522	523	---	---	---	360	354	358	---	---	---
20	526	522	523	---	---	---	364	356	360	---	---	---
21	526	520	523	---	---	---	374	364	369	---	---	---
22	526	520	522	---	---	---	382	372	378	---	---	---
23	524	520	522	---	---	---	386	378	383	---	---	---
24	524	518	522	---	---	---	388	382	385	---	---	---
25	520	508	514	518	450	489	390	382	386	---	---	---
26	518	512	515	530	512	522	406	388	397	---	---	---
27	518	512	516	510	462	491	406	400	404	---	---	---
28	530	514	521	458	416	428	436	404	419	---	---	---
29	534	526	529	420	412	417	440	434	438	---	---	---
30	538	534	536	412	398	405	440	434	439	---	---	---
31	542	536	539	---	---	---	454	438	445	---	---	---
MONTH	572	498	521	---	---	---	506	330	392	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	282	274	277
5	---	---	---	---	---	---	---	---	---	286	276	281
6	---	---	---	---	---	---	---	---	---	298	282	289
7	---	---	---	---	---	---	---	---	---	304	296	299
8	---	---	---	---	---	---	---	---	---	310	298	305
9	---	---	---	---	---	---	---	---	---	322	310	315
10	---	---	---	---	---	---	---	---	---	328	320	324
11	---	---	---	---	---	---	---	---	---	330	320	327
12	---	---	---	---	---	---	---	---	---	334	328	330
13	---	---	---	230	224	228	---	---	---	338	332	335
14	---	---	---	236	228	232	---	---	---	340	326	336
15	---	---	---	242	234	239	210	198	204	342	328	335
16	---	---	---	248	242	245	220	206	212	350	340	347
17	---	---	---	258	246	250	218	166	193	362	344	352
18	---	---	---	264	256	260	178	138	148	366	324	362
19	---	---	---	264	260	262	---	---	---	326	246	287
20	268	252	260	270	260	266	---	---	---	242	180	192
21	266	242	252	272	266	270	---	---	---	192	186	189
22	238	212	222	270	252	263	---	---	---	200	190	194
23	---	---	---	248	200	222	---	---	---	204	194	199
24	---	---	---	204	166	184	---	---	---	212	202	206
25	---	---	---	178	166	171	---	---	---	234	210	223
26	---	---	---	182	172	178	---	---	---	238	230	233
27	---	---	---	190	182	186	---	---	---	250	240	244
28	---	---	---	194	188	190	---	---	---	268	232	250
29	---	---	---	200	192	196	---	---	---	284	238	266
30	---	---	---	198	172	181	---	---	---	292	278	285
31	---	---	---	---	---	---	---	---	---	276	268	272
MONTH	---	---	---	---	---	---	---	---	---	366	180	281

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

03408500 NEW RIVER AT NEW RIVER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.2	7.1	7.5	7.3	7.4	7.3	7.3	7.3	---	---	---	---
2	7.2	7.1	7.4	7.2	7.4	7.3	7.4	7.3	---	---	---	---
3	7.2	7.1	7.4	7.2	7.3	7.3	7.5	7.4	---	---	---	---
4	7.2	7.2	---	---	7.3	7.2	7.5	7.4	---	---	---	---
5	7.3	7.2	---	---	7.3	7.2	7.5	7.3	---	---	---	---
6	7.4	7.2	---	---	7.4	7.3	7.5	7.4	---	---	---	---
7	7.4	7.3	---	---	7.4	7.3	7.6	7.6	---	---	---	---
8	7.5	7.4	---	---	7.3	7.2	---	---	---	---	---	---
9	7.5	7.0	---	---	7.3	6.9	---	---	---	---	---	---
10	7.6	7.4	---	---	7.2	6.5	---	---	---	---	---	---
11	7.5	7.4	---	---	7.3	7.2	---	---	---	---	---	---
12	7.3	7.2	---	---	7.4	7.3	---	---	---	---	---	---
13	7.3	7.2	---	---	7.3	7.2	---	---	---	---	7.2	7.2
14	7.3	7.1	---	---	7.2	7.1	---	---	---	---	7.2	7.1
15	7.2	7.1	---	---	7.2	7.1	---	---	---	---	7.3	7.1
16	7.3	7.1	---	---	7.2	7.2	---	---	---	---	7.3	7.3
17	7.4	7.2	---	---	7.2	7.1	---	---	---	---	7.5	7.2
18	7.3	7.3	---	---	7.2	7.1	---	---	---	---	7.4	7.3
19	7.3	7.2	---	---	7.2	7.1	---	---	---	---	7.3	7.3
20	7.3	7.2	---	---	7.1	7.0	---	---	7.0	6.7	7.5	7.2
21	7.3	7.2	---	---	7.2	7.0	---	---	6.8	6.7	7.4	7.2
22	7.3	7.2	---	---	7.2	7.0	---	---	6.9	6.7	7.4	7.2
23	7.4	7.3	---	---	7.2	7.2	---	---	---	---	7.4	6.8
24	7.4	7.3	---	---	7.2	7.2	---	---	---	---	7.0	6.9
25	7.4	7.3	7.5	6.8	7.2	7.0	---	---	---	---	7.2	6.9
26	7.4	7.2	7.5	7.4	7.1	7.0	---	---	---	---	7.3	7.0
27	7.4	7.3	7.5	7.4	7.2	7.1	---	---	---	---	7.4	7.2
28	7.7	7.5	7.4	7.2	7.2	7.1	---	---	---	---	7.5	7.2
29	7.5	7.5	7.4	7.1	7.2	7.0	---	---	---	---	7.6	7.4
30	7.5	7.4	7.4	7.3	7.3	7.2	---	---	---	---	7.6	7.3
31	7.5	7.3	---	---	7.4	7.2	---	---	---	---	---	---
MONTH	7.7	7.0	---	---	7.4	6.5	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.5	19.0	20.0	12.5	10.0	11.0	5.5	4.5	5.0	2.5	1.5	2.0
2	19.5	18.5	19.5	13.0	10.0	11.0	6.0	5.5	5.5	2.5	2.0	2.0
3	19.0	17.5	18.0	12.5	10.0	11.5	5.5	5.0	5.0	3.0	2.0	2.5
4	17.5	16.0	16.5	---	---	---	5.5	4.5	5.0	3.0	1.5	2.0
5	16.0	14.5	15.5	---	---	---	5.0	4.5	5.0	2.0	1.5	1.5
6	16.0	14.0	15.0	---	---	---	5.5	5.0	5.0	2.5	2.0	2.0
7	16.0	14.0	15.0	---	---	---	6.0	5.0	5.5	2.0	1.5	2.0
8	17.5	14.5	16.0	---	---	---	6.5	5.0	6.0	---	---	---
9	18.5	15.0	16.5	---	---	---	8.0	6.5	7.5	---	---	---
10	19.0	16.0	17.5	---	---	---	9.5	8.0	9.0	---	---	---
11	18.0	16.0	17.0	---	---	---	8.0	7.5	8.0	---	---	---
12	16.5	14.5	15.5	---	---	---	7.5	7.0	7.0	---	---	---
13	15.0	13.5	14.0	---	---	---	7.0	6.5	6.5	---	---	---
14	14.5	12.5	13.5	---	---	---	6.0	5.5	6.0	---	---	---
15	14.5	12.5	13.5	---	---	---	5.5	5.0	5.0	---	---	---
16	15.5	13.5	14.5	---	---	---	5.0	5.0	5.0	---	---	---
17	17.5	14.5	15.5	---	---	---	5.0	4.5	4.5	---	---	---
18	17.0	16.5	17.0	---	---	---	5.0	4.0	4.5	---	---	---
19	17.0	16.0	16.5	---	---	---	5.0	4.0	4.5	---	---	---
20	16.0	14.5	15.0	---	---	---	4.0	2.5	3.0	---	---	---
21	15.0	14.0	14.5	---	---	---	3.0	2.0	2.5	---	---	---
22	14.5	13.5	14.0	---	---	---	3.0	2.5	2.5	---	---	---
23	14.0	13.5	14.0	---	---	---	3.0	2.5	2.5	---	---	---
24	14.0	13.5	14.0	---	---	---	2.5	2.0	2.5	---	---	---
25	14.0	12.5	13.5	8.0	7.0	7.5	2.5	1.5	1.5	---	---	---
26	12.5	11.5	12.0	7.0	6.5	6.5	2.0	1.0	1.5	---	---	---
27	12.0	11.0	11.5	6.5	6.5	6.5	1.5	1.0	1.0	---	---	---
28	14.0	12.0	12.5	6.5	6.0	6.0	1.5	1.0	1.0	---	---	---
29	12.5	12.0	12.0	6.0	5.5	5.5	1.5	1.0	1.5	---	---	---
30	12.5	11.0	11.5	5.5	4.5	5.0	1.5	1.0	1.5	---	---	---
31	12.5	10.0	11.0	---	---	---	2.5	1.5	2.0	---	---	---
MONTH	21.5	10.0	15.0	---	---	---	9.5	1.0	4.5	---	---	---

CUMBERLAND RIVER BASIN

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03408500 NEW RIVER AT NEW RIVER, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	18.0	17.0	17.5
5	---	---	---	---	---	---	---	---	---	19.0	17.0	18.0
6	---	---	---	---	---	---	---	---	---	19.0	18.0	18.5
7	---	---	---	---	---	---	---	---	---	18.5	17.5	18.0
8	---	---	---	---	---	---	---	---	---	19.0	17.0	18.0
9	---	---	---	---	---	---	---	---	---	19.5	17.0	18.5
10	---	---	---	---	---	---	---	---	---	19.5	18.0	19.0
11	---	---	---	---	---	---	---	---	---	19.0	17.0	18.0
12	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
13	---	---	---	7.5	7.5	7.5	---	---	---	17.5	15.0	16.5
14	---	---	---	8.0	7.0	7.5	---	---	---	17.5	16.0	16.5
15	---	---	---	8.0	7.0	7.5	17.0	16.5	17.0	17.0	15.5	16.0
16	---	---	---	8.0	7.5	8.0	16.5	15.0	15.5	17.0	15.0	16.0
17	---	---	---	8.0	6.5	7.5	15.0	14.5	14.5	17.0	15.5	16.5
18	---	---	---	8.5	7.5	8.0	16.5	13.5	14.5	18.0	16.0	17.0
19	---	---	---	7.5	6.5	7.0	---	---	---	17.5	17.0	17.0
20	9.5	9.0	9.5	6.5	5.5	6.0	---	---	---	16.5	14.5	15.5
21	9.0	8.5	8.5	6.0	5.0	5.5	---	---	---	15.5	14.0	14.5
22	8.5	8.0	8.5	5.5	5.0	5.5	---	---	---	16.5	15.0	15.5
23	---	---	---	5.0	4.5	5.0	---	---	---	18.0	16.0	17.0
24	---	---	---	6.5	5.0	5.5	---	---	---	19.0	17.5	18.0
25	---	---	---	8.0	6.0	7.0	---	---	---	19.5	18.5	19.0
26	---	---	---	8.5	7.5	8.0	---	---	---	19.5	19.0	19.0
27	---	---	---	9.5	8.5	9.0	---	---	---	19.0	19.0	19.0
28	---	---	---	11.0	9.0	10.0	---	---	---	19.0	18.5	18.5
29	---	---	---	12.0	10.5	11.5	---	---	---	19.5	18.0	18.5
30	---	---	---	15.0	12.0	13.0	---	---	---	20.0	19.0	19.5
31	---	---	---	---	---	---	---	---	---	20.5	19.0	19.5
MONTH	---	---	---	---	---	---	---	---	---	20.5	14.0	17.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	19.5	20.0	26.0	24.5	25.0	24.0	23.0	23.5	25.0	24.0	24.5
2	20.5	19.5	20.0	26.0	24.0	25.0	24.5	23.0	23.5	25.5	24.0	25.0
3	21.0	20.0	20.5	25.0	24.0	24.5	24.5	23.0	24.0	25.0	24.0	24.5
4	20.5	20.0	20.0	25.5	23.5	24.5	26.0	23.5	24.5	24.5	23.5	24.0
5	20.5	20.0	20.0	25.0	23.5	24.5	27.5	24.5	25.5	25.0	23.5	24.5
6	20.5	20.0	20.5	25.0	24.0	24.5	27.0	25.5	26.0	25.5	24.0	24.5
7	20.0	18.0	18.5	26.0	24.0	25.0	27.0	25.5	26.0	24.5	23.5	24.0
8	19.5	18.0	18.5	26.5	24.5	25.5	---	---	---	24.5	23.5	24.0
9	20.5	19.5	19.5	28.0	25.5	26.5	---	---	---	24.0	22.5	23.0
10	21.5	20.5	21.0	28.5	26.5	27.5	---	---	---	23.0	22.0	22.5
11	21.0	20.0	20.5	29.0	27.0	28.0	24.0	24.0	24.0	---	---	---
12	22.0	20.5	21.5	29.5	27.0	28.0	25.0	23.5	24.5	---	---	---
13	22.5	22.0	22.0	29.5	27.5	28.0	25.0	23.5	24.0	---	---	---
14	22.5	21.5	22.0	30.0	27.5	28.5	25.5	23.5	24.5	---	---	---
15	23.5	22.0	23.0	29.5	27.5	28.0	26.0	23.5	25.0	---	---	---
16	24.5	23.0	23.5	26.5	24.0	25.0	25.5	24.5	25.0	---	---	---
17	25.0	24.0	24.5	26.0	25.0	25.5	25.5	24.5	25.0	---	---	---
18	25.0	23.5	24.0	26.5	25.0	26.0	25.0	24.0	24.5	17.0	16.5	17.0
19	25.0	23.5	24.5	26.5	25.5	26.0	24.0	23.5	23.5	17.0	15.5	16.0
20	25.0	23.5	24.5	26.5	26.0	26.0	24.0	23.0	23.5	17.0	15.5	16.0
21	26.0	24.0	25.0	27.0	25.5	26.0	23.5	22.5	23.0	18.0	15.5	16.5
22	26.5	24.5	25.5	26.0	25.0	25.5	23.0	21.5	22.5	18.5	16.5	17.5
23	26.0	24.0	25.0	27.0	24.5	25.5	24.0	22.0	23.0	18.5	17.0	18.0
24	26.5	25.0	25.5	27.0	25.0	26.0	25.0	22.5	23.5	18.5	17.0	17.5
25	27.0	25.0	26.0	27.0	25.0	26.0	25.0	23.0	24.0	18.5	16.5	17.5
26	26.0	25.0	25.5	27.0	26.0	26.5	25.5	23.5	24.5	19.5	16.5	18.0
27	25.5	24.0	25.0	28.0	26.0	26.5	25.5	23.5	24.5	19.0	17.0	18.0
28	25.5	23.5	24.5	26.0	24.5	25.5	26.0	24.0	24.5	19.0	18.0	18.5
29	26.0	23.5	24.5	24.5	23.5	24.0	24.5	23.5	24.0	19.0	17.5	18.5
30	26.5	24.0	25.0	23.5	22.5	23.0	25.5	23.5	24.0	19.5	17.0	18.0
31	---	---	---	23.5	23.0	23.5	25.0	23.5	24.5	---	---	---
MONTH	27.0	18.0	22.5	30.0	22.5	26.0	27.5	21.5	24.0	25.5	15.5	20.5

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.7	7.3	7.5	8.9	8.6	8.8	11.5	11.4	11.5	13.2	13.1	13.1
2	7.9	7.2	7.7	8.8	8.4	8.6	11.5	11.4	11.4	13.2	13.1	13.1
3	7.8	7.3	7.6	8.7	8.3	8.6	11.6	11.5	11.5	13.2	13.0	13.1
4	8.3	7.8	8.0	---	---	---	11.5	11.4	11.5	13.3	13.1	13.2
5	8.5	8.0	8.3	---	---	---	11.6	11.4	11.5	13.6	13.4	13.5
6	8.7	8.5	8.6	---	---	---	11.6	11.5	11.6	13.6	13.4	13.5
7	8.8	8.4	8.6	---	---	---	11.6	11.5	11.5	13.7	13.6	13.6
8	8.8	8.4	8.6	---	---	---	11.6	11.4	11.5	---	---	---
9	8.8	8.4	8.6	---	---	---	11.4	10.9	11.1	---	---	---
10	8.7	8.1	8.4	---	---	---	10.9	10.3	10.5	---	---	---
11	8.6	8.2	8.4	---	---	---	10.7	10.5	10.6	---	---	---
12	8.7	8.3	8.5	---	---	---	10.9	10.8	10.9	---	---	---
13	8.9	8.4	8.6	---	---	---	11.1	10.9	11.0	---	---	---
14	8.8	8.5	8.6	---	---	---	11.3	11.1	11.2	---	---	---
15	8.6	8.3	8.5	---	---	---	11.5	11.4	11.5	---	---	---
16	8.8	8.2	8.4	---	---	---	11.7	11.5	11.6	---	---	---
17	8.9	8.5	8.8	---	---	---	11.8	11.7	11.8	---	---	---
18	8.8	8.0	8.3	---	---	---	11.9	11.8	11.9	---	---	---
19	8.5	8.0	8.2	---	---	---	12.2	11.9	12.0	---	---	---
20	8.7	8.5	8.6	---	---	---	12.5	12.2	12.3	---	---	---
21	8.9	8.6	8.8	---	---	---	12.7	12.5	12.6	---	---	---
22	9.1	8.8	9.0	---	---	---	12.8	12.5	12.7	---	---	---
23	9.1	8.8	9.0	---	---	---	12.9	12.8	12.9	---	---	---
24	9.3	8.8	9.0	---	---	---	13.0	12.9	13.0	---	---	---
25	9.1	8.6	8.8	10.9	10.8	10.8	13.1	12.8	13.0	---	---	---
26	9.0	8.7	8.8	10.9	10.9	10.9	13.2	12.8	13.0	---	---	---
27	9.0	8.7	8.9	11.0	10.9	10.9	13.4	13.2	13.3	---	---	---
28	9.0	8.2	8.6	11.1	11.0	11.1	13.4	13.4	13.4	---	---	---
29	8.5	8.2	8.4	11.3	11.1	11.2	13.4	13.4	13.4	---	---	---
30	8.7	8.3	8.5	11.4	11.3	11.4	13.4	13.2	13.3	---	---	---
31	8.8	8.6	8.7	---	---	---	13.3	13.2	13.2	---	---	---
MONTH	9.3	7.2	8.5	---	---	---	13.4	10.3	12.0	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	8.8	8.6	8.7
5	---	---	---	---	---	---	---	---	---	8.8	8.5	8.7
6	---	---	---	---	---	---	---	---	---	8.7	8.4	8.6
7	---	---	---	---	---	---	---	---	---	8.8	8.4	8.6
8	---	---	---	---	---	---	---	---	---	9.1	8.7	8.9
9	---	---	---	---	---	---	---	---	---	9.3	8.8	9.0
10	---	---	---	---	---	---	---	---	---	9.2	8.8	9.0
11	---	---	---	---	---	---	---	---	---	9.0	8.7	8.8
12	---	---	---	---	---	---	---	---	---	8.9	8.7	8.8
13	---	---	---	11.2	10.9	11.0	---	---	---	9.4	8.7	9.0
14	---	---	---	11.2	10.8	11.0	---	---	---	9.3	8.8	9.0
15	---	---	---	11.2	11.1	11.1	9.4	9.1	9.3	8.9	8.4	8.7
16	---	---	---	11.1	10.9	11.0	9.5	9.3	9.4	8.9	8.4	8.7
17	---	---	---	11.0	10.9	11.0	9.7	8.9	9.5	9.3	8.7	9.0
18	---	---	---	10.9	10.7	10.8	9.3	8.9	9.1	9.0	8.6	8.9
19	---	---	---	---	---	---	---	---	---	8.7	8.2	8.4
20	10.8	10.7	10.8	---	---	---	---	---	---	8.9	8.4	8.7
21	11.1	10.8	11.0	---	---	---	---	---	---	9.1	9.0	9.1
22	11.2	11.1	11.1	---	---	---	---	---	---	9.0	8.9	9.0
23	---	---	---	12.0	11.5	11.7	---	---	---	9.2	9.0	9.1
24	---	---	---	11.5	10.7	11.0	---	---	---	9.1	8.8	9.0
25	---	---	---	---	---	---	---	---	---	9.0	8.6	8.9
26	---	---	---	---	---	---	---	---	---	9.0	8.5	8.7
27	---	---	---	---	---	---	---	---	---	8.8	8.3	8.5
28	---	---	---	---	---	---	---	---	---	8.7	8.4	8.5
29	---	---	---	---	---	---	---	---	---	8.6	8.4	8.5
30	---	---	---	---	---	---	---	---	---	8.6	8.4	8.4
31	---	---	---	---	---	---	---	---	---	8.6	8.3	8.4
MONTH	---	---	---	---	---	---	---	---	---	9.4	8.2	8.8

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	8.0	8.1	7.7	7.4	7.6	7.8	7.6	7.8	7.6	7.3	7.5
2	8.1	7.9	8.0	7.7	7.3	7.5	7.7	7.6	7.6	7.5	7.3	7.4
3	8.1	8.0	8.0	8.1	7.2	7.7	7.7	7.4	7.6	7.4	6.9	7.1
4	8.1	7.8	8.0	8.2	7.7	7.9	7.7	7.2	7.5	7.1	6.9	7.0
5	8.1	8.0	8.1	8.4	7.7	8.0	7.8	7.1	7.5	7.5	7.0	7.2
6	8.0	7.8	7.9	8.2	7.7	7.9	7.5	7.0	7.3	7.7	7.1	7.3
7	8.4	7.8	8.2	8.0	7.6	7.8	---	---	---	7.3	7.0	7.2
8	---	---	---	8.0	7.4	7.7	---	---	---	7.3	7.0	7.1
9	8.1	7.6	7.8	8.4	7.5	7.9	---	---	---	7.5	7.1	7.3
10	7.7	7.4	7.6	8.1	7.5	7.8	---	---	---	7.4	7.2	7.3
11	7.7	7.5	7.6	7.9	7.4	7.6	7.5	7.4	7.4	---	---	---
12	7.7	7.6	7.7	7.6	7.1	7.3	7.4	7.2	7.3	---	---	---
13	7.7	7.5	7.6	7.6	7.0	7.3	7.6	7.3	7.4	---	---	---
14	7.7	7.5	7.6	7.4	6.9	7.2	7.8	7.4	7.6	---	---	---
15	7.6	7.4	7.5	7.3	6.5	7.0	7.8	7.3	7.5	---	---	---
16	7.5	7.2	7.4	6.9	6.1	6.8	7.6	7.2	7.4	---	---	---
17	7.5	7.2	7.4	7.2	6.9	7.0	7.5	7.1	7.3	---	---	---
18	7.6	7.4	7.5	7.2	7.1	7.2	7.4	7.2	7.3	8.8	8.7	8.8
19	7.6	7.0	7.3	7.3	7.0	7.2	7.4	7.1	7.3	9.0	8.8	8.9
20	7.5	7.0	7.2	7.2	7.1	7.2	7.7	7.2	7.5	9.1	8.9	9.0
21	7.4	7.0	7.1	7.1	7.0	7.0	8.0	7.5	7.7	9.0	8.8	8.9
22	7.8	7.0	7.3	7.4	7.1	7.1	8.0	7.6	7.8	8.9	8.7	8.8
23	7.5	6.9	7.2	7.5	7.3	7.4	8.2	7.7	8.0	8.7	8.5	8.6
24	7.3	7.1	7.2	7.6	7.2	7.3	8.2	7.7	8.0	8.8	8.4	8.7
25	7.7	7.2	7.4	7.3	7.0	7.2	8.1	7.7	7.9	8.9	8.4	8.7
26	8.0	7.8	7.9	7.4	7.2	7.3	8.1	7.7	7.9	8.9	8.5	8.8
27	8.0	7.8	7.9	7.2	6.9	7.1	8.1	7.6	7.9	8.8	8.6	8.7
28	8.1	7.8	7.9	7.5	7.0	7.2	8.0	7.6	7.8	8.7	8.3	8.6
29	7.9	7.6	7.8	7.8	7.2	7.6	8.0	7.6	7.8	8.6	8.3	8.4
30	7.9	7.5	7.7	8.0	7.8	7.9	7.7	7.4	7.6	8.5	8.3	8.4
31	---	---	---	8.0	7.8	7.9	7.7	7.4	7.5	---	---	---
MONTH	8.4	6.9	7.7	8.4	6.1	7.4	8.2	7.0	7.6	9.1	6.9	8.1

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	14	9	.34	6.0	25	.41	80	16	3.5
2	14	17	.64	5.1	11	.15	64	14	2.4
3	16	58	2.5	4.8	12	.16	53	18	2.6
4	13	10	.35	5.1	9	.12	45	17	2.1
5	11	8	.24	4.3	10	.12	40	15	1.6
6	8.1	12	.26	3.8	13	.13	36	9	.87
7	6.7	8	.14	3.1	15	.13	33	15	1.3
8	6.7	10	.18	3.0	17	.14	31	13	1.1
9	6.3	9	.15	3.3	20	.18	106	13	3.7
10	5.7	7	.11	4.0	20	.22	585	45	71
11	4.3	15	.17	5.1	22	.30	284	44	34
12	4.0	8	.09	5.1	25	.34	170	38	17
13	3.1	6	.05	4.5	25	.30	126	44	15
14	2.3	6	.04	4.5	28	.34	98	31	8.2
15	1.5	10	.04	6.0	40	.65	80	18	3.9
16	1.2	6	.02	5.4	13	.19	68	12	2.2
17	.93	16	.04	7.7	10	.21	59	10	1.6
18	.76	5	.01	21	11	.62	53	8	1.1
19	.84	10	.02	114	24	7.4	48	8	1.0
20	.63	8	.01	57	14	2.2	42	12	1.4
21	.30	8	.00	33	9	.80	36	6	.58
22	.24	6	.00	23	10	.62	31	6	.50
23	.19	5	.00	22	14	.83	29	7	.55
24	.46	4	.00	490	101	161	34	6	.55
25	.93	4	.01	357	97	93	53	4	.57
26	1.0	6	.02	147	74	29	96	5	1.3
27	1.2	3	.00	160	38	16	74	16	3.2
28	9.0	10	.24	307	41	34	71	21	4.0
29	16	10	.43	171	29	13	62	21	3.5
30	10	25	.68	112	24	7.3	60	21	3.4
31	7.7	24	.50	---	---	---	58	18	2.8
TOTAL	168.08	---	7.28	2094.8	---	369.86	2705	---	196.52

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	53	20	2.9	142	40	15	368	30	30
2	48	18	2.3	3970	800	8580	317	30	26
3	44	14	1.7	1250	150	506	267	25	18
4	40	18	1.9	559	80	121	269	30	22
5	32	18	1.6	379	40	41	1140	150	462
6	33	14	1.2	314	30	25	2200	250	1490
7	29	20	1.6	230	25	16	1320	100	356
8	27	22	1.6	253	30	20	902	40	97
9	30	11	.89	294	30	24	673	20	36
10	29	12	.94	503	60	81	528	15	21
11	26	14	.98	3710	600	6010	430	10	12
12	24	10	.65	1590	100	429	361	10	9.7
13	20	12	.65	931	80	201	312	8	6.7
14	20	8	.43	697	50	94	286	7	5.4
15	21	4	.23	504	40	54	247	48	32
16	23	6	.37	413	30	33	271	14	10
17	25	10	.68	433	30	35	293	52	41
18	23	9	.56	466	40	50	254	10	6.9
19	22	6	.36	624	50	84	247	21	14
20	21	9	.51	904	65	159	233	15	9.4
21	35	6	.57	1000	91	246	209	10	5.6
22	64	7	1.2	790	47	100	261	10	7.0
23	80	8	1.7	1490	120	483	1330	50	180
24	71	8	1.5	1410	110	419	1320	30	107
25	65	8	1.4	934	80	202	1160	20	63
26	61	52	8.6	688	50	93	949	17	44
27	66	8	1.4	519	40	56	784	21	44
28	72	8	1.6	416	30	34	625	10	17
29	70	8	1.5	---	---	---	506	11	15
30	70	8	1.5	---	---	---	3120	542	7630
31	61	8	1.3	---	---	---	2700	300	2190
TOTAL	1305	---	44.32	25413	---	18211	23882	---	13007.7
APRIL			MAY			JUNE			
1	1490	100	402	292	12	9.5	479	30	39
2	1040	20	56	258	12	8.4	656	130	230
3	790	12	26	224	12	7.3	553	70	105
4	659	30	60	192	16	8.3	1130	398	1250
5	6930	1820	41500	171	12	5.5	690	90	168
6	2950	350	2790	155	18	7.5	1240	115	622
7	1550	70	293	145	18	7.0	2970	535	4690
8	1080	50	146	137	12	4.4	1490	130	523
9	994	60	161	125	12	4.1	914	60	148
10	1240	60	201	114	12	3.7	781	54	130
11	1220	60	198	133	12	4.3	1430	273	1070
12	1050	40	113	125	10	3.4	939	120	304
13	882	30	71	114	10	3.1	860	107	314
14	719	25	49	106	22	6.3	922	212	589
15	689	30	56	152	22	9.0	515	70	97
16	590	64	102	150	20	8.1	348	50	47
17	1740	188	1480	112	13	3.9	276	36	27
18	3450	400	3730	105	19	5.4	208	32	18
19	2500	100	675	1260	189	862	164	37	16
20	5190	200	2800	1420	250	958	153	26	11
21	3150	100	850	795	65	140	166	24	11
22	1730	75	350	502	30	41	146	38	15
23	1220	50	165	340	65	60	227	54	33
24	1070	30	87	251	22	15	180	40	19
25	817	20	44	190	20	10	117	21	6.6
26	655	15	27	173	18	8.4	219	26	15
27	538	12	17	197	18	9.6	207	42	23
28	446	10	12	701	110	208	128	30	10
29	388	10	10	625	90	152	100	40	11
30	360	10	9.7	401	40	43	83	38	8.5
31	---	---	---	506	32	44	---	---	---
TOTAL	47127	---	56480.7	10171	---	2660.2	18291	---	10550.1

CUMBERLAND RIVER BASIN

65

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	70	32	6.0	137	92	34	43	12	1.4
2	76	34	7.0	109	69	20	46	11	1.4
3	138	25	9.3	95	58	15	104	14	3.9
4	125	40	13	88	50	12	129	30	10
5	91	32	7.9	76	29	6.0	123	22	7.3
6	80	28	6.0	73	41	8.1	99	15	4.0
7	82	20	4.4	156	81	116	125	37	12
8	116	31	9.7	3230	3190	34600	115	32	9.9
9	91	18	4.4	735	300	595	87	21	4.9
10	74	14	2.8	346	100	93	69	20	3.7
11	76	21	4.3	212	61	35	55	29	4.3
12	67	16	2.9	170	46	21	46	17	2.1
13	61	19	3.1	182	36	18	39	17	1.8
14	59	12	1.9	131	28	9.9	40	22	2.4
15	136	40	15	103	24	6.7	195	48	25
16	382	325	335	90	18	4.4	1050	299	756
17	366	117	116	123	22	7.3	422	216	246
18	208	59	33	100	20	5.4	221	95	57
19	301	62	50	91	21	5.2	150	53	21
20	179	72	35	128	17	5.9	118	37	12
21	220	82	49	114	26	8.0	97	32	8.4
22	197	72	38	189	70	36	80	30	6.5
23	125	94	32	135	21	7.7	67	24	4.3
24	93	72	18	103	22	6.1	57	21	3.2
25	246	74	49	84	14	3.2	49	16	2.1
26	239	66	43	70	14	2.6	43	13	1.5
27	143	104	40	58	13	2.0	38	12	1.2
28	529	244	373	51	14	1.9	35	12	1.1
29	582	290	456	46	16	2.0	32	10	.86
30	308	160	133	43	14	1.6	30	12	.97
31	191	94	48	41	12	1.3	---	---	---
TOTAL	5651	---	1945.7	7309	---	35690.3	3804	---	1216.23

CUMBERLAND RIVER BASIN

03408600 LONG BRANCH NEAR GRIMSLEY, TN

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

DRAINAGE AREA.--1.11 mi² (2.87 km²).

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 1.85 ft³/s (0.052 m³/s), 22.63 in/yr (575 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft³/s (3.03 m³/s) Mar. 21, 1980, gage height, 2.89 ft (0.881 m); no flow many days most years.

EXTREMES FOR WATER YEARS 1977-81.--Peak discharges above base of 20 ft³/s (0.57 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)				
Mar. 12, 1977	1700	45	1.27	2.25	0.686	Jan. 21, 1979	0610	28	0.79	2.00	0.610
Apr. 4, 1977	1645	*105	2.97	2.87	0.875	May 4, 1979	0355	*55	1.56	2.26	0.689
						July 14, 1979	1125	26	0.74	1.96	0.597
Oct. 8, 1977	2335	*38	1.08	2.15	0.655						
Nov. 29, 1977	1035	26	0.74	1.97	0.600	Mar. 21, 1980	0005	*107	3.03	2.89	0.881
Jan. 25, 1978	2115	27	0.76	1.99	0.607						
May 13, 1978	0355	22	0.62	1.90	0.579	Apr. 18, 1981	0715	21	0.60	1.87	0.570
						June 10, 1981	1715	*65	1.84	2.51	0.765
Dec. 10, 1978	1005	51	1.44	2.09	0.637	Aug. 21, 1981	1645	28	0.79	2.00	0.610
Jan. 7, 1979	0745	26	0.74	1.93	0.588						

No flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.03	.04	.10	1.2	4.0	1.6	2.0	.04	.02	.70
2	.00	.00	.03	.04	14	1.1	3.2	1.4	2.1	.04	.02	.27
3	.00	.00	.03	.04	6.0	.97	2.6	1.3	1.8	.04	.02	.39
4	.00	.00	.03	.04	3.5	1.5	5.9	1.1	1.5	.04	.02	.30
5	.01	.00	.04	.02	2.6	7.2	8.6	.99	1.3	.04	.02	.20
6	.01	.00	.04	.02	2.1	6.3	5.4	1.2	5.0	.04	1.3	.11
7	.01	.00	.04	.03	1.8	4.1	4.1	1.4	4.2	.04	.30	.07
8	.01	.01	.04	.03	2.0	3.1	3.5	1.1	3.1	.04	.34	.04
9	.01	.01	.86	.03	2.4	2.4	4.3	.99	2.2	.03	.11	.04
10	.01	.02	.28	.03	2.9	2.1	4.2	1.3	11	.03	.05	.04
11	.01	.00	.16	.01	7.4	1.9	3.8	1.7	16	.03	.03	.04
12	.01	.00	.11	.00	5.0	1.6	3.2	1.1	8.3	.03	.03	.04
13	.01	.00	.08	.00	4.0	1.5	2.7	1.0	5.3	.03	.03	.03
14	.00	.00	.06	.00	3.3	1.4	2.4	.92	3.5	.02	.03	.03
15	.00	.02	.06	.01	2.7	1.3	2.1	.91	2.4	.06	.03	.03
16	.00	.01	.05	.02	2.6	1.4	1.8	.84	1.8	.16	.14	4.0
17	.00	.11	.04	.02	2.6	1.5	6.0	.71	1.5	.07	.03	2.5
18	.00	.03	.04	.01	2.5	1.3	13	.90	1.2	.05	.05	1.1
19	.00	.00	.04	.01	2.2	1.2	10	6.4	.87	.03	.05	.45
20	.00	.00	.02	.09	2.0	1.1	12	5.1	.72	.03	.08	.20
21	.00	.00	.02	.28	1.7	1.1	8.1	3.6	.61	.03	1.5	.09
22	.00	.00	.02	.20	1.6	1.7	5.8	2.7	.45	.03	.37	.04
23	.00	.35	.02	.15	2.2	2.7	5.2	2.1	.38	.03	.15	.04
24	.03	.90	.11	.12	1.9	2.6	4.5	1.6	.29	.08	.09	.04
25	.04	.08	.09	.10	1.6	2.3	3.5	1.7	.38	.03	.07	.03
26	.01	.03	.08	.10	1.5	2.0	3.0	1.7	.47	.03	.04	.03
27	.02	.33	.06	.13	1.3	1.8	2.5	2.6	.25	.03	.04	.03
28	.05	.10	.05	.15	1.2	1.6	2.2	2.6	.17	.03	.04	.03
29	.03	.05	.04	.12	---	1.9	2.0	1.9	.09	.04	.06	.03
30	.02	.04	.04	.12	---	8.3	1.9	1.9	.08	.03	.36	.03
31	.02	---	.04	.11	---	5.1	---	2.2	---	.03	.85	---
TOTAL	.31	2.10	2.65	2.07	84.70	75.27	141.5	56.56	78.96	1.28	6.27	10.97
MEAN	.010	.070	.085	.067	3.03	2.43	4.72	1.82	2.63	.041	.20	.37
MAX	.05	.90	.86	.28	14	8.3	13	6.4	16	.16	1.5	4.0
MIN	.00	.00	.02	.00	.10	.97	1.8	.71	.08	.02	.02	.03
CFSM	.009	.06	.08	.06	2.73	2.19	4.25	1.64	2.37	.04	.18	.33
IN.	.01	.07	.09	.07	2.84	2.52	4.74	1.89	2.64	.04	.21	.37

CAL YR 1980 TOTAL 564.03 MEAN 1.54 MAX 38 MIN .00 CFSM 1.39 IN 18.89
WTR YR 1981 TOTAL 462.64 MEAN 1.27 MAX 16 MIN .00 CFSM 1.14 IN 15.49

CUMBERLAND RIVER BASIN

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03408600 LONG BRANCH NEAR GRIMSLEY, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1978 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)		
DATE	TIME										
OCT 20...	1300	<.01	126	6.2	9.0	--	--	36	24		
DEC 09...	1320	.82	83	5.2	11.5	--	--	4	28		
JAN 20...	1000	.01	55	5.6	2.0	6.8	.4	14	12		
MAR 02...	1430	1.0	22	4.5	8.5	11.2	.1	0	5.8		
24...	1330	2.3	20	4.9	7.5	11.2	.2	2	5.6		
APR 30...	1315	1.7	17	5.3	15.0	9.6	.1	2	5.5		
MAY 28...	1215	2.4	19	5.6	14.0	9.4	.1	2	4.9		
JUN 07...	1045	3.8	20	5.3	15.0	9.0	--	2	4.9		
JUL 01...	0845	.04	53	5.7	17.0	3.9	.5	26	7.7		
29...	1015	.02	220	5.4	20.5	3.1	1.1	26	73		
AUG 18...	1745	.01	118	5.9	19.5	2.6	1.9	24	28		
SEP 30...	1545	.03	105	5.9	13.5	8.1	.7	22	28		
DATE	TIME	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	
OCT 20...	116	.00	.16	10000	7200	--	4000	49	.00		
DEC 09...	50	.11	.07	1300	630	--	780	37	.08		
JAN 20...	40	.00	.05	4400	3200	1100	20	32	.00		
MAR 02...	18	.05	.02	320	190	100	90	3	.01		
24...	18	.11	.02	300	100	70	60	2	.01		
APR 30...	23	.11	.03	360	220	--	70	5	.02		
MAY 28...	18	.12	.02	530	230	110	90	6	.04		
JUN 07...	18	.18	.02	370	190	100	60	9	.09		
JUL 01...	29	.00	.04	7600	3400	1400	1400	59	.01		
29...	169	.01	.23	11000	9200	5100	5100	84	.00		
AUG 18...	62	.00	.08	8900	6600	--	3500	--	--		
SEP 30...	60	.01	.08	6400	6000	--	2400	34	.00		
DATE	TIME	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SILICA, DIS- SOLVED (MG/L AS SiO2)	CARBON, ORGANIC TOTAL (MG/L AS C)	BARIUM, DIS- SOLVED (UG/L AS BA)	
OCT 20...	1300	39	10	7.8	4.8	1.2	.1	6.7	1.3	40	
DATE	TIME	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 20...	<1	5	41	<10	13	<4	<10	29	<6.0	19	

CUMBERLAND RIVER BASIN

03408815 CROOKED CREEK NEAR ALLARDT, TN

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

DRAINAGE AREA.--3.62 mi² (9.38 km²).

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 383 ft³/s (10.8 m³/s) Apr. 4, 1977, gage height, 3.44 ft (1.049 m); minimum, no flow June 11, 1977.

EXTREMES FOR WATER YEARS 1977-81.--Peak discharges above base of 140 ft³/s (3.96 m³/s) and maximums (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Mar. 12, 1977	1710	235	6.66	3.15	0.960	Jan. 21, 1979	0645	143	4.05	2.89	.881
Apr. 4, 1977	1200	*383	10.8	3.44	1.049	Feb. 25, 1979	0945	295	8.35	3.28	1.000
Apr. 23, 1977	1915	143	4.05	2.89	.881	May 4, 1979	0425	203	5.75	3.07	.936
Sept. 19, 1977	1035	140	3.96	2.88	.878	July 21, 1979	1000	152	4.30	2.92	.890
Jan. 25, 1978	2135	140	3.96	2.88	.878	Jan. 18, 1980	0810	171	4.84	2.98	.908
July 24, 1978	1735	*192	5.44	3.04	.927	Mar. 21, 1980	0110	*285	8.07	3.26	.994
Dec. 9, 1978	0205	*315	8.92	3.32	1.012	June 6, 1981	1200	*185	5.24	3.02	.920
Jan. 1, 1979	1810	159	4.50	2.94	.896						

Minimum, .10 ft³/s (.003 m³/s) Oct. 12-18, 20, 21, gage height, 1.10 ft (.335 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.19	.83	.89	13	3.7	11	3.0	4.8	.77	.65	.78
2	.16	.19	.98	.65	32	3.2	7.2	2.9	19	.65	.65	1.4
3	.13	.19	.96	.65	9.2	2.7	5.8	2.6	33	.58	.65	1.1
4	.16	.19	.88	.58	5.2	5.9	5.3	2.1	18	.98	.52	1.1
5	.19	.16	.96	.58	3.5	23	28	2.6	9.7	.90	.46	.79
6	.13	.13	.65	2.4	3.1	15	11	3.0	127	2.2	7.2	.52
7	.13	.16	.52	1.4	3.6	8.8	8.1	4.0	48	3.0	3.5	.40
8	.13	.16	.52	1.3	4.3	6.2	6.6	2.4	19	1.8	1.5	.40
9	.13	.16	4.9	1.1	3.2	5.0	12	2.1	12	1.1	.65	.40
10	.13	.16	3.8	.89	7.6	4.5	24	3.0	17	.80	.46	.26
11	.13	.16	2.1	.89	17	4.1	20	7.8	28	.65	.35	.22
12	.13	.13	1.6	.89	7.6	3.3	12	4.2	12	.52	.30	.19
13	.10	.13	1.3	.65	5.3	3.1	9.5	3.2	8.0	.40	.26	.19
14	.10	.16	.99	.40	4.6	3.0	7.5	3.6	5.7	.35	.22	3.2
15	.10	.35	.89	.40	4.2	2.7	5.8	5.8	4.0	1.1	.19	42
16	.10	.26	.89	.52	4.3	4.2	5.1	3.8	3.2	1.3	.30	21
17	.10	1.1	.78	.40	6.6	3.1	32	3.0	4.1	1.0	.35	6.8
18	.10	2.0	.65	.35	6.3	2.8	26	6.3	2.5	1.4	.46	4.1
19	.13	.88	.65	.30	9.2	2.5	16	74	1.9	.81	4.1	3.1
20	.16	.46	.58	.83	9.7	2.3	74	39	2.0	.58	1.5	2.4
21	.10	.30	.40	3.7	7.0	2.3	25	18	2.0	.46	12	1.7
22	.13	.26	.40	2.3	5.8	7.5	15	11	4.4	.35	15	1.3
23	.13	.40	.52	1.8	11	16	13	6.3	9.8	.35	3.7	1.1
24	.16	10	2.2	1.5	7.0	11	13	4.7	2.8	.40	1.9	.87
25	.30	2.5	2.1	1.3	5.1	7.8	8.8	11	1.9	.46	1.2	.65
26	.22	1.2	1.2	1.3	4.3	6.3	7.8	18	2.5	.46	.82	.58
27	.19	3.6	1.2	1.4	3.8	5.6	6.3	13	1.4	.46	.58	.52
28	.26	2.3	1.1	1.2	3.4	4.9	5.3	14	1.1	2.2	.46	.52
29	.22	1.4	1.2	1.0	---	4.9	4.4	7.2	.91	3.2	.52	.40
30	.22	.93	1.1	.96	---	32	3.8	5.3	.88	1.4	1.1	.40
31	.22	---	1.0	.98	---	15	---	5.4	---	.92	.65	---
TOTAL	4.75	30.21	37.85	33.51	206.9	222.4	429.3	292.3	406.59	31.55	62.20	98.39
MEAN	.15	1.01	1.22	1.08	7.39	7.17	14.3	9.43	13.6	1.02	2.01	3.28
MAX	.30	10	4.9	3.7	32	32	74	74	127	3.2	15	42
MIN	.10	.13	.40	.30	3.1	2.3	3.8	2.1	.88	.35	.19	.19
CFSM	.04	.28	.34	.30	2.04	1.98	3.95	2.61	3.76	.28	.56	.91
IN.	.05	.31	.39	.34	2.13	2.28	4.41	3.00	4.18	.32	.64	1.01

CAL YR 1980 TOTAL 1732.03 MEAN 4.73 MAX 112 MIN .09 CFSM 1.31 IN 17.79
WTR YR 1981 TOTAL 1855.95 MEAN 5.08 MAX 127 MIN .10 CFSM 1.40 IN 19.07

03408815 CROOKED CREEK NEAR ALLARDT, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1978 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 20...	1545	.15	102	6.7	15.5	--	--	12	22
DEC 09...	1200	5.8	205	5.1	10.0	--	--	2	70
JAN 20...	1300	.66	99	6.7	1.5	11.1	.2	16	34
MAR 03...	1000	2.6	127	7.5	4.5	11.3	--	18	30
24...	1130	12	100	6.7	3.0	12.4	--	18	21
APR 30...	1045	3.7	98	6.9	14.5	9.6	--	13	20
MAY 28...	1515	10	101	7.0	16.5	9.6	--	32	17
JUN 07...	1230	43	84	7.1	17.5	8.4	--	24	13
JUL 01...	1030	.66	108	6.6	19.0	8.3	--	22	26
29...	1300	3.4	140	6.4	21.0	7.9	--	30	25
AUG 18...	1615	.32	105	6.6	22.0	7.5	--	15	28
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 20...	66	.03	.09	630	170	350	330	4	.00
DEC 09...	120	1.8	.16	1000	380	2800	2600	11	.17
JAN 20...	70	.12	.10	570	260	1300	1200	21	.04
MAR 03...	73	.51	.10	500	170	--	740	8	.06
24...	71	2.3	.10	520	110	450	450	7	.23
APR 30...	73	.73	.10	1000	210	520	520	7	.07
MAY 28...	77	2.1	.10	1000	150	320	270	18	.50
JUN 07...	56	6.5	.08	940	310	220	170	32	3.7
JUL 01...	73	.13	.10	1100	140	620	580	6	.01
29...	110	1.0	.15	1700	70	380	350	38	.35
AUG 18...	68	.06	.09	2200	160	1000	830	--	--

CUMBERLAND RIVER BASIN

03409400 WHITE OAK CREEK AT RUGBY, TN

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

DRAINAGE AREA--98.0 mi² (254 km²).

WATER-DISCHARGE RECORDS

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

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

REMARKS--Records fair.

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 23,600 ft³/s (668 m³/s) March 21, 1980, gage height, 24.70 ft (7.529 m) from floodmarks, from rating curve extended above 700 ft³/s (19.8 m³/s), on basis of a slope-area study of peak flow; minimum, 0.12 ft³/s (0.003 m³/s) Oct. 24, 1980.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 3,690 ft³/s (105 m³/s), at 1100 hours April 5, gage height, 13.54 ft (4.127 m); minimum, 0.12 ft³/s (0.003 m³/s) Oct. 24.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	.29	13	7.8	30	69	331	68	49	8.5	2.7	1.9
2	.38	.23	10	7.5	513	60	225	58	66	11	2.4	1.9
3	.35	.21	8.4	7.0	208	50	166	49	143	12	2.1	2.7
4	.33	.21	7.3	6.5	106	48	136	43	136	9.7	1.9	3.6
5	.33	.21	6.6	6.2	80	258	2430	38	97	9.2	1.9	3.3
6	.31	.21	6.0	5.5	64	436	1000	34	154	7.7	2.7	3.4
7	.28	.21	5.5	5.4	52	264	403	37	299	6.8	4.6	3.2
8	.26	.23	5.2	4.5	45	173	269	33	215	6.5	11	6.3
9	.28	.28	20	6.6	45	135	249	28	135	5.7	6.9	5.6
10	.30	.28	62	6.0	60	107	350	25	122	5.1	5.8	4.1
11	.33	.28	40	5.6	200	90	441	33	723	4.6	4.2	3.5
12	.38	.28	26	5.2	150	74	311	38	432	4.4	3.4	2.9
13	.35	.28	20	4.7	140	65	234	30	266	4.1	2.8	2.3
14	.24	.22	16	4.0	100	58	177	27	234	3.6	2.4	2.0
15	.19	.28	13	4.7	70	49	145	54	138	3.9	2.0	10
16	.19	.33	12	5.4	60	50	115	44	88	43	1.9	50
17	.16	.76	10	6.2	60	55	767	34	60	22	1.9	25
18	.16	1.4	8.9	4.7	70	48	1060	30	42	15	4.0	14
19	.15	1.4	8.1	7.0	70	44	574	449	31	9.4	4.7	9.1
20	.14	2.0	7.2	7.0	153	41	1350	309	26	8.4	4.4	6.7
21	.14	2.5	6.3	9.0	151	38	903	178	23	9.9	5.6	5.1
22	.14	1.6	5.5	8.2	125	43	440	116	20	7.4	15	4.2
23	.14	1.9	5.2	9.3	228	199	308	80	19	5.1	16	3.6
24	.14	66	6.0	9.6	263	284	265	57	18	4.1	9.2	2.9
25	.20	45	7.9	9.9	173	236	194	44	15	3.7	6.1	2.6
26	.21	21	8.2	10	127	174	154	38		3.4	4.6	2.3
27	.23	19	8.2	11	97	138	125	98		3.1	3.7	1.8
28	.33	26	8.2	11	79	110	102	152	9.7	3.3	2.9	1.6
29	.33	21	8.2	11	---	92	89	105	8.3	4.0	2.4	1.4
30	.33	16	8.2	11	---	557	88	74	7.0	3.6	2.2	1.2
31	.33	---	8.0	11	---	553	---	62	---	3.3	1.9	---
TOTAL	8.01	229.59	385.1	228.5	3519	4598	13401	2465	3600.0	251.5	143.3	188.2
MEAN	.26	7.65	12.4	7.37	126	148	447	79.5	120	8.11	4.62	6.27
MAX	.38	66	62	11	513	557	2430	449	723	43	16	50
MIN	.14	.21	5.2	4.0	30	38	88	25	7.0	3.1	1.9	1.2
CFSM	.003	.08	.13	.08	1.29	1.51	4.56	.81	1.22	.08	.05	.06
IN.	.00	.09	.15	.09	1.34	1.75	5.09	.94	1.37	.10	.05	.07

WTR YR 1981 TOTAL 29017.20 MEAN 79.5 MAX 2430 MIN .14 CFSM .81 IN 11.01

03409400 WHITE OAK CREEK AT RUGBY, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 21...	0830	.14	370	6.6	8.5	--	94	6.2	204
DEC 10...	1200	66	153	7.3	7.0	--	20	35	85
JAN 22...	1100	8.2	187	7.6	.5	11.8	50	34	131
MAR 02...	1145	61	75	6.7	7.0	--	18	17	50
APR 24...	1530	296	62	7.0	4.0	12.2	18	13	40
MAY 29...	1315	86	68	7.5	15.5	9.5	13	17	51
JUN 29...	1030	108	79	7.0	14.0	9.4	24	14	--
JUL 07...	1445	289	58	7.2	17.5	8.4	16	14	47
AUG 30...	1300	6.6	150	6.8	22.5	7.8	54	30	101
JUL 29...	1515	3.5	305	6.8	23.0	6.6	54	33	194
AUG 18...	1215	4.5	299	7.4	22.0	6.5	68	49	177

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 21...	.08	.28	360	180	190	160	10	.00
DEC 10...	15.1	.12	530	80	60	40	22	3.9
JAN 22...	2.9	.18	340	60	60	60	12	.27
MAR 02...	8.2	.07	200	60	90	40	5	.82
APR 24...	32.0	.05	210	20	80	70	73	58
MAY 29...	11.8	.07	400	110	70	70	5	1.2
JUN 29...	--	--	570	80	70	40	11	3.2
JUL 07...	36.7	.06	840	100	160	60	34	27
AUG 30...	1.8	.14	380	120	80	70	5	.09
JUL 29...	1.8	.26	440	70	120	100	3	.03
AUG 18...	2.1	.24	620	40	100	70	--	--

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN

LOCATION.--Lat 36°23'18", long 84°37'49", Scott County, Hydrologic Unit 05130104, on right bank 300 ft (90 m) downstream from Burnt Mill Bridge, 3.3 mi (5.3 km) northwest of Robbins, and at mile 3.7 (6.0 km).

DRAINAGE AREA.--272 mi² (704 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1971, July 1975 to current year. Published as Clear Fork River near Robbins, October 1951 to September 1954.

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

GAGE.--Water-stage recorder. Datum of gage is 1,081.46 ft (329.629 m) Sandy Hook datum. Prior to Aug. 10, 1940, nonrecording gage at site 300 ft (90 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--47 years (water years 1931-71, 1976-81), 469 ft³/s (13.28 m³/s), 23.42 in/yr (595 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s (963 m³/s) Feb. 3, 1939, gage height, 18.5 ft (5.64 m) from floodmarks, site and datum then in use, from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 0.2 ft³/s (0.006 m³/s) Sept. 19-21, 1932; minimum gage height observed, 0.28 ft (0.085 m) Oct. 1-3, 1936, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929 reached a stage of 22.1 ft (6.74 m), former site and datum, from information by local residents, and flood of May 27, 1973, reached a stage of 18.92 ft (5.767 m), present site and datum, from floodmark; discharge, 35,700 ft³/s (1,010 m³/s), from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of slope-area measurement at gage height 18.5 ft (5.64 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft³/s (143 m³/s) 0430 hours, June 11, gage height 8.04 ft (2.451 m), no peak above base of 6,500 ft³/s (184 m³/s); minimum, 1.5 ft³/s (0.042 m³/s) Oct. 23, 24, gage height, 0.96 ft (0.293 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.9	50	38	95	221	1080	244	303	53	32	28
2	5.1	5.9	41	36	1490	200	732	206	431	46	24	86
3	5.4	5.4	37	33	880	176	541	184	680	35	19	59
4	5.6	5.3	29	29	431	174	438	161	607	31	16	59
5	5.8	5.2	25	22	348	818	3220	146	425	26	13	78
6	5.7	4.9	23	24	238	1610	2270	135	770	25	16	54
7	5.2	4.7	20	23	218	987	1190	179	1880	23	153	43
8	4.9	4.7	19	20	186	656	804	183	1110	22	355	35
9	4.3	4.7	55	24	191	486	700	146	675	23	154	31
10	4.2	4.7	226	22	221	379	1100	130	647	21	80	27
11	3.9	4.7	185	19	951	313	2170	190	3510	18	50	23
12	3.6	4.7	123	17	740	263	1270	221	1730	16	36	20
13	3.3	4.5	92	15	519	228	878	178	1070	14	26	18
14	3.0	4.6	73	13	423	206	651	152	774	12	21	17
15	2.7	5.2	59	14	297	183	513	181	496	11	17	64
16	2.6	6.0	51	18	260	191	401	180	327	59	15	902
17	2.3	8.5	46	21	270	209	1580	147	236	60	23	364
18	2.3	17	41	18	304	190	3010	132	179	46	21	182
19	2.0	25	37	19	418	175	2010	1540	141	38	26	123
20	1.8	22	32	18	581	160	3450	1730	116	31	94	96
21	1.7	17	27	27	538	150	2650	934	102	35	64	77
22	1.6	14	23	45	429	179	1510	588	96	36	255	62
23	1.5	15	22	62	564	727	1050	397	106	30	174	52
24	1.5	188	26	57	683	985	922	282	108	23	93	42
25	1.8	213	36	50	492	750	689	217	72	18	61	36
26	2.3	99	44	50	371	558	541	211	56	16	44	31
27	2.9	81	49	55	295	435	436	453	47	14	34	28
28	4.0	97	43	58	247	345	353	908	47	348	27	25
29	5.7	92	41	55	---	286	300	608	40	106	23	22
30	5.9	67	41	55	---	1540	290	400	33	67	21	20
31	6.3	---	40	47	---	1820	---	354	---	47	19	---
TOTAL	114.3	1036.6	1656	1004	12680	15600	36749	11717	16814	1350	2006	2704
MEAN	3.69	34.6	53.4	32.4	453	503	1225	378	560	43.5	64.7	90.1
MAX	6.3	213	226	62	1490	1820	3450	1730	3510	348	355	902
MIN	1.5	4.5	19	13	95	150	290	130	33	11	13	17
CFSM	.01	.13	.20	.12	1.67	1.85	4.50	1.39	2.06	.16	.24	.33
IN.	.02	.14	.23	.14	1.73	2.13	5.03	1.60	2.30	.18	.27	.37
CAL YR 1980	TOTAL	126698.3	MEAN	346	MAX	17000	MIN	1.5	CFSM	1.27	IN	17.33
WTR YR 1981	TOTAL	103430.9	MEAN	283	MAX	3510	MIN	1.5	CFSM	1.04	IN	14.15

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-64, 1976-77, 1979 to current year.

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 21...	1330	1.8	85	7.6	15.5	--	20	5.7	43
DEC 03...	1530	32	110	6.9	5.0	--	12	26	75
JAN 22...	1400	44	89	6.8	.5	12.9	20	17	62
FEB 18...	1400	297	65	7.0	5.0	12.2	30	10	42
MAR 27...	1300	451	50	7.4	8.0	11.6	6	8.7	35
APR 28...	1152	357	49	6.8	17.0	9.3	8	9.5	26
MAY 15...	1545	197	65	7.8	16.2	9.4	19	10	40
JUN 07...	1730	1720	54	7.1	18.5	8.9	12	7.9	40
JUL 28...	1100	298	68	7.1	25.0	7.0	18	6.6	55
AUG 18...	0830	22	80	7.0	25.0	7.2	17	12	64
SEP 21...	1130	76	89	7.3	16.5	9.5	14	13	56

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 21...	.21	.06	480	20	50	10	3	.01
DEC 03...	6.4	.10	260	70	10	10	4	.35
JAN 22...	7.3	.08	200	60	30	10	10	1.2
FEB 18...	33.7	.06	190	20	30	20	9	7.2
MAR 27...	42.7	.05	190	50	40	20	2	2.4
APR 28...	25.1	.04	300	60	50	30	11	11
MAY 15...	21.3	.05	270	80	20	10	17	9.0
JUN 07...	186	.05	1300	150	130	10	58	269
JUL 28...	44.3	.07	6200	170	270	40	368	296
AUG 18...	3.8	.09	240	90	50	40	--	--
SEP 21...	11.5	.08	410	130	40	20	--	--

CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME 0830	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
		24	7	6.8	1.8	3.8	.3	23	2.3	4.7
DATE AUG 18...		FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
		<.1	1.6	43	.13	.010	1	6	100	<1
DATE AUG 18...		CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)
		<1	10	<10	<10	1	<10	1300	5	<10
DATE AUG 18...		MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
		15	<.1	<.01	<1	<1	<1	10	9	<.01

CUMBERLAND RIVER BASIN

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03410500 SOUTH FORK CUMBERLAND NEAR STEARNS, KY

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

DRAINAGE AREA.--954 mi² (2,471 km²), includes that of Bear Creek.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--39 years, 1,781 ft³/s (50.44 m³/s), 25.35 in/yr (644 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,200 ft³/s (2,640 m³/s) May 28, 1973, gage height, 46.29 ft (14.109 m), present datum, from floodmarks; minimum discharge, 11 ft³/s (0.31 m³/s) Oct. 4, 1948, Sept. 17, 18, 19, 20, 1954.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,200 ft³/s (487 m³/s) Apr. 5 at 1900 hours, gage height, 17.95 ft (5.471 m), no peak above base of 22,000 ft³/s (623 m³/s); minimum discharge, 22 ft³/s (0.623 m³/s) Oct. 23, 24, gage height, 0.90 ft (0.274 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	38	278	163	269	912	3940	830	1280	192	296	97
2	58	49	220	154	5810	828	2680	708	4040	169	223	104
3	54	48	189	143	4080	727	1950	638	2940	169	177	140
4	48	45	158	130	1670	694	1570	531	2780	194	149	174
5	46	42	137	111	1020	1820	8910	462	2210	216	132	190
6	49	41	124	95	919	5140	8630	418	7120	201	204	187
7	49	40	114	103	747	3600	4160	382	10100	178	223	169
8	45	39	110	105	692	2390	2790	444	5230	167	2670	182
9	43	38	135	95	682	1750	2220	386	3030	185	1820	148
10	41	39	564	96	768	1380	2750	337	2710	180	725	121
11	38	39	886	96	4030	1150	4230	402	6790	159	444	104
12	34	37	552	411	3910	980	3340	496	4410	144	307	91
13	32	36	394	70	2070	853	2500	426	2750	140	238	81
14	30	35	307	69	1630	773	1970	360	2500	128	236	106
15	29	39	252	74	1260	705	1600	406	1650	121	188	358
16	27	51	214	84	1040	690	1410	486	1120	116	150	1740
17	26	84	188	85	1020	736	1790	406	834	462	126	1440
18	26	162	170	85	1090	724	8220	379	672	496	138	711
19	23	135	152	78	1280	676	6530	3680	533	301	172	468
20	24	143	138	85	1730	634	9570	4620	450	398	168	346
21	24	158	118	158	2090	591	9660	3040	426	348	261	275
22	23	119	105	229	1770	656	5030	1960	392	301	301	224
23	22	102	104	244	2030	2210	3370	1330	385	274	551	187
24	23	641	120	262	3100	3470	2790	974	486	196	350	157
25	27	1110	160	242	2170	2860	2210	770	402	159	244	136
26	39	590	149	224	1590	2270	1730	930	330	253	181	123
27	37	446	209	221	1250	1810	1430	1300	347	292	146	110
28	38	512	200	229	1030	1470	1190	2470	352	479	123	99
29	39	553	186	220	---	1210	1020	2300	247	891	106	90
30	39	376	180	222	---	3700	939	1510	192	704	103	84
31	36	---	169	200	---	7570	---	1270	---	427	99	---
TOTAL	1132	5787	6982	4483	50747	54979	110129	34651	66708	8640	11251	8442
MEAN	36.5	193	225	145	1812	1774	3671	1118	2224	279	363	281
MAX	63	1110	886	262	5810	7570	9660	4620	10100	891	2670	1740
MIN	22	35	104	69	269	591	939	337	192	116	99	81
CFSM	.04	.20	.24	.15	1.90	1.86	3.85	1.17	2.33	.29	.38	.30
IN.	.04	.23	.27	.17	1.98	2.14	4.29	1.35	2.60	.34	.44	.33
CAL YR 1980	TOTAL	440910	MEAN	1205	MAX	49600	MIN 22	CFSM 1.26	IN 17.19			
WTR YR 1981	TOTAL	363931	MEAN	997	MAX	10100	MIN 22	CFSM 1.05	IN 14.19			

CUMBERLAND RIVER BASIN

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

WATER QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1980 to current year.

pH: May 1980 to current year.

WATER TEMPERATURE: May 1980 to current year.

DISSOLVED OXYGEN: May 1980 to current year.

TURBIDITY: May 1980 to October 1980.

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

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

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 378 micromhos Nov. 28, 1980; minimum, 56 micromhos June 2, 1981.

pH: Maximum, 7.7 units May 13-16 1980, Aug. 27, 28, 1981, Sept. 12-14, 26-30, 1981; minimum, 5.2 units May 19, Nov. 24, 1980.

WATER TEMPERATURE: Maximum, 33.0°C July 17, 1980; minimum, 0.5°C many days in January 1981.

DISSOLVED OXYGEN: Maximum, 13.9 mg/L Jan. 13, 1981; minimum, 4.5 mg/L May 22, 1980.

TURBIDITY: Maximum, 750 JTU May 19, July 4, 1980; minimum, 0 JTU May 16, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 378 micromhos Nov. 28; minimum, 56 micromhos June 2.

pH: Maximum, 7.7 units Aug. 27, 28, Sept. 12-14, 26-30; minimum, 5.2 units Nov. 24.

WATER TEMPERATURE: Maximum, 31.5°C July 14, 15; minimum, 0.5°C many days in January.

DISSOLVED OXYGEN: Maximum, 13.9 mg/L Jan. 13; minimum, 5.1 mg/L July 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 28...	0945	38	185	7.1	12.0	--	19	49	114
DEC 04...	1100	154	280	7.6	4.0	--	26	91	175
JAN 08...	1115	102	180	--	.5	--	--	--	--
28...	1100	240	205	7.3	2.5	13.2	27	60	117
FEB 18...	1230	1080	118	6.9	4.0	12.6	10	38	71
MAR 18...	1545	709	126	7.1	7.5	--	--	--	--
30...	1200	3220	100	7.1	11.0	10.3	8	29	62
APR 13...	1600	2160	100	7.5	16.0	9.4	10	27	64
MAY 18...	1230	357	138	7.3	17.0	9.2	24	40	88
JUN 16...	1300	1110	100	7.4	23.5	7.8	16	23	63
JUL 29...	1130	850	239	7.3	27.5	--	28	67	146
AUG 17...	1530	139	137	7.2	27.0	7.6	19	36	100
SEP 15...	1215	265	208	7.2	23.0	7.4	28	56	127

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

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 28...	11.7	.16	480	50	130	70	18	1.8
DEC 04...	72.8	.24	610	50	--	190	12	5.0
JAN 08...	--	--	--	--	--	--	8	2.2
28...	75.8	.16	180	20	--	150	13	8.4
FEB 18...	207	.10	260	10	150	150	13	38
MAR 18...	--	--	--	--	--	--	9	17
30...	539	.08	1200	800	250	220	63	548
APR 13...	373	.09	550	10	110	60	26	152
MAY 18...	84.8	.12	200	40	110	80	12	12
JUN 16...	189	.09	1600	70	140	80	60	180
JUL 29...	335	.20	520	20	1200	50	11	25
AUG 17...	37.5	.14	2400	40	90	30	60	23
SEP 15...	90.9	.17	510	20	200	150	--	--

DATE	TIME	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG 17...	1530	53	34	13	4.9	3.3	.2	12	1.7	2.7

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
AUG 17...	<.1	5.6	78	.32	.080	1	8	100	<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)
AUG 17...	<1	10	<10	<10	8	<10	1100	4	<10

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
AUG 17...	300	<.1	<.01	<1	<1	<1	20	9	<.01

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	222	210	215	181	177	180	274	254	262	163	161	162
2	210	204	206	179	153	164	258	252	253	158	154	156
3	204	200	202	154	150	152	282	258	269	154	152	154
4	200	196	198	151	147	149	300	282	292	155	153	154
5	196	190	193	149	143	147	312	300	307	162	154	158
6	190	186	188	144	140	142	314	312	313	169	161	165
7	186	182	183	139	137	138	312	304	309	179	169	174
8	182	178	179	141	139	141	304	294	299	182	162	180
9	178	178	178	142	140	142	292	282	286	183	181	181
10	178	178	178	143	141	142	282	228	260	181	181	182
11	178	178	178	143	141	143	226	216	219	182	182	182
12	180	178	179	144	142	143	240	210	219	187	183	185
13	180	178	180	142	140	141	292	244	272	190	188	188
14	180	180	180	142	140	140	292	284	290	188	188	188
15	182	180	182	144	140	142	284	270	277	189	189	189
16	186	182	185	146	144	145	270	260	265	190	190	190
17	188	186	187	158	146	150	260	256	257	191	189	190
18	192	190	191	160	156	159	253	241	245	193	191	192
19	194	192	193	158	156	157	241	239	239	196	194	195
20	194	194	194	156	146	152	238	238	238	199	197	198
21	196	192	193	146	140	143	241	237	239	208	198	201
22	194	192	192	138	130	135	244	240	242	196	180	187
23	192	192	192	130	110	116	248	244	247	181	171	177
24	192	188	191	248	112	148	247	245	247	172	166	170
25	190	190	190	268	140	187	244	232	238	169	165	166
26	190	188	190	270	240	252	229	217	224	182	170	176
27	188	186	187	336	248	287	215	189	203	191	183	188
28	188	186	186	378	340	367	186	168	176	190	186	188
29	187	185	186	370	298	326	167	161	162	---	---	---
30	187	183	185	298	276	287	163	161	162	---	---	---
31	184	180	182	---	---	---	164	162	164	---	---	---
MONTH	222	178	188	378	110	174	314	161	248	208	152	179
FEBRUARY			MARCH			APRIL			MAY			
1				---	---	---	---	---	---	124	122	123
2				---	---	---	---	---	---	128	124	126
3				---	---	---	---	---	---	130	128	128
4				---	---	---	---	---	---	130	128	130
5				---	---	---	---	---	---	132	130	131
6				---	---	---	---	---	---	136	132	135
7				---	---	---	---	---	---	138	136	137
8				---	---	---	---	---	---	140	138	138
9				104	104	104	---	---	---	142	140	141
10				106	105	105	---	---	---	146	144	144
11				108	106	107	---	---	---	148	146	146
12				110	108	109	---	---	---	146	132	137
13				113	110	112	96	95	95	140	132	136
14				116	113	115	100	96	98	144	136	141
15				119	116	117	102	100	101	138	132	135
16				120	119	119	108	102	105	132	130	131
17				124	119	121	118	108	112	136	130	133
18				126	124	125	---	---	---	140	136	139
19				130	126	127	---	---	---	132	104	108
20				133	130	133	---	---	---	---	---	---
21				134	133	134	96	82	86	---	---	---
22				135	131	134	86	84	84	90	88	88
23				130	116	123	90	86	88	90	90	90
24				142	116	129	96	90	93	92	90	91
25				116	108	113	102	96	99	92	92	92
26				107	102	104	108	102	106	94	92	93
27				109	104	107	118	108	113	92	70	85
28				111	109	110	120	118	119	70	66	68
29				114	112	113	120	118	119	102	68	82
30				116	91	102	122	120	121	110	104	107
31				---	---	---	---	---	---	118	110	113
MONTH				---	---	---	---	---	---	148	66	119

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	124	118	122	195	179	185	225	219	223	176	168	173
2	122	56	83	180	178	179	222	216	219	174	172	173
3	94	84	89	178	176	177	221	215	218	174	172	172
4	96	66	90	195	177	184	220	200	210	174	174	174
5	124	92	112	209	193	203	208	200	206	178	174	176
6	---	---	---	216	210	214	212	196	205	186	180	183
7	---	---	---	214	210	212	202	194	197	194	188	191
8	---	---	---	209	203	206	210	194	199	198	194	197
9	92	88	90	204	198	201	228	160	203	206	198	202
10	92	90	92	198	190	194	158	130	143	210	206	209
11	---	---	---	191	185	187	130	124	127	210	204	208
12	---	---	---	185	183	184	126	124	125	204	202	203
13	---	---	---	200	188	192	128	126	126	206	202	204
14	---	---	---	212	200	206	130	128	129	210	204	208
15	---	---	---	219	213	216	134	130	132	224	210	216
16	---	---	---	220	210	218	138	134	136	238	168	218
17	100	96	97	205	203	207	140	138	139	226	164	201
18	110	96	100	248	216	229	144	140	142	234	224	230
19	---	---	---	265	249	260	148	144	145	224	220	222
20	---	---	---	286	268	279	152	148	150	220	214	218
21	---	---	---	287	259	276	158	152	156	212	202	207
22	---	---	---	258	246	250	170	158	164	204	202	202
23	134	128	130	257	253	255	178	170	175	208	204	206
24	138	132	134	254	252	252	182	176	178	212	208	209
25	141	135	138	259	255	256	186	182	185	212	210	211
26	147	139	144	278	262	269	186	182	184	210	206	208
27	146	138	142	283	277	280	186	182	184	206	200	202
28	170	136	151	294	280	284	194	186	190	200	196	197
29	192	169	182	297	253	268	194	192	194	196	194	195
30	197	191	195	261	227	237	192	186	189	200	196	198
31	---	---	---	246	220	243	184	176	180	---	---	---
MONTH	---	---	---	297	176	226	228	124	173	238	164	200

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY	
1	7.4	7.2	7.2	7.1	7.3	7.2	7.4	7.4
2	7.4	7.2	7.2	7.1	7.3	7.3	7.4	7.4
3	7.4	7.3	7.2	7.2	7.3	7.3	7.4	7.4
4	7.4	7.3	7.2	7.1	7.4	7.4	7.4	7.4
5	7.4	7.3	7.2	7.1	7.4	7.4	7.5	7.4
6	7.4	7.3	7.2	7.2	7.4	7.4	7.5	7.4
7	7.5	7.4	7.2	7.2	7.4	7.4	7.5	7.4
8	7.5	7.3	7.2	7.2	7.4	7.4	7.5	7.4
9	7.5	7.3	7.2	7.2	7.4	7.2	7.5	7.4
10	7.4	7.3	7.2	7.2	7.4	7.2	7.5	7.4
11	7.4	7.3	7.3	7.2	7.4	7.3	7.5	7.4
12	7.4	7.3	7.3	7.3	7.4	7.3	7.5	7.4
13	7.4	7.3	7.4	7.3	7.4	7.4	7.5	7.5
14	7.4	7.3	7.4	7.3	7.4	7.4	7.5	7.4
15	7.4	7.3	7.4	7.3	7.4	7.4	7.4	7.4
16	7.4	7.2	7.3	7.3	7.4	7.3	7.4	7.4
17	7.3	7.2	7.3	7.3	7.4	7.3	7.5	7.4
18	7.3	7.2	7.2	7.2	7.4	7.4	7.5	7.4
19	7.3	7.2	7.2	7.2	7.4	7.4	7.5	7.4
20	7.3	7.1	7.3	7.2	7.5	7.4	7.5	7.4
21	7.3	7.1	7.3	7.3	7.5	7.5	7.4	7.3
22	7.2	7.1	7.3	7.3	7.5	7.5	7.3	7.3
23	7.2	7.1	7.3	7.3	7.5	7.5	7.4	7.3
24	7.2	7.1	7.2	5.2	7.5	7.5	7.4	7.4
25	7.1	7.1	7.3	7.1	7.5	7.4	7.4	7.4
26	7.2	7.1	7.4	7.3	7.5	7.5	7.4	7.4
27	7.2	7.2	7.4	7.1	7.5	7.5	7.5	7.4
28	7.1	7.0	7.4	7.3	7.5	7.5	7.4	7.4
29	7.1	7.1	7.4	7.4	7.5	7.4	---	---
30	7.2	7.1	7.3	7.2	7.4	7.4	---	---
31	7.2	7.1	---	---	7.4	7.4	---	---
MONTH	7.5	7.0	7.4	5.2	7.5	7.2	7.5	7.3

CUMBERLAND RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22.5	20.5	21.5	12.5	10.5	11.0	6.0	5.0	5.5	2.5	2.5	2.5
2	21.5	20.5	21.0	12.5	10.5	11.5	6.0	5.5	6.0	2.5	2.0	2.0
3	20.0	19.0	19.5	12.0	10.5	11.5	5.5	5.0	5.5	2.5	2.0	2.0
4	19.0	17.5	18.0	12.5	11.5	12.0	5.0	4.5	4.5	2.0	1.0	1.5
5	17.5	16.5	17.0	12.0	10.5	11.0	5.5	4.5	5.0	1.0	.5	1.0
6	17.5	15.0	16.0	11.5	9.5	10.5	5.5	4.5	5.0	1.0	.5	1.0
7	17.5	15.0	16.0	11.5	9.5	10.5	5.5	5.0	5.5	1.5	1.0	1.0
8	18.0	16.0	17.0	13.0	11.0	11.5	6.5	5.5	6.0	1.0	.5	1.0
9	19.0	16.5	18.0	12.5	11.5	12.0	7.0	6.0	6.5	1.5	1.0	1.0
10	19.5	17.5	18.5	13.0	11.5	12.0	7.0	6.5	7.0	1.0	.5	1.0
11	19.5	17.5	18.5	11.5	10.0	11.0	6.5	6.0	6.5	1.0	.5	.5
12	18.0	16.0	17.0	10.5	9.0	10.0	6.5	6.0	6.0	1.0	.5	.5
13	17.0	14.5	15.5	10.5	8.5	9.5	7.0	6.5	6.5	1.0	.5	.5
14	16.5	14.0	15.0	10.0	9.0	9.5	6.5	6.0	6.0	1.0	.5	1.0
15	17.0	14.0	15.5	10.5	10.0	10.5	6.0	5.5	6.0	1.0	1.0	1.0
16	17.5	14.5	16.0	10.5	10.0	10.0	6.0	5.5	6.0	1.5	1.0	1.0
17	17.0	15.5	16.0	10.0	9.5	9.5	5.5	5.0	5.0	1.5	1.0	1.0
18	18.0	17.0	17.5	9.5	8.5	9.0	5.0	4.5	5.0	1.5	.5	1.0
19	18.5	16.5	17.5	9.0	8.0	8.5	5.0	4.5	5.0	1.5	.5	1.0
20	17.0	15.0	16.0	8.0	7.0	7.5	4.5	3.0	3.5	1.5	1.0	1.0
21	16.5	14.5	15.5	7.5	7.0	7.0	3.0	2.0	2.5	1.0	1.0	1.0
22	16.5	14.0	15.0	7.0	6.5	7.0	2.5	1.5	2.0	1.5	1.0	1.0
23	16.5	14.0	15.0	7.5	7.0	7.0	3.0	2.5	2.5	1.5	1.0	1.5
24	15.0	14.0	14.5	7.5	6.5	7.5	3.5	3.0	3.0	1.5	1.0	1.5
25	14.5	13.0	14.0	7.5	6.5	7.0	2.5	1.5	2.0	2.0	1.0	1.5
26	14.0	12.0	13.0	6.5	6.0	6.5	1.5	1.5	1.5	2.5	1.5	2.0
27	12.5	12.0	12.0	6.5	6.5	6.5	2.0	1.5	1.5	3.0	2.5	2.5
28	14.0	12.5	13.0	6.5	6.0	6.5	2.0	1.0	1.5	2.5	2.0	2.5
29	13.0	12.0	12.5	6.0	5.5	6.0	2.5	1.5	2.0	---	---	---
30	13.0	11.5	12.0	5.5	5.0	5.5	2.5	2.0	2.0	---	---	---
31	12.5	10.5	11.5	---	---	---	2.5	2.0	2.5	---	---	---
MONTH	22.5	10.5	16.0	13.0	5.0	9.0	7.0	1.0	4.5	3.0	.5	1.5
FEBRUARY			MARCH			APRIL			MAY			
1				---	---	---	---	---	---	18.5	17.5	18.0
2				---	---	---	---	---	---	18.0	17.0	17.5
3				---	---	---	---	---	---	18.5	16.5	17.5
4				---	---	---	---	---	---	18.5	17.0	17.5
5				---	---	---	---	---	---	19.0	17.0	18.0
6				---	---	---	---	---	---	18.5	18.0	18.5
7				---	---	---	---	---	---	18.5	17.5	18.0
8				---	---	---	---	---	---	18.5	17.0	18.0
9				6.0	6.0	6.0	---	---	---	19.0	18.0	18.5
10				6.5	5.5	6.0	---	---	---	19.0	18.5	18.5
11				6.5	5.5	6.0	---	---	---	18.5	17.5	18.0
12				7.0	5.5	6.5	---	---	---	17.5	17.0	17.0
13				7.0	6.0	6.5	16.0	16.0	16.0	18.5	16.0	17.5
14				7.5	6.5	7.0	16.5	16.0	16.0	18.0	17.0	17.5
15				7.5	6.0	7.0	16.5	16.0	16.5	17.0	16.0	16.5
16				7.5	7.0	7.5	16.0	15.5	16.0	17.0	15.5	16.5
17				8.0	6.5	7.5	16.0	15.5	15.5	17.0	16.0	16.5
18				8.0	7.0	7.5	---	---	---	18.0	16.5	17.0
19				7.5	7.0	7.0	---	---	---	16.5	15.0	15.5
20				7.0	6.5	6.5	---	---	---	---	---	---
21				7.0	6.0	6.5	14.0	13.0	13.0	---	---	---
22				6.5	6.0	6.0	13.5	13.0	13.5	16.0	16.0	16.0
23				5.5	5.5	5.5	14.5	13.5	14.0	17.0	15.5	16.5
24				6.0	5.0	5.5	15.0	14.0	14.5	18.0	16.5	17.0
25				7.0	5.5	6.0	15.0	14.0	14.5	18.5	17.5	18.0
26				8.0	6.5	7.0	15.5	14.0	15.0	18.5	18.0	18.0
27				8.5	7.5	8.0	16.5	15.0	16.0	18.0	17.5	18.0
28				10.0	8.5	9.5	17.5	16.0	17.0	17.5	16.5	17.0
29				11.0	9.5	10.5	18.0	17.0	17.5	18.5	17.0	17.5
30				13.5	11.0	11.5	19.0	17.5	18.0	18.5	18.0	18.5
31				---	---	---	---	---	---	19.0	18.5	18.5
MONTH				---	---	---	---	---	---	19.0	15.0	17.5

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	19.0	19.0	27.0	25.5	26.5	26.5	25.0	26.0	26.5	25.0	25.5
2	18.5	16.5	17.5	27.0	25.5	26.0	26.5	25.0	25.5	26.5	24.5	25.5
3	19.0	17.5	18.0	27.0	25.5	26.0	27.0	25.0	26.0	25.5	25.0	25.5
4	20.0	19.0	19.5	27.0	25.5	26.5	27.5	25.5	26.5	26.0	25.0	25.5
5	20.0	19.5	20.0	26.5	26.0	26.0	28.5	26.5	27.0	26.5	25.0	25.5
6	---	---	---	26.5	25.5	26.0	27.5	26.5	27.0	26.0	25.0	25.5
7	---	---	---	27.0	25.5	26.5	27.0	26.5	26.5	26.5	25.0	25.5
8	---	---	---	28.0	26.0	27.0	27.0	25.0	26.5	26.0	25.0	25.5
9	19.5	18.5	19.0	29.0	26.5	27.5	25.0	23.0	24.0	25.5	24.0	24.5
10	19.5	19.0	19.5	29.0	27.5	28.5	25.0	23.0	24.0	25.5	23.0	24.0
11	---	---	---	30.5	28.0	29.0	25.0	23.5	24.5	25.5	23.0	24.0
12	---	---	---	30.5	28.5	29.5	26.0	24.0	25.0	25.5	23.5	24.5
13	---	---	---	30.5	28.5	29.5	25.5	24.0	25.0	26.0	23.5	24.5
14	---	---	---	31.5	29.0	30.0	26.0	24.0	25.0	25.5	23.5	24.5
15	---	---	---	31.5	29.0	30.0	26.0	24.5	25.5	24.0	23.0	23.5
16	---	---	---	30.0	29.0	29.5	26.0	25.5	25.5	23.0	21.5	22.5
17	24.5	24.0	24.0	29.5	28.5	29.0	27.0	25.0	26.0	21.0	20.0	20.5
18	25.0	23.0	24.0	29.5	28.0	28.5	25.5	24.5	25.0	20.0	19.0	19.5
19	---	---	---	30.0	28.0	29.0	25.0	24.5	24.5	19.0	18.0	18.5
20	---	---	---	29.0	28.5	28.5	25.5	24.0	24.5	19.0	17.5	18.5
21	---	---	---	29.0	27.5	28.0	25.0	24.5	24.5	19.5	17.5	18.5
22	---	---	---	28.5	27.0	27.5	25.0	24.0	24.5	19.5	18.0	19.0
23	27.0	25.5	26.5	28.0	26.5	27.5	25.0	24.0	24.5	19.5	18.0	19.0
24	27.5	25.0	26.5	28.5	26.5	27.5	25.5	24.0	24.5	19.0	17.5	18.5
25	27.0	26.0	26.5	29.0	27.0	28.0	26.0	24.0	25.0	19.5	17.5	18.5
26	27.5	26.0	26.5	29.5	28.0	28.5	26.0	24.0	25.0	20.5	18.5	19.0
27	27.0	25.5	26.0	30.0	28.0	29.0	26.0	24.5	25.5	20.0	19.0	19.5
28	27.0	25.0	26.0	29.0	28.0	28.5	26.5	24.5	25.5	21.0	19.0	19.5
29	27.5	25.5	26.5	28.5	26.5	27.5	25.5	24.5	25.0	20.0	18.0	19.0
30	28.0	26.0	27.0	26.5	25.5	26.0	26.0	24.0	25.0	21.0	18.0	19.5
31	---	---	---	26.5	25.0	25.5	26.5	24.5	25.5	---	---	---
MONTH	---	---	---	31.5	25.0	28.0	28.5	23.0	25.5	26.5	17.5	22.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	---	---	---	8.5	8.3	8.4
2				---	---	---	---	---	---	8.6	8.4	8.5
3				---	---	---	---	---	---	8.6	8.3	8.5
4				---	---	---	---	---	---	8.5	8.3	8.4
5				---	---	---	---	---	---	8.5	8.1	8.3
6				---	---	---	---	---	---	9.2	8.0	8.6
7				---	---	---	---	---	---	9.4	9.0	9.2
8				---	---	---	---	---	---	9.5	9.0	9.3
9				12.2	12.0	12.1	---	---	---	9.2	8.8	9.1
10				12.2	11.9	12.0	---	---	---	9.3	8.7	9.0
11				11.9	11.6	11.8	---	---	---	9.3	9.0	9.2
12				11.8	11.4	11.6	---	---	---	9.6	9.2	9.4
13				11.4	11.1	11.3	9.5	9.0	9.3	9.6	9.3	9.5
14				11.2	10.8	11.0	9.0	8.8	8.9	9.5	9.2	9.3
15				11.0	10.6	10.9	9.0	8.7	8.8	9.5	9.1	9.3
16				10.8	10.5	10.6	8.8	8.6	8.7	9.7	9.3	9.5
17				10.6	10.3	10.5	8.9	8.4	8.6	9.7	9.4	9.5
18				10.4	9.8	10.2	---	---	---	9.2	8.8	9.0
19				10.3	9.8	10.0	---	---	---	9.0	8.5	8.8
20				10.5	9.9	10.1	---	---	---	---	---	---
21				10.6	10.0	10.2	11.1	10.0	10.8	---	---	---
22				11.5	11.0	11.2	10.9	10.0	10.6	8.7	8.5	8.6
23				11.2	10.9	11.1	10.4	9.6	10.0	8.7	8.5	8.6
24				11.0	10.5	10.8	9.7	9.3	9.5	8.7	8.3	8.5
25				11.6	11.0	11.3	9.6	9.1	9.4	9.1	8.3	8.8
26				11.1	10.6	10.9	9.4	9.1	9.2	9.2	8.7	9.0
27				10.7	10.3	10.5	9.1	8.7	8.9	8.8	8.6	8.6
28				11.3	11.0	11.2	8.9	8.4	8.6	8.8	8.6	8.7
29				11.0	10.6	10.8	8.5	8.2	8.4	8.6	8.3	8.5
30				10.9	9.7	10.4	8.5	8.2	8.4	8.4	8.2	8.3
31				---	---	---	---	---	---	8.3	8.0	8.2
MONTH				---	---	---	---	---	---	9.7	8.0	8.9
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.0	7.8	7.9	8.2	7.7	7.9	7.3	7.0	7.2	7.6	7.1	7.3
2	9.4	8.0	9.0	8.3	7.7	8.0	7.2	6.9	7.1	7.6	7.1	7.3
3	9.0	8.7	8.9	8.4	7.9	8.1	7.2	7.0	7.1	7.4	7.2	7.3
4	8.8	8.4	8.7	8.5	8.1	8.3	7.5	7.0	7.2	7.5	7.2	7.3
5	8.5	8.2	8.3	8.3	7.6	7.8	7.6	6.9	7.2	7.6	7.2	7.4
6	---	---	---	7.9	7.4	7.7	7.3	6.6	7.1	7.6	7.3	7.4
7	---	---	---	7.9	7.5	7.7	7.2	6.9	6.9	7.7	7.3	7.5
8	---	---	---	9.5	7.4	7.7	7.0	6.8	6.9	7.7	7.3	7.4
9	8.4	7.9	8.1	7.9	7.5	7.7	---	---	---	7.9	7.4	7.7
10	7.9	7.5	7.8	7.7	7.1	7.5	7.3	7.2	7.3	8.1	7.6	7.8
11	---	---	---	7.5	6.9	7.2	7.4	6.8	7.3	8.1	7.6	7.8
12	---	---	---	7.4	6.7	7.0	7.4	7.2	7.3	8.1	7.5	7.7
13	---	---	---	6.9	6.4	6.6	7.5	7.3	7.4	8.0	7.5	7.7
14	---	---	---	6.7	6.2	6.4	7.4	7.3	7.3	7.9	7.3	7.5
15	---	---	---	6.7	5.8	6.2	7.3	7.2	7.3	7.6	7.3	7.4
16	---	---	---	6.5	6.0	6.3	7.2	7.2	7.2	7.8	7.4	7.5
17	8.0	7.8	7.9	6.2	5.8	6.0	7.3	7.1	7.2	8.1	7.9	8.0
18	7.9	7.7	7.8	6.0	5.5	5.8	7.3	7.2	7.2	8.1	8.2	8.3
19	---	---	---	5.7	5.3	5.5	7.4	7.3	7.3	8.6	8.3	8.5
20	---	---	---	5.4	5.2	5.3	7.5	7.3	7.4	8.7	8.5	8.5
21	---	---	---	5.4	5.1	5.3	7.6	7.4	7.5	8.7	8.4	8.5
22	---	---	---	6.2	5.2	5.7	7.7	7.5	7.6	8.8	8.6	8.7
23	7.9	6.6	7.3	7.1	5.8	6.6	7.7	7.5	7.6	8.9	8.5	8.7
24	7.6	6.8	7.1	7.1	6.5	6.8	7.8	7.5	7.6	9.1	8.6	8.8
25	7.9	7.4	7.6	7.0	6.5	6.7	7.8	7.5	7.6	9.3	8.7	8.9
26	8.0	7.6	7.8	6.7	6.4	6.6	7.8	7.5	7.6	9.3	8.7	8.9
27	8.1	7.7	7.9	6.9	6.5	6.8	7.9	7.4	7.6	9.2	8.6	8.9
28	8.1	7.7	7.9	6.9	6.3	6.7	7.9	7.4	7.6	9.3	8.5	8.8
29	8.0	7.6	7.8	6.8	6.1	6.6	7.7	7.4	7.5	9.3	8.6	8.9
30	8.1	7.6	7.8	7.0	6.8	6.9	7.8	7.3	7.5	9.4	8.6	8.9
31	---	---	---	7.2	6.4	7.0	7.7	7.2	7.4	---	---	---
MONTH	---	---	---	9.5	5.1	6.9	7.9	6.6	7.3	9.4	7.1	8.0

CUMBERLAND RIVER BASIN

03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN

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

DRAINAGE AREA.--202 mi² (523 km²), includes 6.0 mi² (16 km²) without surface drainage.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--39 years, 420 ft³/s (11.89 m³/s), 28.24 in/yr (717 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,800 ft³/s (1,270 m³/s) May 27, 1973, gage height, 30.46 ft (9.284 m) from rating curve extended above 32,000 ft³/s (906 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s (0.10 m³/s) Sept. 26-28, 1948; minimum gage height, 0.55 ft (0.168 m) Sept. 12-17, 1954.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,960 ft³/s (169 m³/s) at 0100 hours June 11, gage height 10.87 ft (3.313 m), no peak above base of 8,000 ft³/s (227 m³/s); minimum, 4.7 ft³/s (0.13 m³/s) Oct. 17, gage height 0.63 ft (0.192 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	13	37	41	126	190	911	195	205	34	35	90
2	8.4	13	31	37	1540	181	610	172	650	33	29	109
3	8.0	12	27	35	764	160	421	154	1150	33	25	78
4	8.0	11	25	32	374	176	352	136	615	38	22	74
5	7.6	11	22	27	248	1230	2440	125	378	36	20	59
6	7.3	11	20	21	208	1510	1450	117	2430	37	213	48
7	7.3	10	19	27	169	877	891	125	2250	37	300	40
8	7.3	10	18	28	165	562	625	126	1240	33	272	35
9	6.9	10	55	26	163	386	660	109	780	29	178	31
10	6.9	10	234	27	169	313	986	99	1210	25	98	28
11	6.5	11	185	23	700	260	997	152	3660	23	66	24
12	6.2	9.2	114	20	710	223	722	163	1580	22	48	22
13	6.2	9.2	86	19	434	198	526	136	921	20	39	20
14	6.2	9.6	66	18	334	178	408	121	557	19	33	23
15	5.9	11	54	19	269	160	320	119	352	20	29	722
16	5.9	13	47	23	234	165	266	109	248	33	28	1150
17	5.2	17	41	24	237	174	1060	98	198	69	28	453
18	6.2	25	37	22	240	160	1790	102	156	114	32	234
19	6.5	19	33	20	307	150	1370	1390	126	92	93	160
20	6.9	17	30	22	341	138	3050	1170	107	60	70	123
21	7.6	17	27	58	317	130	1960	660	99	46	107	96
22	7.3	16	23	99	272	205	1200	403	93	36	237	76
23	6.9	15	22	102	341	630	867	269	101	30	134	61
24	7.6	78	30	87	430	635	810	203	80	27	90	52
25	11	142	65	79	344	476	594	169	67	25	65	46
26	11	70	84	74	284	370	430	190	67	24	51	40
27	11	63	71	74	234	300	348	260	64	25	42	35
28	13	83	57	76	203	251	284	462	53	57	35	31
29	15	73	52	69	---	218	245	317	44	70	32	28
30	15	48	48	64	---	1880	231	229	38	64	48	26
31	14	---	45	58	---	1510	---	205	---	48	59	---
TOTAL	258.0	857.0	1705	1351	10157	13996	26824	8285	19519	1259	2558	4014
MEAN	8.32	28.6	55.0	43.6	363	451	894	267	651	40.6	82.5	134
MAX	15	142	234	102	1540	1880	3050	1390	3660	114	300	1150
MIN	5.2	9.2	18	18	126	130	231	98	38	19	20	20
CFSM	.04	.14	.27	.22	1.80	2.23	4.43	1.32	3.22	.20	.41	.66
IN.	.05	.16	.31	.25	1.87	2.58	4.94	1.53	3.59	.23	.47	.74
CAL YR 1980	TOTAL	111714.4	MEAN	305	MAX	12300	MIN	5.2	CFSM	1.51	IN	20.57
WTR YR 1981	TOTAL	90783.0	MEAN	249	MAX	3660	MIN	5.2	CFSM	1.23	IN	16.72

03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	
DATE	TIME									
OCT										
07...	1045	7.2	460	--	12.0	--	--	110	71	
NOV										
25...	1315	155	520	4.9	11.0	--	--	2	240	
JAN										
06...	1200	20	305	7.1	2.0	--	--	18	100	
FEB										
19...	1245	309	167	7.0	8.0	11.6	--	19	41	
MAR										
31...	1400	1370	110	7.1	12.0	10.4	--	20	30	
MAY										
07...	1215	128	193	7.3	14.0	8.9	--	21	56	
JUN										
07...	1730	1830	120	6.9	17.0	9.5	.1	28	27	
17...	1430	206	185	6.8	20.0	8.9	--	14	56	
AUG										
05...	0905	20	310	8.0	22.5	8.5	--	50	87	
17...	1530	29	295	8.3	24.0	10.6	--	52	83	
		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DATE										
OCT										
07...	--	--	--	--	110	0	20	20	2	.04
NOV										
25...	373	156	.51	1900	100	1300	1200	37	15	
JAN										
06...	189	10.2	.26	220	10	460	460	--	--	
FEB										
19...	104	86.8	.14	640	80	270	240	11	9.2	
MAR										
31...	67	248	.09	2000	80	200	200	32	118	
MAY										
07...	130	44.9	.18	700	20	310	310	--	--	
JUN										
07...	76	376	.10	1500	20	220	160	41	203	
17...	122	67.9	.17	1700	20	380	380	--	--	
AUG										
05...	221	12.2	.30	300	<10	260	240	--	--	
17...	196	15.3	.27	380	<10	200	190	--	--	

CUMBERLAND RIVER BASIN

03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN.

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

DRAINAGE AREA.--115 mi² (298 km²), includes 34 mi² (88 km²) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to September 1971, October 1979 to current year. Prior to December 1942 monthly discharges only, published in WSP 1306.

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

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

REMARKS.--Records fair.

AVERAGE DISCHARGE.--31 years (Water years 1942-71, 1980-81), 157 ft³/s (4.446 m³/s), 18.54 in/yr (471 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s (428 m³/s) Mar. 21, 1955; gage height, 17.30 ft (5.273 m) present datum; minimum 2.6 ft³/s (0.07 m³/s) Sept. 13-19, 1954.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) at 2330 hours June 10, gage height, 7.40 ft (2.256 m), no peak above base of 3,400 ft³/s (96.3 m³/s); minimum, 3.4 ft³/s (0.10 m³/s) Oct. 13, gage height 0.73 ft (0.222 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.7	11	8.0	78	50	260	62	49	18	12	20
2	4.2	5.5	10	7.5	681	47	186	52	356	17	9.5	30
3	4.2	5.5	9.5	7.0	171	42	146	47	354	17	9.2	27
4	4.1	5.5	8.6	6.2	86	58	131	43	153	24	8.9	21
5	4.2	5.2	8.3	6.0	54	470	784	40	110	25	8.3	17
6	4.1	5.2	7.2	6.6	41	376	385	37	1160	22	40	15
7	4.0	5.3	7.0	7.8	35	205	242	34	955	19	44	14
8	4.0	5.3	6.7	8.8	33	144	186	34	430	16	36	13
9	4.0	5.5	54	7.9	33	114	223	31	255	15	29	12
10	3.9	5.3	86	7.4	33	88	293	31	704	14	19	11
11	3.7	5.1	34	6.8	181	72	298	35	1330	12	15	10
12	3.6	5.0	21	5.7	158	60	219	34	501	12	12	9.4
13	3.4	5.1	15	5.7	101	55	173	30	260	11	11	8.9
14	3.7	5.2	12	6.2	73	48	139	28	181	10	10	10
15	3.7	6.8	10	5.5	58	43	110	28	139	24	9.2	270
16	3.8	6.3	8.9	5.4	51	44	93	26	104	50	9.8	510
17	4.0	11	8.3	5.3	50	44	486	23	77	62	10	149
18	4.3	13	7.5	5.9	53	41	701	27	56	116	22	78
19	4.3	12	7.0	5.6	131	39	474	400	49	48	41	55
20	4.6	9.6	6.0	5.5	125	36	928	289	44	31	30	44
21	4.7	7.4	5.6	22	104	34	619	169	41	22	88	35
22	4.7	6.3	5.6	41	85	75	379	119	46	19	86	28
23	4.8	6.3	5.4	26	164	319	266	87	39	17	43	24
24	6.2	33	9.8	21	142	192	209	65	33	14	32	21
25	7.5	40	25	17	105	146	164	53	28	13	22	19
26	6.4	20	22	15	81	120	134	48	29	12	16	17
27	6.0	18	15	14	64	100	111	54	27	13	13	15
28	6.7	31	13	16	54	84	94	91	24	13	11	14
29	6.3	21	11	16	---	71	81	63	21	21	9.9	14
30	6.2	14	10	15	---	881	72	51	19	18	11	13
31	5.8	---	9.2	14	---	948	---	45	---	13	13	---
TOTAL	145.5	330.1	469.6	347.8	3025	5046	8586	2176	7574	738	730.8	1524.3
MEAN	4.69	11.0	15.1	11.2	108	163	286	70.2	252	23.8	23.6	50.8
MAX	7.5	40	86	41	681	948	928	400	1330	116	88	510
MIN	3.4	5.0	5.4	5.3	33	34	72	23	19	10	8.3	8.9
CFSM	.04	.10	.13	.10	.94	1.42	2.49	.61	2.19	.21	.21	.44
IN.	.05	.11	.15	.11	.98	1.63	2.78	.70	2.45	.24	.24	.49
CAL YR 1980	TOTAL	48960.0	MEAN	134	MAX	4880	MIN	3.4	CFSM	1.17	IN	15.84
WTR YR 1981	TOTAL	30693.1	MEAN	84.1	MAX	1330	MIN	3.4	CFSM	.73	IN	9.93

NOTE.--No gage height record Aug. 25 to Sept. 29.

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 06...	1450	4.2	455	--	15.5	--	59	130	--
NOV 25...	1545	34	410	7.1	7.0	--	120	59	224
JAN 06...	1330	5.8	450	8.2	1.0	14.2	120	83	275
FEB 19...	1545	142	233	8.0	12.0	10.3	78	31	136
APR 01...	0900	280	190	8.0	13.0	10.8	72	24	119
MAY 07...	1445	33	295	8.1	16.0	9.0	82	45	160
JUN 06...	1730	1710	189	7.9	15.0	9.3	92	12	122
JUN 17...	1640	66	252	8.1	22.0	9.1	82	38	158
AUG 05...	1215	8.4	360	8.4	27.0	8.2	100	52	251
AUG 17...	1325	9.4	370	8.1	25.0	8.9	110	43	234

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 06...	--	--	150	30	80	70	2	.02	--
NOV 25...	.30	20.8	310	10	30	20	8	.74	--
JAN 06...	.37	4.3	60	10	50	50	--	--	--
FEB 19...	.18	52.1	410	10	100	70	17	6.5	--
APR 01...	.16	90.0	1200	0	140	60	53	40	--
MAY 07...	.22	14.3	140	0	50	50	--	--	--
JUN 06...	.17	563	3200	30	260	20	148	683	80
JUN 17...	.21	28.2	130	10	70	70	--	--	--
AUG 05...	.34	5.6	220	100	40	20	--	--	--
AUG 17...	.32	5.9	200	20	--	40	--	--	--

CUMBERLAND RIVER BASIN

03416000 WOLF RIVER NEAR BYRDSTOWN, TN

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

DRAINAGE AREA.--106 mi² (275 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those below 100 ft³/s (2.83 m³/s), which are fair.

AVERAGE DISCHARGE.--39 years, 190 ft³/s (5.381 m³/s), 24.34 in/yr (618 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,600 ft³/s (640 m³/s) Jan. 29, 1957, gage height, 10.84 ft (3.304 m); from rating curve extended above 7,300 ft³/s (207 m³/s) on basis of velocity-area study; minimum, 2.0 ft³/s (0.057 m³/s) Sept. 17, 1954, gage height, 0.50 ft (0.152 m), result of construction at mill dam upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage about equal to that of Jan. 29, 1957, from information by local resident. Flood of June 30, 1928, reached a stage 1.5 ft (0.46 m) higher than that in March 1929 at a point 12.5 mi (20.1 km) upstream, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft³/s (102 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 6	1745	*7750 219	7.71 2.350	June 10	2245	3810 108	6.03 1.838

Minimum discharge, 7.2 ft³/s (0.20 m³/s) Oct. 17, 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	12	23	15	109	75	270	72	144	18	20	17
2	9.2	12	20	15	739	71	198	64	1360	17	18	22
3	9.5	12	19	14	226	63	163	56	718	18	16	28
4	9.2	11	17	14	127	82	144	52	374	19	15	25
5	9.2	11	16	13	85	383	513	49	244	18	14	22
6	9.2	10	15	12	65	417	346	49	3590	19	39	19
7	8.9	10	15	13	54	257	247	46	1810	20	50	17
8	8.9	9.8	14	12	53	182	195	41	660	19	42	15
9	8.6	9.6	16	12	52	142	244	37	374	18	35	13
10	8.3	9.7	38	12	50	115	291	37	977	17	29	12
11	8.3	10	28	11	153	99	251	44	1420	15	27	11
12	7.8	10	24	11	153	85	214	47	524	14	23	11
13	7.5	11	22	11	111	77	177	39	316	13	20	10
14	7.5	13	20	11	92	69	148	35	220	12	18	15
15	7.5	17	19	10	75	61	123	34	163	11	16	162
16	7.5	23	18	9.4	68	63	107	34	125	15	15	186
17	7.5	38	17	9.0	82	63	146	32	102	29	14	79
18	7.2	49	16	9.8	107	59	254	38	83	49	15	47
19	7.5	36	15	9.5	167	55	409	856	68	39	20	39
20	7.5	27	14	9.2	190	50	1400	519	62	34	19	33
21	8.0	24	13	37	170	47	725	274	57	40	26	29
22	8.6	22	12	64	135	90	417	185	51	37	36	26
23	8.9	20	12	41	165	396	302	135	45	22	45	23
24	9.2	55	13	33	155	267	232	104	40	19	36	21
25	16	63	15	27	125	198	180	83	36	15	27	19
26	13	32	18	23	104	155	146	75	34	13	22	18
27	13	37	18	22	87	129	123	78	32	14	20	16
28	12	47	18	22	77	106	104	88	28	17	18	15
29	14	30	17	20	---	95	95	83	24	27	16	14
30	13	24	16	21	---	612	83	106	20	24	15	13
31	12	---	16	19	---	417	---	151	---	22	16	---
TOTAL	293.7	695.1	554	561.9	3776	4980	8247	3543	13701	664	742	977
MEAN	9.47	23.2	17.9	18.1	135	161	275	114	457	21.4	23.9	32.6
MAX	16	63	38	64	739	612	1400	856	3590	49	50	186
MIN	7.2	9.6	12	9.0	50	47	83	32	20	11	14	10
CFSM	.09	.22	.17	.17	1.27	1.52	2.59	1.08	4.31	.20	.23	.31
IN.	.10	.24	.19	.20	1.33	1.75	2.89	1.24	4.81	.23	.26	.34
CAL YR 1980	TOTAL	53676.8	MEAN	147	MAX	4310	MIN	7.2	CFSM	1.39	IN	18.84
WTR YR 1981	TOTAL	38734.7	MEAN	106	MAX	3590	MIN	7.2	CFSM	1.00	IN	13.59

03416000 WOLF RIVER NEAR BYRDSTOWN, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 07...	1345	9.3	375	--	14.5	--	--	50	--
NOV 25...	0945	58	250	8.2	12.5	--	94	35	165
JAN 06...	0930	12	325	8.6	1.0	14.1	100	49	200
FEB 19...	0930	176	250	8.0	10.0	10.9	82	34	150
MAR 31...	1000	412	148	7.7	11.0	10.9	60	14	84
MAY 07...	0900	46	269	7.9	15.0	9.5	97	30	166
JUN 07...	1000	1690	150	8.1	14.5	9.4	62	11	89
17...	1015	102	242	8.3	19.5	9.2	91	20	139
AUG 04...	0955	15	290	8.2	26.0	8.1	110	37	202
18...	0830	14	350	7.8	23.0	7.3	110	40	221

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDEd (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEd (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 07...	--	--	160	0	20	10	6	.15	--
NOV 25...	.22	25.8	460	40	40	5	15	2.3	--
JAN 06...	.27	6.7	260	0	10	10	--	--	--
FEB 19...	.20	71.3	550	20	50	20	17	8.1	--
MAR 31...	.11	93.4	850	40	40	20	19	21	--
MAY 07...	.23	20.7	160	20	10	10	--	--	--
JUN 07...	.12	406	780	40	100	20	66	301	42
17...	.19	38.3	150	40	20	10	--	--	--
AUG 04...	.27	8.1	210	30	20	10	--	--	--
18...	.30	8.3	350	20	40	10	--	--	--

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN

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

DRAINAGE AREA.--7,307 mi² (18,925 km²).

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

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

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

REMARKS.--Records fair. Flow regulated by Lake Cumberland and Dale Hollow Lake (see page 158). Records of periodic water temperature and specific conductance are published in this report as miscellaneous Water Quality data.

AVERAGE DISCHARGE.--58 years (water years 1922-1980), 11,800 ft³/s (334.2 m³/s), 21.93 in/yr (557 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft³/s (4,110 m³/s) Dec. 29, 1926, maximum gage height, 57.25 ft (17.450 m), Dec. 29, 1926, from graph based on gage readings; minimum daily, 69 ft³/s (1.95 m³/s) Sept. 2, 11-14, 1925; minimum gage height observed, 0.20 ft (0.061 m) Sept. 2, 11-14, 1925.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5490							4300	17000	12300	6910	13400
2	3260							3800	24700	10800	7180	10100
3	4570							2700	21900	6540	6270	9470
4	6260							1200	21100	4160	12900	11200
5	2880							2250	21200	2130	15100	10500
6	2450							3050	24400	3710	16600	6890
7	6070							2400	29500	10500	15400	4950
8	6810							2050	24400	15700	12500	7520
9	6780							1950	28500	16200	6780	10200
10	6580							1200	30900	16400	6970	9970
11	7390							800	30000	13800	11700	12100
12	6580							2500	33000	9400	14900	10500
13	5410							3550	31700	9300	16600	6470
14	4230							3250	29100	16600	17300	7270
15	5300							3950	24100	17300	17300	11100
16	5600							3650	22700	16900	12100	12200
17	5200							2050	21300	17200	9360	11800
18	3100							2200	22100	15800	14800	10600
19	2250							6500	21400	10800	12900	10800
20	2350							11000	20600	7410	9300	9180
21	3400							12600	17300	13400	9500	8030
22	3100							8880	14500	13100	8400	11500
23	3000							6510	20600	8550	6740	14100
24	3500							5270	21900	2180	7350	14100
25	3100							2600	22100	4450	12700	13900
26	3600							12400	21700	2490	11900	13000
27	3000							15500	20300	5250	10400	8200
28	1700							18000	9690	12400	9700	7460
29	900							20100	3510	13300	11600	10200
30	650							20600	9570	8660	10200	10900
31	670							17400	---	6480	8590	---
TOTAL	125180							204210	660770	323210	349950	307610
MEAN	4038							6587	22030	10430	11290	10250
MAX	7390							20600	33000	17300	17300	14100
MIN	650							800	3510	2130	6270	4950

Note.--No gage-height record Nov. 1 to May 15, June 11-12.

CUMBERLAND RIVER BASIN

91

03418070 ROARING RIVER ABOVE GAINESBORO, TN

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

DRAINAGE AREA.--210 mi² (544 km²), includes 34 mi (88 km) without surface drainage.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 520.31 ft (158.590 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those below 5.0 ft³/s (0.14 m³/s), which are poor.

AVERAGE DISCHARGE.--7 years, 283 ft³/s (8.015 m³/s), 18.30 in/yr (465 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s (634 m³/s) Mar. 12, 1975, gage height, 21.83 ft (6.654 m) from high-water marks; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,340 ft³/s (265 m³/s) at 1230 hours June 6, gage height, 14.57 ft (4.441 m), no other peak above base of 5,000 ft³/s (142 m³/s); no flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	19	7.6	220	35	74	1.6	16	43
2	.00	.00	.00	.00	729	5.2	137	29	568	1.0	1.1	26
3	.00	.00	.00	.00	239	2.5	84	24	394	1.0	.45	89
4	.00	.00	.00	.00	83	11	69	19	217	.80	.16	131
5	.00	.00	.00	.00	35	166	504	14	135	.64	.15	53
6	.00	.00	.00	.00	20	286	345	9.0	5680	1.1	.16	27
7	.00	.00	.00	.00	8.6	160	193	7.0	2380	1.1	.40	11
8	.00	.00	.00	.00	7.6	92	136	3.8	850	.64	.20	2.7
9	.00	.00	1.4	.00	4.3	55	165	2.0	455	.20	.16	1.0
10	.00	.00	7.6	.00	3.2	40	564	2.1	428	.07	.16	.40
11	.00	.00	4.4	.00	34	30	653	12	1170	.05	.16	.16
12	.00	.00	.00	.00	97	23	287	3.5	581	.03	.16	.13
13	.00	.00	.00	.00	41	19	180	1.5	343	.00	.13	.13
14	.00	.00	.00	.00	26	16	125	.96	243	.00	.12	.57
15	.00	.00	.00	.00	19	10	85	.96	161	.00	.11	813
16	.00	.00	.00	.00	14	14	64	.89	115	39	.10	645
17	.00	.82	.00	.00	16	10	297	.67	92	1.9	.09	213
18	.00	7.3	.00	.00	21	6.4	589	24	61	1.0	1.8	114
19	.00	.39	.00	.00	109	4.4	443	560	45	.90	2.5	79
20	.00	.00	.00	.00	162	2.1	806	396	38	.72	.57	57
21	.00	.00	.00	1.5	119	1.1	647	160	32	1.9	181	.41
22	.00	.00	.00	3.9	68	10	411	77	71	.32	188	29
23	.00	.00	.00	1.3	57	137	277	43	206	.16	46	19
24	.00	.00	.00	.00	71	123	207	26	59	3.7	17	11
25	.00	.53	.00	.00	37	62	148	15	33	4.9	3.4	5.6
26	.00	.00	.00	.00	22	42	107	7.9	27	.51	.80	2.3
27	.00	.74	.00	.00	12	31	78	176	18	.16	.45	1.3
28	.00	1.9	.00	.00	6.8	24	61	203	7.0	15	.20	1.1
29	.00	.00	.00	.00	---	18	54	82	2.5	93	.16	.72
30	.00	.00	.00	.00	---	655	46	42	1.6	14	.45	.51
31	.00	---	.00	.00	---	541	---	31	---	2.1	.16	---
TOTAL	.00	11.68	13.40	6.70	2080.5	2604.3	7982	2008.28	14487.1	187.50	462.30	2417.62
MEAN	.000	.39	.43	.22	74.3	84.0	266	64.8	483	6.05	14.9	80.6
MAX	.00	7.3	7.6	3.9	729	655	806	560	5680	.93	188	813
MIN	.00	.00	.00	.00	3.2	1.1	46	.67	1.6	.00	.09	.13
CFSM	.000	.002	.002	.001	.35	.40	1.27	.31	2.30	.03	.07	.38
IN.	.00	.00	.00	.00	.37	.46	1.41	.36	2.57	.03	.08	.43
CAL YR 1980	TOTAL	85616.08	MEAN	234	MAX	9790	MIN	.00	CFSM	1.11	IN	15.17
WTR YR 1981	TOTAL	32261.38	MEAN	88.4	MAX	5680	MIN	.00	CFSM	.42	IN	5.71

CUMBERLAND RIVER BASIN

03418070 ROARING RIVER ABOVE GAINESBORO, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB							
18...	1400	19	250	9.0	3	.15	--
MAR							
30...	1345	848	210	15.0	112	256	--
MAY							
06...	1140	9.0	250	16.5	1	.02	--
27...	1715	428	210	17.0	193	223	--
JUN							
06...	1700	8040	140	18.0	558	12100	88
16...	1610	115	230	24.0	23	7.1	--
18...	0845	66	260	18.0	7	1.2	--
AUG							
03...	1330	.40	225	27.0	18	.02	--
SEP							
01...	1445	105	295	26.5	46	13	--

CUMBERLAND RIVER BASIN

93

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN

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

DRAINAGE AREA.--8,095 mi² (20, 966 km²).

WATER-DISCHARGE RECORDS

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

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

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

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 116,000 ft³/s (3,280 m³/s) Mar. 13, 1975; no flow Nov. 2, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 43,300 ft³/s (1,230 m³/s) June 11; no flow Nov. 2.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5960	1640	1380	2350	6720	1330	5600	3670	17900	10100	7000	11200
2	6030	0	2020	2340	16400	1660	6620	3520	25000	9920	6620	12200
3	4440	1630	1980	2360	14600	2340	7680	2500	29400	9860	5230	9470
4	4060	1760	2780	1680	3400	4050	3010	1880	20100	6230	8920	11400
5	2810	2710	2010	2000	3990	5170	3010	3660	20900	1870	13600	12100
6	5000	1640	1670	4130	1790	8310	6920	2810	24100	7520	13000	7670
7	5060	2600	1680	2080	1780	7620	5020	2500	41200	9350	17000	2180
8	6300	3250	1670	2800	1710	1780	4380	1550	28100	12500	11500	4470
9	6790	1650	1320	2820	2730	3510	3880	2490	28000	13500	5590	8830
10	6960	1640	2010	2680	2680	2790	4020	1250	31500	13700	6500	8310
11	5070	1640	2230	1680	3160	3530	4280	2180	43300	12600	12000	12800
12	4150	1980	2840	1680	4610	2140	5980	3160	38600	8980	12700	11500
13	5920	1650	2000	2670	8950	2150	4150	3740	33600	12300	13300	4940
14	4780	1660	2010	2330	6020	1670	2420	3450	30300	12800	15200	4870
15	4800	1650	2720	2330	2750	1650	9850	6660	28400	14600	15300	12100
16	4810	1650	1350	2360	2780	1650	344	1240	21100	18700	9420	17100
17	5000	1000	4190	2360	2770	2230	1020	4990	20300	15200	8570	10300
18	3820	983	3370	2350	1340	4040	996	4000	19700	16100	14400	9880
19	2460	3640	2370	2360	6690	6150	979	25700	20800	9780	14100	9870
20	3900	2320	2690	2330	6980	4390	11500	26900	18900	11800	10500	7740
21	4630	3860	2790	2350	4940	5520	12000	19400	15900	12200	7650	6740
22	2570	1000	2820	3360	2000	5160	8600	9430	12900	12800	7050	11200
23	4080	996	3800	3390	4290	2040	6420	6220	19400	10400	5160	11100
24	4420	1650	2350	2350	3570	3870	6370	3120	19600	4530	5380	12100
25	3240	1670	2450	2340	3540	4320	2910	8120	20200	5640	12000	12800
26	3440	1350	2480	2720	1760	4350	2890	11800	19600	3170	13200	12700
27	4820	667	2010	2000	1740	4200	2870	12000	19700	7820	10900	7810
28	2580	1670	2010	3020	1350	2850	3200	17500	11600	12600	7290	5690
29	2570	2970	1340	2690	---	2900	4200	20000	8750	13200	8910	8900
30	2600	1330	1330	3350	---	3630	3790	18100	10500	12100	7250	9880
31	2610	---	2680	2010	---	7260	---	15300	---	4460	7820	---
TOTAL	135680	53856	70350	77270	125040	114260	144909	248840	699350	326330	313060	287850
MEAN	4377	1795	2269	2493	4466	3686	4830	8027	23310	10530	10100	9595
MAX	6960	3860	4190	4130	16400	8310	12000	26900	43300	18700	17000	17100
MIN	2460	0	1320	1680	1340	1330	344	1240	8750	1870	5160	2180

WTR YR 1981 TOTAL 2593795 MEAN 7106 MAX 43300 MIN 0

CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1981.

WATER TEMPERATURE: October 1980 to September 1981.

DISSOLVED OXYGEN: October 1980 to September 1981.

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

REMARKS.--Flow regulated by Cordell Hull Dam and other reservoirs above station. Period of missing record May 13-22 for all parameters due to recorder malfunction; no dissolved oxygen record Dec. 2-3 due to recorder malfunction; no specific conductance record Dec. 13-19, 20-29, Jan. 1-5, 6-13, 16-20, Feb. 1-5, 7-9, 11-14, 27, Mar. 3, 5, 10-11, April 22, 25, May 2-4, 11, Sept. 17-21, 23, 24, 29, 30, due to probe cable connector problems.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.0°C Aug. 7; minimum, 2.0°C Jan. 12, 15-21.

DISSOLVED OXYGEN: Maximum, 13.3 mg/L Jan. 13, 19-21; minimum, 5.0 mg/L May 11.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	176	173	174	175	168	171	---	---	---
2	---	---	---	177	173	175	172	168	170	---	---	---
3	---	---	---	176	173	175	171	166	168	---	---	---
4	---	---	---	177	173	175	170	166	168	---	---	---
5	---	---	---	174	172	173	174	167	170	---	---	---
6	---	---	---	173	171	172	172	166	169	192	180	186
7	---	---	---	175	171	172	173	168	170	---	---	---
8	---	---	---	178	171	175	174	167	169	---	---	---
9	---	---	---	179	172	174	173	168	170	---	---	---
10	---	---	---	177	170	173	174	167	169	---	---	---
11	---	---	---	173	169	170	171	166	169	---	---	---
12	---	---	---	172	169	170	173	166	169	---	---	---
13	---	---	---	174	169	171	---	---	---	---	---	---
14	---	---	---	179	170	172	---	---	---	185	160	180
15	---	---	---	181	170	176	---	---	---	181	172	180
16	---	---	---	175	169	171	---	---	---	---	---	---
17	---	---	---	170	168	169	---	---	---	---	---	---
18	---	---	---	172	168	169	---	---	---	---	---	---
19	---	---	---	169	167	168	---	---	---	---	---	---
20	---	---	---	169	167	167	170	168	169	---	---	---
21	---	---	---	175	167	168	---	---	---	177	174	175
22	---	---	---	175	166	170	---	---	---	178	175	177
23	---	---	---	176	167	171	---	---	---	178	177	177
24	181	179	180	177	168	172	---	---	---	178	177	178
25	180	178	179	171	167	169	---	---	---	179	173	176
26	178	176	178	177	166	173	---	---	---	179	176	178
27	178	176	177	176	170	173	---	---	---	179	178	178
28	181	177	179	175	170	173	---	---	---	180	178	179
29	178	175	177	172	170	171	---	---	---	180	175	178
30	175	174	175	176	168	170	185	183	184	179	171	177
31	176	174	175	---	---	---	184	181	182	---	---	---
MONTH	---	---	---	181	166	172	---	---	---	---	---	---

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	194	192	193	204	200	202	211	194	204
2	---	---	---	195	193	194	204	197	199	---	---	---
3	---	---	---	---	---	---	198	190	197	---	---	---
4	---	---	---	196	195	196	200	198	199	---	---	---
5	---	---	---	---	---	---	199	197	198	206	186	199
6	175	173	174	196	195	196	200	197	198	207	184	202
7	---	---	---	196	195	196	199	196	197	200	181	193
8	---	---	---	196	190	195	201	196	198	203	188	199
9	---	---	---	197	195	196	203	200	201	204	201	204
10	178	176	177	---	---	---	204	197	202	207	180	201
11	---	---	---	---	---	---	204	201	203	---	---	---
12	---	---	---	206	202	204	204	196	202	211	202	209
13	---	---	---	207	204	206	205	203	204	---	---	---
14	---	---	---	207	206	207	204	187	202	---	---	---
15	183	181	182	208	198	202	204	200	203	---	---	---
16	184	182	183	208	198	201	209	204	206	---	---	---
17	185	183	184	206	202	204	211	207	209	---	---	---
18	185	184	185	206	195	204	211	207	209	---	---	---
19	186	184	185	205	204	204	214	196	208	---	---	---
20	187	184	186	208	205	206	212	208	208	---	---	---
21	186	184	185	208	206	207	208	207	207	---	---	---
22	187	185	186	210	205	206	---	---	---	---	---	---
23	188	186	187	209	205	206	211	209	210	203	198	200
24	189	186	187	207	205	206	214	198	210	202	190	199
25	191	188	189	209	204	206	---	---	---	198	190	193
26	192	190	191	209	203	206	218	213	215	193	185	189
27	---	---	---	208	203	205	220	211	216	189	182	184
28	194	191	192	207	202	204	219	217	218	186	178	181
29	---	---	---	208	201	204	222	208	217	182	177	180
30	---	---	---	204	201	202	219	207	210	187	182	185
31	---	---	---	204	199	201	---	---	---	192	187	190
MONTH	---	---	---	210	190	202	222	187	205	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	192	189	191	192	181	184	186	181	183	182	174	179
2	192	189	190	191	181	184	184	182	183	186	168	182
3	192	190	191	184	181	182	185	182	183	186	184	185
4	194	175	185	189	182	184	187	183	184	187	160	182
5	194	190	192	192	184	187	186	182	184	185	181	183
6	201	185	192	197	182	187	186	182	183	182	178	181
7	189	185	187	197	183	187	184	181	183	183	175	181
8	192	189	191	187	183	185	186	183	184	183	181	182
9	194	191	193	186	184	185	186	183	185	183	180	181
10	194	185	191	187	183	185	187	183	185	183	181	182
11	183	170	179	194	184	187	187	183	184	182	170	177
12	187	175	184	188	185	186	186	182	183	182	181	181
13	191	184	189	194	185	188	185	181	183	185	182	183
14	194	190	192	195	184	188	184	181	182	187	181	185
15	194	187	193	193	184	186	184	181	182	188	171	183
16	196	189	192	188	183	184	185	181	182	186	176	182
17	192	188	190	192	182	184	185	181	183	186	182	184
18	191	174	185	191	181	184	185	180	182	---	---	---
19	189	175	181	193	182	185	184	179	181	---	---	---
20	190	187	189	193	181	184	185	178	181	---	---	---
21	194	187	190	192	179	184	183	178	180	---	---	---
22	192	185	188	191	179	182	184	174	180	182	177	180
23	191	184	186	188	178	181	183	168	179	---	---	---
24	188	184	185	183	178	181	182	175	179	---	---	---
25	187	177	184	183	180	182	182	171	178	183	181	182
26	187	184	185	184	181	183	181	164	177	184	179	181
27	186	185	185	185	179	182	181	175	177	185	167	183
28	189	176	184	185	180	182	180	175	177	185	182	183
29	190	183	185	183	181	182	181	176	178	---	---	---
30	189	180	184	183	181	182	181	176	178	---	---	---
31	---	---	---	184	181	183	182	177	179	---	---	---
MONTH	201	170	188	197	178	184	187	164	181	---	---	---

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.5	17.0	17.0	18.5	17.5	18.0	22.0	20.5	21.0	22.0	20.0	21.0
2	17.0	16.0	16.5	19.5	17.5	18.5	21.5	20.5	21.0	22.0	20.0	21.0
3	16.0	15.5	16.0	19.5	17.5	18.5	21.5	20.5	21.0	21.5	20.5	21.0
4	16.0	15.5	15.5	19.0	17.5	18.5	22.0	20.0	21.0	21.0	20.5	21.0
5	16.0	15.5	16.0	19.5	18.0	18.5	22.5	20.0	21.5	21.5	20.5	21.0
6	16.0	15.5	16.0	19.0	17.5	18.5	22.5	20.0	21.5	21.0	20.5	21.0
7	16.0	15.5	15.5	20.0	18.0	19.0	23.0	20.0	21.5	21.0	20.5	20.5
8	16.0	15.5	15.5	21.0	18.5	19.5	22.0	20.5	21.5	20.5	20.0	20.0
9	17.0	16.0	16.5	21.0	19.0	20.0	21.5	20.5	21.0	21.5	19.5	20.0
10	18.0	17.0	18.0	21.5	19.0	20.5	22.0	20.5	20.5	21.0	20.5	20.5
11	18.0	16.0	17.0	21.5	19.5	20.5	22.0	20.0	21.0	21.5	20.0	20.5
12	16.0	15.0	15.5	20.5	19.5	20.0	22.0	19.5	21.0	21.5	20.0	21.0
13	17.0	15.5	16.5	21.0	19.5	20.0	22.0	19.5	21.0	21.0	20.5	20.5
14	17.0	16.5	17.0	21.0	19.0	20.0	22.0	20.0	21.0	21.0	20.0	20.5
15	17.0	16.5	16.5	21.5	19.0	20.5	22.0	20.0	21.0	21.0	20.0	20.5
16	17.0	16.5	17.0	21.5	19.0	20.5	21.5	20.5	20.5	21.0	20.5	21.0
17	17.5	16.5	17.0	21.0	19.5	20.5	21.0	20.0	20.5	20.5	20.0	20.5
18	17.5	17.0	17.0	20.5	19.5	20.0	21.0	19.5	20.5	20.0	19.5	19.5
19	17.0	17.0	17.0	20.5	19.0	19.5	20.5	19.5	20.0	19.5	19.0	19.0
20	17.5	17.0	17.0	20.5	18.5	19.5	20.0	19.0	19.5	19.0	18.5	19.0
21	17.5	17.0	17.0	20.0	18.5	19.5	19.5	19.0	19.5	19.0	18.5	19.0
22	17.5	16.5	17.0	20.5	18.5	19.5	19.5	19.0	19.0	19.0	18.5	19.0
23	18.0	16.5	17.5	20.5	18.5	19.5	19.5	19.0	19.0	19.0	18.5	18.5
24	18.0	17.0	17.5	19.5	18.5	19.0	20.0	19.0	19.0	18.5	18.0	18.5
25	18.0	17.5	17.5	19.5	19.0	19.0	20.5	18.5	19.5	18.5	18.0	18.0
26	18.0	17.5	18.0	19.5	19.0	19.0	21.5	18.5	20.0	18.5	18.0	18.0
27	18.0	18.0	18.0	21.0	19.0	19.5	21.0	19.0	20.0	18.0	17.5	18.0
28	19.0	17.5	18.0	22.0	19.0	20.5	21.0	19.0	20.0	18.0	17.5	17.5
29	19.0	17.5	18.0	21.5	19.5	21.0	21.0	19.0	20.0	18.0	17.0	17.5
30	18.5	17.0	18.0	21.5	19.5	21.0	21.0	19.5	20.5	18.0	17.5	17.5
31	---	---	---	21.0	20.0	20.5	21.5	19.5	20.5	---	---	---
MONTH	19.0	15.0	17.0	22.0	17.5	19.5	23.0	18.5	20.5	22.0	17.0	19.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	11.1	10.5	10.8	9.9	9.4	9.6	10.5	9.6	10.1	7.6	6.3	7.1
2	11.1	10.8	10.9	10.2	9.8	10.0	11.1	9.7	10.7	8.2	7.0	7.5
3	11.0	10.8	10.9	10.5	10.2	10.4	11.4	10.8	11.0	7.6	6.3	7.2
4	10.9	10.6	10.8	10.8	10.4	10.6	10.7	9.9	10.3	7.2	5.5	6.8
5	10.8	10.5	10.6	11.0	10.8	10.9	10.6	9.6	10.2	8.0	6.5	7.3
6	10.9	10.4	10.6	11.4	11.0	11.1	10.7	9.7	10.2	6.6	5.6	6.2
7	11.2	10.4	10.6	11.3	11.1	11.2	11.0	10.2	10.5	6.5	5.8	6.2
8	10.7	10.4	10.6	11.3	11.1	11.2	11.0	10.2	10.6	6.9	5.6	6.3
9	10.9	10.3	10.6	11.3	11.0	11.2	11.1	9.4	10.0	6.4	5.2	5.9
10	10.5	10.1	10.4	11.1	10.8	11.0	9.9	9.2	9.6	6.7	5.4	6.2
11	11.0	9.9	10.2	11.0	10.8	10.9	10.2	8.9	9.5	6.2	5.0	5.6
12	11.3	10.2	10.4	11.1	10.9	11.0	10.4	9.5	10.0	6.2	5.3	5.8
13	11.2	10.2	10.5	11.2	10.9	11.0	10.3	9.3	10.0	---	---	---
14	11.0	10.1	10.3	11.1	10.9	11.0	10.0	9.4	9.7	---	---	---
15	10.5	9.9	10.1	11.2	11.0	11.1	10.0	9.5	9.8	---	---	---
16	10.2	9.6	9.9	11.3	10.7	11.1	9.8	7.8	9.0	---	---	---
17	10.2	9.5	9.7	11.0	10.1	10.7	8.6	8.1	8.3	---	---	---
18	9.6	9.3	9.4	10.9	10.0	10.3	8.5	7.4	8.1	---	---	---
19	10.1	9.2	9.5	10.7	10.3	10.5	8.4	7.2	7.7	---	---	---
20	9.3	8.9	9.1	11.0	9.7	10.3	8.7	6.9	7.8	---	---	---
21	9.4	8.9	9.0	10.3	9.9	10.2	9.2	7.7	8.7	---	---	---
22	9.0	8.6	8.8	10.5	9.8	10.1	9.1	8.8	8.9	---	---	---
23	9.3	8.6	8.8	10.3	9.8	10.1	9.0	7.9	8.4	8.4	6.5	7.6
24	9.1	8.7	8.9	10.8	9.8	10.2	8.7	7.9	8.3	7.3	6.4	6.9
25	9.2	8.9	9.1	11.1	9.8	10.2	9.0	8.0	8.6	7.9	6.6	7.2
26	9.3	9.1	9.2	11.1	9.6	10.3	9.4	8.4	9.0	8.7	7.1	8.0
27	9.8	9.3	9.5	11.5	9.9	10.6	8.9	7.8	8.5	8.8	7.6	8.2
28	10.0	9.4	9.6	11.4	10.1	10.5	8.1	6.9	7.7	8.6	7.4	8.1
29	---	---	---	11.3	10.3	10.6	8.5	7.2	7.7	9.1	7.9	8.6
30	---	---	---	11.4	10.0	10.7	8.3	6.4	7.2	10.0	7.6	8.4
31	---	---	---	11.3	10.1	10.5	---	---	---	10.4	7.2	8.8
MONTH	11.3	8.6	10.0	11.5	9.4	10.6	11.4	6.4	9.2	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.2	6.6	8.8	10.0	9.2	9.6	8.2	6.3	7.2	8.3	6.9	7.6
2	10.4	7.9	9.8	10.1	8.8	9.6	7.9	7.1	7.4	---	---	---
3	9.9	8.0	8.8	10.0	9.1	9.6	7.8	6.7	7.2	---	---	---
4	10.3	7.4	9.2	10.0	8.6	9.1	8.0	6.3	7.0	6.8	6.1	6.5
5	10.1	7.6	9.1	8.6	7.6	8.2	8.4	6.3	7.5	6.9	6.2	6.6
6	11.8	7.4	9.1	9.2	7.9	8.4	8.6	6.8	7.8	6.9	6.4	6.7
7	12.3	11.3	12.0	9.3	7.5	8.3	8.9	7.3	8.2	6.8	5.6	6.3
8	11.0	9.9	10.4	9.6	7.5	8.6	8.6	7.3	7.9	6.4	5.5	5.8
9	9.8	8.5	9.0	9.4	7.8	8.8	7.8	6.6	7.2	6.9	5.5	6.1
10	9.6	7.8	8.3	9.8	8.1	9.0	8.5	6.2	7.1	7.0	6.3	6.6
11	11.8	10.8	11.4	9.8	8.2	9.1	8.7	7.0	7.8	7.3	6.6	6.9
12	11.9	10.3	11.3	9.0	7.8	8.4	8.5	7.2	8.0	7.2	6.5	6.9
13	10.2	8.3	9.3	9.7	6.9	8.3	8.9	7.2	8.1	6.9	6.2	6.6
14	8.2	6.5	7.1	9.9	7.5	8.8	8.8	7.7	8.3	6.6	5.4	6.0
15	8.0	5.6	6.8	9.7	7.9	9.1	8.7	7.5	8.1	6.9	5.6	6.5
16	8.7	6.6	8.0	9.9	8.4	9.3	8.0	7.1	7.5	6.8	5.9	6.3
17	9.3	7.6	8.3	9.8	8.0	9.0	7.6	6.4	7.0	7.1	5.7	6.6
18	10.9	8.3	9.7	9.4	7.7	8.7	8.0	6.5	7.5	7.6	6.6	7.2
19	10.9	8.4	9.8	9.7	7.2	8.6	8.4	7.0	7.8	7.6	6.9	7.3
20	10.0	7.9	8.6	10.1	7.6	9.1	8.4	7.3	7.8	7.2	6.7	7.0
21	10.1	7.0	8.4	9.9	8.3	9.0	7.9	6.8	7.4	7.0	6.5	6.8
22	9.9	7.1	8.8	9.8	8.2	9.0	7.7	6.6	7.2	7.2	6.3	6.9
23	10.1	7.7	9.2	10.5	8.2	9.4	7.8	6.9	7.2	7.1	6.4	6.9
24	9.6	8.3	9.1	9.8	8.8	9.3	8.2	6.5	7.2	7.8	6.6	7.4
25	9.3	7.8	8.6	9.2	7.9	8.5	8.6	6.9	7.8	7.9	7.4	7.6
26	8.6	7.2	7.9	8.6	7.6	7.9	8.8	7.5	8.2	7.7	7.1	7.4
27	8.4	6.9	7.7	9.4	7.2	8.2	8.7	7.8	8.3	7.9	7.0	7.4
28	8.7	6.3	7.6	8.9	7.5	8.3	8.5	7.5	8.0	8.3	7.2	7.8
29	9.2	7.6	8.4	8.3	7.2	7.9	8.7	7.5	8.0	8.9	7.9	8.4
30	10.4	8.0	9.3	8.2	7.4	7.8	8.2	7.6	7.9	8.8	8.3	8.6
31	---	---	---	7.8	7.0	7.4	8.2	6.9	7.5	---	---	---
MONTH	12.3	5.6	9.0	10.5	6.9	8.7	8.9	6.2	7.7	8.9	5.4	7.0

CUMBERLAND RIVER BASIN

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03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

LOCATION.--Lat 35°42'32", long 85°43'46", Warren County, Hydrologic Unit 05130107, on left bank at downstream side of bridge on U. S. Highway 70S, 1.8 mi (2.9 km) downstream from Barren Fork River, 2.5 mi (4.0 km) north-east of McMinnville, and at mile 19.5 (31.4 km).

DRAINAGE AREA.--640 mi² (1,658 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.-- 57 years, 1,165 ft³/s (32.99 m³/s), 24.72 in/yr (628 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,300 ft³/s (2,130 m³/s) Mar. 23, 1929, gage height, 39.1 ft (11.92 m) from rating curve extended above 42,000 ft³/s (1,190 m³/s) on basis of slope-area measurement of peak flow; minimum, 35 ft³/s (0.991 m³/s) Sept. 21, 1930.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,890 ft³/s (138 m³/s) at 0330 Mar. 31, gage height 8.66 ft (2.640 m), no peak above base of 11,000 ft³/s (312 m³/s); minimum, 79 ft³/s (2.24 m³/s) Oct. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	94	296	181	412	531	3020	557	1130	129	155	335
2	108	92	238	170	1430	520	1970	484	1290	164	143	296
3	104	92	199	161	1950	520	1450	427	1140	164	136	279
4	101	90	177	151	1380	514	1200	381	955	162	125	279
5	99	87	163	143	974	891	2830	340	933	157	131	310
6	97	89	152	141	744	1330	3100	313	962	177	136	314
7	96	89	144	147	626	1170	2220	296	844	187	208	263
8	94	87	138	143	570	966	1630	267	1030	172	293	208
9	94	89	178	147	544	804	1590	246	1200	157	450	182
10	90	90	256	149	527	689	2360	230	865	153	426	160
11	89	89	378	144	1590	611	1940	239	874	623	307	138
12	85	85	435	137	2760	548	1550	226	1000	360	500	127
13	82	85	369	131	1860	495	1270	221	807	231	256	114
14	82	87	308	129	1300	454	1050	207	921	187	192	108
15	82	123	260	127	1010	416	874	193	747	160	162	120
16	82	123	221	127	843	394	753	181	544	216	260	134
17	82	127	197	127	755	372	765	177	432	253	300	153
18	82	123	181	123	858	369	826	177	351	543	189	155
19	81	112	168	120	1310	348	779	581	288	685	177	143
20	84	114	155	119	1550	325	760	564	244	813	179	127
21	85	120	146	152	1420	300	736	477	220	508	211	118
22	82	110	139	228	1170	315	695	403	201	379	177	108
23	82	123	133	279	976	586	667	331	188	279	162	103
24	90	406	148	272	1020	891	951	273	172	279	155	95
25	103	640	165	256	903	845	1100	365	182	474	138	94
26	99	526	236	239	757	729	920	571	256	273	127	90
27	101	415	269	227	656	637	764	404	172	303	116	89
28	114	384	249	226	577	563	646	378	148	694	106	85
29	104	417	226	306	---	505	589	349	141	250	225	82
30	104	369	206	359	---	2500	563	315	134	197	474	81
31	97	---	193	357	---	4540	---	393	---	172	356	---
TOTAL	2885	5477	6723	5718	30472	24678	39568	10566	18371	9501	6972	4890
MEAN	93.1	183	217	184	1088	796	1319	341	612	306	225	163
MAX	114	640	435	359	2760	4540	3100	581	1290	813	500	335
MIN	81	85	133	119	412	300	563	177	134	129	106	81
CFSM	.15	.29	.34	.29	1.70	1.24	2.06	.53	.96	.48	.35	.26
IN.	.17	.32	.39	.33	1.77	1.43	2.30	.61	1.07	.55	.41	.28
CAL YR 1980	TOTAL	375685	MEAN	1026	MAX	36700	MIN 81	CFSM 1.60	IN 21.84			
WTR YR 1981	TOTAL	165821	MEAN	454	MAX	4540	MIN 81	CFSM .71	IN 9.64			

CUMBERLAND RIVER BASIN

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 07...	1200	93	280	8.5	14.0	--	120	17	--
NOV 18...	1415	122	245	7.6	11.5	--	120	17	148
JAN 06...	1415	144	200	8.2	2.5	14.0	88	21	119
FEB 20...	1145	1660	132	7.8	9.0	10.6	46	13	72
APR 02...	0830	2110	120	8.0	13.0	9.3	42	11	72
MAY 08...	1030	270	194	7.9	17.0	8.8	76	13	111
JUN 25...	1330	167	232	7.8	26.5	--	93	11	131
AUG 06...	1025	129	196	7.8	26.0	6.5	98	14	--
20...	0930	174	210	7.7	22.0	6.9	82	15	128

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 07...	--	--	150	0	30	10	--	--
NOV 18...	.20	48.8	250	20	20	10	6	2.0
JAN 06...	.16	46.3	110	20	10	10	--	--
FEB 20...	.10	323	220	10	70	20	12	54
APR 02...	.10	410	1200	30	100	20	27	154
MAY 08...	.15	80.9	190	10	30	20	--	--
JUN 25...	.18	59.1	400	20	70	50	--	--
AUG 06...	.50	128	1400	60	80	30	--	--
20...	.17	60.1	1100	40	80	20	28	13

03422500 CANEY FORK NEAR ROCK ISLAND, TN

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

DRAINAGE AREA.--1,678 mi² (4,346 km²).

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

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

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

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

AVERAGE DISCHARGE.--67 years (1915-81), 3,186 ft³/s (90.23 m³/s), 25.78 in/yr (655 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft³/s (5,950 m³/s) Mar. 23, 1929, gage height, 43.6 ft (13.29 m), present datum, from floodmark, from rating curve extended above 110,000 ft³/s (3,120 m³/s); minimum daily, 25 ft³/s (0.71 m³/s) several days in August to October 1951.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,400 ft³/s (606 m³/s) Apr. 5, gage height, 17.25 ft (5.258 m); minimum, 47 ft³/s (1.33 m³/s) Aug. 26; minimum daily, 53 ft³/s (1.50 m³/s) Dec. 6-8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	55	315	436	515	1620	6110	3010	1260	368	386	551
2	58	55	1160	413	2150	1140	4430	2630	1990	338	80	454
3	58	359	1170	57	2010	1650	3540	2200	2330	339	390	534
4	58	330	1210	57	1930	2620	3270	2140	3000	68	385	546
5	58	417	655	562	2120	2200	10200	1090	2990	68	658	76
6	58	364	53	584	2320	2960	9440	642	2980	358	383	76
7	58	313	53	651	2090	2970	5700	651	2990	352	382	76
8	57	54	53	720	2020	2250	4120	657	2100	424	78	441
9	58	54	57	375	2290	2220	4410	646	2980	449	79	487
10	58	54	651	56	2960	2180	4600	682	2960	285	440	489
11	58	55	1430	55	2950	2240	4460	691	3040	68	523	487
12	57	55	845	389	3000	2190	3620	431	3070	75	836	75
13	57	55	343	318	3010	1670	3380	527	3080	578	794	75
14	57	55	57	55	3010	1080	3210	632	3070	297	637	629
15	57	58	1100	56	3010	56	3200	619	3050	69	308	496
16	57	55	494	197	2950	1460	3190	60	3040	69	78	382
17	58	160	1840	197	2940	1560	3130	1930	2490	68	77	390
18	58	689	448	55	2960	1340	3100	1210	2150	69	235	857
19	57	423	57	405	2970	1010	3110	596	1780	72	176	75
20	57	394	847	468	2980	1140	3130	1600	79	75	179	75
21	57	149	854	511	2980	57	3110	1620	70	694	78	275
22	57	54	458	478	2960	58	3080	587	1570	78	78	652
23	57	58	232	518	2930	1100	3110	59	522	79	78	570
24	58	855	57	54	2930	1410	3100	59	689	81	290	548
25	57	952	176	55	1800	1870	3120	62	800	1280	277	497
26	57	968	176	56	1800	2200	3100	900	734	79	291	72
27	58	308	57	57	2870	2210	3080	1910	70	660	938	73
28	57	305	57	611	2210	2190	3060	2190	70	677	978	507
29	417	305	432	638	---	57	3050	2190	538	1140	76	230
30	417	57	700	1050	---	2160	3020	2210	939	79	644	231
31	417	---	434	989	---	3080	---	1390	---	79	1100	---
TOTAL	2861	8065	16471	11123	70665	51948	120180	35821	56431	9415	11932	10926
MEAN	92.3	269	531	359	2524	1676	4006	1156	1881	304	385	364
MAX	417	968	1840	1050	3010	3080	10200	3010	3080	1280	1100	857
MIN	57	54	53	54	515	56	3020	59	70	68	76	72
(+)	+600	+1100	-1200	-200	+400	+13900	-8100	-5500	+4500	+4700	-1300	-1400
MEAN*	112	306	493	353	2538	2124	3736	978	2031	455	343	318
CFSM*	.07	.18	.29	.21	1.51	1.27	2.23	.58	1.21	.27	.20	.19
INS.*	.08	.20	.34	.24	1.58	1.46	2.48	.67	1.35	.31	.24	.21

CAL YR 1980 TOTAL 1048103 MEAN 2864 MAX 91600 MIN 37 MEAN* 2823 CFSM* 1.68 IN.* 22.90
WTR YR 1981 TOTAL 405838 MEAN 1112 MAX 10200 MIN 53 MEAN* 1132 CFSM* 0.67 IN.* 9.16

† Change in contents, in cfs-days, in Great Falls Lake.

* Adjusted for change in contents.

CUMBERLAND RIVER BASIN

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

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

DRAINAGE AREA.--10,690 mi² (27,687 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good. Flow regulated by five upstream lakes or reservoirs, (see p.158).

AVERAGE DISCHARGE.--59 years, 17,540 ft³/s (497 m³/s), 22.28 in/yr (566 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft³/s (5,950 m³/s) Dec. 30, 1926; maximum gage height, 59.8 ft (18.23 m) Dec. 30, 1926; minimum daily discharge, 366 ft³/s (10.4 m³/s) Oct. 29, 1940; minimum gage height since filling of Old Hickory Lake on Dec. 30, 1956, 4.3 ft (1.31 m) Oct. 28, 1969.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,100 ft³/s (1,480 m³/s) June 7; maximum gage height, 22.13 ft (6.745 m) June 11; minimum daily, 2,080 ft³/s (58.9 m³/s), Apr. 16; minimum recorded gage height, 5.77 ft (1.759 m) May 27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6390	3460	3670	4470	6420	3030	6920	7420	19200	12800	7990	13500
2	2600	2230	4120	4010	23300	3390	7220	6560	31700	11400	8020	14100
3	5250	3150	3660	4570	19100	3770	8340	3500	35700	11000	6590	13200
4	5010	3410	3960	4180	6590	5180	3700	4080	25600	7840	10500	14300
5	4120	4580	3300	3950	5510	7330	4940	6700	26100	3380	15800	14500
6	6050	3300	3120	5910	3520	10700	8630	4950	26700	8340	15600	10000
7	6040	4680	3170	4580	3260	9820	6400	3940	48000	11800	18300	4500
8	6140	4890	3180	4900	3010	3280	5230	2860	34500	16500	13500	7020
9	8110	3590	3350	4610	4460	4870	4550	4330	33500	16900	7720	8830
10	7950	3480	4380	4370	3830	4010	4940	2940	34300	17100	7850	9850
11	6450	3570	3550	3750	4760	4320	5910	3980	49300	15500	13700	14800
12	4990	3540	3920	3720	7660	4150	6570	6140	46500	10700	15700	14200
13	6940	3390	3020	4440	10800	4750	5100	6590	40100	15000	16700	7330
14	6320	3330	3010	4130	6310	3310	4910	5920	35000	16300	18500	6670
15	8250	3030	3450	4140	3370	3050	10400	9520	31800	19000	18800	13800
16	3510	3510	3280	4200	3290	3140	2080	3320	27000	21900	12100	22400
17	7720	3520	5340	4360	3860	4180	3630	6710	23800	20000	10100	14000
18	7080	3730	5080	4690	2810	6530	2490	8560	22200	19400	15500	12100
19	4460	5450	4130	4870	7700	6950	2590	26500	24500	12000	15700	11600
20	8120	4630	5010	3780	8090	5920	13600	32500	22000	14000	12100	9280
21	6640	5430	5050	4610	5930	6810	14700	22300	18000	15200	9530	7930
22	4480	3000	4990	4640	3350	5490	6110	12500	14300	14500	8570	12600
23	6630	2890	5130	5040	5620	4400	6880	7520	10300	12400	7120	13100
24	6260	3480	3890	3850	5430	5310	3100	4280	24000	6960	7420	13900
25	6410	3400	4430	3960	5380	5200	3350	9050	25300	7470	13900	14600
26	6160	4200	4080	4420	4030	5220	7290	12900	23100	4670	14400	14500
27	6400	3000	3700	3790	3850	5230	6400	14300	23400	9840	13300	9970
28	4160	4290	4010	4640	3100	4150	5490	19800	14000	16200	9070	7000
29	4170	4420	3250	4460	---	3820	5110	24200	10500	14800	12100	11500
30	4050	3580	3080	4470	---	9330	8060	22000	10100	13800	9880	12200
31	3960	---	4520	3800	---	10800	---	16500	---	6150	10000	---
TOTAL	180820	112160	121830	135310	174340	167440	184640	322370	810500	402850	376060	353280
MEAN	5833	3739	3930	4365	6226	5401	6155	10400	27020	13000	12130	11780
MAX	8250	5450	5340	5910	23300	10800	14700	32500	49300	21900	18800	22400
MIN	2600	2230	3010	3720	2810	3030	2080	2860	10100	3380	6590	4500

CAL YR 1980 TOTAL 5614860 MEAN 15340 MAX 85700 MIN 2230 MEAN+ 13250 CFSM+ 1.24 IN.+ 16.87
WTR YR 1981 TOTAL 3341600 MEAN 9155 MAX 49300 MIN 2080 MEAN+ 10100 CFSM+ 0.95 IN.+ 12.83

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

CUMBERLAND RIVER BASIN

103

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to September 1981 (discontinued).

WATER TEMPERATURE: October 1975 to September 1981 (discontinued).

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

REMARKS.--Interruptions in the record Jan. 24-Feb. 18, June 30-July 29 due to instrument failure.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 338 micromhos Sept. 5, 1981; minimum, 89 micromhos July 2, 1980.

WATER TEMPERATURES: Maximum, 29.5°C Oct. 10, 1977; minimum, 2.0°C Jan. 20, 22, 23, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 338 micromhos Sept. 5; minimum, 129 micromhos Jan. 19.

WATER TEMPERATURES: Maximum, 25.0°C Sept. 11; minimum, 2.0°C Jan. 20, 22, 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
DATE	TIME											
NOV 12...	1200	3300	145	7.0	13.0	1.7	9.4	K30	K6	74	26	
DEC 11...	1200	1490	166	7.1	9.0	--	11.0	--	330	--	--	
JAN 21...	1100	9480	168	7.5	--	.50	13.8	K5	K13	70	23	
FEB 18...	1200	3870	164	7.3	4.5	2.7	12.8	K320	K17	79	26	
MAR 11...	1130	10400	196	7.3	8.5	1.8	11.3	--	K1	75	16	
APR 30...	1045	7240	204	7.1	16.5	6.0	--	K10	28	97	26	
JUN 10...	1145	44000	175	7.0	17.0	75	8.2	K700	--	84	29	
30...	1130	14000	188	6.8	17.5	6.4	8.9	K18	35	75	28	
JUL 29...	1115	14100	180	6.8	20.0	8.3	7.7	K41	K46	76	28	
AUG 24...	1200	3150	230	7.3	23.0	3.0	8.5	21	50	98	12	
SEP 16...	1100	21700	193	6.8	20.5	5.3	7.3	1400	K1100	79	21	
		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
DATE												
NOV 12...	22		4.7	3.3	9	.2	1.1	48	20	2.9	.1	3.5
JAN 21...	22		3.6	4.1	11	.2	1.2	47	27	3.6	<.1	1.8
FEB 18...	24		4.7	3.4	8	.2	1.2	53	24	3.5	<.1	2.9
MAR 11...	22		4.8	4.7	12	.2	1.0	59	25	3.5	<.1	3.0
APR 30...	29		6.0	4.3	9	.2	1.3	71	25	3.7	<.1	3.6
JUN 10...	25		5.2	3.6	8	.2	1.5	55	20	2.6	<.1	5.3
30...	21		5.5	4.3	11	.2	1.5	47	33	3.7	<.1	3.9
JUL 29...	21		5.6	5.3	13	.3	1.4	48	32	3.7	<.1	4.2
AUG 24...	33		3.8	3.6	7	.2	1.4	86	20	4.2	<.1	3.8
SEP 16...	24		4.6	3.8	9	.2	1.3	58	28	3.7	<.1	3.5

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

CUMBERLAND RIVER BASIN

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
12...	104	88	.14	927	--	.28	--	.110	--	.14	.30
JAN											
21...	113	93	.15	2890	.23	.23	--	.040	--	.23	--
FEB											
18...	119	99	.16	1240	--	.70	--	.080	--	.20	--
MAR											
11...	115	102	.16	3230	.54	.53	--	--	--	--	--
APR											
30...	131	117	.18	2560	--	.41	--	.120	--	1.4	--
JUN											
10...	103	99	.14	12200	--	.57	.080	.060	--	.50	--
30...	115	103	.16	4350	--	.39	.130	.060	--	.41	--
JUL											
29...	116	104	.16	4420	--	.41	--	.080	--	.42	--
AUG											
24...	121	124	.16	1030	--	.49	--	.070	--	.49	--
SEP											
16...	115	105	.16	6740	.33	.30	.040	.030	.81	.60	.85
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
NOV											
12...	.25	--	.53	.030	.010	3.2	--	14	125	26	--
DEC											
11...	--	--	--	--	--	--	--	10	40	51	1700
JAN											
21...	.27	--	.50	.030	<.010	2.2	--	10	256	34	--
FEB											
18...	.28	--	.98	.070	.010	--	3.5	21	219	46	--
MAR											
11...	--	--	--	.050	<.010	--	--	6	168	76	1200
APR											
30...	1.5	--	1.9	--	.060	3.2	--	24	469	34	--
JUN											
10...	.56	--	1.1	.120	.010	--	16	86	10200	88	1700
30...	.47	--	.86	.030	<.010	4.8	--	29	1100	86	--
JUL											
29...	.50	--	.91	.060	.010	5.6	--	13	495	84	430
AUG											
24...	.56	--	1.1	.060	.060	--	4.4	31	264	11	1100
SEP											
16...	.63	1.2	.93	.050	.020	2.0	--	30	1760	25	11000

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC		ARSENIC		BARIUM,		BARIUM,		CADMIUM		CADMIUM		CHRO-		CHRO-		COBALT,		COBALT,															
	TOTAL		DIS-		TOTAL		DIS-		TOTAL		DIS-		MIUM,		MIUM,		TOTAL		DIS-															
	(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L															
	AS	AS)	AS	AS)	AS	BA)	AS	BA)	AS	CD)	AS	CD)	AS	CR)	AS	CR)	AS	CO)	AS	CO)														
FEB																																		
18...		1		0		100		100		--		1		10		10		1		0														
JUN																																		
10...		4		0		100		30		2		<1		30		10		4		3														
AUG																																		
24...		2		1		--		200		3		3		10		<10		2		2														
																			MANGA-		MANGA-		MERCURY											
	COPPER,		COPPER,		IRON,		IRON,		LEAD,		LEAD,		NESE,		NESE,		TOTAL		TOTAL															
	TOTAL		DIS-		TOTAL		DIS-		TOTAL		DIS-		TOTAL		DIS-		RECOV-		RECOV-															
	RECOV-		SOLVED		RECOV-		SOLVED		RECOV-		SOLVED		RECOV-		SOLVED		ERABLE		ERABLE															
	(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L															
DATE	AS CU)		AS CU)		AS FE)		AS FE)		AS PB)		AS PB)		AS MN)		AS MN)		AS HG)		AS HG)															
FEB																																		
18...		2		2		320		30		5		0		40		10		.1																
JUN																																		
10...		4		2		2200		50		11		1		10		8		<.1																
AUG																																		
24...		5		5		270		10		10		5		20		<10		<.1																
																			NICKEL,		NICKEL,		SELE-		SELE-		SILVER,		SILVER,		ZINC,		ZINC,	
	MERCURY		TOTAL		NICKEL,		DIS-		SELE-		SELE-		TOTAL		DIS-		TOTAL		TOTAL															
	DIS-		RECOV-		DIS-		SOLVED		NIUM,		NIUM,		RECOV-		RECOV-		RECOV-		RECOV-															
	SOLVED		ERABLE		SOLVED		ERABLE		TOTAL		TOTAL		ERABLE		ERABLE		ERABLE		ERABLE															
	(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L															
DATE	AS HG)		AS NI)		AS NI)		AS SE)		AS SE)		AS AG)		AS AG)		AS AG)		AS ZN)		AS ZN)															
FEB																																		
18...		.1		--		3		0		0		1		0		30		10																
JUN																																		
10...		<.1		6		6		0		0		0		0		10		10																
AUG																																		
24...		<.1		4		4		<1		<1		2		<1		20		<10																

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	DEC 11,80	MAR 11,81	JUN 10,81	JUL 29,81	AUG 24,81	SEP 16,81				
TIME	1200	1130	1145	1115	1200	1100				
TOTAL CELLS/ML	1700	1200	1700	430	1100	11000				
DIVERSITY: DIVISION	1.3	1.3	0.9	1.4	1.5	1.1				
..CLASS	1.3	1.3	0.9	1.4	1.5	1.1				
..ORDER	1.9	1.3	1.4	2.0	1.8	1.5				
...FAMILY	2.0	1.4	1.7	2.7	2.2	2.6				
....GENUS	2.3	1.9	2.5	2.9	2.4	2.8				
ORGANISM	CELLS /ML	PER -CENT	CELLS /ML	PER -CENT	CELLS /ML	PER -CENT	CELLS /ML	PER -CENT	CELLS /ML	PER -CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	120	10	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	56	1
...OOCYSTACEAE										
...ANKISTRODESMUS	--	-	--	-	14	1	--	-	43	4
...CHODATELLA	--	-	--	-	--	-	--	-	200	2
...DICTYOSPHAERIUM	13	1	52	4	56	3	--	-	110	1
...FRANCEIA	--	-	--	-	--	-	--	-	250	2
...KIRCHNERIELLA	--	-	--	-	14	1	--	-	56	1
...TETRAEDRON	--	-	--	-	--	-	--	-	56	1
...SCENEDESMACEAE									*	0
...SCENEDESMUS	52	3	26	2	84	5	58	13	58	5
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13	1	--	-	56	3	14	3	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	140	8	--	-	520#	31	14	3	72	6
....MELOSIRA	440#	26	190#	16	700#	41	58	13	120	10
...STEPHANODISCUS	--	-	440#	36	--	-	--	-	--	-
...PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	14	1	--	-	14	1
...CYMBELLACEAE										
...CYMBELLA	--	-	--	-	56	3	--	-	--	-
...EPITHEMIA	--	-	--	-	--	-	14	3	--	-
...FRAGILARIACEAE										
...ASTERIONELLA	52	3	--	-	--	-	--	-	--	-
...SYNEDRA	26	2	--	-	--	-	72#	17	--	-
...GOMPHONEMATACEAE										
...GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
...NAVICULA	26	2	--	-	14	1	14	3	43	4
...NITZSCHIACEAE										
...NITZSCHIA	13	1	--	-	84	5	72#	17	100	9
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
...AGMENELLUM										
...ANACYSTIS	130	8	500#	41	56	3	--	-	--	-
...HORMOGONALES										
...NOSTOCACEAE										
...CYLINDROSPERMUM	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
...OSCILLATORIA	780#	46	--	-	--	-	--	-	580#	51
...RIVULARIACEAE										
...RAPIDIOPSIS	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
...EUGLENA	13	1	--	-	14	1	14	3	--	-
...TRACHELOMONAS	--	-	--	-	14	1	100#	23	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...PERIDINIALES										
...GLENODINIACEAE										
...GLENODINIUM	--	-	13	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	176	162	165	176	167	171	175	161	166	167	141	155
2	170	161	164	165	152	158	177	161	167	180	139	158
3	169	162	164	182	158	167	176	162	169	173	145	157
4	177	158	164	176	160	166	177	160	163	171	135	149
5	188	153	168	177	155	168	166	160	162	180	134	156
6	167	153	162	177	156	166	174	161	166	178	137	157
7	166	154	161	177	159	167	176	160	166	178	142	155
8	171	159	167	177	160	167	165	158	162	179	136	158
9	170	159	165	174	144	158	169	156	163	179	134	160
10	171	159	166	171	154	162	213	174	192	176	147	159
11	172	161	168	172	153	161	205	160	180	175	139	156
12	175	164	169	175	155	166	221	158	180	167	141	152
13	173	168	171	173	156	165	200	159	176	165	140	155
14	180	155	171	174	157	165	187	158	172	168	144	157
15	173	148	161	175	155	165	180	159	167	166	143	156
16	170	146	160	171	161	166	178	141	156	162	142	154
17	172	145	162	171	153	158	164	137	149	164	140	152
18	175	157	167	178	165	170	161	143	152	164	132	150
19	177	165	172	182	167	172	167	141	153	158	129	142
20	186	167	176	177	165	170	161	137	150	171	139	159
21	173	150	162	172	150	165	169	135	147	166	146	155
22	176	148	161	184	146	166	170	133	152	170	151	163
23	174	143	161	171	144	159	171	135	155	245	167	184
24	175	150	166	171	158	166	179	140	151	---	---	---
25	172	141	160	189	165	173	176	142	160	---	---	---
26	176	148	159	177	166	170	177	157	168	---	---	---
27	176	143	161	173	163	168	179	154	167	---	---	---
28	174	148	164	182	166	176	172	140	157	---	---	---
29	173	157	166	180	161	169	176	145	159	---	---	---
30	175	166	170	186	161	172	182	156	167	---	---	---
31	176	166	170	---	---	---	179	149	161	---	---	---
MONTH	188	141	165	189	144	166	221	133	163	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	195	184	191	258	224	236	193	150	169
2	---	---	---	277	191	212	245	198	220	199	152	174
3	---	---	---	275	195	220	260	197	221	201	162	186
4	---	---	---	211	187	199	235	197	210	198	158	189
5	---	---	---	265	203	224	260	219	239	193	153	173
6	---	---	---	314	199	241	252	212	229	197	161	180
7	---	---	---	258	198	216	253	196	217	196	166	180
8	---	---	---	249	200	225	239	198	207	200	185	193
9	---	---	---	308	202	241	259	199	220	199	172	188
10	---	---	---	249	203	217	251	199	213	202	177	190
11	---	---	---	245	207	222	208	194	198	204	177	191
12	---	---	---	246	202	224	226	196	204	206	165	184
13	---	---	---	207	176	190	212	198	203	208	163	186
14	---	---	---	220	181	199	212	160	188	209	167	188
15	---	---	---	223	200	211	199	160	187	211	166	183
16	---	---	---	241	201	214	195	163	182	209	172	187
17	---	---	---	255	183	218	202	164	180	210	175	191
18	---	---	---	207	176	188	213	181	196	206	167	183
19	271	170	204	216	176	197	220	171	190	210	167	195
20	271	190	210	219	182	200	225	196	206	201	197	199
21	281	184	228	216	191	207	203	182	195	201	197	198
22	295	176	234	219	187	209	201	173	191	200	186	195
23	291	176	235	233	197	212	208	175	193	202	184	196
24	253	180	202	248	196	215	201	169	190	200	188	193
25	200	175	186	238	198	210	205	173	192	196	187	192
26	201	178	187	257	209	224	202	177	193	193	188	191
27	205	167	185	222	208	214	201	156	187	212	184	189
28	200	166	184	217	202	209	201	151	173	210	181	190
29	---	---	---	213	199	204	201	149	176	198	184	190
30	---	---	---	223	185	203	200	150	176	209	182	199
31	---	---	---	264	211	240	---	---	---	213	199	207
MONTH	---	---	---	314	176	213	260	149	200	213	150	189

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	252	202	210	---	---	---	282	183	206	291	185	216
2	232	186	204	---	---	---	242	175	207	240	184	202
3	222	186	201	---	---	---	216	189	201	248	189	215
4	220	180	199	---	---	---	233	177	195	328	181	227
5	212	182	199	---	---	---	204	175	189	338	183	221
6	238	186	214	---	---	---	204	167	184	232	182	208
7	224	211	218	---	---	---	209	181	193	275	192	230
8	258	195	233	---	---	---	207	185	195	278	196	231
9	222	190	202	---	---	---	205	185	199	310	199	243
10	202	194	198	---	---	---	204	185	198	238	199	205
11	208	201	205	---	---	---	219	182	198	269	192	213
12	250	209	223	---	---	---	203	171	190	209	189	198
13	206	192	199	---	---	---	195	166	184	212	196	203
14	204	191	197	---	---	---	208	170	189	214	193	207
15	245	199	212	---	---	---	208	167	189	258	191	209
16	208	183	201	---	---	---	205	186	197	212	194	203
17	209	202	207	---	---	---	205	188	198	230	194	209
18	210	208	209	---	---	---	201	189	196	209	193	200
19	213	211	212	---	---	---	214	184	195	207	198	204
20	212	210	211	---	---	---	204	181	193	240	200	205
21	217	209	211	---	---	---	204	182	192	208	200	203
22	218	209	211	---	---	---	218	181	195	263	195	207
23	240	209	217	---	---	---	284	191	223	202	193	200
24	215	181	205	---	---	---	241	189	211	201	195	200
25	212	180	203	---	---	---	224	183	195	200	196	199
26	215	209	211	---	---	---	206	184	196	200	195	198
27	218	212	215	---	---	---	206	183	196	208	196	200
28	218	217	217	---	---	---	204	183	198	201	198	200
29	220	213	218	---	---	---	203	175	189	200	183	197
30	---	---	---	219	180	195	224	178	200	199	183	197
31	---	---	---	211	182	195	238	184	213	---	---	---
MONTH	258	180	209	---	---	---	284	166	197	338	181	208

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	8.0	6.5	7.0	13.0	11.5	12.5	15.0	7.5	10.5
2	---	---	---	10.0	7.0	8.0	12.5	10.5	12.0	16.0	7.5	11.5
3	---	---	---	10.0	6.5	8.0	13.0	11.5	12.0	17.0	9.5	14.0
4	---	---	---	8.5	7.0	7.5	13.0	11.5	12.0	16.0	9.0	13.5
5	---	---	---	8.0	7.0	7.5	14.0	13.0	13.5	16.5	8.0	12.0
6	---	---	---	8.5	7.5	8.0	13.0	12.0	12.5	17.0	9.5	13.0
7	---	---	---	8.5	7.0	7.5	13.5	10.5	12.0	16.5	9.5	12.5
8	---	---	---	8.0	7.0	7.5	13.5	11.0	12.5	17.5	12.0	15.0
9	---	---	---	8.5	7.0	8.0	14.0	12.5	13.5	17.0	10.5	14.5
10	---	---	---	8.5	7.0	8.0	14.0	11.5	13.0	17.0	12.0	14.5
11	---	---	---	8.5	7.5	8.0	14.0	10.5	13.0	16.0	10.5	13.5
12	---	---	---	8.5	7.5	8.5	14.5	12.5	13.5	16.5	8.5	12.0
13	---	---	---	8.0	7.0	7.5	15.5	13.5	14.5	17.0	9.0	13.0
14	---	---	---	9.0	6.5	8.0	15.0	9.5	13.0	17.0	9.5	13.0
15	---	---	---	9.0	7.5	8.5	15.5	9.0	13.0	16.5	9.5	12.0
16	---	---	---	9.5	8.0	9.0	14.5	9.0	11.5	17.0	9.0	12.5
17	---	---	---	9.0	7.5	8.5	15.0	9.5	11.0	17.0	10.5	13.5
18	---	---	---	9.0	7.0	7.5	16.0	10.5	13.0	17.0	9.0	12.5
19	9.0	3.5	6.0	8.5	6.0	7.5	15.5	10.0	12.5	18.0	9.5	15.0
20	9.5	5.0	6.0	9.0	6.0	7.5	15.5	12.5	14.5	16.5	16.0	16.5
21	8.5	4.5	7.0	9.0	7.0	8.0	15.5	9.5	14.0	17.0	15.5	16.0
22	9.5	5.0	7.0	8.5	7.0	8.0	16.0	10.0	14.0	16.0	12.0	15.0
23	9.0	4.5	7.0	8.5	6.5	7.5	16.5	11.0	14.0	16.5	13.0	15.0
24	8.0	5.0	7.0	9.0	6.5	8.0	16.0	10.5	13.5	16.5	13.0	15.0
25	7.5	5.5	7.0	9.5	7.0	8.5	16.0	9.5	13.5	17.0	14.0	16.0
26	8.5	5.5	7.0	10.0	8.5	9.0	16.5	11.0	14.0	17.5	14.5	17.0
27	9.5	6.0	7.5	10.5	8.5	9.5	17.0	10.0	14.0	17.5	15.0	16.5
28	9.0	7.0	7.5	10.5	9.0	10.0	16.5	7.5	11.5	17.5	12.0	15.5
29	---	---	---	11.0	9.5	10.5	16.5	8.0	12.0	17.5	11.5	16.0
30	---	---	---	13.5	11.0	12.0	16.0	8.0	12.0	18.0	11.0	15.5
31	---	---	---	13.0	11.0	12.5	---	---	---	18.0	17.0	17.0
MONTH	---	---	---	13.5	6.0	8.5	17.0	7.5	13.0	18.0	7.5	14.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	16.0	17.0	---	---	---	24.0	19.5	21.0	24.0	15.5	20.5
2	17.0	14.5	15.5	---	---	---	24.0	20.0	21.5	22.0	18.5	20.5
3	16.0	14.5	15.0	---	---	---	22.5	20.0	21.0	21.0	19.5	20.5
4	16.0	11.0	14.5	---	---	---	23.5	16.5	20.5	22.5	20.0	21.0
5	16.0	14.0	15.0	---	---	---	22.5	16.0	21.0	22.5	16.0	20.0
6	18.5	14.0	16.0	---	---	---	22.5	15.0	20.0	21.5	19.5	20.5
7	18.0	15.5	16.5	---	---	---	22.5	19.5	21.0	23.0	19.5	21.0
8	17.5	15.0	16.0	---	---	---	22.5	19.0	20.5	23.5	19.0	21.0
9	16.5	14.5	15.5	---	---	---	22.0	19.5	21.0	24.0	19.0	21.5
10	17.0	16.0	16.5	---	---	---	22.0	20.5	21.0	21.0	19.0	20.0
11	17.0	16.0	16.5	---	---	---	22.0	17.0	20.5	25.0	17.0	20.5
12	17.5	15.0	16.0	---	---	---	22.0	16.0	20.0	21.5	15.5	19.5
13	17.0	14.5	15.5	---	---	---	21.5	15.5	18.5	21.5	18.0	19.5
14	17.0	15.5	16.5	---	---	---	22.0	16.0	19.5	22.5	19.5	20.0
15	19.5	16.0	17.0	---	---	---	21.5	15.0	19.5	21.5	16.5	20.0
16	17.5	14.5	16.0	---	---	---	21.5	17.5	20.5	21.0	19.5	20.5
17	17.5	15.5	16.5	---	---	---	21.0	19.0	20.0	21.0	19.0	20.0
18	17.5	16.5	17.5	---	---	---	21.0	19.5	20.0	20.5	16.5	19.5
19	17.5	16.0	17.5	---	---	---	21.0	16.5	20.0	19.5	15.5	19.0
20	17.5	16.0	17.0	---	---	---	20.5	17.5	19.5	20.0	16.0	19.0
21	17.5	16.5	17.5	---	---	---	20.0	18.5	19.5	19.5	18.5	19.0
22	17.5	16.0	17.5	---	---	---	20.0	18.5	19.5	20.5	18.0	19.0
23	20.5	17.0	18.0	---	---	---	23.0	18.5	20.5	19.0	18.5	18.5
24	18.0	14.0	16.5	---	---	---	23.0	18.5	20.5	18.5	18.0	18.5
25	17.5	13.5	16.5	---	---	---	21.0	15.0	18.5	18.5	18.0	18.0
26	18.0	17.0	17.5	---	---	---	20.5	18.5	19.5	18.5	18.0	18.0
27	18.0	17.5	18.0	---	---	---	21.0	16.5	19.5	19.0	16.5	18.0
28	18.0	18.0	18.0	---	---	---	20.5	18.5	19.5	18.5	18.0	18.0
29	18.0	17.5	18.0	---	---	---	21.0	16.5	19.5	18.0	15.0	18.0
30	---	---	---	22.5	20.0	21.0	21.0	20.0	20.5	18.5	15.0	18.0
31	---	---	---	21.5	19.5	20.5	22.0	20.0	21.0	---	---	---
MONTH	20.5	11.0	16.5	---	---	---	24.0	15.0	20.0	25.0	15.0	19.5

CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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

DRAINAGE AREA.--11,673 mi² (30,233 km²).

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1979 to current year.

pH: April 1979 to current year.

WATER TEMPERATURE: April 1979 to current year.

DISSOLVED OXYGEN: April 1979 to current year.

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

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Continuous discharge records are published under station 03426500 Cumberland River below Old Hickory, Tn. Period of missing record October 9 and 10, Oct. 30-Nov. 4, June 22-July 7 due to pump failure, Mar. 17-25, April 1-14, July 23-27, due to the water intake breaking.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 238 micromhos April 26, 1981; minimum, 146 micromhos May 6, 1979.

pH: Maximum, 8.8 units May 9, 1980; minimum, 6.8 units Sept. 15, 1980.

WATER TEMPERATURE: Maximum, 27.5°C July 5, 6, 1980, Sept. 7, 1980, Aug. 13, 1981; minimum, 2.5°C Jan. 12-14, 1981

DISSOLVED OXYGEN: Maximum, 14.0 mg/L April 3, 1981; minimum, 3.0 mg/L Sept. 15, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 238 micromhos Apr. 26; minimum, 163 micromhos Oct. 13-15.

pH: Maximum, 8.7 units Apr. 3; minimum, 7.1 units Oct. 1.

WATER TEMPERATURE: Maximum, 27.5°C Aug. 13; minimum, 2.5°C Jan. 12-14.

DISSOLVED OXYGEN: Maximum, 14.0 mg/L Apr. 3; minimum, 4.6 mg/L Aug. 6.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	172	167	168	---	---	---	174	173	173	182	179	181
2	168	166	168	---	---	---	174	171	173	182	180	181
3	167	166	166	---	---	---	173	172	172	181	179	180
4	166	165	166	---	---	---	175	173	174	180	179	180
5	168	166	167	170	169	170	174	173	173	183	180	181
6	168	166	167	172	169	170	175	172	173	184	182	183
7	168	166	167	172	169	171	176	173	174	183	179	181
8	168	166	167	172	170	171	176	174	175	183	180	181
9	---	---	---	172	170	171	175	173	174	183	180	182
10	---	---	---	173	170	171	174	173	174	183	181	182
11	166	164	165	172	170	171	175	174	175	183	182	182
12	165	164	164	173	170	171	176	174	175	184	182	183
13	166	163	164	173	170	171	174	173	173	186	183	184
14	165	163	164	171	171	171	175	173	174	187	184	185
15	166	163	164	172	171	171	176	175	176	188	187	188
16	166	164	165	171	170	171	176	175	175	187	185	186
17	165	164	164	171	170	170	177	176	177	187	185	186
18	165	164	165	171	170	171	178	175	175	188	184	186
19	166	165	165	172	170	171	178	176	177	189	186	187
20	166	165	165	172	170	171	178	175	176	188	187	187
21	169	165	167	172	170	171	179	177	178	187	186	187
22	169	167	168	172	170	171	179	177	178	186	185	186
23	170	167	168	172	171	172	179	176	177	185	183	184
24	169	167	168	172	171	171	179	177	178	185	183	184
25	168	167	168	173	171	172	179	177	178	184	183	183
26	170	167	169	173	172	172	180	178	179	183	181	182
27	169	168	168	172	172	172	180	177	179	182	180	181
28	169	167	169	173	172	172	181	177	180	183	181	182
29	168	167	168	173	172	172	181	179	180	182	180	182
30	---	---	---	175	172	173	180	180	180	183	181	182
31	---	---	---	---	---	---	182	180	181	183	180	182
MONTH	172	163	166	175	169	171	182	171	176	189	179	183

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	183	180	182	216	213	214	226	222	224	232	228	230
2	181	178	179	214	213	213	223	220	222	231	229	230
3	178	177	178	213	212	213	221	220	221	231	229	230
4	179	177	178	214	211	212	221	219	220	233	229	232
5	178	176	177	214	211	213	220	218	219	233	231	232
6	180	178	179	214	213	214	220	219	219	232	229	230
7	181	178	180	215	213	214	220	218	219	229	227	228
8	183	180	182	218	215	216	223	219	221	227	224	226
9	184	181	183	221	218	219	224	222	223	227	225	226
10	185	183	184	221	218	220	226	223	225	230	225	227
11	185	183	184	226	220	222	---	---	---	229	225	227
12	187	184	186	227	224	225	---	---	---	229	227	228
13	189	185	187	228	224	226	---	---	---	229	227	228
14	192	188	190	230	227	228	---	---	---	228	226	227
15	193	191	192	229	227	228	232	230	231	229	226	228
16	193	191	192	230	228	229	231	228	229	229	226	228
17	195	192	194	---	---	---	231	227	229	228	225	227
18	197	195	196	---	---	---	234	231	233	227	225	227
19	199	197	198	---	---	---	234	232	233	225	215	221
20	207	199	204	---	---	---	234	229	232	214	206	210
21	207	206	206	---	---	---	233	229	231	207	205	207
22	206	204	205	---	---	---	234	232	233	206	204	205
23	206	205	205	---	---	---	235	234	234	204	202	203
24	211	207	209	---	---	---	237	234	235	203	200	202
25	214	209	211	---	---	---	237	234	235	203	197	202
26	214	211	212	230	226	227	238	234	236	205	200	203
27	214	211	213	230	225	227	235	232	235	208	205	206
28	214	212	212	229	226	227	232	227	230	213	208	210
29	---	---	---	227	225	226	230	227	229	213	208	211
30	---	---	---	227	225	226	230	227	229	212	209	211
31	---	---	---	226	223	225	---	---	---	210	207	209
MONTH	214	176	193	---	---	---	238	218	228	233	197	220
	JUNE			JULY			AUGUST			SEPTEMBER		
1	207	200	204	---	---	---	199	196	198	190	188	189
2	200	194	199	---	---	---	198	196	197	189	188	189
3	195	190	192	---	---	---	198	197	197	190	186	189
4	195	191	193	---	---	---	199	197	198	190	189	189
5	199	194	197	---	---	---	200	198	199	190	188	189
6	198	194	197	---	---	---	201	199	200	190	188	189
7	200	195	197	---	---	---	200	198	198	190	187	189
8	199	194	197	194	191	192	199	197	198	190	188	189
9	202	195	199	194	192	193	200	197	199	191	188	189
10	205	202	204	194	191	193	201	198	199	192	188	190
11	210	203	207	192	190	191	200	198	199	192	190	191
12	207	194	202	192	190	191	199	197	198	192	190	191
13	194	187	189	193	191	192	197	195	196	193	190	191
14	193	187	190	194	192	193	196	194	195	195	192	193
15	199	193	197	193	191	192	195	193	194	196	194	195
16	205	199	203	192	191	191	194	192	193	195	192	193
17	203	196	200	192	191	191	194	191	193	193	192	193
18	195	187	192	192	190	191	193	191	192	194	193	194
19	188	185	187	192	190	191	192	190	191	195	192	193
20	193	189	190	191	189	190	191	189	190	194	191	193
21	195	193	194	190	188	189	190	189	189	193	190	191
22	---	---	---	190	188	189	191	188	189	192	189	190
23	---	---	---	---	---	---	191	188	189	192	189	190
24	---	---	---	---	---	---	191	188	190	193	190	191
25	---	---	---	---	---	---	191	188	190	194	191	193
26	---	---	---	---	---	---	191	188	190	197	194	195
27	---	---	---	---	---	---	190	189	189	198	197	198
28	---	---	---	196	195	196	191	189	190	198	195	196
29	---	---	---	197	194	196	190	189	190	197	195	196
30	---	---	---	196	195	195	190	189	189	195	192	194
31	---	---	---	198	196	197	190	188	189	---	---	---
MONTH	---	---	---	---	---	---	201	188	194	198	186	192

CUMBERLAND RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MI.
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.4	7.1	---	---	7.8	7.6	8.1	8.0	8.3	8.2	8.3	8.1
2	7.4	7.3	---	---	7.8	7.7	8.0	8.0	8.1	8.0	8.4	8.1
3	7.4	7.2	---	---	7.8	7.8	8.1	8.0	8.1	8.1	8.5	8.4
4	7.4	7.3	---	---	7.8	7.7	8.1	8.0	8.1	8.0	8.5	8.4
5	7.4	7.3	7.5	7.4	7.8	7.8	8.1	8.0	8.1	8.0	8.5	8.4
6	7.5	7.3	7.5	7.4	7.9	7.8	8.1	8.1	8.1	8.0	8.4	8.4
7	7.5	7.3	7.5	7.4	7.8	7.7	8.2	8.1	8.2	8.1	8.4	8.3
8	7.4	7.3	7.5	7.4	7.9	7.7	8.2	8.1	8.2	8.1	8.3	8.2
9	---	---	7.5	7.4	8.0	7.8	8.2	8.1	8.2	8.1	8.2	8.2
10	---	---	7.4	7.3	7.8	7.7	8.2	8.1	8.2	8.1	8.2	8.2
11	7.4	7.2	7.4	7.3	7.9	7.8	8.2	8.1	8.3	8.2	8.2	8.1
12	7.5	7.3	7.4	7.3	7.9	7.8	8.2	8.2	8.3	8.2	8.1	8.0
13	7.7	7.5	7.5	7.3	8.0	7.8	8.2	8.2	8.3	8.2	8.1	8.0
14	8.0	7.5	7.5	7.4	7.9	7.8	8.3	8.2	8.3	8.2	8.1	8.0
15	7.9	7.7	7.4	7.3	7.9	7.8	8.3	8.2	8.4	8.1	8.1	8.0
16	8.0	7.5	7.4	7.3	7.9	7.8	8.3	8.2	8.4	8.2	8.1	8.0
17	7.9	7.6	7.4	7.4	7.8	7.8	8.3	8.2	8.2	8.0	---	---
18	7.7	7.5	7.4	7.4	7.9	7.8	8.3	8.2	8.0	7.9	---	---
19	7.5	7.4	3.7	7.4	7.9	7.8	8.3	8.3	8.0	7.9	---	---
20	7.5	7.4	7.5	7.4	7.9	7.8	8.3	8.2	7.9	7.8	---	---
21	7.8	7.4	7.5	7.4	7.9	7.8	8.3	8.2	8.0	7.8	---	---
22	7.7	7.5	7.5	7.4	7.9	7.9	8.3	8.2	8.0	7.9	---	---
23	7.9	7.5	7.5	7.5	8.0	7.9	8.3	8.2	8.1	7.9	---	---
24	7.8	7.6	7.5	7.4	8.0	7.9	8.3	8.2	8.1	7.9	---	---
25	7.6	7.6	7.5	7.4	8.0	7.9	8.3	8.2	8.1	7.9	---	---
26	7.6	7.5	7.5	7.5	8.0	7.9	8.3	8.2	8.3	8.0	8.3	8.1
27	7.6	7.5	7.5	7.5	8.1	8.0	8.3	8.2	8.4	8.2	8.3	8.0
28	7.6	7.5	7.6	7.5	8.0	8.0	8.3	8.2	8.5	8.4	8.5	8.0
29	7.6	7.5	7.6	7.6	8.1	8.0	8.3	8.2	---	---	8.5	8.3
30	---	---	7.6	7.6	8.0	8.0	8.3	8.2	---	---	8.3	8.1
31	---	---	---	---	8.1	8.0	8.3	8.3	---	---	8.4	8.1
MONTH	8.0	7.1	7.6	7.3	8.1	7.6	8.3	8.0	8.5	7.8	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.4	8.2	8.0	7.6	7.8	7.6	---	---	7.8	7.6	7.6	7.4
2	8.6	8.2	8.0	7.6	7.6	7.6	---	---	7.7	7.5	7.6	7.4
3	8.7	8.4	8.1	7.8	7.6	7.5	---	---	7.7	7.4	7.5	7.4
4	8.6	8.2	8.0	7.7	7.6	7.5	---	---	7.6	7.4	7.5	7.4
5	8.2	8.1	7.8	7.6	7.6	7.5	---	---	7.9	7.4	7.8	7.4
6	8.4	8.1	7.8	7.6	7.6	7.5	---	---	7.7	7.3	7.8	7.4
7	8.6	8.3	7.8	7.6	7.6	7.6	---	---	7.9	7.5	7.6	7.4
8	8.5	8.3	8.2	7.8	7.6	7.5	7.9	7.5	7.8	7.5	7.4	7.2
9	8.3	8.2	8.1	7.9	7.6	7.5	7.8	7.5	7.8	7.5	7.6	7.3
10	8.5	8.2	7.9	7.7	7.6	7.6	7.7	7.4	7.7	7.5	7.8	7.4
11	---	---	7.8	7.5	7.7	7.7	7.9	7.5	7.8	7.5	8.0	7.4
12	---	---	7.6	7.6	7.7	7.6	7.7	7.5	7.7	7.5	7.8	7.4
13	---	---	7.6	7.4	7.6	7.6	7.7	7.5	8.1	7.5	7.6	7.4
14	---	---	7.6	7.4	7.6	7.5	7.6	7.4	7.8	7.6	7.8	7.3
15	7.9	7.8	7.6	7.5	7.8	7.6	7.6	7.4	7.8	7.6	7.5	7.3
16	8.5	7.8	7.5	7.5	7.8	7.7	7.8	7.5	7.7	7.5	7.9	7.3
17	8.4	8.2	7.5	7.5	8.2	7.7	8.0	7.5	7.6	7.4	7.9	7.7
18	8.1	8.0	7.8	7.6	7.9	7.6	7.9	7.6	7.7	7.5	7.8	7.6
19	8.3	7.9	7.6	7.6	7.9	7.6	7.7	7.6	7.5	7.4	7.8	7.6
20	8.5	7.9	7.6	7.6	7.6	7.5	7.7	7.5	7.5	7.4	8.0	7.5
21	8.5	8.4	7.8	7.7	7.7	7.5	7.6	7.4	7.7	7.4	7.8	7.5
22	8.4	8.1	7.9	7.8	---	---	7.8	7.5	7.7	7.4	7.8	7.5
23	8.1	7.9	8.1	7.6	---	---	---	---	7.6	7.4	8.1	7.8
24	8.0	7.8	8.5	7.6	---	---	---	---	7.4	7.4	8.1	7.7
25	8.0	7.7	8.3	7.6	---	---	---	---	7.5	7.4	8.1	7.7
26	8.1	7.9	8.0	7.6	---	---	---	---	7.7	7.4	7.9	7.5
27	8.1	7.8	7.8	7.6	---	---	---	---	8.2	7.6	7.6	7.4
28	8.3	7.7	7.8	7.6	---	---	7.7	7.4	7.8	7.4	8.0	7.5
29	8.1	7.7	8.2	7.8	---	---	7.7	7.4	7.7	7.4	8.1	7.5
30	7.8	7.6	8.0	7.6	---	---	8.0	7.5	7.6	7.4	7.9	7.5
31	---	---	7.8	7.6	---	---	7.8	7.6	7.8	7.4	---	---
MONTH	8.7	7.6	8.5	7.4	---	---	---	---	8.2	7.3	8.1	7.2

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.4	6.2	6.4	---	---	---	10.6	10.4	10.4	12.2	11.9	12.0
2	6.3	5.9	6.1	---	---	---	10.6	10.3	10.4	12.1	11.8	11.9
3	6.9	5.9	6.3	---	---	---	10.6	10.3	10.5	12.3	12.0	12.1
4	6.9	6.6	6.7	---	---	---	10.7	10.4	10.5	12.4	12.0	12.1
5	7.0	6.4	6.7	8.8	8.2	8.5	10.9	10.6	10.7	12.6	12.1	12.3
6	7.6	6.6	7.2	9.0	8.5	8.8	11.4	10.6	10.7	12.4	12.3	12.4
7	7.5	6.8	7.2	9.0	8.7	8.8	11.1	10.5	10.6	12.6	12.4	12.5
8	7.5	7.0	7.3	8.9	8.6	8.8	11.0	10.5	10.7	12.6	12.4	12.5
9	---	---	---	8.0	8.4	8.6	11.0	10.6	10.9	12.7	12.5	12.6
10	---	---	---	8.3	7.9	8.1	10.6	10.1	10.3	13.1	12.5	12.7
11	6.8	6.0	6.3	8.4	7.9	8.2	10.8	10.5	10.6	12.9	12.6	12.8
12	7.3	6.2	6.8	8.6	8.2	8.4	11.0	10.6	10.7	13.1	12.8	12.9
13	8.1	7.2	7.7	8.8	8.4	8.6	11.1	10.6	10.8	13.3	12.9	13.1
14	8.7	7.4	8.2	9.0	8.6	8.8	10.8	10.6	10.7	13.5	13.0	13.2
15	8.5	7.8	8.3	8.9	8.4	8.7	10.7	10.5	10.6	13.3	12.8	13.1
16	8.7	7.6	8.2	8.6	8.4	8.5	11.1	10.4	10.6	13.2	12.8	13.0
17	8.4	7.6	8.0	8.8	8.6	8.7	10.6	10.3	10.5	13.4	13.0	13.1
18	8.0	7.2	7.5	9.4	8.8	9.0	10.7	10.4	10.5	13.4	13.0	13.2
19	7.3	6.9	7.0	9.6	9.1	9.3	10.7	10.5	10.6	13.4	13.1	13.2
20	7.5	7.1	7.4	9.4	9.1	9.3	11.1	10.5	10.7	13.5	13.2	13.3
21	8.1	7.2	7.6	9.4	9.1	9.3	11.1	10.7	10.9	13.4	13.1	13.2
22	8.5	7.3	7.8	9.5	9.2	9.4	11.1	10.9	11.0	13.5	13.1	13.2
23	8.4	7.2	7.7	9.6	9.3	9.5	11.3	11.1	11.2	13.5	13.1	13.2
24	8.1	7.5	7.7	9.7	9.4	9.5	11.4	11.2	11.3	13.4	13.1	13.3
25	7.9	7.3	7.7	9.9	9.3	9.5	11.5	11.2	11.3	13.3	13.1	13.2
26	8.5	7.3	7.7	10.0	9.4	9.6	11.7	11.3	11.5	13.3	13.0	13.2
27	7.8	7.2	7.4	9.9	9.7	9.8	11.9	11.6	11.7	13.3	13.0	13.1
28	7.9	7.5	7.7	10.2	9.9	10.1	11.9	11.6	11.7	13.3	13.0	13.1
29	8.2	7.7	7.9	10.4	10.2	10.3	12.1	11.6	11.9	13.2	12.9	13.0
30	---	---	---	10.4	10.3	10.4	11.9	11.8	11.8	13.1	12.8	12.9
31	---	---	---	---	---	---	12.2	11.8	11.9	13.2	12.8	12.9
MONTH	8.7	5.9	7.4	10.4	7.9	9.1	12.2	10.1	10.9	13.5	11.8	12.9

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.0	12.6	12.7	12.7	11.9	12.2	11.1	10.2	10.5	7.7	6.1	7.0
2	12.5	12.3	12.4	12.9	11.9	12.3	13.5	9.8	11.0	7.6	6.0	7.0
3	12.5	12.3	12.4	13.0	12.1	12.5	14.0	10.5	11.5	7.9	6.3	7.1
4	12.6	12.3	12.4	12.4	11.9	12.5	13.8	9.4	10.3	7.5	6.0	6.8
5	12.8	12.4	12.6	12.2	11.6	11.9	9.8	9.3	9.5	6.8	5.8	6.4
6	12.9	12.5	12.7	11.6	11.3	11.4	10.2	9.2	9.7	6.4	5.4	5.8
7	13.0	12.6	12.8	11.3	11.0	11.2	13.5	9.7	10.4	7.1	5.3	6.2
8	12.9	12.6	12.7	11.1	10.8	11.0	10.2	9.1	9.7	9.0	6.6	7.8
9	13.4	12.7	12.9	11.0	10.7	10.8	9.3	8.9	9.1	8.8	7.6	8.3
10	13.0	12.8	12.9	10.8	10.5	10.7	9.4	8.7	9.0	8.5	7.1	8.0
11	13.6	12.6	12.8	10.7	10.3	10.5	---	---	---	8.1	6.2	6.8
12	13.3	12.7	12.9	10.4	10.0	10.3	---	---	---	7.6	6.1	7.0
13	13.3	12.9	13.1	10.8	10.0	10.3	---	---	---	9.2	7.1	8.0
14	13.3	13.0	13.1	10.6	10.3	10.4	---	---	---	9.0	8.3	8.7
15	13.7	12.9	13.3	10.8	10.2	10.5	8.3	7.6	8.0	8.5	7.3	7.7
16	13.6	13.2	13.3	10.7	10.4	10.6	10.1	7.8	8.9	7.8	7.2	7.6
17	13.3	12.5	12.8	---	---	---	9.7	8.7	9.3	9.7	7.3	8.3
18	12.7	12.3	12.5	---	---	---	8.6	8.2	8.4	8.8	7.8	8.2
19	12.5	12.2	12.3	---	---	---	9.1	7.8	8.4	7.9	7.3	7.5
20	12.2	11.9	12.0	---	---	---	9.3	7.6	8.3	8.1	7.7	7.8
21	12.6	11.8	12.2	---	---	---	9.3	8.8	9.1	8.3	7.8	8.1
22	12.6	12.4	12.5	---	---	---	9.1	8.3	8.8	9.0	8.3	8.6
23	12.4	12.2	12.3	---	---	---	8.2	7.8	8.0	9.3	7.7	8.4
24	12.6	12.2	12.3	---	---	---	8.0	7.4	7.7	10.1	7.2	8.3
25	12.6	12.1	12.4	---	---	---	8.4	6.8	7.9	9.1	7.4	8.1
26	12.9	12.1	12.6	11.1	10.3	10.7	8.6	7.9	8.2	8.6	7.2	7.9
27	13.1	12.4	12.7	11.1	10.4	10.7	8.6	7.6	8.1	7.9	6.8	7.1
28	13.4	13.0	13.1	12.2	10.2	11.1	9.6	7.3	8.1	7.2	6.2	6.8
29	---	---	---	13.9	10.7	11.5	8.7	7.1	7.6	8.9	7.2	8.2
30	---	---	---	10.7	10.2	10.5	7.6	6.5	7.0	8.6	7.2	7.8
31	---	---	---	13.5	10.3	10.8	---	---	---	8.0	7.5	7.7
MONTH	13.7	11.8	12.7	---	---	---	14.0	6.5	8.9	10.1	5.3	7.6
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.2	7.4	7.9	---	---	---	7.2	6.1	6.7	7.3	6.4	6.9
2	7.9	7.1	7.4	---	---	---	6.6	5.9	6.2	7.1	6.4	6.7
3	10.1	7.2	8.5	---	---	---	6.7	5.3	5.8	6.8	6.2	6.5
4	7.7	7.3	7.5	---	---	---	6.1	5.0	5.6	6.5	6.0	6.3
5	8.1	7.4	7.8	---	---	---	6.7	5.1	5.8	7.4	6.1	6.8
6	11.5	7.4	8.8	---	---	---	6.3	4.6	5.6	7.1	6.0	6.6
7	11.8	8.6	11.4	---	---	---	6.8	5.2	6.1	6.7	5.7	6.2
8	9.9	7.6	7.8	7.5	6.1	6.8	6.6	5.6	6.0	5.7	5.2	5.4
9	8.1	7.0	7.3	7.2	6.5	6.9	6.7	5.6	6.2	6.2	5.1	5.8
10	7.3	6.9	7.1	7.1	6.0	6.6	6.7	5.7	6.1	6.7	5.6	6.2
11	12.6	8.2	11.9	7.4	6.8	7.1	7.0	5.7	6.2	7.0	5.3	6.0
12	12.2	8.5	10.9	7.2	6.9	7.0	6.6	5.6	6.1	6.8	5.6	6.3
13	11.2	6.3	7.4	7.1	6.5	6.8	7.8	6.0	6.9	6.2	5.6	6.0
14	7.2	6.4	6.7	6.9	6.4	6.6	7.4	6.3	7.0	6.7	4.9	5.7
15	10.3	7.3	7.9	6.9	6.5	6.8	7.6	6.6	7.2	5.8	4.9	5.3
16	11.3	7.9	8.9	7.1	6.6	6.8	7.1	6.6	6.9	7.4	4.9	6.3
17	11.4	7.8	8.5	7.3	6.6	7.0	7.6	6.5	6.8	7.4	6.9	7.2
18	11.5	7.5	8.5	7.6	6.7	7.0	7.2	6.4	6.8	7.4	6.7	7.1
19	12.7	7.2	8.1	7.5	6.8	7.1	6.9	6.3	6.6	7.6	6.7	7.2
20	10.0	7.4	7.9	7.3	6.6	7.0	6.6	5.9	6.4	8.1	6.5	7.2
21	10.7	7.0	7.9	7.2	6.4	6.8	7.2	5.9	6.4	7.8	6.7	7.2
22	---	---	---	7.7	6.7	7.2	7.3	6.5	6.8	7.9	6.3	7.2
23	---	---	---	---	---	---	6.9	6.0	6.5	8.1	7.6	7.9
24	---	---	---	---	---	---	6.4	5.7	6.1	8.4	7.4	7.8
25	---	---	---	---	---	---	6.8	5.9	6.4	8.6	7.5	8.0
26	---	---	---	---	---	---	7.4	6.2	7.0	7.9	6.9	7.3
27	---	---	---	---	---	---	8.6	6.5	7.5	7.3	6.3	6.8
28	---	---	---	6.4	5.4	5.8	8.0	6.4	7.2	8.6	6.8	7.7
29	---	---	---	6.5	5.5	5.8	7.7	6.3	6.9	8.9	7.2	8.2
30	---	---	---	7.1	5.8	6.4	7.3	6.5	6.9	8.3	7.2	7.8
31	---	---	---	7.0	6.3	6.6	7.8	6.8	7.3	---	---	---
MONTH	---	---	---	---	---	---	8.6	4.6	6.5	8.9	4.9	6.8

CUMBERLAND RIVER BASIN

03426500 CUMBERLAND RIVER BELOW OLD HICKORY, TN

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

DRAINAGE AREA.--11,735 mi² (30,394 km²).

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

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

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

REMARKS.--Records good. Flow regulated by six lakes or reservoirs (see p.158).

AVERAGE DISCHARGE.--45 years (water years 1932-42, 1948-81), 19,070 ft³/s (540.1 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft³/s (4,900 m³/s) Jan. 29, 1937; maximum gage height, 48.13 ft (14.670 m) Mar. 14, 1975; minimum daily discharge, 86 ft³/s (2.44 m³/s) Aug. 15, 1936; minimum gage height since filling of Cheatham Lake on Oct. 1, 1956, 3.49 ft (1.064 m) Sept. 10, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 57.4 ft (17.50 m) Dec. 31, 1926, present site and datum, from profile by Corps of Engineers, discharge, 200,000 ft³/s (5,660 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 70,700 ft³/s (2,000 m³/s) June 7; maximum gage height, 27.17 ft (8.281 m) June 7; minimum daily discharge, 2,200 ft³/s (62.30 m³/s) Nov. 26; minimum gage height, 3.82 ft (1.164 m) Feb. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5780	3180	3420	5070	6550	3930	12800	8710	23000	13700	6050	11400
2	5860	3200	2660	3980	39100	3730	9550	8240	26100	13500	6070	14700
3	6140	3180	2650	2740	23600	2670	9490	4370	41700	9930	6970	12100
4	5490	3680	4540	2740	12000	6020	8400	3070	34400	9790	9830	13800
5	5520	3210	3250	3080	5950	12900	6450	4190	28900	4260	13900	15500
6	5480	3420	2450	6690	4280	13200	10400	6010	36700	9440	17200	12900
7	5380	3390	2510	7080	3590	11200	9310	4380	56600	9440	15600	4840
8	7040	4940	2520	5100	3050	5130	8580	4330	41400	15000	13900	5830
9	7350	2880	2550	5440	5810	5620	8000	4720	38700	17400	7190	6130
10	7280	2800	4790	4220	9430	5170	6950	3630	41000	17400	6380	9380
11	6560	3060	5830	3910	6610	6100	7560	3540	55800	13700	15000	12300
12	5470	3030	5960	3920	4760	5320	7530	5850	51900	15000	13600	14500
13	6820	3260	4090	4290	11600	3630	11100	6650	42300	13400	14700	8070
14	7290	3250	3030	4060	6780	4700	6450	6670	40500	15400	18800	7640
15	7200	3060	3960	4010	4830	4560	3810	10800	34000	19600	18300	9320
16	6030	2810	3380	4200	8870	4180	4290	4280	30000	18000	15900	22800
17	7010	3120	5440	3920	6480	4150	13100	7370	26300	25100	11000	21200
18	5670	5510	4680	3990	5820	5250	6340	11300	24400	25400	18500	13400
19	3920	6370	5100	4170	12200	8270	4370	28100	24100	15700	13500	12000
20	5450	4470	4810	4500	14400	5230	13900	38400	21300	15300	13000	10000
21	6450	4150	4700	4590	7810	5900	21400	30700	18300	15300	9270	8740
22	4190	3440	4550	5680	5360	9280	17200	18600	14300	16800	8360	13100
23	5970	2660	6510	5630	7610	4770	10500	9240	16000	12600	5840	12500
24	6050	2650	3950	4630	5270	6840	10500	5870	24100	9590	3310	13300
25	5650	2320	3430	4620	5190	6080	6600	12200	17600	5980	3940	12800
26	6180	2200	3630	4580	3820	6020	6720	16400	18100	4240	17400	13800
27	7560	2530	4070	4260	3970	6460	6470	15200	24600	9730	21700	10900
28	4970	3200	3230	6030	3920	6780	6740	11500	18400	15800	9060	7800
29	4500	4500	3790	5940	---	5820	9070	27200	17800	16700	7660	12300
30	4000	3990	3160	6010	---	11600	9850	23600	14600	17500	11800	12700
31	4300	---	4540	5250	---	19600	---	18800	---	9680	12300	---
TOTAL	182560	103460	123180	144330	238660	210110	273430	363920	902900	430380	366030	355750
MEAN	5889	3449	3974	4656	8524	6778	9114	11740	30100	13880	11810	11860
MAX	7560	6370	6510	7080	39100	19600	21400	38400	56600	25400	21700	22800
MIN	3920	2200	2450	2740	3050	2670	3810	3070	14300	4240	3310	4840
CAL YR 1980	TOTAL	6102030	MEAN	16670	MAX	83400	MIN	2200				
WTR YR 1981	TOTAL	3694710	MEAN	10120	MAX	56600	MIN	2200				

CUMBERLAND RIVER BASIN

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03426800 EAST FORK STONES RIVER AT WOODBURY, TN

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

DRAINAGE AREA.--39.1 mi² (101.3 km²).

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

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

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

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

AVERAGE DISCHARGE.--19 years, 68.5 ft³/s (1.940 m³/s), 23.79 in/yr (604 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s (374 m³/s) Mar. 15, 1973, gage height, 16.75 ft (5.105 m), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of velocity-area study and contracted-opening measurement at gage height 16.52 ft (5.035 m) at bridge 4.6 mi (7.4 km) downstream; minimum, 2.1 ft³/s (0.059 m³/s) Nov. 13, 1980 (result of unnatural regulation upstream).

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft³/s (35.7 m³/s) at 0200 hours Mar. 30, gage height, 6.71 ft (2.045 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum, 2.1 ft³/s (0.059 m³/s) Nov. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	10	11	8.5	123	20	67	15	17	8.2	8.5	12
2	8.2	10	9.9	8.2	225	19	48	14	18	11	7.9	11
3	7.9	9.9	9.2	7.9	58	18	41	14	16	8.5	7.6	11
4	7.4	9.9	9.2	7.9	37	44	113	13	13	8.2	7.4	11
5	7.4	9.9	8.9	7.4	29	107	251	13	13	11	6.6	9.2
6	7.1	9.9	8.5	8.5	26	67	89	12	14	11	7.1	8.2
7	7.1	9.9	8.5	11	23	45	57	12	102	11	7.6	7.6
8	7.1	9.9	8.5	10	24	35	44	12	49	8.9	7.4	7.4
9	7.1	9.9	144	9.5	22	30	65	11	27	7.9	6.6	7.1
10	6.8	9.5	35	8.9	22	27	62	13	80	25	6.1	6.6
11	6.8	9.2	20	8.2	39	25	50	14	77	28	5.8	6.3
12	7.1	9.2	15	7.6	34	23	41	12	39	14	5.6	6.1
13	7.6	6.0	13	7.9	30	22	35	12	28	11	5.4	5.8
14	8.2	4.1	11	8.5	27	21	30	11	22	9.5	5.4	6.1
15	8.5	17	11	8.5	26	20	25	11	18	8.5	5.1	13
16	8.5	14	10	8.2	25	20	23	11	16	9.2	11	16
17	9.5	20	9.5	7.9	27	19	29	11	14	9.5	9.2	10
18	11	19	9.2	7.6	28	19	27	11	13	9.2	7.4	8.2
19	10	14	8.9	7.9	33	18	24	13	13	21	6.8	7.6
20	10	12	8.5	9.2	35	17	24	13	12	20	7.1	7.1
21	10	11	8.2	22	32	16	22	11	11	13	8.9	6.6
22	10	10	8.2	18	30	34	21	10	12	11	7.6	6.1
23	10	11	8.5	15	27	55	21	9.5	13	8.9	6.6	5.8
24	12	15	11	13	24	38	21	9.5	11	9.5	6.1	5.6
25	14	13	11	12	22	30	19	9.5	9.5	16	5.6	5.6
26	12	12	9.9	11	21	27	18	9.9	9.5	11	5.4	5.4
27	13	24	9.5	12	20	24	17	33	9.2	11	5.1	5.4
28	16	17	9.2	11	20	22	16	22	8.5	13	5.1	5.4
29	12	14	8.9	10	---	23	17	15	8.2	14	61	5.1
30	11	11	8.9	12	---	512	16	16	7.9	12	30	4.9
31	10	---	8.5	13	---	121	---	19	---	9.9	14	---
TOTAL	291.8	361.3	470.6	318.3	1089	1518	1333	412.4	700.8	379.9	297.0	233.2
MEAN	9.41	12.0	15.2	10.3	38.9	49.0	44.4	13.3	23.4	12.3	9.58	7.77
MAX	16	24	144	22	225	512	251	33	102	28	61	16
MIN	6.8	4.1	8.2	7.4	20	16	16	9.5	7.9	7.9	5.1	4.9
CFSM	.24	.31	.39	.26	1.00	1.25	1.14	.34	.60	.32	.25	.20
IN.	.28	.34	.45	.30	1.04	1.44	1.27	.39	.67	.36	.28	.22
CAL YR 1980	TOTAL	23653.4	MEAN	64.6	MAX	2500	MIN	4.1	CFSM	1.65	IN	22.50
WTR YR 1981	TOTAL	7405.3	MEAN	20.3	MAX	512	MIN	4.1	CFSM	.52	IN	7.05

CUMBERLAND RIVER BASIN

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN

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

DRAINAGE AREA.--262 mi² (679 km²).

WATER-DISCHARGE RECORDS

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

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

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

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

AVERAGE DISCHARGE.--26 years (1950-57, 1964-81), 459 ft³/s (13.00 m³/s), 23.79 in/yr (604 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,200 ft³/s (1,170 m³/s) Mar. 13, 1975, gage height, 39.48 ft (12.034 m); minimum, 0.2 ft³/s (0.006 m³/s) Oct. 23, 1953, gage height, 2.22 ft (0.677 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Aug. 31, 1953.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s (289 m³/s) at 0845 hours Mar. 30, gage height, 20.32 ft (6.194 m), no other peak above base of 7,000 ft³/s (198 m³/s); minimum, 4.7 ft³/s (0.13 m³/s) Aug. 15, 16, gage height, 2.75 ft (0.838 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	51	35	945	78	685	56	53	23	30	42
2	14	18	44	33	3510	74	424	50	117	22	27	48
3	14	17	40	32	862	66	284	46	104	24	25	126
4	12	15	36	30	458	122	293	42	73	27	23	107
5	12	15	33	27	260	917	2330	40	54	26	21	58
6	9.8	15	31	27	182	699	854	38	786	37	19	40
7	9.2	15	30	30	145	415	528	36	1200	39	18	33
8	9.2	14	28	46	138	260	342	35	629	36	15	30
9	8.6	14	1260	49	143	186	478	34	238	30	14	27
10	8.1	14	630	43	130	148	659	32	150	25	12	25
11	7.6	14	236	38	188	125	440	32	699	23	10	23
12	7.6	14	135	33	276	105	303	35	644	45	8.6	21
13	7.6	14	97	31	190	93	225	34	279	32	6.7	18
14	12	14	75	30	154	85	176	31	163	25	5.5	15
15	13	21	62	30	133	75	138	29	110	22	5.0	389
16	10	25	54	30	122	74	113	27	81	20	5.4	214
17	10	61	48	30	169	68	145	27	64	61	8.2	90
18	9.8	133	42	27	350	62	178	27	53	88	11	55
19	9.2	94	38	25	678	57	141	63	46	144	12	41
20	9.2	65	35	25	570	54	240	50	41	215	14	35
21	8.6	49	32	114	366	50	176	42	38	81	197	31
22	8.6	42	30	201	251	65	135	35	34	52	54	28
23	9.2	36	30	136	192	497	120	30	65	38	36	26
24	13	36	32	104	150	323	127	27	41	34	31	23
25	9.8	48	51	85	122	203	117	25	34	38	28	22
26	9.8	51	57	73	104	152	95	24	32	36	25	19
27	14	111	52	68	90	123	81	30	29	34	23	17
28	18	159	46	68	81	104	70	140	26	37	21	15
29	29	91	42	65	---	93	65	70	25	53	22	13
30	30	65	38	63	---	5510	65	53	24	43	138	11
31	24	---	37	88	---	1470	---	46	---	36	66	---
TOTAL	379.9	1299	3452	1716	10959	12353	10027	1286	5932	1446	931.4	1642
MEAN	12.3	43.3	111	55.4	391	398	334	41.5	198	46.6	30.0	54.7
MAX	30	159	1260	201	3510	5510	2330	140	1200	215	197	389
MIN	7.6	14	28	25	81	50	65	24	24	20	5.0	11
CFSM	.05	.17	.42	.21	1.49	1.52	1.28	.16	.76	.18	.12	.21
IN.	.05	.18	.49	.24	1.56	1.75	1.42	.18	.84	.21	.13	.23
CAL YR 1980	TOTAL	145880.9	MEAN 399	MAX 15500	MIN 5.0	CFSM 1.52	IN 20.71					
WTR YR 1981	TOTAL	51423.3	MEAN 141	MAX 5510	MIN 5.0	CFSM .54	IN 7.30					

CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to current year.

WATER TEMPERATURE: October 1975 to current year.

DISSOLVED OXYGEN: January 1981 to September 1981 (discontinued).

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

REMARKS.--No temperature record Nov. 21-25, Dec. 29-31 due to timer failure, Jan. 22 to Feb. 15, Feb. 20 to March 26, Mar. 30 due to probe malfunction, Sept. 18-21 due to recorder malfunction; no specific conductance record Nov. 21-25, Dec. 29-31 due to bad timer, June 10, June 17 to July 14, Aug. 5-8 due to recorder malfunction; no dissolved oxygen record Aug. 21 to Sept. 30 due to probe failure.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 697 micromhos Dec. 6, 1979, minimum, 72 micromhos Aug. 16, 1978.

WATER TEMPERATURE: Maximum, 31.5°C July 8, 14-16, 1977, July 16, 1980; minimum, 0.0°C Jan. 21, 1977.

DISSOLVED OXYGEN: Maximum, not determined; minimum, 4.4 mg/L July 18-19, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 410 micromhos Sept. 6; minimum, 161 micromhos Mar. 30.

WATER TEMPERATURE: Maximum, 30.0°C July 15; minimum 0.5°C Jan. 11-14, 18.

DISSOLVED OXYGEN: Maximum, not determined; minimum, 4.4 mg/L July 18-19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
03...	1440	14	310	18.5	21	.79
NOV						
25...	1530	54	375	8.0	4	.58
DEC						
30...	1415	37	363	5.0	6	.60
FEB						
24...	1350	156	385	10.5	6	2.5
APR						
07...	1000	533	355	13.0	12	17
MAY						
18...	1115	26	310	17.5	1	.07
JUL						
14...	1430	25	322	29.0	15	1.0
AUG						
04...	1100	24	330	25.5	10	.65
SEP						
14...	1315	16	360	24.0	6	.26

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	296	293	295	342	339	340	398	395	397	359	354	357
2	298	295	297	341	340	340	398	392	395	357	351	355
3	297	290	293	343	340	341	397	394	395	353	350	352
4	292	290	291	342	341	342	395	388	392	353	350	352
5	294	288	292	343	342	343	390	386	388	355	351	353
6	296	287	293	344	342	343	387	383	385	354	350	353
7	297	287	294	344	342	343	384	380	382	350	347	348
8	299	288	296	343	342	342	378	254	308	352	346	349
9	300	290	298	343	341	342	337	283	313	350	346	349
10	301	297	299	342	340	342	360	338	350	351	347	349
11	304	294	301	341	336	337	373	361	368	356	347	352
12	305	298	303	339	337	338	380	372	376	370	355	365
13	308	299	305	336	325	329	384	380	382	372	362	367
14	312	301	307	369	334	349	386	384	385	365	357	362
15	314	303	311	377	369	371	387	385	386	361	356	359
16	316	309	313	386	377	383	388	386	387	360	357	359
17	319	307	316	386	382	384	388	384	386	362	358	360
18	323	316	321	382	379	381	388	384	386	365	362	363
19	327	318	324	379	375	377	384	379	382	362	355	358
20	334	319	326	376	375	375	382	377	380	357	347	355
21	336	326	329	---	---	---	381	379	380	366	343	350
22	330	322	327	---	---	---	380	377	379	370	351	362
23	328	321	322	---	---	---	378	370	374	370	365	367
24	328	324	326	---	---	---	370	369	369	378	368	374
25	329	321	324	---	---	---	374	364	369	382	377	379
26	329	321	324	378	376	377	364	361	363	384	378	381
27	339	329	335	403	369	383	363	361	362	381	376	379
28	338	335	337	403	391	399	364	361	363	380	374	377
29	337	335	336	400	399	399	---	---	---	377	371	373
30	337	336	337	400	396	399	---	---	---	375	367	370
31	340	337	338	---	---	---	---	---	---	377	371	374
MONTH	340	287	313	403	325	360	398	254	374	384	343	361
	FEBRUARY			MARCH			APRIL			MAY		
1	376	261	351	373	364	368	359	349	356	332	326	329
2	312	238	271	367	359	364	368	357	365	327	324	326
3	349	315	334	366	357	362	371	362	366	326	322	324
4	365	350	359	366	350	357	373	321	362	328	319	324
5	375	365	370	365	345	354	324	244	286	327	319	323
6	379	375	378	361	348	355	347	320	336	325	320	323
7	384	379	382	374	362	369	356	347	354	324	318	321
8	385	383	384	375	369	371	363	353	359	321	316	318
9	386	382	384	379	367	373	362	353	358	320	316	318
10	389	382	387	376	366	371	356	345	350	322	317	319
11	386	379	384	373	363	368	359	349	356	319	317	318
12	381	371	375	367	362	364	360	352	355	317	312	315
13	370	363	365	362	357	359	358	343	350	314	308	311
14	376	368	374	361	350	356	355	338	347	314	309	312
15	378	374	376	356	349	353	349	340	345	314	311	312
16	377	372	375	355	343	350	341	335	338	312	308	310
17	381	374	378	348	338	344	336	329	333	310	308	309
18	389	369	382	347	342	345	343	330	335	318	308	313
19	385	380	382	349	338	343	346	336	341	315	295	306
20	386	381	383	343	334	338	360	337	351	316	260	302
21	386	383	384	342	333	338	367	361	364	323	317	319
22	389	383	386	338	330	334	363	357	360	320	316	318
23	391	380	386	360	335	351	362	356	360	318	313	316
24	386	375	381	365	351	360	373	355	360	318	311	315
25	383	374	378	368	360	364	355	349	353	314	311	312
26	378	373	375	373	359	366	350	344	348	313	311	312
27	374	364	369	367	358	362	347	340	344	314	308	312
28	371	365	368	362	352	357	346	335	341	310	292	303
29	---	---	---	358	305	351	339	331	335	300	278	290
30	---	---	---	303	161	237	334	328	331	301	285	293
31	---	---	---	347	306	332	---	---	---	293	290	292
MONTH	391	238	371	379	161	352	373	244	348	332	260	313

CUMBERLAND RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	299	293	296	---	---	---	355	305	338	274	251	262
2	298	257	277	---	---	---	359	333	341	279	244	258
3	328	291	314	---	---	---	357	326	338	284	257	269
4	337	328	331	---	---	---	335	326	330	298	277	287
5	340	337	339	---	---	---	---	---	---	365	286	331
6	341	199	269	---	---	---	---	---	---	410	367	380
7	330	255	309	---	---	---	---	---	---	393	332	347
8	364	317	345	---	---	---	---	---	---	345	343	344
9	380	364	374	---	---	---	321	262	284	349	344	347
10	---	---	---	---	---	---	269	265	268	353	346	350
11	383	276	334	---	---	---	274	270	272	352	348	350
12	371	267	329	---	---	---	278	275	276	353	350	351
13	391	372	385	---	---	---	280	276	278	353	349	351
14	396	391	394	---	---	---	282	277	280	371	352	369
15	395	392	393	322	318	320	283	279	281	366	180	294
16	393	388	390	319	316	318	282	268	279	331	218	284
17	---	---	---	320	270	310	283	281	282	367	329	353
18	---	---	---	257	208	226	285	276	283	372	360	366
19	---	---	---	297	191	272	283	280	281	369	362	366
20	---	---	---	304	190	274	285	277	283	368	349	358
21	---	---	---	344	307	322	288	177	242	368	353	360
22	---	---	---	334	301	318	308	277	298	378	363	371
23	---	---	---	315	294	298	317	310	315	389	348	365
24	---	---	---	320	290	307	318	313	316	352	303	318
25	---	---	---	342	315	322	316	310	313	300	296	297
26	---	---	---	335	315	326	317	312	314	300	296	298
27	---	---	---	345	309	332	319	314	317	351	302	317
28	---	---	---	354	320	330	319	317	318	352	303	321
29	---	---	---	347	320	329	320	312	317	312	309	310
30	---	---	---	367	328	351	314	235	291	358	312	317
31	---	---	---	362	332	343	298	275	286	---	---	---
MONTH	---	---	---	---	---	---	359	177	297	410	180	330

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	17.5	15.0	16.5	21.5	19.0	20.5
2	---	---	---	---	---	---	17.0	15.0	17.0	21.0	17.5	19.5
3	---	---	---	---	---	---	17.5	16.0	16.5	21.0	17.0	19.5
4	---	---	---	---	---	---	18.0	15.5	17.0	21.5	18.5	20.0
5	---	---	---	---	---	---	17.5	15.0	16.0	22.5	20.0	21.0
6	---	---	---	---	---	---	16.0	14.0	15.0	21.5	19.5	21.0
7	---	---	---	---	---	---	15.5	13.0	15.0	19.5	18.0	19.0
8	---	---	---	---	---	---	15.5	15.0	15.0	20.5	17.0	19.5
9	---	---	---	---	---	---	16.5	15.0	16.0	21.5	19.0	20.5
10	---	---	---	---	---	---	18.0	15.5	16.5	21.0	20.0	20.5
11	---	---	---	---	---	---	19.0	17.5	18.0	20.0	15.5	17.5
12	---	---	---	---	---	---	19.5	18.5	19.0	17.5	15.0	16.5
13	---	---	---	---	---	---	21.5	18.0	20.0	19.5	15.5	17.5
14	---	---	---	---	---	---	22.0	19.0	20.0	19.5	18.5	19.0
15	---	---	---	---	---	---	20.5	17.5	19.0	18.5	16.5	17.5
16	9.0	5.5	8.0	---	---	---	19.5	17.0	18.5	17.5	15.0	17.0
17	12.0	9.0	10.5	---	---	---	19.5	18.5	19.0	17.0	16.0	16.5
18	12.5	11.5	12.0	---	---	---	21.5	17.5	19.5	18.5	16.5	17.5
19	13.5	12.0	12.5	---	---	---	21.0	18.5	20.0	19.0	18.0	18.5
20	---	---	---	---	---	---	20.5	17.0	18.5	18.5	17.0	18.0
21	---	---	---	---	---	---	19.0	15.5	17.0	19.5	15.5	18.0
22	---	---	---	---	---	---	19.0	16.5	18.0	21.0	16.5	19.0
23	---	---	---	---	---	---	19.0	17.5	18.5	22.0	18.5	20.5
24	---	---	---	---	---	---	19.5	16.5	18.0	23.0	19.5	21.5
25	---	---	---	---	---	---	19.0	15.5	17.5	23.0	21.0	22.0
26	---	---	---	---	---	---	20.5	16.5	18.5	22.5	21.5	22.0
27	---	---	---	15.5	13.0	14.5	22.0	18.5	20.0	22.0	21.0	21.5
28	---	---	---	16.5	14.0	15.5	23.0	19.0	21.0	23.0	19.5	21.5
29	---	---	---	17.0	15.5	16.0	23.0	21.0	22.0	22.5	20.0	21.0
30	---	---	---	---	---	---	23.5	20.5	22.0	23.0	20.5	22.0
31	---	---	---	16.5	15.0	15.5	---	---	---	24.0	21.0	22.5
MONTH	---	---	---	---	---	---	23.5	13.0	18.0	24.0	15.0	19.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	22.0	23.0	26.0	24.5	25.0	25.5	24.0	25.0	26.0	24.0	24.5
2	23.0	21.5	22.0	25.0	23.5	24.5	25.0	24.0	24.5	25.0	24.0	24.5
3	23.5	22.0	23.0	25.5	23.5	24.0	25.5	24.0	25.0	24.0	22.0	23.0
4	25.0	23.0	24.0	24.5	22.5	24.0	27.0	25.0	26.0	24.0	21.5	22.5
5	25.5	23.5	24.5	25.0	24.0	24.5	28.0	26.0	27.0	24.5	22.5	23.5
6	24.5	20.5	22.5	25.5	24.0	24.5	29.0	27.0	28.0	25.0	22.5	23.5
7	21.0	9.0	20.0	26.0	23.5	25.0	27.5	26.0	27.0	25.0	23.0	24.0
8	21.5	19.5	20.5	27.5	23.5	25.5	27.5	25.5	26.5	24.5	23.5	24.0
9	23.0	21.0	22.0	28.0	25.5	26.5	27.0	25.0	26.0	23.0	21.0	22.5
10	22.5	22.0	22.5	29.0	26.5	28.0	27.5	25.0	26.5	22.5	20.0	21.5
11	22.0	21.0	21.5	28.5	26.5	27.5	27.0	25.0	26.0	23.0	20.5	22.0
12	21.5	19.5	20.5	29.5	26.5	28.0	27.0	25.0	26.0	23.5	21.5	22.5
13	23.0	20.5	21.5	29.5	26.5	28.5	26.5	24.0	25.5	24.0	22.0	23.0
14	24.5	21.5	23.0	29.5	27.5	28.5	26.5	23.5	25.0	24.5	23.0	24.0
15	25.5	23.0	24.5	30.0	28.0	29.0	27.0	24.5	25.5	24.0	19.5	22.0
16	26.5	24.5	25.5	29.5	28.0	28.5	27.0	25.5	26.0	21.0	19.0	20.0
17	26.0	23.5	24.5	28.5	24.0	27.5	26.0	25.0	25.5	20.5	16.5	18.5
18	25.5	23.0	24.0	25.0	23.0	24.0	25.0	23.5	24.5	---	---	---
19	24.5	23.0	23.5	26.5	23.5	25.0	23.5	23.0	23.0	---	---	---
20	25.5	22.5	24.0	26.0	23.5	24.5	23.0	22.5	23.0	---	---	---
21	27.0	24.0	25.5	26.0	25.0	25.5	22.5	19.5	21.0	---	---	---
22	27.0	25.0	26.0	26.5	24.5	25.5	22.5	19.5	21.0	19.5	17.0	18.5
23	26.5	24.0	25.5	26.0	24.5	25.5	24.5	21.5	23.0	19.5	18.5	19.5
24	28.0	23.5	25.5	27.0	25.0	26.0	25.0	23.0	24.0	18.5	17.0	18.0
25	27.5	25.5	26.5	26.0	25.0	25.5	25.5	23.5	24.5	19.0	17.5	18.5
26	27.0	24.5	26.0	27.0	24.5	26.0	25.5	23.5	25.0	20.0	18.5	19.0
27	26.5	24.5	25.5	28.0	26.0	27.0	25.5	24.0	25.0	20.0	19.0	19.5
28	26.5	23.5	25.5	27.5	26.0	27.0	26.0	24.0	25.0	20.5	19.5	20.0
29	25.5	23.5	24.5	27.0	24.0	25.5	25.5	24.5	25.0	19.5	17.5	19.0
30	25.5	22.0	24.0	24.0	22.5	23.5	24.5	22.5	23.5	19.5	17.5	18.5
31	---	---	---	25.0	22.5	24.0	25.5	23.0	24.0	---	---	---
MONTH	28.0	19.0	23.5	30.0	22.5	26.0	29.0	19.5	25.0	26.0	16.5	21.5

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										---	---	---
17										---	---	---
18										---	---	---
19										---	---	---
20										---	---	---
21										---	---	---
22										---	---	---
23										11.4	10.0	10.6
24										11.7	10.0	10.8
25										11.8	10.1	10.9
26										11.9	9.9	10.8
27										11.9	9.6	10.6
28										11.9	9.7	10.7
29										11.5	10.0	10.7
30										11.8	9.9	10.8
31										12.7	10.8	11.6
MONTH										---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	11.4	10.0	10.5	12.1	9.5	10.7	9.6	8.6	9.1	9.0	7.0	8.1
2	10.7	10.1	10.5	13.0	10.0	11.4	10.2	8.5	9.2	9.9	7.3	8.6
3	11.2	10.8	11.0	13.0	10.2	11.5	9.9	8.5	9.1	9.9	7.6	8.7
4	11.6	11.0	11.2	11.1	10.2	10.5	9.6	8.1	8.8	9.9	7.5	8.7
5	11.9	11.1	11.5	10.5	10.1	10.4	9.1	8.1	8.8	9.5	7.1	8.4
6	11.9	11.1	11.4	11.5	10.4	10.8	9.8	9.0	9.3	7.9	6.6	7.3
7	11.5	10.9	11.2	12.3	10.4	11.2	10.5	8.9	9.6	9.5	7.0	8.3
8	12.0	10.8	11.4	12.6	10.5	11.4	9.9	8.7	9.2	9.9	7.4	8.7
9	12.4	11.1	11.7	12.9	10.5	11.5	9.6	8.6	8.9	9.7	7.3	8.6
10	11.6	10.9	11.2	13.1	10.3	11.5	9.3	8.4	8.9	8.5	7.0	7.8
11	12.4	10.6	11.4	13.0	9.9	11.4	9.8	8.1	8.8	7.9	7.1	7.6
12	13.1	11.7	12.4	13.1	9.9	11.4	9.7	7.9	8.6	9.8	7.7	8.7
13	13.1	12.3	12.6	12.5	9.9	11.2	10.0	7.8	8.7	10.2	8.1	9.2
14	13.6	12.3	12.8	13.0	9.9	11.3	9.5	7.4	8.4	8.9	7.7	8.4
15	13.5	11.8	12.5	11.9	10.2	11.0	10.2	7.2	8.7	9.0	7.6	8.3
16	12.6	11.1	11.8	12.8	9.6	11.1	10.4	7.4	8.9	9.7	8.2	9.1
17	12.9	10.6	11.6	12.8	10.1	11.3	9.5	7.3	8.3	9.1	8.3	8.7
18	11.0	10.2	10.5	11.6	9.5	10.5	10.3	7.4	8.7	9.2	8.1	8.7
19	11.2	10.3	10.6	12.0	9.7	10.8	9.1	7.1	8.0	8.6	7.7	8.0
20	11.9	10.3	10.9	12.5	10.2	11.3	8.7	7.2	7.8	8.4	7.3	7.8
21	12.8	10.6	11.4	12.1	9.9	10.9	10.2	7.8	8.8	9.4	7.4	8.4
22	11.8	10.5	11.0	10.5	9.6	9.9	9.4	7.3	8.2	9.5	7.7	8.6
23	13.1	10.4	11.6	10.7	9.7	10.2	8.2	6.7	7.5	9.2	7.4	8.4
24	13.3	10.7	11.9	11.8	9.9	10.7	9.7	7.2	8.3	9.0	7.3	8.3
25	13.6	10.5	11.9	12.1	9.6	10.6	9.8	7.5	8.5	8.3	7.0	7.8
26	13.6	10.2	11.8	12.2	9.3	10.5	10.2	7.5	8.7	7.7	6.7	7.2
27	13.4	10.2	11.7	11.9	8.6	10.1	9.9	7.4	8.5	8.3	6.7	7.5
28	11.0	9.8	10.4	12.0	8.4	10.1	9.7	7.3	8.4	8.8	7.5	8.0
29	---	---	---	11.1	8.0	9.4	9.6	7.3	8.3	8.7	7.0	7.8
30	---	---	---	8.9	8.1	8.7	9.5	7.1	8.2	7.6	6.9	7.3
31	---	---	---	9.4	8.8	9.1	---	---	---	7.8	6.3	7.0
MONTH	13.6	9.8	11.4	13.1	8.0	10.7	10.5	6.7	8.6	10.2	6.3	8.2

CUMBERLAND RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.5	6.3	6.9	7.0	6.1	6.5	7.4	6.0	6.7			
2	6.7	6.1	6.4	7.2	6.0	6.6	7.4	6.1	6.7			
3	7.3	6.1	6.7	7.1	6.0	6.5	7.3	6.3	6.8			
4	7.4	6.5	6.9	6.4	5.5	6.0	7.7	6.1	6.9			
5	7.3	6.2	6.7	6.4	5.7	6.1	7.6	5.8	6.7			
6	7.2	6.1	6.8	6.7	5.6	6.2	7.2	5.6	6.4			
7	7.8	7.2	7.6	7.1	5.9	6.5	7.0	5.6	6.3			
8	7.8	7.4	7.6	7.0	5.9	6.5	7.6	5.7	6.6			
9	7.7	7.2	7.4	6.9	5.8	6.3	8.1	6.0	7.0			
10	7.4	6.9	7.1	6.9	5.7	6.3	8.1	6.3	7.2			
11	7.5	7.0	7.3	7.0	5.5	6.2	8.3	6.3	7.2			
12	7.7	7.3	7.5	7.0	5.7	6.4	8.7	6.6	7.5			
13	7.8	7.2	7.5	7.2	5.7	6.4	8.8	6.7	7.6			
14	7.8	7.0	7.3	6.9	5.6	6.2	8.4	7.0	7.7			
15	7.7	6.6	7.1	6.6	4.7	5.7	8.2	7.0	7.6			
16	7.4	6.4	6.8	6.3	4.8	5.6	7.9	6.6	7.2			
17	7.5	6.4	6.9	6.2	4.7	5.3	7.7	6.4	7.1			
18	7.4	6.4	6.9	4.8	4.4	4.6	7.3	6.3	6.7			
19	7.1	6.3	6.7	5.6	4.4	5.0	7.3	6.2	6.7			
20	7.4	6.2	6.8	5.9	5.6	5.7	7.3	6.6	6.9			
21	7.3	6.0	6.7	6.3	5.3	5.7	---	---	---			
22	7.0	5.8	6.4	6.2	5.3	5.7	---	---	---			
23	6.4	5.4	6.0	6.0	5.0	5.5	---	---	---			
24	6.4	5.2	5.8	6.3	4.9	5.6	---	---	---			
25	6.6	5.4	6.0	6.1	5.1	5.6	---	---	---			
26	6.8	5.5	6.2	6.8	5.2	6.0	---	---	---			
27	6.9	5.8	6.4	6.9	5.1	6.1	---	---	---			
28	6.9	6.0	6.4	6.8	4.9	5.9	---	---	---			
29	6.5	5.9	6.3	6.2	5.5	5.9	---	---	---			
30	7.3	6.2	6.7	7.4	6.3	6.7	---	---	---			
31	---	---	---	7.6	6.3	6.9	---	---	---			
MONTH	7.8	5.2	6.8	7.6	4.4	6.0	---	---	---			

CUMBERLAND RIVER BASIN

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03428047 FOX CAMP SPRING AT MANKINVILLE, TN

LOCATION.--Lat 35°48'15", long 86°20'52", Rutherford County, Hydrologic Unit 05130203, 1.0 m (1.6 km) north of Mankinville, 3.7 m (6.0 km) southeast of Courthouse in Murfreesboro.

PERIOD OF RECORD.--April 1978 to June 1980.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 620 ft (188.98 m), from topographic map.

REMARKS.--Records fair. Recording rain gage located at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 364 ft³/s (10.3 m³/s) May 23, 1979, gage height, 4.32 ft (1.317 m); minimum, 0.27 ft³/s (0.008 m³/s) Nov. 13, 1978.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	1.3	1.4	.79	.48	5.2
2							---	1.4	1.4	.78	.46	4.5
3							---	1.4	1.4	.78	3.8	4.2
4							---	1.5	1.3	.76	5.9	3.7
5							---	1.5	1.2	.73	5.0	3.5
6							---	1.5	1.2	.70	4.1	3.3
7							---	1.6	1.2	.68	3.7	3.1
8							---	17	1.6	.64	3.4	3.0
9							---	7.2	2.1	.98	3.2	2.8
10							---	4.7	1.8	.74	3.0	2.7
11							---	3.6	1.6	.70	2.9	2.6
12							---	3.4	1.6	.67	2.7	2.6
13							---	7.0	1.5	.78	2.6	2.3
14							.90	4.5	1.4	.73	2.5	2.2
15							1.0	8.6	1.3	1.1	2.4	2.2
16							1.1	3.0	1.2	.98	2.5	2.1
17							.96	2.8	1.2	.85	2.6	2.0
18							.83	2.6	1.2	.76	2.6	2.0
19							.79	2.3	1.1	.72	2.5	1.9
20							.76	2.1	1.1	.67	2.4	1.9
21							.76	2.0	1.1	.64	2.4	1.8
22							.76	2.0	1.0	.64	2.4	1.7
23							.76	1.9	.99	.64	2.2	1.6
24							.76	1.8	.99	.64	2.2	1.5
25							.76	1.7	.94	.59	2.9	1.4
26							.76	1.7	.91	.58	7.2	1.3
27							.76	1.5	.88	.55	4.3	1.2
28							.72	1.5	.83	.53	3.8	1.1
29							.70	1.6	.83	.53	3.5	1.0
30							.99	1.5	.83	.50	5.7	1.0
31							---	1.4	---	.48	6.5	---
TOTAL							---	97.6	37.10	21.86	101.84	71.4
MEAN							---	3.15	1.24	.71	3.29	2.38
MAX							---	17	2.1	1.1	7.2	5.2
MIN							---	1.3	.83	.48	.46	1.0

CUMBERLAND RIVER BASIN

03428047 FOX CAMP SPRING AT MANKINVILLE, TN--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	.32	1.2	---	1.7	3.4	3.9	---	1.7	3.3	1.3	2.1
2	.95	.32	1.2	---	1.7	2.9	12	---	1.6	3.1	1.4	2.0
3	.87	.32	1.4	---	1.6	3.9	8.9	---	4.4	3.0	1.3	1.8
4	.86	.32	5.2	---	1.4	4.9	8.1	---	2.9	3.0	1.2	1.7
5	.78	.32	3.2	---	1.4	4.1	7.4	---	2.5	3.2	1.1	1.7
6	.72	.32	2.5	---	1.3	3.7	7.0	---	2.2	3.0	.99	1.5
7	.69	.32	2.7	---	1.3	3.2	6.5	---	2.0	3.0	.91	1.4
8	.63	.32	2.6	---	1.3	3.0	6.3	---	1.8	3.0	.82	1.4
9	.57	.32	5.4	---	1.3	2.8	7.9	1.7	1.7	2.8	.67	1.4
10	.55	.32	9.4	---	1.3	2.9	6.8	1.7	1.7	2.8	.62	1.3
11	.54	.32	4.8	---	1.3	2.8	6.4	1.7	1.4	2.6	.62	1.3
12	.55	.32	3.5	---	1.2	2.8	15	1.7	1.4	2.4	.54	1.3
13	.67	.32	2.9	---	1.3	2.6	9.3	1.7	1.4	2.4	.48	1.3
14	.69	.32	2.4	---	1.6	2.6	8.6	1.6	1.3	2.4	.48	1.8
15	.69	.32	1.9	---	1.9	2.6	7.8	1.5	1.3	2.3	.36	5.2
16	.69	.40	1.6	---	1.9	2.6	7.3	1.5	1.3	2.2	.32	2.8
17	.69	.84	1.5	---	1.7	2.4	6.9	1.5	1.2	2.1	.32	2.1
18	.65	1.2	1.2	---	1.6	2.4	6.5	1.4	1.2	2.0	.32	1.7
19	.61	1.2	1.1	---	1.6	2.8	6.2	1.4	1.0	2.0	.32	1.8
20	.49	1.2	1.3	---	1.4	3.0	6.0	1.4	.99	2.0	3.4	1.5
21	.48	1.2	3.7	---	1.7	3.0	5.9	1.4	.99	2.0	1.3	3.8
22	.48	1.1	2.5	---	2.0	2.8	5.2	1.4	.99	1.9	1.4	5.5
23	.48	1.0	2.0	---	2.4	3.6	---	9.3	1.5	1.8	1.4	3.1
24	.43	1.0	1.6	---	2.8	3.9	---	28	3.9	1.7	1.2	2.3
25	.32	1.0	1.3	---	1.5	3.9	---	5.2	3.7	1.7	1.7	1.8
26	.32	1.1	1.3	2.8	5.2	3.9	---	3.8	3.7	1.6	1.2	1.5
27	.32	1.2	1.2	2.8	4.4	3.9	---	3.0	3.5	1.5	3.1	2.7
28	.32	1.2	.95	2.6	3.9	3.9	---	2.6	3.4	1.4	3.7	3.8
29	.32	1.2	1.0	2.2	---	3.7	---	2.2	3.4	1.4	3.1	9.9
30	.32	1.2	1.2	2.0	---	3.5	---	2.0	3.4	1.4	2.5	3.7
31	.32	---	2.2	1.9	---	3.4	---	1.9	---	1.3	2.3	---
TOTAL	17.96	20.84	147.95	---	67.2	100.9	---	---	63.47	70.3	66.47	195.8
MEAN	.58	.69	4.77	---	2.40	3.25	---	---	2.12	2.27	2.14	6.53
MAX	.96	1.2	5.4	---	1.5	4.9	---	---	4.4	3.3	1.7	3.8
MIN	.32	.32	.95	---	1.2	2.4	---	---	.99	1.3	.32	1.3

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

1	2.6	3.6	2.7	3.7	4.4	5.1	3.0	2.3	2.4
2	2.2	1.8	2.5	3.3	4.6	4.8	2.9	2.2	2.2
3	1.9	7.3	2.4	3.3	4.6	4.8	2.6	2.1	2.2
4	1.7	---	2.5	3.9	4.2	4.6	2.4	2.0	2.2
5	1.7	---	2.4	4.2	4.2	5.2	2.3	2.0	2.2
6	1.6	---	2.6	4.2	4.3	5.2	2.2	1.9	2.0
7	1.5	---	2.6	4.2	3.9	6.5	2.2	2.0	2.0
8	1.4	---	2.5	4.4	4.4	8.5	3.8	2.0	2.0
9	1.4	---	2.0	4.3	4.3	8.2	3.3	1.8	2.0
10	1.5	---	2.4	4.2	3.9	7.4	2.9	1.9	1.7
11	1.6	---	2.1	6.0	4.4	6.8	2.8	2.0	1.7
12	1.5	---	2.2	6.2	4.4	6.6	3.0	2.0	1.7
13	1.5	---	2.8	5.8	4.1	6.1	4.6	1.9	1.7
14	1.5	---	2.7	5.1	4.6	6.2	6.0	1.9	1.7
15	1.0	2.1	2.7	4.7	5.9	5.8	4.8	1.9	1.7
16	1.2	1.9	2.7	4.6	8.8	5.9	3.9	1.9	1.7
17	1.1	1.8	2.7	4.5	8.0	14	3.4	2.7	1.7
18	1.0	1.7	2.8	7.5	7.3	10	3.2	4.6	1.7
19	.99	1.7	2.5	6.9	6.5	9.0	3.3	5.9	1.7
20	1.0	1.5	2.8	6.4	6.4	12.5	3.1	5.0	1.7
21	1.0	1.6	2.7	5.9	6.3	5.8	2.7	4.1	1.7
22	1.1	1.6	2.6	7.1	5.7	11	2.5	4.3	1.7
23	1.4	4.0	2.9	7.4	5.5	6.9	2.5	4.8	1.5
24	1.3	4.6	4.3	6.6	5.4	5.9	2.5	4.5	1.4
25	1.4	3.8	4.8	6.1	5.2	5.3	2.5	4.0	1.3
26	1.2	3.8	4.5	5.6	5.3	4.7	2.5	3.6	1.1
27	1.3	3.5	4.2	5.5	5.4	4.0	2.3	3.1	1.0
28	1.3	3.1	4.1	5.1	5.1	12	2.5	2.3	.95
29	4.3	3.1	3.8	4.9	5.0	5.7	2.4	2.8	.96
30	3.5	2.7	3.8	4.8	---	4.6	2.3	2.8	.91
31	2.7	---	3.9	4.7	---	3.9	---	2.6	---
TOTAL	50.39	---	92.2	161.1	152.1	377.7	90.4	88.9	50.42
MEAN	1.63	---	2.97	5.20	5.24	12.2	3.01	2.87	1.68
MAX	4.3	---	4.8	7.5	8.8	12.5	6.0	5.9	2.4
MIN	.99	---	2.0	3.3	3.9	3.9	2.2	1.8	.91

CUMBERLAND RIVER BASIN

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03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN

LOCATION.--35°51'25", long 86°24'43", Rutherford County, Hydrologic Unit 05130203, on right bank at upstream abutment of Manson Pike bridge, 900 ft (274 m) downstream from Lytle Creek, 1.4 mi (2.3 km) northwest of the courthouse in Murfreesboro, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--165 mi² (427 km²), includes 15 mi² (39 km²) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1973 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 542.29 ft (165.290 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 20 ft³/s (0.57 m³/s), which are fair.

AVERAGE DISCHARGE.--8 years, 273 ft³/s (7.73 m³/s), 22.47 in/yr (571 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s (742 m³/s) Mar. 13, 1975, gage height, 23.22 ft (7.077 m); minimum, 0.34 ft³/s (0.010 m³/s) Oct. 19-24, 1980, gage height, 1.16 ft (0.354 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,960 ft³/s (169 m³/s) at 900 hours Mar. 30, gage height 9.62 ft (2.932 m), no other peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 0.34 ft³/s (0.010 m³/s) Oct. 19-24, gage height 1.16 ft (0.354 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.7	11	9.8	107	71	405	34	12	7.2	18	40
2	1.8	1.6	11	9.5	1320	64	284	30	11	14	15	128
3	1.3	1.3	11	8.8	388	56	221	28	10	7.7	12	89
4	.97	.91	9.5	8.0	242	73	207	25	21	7.1	11	156
5	.87	.82	8.2	7.7	177	343	986	23	21	20	9.2	98
6	.80	.74	7.2	8.0	140	275	399	23	63	20	8.0	62
7	.69	.61	6.5	9.8	118	197	266	23	99	23	7.2	45
8	.64	.58	7.6	8.6	111	152	207	21	86	16	6.8	34
9	.52	.53	45	8.0	113	124	374	19	58	13	6.0	27
10	.46	.47	131	7.7	97	107	406	17	40	11	5.3	21
11	.46	.46	80	7.1	131	93	252	16	46	9.0	5.1	17
12	.48	.53	57	7.1	177	80	190	15	42	8.6	5.0	14
13	.50	1.1	42	6.9	134	72	160	14	44	7.6	4.8	12
14	.49	1.0	33	6.6	116	64	131	13	40	6.5	4.5	11
15	.46	1.2	26	6.4	104	57	107	10	28	5.7	5.0	37
16	.46	.74	22	6.1	97	56	92	9.7	20	5.0	11	30
17	.45	5.6	19	5.9	113	49	126	9.9	16	6.4	7.2	26
18	.49	6.9	16	5.9	154	43	103	9.2	13	8.6	5.4	21
19	.48	4.1	14	5.9	503	40	104	21	11	7.2	5.2	17
20	.34	2.6	12	6.1	348	36	121	13	9.4	17	5.6	15
21	.34	2.0	10	15	242	33	104	11	8.4	13	12	13
22	.34	1.6	9.3	35	197	49	86	9.7	8.4	12	8.0	12
23	.34	1.6	8.9	61	164	135	79	8.1	10	9.3	6.3	10
24	.35	1.9	12	53	130	141	77	7.5	7.3	12	5.7	8.7
25	.64	1.9	10	44	112	106	71	7.4	6.5	14	5.1	7.9
26	.68	1.7	9.0	36	96	88	62	7.0	7.1	15	4.5	7.0
27	3.5	9.0	8.8	32	83	75	51	7.5	5.9	16	3.8	6.4
28	9.4	8.8	9.0	30	74	66	43	8.0	5.3	23	3.3	6.4
29	4.5	9.3	9.3	27	---	73	42	9.5	4.7	33	3.1	6.0
30	2.8	11	9.5	30	---	2570	40	14	4.6	32	162	5.7
31	2.1	---	9.5	28	---	708	---	16	---	23	53	---
TOTAL	39.55	82.29	674.3	540.9	5788	6096	5796	479.5	758.6	422.9	424.1	983.1
MEAN	1.28	2.74	21.8	17.4	207	197	193	15.5	25.3	13.6	13.7	32.8
MAX	9.4	11	131	61	1320	2570	986	34	99	33	162	156
MIN	.34	.46	6.5	5.9	74	33	40	7.0	4.6	5.0	3.1	5.7
CFSM	.008	.02	.13	.11	1.26	1.19	1.17	.09	.15	.08	.08	.20
IN.	.01	.02	.15	.12	1.30	1.37	1.31	.11	.17	.10	.10	.22
CAL YR 1980	TOTAL	70255.04	MEAN	192	MAX	5340	MIN	.34	CFSM	1.16	IN	15.84
WTR YR 1981	TOTAL	22085.24	MEAN	60.5	MAX	2570	MIN	.34	CFSM	.37	IN	4.98

CUMBERLAND RIVER BASIN

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1973 to September 1981.

pH: July 1973 to September 1981.

WATER TEMPERATURES: July 1973 to September 1981.

DISSOLVED OXYGEN: July 1973 to September 1981.

INSTRUMENTATION.--Water-quality monitor since July 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 479 micromhos Sept. 29, 1975; minimum, 100 micromhos Mar. 20, 1980.

pH: Maximum, 8.8 units Sept. 9, 1978; minimum, 6.6 units May 15, 1975.

WATER TEMPERATURES: Maximum, 38.0°C Sept. 6, 1980; minimum, 0.5°C Jan. 19, 1977.

DISSOLVED OXYGEN: Maximum, 14.8 mg/L Jan. 1, 2, 3, 1977; minimum, 1.3 mg/L Aug. 30, 1973.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 452 micromhos Dec. 24; minimum, 152 micromhos Mar. 30.

pH: Maximum, 8.2 units Dec. 31-Jan. 9, Feb. 12-14; minimum 7.1 units Nov. 14-20.

WATER TEMPERATURES: Maximum, 33.0°C July 15; minimum 2.0°C Jan. 5.

DISSOLVED OXYGEN: Maximum, 14.3 mg/L Dec. 25, 27; minimum 3.5 mg/L Oct. 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)				
		NOV										
		05...	1030	0.82	337	13.0	7	.02				
		25...	1615	1.9	415	10.0	29	.15				
		DEC										
		31...	1300	9.5	420	5.5	54	1.4				
		JAN										
		22...	1130	30	400	4.5	22	1.8				
		FEB										
		17...	1315	110	400	9.5	44	13				
		MAR										
		27...	1115	76	345	14.0	18	3.7				
		MAY										
		15...	1015	9.8	333	17.5	7	.19				
		JUN										
		15...	1030	27	355	27.5	6	.44				
		JUL										
		14...	1030	6.4	348	30.0	63	1.1				
		AUG										
		04...	1415	10	314	29.0	16	.43				
		SEP										
		14...	1200	11	382	25.0	10	.30				
DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
NOV												
05...	1030	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
DATE	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV												
05...	.00	.00	.00	.00	.00	.00	.00	.00	.12	.07	.01	.00

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	328	313	321	326	318	321	376	365	370	419	415	417
2	330	311	322	328	321	326	389	371	380	417	411	415
3	328	313	323	332	328	329	394	383	389	414	406	410
4	326	313	320	335	328	332	382	376	379	415	409	413
5	318	304	312	340	333	336	381	376	378	417	408	412
6	320	308	314	340	335	337	385	378	382	413	404	409
7	322	307	314	342	338	340	392	382	385	413	406	410
8	326	307	315	344	340	342	410	393	399	414	409	411
9	323	303	311	346	342	345	431	297	354	416	410	413
10	320	305	309	354	346	348	401	384	393	418	414	416
11	322	307	311	351	347	349	409	397	401	418	413	415
12	319	306	313	351	348	349	424	408	415	420	415	418
13	320	309	312	352	350	351	426	421	424	420	417	419
14	321	310	313	353	349	352	435	427	430	420	414	417
15	316	311	314	360	346	351	443	436	439	422	415	418
16	322	313	315	377	361	369	445	442	443	429	418	422
17	318	313	316	375	320	354	445	441	443	434	422	426
18	319	315	318	326	311	318	442	440	441	428	418	424
19	322	316	320	346	325	336	443	439	441	424	419	421
20	328	318	322	363	343	352	441	433	437	419	401	410
21	323	319	321	378	363	373	438	433	435	432	368	391
22	337	321	326	391	375	384	436	432	434	407	373	387
23	331	325	328	390	383	387	435	430	433	374	365	369
24	332	323	328	394	372	381	452	431	441	375	372	373
25	340	325	335	422	396	409	451	428	439	373	370	371
26	345	340	343	423	417	420	426	418	422	384	371	376
27	346	331	342	417	345	382	425	419	421	398	383	392
28	331	261	285	402	392	397	421	417	419	400	396	398
29	305	277	292	393	374	385	421	416	419	400	398	399
30	313	305	307	373	362	369	419	416	418	408	399	403
31	320	313	316	---	---	---	419	413	416	405	402	403
MONTH	346	261	317	423	311	357	452	297	414	434	365	406
	FEBRUARY			MARCH			APRIL			MAY		
1	405	316	368	381	378	380	354	328	342	338	333	336
2	362	245	282	383	377	380	360	354	357	339	335	337
3	327	268	300	380	373	377	368	360	365	338	333	335
4	361	329	346	376	334	363	371	329	363	333	330	332
5	376	361	369	374	364	370	350	249	281	333	329	330
6	387	375	382	368	357	360	326	265	304	334	327	329
7	394	387	391	365	359	361	347	328	340	334	330	332
8	409	394	400	371	361	367	360	349	357	337	332	334
9	403	398	401	375	368	372	360	344	354	336	330	333
10	409	403	406	378	369	374	356	313	332	333	330	331
11	426	406	410	380	370	375	337	314	326	341	333	338
12	425	398	408	376	367	372	357	339	351	342	335	339
13	397	387	393	375	365	368	365	354	361	338	335	337
14	389	382	386	370	365	367	371	361	367	335	330	333
15	384	379	382	367	359	363	367	355	363	333	330	332
16	422	381	396	367	359	364	367	351	358	336	331	333
17	406	393	398	361	359	360	355	273	333	334	331	333
18	401	381	391	359	356	358	361	341	352	342	331	334
19	384	356	372	358	353	355	357	312	340	336	267	297
20	358	351	353	355	351	353	364	332	351	332	318	327
21	367	359	364	352	348	349	367	360	364	342	331	338
22	378	368	374	348	316	335	366	358	362	344	335	340
23	382	374	379	349	326	338	367	357	361	342	331	337
24	383	377	380	350	347	349	365	361	363	341	329	335
25	381	375	378	364	346	357	361	359	360	338	326	331
26	384	372	378	365	354	360	360	352	356	332	324	328
27	382	370	376	355	345	350	360	348	351	329	323	326
28	380	368	373	353	348	350	355	343	347	342	327	332
29	---	---	---	352	201	341	347	334	341	340	329	332
30	---	---	---	263	152	191	344	335	339	332	308	323
31	---	---	---	327	248	296	---	---	---	326	303	316
MONTH	426	245	376	383	152	353	371	249	348	344	267	331

CUMBERLAND RIVER BASIN

0342807C WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	340	319	328	324	314	318	338	324	327	241	196	213
2	339	322	330	316	271	290	333	320	328	319	219	264
3	342	327	334	305	296	301	335	321	329	357	324	348
4	336	321	328	316	301	310	336	313	324	352	316	334
5	326	319	323	323	287	306	326	306	317	348	315	331
6	328	200	293	305	281	294	317	298	305	371	343	356
7	322	290	302	319	295	304	310	295	303	379	367	373
8	342	315	329	325	304	312	312	298	304	397	378	384
9	351	343	346	338	313	328	315	302	308	395	383	389
10	366	347	352	356	330	342	316	301	308	404	392	397
11	348	323	338	348	330	338	317	303	311	406	396	402
12	348	325	336	338	318	329	316	303	310	405	381	397
13	358	345	349	348	329	338	316	305	311	408	380	395
14	356	346	350	351	333	340	314	299	308	404	375	388
15	357	346	352	343	330	336	313	296	307	394	275	359
16	353	343	348	341	334	337	299	287	291	350	317	331
17	351	340	346	342	330	338	292	280	284	354	334	344
18	347	337	342	349	325	337	291	279	286	372	348	360
19	345	340	343	326	313	320	302	290	296	397	369	382
20	345	338	342	317	304	309	321	302	311	396	369	384
21	339	331	336	310	301	306	331	306	317	391	373	384
22	341	329	337	310	300	305	307	299	314	402	371	386
23	333	321	329	313	299	308	307	299	301	384	369	378
24	331	317	324	313	299	306	314	296	310	395	376	387
25	328	311	323	316	301	309	330	300	316	383	373	379
26	324	312	318	313	303	308	320	301	312	385	365	374
27	322	314	319	311	298	303	324	298	309	381	365	374
28	323	312	319	309	297	303	314	292	302	373	357	366
29	323	311	319	308	297	305	322	305	312	380	361	372
30	324	313	321	308	302	305	315	191	257	382	360	371
31	---	---	---	325	303	317	204	189	197	---	---	---
MONTH	366	200	332	356	271	316	338	189	304	408	196	363

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

CUMBERLAND RIVER BASIN

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.5	5.5	6.0	13.5	12.5	13.0	18.5	16.5	17.0	22.5	21.0	22.0
2	6.5	5.0	6.0	13.0	11.5	12.0	18.5	15.5	17.0	21.5	20.0	20.5
3	5.0	4.0	4.5	12.5	11.0	11.5	17.0	16.0	16.5	21.5	19.0	20.0
4	5.0	4.0	4.5	11.0	10.0	10.5	18.0	16.5	17.0	22.0	19.5	20.5
5	5.0	4.0	4.5	10.5	9.5	10.5	17.5	16.0	17.0	22.5	20.0	21.5
6	6.0	5.0	5.0	11.0	9.0	10.0	16.5	14.5	15.5	22.0	20.0	21.0
7	5.5	5.0	5.5	10.0	9.0	9.5	17.5	14.5	16.0	20.5	19.0	19.5
8	6.5	5.5	6.0	10.0	8.5	9.5	16.5	15.5	16.0	21.5	19.0	20.0
9	6.0	5.0	5.5	10.0	8.5	9.5	18.0	16.0	16.5	21.5	19.5	20.5
10	7.0	6.0	6.5	10.5	9.5	10.0	19.5	17.0	18.0	21.0	20.0	20.5
11	7.5	5.5	6.5	11.0	10.5	10.5	20.5	18.5	19.5	19.5	17.5	18.5
12	5.0	3.5	4.0	11.5	10.0	10.5	20.5	19.5	20.0	19.5	17.0	18.0
13	3.5	3.0	3.0	12.0	10.0	11.0	21.5	19.5	20.5	20.5	17.0	18.5
14	4.5	3.0	4.0	12.5	10.0	11.0	21.5	21.0	21.5	20.5	18.0	19.0
15	6.0	5.0	5.5	11.5	10.0	11.0	21.0	19.0	19.5	18.5	17.5	18.0
16	8.0	6.5	7.5	11.5	10.0	10.5	19.0	18.5	19.0	18.5	17.0	17.5
17	10.5	8.5	9.5	12.5	10.5	11.5	19.5	18.5	19.0	17.5	17.0	17.5
18	12.0	11.0	11.5	11.0	10.5	10.5	21.0	19.0	20.0	19.5	17.0	18.0
19	14.0	12.0	13.0	10.0	9.5	10.0	21.5	21.0	21.0	19.5	18.5	19.0
20	14.0	12.5	13.0	10.5	8.5	9.5	21.0	18.5	20.0	19.0	17.5	18.0
21	13.5	11.5	12.5	10.0	9.0	9.5	18.5	17.5	18.0	20.5	17.0	19.0
22	13.0	12.5	12.5	10.0	9.5	10.0	19.0	18.0	18.5	22.5	18.0	20.0
23	12.5	11.5	12.0	9.5	9.0	9.5	19.0	18.0	18.5	23.5	19.0	21.5
24	12.0	10.5	11.0	10.5	8.0	9.5	19.0	17.5	18.5	24.5	20.0	22.5
25	11.5	10.5	11.0	11.5	10.0	10.5	19.5	17.5	18.5	24.5	22.0	23.0
26	12.5	11.5	12.0	13.0	11.5	12.5	21.0	17.5	19.5	22.5	22.0	22.5
27	14.0	12.5	13.0	14.5	12.5	13.5	22.5	19.5	21.0	23.5	21.5	22.5
28	14.0	13.0	14.0	16.0	13.5	15.0	23.5	20.5	22.0	24.5	21.5	23.0
29	---	---	---	16.5	15.0	16.0	24.0	21.5	22.5	24.5	22.0	23.0
30	---	---	---	16.0	14.0	15.0	24.0	21.5	22.5	25.0	23.0	24.0
31	---	---	---	17.5	15.0	16.0	---	---	---	25.0	23.0	24.0
MONTH	14.0	3.0	8.0	17.5	8.0	11.5	24.0	14.5	19.0	25.0	17.0	20.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	25.5	23.5	24.5	28.0	26.5	27.0	27.0	25.5	26.0	27.5	25.0	26.0
2	26.5	23.5	25.0	28.0	25.0	26.5	27.5	25.5	26.0	26.0	25.0	25.5
3	27.0	24.0	25.5	27.5	25.5	26.0	27.5	25.5	26.5	25.0	24.5	24.5
4	27.0	25.0	26.0	28.5	25.0	26.5	30.0	26.0	27.5	25.5	24.0	24.5
5	27.5	25.0	26.0	27.0	25.0	26.0	30.5	27.0	28.5	25.0	23.5	24.0
6	26.0	23.5	25.5	27.5	25.0	26.0	30.5	27.5	29.0	26.0	24.0	25.0
7	25.5	24.0	25.0	28.5	25.5	26.5	30.0	27.5	28.5	27.0	24.0	25.5
8	27.0	24.5	25.5	29.5	26.5	28.0	30.0	27.0	28.5	27.5	25.0	25.5
9	28.0	26.0	26.5	31.0	27.5	29.0	30.0	27.0	28.5	26.0	23.5	24.5
10	27.5	26.0	27.0	31.5	28.5	29.5	31.0	26.5	28.5	28.0	23.0	25.0
11	26.5	25.5	25.5	31.0	28.0	29.5	30.0	27.0	28.0	27.0	23.0	24.5
12	27.5	24.5	26.0	32.0	28.5	30.0	29.5	26.5	28.0	28.0	23.0	25.0
13	28.0	25.5	26.5	32.5	29.0	30.5	29.5	25.5	27.5	27.5	23.5	25.5
14	29.5	26.5	27.5	32.5	29.0	30.5	29.5	25.5	27.5	27.0	25.0	25.5
15	30.5	27.0	28.5	33.0	29.5	31.0	29.5	26.5	28.0	25.5	23.5	24.5
16	31.0	27.5	29.0	32.5	29.5	31.0	28.5	26.5	27.5	25.0	22.5	24.0
17	29.0	27.0	28.0	31.0	28.5	29.5	27.0	26.0	26.5	23.5	21.5	22.5
18	29.5	26.0	27.5	30.5	28.0	29.0	26.5	25.0	26.0	21.5	20.0	21.0
19	27.5	26.0	26.5	31.0	28.0	29.0	25.5	25.0	25.0	22.0	19.0	20.5
20	29.0	25.5	27.0	31.5	28.0	29.5	25.0	24.0	24.5	23.5	19.0	20.5
21	30.5	26.5	28.0	30.5	28.0	29.0	24.5	24.0	24.0	24.0	19.0	21.0
22	30.5	27.0	28.5	30.0	27.5	28.5	27.0	23.5	25.0	24.5	20.0	22.0
23	29.5	27.0	28.0	29.5	27.5	28.5	27.5	23.5	25.5	24.0	20.5	21.5
24	31.5	26.5	28.5	30.5	27.0	28.5	28.5	24.5	26.0	24.0	19.0	21.0
25	32.0	27.5	29.0	28.5	27.0	28.0	28.0	25.0	26.0	26.5	21.0	23.5
26	30.0	27.5	28.5	30.5	26.5	28.5	29.0	25.0	26.5	25.5	22.0	23.5
27	29.5	26.5	28.0	29.5	27.5	28.5	29.0	25.5	27.0	26.0	22.0	23.5
28	30.0	26.0	28.0	29.5	28.0	28.5	29.5	25.5	27.5	25.0	21.0	23.0
29	28.0	26.0	27.0	28.5	27.0	27.5	27.5	26.0	26.5	25.0	19.5	22.0
30	29.5	25.0	27.0	27.0	26.0	26.5	25.5	24.5	25.0	26.0	20.0	22.5
31	---	---	---	27.0	25.5	26.0	27.0	24.0	25.0	---	---	---
MONTH	32.0	23.5	27.0	33.0	25.0	28.5	31.0	23.5	27.0	28.0	19.0	23.5

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.4	3.8	5.0	9.5	7.4	8.2	11.5	11.0	11.2	13.6	13.2	13.3
2	7.5	3.5	5.1	9.5	7.1	8.1	11.4	11.0	11.1	13.8	13.1	13.4
3	6.7	3.7	5.0	9.0	6.9	7.8	11.7	11.2	11.5	13.6	12.9	13.2
4	6.1	3.8	4.8	9.5	6.6	8.0	12.8	11.6	12.1	13.8	12.9	13.3
5	7.8	4.3	5.8	9.7	6.9	8.3	13.3	12.2	12.6	13.9	13.1	13.4
6	7.8	4.7	6.2	9.5	7.2	8.4	13.2	12.3	12.6	13.4	13.0	13.1
7	8.1	5.0	6.5	9.4	7.3	8.3	13.1	12.1	12.6	13.6	12.9	13.2
8	7.9	4.9	6.4	8.7	6.9	7.8	12.6	11.3	12.1	13.7	13.1	13.3
9	7.6	5.2	6.4	7.8	6.4	7.2	11.4	9.9	10.5	13.8	13.2	13.4
10	7.2	4.8	6.0	8.1	6.3	7.2	11.0	10.4	10.7	14.0	13.3	13.6
11	7.0	4.3	5.8	8.9	6.8	7.8	11.3	11.0	11.2	13.9	13.3	13.6
12	7.1	5.4	6.3	8.4	6.8	7.5	11.6	11.3	11.4	14.0	13.4	13.6
13	6.8	5.4	6.1	8.4	6.7	7.4	11.7	11.4	11.6	13.7	13.2	13.4
14	7.1	5.1	6.0	7.3	6.4	6.7	12.1	11.6	11.8	13.6	13.1	13.3
15	6.9	4.8	5.8	7.2	6.4	6.8	12.0	11.7	11.9	13.7	13.1	13.3
16	6.7	4.8	5.7	8.3	7.0	7.6	12.3	11.8	12.1	13.7	13.2	13.4
17	6.3	4.7	5.5	9.0	7.6	8.5	12.8	12.1	12.4	13.8	13.2	13.4
18	5.5	3.9	4.7	9.5	9.0	9.3	12.7	12.3	12.4	13.7	13.2	13.4
19	6.6	3.8	5.1	9.8	9.3	9.5	13.0	12.3	12.6	13.6	13.2	13.3
20	6.8	5.0	5.8	10.3	9.6	9.7	13.7	12.8	13.3	13.5	12.9	13.2
21	6.6	4.6	5.5	10.8	9.6	10.0	14.1	13.4	13.6	13.7	12.8	13.2
22	6.8	4.4	5.5	10.9	9.7	10.1	14.0	13.4	13.6	13.1	12.6	12.8
23	7.4	4.6	5.8	10.5	9.6	9.9	14.0	13.3	13.6	12.5	12.2	12.4
24	5.7	4.7	5.2	10.5	9.5	10.0	13.5	13.1	13.3	12.2	12.0	12.1
25	8.0	4.6	6.2	12.0	9.9	10.6	14.3	13.4	13.8	12.1	11.7	11.9
26	8.2	5.4	6.7	11.0	10.0	10.4	14.2	13.6	13.8	11.8	11.2	11.6
27	7.5	5.5	6.5	10.8	10.2	10.5	14.3	13.7	13.9	11.3	10.8	11.1
28	7.9	7.5	7.7	10.8	10.5	10.6	14.2	13.6	13.8	11.2	10.7	10.9
29	8.3	7.4	7.8	11.2	10.6	10.9	14.1	13.4	13.7	11.2	10.8	10.9
30	9.1	7.6	8.2	11.5	11.1	11.2	13.7	13.4	13.5	11.3	10.8	11.0
31	9.4	7.5	8.2	---	---	---	13.9	13.2	13.5	11.4	11.1	11.2
MONTH	9.4	3.5	6.0	12.0	6.3	8.8	14.3	9.9	12.5	14.0	10.7	12.8
FEBRUARY			MARCH			APRIL			MAY			
1	11.3	11.0	11.1	9.5	9.2	9.3	9.3	9.1	9.2	7.0	6.6	6.8
2	11.6	10.9	11.3	10.1	9.4	9.8	9.6	9.1	9.4	7.1	6.8	7.0
3	11.9	11.7	11.8	10.5	10.0	10.2	9.5	9.0	9.2	7.5	7.1	7.3
4	12.0	11.6	11.8	10.4	10.0	10.2	9.2	8.9	9.0	7.8	7.2	7.5
5	12.0	11.7	11.8	10.6	10.0	10.3	9.4	8.8	9.2	7.8	7.2	7.5
6	11.8	11.3	11.5	10.8	10.6	10.7	9.8	9.4	9.7	7.7	7.3	7.5
7	11.6	11.3	11.4	11.1	10.7	10.9	9.8	9.4	9.7	7.8	7.3	7.6
8	11.5	11.2	11.3	11.3	10.9	11.1	9.6	9.2	9.4	7.9	7.4	7.6
9	11.6	11.4	11.5	11.4	11.0	11.2	9.7	9.1	9.3	8.2	7.5	7.9
10	11.5	10.9	11.2	11.6	11.0	11.2	9.3	8.7	9.1	8.3	7.9	8.0
11	11.9	10.8	11.2	11.1	10.6	10.8	8.8	8.5	8.7	8.1	7.7	8.0
12	12.8	11.9	12.4	11.1	10.5	10.8	8.7	8.4	8.5	8.4	7.8	8.1
13	12.8	12.5	12.7	11.1	10.4	10.7	8.6	8.3	8.4	8.6	8.0	8.3
14	12.8	12.2	12.4	11.1	10.4	10.6	8.4	7.9	8.1	8.6	8.3	8.4
15	12.2	11.7	12.0	11.1	10.4	10.7	8.8	8.5	8.6	9.1	8.2	8.7
16	11.7	10.9	11.3	10.7	10.3	10.5	9.2	8.6	8.9	9.3	8.0	8.7
17	10.9	10.1	10.5	10.9	10.3	10.6	9.1	8.1	8.5	9.3	8.4	8.8
18	10.2	9.1	9.5	10.8	10.3	10.5	8.6	8.4	8.5	9.3	8.3	8.6
19	9.3	8.9	9.2	10.8	10.6	10.7	8.7	7.8	8.3	8.5	7.6	7.9
20	9.3	9.0	9.2	11.3	10.8	11.1	8.5	7.9	8.1	8.7	8.1	8.4
21	9.6	9.2	9.5	11.7	11.2	11.4	9.0	8.7	8.8	9.3	8.3	8.7
22	9.4	9.1	9.2	11.2	10.6	11.0	9.1	8.4	8.8	9.8	8.5	9.1
23	9.9	9.3	9.5	11.4	10.8	11.0	8.6	8.3	8.5	9.8	8.4	9.1
24	10.2	9.8	9.9	11.5	11.3	11.4	8.8	8.4	8.7	9.6	8.3	8.9
25	10.4	9.9	10.1	11.5	11.0	11.2	9.2	8.8	9.0	9.4	8.2	8.7
26	10.3	9.6	10.0	11.1	10.6	10.9	9.4	8.7	9.1	9.2	8.1	8.6
27	10.2	9.4	9.8	10.8	10.0	10.4	9.1	6.8	8.1	9.1	8.0	8.5
28	9.7	9.1	9.5	10.4	9.7	10.1	7.2	6.6	7.0	9.1	7.8	8.4
29	---	---	---	10.2	9.2	9.7	6.9	6.5	6.8	8.8	7.9	8.3
30	---	---	---	9.7	9.2	9.5	6.8	6.5	6.7	8.5	7.5	8.0
31	---	---	---	9.7	9.1	9.4	---	---	---	8.4	7.2	7.7
MONTH	12.8	8.9	10.8	11.7	9.1	10.6	9.8	6.5	8.6	9.8	6.6	8.2

CUMBERLAND RIVER BASIN

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.4	7.3	7.7	7.3	5.1	6.1	8.5	7.3	7.8	5.6	5.2	5.5
2	8.1	6.8	7.5	7.0	5.3	6.0	8.2	7.3	7.7	6.4	5.7	6.0
3	7.9	6.7	7.2	7.1	5.5	6.2	8.0	6.9	7.4	6.9	6.5	6.7
4	7.7	6.8	7.3	7.8	5.6	6.5	8.0	6.7	7.3	7.3	7.0	7.2
5	7.6	6.9	7.3	7.2	6.0	6.4	8.2	6.6	7.3	7.6	7.2	7.4
6	7.3	6.7	7.1	7.2	6.4	6.7	8.1	6.6	7.2	7.7	7.1	7.4
7	7.4	6.9	7.2	7.6	6.7	7.0	8.2	6.7	7.2	7.7	7.2	7.4
8	7.5	7.3	7.4	7.8	6.9	7.3	8.2	6.5	7.2	7.7	6.9	7.4
9	7.6	7.2	7.5	8.4	7.0	7.5	8.1	6.4	7.1	8.3	7.6	7.9
10	7.7	7.3	7.4	8.5	7.0	7.6	8.2	6.3	7.1	8.5	7.4	7.9
11	7.6	7.2	7.4	9.1	5.6	7.7	8.2	6.4	7.0	9.0	8.0	8.5
12	7.6	7.2	7.3	8.4	6.8	7.5	8.0	6.3	7.0	9.9	8.7	9.1
13	7.8	7.3	7.5	8.4	6.5	7.3	8.1	6.3	7.0	10.1	8.5	9.2
14	8.0	7.5	7.7	7.6	5.4	6.6	8.0	6.1	7.0	9.0	6.2	8.0
15	7.8	7.2	7.6	7.5	5.2	6.2	8.1	5.9	6.9	6.8	6.2	6.5
16	7.7	7.1	7.4	7.5	5.2	6.0	7.6	5.9	6.7	7.4	6.3	6.6
17	7.9	6.7	7.2	7.1	5.0	5.8	6.5	5.8	6.1	7.3	6.2	6.7
18	7.8	6.7	7.1	6.9	5.1	5.8	6.3	5.5	5.8	7.6	6.7	7.2
19	7.6	6.6	6.8	7.2	4.9	5.9	6.3	5.6	5.9	7.8	7.1	7.5
20	7.4	6.4	6.9	6.7	5.3	5.7	6.6	5.6	6.0	7.9	7.5	7.7
21	8.2	6.8	7.4	6.3	5.2	5.6	6.8	5.8	6.2	8.3	7.4	8.0
22	8.7	7.1	7.6	7.8	5.1	6.1	6.9	5.9	6.3	8.8	7.9	8.2
23	8.1	6.4	7.1	7.7	6.1	6.7	6.9	6.0	6.4	9.3	8.0	8.5
24	8.2	6.3	7.0	7.3	6.1	6.5	7.8	5.6	6.6	9.2	8.1	8.6
25	8.3	6.2	6.9	7.1	6.2	6.6	7.9	5.4	6.4	8.8	7.4	8.0
26	7.9	6.1	6.8	7.4	6.1	6.6	7.0	5.0	5.9	9.0	7.8	8.3
27	7.9	5.7	6.7	7.5	6.6	6.9	6.3	4.4	5.3	8.8	7.8	8.3
28	7.7	5.7	6.5	7.4	6.6	6.9	6.9	4.5	5.3	9.5	7.9	8.7
29	7.2	5.2	6.2	6.7	6.4	6.5	5.9	4.9	5.3	9.3	7.8	8.6
30	7.8	5.4	6.4	7.1	6.4	6.7	6.4	5.1	6.0	8.9	7.7	8.2
31	---	---	---	7.9	6.5	7.3	6.0	5.1	5.4	---	---	---
MONTH	8.7	5.2	7.2	9.1	4.9	6.6	8.5	4.4	6.6	10.1	5.2	7.7

CUMBERLAND RIVER BASIN

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03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN

LOCATION.--Lat 35°54'10", long 86°25'48", Rutherford County, Hydrologic Unit 05130203, on left bank at Murfreesboro waste treatment plant outfall, 3,000 ft (914 m) downstream from Sinking Creek, 4.5 mi (7.2 km) northwest of the courthouse in Murfreesboro, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--177 mi² (458 km²), includes 17 mi² (44 km²) without surface drainage.

PERIOD OF RECORD.--July 1972 to current year.

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

REMARKS.--Records good. Flow is affected by Murfreesboro sewage treatment plant outflow. An annual average of 7.7 ft³/s (0.22 m³/s) is discharged to the West Fork Stones River 25 ft (7.620 m) above the control. Murfreesboro produces an average of 10 ft³/s (0.28 m³/s) of potable water of which 7.0 ft³/s (0.20 m³/s) is transbasin diversion from East Fork Stones River basin with the remainder being produced from a well and a spring located in the West Fork Stones River basin. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--9 years, 329 ft³/s (9.317 m³/s), 25.24 in/yr (641 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft³/s (878 m³/s) Mar. 13, 1975, gage height, 23.80 ft (7.254 m); minimum, 3.0 ft³/s (0.085 m³/s) Oct. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,400 ft³/s (153 m³/s) at 1115 hours Mar. 30, gage height, 12.72 ft (3.877 m), no other peaks above base of 3,700 ft³/s (105 m³/s); minimum, 3.0 ft³/s (0.085 m³/s) Oct. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	8.4	18	16	164	81	492	48	20	11	25	50
2	8.1	7.2	18	15	1460	72	360	42	18	21	20	143
3	7.5	6.3	18	15	534	67	260	40	19	17	18	132
4	6.7	5.9	16	14	350	85	230	36	22	15	17	196
5	6.5	5.4	15	13	248	381	1020	34	33	32	14	129
6	6.0	6.3	13	14	183	365	498	32	124	47	13	80
7	6.5	5.4	12	17	152	241	355	32	247	40	12	57
8	6.5	5.7	12	16	144	183	260	29	136	31	12	45
9	6.5	5.2	79	15	140	143	387	26	94	24	11	35
10	5.8	4.9	147	14	125	121	498	24	69	20	9.2	28
11	5.5	5.5	105	14	140	108	324	23	73	18	9.3	25
12	5.2	5.3	72	13	213	94	236	21	72	15	9.4	20
13	4.7	5.5	58	14	164	85	187	20	62	14	9.3	17
14	6.0	5.3	44	14	136	76	147	20	59	14	8.5	16
15	5.7	6.4	35	13	115	67	125	17	43	12	7.4	45
16	5.3	7.6	31	13	108	67	108	17	34	11	15	38
17	5.5	20	29	12	122	58	160	15	28	12	18	34
18	5.7	27	25	12	173	50	125	16	24	15	13	28
19	5.5	18	22	13	606	47	132	35	20	14	13	23
20	5.0	14	19	14	458	43	156	27	18	23	13	21
21	6.0	12	18	30	332	38	132	20	16	22	31	20
22	5.7	10	16	34	247	58	108	18	15	20	23	18
23	5.7	9.2	16	79	192	136	102	15	19	17	16	18
24	5.5	10	18	67	152	152	97	14	16	18	14	16
25	8.4	11	22	55	125	115	90	14	14	24	13	14
26	7.3	9.8	17	47	108	94	76	14	16	22	12	13
27	9.3	19	17	44	94	83	67	14	14	23	10	12
28	28	21	16	37	85	72	60	15	11	25	9.7	13
29	16	17	17	35	---	67	60	14	12	40	10	13
30	12	18	17	39	---	2580	56	19	10	42	171	11
31	8.9	---	17	38	---	864	---	28	---	31	73	---
TOTAL	235.7	312.3	979	786	7070	6693	6908	739	1358	690	649.8	1310
MEAN	7.60	10.4	31.6	25.4	253	216	230	23.8	45.3	22.3	21.0	43.7
MAX	28	27	147	79	1460	2580	1020	48	247	47	171	196
MIN	4.7	4.9	12	12	85	38	56	14	10	11	7.4	11
CFSM	.04	.06	.18	.14	1.43	1.22	1.30	.13	.26	.13	.12	.25
IN.	.05	.07	.21	.17	1.49	1.41	1.45	.16	.29	.15	.14	.28
CAL YR 1980	TOTAL	85731.0	MEAN	234	MAX	9020	MIN	4.7	CFSM	1.32	IN	18.02
WTR YR 1981	TOTAL	27730.8	MEAN	76.0	MAX	2580	MIN	4.7	CFSM	.43	IN	5.83

CUMBERLAND RIVER BASIN

03428500 WEST FORK STONES RIVER NEAR SMYRNA, TN

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

DRAINAGE AREA.--237 mi² (614 km²), includes 43 mi² (111 km²) without surface drainage.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--16 years, 440 ft³/s (12.46 m³/s), 25.21 in/yr (640 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,800 ft³/s (1,810 m³/s) Mar. 13, 1975, gage height, 19.18 ft (5.846 m) from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of area-velocity study at gage height 17.11 ft (5.215 m) and flood routing from Murfreesboro gage and Overall Creek at gage heights 16.65 ft (5.075 m) and 17.39 ft (5.300 m); minimum, 2.2 ft³/s (0.062 m³/s) Nov. 6-8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,020 ft³/s (199 m³/s) at 1215 hours Mar. 30, gage height, 8.54 ft (2.603 m), no peak above base of 10,000 ft³/s (283 m³/s); minimum, 6.1 ft³/s (0.17 m³/s) Oct. 18-20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	11	35	30	303	151	842	91	32	21	45	110
2	14	11	32	26	1930	137	635	83	28	28	39	83
3	14	12	28	26	778	128	498	78	30	35	35	141
4	12	14	26	23	506	144	445	68	26	35	35	180
5	12	13	23	23	363	522	1330	66	41	47	26	216
6	11	12	19	23	286	514	778	61	151	116	24	191
7	11	15	18	26	242	369	544	59	356	103	23	152
8	11	14	15	26	216	297	430	54	271	80	23	113
9	11	17	161	26	211	246	506	52	191	63	19	66
10	12	19	297	24	195	216	717	47	154	54	18	49
11	12	18	207	24	203	195	482	47	154	47	15	45
12	14	17	144	24	275	176	376	45	161	41	15	39
13	17	16	116	24	220	158	314	45	169	37	15	30
14	19	16	91	23	191	141	270	43	154	21	14	28
15	26	21	75	23	169	131	228	43	119	26	14	88
16	13	24	68	19	161	128	199	39	91	24	12	141
17	13	41	59	19	220	116	256	37	75	35	21	88
18	12	47	54	18	363	106	228	37	66	45	26	70
19	6.6	43	47	18	960	97	216	59	59	45	23	59
20	6.6	39	41	23	708	91	314	56	54	45	21	49
21	7.7	30	39	70	522	86	281	47	45	52	24	45
22	8.8	23	32	128	409	106	220	41	41	43	165	39
23	8.8	18	30	144	338	338	199	32	43	37	110	35
24	14	17	32	122	281	320	184	28	39	39	70	28
25	19	18	39	100	237	246	169	26	35	52	56	26
26	19	18	32	88	207	203	147	28	39	47	43	23
27	13	30	37	78	180	176	128	28	35	47	35	23
28	39	54	32	70	161	158	110	26	24	47	28	19
29	28	52	32	68	---	144	110	26	22	61	28	19
30	17	41	32	70	---	3420	103	30	22	66	24	18
31	14	---	30	70	---	1340	---	43	---	54	147	---
TOTAL	449.5	721	1923	1476	10835	10600	11259	1465	2727	1493	1193	2213
MEAN	14.5	24.0	62.0	47.6	387	342	375	47.3	90.9	48.2	38.5	73.8
MAX	39	54	297	144	1930	3420	1330	91	356	116	165	216
MIN	6.6	11	15	18	161	86	103	26	22	21	12	18
CFSM	.06	.10	.26	.20	1.63	1.44	1.58	.20	.38	.20	.16	.31
IN.	.07	.11	.30	.23	1.70	1.66	1.77	.23	.43	.23	.19	.35
CAL YR 1980	TOTAL	134121.5	MEAN	366	MAX	12700	MIN	6.6	CFSM	1.54	IN	21.05
WTR YR 1981	TOTAL	46354.5	MEAN	127	MAX	3420	MIN	6.6	CFSM	.54	IN	7.28

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to current year.

WATER TEMPERATURE: March 1974 to current year.

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

REMARKS.--Missing record Oct. 13-22, July 16-Aug. 4 due to recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 631 micromhos Nov. 18, 1980; minimum, 124 micromhos Mar. 12, 1977.

WATER TEMPERATURES: Maximum, 30.0°C July 12, 1976; minimum, 3.5°C Feb. 10, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 631 micromhos Nov. 18; minimum, 188 micromhos Mar. 30, June 10.

WATER TEMPERATURES: Maximum, 27.0°C Aug. 7; minimum, 3.5°C Jan. 10-12, Mar. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV						
25...	1230	18	500	10.0	6	.29
FEB						
24...	1530	276	410	12.0	30	22
APR						
03...	1345	488	400	17.0	53	70
MAY						
15...	1200	42	440	16.5	6	.68
JUN						
24...	1220	36	440	23.5	6	.58
JUL						
17...	1300	26	440	26.0	10	.70
AUG						
04...	0900	33	410	24.0	17	1.5
SEP						
10...	1330	53	430	20.5	9	1.3

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	473	465	468	489	482	485	475	471	473	468	466	466
2	469	459	463	496	488	491	488	476	484	475	466	470
3	473	467	470	508	495	503	488	486	487	477	474	476
4	472	468	470	519	506	515	487	483	485	479	476	477
5	469	461	465	522	514	517	495	488	492	483	472	476
6	464	460	462	527	520	524	496	492	495	477	473	475
7	476	472	473	527	524	525	496	493	494	474	466	470
8	493	483	490	541	525	532	493	492	492	476	460	468
9	514	501	509	541	538	540	489	402	455	473	461	468
10	543	519	532	541	539	540	430	405	419	486	472	477
11	540	523	535	542	534	538	423	407	417	496	488	491
12	542	529	533	547	534	540	434	423	428	512	496	508
13	---	---	---	560	547	555	442	434	438	512	500	508
14	---	---	---	566	560	565	451	441	445	500	475	490
15	---	---	---	578	565	570	454	451	453	487	472	479
16	---	---	---	585	578	581	458	453	455	501	473	488
17	---	---	---	584	572	576	463	456	459	499	487	494
18	---	---	---	631	576	607	472	463	465	499	474	488
19	---	---	---	588	473	514	478	473	475	487	472	479
20	---	---	---	471	446	457	483	476	479	482	471	476
21	---	---	---	463	449	458	486	482	483	503	483	493
22	---	---	---	470	462	467	497	487	495	469	425	430
23	586	575	582	487	471	480	503	496	501	430	427	428
24	585	580	583	493	487	491	499	487	492	440	430	434
25	596	581	588	508	493	501	486	474	477	429	426	427
26	600	594	598	531	509	521	486	479	483	430	425	428
27	598	578	589	526	506	518	485	483	484	432	428	430
28	592	573	582	520	496	506	484	474	479	439	428	434
29	592	556	573	519	479	489	474	471	472	440	435	438
30	551	495	521	479	471	476	472	466	468	446	436	442
31	494	483	486	---	---	---	468	465	466	450	444	448
MONTH	---	---	---	631	446	519	503	402	471	512	425	466
	FEBRUARY			MARCH			APRIL			MAY		
1	452	383	438	426	417	422	379	349	365	422	420	421
2	383	267	313	423	419	421	396	358	385	428	422	425
3	327	273	300	426	422	423	405	393	401	433	426	429
4	350	329	339	426	417	422	411	384	404	435	426	430
5	368	321	344	419	395	407	392	309	351	434	428	431
6	403	310	372	405	396	401	353	307	326	428	425	427
7	404	388	396	401	397	399	386	355	372	437	425	432
8	416	385	403	409	402	406	401	382	393	440	434	436
9	428	409	421	417	405	413	404	391	400	443	437	440
10	423	415	420	421	416	418	393	387	391	443	436	440
11	430	405	424	426	419	423	382	374	377	435	433	434
12	432	423	427	427	423	426	395	381	388	433	429	431
13	432	428	431	427	422	425	406	392	401	434	427	430
14	429	425	427	431	425	428	411	404	407	442	432	435
15	428	423	425	430	425	427	414	410	412	444	437	441
16	423	412	417	429	424	426	412	408	410	458	442	449
17	425	411	415	427	423	425	412	399	405	453	448	450
18	429	412	422	428	423	426	398	382	387	459	444	451
19	413	386	398	434	427	431	407	387	396	457	425	447
20	385	374	377	436	429	433	407	383	392	441	424	436
21	385	375	380	434	430	432	411	391	401	425	413	420
22	398	390	394	431	415	426	418	412	415	437	422	429
23	405	397	402	426	405	414	421	411	415	442	433	437
24	410	402	407	405	396	401	428	421	425	459	444	453
25	414	407	411	410	405	408	430	422	426	484	459	474
26	415	410	413	417	409	412	432	427	429	486	475	480
27	418	414	415	421	416	419	429	426	427	479	458	471
28	418	415	417	425	417	422	427	422	425	455	436	444
29	---	---	---	425	413	421	424	421	422	463	446	455
30	---	---	---	398	188	261	422	419	421	462	439	444
31	---	---	---	346	254	307	---	---	---	443	438	440
MONTH	452	267	398	436	188	410	432	307	399	486	413	441

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	437	420	425	523	486	503	---	---	---	546	432	512
2	442	419	430	539	453	484	---	---	---	513	424	481
3	440	422	434	520	460	480	---	---	---	473	373	452
4	456	433	447	523	489	504	---	---	---	413	346	375
5	461	433	453	532	517	524	419	410	414	453	406	432
6	486	319	429	535	489	512	430	414	421	484	405	457
7	314	256	290	497	380	444	463	423	437	427	392	411
8	349	260	310	499	478	487	436	426	431	451	407	433
9	397	350	374	482	393	423	443	435	438	452	403	415
10	432	188	400	504	413	453	449	441	444	432	423	427
11	448	377	425	505	467	485	464	445	453	447	413	435
12	481	440	461	478	435	453	465	448	455	453	446	449
13	503	421	486	490	448	470	480	452	462	454	445	449
14	477	416	457	468	452	460	485	457	468	454	445	448
15	483	419	464	469	449	461	499	476	485	467	406	448
16	536	484	520	---	---	---	509	487	496	406	330	361
17	530	488	509	---	---	---	488	447	469	454	374	421
18	533	498	521	---	---	---	476	447	466	471	409	433
19	511	494	503	---	---	---	514	487	495	474	416	440
20	495	467	480	---	---	---	493	466	474	495	429	454
21	473	449	461	---	---	---	470	248	312	473	431	447
22	476	451	465	---	---	---	435	387	416	472	432	453
23	460	428	443	---	---	---	454	431	447	459	450	455
24	442	420	437	---	---	---	514	454	489	459	453	456
25	445	438	442	---	---	---	546	512	529	474	453	462
26	447	438	442	---	---	---	546	472	500	480	451	471
27	480	445	455	---	---	---	512	465	496	478	472	475
28	469	448	457	---	---	---	493	466	483	495	474	489
29	481	444	458	---	---	---	574	474	543	501	492	496
30	498	479	486	---	---	---	594	506	577	502	493	497
31	---	---	---	---	---	---	572	493	543	---	---	---
MONTH	536	188	445	---	---	---	594	248	468	546	330	448

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.0	7.0	7.5	14.0	13.0	13.5	17.5	15.5	16.5	20.5	18.5	19.5
2	10.0	6.5	7.5	13.5	11.5	12.5	17.5	14.5	16.0	18.5	17.0	18.0
3	6.5	5.5	6.0	12.5	11.0	12.0	16.5	15.0	16.0	18.5	17.0	17.5
4	7.0	5.5	6.0	12.0	11.0	11.5	17.0	15.5	16.5	19.0	17.0	17.5
5	6.5	4.5	5.5	11.5	10.5	11.0	17.0	15.5	16.5	20.0	18.0	19.0
6	7.5	6.5	7.0	11.5	9.5	10.5	16.5	14.0	15.0	20.0	18.0	19.0
7	7.0	6.5	7.0	11.0	9.5	10.5	16.5	14.0	15.0	18.5	17.5	18.0
8	8.0	7.0	7.5	11.0	9.5	10.0	16.0	14.5	15.5	18.5	17.0	17.5
9	7.5	6.0	6.5	11.5	9.5	10.5	17.0	15.5	16.0	19.0	17.5	18.5
10	9.0	7.0	8.0	11.5	9.5	10.5	19.0	16.5	17.5	19.0	18.0	18.0
11	9.0	5.5	7.5	12.5	10.5	11.5	19.5	17.0	18.5	18.0	15.5	17.0
12	5.5	3.5	4.5	12.5	10.0	11.0	20.0	18.0	19.0	16.0	15.0	15.5
13	4.5	4.0	4.5	12.5	10.5	11.5	20.5	18.0	19.0	17.5	15.5	16.5
14	6.5	4.5	5.5	12.5	10.5	11.5	20.0	19.0	19.5	17.5	16.5	17.0
15	8.5	6.0	7.0	12.0	10.5	11.0	19.0	17.0	18.0	17.0	16.0	16.5
16	9.5	8.0	8.5	12.5	10.5	11.5	18.5	16.5	17.5	16.5	15.5	16.0
17	12.0	9.0	10.0	13.0	10.0	11.5	19.0	17.5	18.0	16.5	16.0	16.0
18	12.0	12.0	12.0	12.5	11.0	11.5	20.0	17.5	18.5	17.0	15.5	16.0
19	13.5	12.0	13.0	11.0	9.5	10.0	20.0	18.5	19.0	17.5	16.5	17.0
20	14.0	12.5	13.0	11.5	9.5	10.5	19.0	17.0	18.0	17.5	17.0	17.0
21	13.5	11.5	12.5	11.5	10.5	11.0	17.5	15.5	16.5	17.5	16.5	17.0
22	13.5	12.5	13.0	11.5	10.5	11.0	18.0	17.0	17.5	18.0	17.5	17.5
23	13.0	11.5	12.5	10.5	10.0	10.5	17.5	17.0	17.5	18.5	17.5	18.0
24	12.5	11.0	12.0	12.0	9.5	10.5	18.0	16.0	17.0	19.5	18.5	19.0
25	13.0	11.0	11.5	13.0	10.5	11.5	18.0	15.5	17.0	19.5	19.0	19.5
26	14.0	11.5	12.5	14.5	11.5	12.5	19.5	16.5	17.5	20.0	19.0	19.5
27	14.5	12.0	13.5	15.0	13.0	14.0	20.5	18.0	19.0	19.5	19.0	19.0
28	14.0	13.5	14.0	16.0	13.5	14.5	21.0	18.5	19.5	20.5	19.0	19.5
29	---	---	---	16.0	14.5	15.5	21.0	19.0	20.0	21.0	19.5	20.0
30	---	---	---	15.5	13.5	14.5	21.5	19.5	20.5	20.5	19.5	20.0
31	---	---	---	17.0	14.0	15.5	---	---	---	21.0	20.0	20.5
MONTH	14.5	3.5	9.0	17.0	9.5	12.0	21.5	14.0	17.5	21.0	15.0	18.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	21.0	21.0	23.0	22.5	23.0	---	---	---	24.5	22.5	23.5
2	21.5	21.0	21.0	23.5	23.0	23.5	---	---	---	24.0	22.5	23.0
3	21.5	21.0	21.5	24.0	23.5	23.5	---	---	---	24.0	23.5	23.5
4	22.0	21.5	21.5	24.0	23.5	23.5	---	---	---	24.0	22.5	23.0
5	22.5	22.0	22.0	24.0	23.0	23.0	25.5	25.0	25.0	23.0	21.5	22.5
6	23.5	22.0	23.0	24.5	23.0	23.5	26.0	25.5	25.5	22.5	20.5	22.0
7	23.0	21.0	21.5	24.5	22.5	23.5	27.0	25.0	25.5	23.5	21.5	22.0
8	22.0	20.0	21.0	25.0	23.5	24.0	26.0	25.0	25.5	23.0	21.0	22.5
9	22.5	21.0	21.5	25.5	24.0	24.5	25.5	25.0	25.5	22.5	20.0	21.0
10	22.5	21.5	22.0	25.0	24.5	25.0	26.0	25.0	25.5	21.0	20.0	20.5
11	22.0	21.0	21.0	25.5	24.5	25.0	25.5	24.5	25.0	20.5	20.0	20.0
12	22.0	20.5	21.0	25.5	24.5	25.0	25.5	25.0	25.0	20.5	20.0	20.0
13	22.0	20.5	21.0	26.0	25.0	25.5	25.5	23.5	25.0	21.0	20.0	20.5
14	23.0	21.5	22.0	26.0	25.0	2.5	25.0	24.5	24.5	21.5	21.0	21.0
15	23.5	22.0	22.5	26.5	25.5	26.0	25.0	24.0	24.5	21.5	21.0	21.0
16	23.5	22.5	23.0	---	---	---	25.0	24.0	24.5	21.0	20.0	20.5
17	23.5	22.5	23.0	---	---	---	25.0	24.0	24.5	20.5	19.0	19.5
18	23.0	21.5	22.0	---	---	---	25.0	23.5	24.0	19.0	17.0	18.0
19	22.5	21.0	21.5	---	---	---	24.0	22.5	23.0	17.5	17.0	17.0
20	21.5	21.0	21.5	---	---	---	23.0	22.0	22.5	17.5	17.0	17.0
21	22.5	21.5	22.0	---	---	---	22.0	20.0	20.5	17.5	17.0	17.0
22	22.5	22.0	22.5	---	---	---	21.5	20.0	20.5	18.0	17.0	17.5
23	23.5	22.5	23.0	---	---	---	22.5	20.5	21.0	18.5	18.0	18.0
24	24.0	23.0	23.5	---	---	---	21.5	20.5	21.0	18.5	18.0	18.0
25	25.0	23.5	24.0	---	---	---	22.0	21.0	21.5	18.5	17.0	17.5
26	25.0	23.5	24.0	---	---	---	22.0	21.5	21.5	18.5	17.0	18.0
27	25.0	23.5	24.0	---	---	---	22.5	21.5	22.0	18.5	18.0	18.0
28	24.0	23.5	23.5	---	---	---	23.0	21.5	22.5	19.5	18.5	19.0
29	24.0	23.0	23.5	---	---	---	23.0	22.0	22.5	19.0	18.0	18.5
30	22.5	22.0	22.5	---	---	---	25.0	21.0	23.0	18.5	17.5	18.0
31	---	---	---	---	---	---	25.0	23.0	24.0	---	---	---
MONTH	25.0	20.0	22.0	---	---	---	27.0	20.0	23.5	24.5	17.0	20.0

CUMBERLAND RIVER BASIN

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03431517 CUMMINGS BRANCH AT LICKTON, TN

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

DRAINAGE AREA.--2.40 mi² (6.22 km²).

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

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

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

AVERAGE DISCHARGE.--5 years (water years 1977-81), 3.10 ft³/s (0.088 m³/s), 17.54 in/yr (446 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 881 ft³/s (24.9 m³/s) Sept. 13, 1979; gage height, 5.21 ft (1.588 m); minimum daily, 0.00 ft³/s (0.000 m³/s) Sept. 17-24, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 382 ft³/s (10.8 m³/s) at 1620 hours June 1, gage height, 4.19 ft (1.277 m), no other peak above base of 100 ft³/s (2.83 m³/s); minimum daily, 0.02 ft³/s (0.001 m³/s) part or all of each day Oct. 3-21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.06	.18	.13	8.7	.66	3.5	.66	38	.27	1.5	.08
2	.03	.06	.16	.13	8.7	.66	2.9	.52	22	.40	1.1	.15
3	.02	.06	.13	.11	4.4	.52	2.4	.44	12	.33	.83	3.1
4	.02	.07	.10	.11	2.9	2.4	2.1	.36	8.7	.22	.61	.42
5	.02	.06	.10	.11	1.5	4.8	2.9	.33	6.4	.57	.44	.38
6	.02	.06	.10	.10	.90	4.2	2.8	.33	34	3.9	.36	.22
7	.02	.06	.10	.11	.78	3.4	2.3	.33	21	3.7	.33	.20
8	.02	.06	.10	.13	.61	2.7	2.1	.27	12	2.3	.36	.18
9	.02	.08	.66	.13	.44	2.2	2.2	.22	7.5	1.3	.27	.16
10	.02	.06	.66	.11	1.5	1.8	2.2	.44	8.1	.97	.20	.14
11	.02	.05	.40	.11	3.7	1.2	1.8	.61	7.5	.78	.16	.11
12	.02	.05	.27	.11	3.1	.90	1.8	.40	6.2	.61	.13	.09
13	.02	.04	.22	.11	2.2	.78	1.6	.30	5.7	.44	.11	.08
14	.02	.09	.18	.10	1.6	.66	1.4	.25	4.4	.33	.09	.07
15	.02	.16	.16	.11	1.1	.52	1.1	.22	3.5	.27	.10	3.5
16	.02	.14	.16	.13	1.5	.52	.97	.20	2.7	.30	.13	3.1
17	.02	1.4	.16	.11	4.4	.44	1.3	.18	2.1	3.7	.11	1.6
18	.02	1.5	.14	.11	4.2	.40	1.2	.57	1.4	3.8	.10	.78
19	.02	.57	.14	.10	3.5	.33	.97	5.7	1.2	2.5	.13	.48
20	.02	.27	.13	.14	2.9	.30	.97	4.0	1.0	1.5	.16	.40
21	.02	.18	.13	.84	2.3	.25	.84	2.7	.84	1.5	.18	.30
22	.03	.14	.11	.61	1.8	.61	.84	1.8	1.1	1.0	.16	.22
23	.03	.13	.11	.44	1.5	1.8	2.2	1.1	2.0	.67	.11	.18
24	.03	.14	.18	.33	1.1	1.5	2.4	.78	.97	1.2	.10	.16
25	.03	.14	.22	.27	.84	1.3	2.1	.72	.61	2.0	.09	.14
26	.04	.13	.18	.25	.66	.97	1.6	.90	.49	1.9	.09	.13
27	.08	.61	.18	.25	.57	.84	1.3	.78	.33	1.3	.08	.30
28	.08	.57	.16	.22	.52	.66	1.0	.61	.25	2.4	.06	.33
29	.08	.30	.14	.20	---	.78	.97	.48	.22	3.9	.35	.22
30	.07	.22	.14	.22	---	7.5	.78	.36	.20	3.2	.11	.16
31	.07	---	.13	.30	---	5.0	---	5.5	---	2.4	.08	---
TOTAL	.98	7.46	5.93	6.23	67.92	50.60	52.54	32.06	212.41	49.66	8.63	17.38
MEAN	.032	.25	.19	.20	2.43	1.63	1.75	1.03	7.08	1.60	.28	.58
MAX	.08	1.5	.66	.84	8.7	7.5	3.5	5.7	38	3.9	1.5	3.5
MIN	.02	.04	.10	.10	.44	.25	.78	.18	.20	.22	.06	.07
CFSM	.01	.10	.08	.08	1.01	.68	.73	.43	2.95	.67	.12	.24
IN.	.02	.12	.09	.10	1.05	.78	.81	.50	3.29	.77	.13	.27

CAL YR 1980 TOTAL 993.66 MEAN 2.71 MAX 74 MIN .00 CFSM 1.13 IN 15.40
WTR YR 1981 TOTAL 511.80 MEAN 1.40 MAX 38 MIN .02 CFSM .58 IN 7.93

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 left bank on downstream end of pier of Charlotte Avenue bridge on U. S. Highway 70, 3.7 mi (6.0 km) upstream from mouth and 4.0 mi (6.4 km) southwest of the State Capitol in Nashville, and at mile 3.6 (5.8 km).

DRAINAGE AREA.--24.3 mi² (62.9 km²).

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

AVERAGE DISCHARGE.--17 years, 35.5 ft³/s (1.005 m³/s), 19.84 in/yr (504 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,470 ft³/s (268 m³/s) Sept. 13, 1979, gage height, 15.13 ft (4.612 m); minimum, 0.05 ft³/s (0.001 m³/s) Oct. 7-9, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) at 0155 hours June 7, gage height, 5.47 ft (1.667 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 0.05 ft³/s (0.001 m³/s) Oct. 7-9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	3.3	4.0	3.9	233	14	35	8.1	12	8.1	9.0	2.2
2	.63	3.1	3.5	3.9	117	11	25	7.3	29	9.1	7.8	4.0
3	.63	4.0	2.8	3.7	43	9.7	20	6.7	39	136	6.5	82
4	1.2	3.5	2.5	3.7	27	84	42	6.2	30	29	5.7	11
5	1.0	3.2	2.4	3.7	18	62	40	5.7	22	25	4.8	7.3
6	.14	3.0	2.4	4.6	14	37	26	5.5	269	32	4.2	5.7
7	.14	2.8	2.2	5.3	12	26	20	5.3	283	19	4.0	3.7
8	.05	2.5	2.7	4.0	14	20	16	5.0	96	13	4.0	3.7
9	.09	4.5	30	4.0	9.7	17	46	4.6	56	10	3.3	3.0
10	1.0	4.2	12	4.0	57	15	27	16	46	7.8	3.3	2.5
11	.24	4.8	8.4	3.9	54	12	20	7.0	69	7.0	2.7	2.4
12	1.0	5.0	7.0	3.7	28	12	17	5.7	54	5.7	2.8	2.0
13	.14	5.0	6.2	3.7	20	11	14	5.0	31	4.6	2.4	1.8
14	.14	7.8	5.5	3.9	16	9.9	12	4.4	19	4.0	2.4	2.7
15	.14	8.1	5.7	3.9	13	10	10	4.4	11	3.5	2.4	25
16	1.2	6.5	4.8	3.7	24	10	9.0	4.0	7.8	4.8	5.0	13
17	1.9	35	4.4	3.7	52	8.7	25	5.5	6.5	150	3.0	8.4
18	1.3	13	4.2	3.7	35	8.3	12	65	4.8	32	2.7	6.7
19	1.1	8.4	4.2	3.7	24	7.8	43	169	4.0	17	2.7	5.7
20	1.0	7.0	4.0	7.0	20	7.4	32	40	3.7	13	8.4	5.3
21	.63	6.2	3.9	18	17	7.0	21	23	3.0	15	2.8	4.2
22	.63	5.5	3.7	10	16	40	29	16	80	10	2.7	3.5
23	1.2	5.5	3.7	8.1	14	46	27	12	38	8.6	2.4	3.7
24	1.3	5.3	6.7	7.3	12	27	21	10	18	103	2.5	3.1
25	1.1	5.0	4.8	6.7	12	21	17	25	26	56	2.4	2.7
26	6.7	4.6	4.6	6.2	10	16	14	18	15	34	1.6	2.7
27	5.5	16	4.4	6.0	9.3	14	11	14	10	23	1.8	5.3
28	3.1	8.1	4.2	5.3	12	13	9.7	12	8.7	20	2.4	2.8
29	4.2	5.7	4.0	5.0	---	30	20	9.4	7.2	23	9.0	2.5
30	3.7	4.8	4.0	13	---	210	10	12	7.4	15	2.1	2.4
31	3.5	---	4.8	9.0	---	68	---	18	---	11	2.2	---
TOTAL	45.23	201.4	167.7	176.3	933.0	884.8	670.7	549.8	1306.1	849.2	119.0	231.0
MEAN	1.46	6.71	5.41	5.69	33.3	28.5	22.4	17.7	43.5	27.4	3.84	7.70
MAX	6.7	35	30	18	233	210	46	169	283	150	9.0	82
MIN	.05	2.5	2.2	3.7	9.3	7.0	9.0	4.0	3.0	3.5	1.6	1.8
CFSM	.06	.28	.22	.23	1.37	1.17	.92	.73	1.79	1.13	.16	.32
IN.	.07	.31	.26	.27	1.43	1.35	1.03	.84	2.00	1.30	.18	.35
CAL YR 1980	TOTAL	10780.08	MEAN	29.5	MAX	1160	MIN	.05	CFSM	1.21	IN	16.50
WTR YR 1981	TOTAL	6134.23	MEAN	16.8	MAX	283	MIN	.05	CFSM	.69	IN	9.39

CUMBERLAND RIVER BASIN

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

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WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
02...	1115	.79	500	16.5	1	.00
NOV						
12...	1130	4.8	440	11.5	4	.05
DEC						
04...	1245	2.5	600	8.0	65	.44
30...	1030	3.9	560	5.0	15	.16
FEB						
20...	1030	20	560	11.0	5	.27
MAR						
11...	1300	12	520	12.5	15	.49
APR						
01...	1200	35	540	17.0	20	1.9
MAY						
07...	1330	5.0	520	17.5	22	.30
JUN						
12...	1015	52	510	19.0	13	1.8
JUL						
16...	0940	3.5	480	26.5	5	.05
AUG						
05...	1040	5.0	490	25.5	5	.07
SEP						
11...	1115	2.2	550	21.0	4	.02

CUMBERLAND RIVER BASIN

03431800 SYCAMORE CREEK NEAR ASHLAND CITY, TN

LOCATION.--Lat 36°19'12", long 87°03'04", Cheatham County, Hydrologic Unit 05130202, near right bank on downstream end of pier of bridge on State Highway 49, at Sycamore, 3.2 mi (5.1 km) north of Ashland City, and 4.4 mi (7.1 km) upstream from Spring Creek, and at mile 8.6 (13.8 km).

DRAINAGE AREA.--97.2 mi² (251.7 km²).

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

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

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

AVERAGE DISCHARGE.--20 years, 144 ft³/s (4.078 m³/s), 20.12 in/yr (511 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s (476 m³/s) Mar. 12, 1975, gage height, 13.20 ft (4.023 m); minimum, 8.3 ft³/s (0.24 m³/s) Oct. 6, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 18	1815	4500 127	9.33 2.844	June 6	1900	*6630 188	10.60 3.231
June 1	2330	4270 121	9.15 2.789	June 10	2300	3890 110	8.84 2.694

Minimum discharge, 19 ft³/s (0.54 m³/s) Sept. 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	51	26	28	565	71	123	40	1140	29	52	30
2	23	52	26	27	527	64	89	37	944	28	44	92
3	22	52	26	26	150	57	74	34	343	27	39	63
4	21	52	24	26	95	182	92	32	181	26	35	42
5	21	54	24	25	70	368	361	30	134	91	31	30
6	21	55	24	25	63	193	177	31	2700	230	30	27
7	21	57	24	29	56	132	110	32	1140	195	30	24
8	21	59	25	29	56	99	89	30	414	96	30	22
9	21	63	68	26	45	82	108	28	222	68	28	21
10	21	64	64	26	108	70	112	31	834	58	26	21
11	21	64	42	26	238	63	162	39	725	55	24	21
12	21	64	32	26	120	57	118	34	550	43	25	20
13	24	64	30	25	112	55	93	30	512	36	23	20
14	28	70	27	25	74	52	75	29	225	34	22	20
15	28	79	26	27	65	48	65	29	144	30	21	716
16	25	71	26	28	68	52	59	27	107	32	52	186
17	27	141	25	29	168	47	61	26	85	162	30	85
18	43	123	24	29	150	45	58	1450	70	148	26	58
19	32	56	24	26	121	43	54	2150	59	65	27	45
20	27	37	23	29	99	40	52	386	65	52	29	38
21	25	30	21	52	81	38	48	188	58	77	30	32
22	25	28	21	51	71	45	45	121	54	48	27	30
23	29	27	23	39	66	83	69	92	105	38	25	26
24	38	27	30	35	59	70	81	75	57	48	22	24
25	45	25	30	32	52	59	63	66	52	59	21	23
26	44	24	26	32	48	54	54	66	63	68	21	22
27	50	35	25	32	44	48	45	58	43	62	22	89
28	57	40	25	30	47	45	40	52	38	81	22	48
29	56	31	27	30	---	47	57	44	34	220	119	30
30	51	28	26	35	---	393	52	43	32	93	83	26
31	51	---	28	37	---	200	---	317	---	65	30	---
TOTAL	961	1623	892	942	3418	2902	2686	5647	11130	2364	1046	1931
MEAN	31.0	54.1	28.8	30.4	122	93.6	89.5	182	371	76.3	33.7	64.4
MAX	57	141	68	52	565	393	361	2150	2700	230	119	716
MIN	21	24	21	25	44	38	40	26	32	26	21	20
CFSM	.32	.56	.30	.31	1.26	.96	.92	1.87	3.82	.79	.35	.66
IN.	.37	.62	.34	.36	1.31	1.11	1.03	2.16	4.26	.90	.40	.74
CAL YR 1980	TOTAL	42385	MEAN	116	MAX	1910	MIN	11	CFSM	1.19	IN	16.22
WTR YR 1981	TOTAL	35542	MEAN	97.4	MAX	2700	MIN	20	CFSM	1.00	IN	13.60

CUMBERLAND RIVER BASIN

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03432350 HARPETH RIVER AT FRANKLIN, TN

LOCATION.--Lat 35°55'14", long 86°51'56", Williamson County, Hydrologic Unit 05130204, on left bank 15 ft (5 m) downstream from left downstream end of State Highway 96 bridge, 0.4 mi (0.6 km) southeast of the courthouse in Franklin, and at mile 88.1 (141.8 km).

DRAINAGE AREA.--191 mi² (495 km²), includes 15 mi² (39 km²) without surface drainage.

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

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

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

AVERAGE DISCHARGE.--7 years, 326 ft³/s (9.232 m³/s), 23.18 in/yr (589 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,200 ft³/s (572 m³/s), Mar. 13, 1975, gage height, 33.65 ft (10.257 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Oct. 14, 20, 22, 23, 26, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,780 ft³/s (107 m³/s) at 1145 hours Mar. 30, gage height, 16.44 ft (5.011 m), no other peak above base of 2,900 ft³/s (82.1 m³/s); minimum daily, 0.30 ft³/s (0.008 m³/s) Oct. 14, 20, 22, 23, 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	.62	7.8	4.3	200	84	553	38	17	8.7	14	51
2	.87	.54	5.6	4.1	1230	69	384	34	7.2	2.3	11	23
3	.71	.54	4.3	3.9	402	63	302	35	8.8	2.1	7.5	103
4	.66	.54	3.0	3.3	235	108	309	37	8.2	8.2	1.9	63
5	.58	.54	2.6	3.2	171	383	930	34	8.7	20	1.8	70
6	.54	.58	2.2	3.5	134	326	434	33	137	58	3.1	41
7	.50	.58	2.0	4.6	101	229	312	32	209	56	2.3	28
8	.45	.62	1.7	4.8	94	177	238	30	196	34	2.3	21
9	.45	.66	.56	4.9	88	144	296	27	97	16	1.9	13
10	.40	.71	150	4.3	94	119	320	34	93	24	3.5	4.5
11	.35	.66	72	4.0	134	105	243	35	120	26	3.1	2.2
12	.35	.71	45	3.3	118	92	199	23	278	17	1.7	1.5
13	.35	.71	27	3.0	96	87	164	21	186	8.6	1.7	4.7
14	.30	.82	17	3.1	99	84	135	18	122	2.7	1.7	4.5
15	.35	1.1	12	3.4	90	77	113	17	75	1.6	1.7	18
16	.45	1.4	9.7	3.5	94	76	102	15	53	1.4	5.7	102
17	.40	6.4	8.1	3.3	257	72	126	14	43	11	4.0	35
18	.40	5.8	7.0	3.0	320	67	125	19	33	13	2.6	19
19	.35	5.1	6.1	3.9	513	61	121	35	31	20	2.2	19
20	.30	4.7	5.1	6.9	407	52	128	40	31	9.2	1.9	15
21	.35	3.5	4.5	28	257	44	110	30	27	10	246	11
22	.30	3.2	3.8	94	203	60	90	22	20	2.7	86	3.0
23	.30	2.5	3.7	68	157	282	89	12	15	2.2	34	1.3
24	.35	2.2	5.4	55	132	210	83	10	18	7.9	19	1.2
25	.35	2.0	5.4	42	108	156	73	19	10	29	5.9	1.4
26	.30	2.2	5.8	31	101	129	69	23	12	23	2.0	1.5
27	.71	8.5	6.1	24	93	112	62	21	9.1	19	19	5.0
28	1.7	26	6.6	15	86	99	56	19	9.5	15	16	5.7
29	.71	27	6.1	6.8	---	95	56	18	12	4.2	16	5.3
30	.66	12	5.4	7.3	---	2600	52	17	11	4.0	12	1.6
31	.62	---	4.9	6.6	---	1040	---	19	---	10	39	---
TOTAL	15.98	122.43	501.9	456.0	6014	7302	6274	781	1897.5	466.8	570.5	675.4
MEAN	.52	4.08	16.2	14.7	215	236	209	25.2	63.3	15.1	18.4	22.5
MAX	1.7	27	150	94	1230	2600	930	40	278	58	246	103
MIN	.30	.54	1.7	3.0	86	44	52	10	7.2	1.4	1.7	1.2
CFSM	.003	.02	.09	.08	1.13	1.24	1.09	.13	.33	.08	.10	.12
IN.	.00	.02	.10	.09	1.17	1.42	1.22	.15	.37	.09	.11	.13
CAL YR 1980	TOTAL	98615.47	MEAN	269	MAX	6200	MIN	.30	CFSM	1.41	IN	19.21
WTR YR 1981	TOTAL	25077.51	MEAN	68.7	MAX	2600	MIN	.30	CFSM	.36	IN	4.88

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 (14 m) upstream from bridge on State Highway 100, 0.1 mi (0.2 km) downstream from Little Harpeth River, 0.9 mi (1.4 km) southeast of Bellevue, and at mile 62.1 (99.9 km).

DRAINAGE AREA.--408 mi² (1,057 km²), includes 15 mi² (39 km²) without surface drainage.

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

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

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

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

AVERAGE DISCHARGE.--61 years, 577 ft³/s (16.34 m³/s), 19.20 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s (1,130 m³/s) Feb. 13, 1948, gage height, 24.34 ft (7.419 m) from floodmark; no flow Oct. 5-10, 1922.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,100 ft³/s (144 m³/s) at 1715 hours Mar. 30, gage height, 9.50 ft (2.896 m), no peak above base of 7,500 ft³/s (212 m³/s); minimum, 9.0 ft³/s (0.25 m³/s) Oct. 12, 13, 16, 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	27	50	31	362	190	1080	148	77	65	92	115
2	19	24	41	29	2080	181	760	125	94	75	85	140
3	19	22	36	28	885	158	617	110	110	659	73	553
4	19	19	32	27	540	254	607	103	220	120	65	481
5	16	19	29	25	395	734	1840	101	195	94	57	280
6	15	22	27	25	311	734	1010	99	1400	187	48	187
7	14	24	27	29	254	566	724	94	2700	291	48	140
8	13	29	27	35	220	446	589	87	1000	158	50	110
9	13	32	85	35	197	367	593	81	420	117	43	92
10	13	38	280	32	276	307	689	81	450	85	41	75
11	11	33	203	29	562	272	566	108	660	85	35	63
12	9.2	36	115	31	427	237	466	99	1150	94	33	57
13	9.2	38	83	27	336	213	399	77	610	75	31	50
14	10	40	65	25	287	200	336	71	390	61	28	50
15	11	45	55	27	254	184	287	63	280	50	27	67
16	10	57	46	28	254	181	251	59	240	45	29	130
17	11	73	41	27	529	170	261	57	210	52	50	132
18	10	92	38	25	724	156	295	67	170	83	59	79
19	12	75	35	25	739	145	345	135	150	81	48	59
20	11	54	33	25	709	130	408	132	135	71	52	57
21	22	43	31	65	558	115	345	108	120	61	56	48
22	20	36	28	110	451	145	307	87	160	57	53	43
23	18	32	27	143	385	471	358	73	130	46	46	35
24	15	31	32	105	315	518	328	59	110	135	70	29
25	14	29	40	87	265	390	276	55	95	203	60	28
26	14	28	41	75	237	319	240	150	88	197	48	27
27	38	38	36	69	213	276	216	117	79	140	42	27
28	35	54	35	61	197	244	190	81	67	156	39	28
29	54	65	33	54	---	223	187	65	59	220	38	31
30	41	69	33	46	---	3220	178	63	61	137	66	27
31	31	---	32	48	---	2430	---	71	---	110	92	---
TOTAL	566.4	1224	1716	1428	12962	14176	14748	2826	11630	4010	1604	3240
MEAN	18.3	40.8	55.4	46.1	463	457	492	91.2	388	129	51.7	108
MAX	54	92	280	143	2080	3220	1840	150	2700	659	92	553
MIN	9.2	19	27	25	197	115	178	55	59	45	27	27
CFSM	.05	.10	.14	.11	1.14	1.12	1.21	.22	.95	.32	.13	.27
IN.	.05	.11	.16	.13	1.18	1.29	1.34	.26	1.06	.37	.15	.30
CAL YR 1980	TOTAL	217660.4	MEAN	595	MAX	19100	MIN	9.2	CFSM	1.46	IN	19.85
WTR YR 1981	TOTAL	70130.4	MEAN	192	MAX	3220	MIN	9.2	CFSM	.47	IN	6.39

CUMBERLAND RIVER BASIN

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03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, Hydrologic Unit 05130204, on right bank 400 ft (122 m) upstream from bridge on U. S. Highway 70, 1.7 mi (2.7 km) northeast of Kingston Springs, 3.0 mi (4.8 km) downstream from Turnbull Creek, and at mile 32.4 (52.1 km).

DRAINAGE AREA.--681 mi² (1,764 km²), includes 15 mi² (39 km²) without surface drainage.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--57 years, 980 ft³/s (27.75 m³/s), 19.55 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,000 ft³/s (1,700 m³/s) Jan. 7, 1946, gage height, 32.20 ft (9.815 m) from high-water mark in gage house; minimum, 12 ft³/s (0.34 m³/s) Sept. 18, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Jan. 7, 1946. Flood of March 1902 reached a stage about 3 ft (0.91 m) lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,360 ft³/s (265 m³/s) at 0430 hours June 7, gage height, 12.27 ft (3.740 m), no peak above base of 10,000 ft³/s (283 m³/s); minimum, 45 ft³/s (1.27 m³/s), Jan. 17, result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	116	143	111	591	372	2030	299	605	199	256	420
2	85	112	133	106	3050	350	1340	261	491	178	230	410
3	80	108	123	103	1930	322	990	234	841	1930	204	932
4	78	106	111	100	962	669	852	217	498	1530	192	1060
5	78	102	106	94	631	1340	2110	209	433	397	170	612
6	76	99	103	99	505	1330	1950	204	2960	356	160	450
7	74	96	101	123	404	999	1200	203	5720	496	204	346
8	74	87	100	113	372	752	934	195	2140	394	176	285
9	73	99	204	110	325	590	917	181	1230	302	155	243
10	71	99	286	110	544	506	1110	191	860	251	137	212
11	66	99	336	92	1200	447	963	234	959	242	125	188
12	63	97	262	102	934	404	767	218	1390	216	122	167
13	63	97	202	102	650	363	634	196	2420	206	110	153
14	63	100	170	103	505	336	549	169	1270	176	104	141
15	63	132	152	105	437	319	471	159	803	159	100	287
16	63	134	140	99	420	320	411	147	580	151	113	447
17	64	215	131	94	613	303	442	143	480	178	130	337
18	96	299	124	100	1080	288	451	332	399	331	132	266
19	91	217	120	94	962	272	438	1430	348	222	152	212
20	74	178	112	104	1050	259	768	753	324	199	168	180
21	69	146	102	148	841	234	608	467	293	213	151	166
22	69	128	100	192	669	253	548	356	271	190	136	151
23	71	120	104	217	583	558	744	288	360	171	202	135
24	74	118	119	230	512	799	693	245	270	216	177	125
25	87	110	128	192	456	594	550	264	233	836	140	116
26	91	104	120	180	407	505	456	414	214	808	123	108
27	94	132	124	170	375	420	397	378	185	481	110	112
28	132	158	114	160	353	372	344	296	177	401	109	112
29	134	140	114	151	---	356	376	243	166	514	194	102
30	122	142	114	155	---	3420	349	225	183	416	286	100
31	128	---	113	155	---	4620	---	337	---	310	299	---
TOTAL	2556	3890	4411	4014	21361	22672	24392	9488	27103	12669	5067	8575
MEAN	82.5	130	142	129	763	731	813	306	903	409	163	286
MAX	134	299	336	230	3050	4620	2110	1430	5720	1930	299	1060
MIN	63	87	100	92	325	234	344	143	166	151	100	100
CFSM	.12	.19	.21	.19	1.12	1.07	1.19	.45	1.33	.60	.24	.42
IN.	.14	.21	.24	.22	1.17	1.24	1.33	.52	1.48	.69	.28	.47
CAL YR 1980	TOTAL	384507	MEAN	1051	MAX	21000	MIN	63	CFSM	1.54	IN	21.00
WTR YR 1981	TOTAL	146198	MEAN	401	MAX	5720	MIN	63	CFSM	.59	IN	7.99

CUMBERLAND RIVER BASIN

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
02...	1130	86	260	19.0	--	--
NOV						
25...	1150	114	160	7.0	--	--
JAN						
16...	1400	123	280	1.0	3	1.0
FEB						
27...	1230	347	340	10.0	7	6.6
APR						
10...	1350	1240	320	16.0	64	214
MAY						
22...	1230	345	280	17.0	24	22
JUN						
26...	1330	215	420	25.0	15	8.7
AUG						
11...	1330	120	320	25.0	20	6.5
SEP						
15...	1100	155	380	22.0	16	6.7

CUMBERLAND RIVER BASIN

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03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

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

DRAINAGE AREA.--14,163 mi² (36,682 km²).

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

REVISED RECORDS.--WSP 1726: Drainage area.

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

REMARKS.--Records poor. Flow regulated by eight lakes or reservoirs above station (see p.158). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--27 years, 23,600 ft³/s (668.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204,000 ft³/s (5,780 m³/s) Mar. 15, 1975; maximum gage height, 48.59 ft (14.749 m) Mar. 1, 1962; minimum daily discharge, 700 ft³/s (19.8 m³/s) Oct. 29, 1969; minimum gage height, 1.55 ft (0.472 m) Nov. 26, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 53.5 ft (16.31 m); Jan. 25, 1937, from profile by Corps of Engineers, discharge, about 200,000 ft³/s (5,660 m³/s) on Jan. 24, 1937. Flood of Jan. 1, 1927, reached a stage of 51.7 ft (15.76 m), from profile, discharge about 205,000 ft³/s (5,810 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 78,200 ft³/s (2,210 m³/s) June 7; maximum recorded gage height, 27.92 ft (8.510 m) June 7, 8; minimum daily discharge, 1,710 ft³/s (48.4 m³/s) Dec. 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6240	3140	2610	3990	6200	2560	18700	9200	25500	11900	10500	12600
2	5410	3120	2860	3980	39600	4410	14500	8140	30900	19000	6580	13500
3	5470	4130	2800	2280	38100	3970	12300	4170	44400	9710	4320	11800
4	4310	3850	4520	2010	15700	13500	9630	3250	42000	9540	8070	16700
5	4290	3710	3920	2550	12300	15300	6450	3680	33000	8220	13600	15700
6	4300	4010	2250	6670	3650	15500	11800	5440	50800	9900	18300	13100
7	5430	3710	2260	6660	2150	16400	14700	3570	78200	12300	17500	4020
8	5720	5550	2230	7500	2200	4960	10900	4150	67600	14300	11900	6470
9	7520	3130	1710	4620	6790	7330	8910	4270	48000	19400	9280	5080
10	5130	3130	6380	2880	15300	7680	8410	3630	46700	19600	8170	12100
11	7980	3180	6660	2290	13700	7390	9180	4200	63600	17500	12200	11600
12	4880	3440	5220	3450	9590	6400	8520	5410	67400	12500	15200	13500
13	6420	3790	5180	4280	10100	5450	12400	6640	55200	16400	13000	9630
14	6340	3760	1950	3370	9280	4550	11100	7090	49400	17600	16200	5140
15	8020	2840	4590	3390	9250	4310	2120	9030	37900	16500	18900	11200
16	6350	2560	4610	3450	6570	5830	6500	5740	35000	20400	17200	23300
17	6390	2840	6290	3390	5870	4040	12400	6500	26700	23500	10600	20300
18	3980	7530	5440	3440	5720	5870	11100	15300	25900	31000	16900	15800
19	3690	7570	5790	2400	13400	8230	5690	32100	25900	20600	12800	13400
20	5200	4880	4870	3130	22000	4780	9690	42200	24000	15100	15200	10000
21	7200	6100	4230	3710	13300	5560	24200	34100	22000	16100	10700	9820
22	5420	2000	5280	4860	6980	9830	18100	26700	17600	19200	4450	11600
23	6600	2000	6580	4770	9360	4720	18300	11900	19200	16200	6220	10500
24	6310	2000	3980	3470	6050	7390	12600	3340	17100	8950	2370	10200
25	5790	2820	3400	2830	6050	7580	9350	12700	19600	6220	4890	13400
26	4910	3350	3400	3240	4700	7570	3060	18600	17800	6460	18200	13100
27	8810	4570	2530	3350	6140	7620	9790	12900	27600	11800	16600	12300
28	7440	4840	2550	5980	1930	6160	9080	18100	20600	17100	12800	7770
29	6050	3960	2840	5640	---	4650	6660	19900	20000	21800	6890	9830
30	6090	2310	2270	5580	---	17200	9410	22700	14200	19100	12400	11600
31	6070	---	3130	5500	---	24100	---	22600	---	11100	13700	---
TOTAL	183760	113820	122330	124660	301980	250840	325550	387250	1073800	479000	365640	355060
MEAN	5928	3794	3946	4021	10790	8092	10850	12490	35790	15450	11790	11840
MAX	8810	7570	6660	7500	39600	24100	24200	42200	78200	31000	18900	23300
MIN	3690	2000	1710	2010	1930	2560	2120	3250	14200	6220	2370	4020
CAL YR 1980	TOTAL	6866660	MEAN	18760	MAX	104000	MIN	1710				
WTR YR 1981	TOTAL	4083690	MEAN	11190	MAX	78200	MIN	1710				

CUMBERLAND RIVER BASIN

03435770 SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN

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

DRAINAGE AREA.--65.6 mi² (169.9 km²), includes 9.0 mi² (23.3 km²) without surface drainage.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 538.17 ft (164.034 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair. No gage-height record Feb. 3 to Mar. 6.

AVERAGE DISCHARGE.--6 years, 108 ft³/s (3.059 m³/s), 22.36 in/yr (568 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s), revised, Dec. 8, 1978, gage height, 14.14 ft (4.310 m); minimum, 3.1 ft³/s (0.088 m³/s) Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s), and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 1	2300	2790 79.0	10.12 3.085	June 10	2200	*8860 251	13.37 4.075
June 6	1615	8240 233	13.12 3.999				

Minimum discharge, 3.6 ft³/s (0.10 m³/s) Oct. 12, 13, 14.

REVISIONS.--The peak discharges, annual maximum (*) for water years 1976-80, have been revised as shown in the following table. They supersede figures published in the reports for 1976-80.

Water year	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Water year	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
1976	Mar. 21, 1976	0345	*7660 217	12.89 3.929	1979	Apr. 2, 1979		Unknown	Unknown
1977	Mar. 4, 1977	0445	*4950 140	11.77 3.587	1979	Apr. 12, 1979		Unknown	Unknown
1977	Mar. 12, 1977	1415	4950 140	11.77 3.587	1979	Sept. 14, 1979	0215	9460 268	13.61 4.148
1978	Dec. 5, 1977	0600	*4250 120	11.41 3.478	1980	May 17, 1980	2215	*5160 146	11.87 3.618
1979	Dec. 8, 1978	1815	*10800 306	14.14 4.310					

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	7.7	10	7.2	476	80	76	40	714	33	26	28
2	5.5	7.7	8.8	7.2	439	50	59	36	703	32	24	45
3	5.0	7.7	8.8	7.2	150	43	50	31	356	30	22	41
4	4.8	7.7	8.3	6.7	70	90	59	30	177	30	21	26
5	4.7	7.7	8.3	5.8	50	300	200	29	127	50	21	21
6	4.6	7.2	8.3	6.7	40	150	103	27	2020	62	20	18
7	4.5	7.7	8.3	7.2	35	112	78	26	1220	70	19	17
8	4.2	7.7	8.3	6.7	30	90	66	25	524	43	19	15
9	4.2	7.7	27	6.7	28	75	71	24	309	36	17	14
10	4.2	7.7	26	6.3	25	64	155	30	1480	33	17	13
11	3.9	7.7	15	5.8	170	58	283	41	1080	52	17	13
12	3.9	7.7	13	5.4	90	50	148	26	452	33	17	12
13	3.9	7.7	12	5.8	60	45	107	23	305	30	15	12
14	3.9	9.4	10	6.7	50	41	84	21	212	28	15	12
15	4.6	19	9.4	7.2	45	35	64	19	169	28	15	470
16	4.6	11	9.4	7.2	60	36	56	17	139	28	17	136
17	5.8	48	8.8	6.3	160	30	467	17	113	316	17	56
18	13	47	8.8	5.8	100	30	200	230	98	155	16	37
19	9.4	19	8.3	6.7	250	26	127	792	85	62	16	30
20	6.7	13	7.2	7.7	100	23	116	222	133	56	22	26
21	5.8	11	6.7	20	80	22	92	122	93	173	22	22
22	6.3	9.4	6.7	18	60	25	80	90	74	58	18	20
23	5.8	8.8	7.7	13	50	51	138	67	68	43	17	17
24	5.0	8.8	9.4	11	45	39	127	55	55	39	16	16
25	6.7	8.3	9.4	12	40	31	96	47	50	64	15	15
26	6.7	7.7	8.3	12	38	29	80	41	47	41	14	14
27	7.7	11	8.3	9.4	36	27	67	37	40	32	14	60
28	9.4	15	7.7	9.4	34	25	58	34	37	30	14	35
29	11	12	7.7	9.4	---	25	55	25	36	60	145	25
30	8.8	11	7.7	10	---	174	48	24	35	35	62	20
31	7.7	---	7.7	11	---	112	---	151	---	28	29	---
TOTAL	188.3	369.0	311.3	267.5	2811	1988	3410	2399	10951	1810	739	1286
MEAN	6.07	12.3	10.0	8.63	100	64.1	114	77.4	365	58.4	23.8	42.9
MAX	13	48	27	20	476	300	467	792	2020	316	145	470
MIN	3.9	7.2	6.7	5.4	25	22	48	17	35	28	14	12
CFSM	.09	.19	.15	.13	1.52	.98	1.74	1.18	5.56	.89	.36	.65
IN.	.11	.21	.18	.15	1.59	1.13	1.93	1.36	6.21	1.03	.42	.73
CAL YR 1980	TOTAL	26174.7		MEAN 71.5	MAX 1020	MIN 3.4	CFSM 1.09	IN 14.84				
WTR YR 1981	TOTAL	26530.1		MEAN 72.7	MAX 2020	MIN 3.9	CFSM 1.11	IN 15.04				

03435770 SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	1015	4.2	290	14.0	16	.18	--
NOV 26...	1445	8.1	350	6.5	9	.20	--
JAN 19...	1300	7.2	340	1.5	33	.64	--
MAR 06...	1130	154	250	9.0	14	5.8	--
APR 07...	1550	78	180	16.5	7	1.5	--
MAY 19...	1220	695	170	15.0	972	1820	95
JUL 06...	1515	54	245	22.5	133	19	--
AUG 03...	1515	23	295	24.0	22	1.4	
SEP 14...	1300	11	338	--	23	.69	

03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TN

LOCATION.--Lat 36°30'55", long 85°03'32", Robertson County, Hydrologic Unit 05130206, on left bank 600 ft (183 m) downstream from county highway bridge, 2.8 mi (4.5 km) downstream from Millers Creek, 4.1 mi (6.6 km) south-west of Cedar Hill, 4.6 mi (7.4 km) south of Adams, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--186 mi² (482 km²) includes 21 mi² (54 km²) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1910: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 424.36 ft (129.345 m) Sandy Hook datum. Jan. 20, 1939, to Nov. 25, 1940, nonrecording gage at site 600 ft (183 m) upstream at same datum.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 26 to Jan. 19 and Jan. 27 to Mar. 12, which are fair.

AVERAGE DISCHARGE.--43 years, 250 ft³/s (7.080 m³/s), 18.25 in/yr (464 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,400 ft³/s (1,000 m³/s) Mar. 12, 1975, gage height, 30.86 ft (9.406 m), from floodmarks; minimum, 1.8 ft³/s (0.051 m³/s) Sept. 27, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1934 reached a stage of 25.1 ft (7.65 m), from floodmarks, discharge not determined. Flood in January 1937 reached a stage of about 22.6 ft (6.89 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft³/s (96.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 6	----	*10600 300	a19.45 5.928	June 11	0500	8820 250	17.80 5.425

a From high water mark.

Minimum discharge, 12 ft³/s (0.34 m³/s) Oct. 13, 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	31	19	1060	210	205	109	269	122	92	64
2	18	18	24	18	680	191	159	99	1670	107	81	173
3	18	17	23	17	360	180	136	89	948	97	72	373
4	16	17	21	17	240	855	134	82	419	81	66	139
5	16	17	20	17	195	650	363	79	285	373	61	93
6	16	17	20	18	162	490	250	77	4960	337	58	74
7	15	17	20	18	149	395	187	74	3510	354	55	62
8	19	16	20	16	138	310	157	68	1330	200	54	54
9	16	16	76	17	130	246	151	64	882	153	50	48
10	16	16	74	17	244	197	165	70	2320	172	45	44
11	15	16	51	16	342	166	450	95	4850	155	49	41
12	13	16	47	15	230	147	297	76	1610	122	65	40
13	12	16	44	16	190	130	220	64	1190	100	45	37
14	12	16	27	17	167	121	175	59	769	87	40	34
15	12	29	25	18	149	110	142	57	578	97	40	1340
16	12	40	24	20	230	108	125	53	436	78	247	569
17	12	81	23	18	340	100	709	50	343	353	77	263
18	34	182	22	16	745	95	538	193	272	589	55	175
19	38	80	21	20	520	88	317	1520	239	200	50	135
20	27	51	21	22	380	81	281	527	363	159	52	112
21	20	40	20	39	320	75	231	288	271	308	55	93
22	17	35	19	53	275	77	198	202	205	170	50	79
23	16	31	19	56	240	110	291	159	180	125	42	68
24	15	29	20	43	210	108	349	132	155	110	38	60
25	16	27	20	31	193	91	258	114	137	142	37	55
26	17	25	20	25	177	83	207	105	136	135	34	52
27	17	46	20	22	165	77	175	99	113	114	33	55
28	17	54	20	24	157	72	149	92	101	147	30	51
29	20	46	19	22	---	71	138	80	93	217	43	46
30	20	38	20	21	---	322	126	74	90	147	276	43
31	19	---	19	17	---	298	---	221	---	109	88	---
TOTAL	550	1068	850	705	8388	6254	7283	5071	28724	5660	2080	4472
MEAN	17.7	35.6	27.4	22.7	300	202	243	164	957	183	67.1	149
MAX	38	182	76	56	1060	855	709	1520	4960	589	276	1340
MIN	12	16	19	15	130	71	125	50	90	78	30	34
CFSM	.10	.19	.15	.12	1.61	1.09	1.31	.88	5.15	.98	.36	.80
IN.	.11	.21	.17	.14	1.68	1.25	1.46	1.01	5.74	1.13	.42	.89
CAL YR 1980	TOTAL	68734.3	MEAN	188	MAX	2680	MIN	8.0	CFSM	1.01	IN	13.75
WTR YR 1981	TOTAL	71105.0	MEAN	195	MAX	4960	MIN	12	CFSM	1.05	IN	14.22

NOTE.--No gage-height record Nov. 26 to Jan. 19; Jan. 27 to Mar. 12; June 6-9.

03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1964, October 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 08...	1415	16	430	16.5	14	.60
NOV 26...	1245	25	390	6.5	2	.13
JAN 19...	1400	20	420	1.0	3	.16
MAR 12...	1030	141	290	8.0	32	12
APR 08...	1000	159	290	15.5	7	3.0
MAY 29...	1200	85	390	19.0	22	5.0
AUG 12...	1545	65	--	24.0	56	9.8
SEP 14...	1415	35	--	--	14	1.3

CUMBERLAND RIVER BASIN

03436100 RED RIVER AT PORT ROYAL, TN

LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft (76 m) downstream from Sulphur Fork, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--935 mi² (2,422 km²), includes 437 mi² (1,132 km²) without surface drainage.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 376.25 ft (114.681 m) National Geodetic Vertical Datum of 1929. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--20 years, 1,330 ft³/s (37.67 m³/s), 19.32 in/yr (491 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft³/s (1,710 m³/s) Mar. 13, 1975, gage height, 48.26 ft (14.710 m); minimum, 54 ft³/s (1.53 m³/s) Sept. 17, 18, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft (13.53 m), from flood profile of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,500 ft³/s (807 m³/s) at 1045 hours June 7, gage height, 36.69 ft (11.183 m), no other peak above base of 11,000 ft³/s (312 m³/s); minimum, 74 ft³/s (2.10 m³/s) Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	95	137	95	515	819	987	655	854	855	658	285
2	99	95	119	93	4390	922	806	607	3360	855	625	260
3	99	93	115	91	2820	837	716	564	3220	778	591	665
4	93	89	107	87	1510	952	671	538	1780	736	562	515
5	91	91	105	85	1130	2870	935	526	1260	990	501	415
6	91	89	101	85	931	2810	1130	508	7870	1410	464	360
7	91	89	99	87	819	2010	875	504	26700	2340	430	327
8	89	89	99	93	759	1620	767	486	16800	1680	420	300
9	89	85	141	95	700	1360	725	471	5740	1310	399	285
10	89	87	213	85	683	1210	721	475	4710	1210	367	277
11	87	87	238	78	1110	1090	1090	508	11800	1160	343	270
12	83	87	213	80	1520	1000	1170	530	5960	1050	361	261
13	80	85	179	81	1000	935	914	486	3900	922	380	250
14	78	89	157	78	858	871	780	464	2810	855	303	242
15	78	101	141	78	780	819	691	454	2290	830	253	233
16	76	115	126	80	763	789	635	440	2000	875	676	2000
17	83	155	124	78	1360	754	1150	429	1790	1100	361	922
18	130	440	115	76	3340	721	1680	523	1560	2220	314	664
19	162	526	113	78	2310	683	1120	5570	1420	1350	303	584
20	119	289	107	80	1890	643	978	5330	1570	1010	287	501
21	105	205	99	93	1580	623	1040	2500	2350	1080	325	447
22	101	157	95	113	1350	607	935	1710	1540	967	320	400
23	97	141	97	117	1230	623	1010	1360	1310	778	349	343
24	89	128	101	126	1090	655	1540	1160	1180	731	277	303
25	85	122	103	117	948	627	1290	1010	1080	736	239	272
26	89	113	101	111	863	591	1040	974	1160	922	215	258
27	89	119	101	109	784	572	926	926	1040	778	201	267
28	91	124	101	101	759	549	828	828	917	787	193	197
29	97	128	97	97	---	541	750	746	885	922	180	172
30	95	135	99	95	---	793	708	683	845	778	780	154
31	95	---	97	80	---	1210	---	837	---	704	320	---
TOTAL	2939	4248	3840	2842	37792	31106	28608	32802	119701	32719	11997	12429
MEAN	94.8	142	124	91.7	1350	1003	954	1058	3990	1055	387	414
MAX	162	526	238	126	4390	2870	1680	5570	26700	2340	780	2000
MIN	76	85	95	76	515	541	635	429	845	704	180	154
CFSM	.10	.15	.13	.10	1.44	1.07	1.02	1.13	4.27	1.13	.41	.44
IN.	.12	.17	.15	.11	1.50	1.24	1.14	1.31	4.76	1.30	.48	.49
CAL YR 1980	TOTAL	317759	MEAN 868	MAX 8400	MIN 76	CFSM .93	IN 12.64					
WTR YR 1981	TOTAL	321023	MEAN 880	MAX 26700	MIN 76	CFSM .94	IN 12.77					

CUMBERLAND RIVER BASIN

03436690 YELLOW CREEK AT ELLIS MILLS, TN

LOCATION.--Lat 36°18'39", long 87°33'15", Houston County, Hydrologic Unit 05130205, on right bank at downstream end of bridge on county road, 0.3 mi (0.5 km) northeast of Ellis Mills, 1.0 mi (1.6 km) upstream from Leatherwood Creek, 1.0 mi (1.6 km) downstream from Williamson Branch.

DRAINAGE AREA.--103 mi² (267 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 417 ft (127 m), from topographic map.

REMARKS.--Records fair except those for October which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s (303 m³/s) June 6, gage height 16.30 ft (4.968 m); minimum, 19 ft³/s (0.54 m³/s) Sept. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	25	34	25	111	86	156	99	214	92	75	32
2	27	24	34	25	374	84	143	92	204	88	68	36
3	26	24	31	24	208	82	135	86	192	96	63	38
4	26	22	28	22	158	137	130	82	170	88	57	39
5	26	21	28	21	150	374	200	81	156	105	54	34
6	25	21	28	24	133	282	170	77	3250	134	51	31
7	26	22	27	26	127	208	160	75	2920	96	82	28
8	26	22	28	24	119	174	157	70	995	67	65	26
9	26	22	51	24	102	154	170	67	590	60	52	26
10	24	22	60	22	110	151	156	81	523	60	45	24
11	24	21	57	21	150	137	147	82	540	63	42	21
12	24	20	51	20	151	127	138	74	399	57	40	20
13	24	20	46	20	145	119	132	68	344	52	40	20
14	25	22	42	21	128	112	121	67	292	49	36	19
15	26	30	39	25	117	106	111	63	253	48	36	35
16	28	27	38	22	113	99	105	62	219	48	38	45
17	35	52	35	20	115	94	107	60	194	154	36	33
18	32	82	34	20	119	90	109	121	175	187	36	29
19	29	60	34	20	117	84	107	350	161	105	35	25
20	28	48	30	22	113	79	119	312	149	84	39	23
21	28	40	28	25	115	75	113	237	138	79	39	22
22	28	36	27	25	111	77	115	194	149	72	36	21
23	29	35	27	24	103	75	134	165	154	63	31	20
24	29	35	32	22	97	74	149	143	126	96	30	20
25	29	31	30	22	90	70	147	130	115	132	28	20
26	30	30	27	22	84	68	134	130	107	330	27	20
27	34	40	27	22	70	67	124	119	99	168	27	23
28	33	42	26	21	81	63	113	109	94	130	32	21
29	31	38	26	20	---	67	117	101	88	111	30	20
30	28	35	26	28	---	229	107	96	88	97	27	20
31	25	---	26	30	---	196	---	189	---	86	31	---
TOTAL	858	969	1057	709	3611	3840	4026	3682	13098	3097	1328	791
MEAN	27.7	32.3	34.1	22.9	129	124	134	119	437	99.9	42.8	26.4
MAX	35	82	60	30	374	374	200	350	3250	330	82	45
MIN	24	20	26	20	70	63	105	60	88	48	27	19
CFSM	.27	.31	.33	.22	1.25	1.20	1.30	1.15	4.24	.97	.42	.26
IN.	.31	.35	.38	.26	1.30	1.38	1.45	1.33	4.72	1.12	.48	.29

WTR YR 1981 TOTAL 37066 MEAN 102 MAX 3250 MIN 19 CFSM .99 IN 13.37

NOTE.--No gage-height record Oct. 1 to October 31.

CUMBERLAND RIVER BASIN

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03436690 YELLOW CREEK AT ELLIS MILLS, TN

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to July 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (MG/L)	SUS- PENDEED (T/DAY)
OCT						
31...	1530	24	290	12.5	--	--
NOV						
25...	1340	31	260	11.5	4	.33
JAN						
15...	1050	25	260	3.5	4	.27
FEB						
27...	1200	69	260	12.5	4	.75
MAR						
04...	1415	116	260	10.0	--	--
05...	1445	423	190	10.0	--	--
APR						
07...	1025	159	215	14.0	--	--
JUN						
06...	1815	7330	180	16.5	--	--
07...	1505	2090	155	18.0	--	--
JUL						
07...	1415	80	265	23.5	--	--

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russel County, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi (16 km) southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi² (14,994 km²). PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft (166.12 m) higher.

Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 tainter gates 37 ft (11 m) high by 50 ft (15 m) wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft (231.648 m) top of gates, is 3,070,000 cfs-days (7,512 hm³), of which 1,056,000 cfs-days (2,584 hm³) above elevation 723.00 ft (220.370 m), crest of spillway, are reserved for flood control and 1,080,000 cfs-days (2,643 hm³) between elevation 673.00 ft (205.130 m), minimum power pool, and 723.00 ft (220.370 m) are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days (2,285 hm³) below elevation 673.00 ft (205.130 m) is dead storage. Reservoir is used for flood control, power, navigation, and recreation. Records furnished by Corps of Engineers. Revisions.--WSP 1556: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 2,673,800 cfs-days (6,543 hm³) Apr. 15, 1962, elevation, 747.12 ft (227.722 m); minimum, after first filling, 934,400 cfs-days (2,286 hm³) Jan. 1, 1956, elevation, 673.01 ft (205.133 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 2,122,700 cfs-days (5,194 hm³) June 9, elevation, 727.24 ft (221.663 m); minimum, 969,700 cfs-days (2,373 hm³) Jan. 31, elevation, 674.95 ft (205.725 m).

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3 mi (5 km) east of Celina, and 7.3 mi (11.7 km) upstream from mouth. DRAINAGE AREA, 936 mi² (2,424 km²). PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam. Spillway is equipped with six tainter gates, each 12 ft (4 m) high by 60 ft (18 m) wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft (202.08 m), top of gates, is 859,800 cfs-days (2,104 hm³) of which 177,500 cfs-days (434.3 hm³) between elevations 663.00 ft (202.082 m) and 651.00 ft (198.425 m), crest of spillway, are reserved for flood control, and 250,200 cfs-days (612.2 hm³) between elevations 651.00 ft (198.425 m) and 631.00 ft (192.329 m), ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days (1,057 hm³) below elevation 631.00 ft (192.329 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1306: 1944. WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 828,600 cfs-days (2,028 hm³) Mar. 15, 1975, elevation, 660.98 ft (201.467 m); minimum, after first filling, 428,000 cfs-days (1,047 hm³) Sept. 11, 1944, elevation, 630.63 ft (192.216 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 678,700 cfs-days (1,661 hm³) June 14, elevation, 650.74 ft (198.346 m); minimum, 452,300 cfs-days (1,107 hm³) Jan. 18, elevation, 632.81 ft (192.880 m).

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam on Cumberland River, 2.7 mi (4.3 km) north of Carthage, and at mile 313.5 (504.4 km). DRAINAGE AREA, 8,095 mi² (20,966 km²). PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five tainter gates, each 41 ft (12 m) high and 45 ft (14 m) wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft (154.84 m), maximum surge pool, is 156,700 cfs-days (383.4 hm³), of which 53,400 cfs-days (130.7 hm³) is controlled storage between elevations 508.0 ft (154.84 m) and 499.0 ft (152.10 m), ordinary minimum pool. Contents of 5,000 cfs-days (12.24 hm³) between elevation of 499.0 ft (152.10 m) and 500.0 ft (152.40 m) full winter pool, is available for power production. Contents of 48,400 cfs-days (118.4 hm³) above 500.0 ft (152.40 m) is available for flood control during the winter, and 26,100 cfs-days (63.87 hm³) above 504.0 ft (153.62 m), full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days (252.8 hm³) below elevation 499.0 ft (152.10 m) is dead storage. Reservoir is used for navigation, power, and flood control. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 156,700 cfs-days (383.4 hm³) Mar. 13, 1975, elevation, 508.00 ft (154.838 m); minimum, after first filling to ordinary minimum pool, 96,700 cfs-days (236.6 hm³) Apr. 18, 1974, elevation, 497.65 ft (151.684 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 134,900 cfs-days (330.1 hm³) May 19, elevation, 504.70 ft (153.833 m); minimum, 103,300 cfs-days (252.8 hm³) Feb. 4, elevation, 499.00 ft (152.095 m).

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at penstock inlet on Collins River, 700 ft (213 m) southwest of powerhouse of Tennessee Valley Authority, 1.5 mi (2.4 km) northwest of Rock Island, 1.8 mi (2.9 km) upstream from mouth of Collins River, and 2.0 mi (3.2 km) upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi² (4,343 km²). PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 tainter gates, each 14 ft (4 m) high by 25 ft (8 m) wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft (11 m) in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft (245.46 m) top of gates, is 25,900 cfs-days (63.38 hm³), of which 18,700 cfs-days (45.76 hm³) are controlled storage above elevation 780.0 ft (237.74 m), normal minimum pool. Contents of 1,500 cfs-days (3.671 hm³) below elevation 762.0 ft (232.26 m) is dead storage. Reservoir is used primarily for power. Records furnished by Tennessee Valley Authority. Revisions.--WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight elevation, 817.48 ft (249.168 m) Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days (4.160 hm³) Aug. 19, 1918, elevation, 756.3 ft (230.52 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 26,500 cfs-days (64.85 hm³) Apr. 10, elevation, 805.90 ft (245.638 m); minimum, 9,800 cfs-days (23.98 hm³) Dec. 22, elevation, 784.93 ft (239.247 m).

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi (16 km) north of Smithville, 14 mi (23 km) southeast of Carthage, and at mile 26.6 (42.8 km). DRAINAGE AREA, 2,174 mi² (5,631 km²). PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft (402 m) upstream at same datum.

Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft (11 m) high by 50 ft (15 m) wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft (208.79 m), top of gates, is 1,054,800 cfs-days (2,581 hm³), of which 384,500 cfs-days (940.9 hm³) between 685.0 ft (208.79 m) and 648.0 ft (197.51 m), crest of spillway, are reserved for flood control, and 248,000 cfs-days (606.9 hm³) between elevations 648.0 ft (197.51 m) and 618.0 ft (188.37 m), ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days (1,033 hm³) below 618.0 ft (188.37 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1910: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,004,400 cfs-days (2,458 hm³) Feb. 10, 1950, elevation, 680.6 ft (207.45 m); minimum, after first filling, 171,000 cfs-days (418.4 hm³) Dec. 1, 2, 1949, elevation 576.1 ft (175.60 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 651,100 cfs-days (1,593 hm³), May 3, elevation, 645.90 ft (196.870 m); minimum, 437,200 cfs-days (1,070 hm³) Jan. 28, elevation, 620.00 ft (188.976 m).

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi (3.2 km) west of Hendersonville, 10 mi (16 km) northeast of the State capitol in Nashville, and at mile 216.2 (347.9 km). DRAINAGE AREA, 11,673 mi² (30,233 km²). PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is 408.5 ft (124.51 m) National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft (12 m) high and 45 ft (14 m) wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft (137.16 m), maximum surcharge pool, 274,600 cfs-days (671.9 hm³) of which 63,000 cfs-days (154.2 hm³) between elevations 450.0 ft (137.16 m) and 445.0 ft (135.64 m), normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days (77.82 hm³) between elevations 445.0 ft (135.64 m) and 442.0 ft (134.72 m), ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days (440.0 hm³) below elevation 442.0 ft (134.72 m), is dead storage. Reservoir is used for navigation and power. Records furnished by Corps of Engineers. Revisions.--WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 276,200 cfs-days (675.9 hm³) Mar. 13, 1975, elevation, 450.11 ft (137.194 m); minimum, after first filling to ordinary minimum pool, 179,400 cfs-days (439.0 hm³) Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft (134.709 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 221,900 cfs-days (543.0 hm³), June 26, elevation, 445.89 ft (135.907 m); minimum, 193,900 cfs-days (474.5 hm³) May 27, elevation, 443.38 ft (135.142 m).

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi (4.2 km) east of Donelson, and 6.8 mi (10.9 km) above mouth. DRAINAGE AREA, 892 mi² (2,310 km²). PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft (12 m) high by 45 ft (14 m) wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft (153.77 m), maximum controlled pool, is 328,700 cfs-days (804.3 hm³) of which 193,600 cfs-days (473.7 hm³) is controlled storage between elevations 504.5 ft (153.77 m) and 480.0 ft (146.30 m), ordinary minimum pool. Contents of 17,200 cfs-days (42.09 hm³) between elevations 480.0 ft (146.30 m) and 483.0 ft (147.22 m), full winter pool, is available for power production. Contents of 176,400 cfs-days (431.7 hm³) above 483.0 ft (147.22 m) is available for flood control during the winter, and 131,100 cfs-days (320.8 hm³) above 490.0 ft (149.35 m), full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days (330.6 hm³) below elevation 480.0 ft (146.30 m) is dead storage. Reservoir is used for flood control, power, recreation, and wildlife. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 316,400 cfs-days (774.2 hm³) Mar. 15, 1975, elevation, 503.41 ft (153.439 m); minimum, after first filling to ordinary minimum pool, 109,500 cfs-days (267.9 hm³) Dec. 5, 1968, elevation, 474.75 ft (144.704 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 206,600 cfs-days (505.6 hm³) Sept. 22, elevation, 491.22 ft (149.724 m); minimum, 138,000 cfs-days (337.7 hm³) Feb. 13, elevation, 480.53 ft (146.466 m).

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi (15 km) west of Ashland City, 16 mi (26 km) southeast of the courthouse in Clarksville, and at mile 148.7 (239.3 km). DRAINAGE AREA, 14,159 mi² (36,672 km²).

Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft (8 m) high by 60 ft (18 m) wide. Total capacity at elevation 385.0 ft (117.35 m), normal pool, is 52,200 cfs-days (127.7 hm³), of which 9,800 cfs-days (23.98 hm³) are controlled storage. Records of contents not published herein.

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi (2.3 km) northeast of Grand Rivers, Ky., and at mile 30.6 (49.2 km). DRAINAGE AREA, 17,598 mi² (45,579 km²). PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft (370 m) upstream from Barkley Dam at same datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 tainter gates each 50 ft (15 m) high by 55 ft (17 m) wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft (107.90 m) Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft (114.30 m), top of gates, is 1,049,600 cfs-days (2,568 hm³), of which 742,000 cfs-days (1,816 hm³) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Contents of 130,500 cfs-days (319.3 hm³) between ordinary minimum pool elevation, 354.0 ft (107.90 m), and full pool elevation, 359.0 ft (109.42 m), is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft (105.46 m), contents 171,000 cfs-days (418.4 hm³). Reservoir is used for navigation, flood control, power, and recreation. Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 369.10 ft (112.502 m) Mar. 28, 1973; minimum after reaching permanent pool elevation, 353.20 ft (107.655 m) Dec. 20, 1976. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum contents, 573,700 cfs-days (1,404 hm³) June 7; maximum elevation, 361.26 ft (110.112 m) June 7; minimum contents, 303,500 cfs-days (742.7 hm³) Feb. 23; minimum elevation, 353.42 ft (107.722 m) Feb. 24.

CUMBERLAND RIVER BASIN

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RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	Elevation (feet)	Contents (cfs- days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs- days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs- days)	Change in contents (cfs-days)
	03413500	LAKE CUMBERLAND		03416500	DALE HOLLOW LAKE		03418400	CORDELL HULL RESERVOIR	
Sept. 30.....	682.90	1119600	-	635.76	486400	-	504.10	131100	-
Oct. 31.....	678.70	1039300	-80300	633.05	455000	-31400	501.40	115700	-15400
Nov. 30.....	678.60	1037400	-1900	633.22	457000	+2000	500.40	110400	-5300
Dec. 31.....	677.30	1013100	-24300	633.04	454900	-2100	499.90	107800	-2600
CAL YR 1980			-549600			-109400			+500
Jan. 31.....	674.95	969700	-43400	632.94	453800	-1100	499.90	107800	0
Feb. 29.....	687.70	1214200	+244500	635.50	483300	+29500	500.10	108800	+1000
Mar. 31.....	697.30	1413400	+199200	638.58	520100	+36800	501.10	114100	+5300
Apr. 30.....	717.70	1881800	+468400	644.33	592400	+72300	503.60	128200	+14100
May 31.....	722.24	1994700	+112900	646.71	623700	+31300	504.30	132500	+4300
June 30.....	717.15	1868300	-126400	648.99	654500	+30800	503.30	126500	-6000
July 31.....	708.40	1660600	-207700	646.25	617600	-36900	503.32	126600	+100
Aug. 31.....	700.25	1477300	-183300	643.26	578500	-39100	503.94	130300	+3700
Sept. 30.....	692.34	1308800	-168500	641.39	554800	-23700	503.98	130500	+200
WTR YR 1981			+189200			+68400			-600
	03422000	GREAT FALLS LAKE		03424000	CENTER HILL LAKE		03426300	OLD HICKORY LAKE	
Sept. 30.....	786.93	11000	-	627.50	495000	-	444.47	205700	-
Oct. 31.....	788.00	11600	+600	624.40	470700	-24300	444.58	206900	+1200
Nov. 30.....	789.60	12700	+1100	623.30	462200	-8500	444.28	203600	-3300
Dec. 31.....	787.72	11500	-1200	622.90	459100	-3100	444.48	205800	+2200
CAL YR 1980			-14900			-93600			+800
Jan. 31.....	787.50	11300	-200	620.20	438700	-20400	444.32	204000	-1800
Feb. 29.....	788.10	11700	+400	628.70	504500	+65800	444.38	204700	+700
Mar. 31.....	805.07	25600	+13900	634.20	549400	+44900	444.77	209000	+4300
Apr. 30.....	796.18	17500	-8100	645.60	648400	+99000	444.23	203000	-6000
May 31.....	788.50	12000	-5500	643.30	627800	-20600	444.36	204400	+1400
June 30.....	794.93	16500	+4500	643.40	628700	+900	444.67	207900	+3500
July 31.....	800.50	21200	+4700	640.09	599600	-29100	444.38	204700	-3200
Aug. 31.....	799.06	19900	-1300	638.49	585700	-13900	444.32	204000	-700
Sept. 30.....	797.41	18500	-1400	637.49	577100	-8600	444.20	202700	-1300
WTR YR 1981			+7500			+82100			-3000
	03430050	J. PERCY PRIEST LAKE		03438210	LAKE BARKLEY+				
Sept. 30.....	489.51	194100	-	354.99	332100	-			
Oct. 31.....	487.08	177600	-16500	355.22	337200	+5100			
Nov. 30.....	483.48	155100	-22500	354.60	321200	-16000			
Dec. 31.....	481.62	144200	-10900	354.35	315400	-5800			
CAL YR 1980			-500			-26000			
Jan. 31.....	481.42	143000	-1200	355.94	354000	+38600			
Feb. 29.....	481.57	143900	+900	354.50	318000	-36000			
Mar. 31.....	486.31	172600	+28700	356.17	366800	+48800			
Apr. 30.....	489.88	196700	+24100	358.88	436900	+70100			
May 31.....	489.98	197500	+800	359.54	457000	+20100			
June 30.....	490.08	198200	+700	359.32	451700	-5300			
July 31.....	489.53	194300	-3900	357.72	403000	-48700			
Aug. 31.....	490.35	200100	+5800	356.77	376500	-26500			
Sept. 30.....	491.18	206200	+6100	355.38	343200	-33300			
WTR YR 1981			+12100			+11100			

* Contents based on backwater profile.

TENNESSEE RIVER BASIN

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft (60 m) upstream from bridge on U. S. Highway 411, 1.0 mi (1.6 km) northeast of Newport city limits, 3.7 mi (6.0 km) upstream from Pigeon River, and at mile 77.5 (124.7 km).

DRAINAGE AREA.--1,858 mi² (4,812 km²).

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft (308.339 m) National Geodetic Vertical Datum of 1929. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--Records good. Diurnal fluctuation during low flow caused by powerplants above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--63 years (water years 1904-05, 1921-81), 2,989 ft³/s (84.65 m³/s), 21.85 in/yr (555 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,300 ft³/s (2,160 m³/s) Aug. 30, 1940, gage height, 19.25 ft (5.867 m); minimum, 208 ft³/s (5.89 m³/s) Oct. 23, 1952, gage height, 0.97 ft (0.296 m); minimum daily, 240 ft³/s (6.80 m³/s) Sept. 9, 1925; minimum gage height, 0.91 ft (0.277 m) Sept. 20, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft (7.3 m), present datum, discharge, estimated, 110,000 ft³/s (3,120 m³/s), has not been exceeded since that date. From the same reports, other outstanding floods occurred Feb. 28, 1902, gage height, 23.0 ft (7.01 m) present datum, discharge, estimated, 101,000 ft³/s (2,860 m³/s); and July 17, 1916, gage height, 22.5 ft (6.86 m), present datum, discharge, estimated, 97,000 ft³/s (2,750 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,500 ft³/s (269 m³/s) at 2000 hours Feb. 11, gage height, 5.79 ft (1.765 m), no peak above base of 16,000 ft³/s (453 m³/s); minimum discharge, 472 ft³/s (13.4 m³/s) Sept. 29, 30; gage height, 1.03 ft (0.314 m); minimum daily, 478 ft³/s (13.5 m³/s) Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2790	1540	2010	1350	1090	2200	5060	1800	4050	1500	1030	521
2	2750	1410	1800	1270	3340	2120	3720	1730	3850	1480	1020	562
3	2140	1260	1670	1180	3540	2000	2980	1640	3840	1170	1310	591
4	1630	1150	1580	1140	2530	1930	2650	1530	5170	1360	1180	757
5	1410	1150	1520	1040	1860	2270	2830	1480	4460	1470	1060	798
6	1510	1150	1460	900	1660	3390	3280	1420	4290	1570	1020	1010
7	1420	1140	1410	1110	1550	2920	3060	1510	4870	1410	1350	1400
8	1260	1130	1340	1060	1490	2410	2650	1550	3740	1340	1470	1850
9	1160	1130	1360	1080	1390	2130	2470	1500	3180	1200	1380	1260
10	1110	1070	1630	1080	1400	1990	2440	1390	2640	1080	1100	1010
11	1110	1030	1730	915	6090	1880	2250	1710	2350	993	923	854
12	1030	996	1530	807	7130	1790	2130	2390	2080	1040	846	773
13	900	960	1410	621	5010	1730	2040	2170	1950	954	839	717
14	897	943	1340	774	3320	1740	1980	1800	2020	998	904	651
15	904	975	1280	1160	2600	1690	2250	1670	1960	1080	812	658
16	904	1250	1250	1190	2350	1670	1980	1730	1770	960	799	1440
17	904	1400	1210	959	2210	1720	1980	1630	1580	1210	780	1130
18	921	1390	1210	793	2810	1650	2740	1520	1550	1180	724	835
19	1300	1510	1170	862	3840	1630	2630	1580	1480	1170	689	750
20	1290	1490	1150	1040	5150	1580	5680	1960	1450	1140	689	668
21	1150	1320	1070	1210	4930	1550	6400	3040	1430	1620	704	613
22	1060	1230	1030	1270	3790	1570	3820	2490	1320	1290	698	604
23	969	1180	1060	1180	3280	1750	2950	2010	1290	1020	653	592
24	933	1190	1130	1110	3290	1930	4050	1740	1290	918	624	567
25	985	2120	1260	1070	3050	2080	3440	1590	1190	1470	603	585
26	1620	2540	1040	1050	2660	2170	2760	1510	1210	1350	578	532
27	1550	1980	1030	1090	2440	2100	2390	2030	1340	1240	520	515
28	1420	2750	1130	1200	2260	2000	2120	7510	1130	1170	548	497
29	1270	3310	1150	1200	---	1890	1970	6260	999	1340	520	486
30	1400	2470	1360	1180	---	2050	1940	4840	970	1480	520	478
31	1400	---	1390	1160	---	5500	---	3820	---	1100	536	---
TOTAL	41097	44164	41710	33051	86060	65030	88640	70550	70449	38303	26429	23704
MEAN	1326	1472	1345	1066	3074	2098	2955	2276	2348	1236	853	790
MAX	2790	3310	2010	1350	7130	5500	6400	7510	5170	1620	1470	1850
MIN	897	943	1030	621	1090	1550	1940	1390	970	918	520	478
CFSM	.71	.79	.72	.57	1.65	1.13	1.59	1.23	1.26	.67	.46	.43
IN.	.82	.88	.84	.66	1.72	1.30	1.77	1.41	1.41	.77	.53	.47
CAL YR 1980	TOTAL	1047000	MEAN	2861	MAX	19900	MIN	733	CFSM	1.54	IN	20.96
WTR YR 1981	TOTAL	629187	MEAN	1724	MAX	7510	MIN	478	CFSM	.93	IN	12.60

03461200 COSBY CREEK ABOVE COSBY, TN

LOCATION.--Lat 35°46'58", long 83°13'03", Cocke County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park on left retaining wall of creek, 400 ft (120 m) downstream from Crying Creek, 600 ft (180 m) upstream from bridge on State Highway 32, 3,600 ft (1,100 m) upstream from Stillhouse Branch, 2.4 mi (3.9 km) southeast of Cosby, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--10.1 mi² (26.2 km²).

PERIOD OF RECORD.--Annual maximum, water years 1959-66 (1959-65 published as "near Cosby"); October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,644.07 ft (501.113 m) National Geodetic Vertical Datum of 1929. Oct. 15, 1958, to Sept. 30, 1966, crest-stage gage at site 600 ft (180 m) downstream, at datum 1.08 ft (0.329 m) lower (gage heights adjusted to present datum in WSP 2110). Oct. 1, 1966 to June 13, 1977, water-stage recorder at site 600 ft (180 m) downstream at present datum.

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

AVERAGE DISCHARGE.--15 years, 28.1 ft³/s (0.796 m³/s), 37.41 in/yr (950 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) Mar. 16, 1973, gage height, 4.11 ft (1.253 m) former site; about 17.1 ft (5.21 m) present site; minimum, 1.4 ft³/s (0.040 m³/s), Sept. 30, Oct. 1, 2, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft³/s (7.70 m³/s) at 2100 hours Apr. 20, gage height 14.79 ft, (4.518 m), no other peak above base of 250 ft³/s (7.08 m³/s); minimum discharge, 3.2 ft³/s (0.091 m³/s) Oct. 17, 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	6.6	14	11	10	30	60	30	41	28	13	4.3
2	6.3	6.2	12	11	134	28	48	27	41	17	12	4.3
3	5.7	5.9	10	9.5	71	25	39	24	50	14	11	4.1
4	5.0	5.9	9.5	9.0	50	26	34	22	56	15	10	6.7
5	6.5	5.7	9.0	6.0	35	53	62	20	75	13	9.2	6.3
6	6.1	5.3	8.4	11	29	56	50	20	136	16	12	5.3
7	5.4	5.1	7.9	14	25	42	42	20	169	14	10	6.7
8	5.0	5.0	7.6	12	23	34	37	18	104	13	18	7.6
9	4.7	5.0	11	13	20	29	35	16	75	12	13	5.9
10	4.3	4.9	32	11	27	26	34	15	55	11	11	5.1
11	4.1	4.7	25	6.0	175	23	30	17	45	15	10	4.8
12	3.8	4.6	20	6.5	97	21	27	15	36	19	9.5	4.6
13	3.7	4.5	17	9.0	67	21	25	15	36	14	8.4	4.5
14	3.6	4.5	14	13	51	19	23	14	30	13	7.6	4.3
15	3.5	7.3	13	11	41	18	24	16	25	14	6.9	8.7
16	3.4	8.6	12	9.0	35	20	22	15	22	27	7.9	56
17	3.3	8.7	11	7.0	34	19	21	14	21	32	12	25
18	6.2	16	9.8	5.5	60	18	46	14	19	38	10	16
19	13	16	9.2	7.0	60	16	34	32	17	40	8.2	12
20	7.0	13	8.7	6.5	66	17	162	44	16	40	7.4	10
21	6.1	11	7.9	7.0	60	15	133	62	15	48	7.6	8.7
22	5.7	9.4	7.6	6.6	47	15	83	42	14	34	6.7	7.6
23	5.3	9.3	7.6	6.0	46	18	69	32	17	26	6.1	6.9
24	5.0	20	13	5.7	39	16	103	26	13	20	5.7	6.5
25	9.3	36	20	5.7	33	15	77	35	12	18	5.5	6.1
26	7.7	27	15	5.7	30	15	57	33	12	15	4.9	5.5
27	6.7	30	13	8.6	26	15	46	43	11	13	4.9	5.3
28	7.1	27	12	9.9	24	16	37	66	10	12	4.8	5.1
29	7.4	20	11	8.3	---	19	35	62	9.8	21	4.6	4.9
30	7.4	16	12	8.5	---	101	31	47	9.6	18	4.6	4.8
31	7.0	---	12	8.1	---	72	---	50	---	15	4.5	---
TOTAL	182.9	349.2	392.2	268.1	1415	858	1526	906	1192.4	645	267.0	263.6
MEAN	5.90	11.6	12.7	8.65	50.5	27.7	50.9	29.2	39.7	20.8	8.61	8.79
MAX	13	36	32	14	175	101	162	66	169	48	18	56
MIN	3.3	4.5	7.6	5.5	10	15	21	14	9.6	11	4.5	4.1
CFSM	.58	1.14	1.25	.85	4.95	2.72	4.99	2.86	3.89	2.04	.84	.86
IN.	.67	1.27	1.43	.98	5.16	3.13	5.56	3.30	4.35	2.35	.97	.96

CAL YR 1980 TOTAL 7122.5 MEAN 19.5 MAX 176 MIN 2.3 CFSM 1.91 IN 25.97
WTR YR 1981 TOTAL 8265.4 MEAN 22.6 MAX 175 MIN 3.3 CFSM 2.22 IN 30.14

03461500 Pigeon River at Newport, TN

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft (30 m) upstream from bridge on U. S. Highway 25 and 70 at Newport, 0.6 mi (1.0 km) downstream from Morell Branch, and at mile 6.8 (10.9 km).

DRAINAGE AREA.--666 mi² (1,725 km²).

PERIOD OF RECORD.--September 1900 to September 1929, October 1944 to September 1946, August 1948 to current year. Monthly discharge only for some periods, published in WSP 1306. Published as "near Newport" 1945-46.

REVISED RECORDS.--WSP 1143: Drainage area. WSP 1306: 1901, 1904-10. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M), 1948-52 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft (316.614 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft (0.610 m) higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi (7.7 km) downstream at datum 35.85 ft (10.927 m) lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days (30.59 hm³). The largest of these, Lake Walters, usable capacity, 10,400 cfs-days (25.45 hm³), was completed in 1929. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--64 years, 1,250 ft³/s (35.40 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s (1,420 m³/s) Feb. 28, 1902, gage height, 23.4 ft (7.13 m), present datum, but due to removal of dam 1.3-mi (2.1 km) downstream in 1945, stage for this flood would be about 1.9 ft (0.58 m) lower under present conditions, from reports of Tennessee Valley Authority; minimum, 38 ft³/s (1.08 m³/s) Oct. 5, 1952, Sept. 13, 1954; minimum daily, 48 ft³/s (1.36 m³/s) Sept. 21, 28, 1953; minimum gage height, 1.68 ft (0.512 m), present datum, Sept. 13, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft (7.0 m), present datum, about 21.1 ft (6.43 m), present conditions, due to removal of mill dam in 1945, discharge, 48,000 ft³/s (1,360 m³/s), and flood of August 30, 1940, reached a stage of 19.3 ft (5.88 m), present datum, about 17.4 ft (5.30 m) present conditions, due to removal of mill dam in 1945, discharge, 36,000 ft³/s (1,020 m³/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,430 ft³/s (210 m³/s) at 1800 hours Apr. 20, gage height, 7.43 ft (2.265 m), no peak above base of 7,500 ft³/s (212 m³/s); minimum, 60 ft³/s (1.70 m³/s) Nov. 13, 14; minimum daily, 60 ft³/s (1.70 m³/s) Nov. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	80	876	625	241	877	2440	1280	2330	335	198	770
2	462	76	1140	497	2110	953	1740	840	1860	377	177	539
3	462	73	862	203	1530	974	1900	525	1860	542	171	629
4	444	76	514	260	1020	1380	1160	1240	1880	337	282	783
5	450	76	382	671	736	1770	1010	852	1880	252	646	359
6	474	71	172	455	617	1220	1480	1220	2670	465	441	147
7	432	68	123	359	274	714	1740	867	3220	958	548	115
8	421	65	239	558	232	535	1510	853	2300	686	418	116
9	404	67	846	389	794	947	1590	530	2150	805	236	190
10	393	66	1060	135	1810	1200	1450	219	1980	967	184	210
11	388	64	571	79	4460	1030	540	963	1940	464	454	272
12	366	62	807	410	2940	1020	358	1030	1010	312	313	255
13	350	60	393	765	1580	682	1330	1080	621	675	126	76
14	339	645	172	366	900	661	1290	1130	660	982	398	929
15	328	843	782	118	1430	782	1350	1350	673	605	340	1190
16	313	1000	691	266	1200	984	1180	723	979	292	104	1390
17	300	1190	712	567	1080	1050	1060	202	977	375	119	360
18	299	1070	549	334	2280	1030	731	730	697	413	194	161
19	530	836	351	106	2640	1140	618	1370	467	532	149	128
20	423	536	283	217	2380	829	4540	1470	402	905	271	111
21	397	625	545	395	1420	763	4310	1240	281	1140	163	100
22	377	181	670	322	1540	288	2440	611	562	516	99	93
23	367	204	328	201	1980	1180	1310	358	999	651	88	450
24	322	382	660	102	1600	881	2620	281	1130	553	254	220
25	155	1210	364	189	1350	783	1080	292	1190	211	372	490
26	130	1440	621	150	1060	594	673	750	805	175	94	667
27	96	859	280	159	1040	407	1520	1590	374	600	204	139
28	87	548	230	514	955	312	1580	2830	168	860	268	386
29	94	821	346	769	---	400	1280	2820	155	1050	75	174
30	92	421	776	640	---	2270	1420	2620	211	538	72	69
31	86	---	476	620	---	3050	---	2390	---	239	402	---
TOTAL	10261	13715	16821	11441	41199	30706	47250	34256	36431	17812	7860	11518
MEAN	331	457	543	369	1471	991	1575	1105	1214	575	254	384
MAX	530	1440	1140	769	4460	3050	4540	2830	3220	1140	646	1390
MIN	86	60	123	79	232	288	358	202	155	175	72	69
CAL YR 1980	TOTAL	393978	MEAN	1076	MAX	10500	MIN	60				
WTR YR 1981	TOTAL	279270	MEAN	765	MAX	4540	MIN	60				

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft (300 m) upstream from bridge on State Highway 81, 3 mi (5 km) northwest of Erwin, 5.2 mi (8.4 km) downstream from North Indian Creek, and at mile 89.0 (143.2 km).

DRAINAGE AREA.--805 mi² (2,085 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

GAGE.--Water-stage recorder. Datum of gage is 1,519.30 ft (463.083 m) National Geodetic Vertical Datum of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi (5 km) downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft (600 m) downstream at datum 6.33 ft (1.929 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--62 years (water years 1920-81), 1,367 ft³/s (38.71 m³/s), 23.06 in/yr (586 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft³/s (3,120 m³/s) Nov. 6, 1977, gage height, 21.52 ft (6.559 m), from rating curve extended above 48,000 ft³/s (1,360 m³/s) on basis of contracted-opening and slope-area measurements of peak flow; minimum, 85 ft³/s (2.41 m³/s) Sept. 8, 9, 1925; minimum gage height, 1.06 ft (0.323 m) Sept. 16, 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft (7.3 m), discharge, 120,000 ft³/s (3,400 m³/s), present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,300 ft³/s (320 m³/s) at 1800 hours May 27, gage height, 5.47 ft (1.677 m). No other peak above base of 9,500 ft³/s (269 m³/s); minimum, 192 ft³/s (5.44 m³/s), gage height, 0.85 ft (0.259 m) Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	961	570	646	653	384	1200	2310	999	2350	653	592	243
2	1180	519	610	589	2850	1170	1970	927	2410	804	558	315
3	675	487	585	528	2220	1030	1560	863	2470	1030	624	297
4	522	473	562	514	1130	1000	1350	816	3400	792	560	423
5	538	468	531	368	820	1940	1720	770	2690	678	474	494
6	687	448	512	309	774	3060	2040	742	2590	787	542	455
7	600	428	498	537	722	2100	1560	793	2980	847	683	534
8	497	418	487	454	746	1590	1350	822	2320	770	694	523
9	453	412	496	483	587	1330	1250	746	1920	635	603	389
10	426	400	781	447	658	1170	1220	687	1610	557	496	323
11	406	384	796	315	5930	1070	1110	1270	1400	515	434	281
12	381	368	665	299	3390	981	1040	1550	1240	577	396	259
13	358	368	588	322	2090	909	996	1020	1170	521	372	242
14	348	368	552	431	1550	907	1000	882	1170	538	347	231
15	347	410	520	469	1260	833	1060	946	1030	611	328	303
16	347	616	500	387	1130	907	964	973	925	1020	353	1040
17	343	588	490	332	1120	1040	977	845	871	2580	405	703
18	363	595	470	316	1670	925	1300	810	834	1210	357	493
19	713	696	461	392	2190	900	1240	978	803	948	334	367
20	592	570	441	407	3180	842	3430	2310	783	791	324	319
21	472	511	371	481	3230	793	3900	2900	813	700	313	294
22	398	482	342	472	2220	821	2340	1940	727	577	291	275
23	380	479	415	439	2170	898	1860	1430	783	499	275	256
24	366	580	503	410	2380	942	2400	1170	748	467	266	245
25	612	1310	549	399	1820	1060	2060	1030	647	542	257	229
26	1190	868	361	421	1540	1130	1640	924	603	505	240	222
27	753	743	357	489	1330	1150	1400	4540	569	451	232	225
28	627	945	505	535	1200	1150	1220	8180	545	433	229	215
29	673	882	755	495	---	1130	1140	5840	534	1410	224	206
30	629	720	898	496	---	2140	1100	3510	527	1020	225	194
31	606	---	783	422	---	3640	---	2990	---	734	234	---
TOTAL	17443	17106	17030	13611	50291	39758	48507	54203	41462	24202	12262	10595
MEAN	563	570	549	439	1796	1283	1617	1748	1382	781	396	353
MAX	1190	1310	898	653	5930	3640	3900	8180	3400	2580	694	1040
MIN	343	368	342	299	384	793	964	687	527	433	224	194
CFSM	.70	.71	.68	.55	2.23	1.59	2.01	2.17	1.72	.97	.49	.44
IN.	.81	.79	.79	.63	2.32	1.84	2.24	2.50	1.92	1.12	.57	.49
CAL YR 1980	TOTAL	463063	MEAN	1265	MAX	11600	MIN	307	CFSM	1.57	IN	21.40
WTR YR 1981	TOTAL	346470	MEAN	949	MAX	8180	MIN	194	CFSM	1.18	IN	16.01

TENNESSEE RIVER BASIN

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 14...	1400	355	74	14.0	3	2.9
NOV 12...	1100	364	67	6.5	--	--
JAN 13...	1430	376	74	.5	32	32
FEB 18...	1300	1700	57	9.0	33	151
MAR 25...	1300	1040	60	7.5	8	22
MAY 05...	1515	760	57	18.5	6	12
JUL 13...	1220	501	65	26.0	6	8.1
AUG 11...	1400	439	75	25.5	7	8.3
SEP 17...	1500	740	80	19.5	36	72

TENNESSEE RIVER BASIN

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03466228 SINKING CREEK AT AFTON, TN

LOCATION.--Lat 36°11'55", long 82°44'31", Greene County, Hydrologic Unit 06010108, on left bank 300 ft (90 m) upstream from bridge on county road, 0.4 mi (0.6 km) northwest of Afton, and at mile 3.1 (5.0 km).

DRAINAGE AREA.--13.7 mi² (35.5 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,459.36 ft (444.813 m) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft³/s (42.8 m³/s) July 21, 1979, gage height, 7.79 ft (2.374 m), from rating curve extended above 100 ft³/s (2.83 m³/s) on basis of area-velocity study; minimum, 1.7 ft³/s (0.048 m³/s) several days in December 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 223 ft³/s (6.32 m³/s), at 1830 hours, June 6, gage height, 3.51 ft (1.070 m), no other peak above base of 180 ft³/s (5.10 m³/s); minimum, 2.2 ft³/s (0.062 m³/s) Oct. 29, Nov. 2, Dec. 21, and several days in January.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.9	3.6	4.2	7.6	7.1	5.1	7.7	6.9	12	6.2	4.0
2	3.1	2.7	3.5	3.8	57	6.7	4.7	7.3	14	12	6.0	4.0
3	3.1	2.7	3.2	3.4	17	6.1	4.7	7.2	17	8.5	5.8	4.7
4	3.1	3.1	2.9	3.2	12	7.4	4.6	7.0	15	7.9	5.6	5.8
5	3.1	3.1	2.7	2.9	9.4	15	14	6.8	14	8.0	5.3	7.6
6	2.9	2.7	2.6	2.9	8.3	14	8.6	6.7	102	14	6.5	4.7
7	2.9	2.7	2.5	3.2	7.4	11	6.5	6.9	46	31	5.6	4.5
8	2.9	2.7	2.5	2.9	7.4	9.0	5.8	6.3	22	12	5.8	4.5
9	2.9	2.7	3.2	2.9	6.8	8.2	6.2	6.0	19	9.7	5.0	4.2
10	2.7	2.7	4.2	2.8	6.7	7.6	5.9	5.6	19	8.8	4.5	4.2
11	2.7	2.5	3.6	2.7	11	7.2	5.0	6.5	18	8.3	4.5	4.2
12	2.7	2.4	3.2	2.7	8.4	6.8	4.8	5.9	17	8.7	4.5	4.0
13	2.7	2.4	3.0	2.5	7.7	6.6	4.6	5.5	16	8.3	4.4	3.8
14	2.8	2.4	2.8	2.5	7.5	6.1	4.6	5.6	13	7.4	4.2	3.8
15	2.5	3.1	2.7	2.5	7.0	5.8	5.2	7.4	12	7.6	4.6	26
16	2.5	3.1	2.7	2.5	6.9	6.2	4.5	6.0	12	8.0	9.3	32
17	2.7	3.3	2.7	2.5	7.3	5.9	7.7	5.6	11	7.8	6.3	15
18	4.7	6.5	2.5	2.4	9.1	5.7	9.1	5.5	9.8	7.2	4.8	10
19	6.4	4.7	2.5	2.3	9.6	5.3	6.8	6.3	9.2	6.9	4.5	8.5
20	3.6	3.6	2.5	2.4	14	5.1	33	17	9.0	7.8	4.2	7.7
21	3.1	3.2	2.4	5.5	11	4.9	16	17	9.2	7.9	4.2	7.1
22	3.1	3.0	2.4	4.9	9.7	5.0	11	9.6	8.4	6.6	4.0	6.7
23	2.7	3.2	2.4	4.3	10	4.9	14	8.2	8.2	6.3	4.0	6.3
24	2.7	4.9	3.4	3.7	9.4	4.4	21	7.5	7.9	6.0	3.9	6.0
25	3.6	5.0	3.9	3.4	8.6	4.3	13	6.9	7.8	5.8	4.2	5.8
26	3.6	4.1	3.2	3.2	7.6	4.3	11	6.6	8.6	5.7	4.2	5.7
27	3.1	4.0	3.0	3.4	7.3	4.3	10	8.0	7.8	5.4	4.2	5.4
28	3.1	4.0	2.9	3.8	6.9	4.5	9.4	8.8	7.5	6.7	4.2	5.3
29	2.9	4.0	3.1	3.5	---	4.4	8.9	7.7	7.8	25	4.0	5.3
30	2.9	4.0	4.3	3.6	---	6.0	8.5	7.2	7.0	7.5	4.0	5.3
31	2.9	---	4.7	3.6	---	5.3	---	7.5	---	6.6	4.0	---
TOTAL	96.8	101.4	94.8	100.1	298.6	205.1	274.2	233.8	482.1	291.4	152.5	222.1
MEAN	3.12	3.38	3.06	3.23	10.7	6.62	9.14	7.54	16.1	9.40	4.92	7.40
MAX	6.4	6.5	4.7	5.5	57	15	33	17	102	31	9.3	32
MIN	2.5	2.4	2.4	2.3	6.7	4.3	4.5	5.5	6.9	5.4	3.9	3.8
CFSM	.23	.25	.22	.24	.78	.48	.67	.55	1.18	.69	.36	.54
IN.	.26	.28	.26	.27	.81	.56	.74	.63	1.31	.79	.41	.60
CAL YR 1980	TOTAL	4422.6	MEAN	12.1	MAX	199	MIN	2.4	CFSM	.88	IN	12.01
WTR YR 1981	TOTAL	2552.9	MEAN	6.99	MAX	102	MIN	2.3	CFSM	.51	IN	6.93

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TN

LOCATION.--Lat 35°52'42", long 83°34'40", Sevier County, Hydrologic Unit 06010107, on left bank, 0.2 mi (0.3 km) downstream from West Prong Little Pigeon River, 0.6 mi (1.0 km) north of intersection of U. S. Highway 441 and State Highway 66 in Sevierville, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--353 mi² (914 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Prior to November 1920 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1921-34. WSP 1336: 1921(M), 1922, 1923(m), WRD TN 1972: 1969(M), 1970(M), 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 879.45 ft (268.056 m) National Geodetic Vertical Datum of 1929. Nov. 23, 1920, to June 13, 1928, nonrecording gage, and June 14, 1928, to June 1, 1966; water-stage recorder, at site 0.1 mi (0.2 km) upstream at datum 1.99 ft (0.607 m) higher. June 2, 1966, to June 5, 1967, at site 1.5 mi (2.4 km) downstream at datum 7.31 ft (2.228 m) lower.

REMARKS.--Records good. Some regulation at low flow caused by small mills above station prior to 1967. During the period April 1966 to July 1967, Tennessee Valley Authority constructed a flood-control project for town of Sevierville, widening and deepening Little Pigeon River through the town and 1.8 mi (2.9 km) downstream, and relocating the lower portion of West Prong Little Pigeon River. The present gage is located on the new dredged channel.

AVERAGE DISCHARGE.--61 years, 570 ft³/s (16.14 m³/s), 21.93 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft³/s (1,160 m³/s) Mar. 26, 1965, gage height, 16.09 ft (4.904 m), site and datum then in use; minimum, 2.8 ft³/s (0.079 m³/s) Sept. 21, 1925; minimum gage height, 0.08 ft (0.024 m) Dec. 23, 1965, site and datum then in use; minimum daily discharge, 8.4 ft³/s (0.24 m³/s) Sept. 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 18 ft (5.5 m), discharge, 55,000 ft³/s (1,560 m³/s); that of Apr. 1, 1896, 16.8 ft (5.12 m), discharge, 46,000 ft³/s (1,300 m³/s); and that of Mar. 7, 1867, 16.5 ft (5.03 m), discharge, 43,000 ft³/s (1,220 m³/s) all at site 0.1 mi (0.2 km) upstream, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,350 ft³/s (180 m³/s) at 0030 hours Feb. 11, gage height, 5.45 ft (1.661 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum discharge, 55 ft³/s (1.56 m³/s) Jan. 18, gage height, 1.02 ft (0.311 m) result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	129	243	155	236	476	968	449	901	363	256	108
2	169	118	212	145	2970	508	768	464	778	285	278	136
3	150	110	189	134	1210	385	555	399	1150	221	286	135
4	129	121	166	130	678	389	472	357	1690	219	227	173
5	125	121	158	100	453	908	1350	324	1440	204	193	200
6	156	102	145	105	374	1240	1020	309	2720	293	261	239
7	130	94	135	160	305	855	729	409	2930	290	452	767
8	113	90	132	121	309	619	575	331	1810	267	825	638
9	105	87	218	127	271	496	538	280	1190	215	500	342
10	96	85	603	111	977	416	541	277	916	183	326	249
11	88	81	459	87	4150	369	451	627	907	166	263	202
12	81	76	325	121	1530	324	402	364	630	393	227	170
13	78	74	267	93	1010	292	364	297	513	231	199	154
14	76	73	228	115	742	303	327	262	768	188	173	141
15	76	154	201	111	574	260	382	264	513	192	157	313
16	74	314	194	101	490	274	323	254	419	222	150	1500
17	71	256	180	93	488	267	570	236	372	591	177	707
18	78	658	165	76	1240	244	1040	233	339	679	168	406
19	666	477	155	96	1540	251	837	361	300	931	145	304
20	289	280	148	99	1430	230	3130	504	288	567	136	250
21	177	212	129	117	1090	217	2670	884	279	607	269	215
22	146	171	127	121	817	241	1410	569	246	358	199	191
23	125	161	134	107	888	287	1510	408	1050	269	155	169
24	109	911	155	97	708	254	3210	327	361	226	137	151
25	157	781	258	94	540	240	1600	282	264	258	125	145
26	222	456	163	93	449	233	1120	275	230	189	118	137
27	151	522	166	143	394	229	851	931	203	162	174	127
28	161	593	146	258	357	241	664	1720	184	197	123	120
29	206	379	150	189	---	281	631	1300	172	458	111	114
30	164	286	170	173	---	1850	551	837	165	450	106	112
31	147	---	173	156	---	1210	---	853	---	309	103	---
TOTAL	4729	7972	6294	3832	26220	14389	29559	15387	23728	10183	7019	8615
MEAN	153	266	203	124	936	464	985	496	791	328	226	287
MAX	666	911	603	258	4150	1850	3210	1720	2930	931	825	1500
MIN	71	73	127	76	236	217	323	233	165	162	103	108
CFSM	.43	.75	.58	.35	2.65	1.31	2.79	1.41	2.24	.93	.64	.81
IN.	.50	.84	.66	.40	2.76	1.52	3.11	1.62	2.50	1.07	.74	.91

CAL YR 1980 TOTAL 166537 MEAN 455 MAX 9490 MIN 63 CFSM 1.29 IN 17.55
WTR YR 1981 TOTAL 157927 MEAN 433 MAX 4150 MIN 71 CFSM 1.23 IN 16.64

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1970, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
15...	1545	73	150	19.0	18	3.5
NOV						
24...	0930	444	105	7.5	16	19
DEC						
22...	1115	111	118	.5	4	1.2
FEB						
05...	1715	404	90	3.0	16	17
MAR						
31...	1100	1190	65	12.0	12	39
MAY						
06...	0915	299	90	17.0	13	10
JUN						
24...	1400	350	105	26.5	25	24
AUG						
06...	1100	185	125	24.5	9	4.5
SEP						
16...	1315	1560	83	19.5	--	--
18...	1030	413	97	17.0	8	8.9

TENNESSEE RIVER BASIN

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°57'30", long 83°46'26", Knox County, Hydrologic Unit 06010107, on left bank, 0.7 mi (1.1 km) downstream from Johnson Hollow, 7.5 mi (12.1 km) upstream from confluence with Holston River, and 8 mi (13 km) east of Knoxville.

DRAINAGE AREA.--5,101 mi² (13,212 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to December 1945 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Dec. 10, 1945, to Sept. 30, 1957, at site 200 ft (60 m) upstream on right bank at same datum.

REMARKS.--Records good. Flow regulated by Douglas Lake (station 03468500), 24.6 mi (39.6 km) upstream.

AVERAGE DISCHARGE.--36 years, 7,872 ft³/s (222.9 m³/s), 20.96 in/yr (532 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,300 ft³/s (1,820 m³/s) Mar. 12, 1963, elevation, 832.20 ft (253.655 m), from rating curve extended above 36,000 ft³/s (1,020 m³/s); minimum, 67 ft³/s (1.90 m³/s) Oct. 25, 1953, elevation, 813.38 ft (247.918 m); minimum daily, 68 ft³/s (1.93 m³/s) Oct. 23-26, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of 855.0 ft (260.60 m), from floodmarks, estimated discharge, 160,000 ft³/s (4,530 m³/s), from investigations by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,100 ft³/s (541 m³/s) Aug. 19, elevation, 822.24 ft (250.619 m); minimum, 341 ft³/s (9.66 m³/s) Sept. 21; elevation, 814.78 ft (248.345 m); minimum daily, 441 ft³/s (12.5 m³/s) Sept. 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	4520	3570	2360	2260	2240	2160	1830	4600	9390	7030	6020
2	3560	3210	4520	2270	6790	3130	2150	2340	6710	8630	5430	5510
3	3700	2760	5760	2420	5300	5860	2320	1590	6170	6390	7590	6190
4	3640	3670	5780	2250	4700	4230	2020	876	8110	5110	8910	6700
5	3540	5290	5910	3730	4670	5290	2740	2080	3100	4280	10100	6340
6	6380	4870	6330	4160	3430	5710	4040	1750	4810	6870	9010	3860
7	4920	3170	6080	4190	2520	3460	1880	1970	6700	7990	8930	4570
8	8490	3050	6110	4250	1810	3230	1340	1990	3270	10200	6260	5290
9	8030	1940	6300	4240	4010	2680	2220	1970	7510	7640	4930	4290
10	6920	2640	6870	3300	1500	2970	2160	2410	5540	9400	7900	5920
11	5600	3180	7030	2920	8020	2380	2470	2660	3600	8150	10100	5940
12	3160	1550	6330	3950	6980	2690	1950	2820	3280	8130	11100	5900
13	3210	1820	5870	4160	5930	1960	2690	2010	3510	9520	10200	6070
14	2410	967	4180	3990	3150	4230	2000	1940	2990	10200	10600	6100
15	2740	1090	4300	3980	2800	4890	1720	2660	5260	9390	9780	7680
16	3540	1710	4460	3870	5120	5690	2220	2010	7360	8770	5840	8280
17	3270	2140	4510	3990	5990	6330	2260	2190	6060	9680	8600	6300
18	3870	3110	4480	3500	6250	5790	2960	2140	6570	7280	11700	5140
19	2150	3330	4520	3260	7300	5810	2930	4920	7010	6540	9720	2570
20	2420	2640	2660	3510	7300	4790	4100	4380	7200	7450	5470	441
21	2190	2000	3430	3510	5300	4210	6090	3700	3700	8350	5710	1660
22	2650	1510	2990	1970	3200	4420	3150	3110	8790	5860	5250	5700
23	2890	1720	2950	1920	2700	5310	2170	2270	10100	4850	3560	6480
24	2810	1510	2610	2070	7500	3190	5090	1670	9120	8740	7180	6190
25	1720	2820	2750	1920	7020	1890	2820	1850	10600	5460	7550	6240
26	7260	3650	3300	1900	5820	2370	1830	1800	8210	3420	6270	6380
27	2730	3250	2940	1960	4730	2080	2120	1800	5380	7180	6090	5820
28	2850	2460	2510	2060	4160	1980	3480	4410	2470	7150	5280	7050
29	4250	3130	2570	1920	---	1770	2740	5660	5640	8030	4490	5850
30	5860	5140	2630	2100	---	3530	2540	2730	8640	9910	2940	5340
31	6400	---	2100	1860	---	3500	---	2720	---	8530	5540	---
TOTAL	125250	83847	136350	93490	136260	117610	80360	78256	182010	238490	229060	165821
MEAN	4040	2795	4398	3016	4866	3794	2679	2524	6067	7693	7389	5527
MAX	8490	5290	7030	4250	8020	6330	6090	5660	10600	10200	11700	8280
MIN	1720	967	2100	1860	1500	1770	1340	876	2470	3420	2940	441
(+)	-47600	+11700	-49100	-25800	+116700	+49600	+173300	+114200	+40000	-128500	-161400	-87600
MEAN†	2505	3185	2815	2184	9034	5394	8455	6208	7400	3548	2183	2607
CFSM†	.49	.62	.55	.43	1.77	1.06	1.66	1.22	1.45	.70	.43	.51
IN.†	.57	.70	.64	.49	1.84	1.22	1.85	1.40	1.62	.80	.49	.57

CAL YR 1980 TOTAL 2619007 MEAN 7156 MAX 19300 MIN 967 MEAN† 7165 CFSM† 1.40 IN.† 19.12
WTR YR 1981 TOTAL 1666804 MEAN 4567 MAX 11700 MIN 441 MEAN† 4582 CFSM† .90 IN.† 12.19

† Change in contents, in cfs-days, in Douglas Lake, furnished by Tennessee Valley Authority.

* Adjusted for change in contents in Douglas Lake.

TENNESSEE RIVER BASIN

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03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1975 to current year (discontinued).

WATER TEMPERATURE: June 1975 to current year (discontinued).

INSTRUMENTATION.--Water-quality monitor from June 1975 to September 1981.

REMARKS.--No conductance record Oct. 1-2 due to instrument malfunction. No temperature record Oct. 1-2 due to instrument malfunction. Flow regulated by Douglas Lake (station 03468500), 24.6 mi (39.6 km) upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 303 micromhos June 25, 1978; minimum, 34 micromhos Oct. 23, 1978.

WATER TEMPERATURE: Maximum, 33.0°C Aug. 11, 12, 1977; minimum, 0.0°C Jan. 19, 1977, Feb. 11, 12, 20, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 286 micromhos Feb. 11; minimum, 98 micromhos Apr. 26.

WATER TEMPERATURE: Maximum, 28.0°C Aug. 28, 31; minimum, 1.5°C Feb. 4, 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 17...	1100	432	219	7.5	12.5	.40	9.0	22	K9	70	23	22
DEC 18...	1200	1450	240	7.6	8.5	.40	10.1	52	K14	67	27	21
FEB 24...	1030	2490	235	7.3	5.0	1.5	12.2	30	32	66	21	22
MAR 16...	1100	1990	181	7.5	8.0	2.0	11.8	3	<1	54	19	18
MAY 13...	1045	1790	175	7.2	12.5	8.0	8.0	45	51	58	17	18
JUL 30...	1115	2660	170	7.2	21.5	2.4	6.6	150	78	55	11	17
AUG 11...	1200	1960	165	7.4	23.0	3.0	6.2	31	76	65	19	19
SEP 02...	1040	1580	208	7.3	25.0	1.6	5.0	82	49	55	2	18
14...	1200	1610	203	7.3	25.0	2.8	7.3	62	48	61	9	20
21...	1155	346	220	7.2	21.0	1.8	7.3	96	K15	67	6	20
29...	0930	2000	240	7.2	21.0	4.4	7.8	44	K11	64	7	20

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 17...	3.6	17	34	.9	2.2	47	26	21	.1	4.9	134
DEC 18...	3.6	23	42	1.2	2.0	40	28	26	.1	7.8	146
FEB 24...	2.7	17	35	.9	1.7	45	26	22	.1	6.4	143
MAR 16...	2.2	12	32	.7	1.7	35	18	14	.1	6.5	105
MAY 13...	3.2	13	32	.7	1.7	41	18	11	.1	6.8	100
JUL 30...	3.0	11	30	.6	1.6	44	14	9.9	<.1	7.5	99
AUG 11...	4.3	10	24	.5	1.8	46	18	9.9	.1	5.7	108
SEP 02...	2.4	15	36	.9	2.0	53	19	16	.1	6.5	122
14...	2.8	15	34	.8	1.8	52	21	15	.1	5.7	120
21...	4.1	14	31	.7	1.6	61	24	14	.1	5.4	129
29...	3.5	17	36	.9	1.7	57	25	16	.1	5.6	144

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

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- TOTAL (MG/L AS N)
NOV											
17...	128	.18	156	.51	.53	.000	.000	.22	.23	.22	.23
DEC											
18...	138	.20	572	.53	.51	.070	--	.19	--	.26	--
FEB											
24...	128	.19	961	--	.69	.190	--	.11	--	.30	--
MAR											
16...	97	.14	564	.69	.69	.080	.080	.29	.22	.37	.30
MAY											
13...	97	.14	483	.53	--	.100	<.010	.75	--	.85	--
JUL											
30...	92	.13	711	.37	.39	.030	.040	.07	--	.10	--
AUG											
11...	98	.15	572	.22	.23	.060	.060	.44	.31	.50	.37
SEP											
02...	112	.17	520	.18	.19	.080	.040	.41	.36	.49	.40
14...	114	.16	522	.17	.19	.030	.020	.34	--	.37	--
21...	121	.18	121	.23	.24	.020	<.010	.45	--	.47	.37
29...	124	.20	778	.26	.26	.030	.030	.33	.30	.36	.33
DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
NOV											
17...	--	.76	.020	.010	--	.3	1.9	4	4.7	70	630
DEC											
18...	.79	--	.030	.000	3.5	--	--	5	20	82	--
FEB											
24...	--	--	.060	.040	4.0	--	--	52	350	10	--
MAR											
16...	1.1	.99	--	.070	--	.5	4.2	10	54	81	--
MAY											
13...	1.4	--	.020	<.010	2.7	--	--	11	53	90	240
JUL											
30...	.47	--	.020	.020	5.4	--	--	3	22	65	500
AUG											
11...	.72	.60	.030	.040	--	.6	2.2	2	11	59	250
SEP											
02...	.67	.59	.020	.020	--	.0	2.6	7	30	35	250
14...	.54	--	.020	.010	2.4	--	--	12	52	64	2800
21...	.70	.61	.030	.010	1.7	--	--	13	12	54	84
29...	.62	.59	.020	.010	3.9	--	--	11	59	64	--

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC		BARIUM,		CADMIUM		CHRO-	CHRO-	COBALT,	COBALT,
	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-	MIUM,	MIUM,	TOTAL	TOTAL
	(UG/L	SOLVED	RECOV-	SOLVED	RECOV-	SOLVED	RECOV-	RECOV-	RECOV-	RECOV-
	AS AS)	(UG/L	ERABLE	(UG/L	ERABLE	(UG/L	ERABLE	ERABLE	ERABLE	ERABLE
	AS AS)	AS AS)	(UG/L	AS BA)	(UG/L	AS CD)	AS CD)	(UG/L	(UG/L	(UG/L
	AS AS)	AS AS)	AS BA)	AS BA)	AS CD)	AS CD)	AS CR)	AS CR)	AS CO)	AS CO)
NOV 17...	0	0	<50	40	0	2	10	<10	1	1
MAR 16...	0	0	100	100	0	0	20	<10	0	0
AUG 11...	1	1	100	30	1	1	<10	<10	1	2
SEP 02...	2	1	100	<50	<1	<1	20	10	<1	1
DATE	COPPER,		IRON,		LEAD,		MANGA-		MERCURY	
	TOTAL	COPPER,	TOTAL	IRON,	TOTAL	LEAD,	TOTAL	NESE,	TOTAL	TOTAL
	RECOV-	DIS-	RECOV-	DIS-	RECOV-	DIS-	RECOV-	DIS-	RECOV-	RECOV-
	ERABLE	SOLVED	ERABLE	SOLVED	ERABLE	SOLVED	ERABLE	SOLVED	ERABLE	ERABLE
	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
	AS CU)	AS CU)	AS FE)	AS FE)	AS PB)	AS PB)	AS MN)	AS MN)	AS HG)	AS HG)
NOV 17...	2	1	400	30	1	1	110	70	<.1	
MAR 16...	3	1	360	110	11	3	50	30	<.1	
AUG 11...	3	2	270	10	--	7	90	50	<.1	
SEP 02...	17	5	280	30	7	3	80	20	<.1	
DATE	NICKEL,		SELE-		SILVER,		ZINC,		ZINC,	
	MERCURY	TOTAL	NICKEL,	NIUM,	TOTAL	SILVER,	TOTAL	RECOV-	DIS-	DIS-
	DIS-	RECOV-	DIS-	NIUM,	RECOV-	DIS-	RECOV-	ERABLE	SOLVED	SOLVED
	SOLVED	ERABLE	SOLVED	TOTAL	ERABLE	SOLVED	ERABLE	ERABLE	ERABLE	ERABLE
	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
	AS HG)	AS NI)	AS NI)	AS SE)	AS SE)	AS AG)	AS AG)	AS ZN)	AS ZN)	AS ZN)
NOV 17...	<.1	3	1	0	0	0	0	8	3	
MAR 16...	<.1	4	4	0	0	0	0	50	10	
AUG 11...	<.1	4	4	<1	<1	<1	<1	10	8	
SEP 02...	<.1	2	3	<1	<1	<1	<1	20	<10	

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 17,80	MAY 13,81	JUL 30,81	AUG 11,81
TIME	1100	1045	1115	1200
TOTAL CELLS/ML	630	240	500	250
DIVERSITY: DIVISION	1.0	0.6	1.5	1.0
.CLASS	1.0	0.6	1.5	1.0
.ORDER	1.0	1.5	2.0	1.0
...FAMILY	1.1	2.5	2.6	1.6
....GENUS	1.1	2.5	2.8	1.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
...SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	56	11	--	-
...OOCYSTACEAE								
...ANKISTRODESMUS	--	-	13	5	28	6	--	-
...CLOSTERIOPSIS	13	2	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	14	3	--	-
...KIRCHNERIELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
...SCENEDESMUS	90	14	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
CHRYSTOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	26	4	--	-	28	6	--	-
...MELOSIRA	--	-	100#	42	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	--	-	--	-	14	3	--	-
...COCCONEIS	--	-	39#	16	98#	19	70#	28
...CYMBELLACEAE								
....CYMBELLA	--	-	13	5	28	6	--	-
...FRAGILARIACEAE								
...SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	13	5	14	3	14	6
...NAVICULACEAE								
...NAVICULA	--	-	39#	16	--	-	28	11
...NITZSCHACEAE								
....NITZSCHIA	13	2	13	5	14	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	13	5	28	6	--	-
..HORMOGONALES								
...NOSTOCACEAE								
...APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	490#	78	--	-	180#	36	140#	56

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

TENNESSEE RIVER BASIN

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03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	SEP 2, 81	SEP 14, 81	SEP 21, 81
TIME	1040	1200	1155
TOTAL CELLS/ML	250	2800	84
DIVERSITY: DIVISION	0.0	0.8	0.0
..CLASS	0.0	0.8	0.0
..ORDER	0.0	1.1	0.7
...FAMILY	0.0	1.9	0.7
....GENUS	0.0	2.5	0.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	14	1	--	-
...COELASTRACEAE						
...COELASTRUM	--	-	220	8	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	42	2	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	14	1	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	--	-	84	3	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	--	-	14	1	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	28	1	--	-
....MELOSIRA	--	-	--	-	70#	83
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	--	-	56	2	--	-
...CYMBELLACEAE						
...CYMBELLA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	14	1	--	-
...GOMPHONEMACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	--	-	14	1	14#	17
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	--	-	110	4	--	-
...HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	450#	16	--	-
...OSCILLATORIACEAE						
....LYNGBYA	250#100		1100#	38	--	-
...OSCILLATORIA	--	-	640#	23	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

TENNESSEE RIVER BASIN

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	210	205	207	217	189	201	240	230	236
2	---	---	---	215	210	212	221	207	216	238	229	234
3	198	195	197	218	209	213	215	209	213	239	229	234
4	199	195	197	220	213	218	219	212	215	235	231	234
5	196	190	194	226	217	221	222	216	218	237	229	233
6	207	193	198	227	221	224	228	220	223	239	231	236
7	209	199	204	226	222	224	231	223	227	241	239	240
8	214	204	211	224	220	222	231	226	229	242	238	240
9	215	206	211	222	215	219	237	229	232	242	237	240
10	217	208	212	227	216	222	243	230	235	242	237	240
11	220	209	216	228	218	223	245	223	238	242	238	240
12	224	216	220	223	215	220	236	226	230	243	239	241
13	231	219	224	219	214	216	240	226	233	247	244	245
14	222	218	219	221	215	219	238	227	233	250	247	248
15	220	212	217	222	213	218	239	231	237	252	249	250
16	219	211	214	218	214	216	239	228	235	253	250	251
17	215	208	210	219	208	216	240	230	236	255	252	253
18	217	209	214	215	209	212	241	232	238	259	255	257
19	215	207	211	217	205	212	241	233	238	261	256	258
20	214	208	210	213	203	209	240	232	237	261	259	260
21	211	165	195	212	198	206	240	231	235	262	261	261
22	210	197	205	212	203	207	239	231	235	264	262	263
23	205	198	203	219	209	214	239	235	237	266	263	265
24	206	200	203	220	209	217	239	233	237	262	258	260
25	208	196	203	216	172	209	240	231	236	264	259	261
26	218	196	211	209	167	188	236	230	234	265	261	263
27	215	208	211	206	188	198	238	231	235	265	263	264
28	212	201	208	212	195	203	236	231	234	267	264	265
29	210	203	207	207	172	184	236	232	235	267	262	265
30	211	204	209	208	176	196	238	232	236	266	257	262
31	210	203	207	---	---	---	239	231	236	262	258	260
MONTH	231	165	208	228	167	212	245	189	231	267	229	250
	FEBRUARY			MARCH			APRIL			MAY		
1	262	257	260	222	205	216	135	112	124	167	158	162
2	260	174	243	210	191	201	139	116	134	170	164	167
3	238	175	212	222	191	206	139	119	131	169	161	164
4	254	201	232	228	206	220	147	129	142	170	160	165
5	257	236	251	213	194	205	149	143	147	175	165	170
6	277	250	265	199	192	196	150	139	146	172	164	167
7	269	233	250	218	198	209	151	130	141	176	169	174
8	250	240	245	196	175	191	153	137	146	180	171	175
9	274	242	256	200	183	194	151	127	143	179	170	175
10	276	248	267	192	180	188	150	141	146	176	169	173
11	286	179	250	187	175	181	158	147	156	172	167	169
12	252	171	224	182	175	179	156	147	154	178	169	174
13	260	208	237	194	181	186	167	154	161	180	173	177
14	265	217	253	200	182	191	166	154	159	175	169	173
15	271	228	252	194	182	188	171	155	164	176	166	172
16	263	229	249	185	176	181	165	155	160	177	169	173
17	277	235	261	196	184	188	166	156	161	178	173	175
18	279	244	271	193	183	188	166	157	161	176	169	173
19	259	203	245	187	177	182	166	145	157	172	163	168
20	235	216	224	181	174	178	158	141	151	176	163	169
21	239	208	224	181	175	178	156	129	151	176	169	173
22	237	204	217	179	172	176	148	108	122	176	168	171
23	242	191	222	175	164	169	144	117	134	175	161	171
24	257	213	236	171	166	168	149	114	134	181	161	171
25	258	234	251	171	164	167	139	100	121	179	167	173
26	251	232	239	167	163	165	130	98	112	205	169	177
27	242	222	234	165	162	163	132	107	126	191	173	180
28	231	218	225	167	160	163	162	117	136	175	160	169
29	---	---	---	164	155	160	164	145	156	169	129	155
30	---	---	---	160	152	156	158	142	146	176	152	167
31	---	---	---	159	116	142	---	---	---	193	151	172
MONTH	286	171	243	228	116	183	171	98	144	205	129	171

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	174	155	164	178	171	175	171	159	166	227	196	202
2	170	159	166	181	174	177	171	161	167	221	199	208
3	174	159	169	179	174	177	169	161	165	221	195	207
4	173	162	168	179	175	177	168	161	164	211	201	206
5	173	169	171	178	175	176	168	161	164	221	195	207
6	174	129	151	179	177	178	167	161	164	218	200	207
7	149	135	141	182	177	179	168	152	164	209	199	204
8	154	134	149	186	178	180	168	158	165	209	192	203
9	157	124	138	186	178	181	167	161	164	221	176	205
10	174	136	156	184	180	181	168	152	162	214	197	209
11	177	167	172	184	178	180	168	157	163	235	190	208
12	178	168	173	183	176	179	171	164	168	223	189	203
13	179	173	175	183	175	178	176	168	171	220	196	206
14	183	175	177	179	171	174	177	170	174	230	197	206
15	192	165	177	178	170	173	180	173	176	224	185	202
16	188	173	182	185	165	172	190	178	181	221	162	199
17	179	173	176	175	159	169	189	181	186	213	170	200
18	178	173	175	179	162	171	191	179	185	208	166	196
19	177	172	174	188	158	169	189	183	186	207	201	205
20	176	172	173	172	152	167	192	181	187	214	202	209
21	181	173	176	172	157	166	191	182	186	221	210	217
22	178	173	175	174	165	169	193	186	188	216	179	209
23	181	168	175	174	160	168	193	186	190	214	203	211
24	185	171	176	173	164	168	195	188	193	213	203	209
25	180	173	175	178	166	171	199	191	194	211	203	209
26	181	174	176	178	168	171	202	192	196	211	203	208
27	182	173	176	176	163	170	199	191	195	218	202	210
28	183	174	178	174	161	167	200	193	196	224	208	215
29	179	175	177	172	166	169	203	195	198	232	213	220
30	180	175	177	173	159	169	205	200	202	228	217	221
31	---	---	---	172	158	168	210	194	203	---	---	---
MONTH	192	124	170	188	152	173	210	152	179	235	162	207

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	3.5	2.5	3.0	8.0	6.5	7.0	13.5	11.0	12.0	16.5	14.0	15.0
2	3.5	3.0	3.5	8.5	7.0	7.0	14.0	11.0	12.5	16.5	14.5	15.5
3	3.5	2.0	3.0	7.0	5.5	6.0	14.0	11.5	12.5	16.5	14.0	15.0
4	3.0	1.5	2.5	5.5	5.0	5.0	14.5	11.5	13.0	16.5	14.0	15.0
5	3.0	1.5	2.5	6.5	5.0	6.0	14.5	13.0	13.5	17.5	15.0	16.0
6	3.5	2.0	3.0	6.5	6.0	6.5	14.5	11.5	13.0	17.5	15.5	16.0
7	4.5	2.5	3.0	6.5	5.0	6.0	13.0	10.0	11.5	16.0	14.5	15.0
8	4.0	3.5	3.5	7.5	5.5	6.5	13.5	11.0	12.0	16.0	13.5	15.0
9	4.0	2.5	3.0	7.0	5.5	6.5	14.0	12.0	13.0	16.5	14.0	15.5
10	4.0	3.0	3.5	8.5	5.5	7.0	15.5	12.5	14.0	17.0	15.5	16.0
11	5.0	3.5	4.5	8.5	6.5	7.5	16.0	12.5	14.0	16.0	14.0	14.5
12	4.0	2.0	3.0	9.0	6.5	7.5	16.5	14.5	15.0	15.5	13.0	14.0
13	3.0	2.0	2.5	8.5	6.0	7.5	16.5	13.0	15.0	15.5	12.5	14.0
14	4.5	2.0	3.5	8.5	7.0	7.5	17.5	13.5	15.5	17.0	14.0	15.5
15	4.5	2.5	3.5	8.5	6.0	7.0	16.5	13.5	15.0	16.5	14.5	15.0
16	5.0	4.0	4.5	8.5	6.5	7.5	15.5	13.5	14.5	15.0	12.5	14.0
17	4.5	4.0	4.0	7.5	6.0	6.5	14.0	13.0	13.5	15.0	13.5	14.0
18	5.0	4.0	4.0	7.5	6.5	7.0	14.5	12.0	13.5	17.0	13.5	15.0
19	6.5	4.5	5.0	7.0	6.0	6.5	16.0	13.0	14.0	18.0	14.5	15.5
20	6.0	4.5	5.0	7.0	6.0	6.5	14.5	13.5	14.0	15.0	13.5	14.5
21	7.0	4.5	6.0	7.5	6.0	6.5	14.5	13.0	13.5	16.0	13.0	14.0
22	7.5	5.5	6.5	7.0	6.5	7.0	15.0	13.0	14.0	17.0	14.0	15.5
23	8.0	6.0	6.5	7.5	6.5	7.0	15.0	13.5	14.5	17.5	14.0	16.0
24	6.5	4.0	5.0	9.5	6.5	8.0	15.0	13.5	14.0	18.5	16.0	17.5
25	4.5	3.5	4.0	10.0	7.0	8.5	15.5	13.0	14.0	18.5	16.5	17.5
26	6.5	4.0	5.0	11.0	8.0	9.5	16.5	13.5	15.0	18.5	17.0	17.5
27	6.5	4.5	5.0	11.5	9.0	10.0	17.5	14.5	16.0	18.0	16.5	17.0
28	7.5	5.0	6.0	12.5	9.0	10.5	17.5	16.0	16.5	17.0	15.5	16.0
29	---	---	---	12.0	9.5	10.5	17.0	14.0	15.0	17.0	15.0	15.5
30	---	---	---	13.5	10.5	11.5	17.5	14.5	16.0	17.0	14.5	15.5
31	---	---	---	13.5	10.5	12.0	---	---	---	18.5	15.5	17.0
MONTH	8.0	1.5	4.0	13.5	5.0	7.5	17.5	10.0	14.0	18.5	12.5	15.5
JUNE				JULY			AUGUST			SEPTEMBER		
1	18.5	16.5	17.5	19.0	17.5	18.0	22.0	21.0	21.5	26.0	25.0	25.5
2	17.0	15.0	15.5	19.5	18.0	18.5	23.0	21.0	21.5	27.0	25.0	25.5
3	17.5	15.0	16.0	20.0	17.5	18.5	24.5	21.5	22.5	26.0	25.0	25.5
4	17.0	15.5	16.0	21.0	18.0	19.0	24.5	21.5	22.5	26.0	24.5	25.0
5	18.0	16.0	16.5	21.0	18.5	19.5	25.0	22.0	23.0	27.5	25.0	25.5
6	19.5	18.0	18.5	20.0	18.5	19.0	24.5	22.0	23.0	26.5	25.5	26.0
7	20.0	19.0	19.5	20.5	18.0	19.0	24.5	22.5	23.0	26.0	25.0	25.5
8	20.5	19.0	19.5	21.0	18.5	19.0	25.5	22.5	23.5	25.0	23.5	24.0
9	21.5	17.0	19.0	22.0	18.5	19.5	25.5	22.5	23.5	25.5	23.5	24.5
10	19.0	16.5	17.5	21.5	18.5	19.5	24.5	22.5	23.0	26.0	23.5	24.5
11	20.0	17.5	19.0	22.0	19.0	20.0	24.0	22.5	23.0	27.0	24.5	25.0
12	21.5	17.5	20.0	22.0	18.5	20.0	25.0	22.5	23.5	26.5	24.5	25.5
13	22.0	18.0	20.0	22.5	19.0	20.0	25.0	22.5	23.5	27.0	24.5	25.5
14	22.0	18.0	20.0	22.0	19.0	20.0	25.5	23.0	24.0	27.0	25.0	25.5
15	23.0	18.0	21.0	22.5	19.0	20.0	25.0	23.5	24.0	25.5	24.0	24.5
16	20.5	16.5	18.0	21.0	19.5	20.0	25.0	24.0	24.5	24.5	22.0	24.0
17	20.0	17.0	18.0	22.0	19.0	20.0	25.0	23.5	24.0	23.5	21.5	23.0
18	20.5	16.0	17.5	23.0	19.5	20.5	25.0	24.0	24.5	22.0	21.0	22.0
19	20.0	16.5	17.5	23.0	20.0	21.0	25.5	24.5	25.0	22.5	20.5	21.5
20	19.5	16.5	17.5	23.0	20.0	21.0	26.5	24.0	25.0	22.5	19.5	21.0
21	20.5	17.0	18.5	23.0	20.0	21.0	26.0	24.0	25.0	23.0	18.5	20.5
22	21.0	18.0	19.0	24.0	20.0	21.0	26.5	24.0	25.0	23.5	18.5	21.5
23	20.0	17.0	18.0	24.0	20.0	21.5	26.5	24.0	25.0	23.5	21.5	22.5
24	20.5	17.0	18.0	23.0	20.0	21.0	27.0	24.0	25.0	23.0	21.0	22.0
25	20.0	17.0	18.0	24.5	20.5	21.5	27.0	24.5	25.5	23.0	21.5	22.0
26	20.5	17.0	18.0	24.5	21.0	22.5	27.0	24.5	25.5	24.0	21.5	22.5
27	20.5	17.0	18.5	26.5	21.5	23.0	27.0	25.0	25.5	23.5	21.5	22.5
28	22.5	18.5	20.0	24.5	21.0	22.0	28.0	25.0	26.0	23.5	21.5	22.0
29	22.5	19.0	21.0	24.0	21.0	22.0	26.0	25.0	25.5	23.0	20.5	21.5
30	20.5	17.5	18.5	22.5	21.0	21.5	27.0	24.5	25.5	23.5	21.0	22.0
31	---	---	---	24.0	21.0	22.0	28.0	25.0	26.0	---	---	---
MONTH	23.0	15.0	18.5	26.5	17.5	20.5	28.0	21.0	24.0	27.5	18.5	23.5

03484000 WATAUGA RIVER BELOW WILBUR DAM, TN

LOCATION.--Lat 36°20'39", long 82°07'46", Carter County, Hydrologic Unit 06010103, 1,800 ft (500 m) downstream from Wilbur Dam, 0.7 mi (1.1 km) downstream from Big Laurel Branch, 2.7 mi (4.3 km) downstream from Watauga Dam, 5 mi (8 km) east of Elizabethton, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--471 mi² (1,220 km²).

PERIOD OF RECORD.--October 1902 to December 1908 (published as "near Elizabethton"), January 1948 to current year. Prior to May 1903 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1276: 1906(M). WSP 1306: 1905(M), Drainage area at "near Elizabethton" site. WSP 1386: 1950.

GAGE.--Water-stage recorder. Datum of gage is 1,550.00 ft (472.440 m) National Geodetic Vertical Datum of 1929. May 11, 1903 to Dec. 31, 1908, nonrecording gage at railroad bridge 2 mi (3 km) downstream at different datum.

REMARKS.--Records good. Flow completely regulated by Watauga Lake since Dec. 1, 1948 (station 03483500). Low-flow regulated by Wilbur Lake during period of record. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--39 years, 749 ft³/s (21.21 m³/s), 21.60 in/yr (549 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft³/s (609 m³/s) Jan. 22, 1906, gage height, 13.6 ft (4.15 m), site and datum then in use, from rating curve extended above 2,500 ft³/s (70.8 m³/s); minimum, 2.3 ft³/s (0.065 m³/s) July 11, 1953; minimum daily, 2.4 ft³/s (0.068 m³/s) Aug. 14, 1949; minimum gage height, at present site, 30.73 ft (9.367 m) July 11, 1953. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 6,750 ft³/s (191 m³/s) Jan. 19, 1960, gage height, 38.10 ft (11.613 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Aug. 14, 1940, and May 21, 1901, reached stages of about 61 ft (18.6 m) and 58 ft (17.7 m), respectively, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,890 ft³/s (138 m³/s) Jan. 12, gage height, 36.92 ft (11.253 m); minimum, 12 ft³/s (0.34 m³/s), Jan. 21, gage height, 31.04 ft (9.461 m); minimum daily, 33 ft³/s (0.93 m³/s) Dec. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	174	33	171	150	43	43	41	1400	1760	216	56
2	499	120	35	128	1200	246	42	40	1880	1020	244	51
3	282	799	416	114	1200	313	40	39	1890	1020	706	50
4	98	569	507	53	1200	40	41	43	2020	835	586	583
5	223	1110	38	708	1100	39	41	47	1010	251	1380	873
6	719	869	125	775	1150	38	41	112	55	1570	716	132
7	654	770	37	798	45	38	40	104	55	1980	387	117
8	529	247	45	659	45	38	42	145	1310	1850	214	63
9	823	169	41	745	1000	39	44	108	1530	1500	154	581
10	607	504	605	134	550	39	148	154	1490	1810	682	698
11	144	320	120	97	1300	39	61	481	1430	1060	672	680
12	120	248	183	745	1700	38	59	584	1430	1090	1430	53
13	867	236	45	790	1800	39	202	1000	1040	1910	1650	203
14	626	372	46	540	45	37	185	1080	587	1850	1990	589
15	1610	41	209	529	45	38	173	1020	1750	1880	897	1430
16	754	208	46	852	250	115	134	52	1770	1800	149	670
17	603	1440	403	611	300	166	162	204	1460	1710	59	656
18	212	1230	130	840	45	359	172	1630	1190	1770	366	647
19	106	1650	132	1170	45	405	48	1050	61	955	55	160
20	510	1550	707	1270	45	128	47	1560	63	1680	53	46
21	627	639	690	1080	45	49	48	1260	223	1550	53	696
22	731	223	892	1700	45	48	43	365	1660	1560	53	972
23	725	43	305	1700	426	203	42	115	1820	546	53	671
24	906	333	118	550	352	166	42	123	1560	600	664	720
25	362	180	263	100	435	45	45	580	1740	308	367	616
26	41	602	144	1200	315	44	47	39	1770	278	721	187
27	1020	309	90	550	44	46	806	653	1180	1730	267	48
28	538	576	79	600	43	44	57	852	552	1650	556	1210
29	1240	214	195	500	---	44	52	1340	1640	1290	127	772
30	1010	150	232	650	---	46	57	671	1730	60	229	707
31	782	---	266	100	---	44	---	210	---	727	674	---
TOTAL	18546	15895	7177	20459	14920	3016	3004	15702	37296	39600	16370	14937
MEAN	598	530	232	660	533	97.3	100	507	1243	1277	528	498
MAX	1610	1650	892	1700	1800	405	806	1630	2020	1980	1990	1430
MIN	41	41	33	53	43	37	40	39	55	60	53	46
(+)	-10100	-7700	+1400	-16000	+13500	+19700	+28400	+23600	-10500	-28200	-10100	-7900
MEAN#	272	273	277	144	1015	733	1047	1268	893	368	202	235
CFSM#	.58	.58	.59	.31	2.15	1.56	2.22	2.69	1.90	.78	.43	.50
IN#	.67	.65	.68	.35	2.24	1.79	2.48	3.10	2.12	.90	.50	.56

CAL YR 1980 TOTAL 301040 MEAN 823 MAX 2860 MIN 33 MEAN# 680 CFSM# 1.44 IN# 19.67
WTR YR 1981 TOTAL 206922 MEAN 567 MAX 2020 MIN 33 MEAN# 556 CFSM# 1.18 IN# 16.04

† Change in contents, in cfs-days, in Watauga Lake, furnished by Tennessee Valley Authority.

Adjusted for change in contents in lake listed above.

03485500 DOE RIVER AT ELIZABETHTON, TN

LOCATION.--Lat 36°20'40", long 82°12'37", Carter County, Hydrologic Unit 06010103, on left bank 1,500 ft (500 m) upstream from bridge on State Highway 91 at Elizabethton, and at mile 1.0 (1.6 km).

DRAINAGE AREA.--137 mi² (355 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1907 to June 1908 (gage heights only), October 1911 to September 1916, October 1920 to current year. Published as "at Valley Forge" 1911-16, 1920-31. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1913(M), 1915(M), 1929(M), 1931(M), Drainage area at "at Valley Forge" site. WSP 1336: 1933(M), 1938. WSP 1910: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,524.73 ft (464.738 m) National Geodetic Vertical Datum of 1929. See WSP 1910 for history of changes prior to Feb. 1, 1934.

REMARKS.--Records good.

AVERAGE DISCHARGE.--66 years (water years 1912-16, 1921-81), 224 ft³/s (6.344 m³/s), 22.20 in/yr (564 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s (416 m³/s) Nov. 6, 1977, gage height, 9.18 ft (2.798 m) in gage well; 9.34 ft (2.847 m) from floodmarks; minimum discharge, 17 ft³/s (0.48 m³/s) Aug. 31, Sept. 7, 1925; minimum gage height, 0.18 ft (0.055 m) June 22, 1970 (result of construction upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901 reached a stage of 10.5 ft (3.20 m), discharge, 25,000 ft³/s (708 m³/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 20	1245	2000 56.6	3.71 1.131	May 28	2245	*2070 58.6	3.78 1.152

Minimum discharge, 31 ft³/s (0.88 m³/s) Jan. 5, gage height, 0.23 ft (0.070 m), result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	78	93	95	105	225	270	222	429	143	96	57
2	72	74	90	90	602	203	236	205	430	138	94	86
3	69	72	89	78	286	176	200	185	490	116	102	63
4	64	70	84	83	176	207	182	172	546	109	85	67
5	81	71	80	41	137	559	311	162	406	110	79	98
6	135	67	78	67	138	735	274	154	503	260	128	75
7	105	65	77	93	121	487	234	165	649	270	124	69
8	94	65	76	69	122	348	210	157	473	253	128	66
9	90	64	77	76	99	283	209	143	362	164	122	66
10	81	63	174	70	163	242	201	138	294	135	94	57
11	74	61	124	47	951	212	178	252	245	116	84	52
12	67	61	106	55	448	188	168	190	209	133	78	50
13	60	61	97	63	309	171	160	168	193	110	75	50
14	54	61	93	73	239	167	163	151	226	109	70	49
15	53	67	88	74	195	149	256	207	176	155	72	111
16	52	89	86	69	177	210	196	180	154	190	90	517
17	52	78	85	58	191	184	214	162	144	292	88	160
18	64	95	79	56	289	179	272	154	142	161	72	97
19	195	93	79	64	312	174	329	264	131	134	67	82
20	90	81	75	65	455	158	1380	877	131	117	64	75
21	71	76	53	80	442	156	963	870	130	114	63	68
22	66	75	67	82	338	168	580	504	119	103	60	65
23	63	75	84	75	405	159	479	362	132	92	58	64
24	61	152	87	69	373	158	649	288	117	85	58	62
25	193	154	98	67	310	157	496	244	106	105	56	58
26	164	122	59	72	262	153	397	210	107	88	54	59
27	103	115	87	87	223	149	332	743	98	80	52	59
28	93	121	86	95	200	146	286	1390	94	78	52	58
29	95	108	85	83	---	142	269	1570	92	281	49	56
30	88	98	108	85	---	325	247	843	90	148	49	55
31	86	---	101	64	---	315	---	600	---	111	49	---
TOTAL	2712	2532	2745	2245	8068	7285	10341	11932	7418	4500	2412	2551
MEAN	87.5	84.4	88.5	72.4	288	235	345	385	247	145	77.8	85.0
MAX	195	154	174	95	951	735	1380	1570	649	292	128	517
MIN	52	61	53	41	99	142	160	138	90	78	49	49
CFSM	.64	.62	.65	.53	2.10	1.72	2.52	2.81	1.80	1.06	.57	.62
IN.	.74	.69	.75	.61	2.19	1.98	2.81	3.24	2.01	1.22	.65	.69
CAL YR 1980	TOTAL	72212	MEAN 197	MAX 1710	MIN 46	CFSM 1.44	IN 19.61					
WTR YR 1981	TOTAL	64741	MEAN 177	MAX 1570	MIN 41	CFSM 1.29	IN 17.58					

TENNESSEE RIVER BASIN

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03485500 DOE RIVER AT ELIZABETHTON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
14...	1715	51	105	13.5	8	1.1
NOV						
25...	1300	146	70	8.0	19	7.5
JAN						
14...	1000	75	97	2.5	3	.61
FEB						
18...	1545	272	60	9.0	11	8.1
MAR						
26...	1000	159	76	6.5	3	1.3
MAY						
06...	1015	150	95	15.5	6	2.4
JUN						
10...	1030	296	82	18.5	15	12
JUL						
14...	1510	102	112	24.0	4	1.1
AUG						
13...	1600	71	115	24.0	2	.38
SEP						
16...	1500	335	85	18.5	73	66

03486000 WATAUGA RIVER AT ELIZABETHTON, TN

LOCATION.--Lat 36°21'21", long 82°12'26", Carter County, Hydrologic Unit 06010103, on left bank 25 ft (8 m) upstream from bridge on U. S. Highway 19E at Elizabethton, 0.6 mi (1.0 km) downstream from Doe River, and at mile 25.9 (41.7 km).

DRAINAGE AREA.--692 mi² (1,792 km²).

PERIOD OF RECORD.--October 1925 to July 1949, July 1953 to current year. Monthly discharge only prior to February 1926, published in WSP 1306. Gage-height records collected in this vicinity December 1909 to July 1949 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 758: 1932(M). WSP 823: Drainage area. WSP 1336: 1927-28(M), 1930, 1931-32(M).

GAGE.--Water-stage recorder. Datum of gage is 1,486.23 ft (453.003 m) National Geodetic Vertical Datum of 1929. Feb. 21 to Oct. 4, 1926, nonrecording gage on former Southern Railway bridge 10 ft (3 m) upstream at same datum.

REMARKS.--Records good. Flow partly regulated by Watauga Lake 10.8 mi (17.4 km) upstream since Dec. 1, 1948 (station 03483500). Low-flow regulated by Wilbur Lake 8.1 mi (13.0 km) upstream during period of record. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--51 years (water years 1926-48, 1954-81), 1,095 ft³/s (31.01 m³/s), 21.49 in/yr (546 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,100 ft³/s (2,130 m³/s) Aug. 14, 1940, gage height, 20.87 ft (6.361 m), from rating curve extended above 29,000 ft³/s (821 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 42 ft³/s (1.19 m³/s) Sept. 20, 1932; minimum daily, 85 ft³/s (2.41 m³/s) Dec. 3, 1953; minimum gage height, 1.54 ft (0.469 m) Sept. 20, 1932. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 14,500 ft³/s (411 m³/s) Mar. 12, 1963; gage height, 10.70 ft (3.261 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of about 21 ft (6.4 m), discharge, 76,000 ft³/s (2,150 m³/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,960 ft³/s (140 m³/s) May 29, gage height, 7.16 ft (2.182 m); minimum, 104 ft³/s (2.95 m³/s) Oct. 13, minimum gage height, 1.93 ft (0.588 m); minimum daily, 133 ft³/s (3.77 m³/s) Nov. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	454	169	289	280	348	388	351	1790	1930	416	226
2	1030	206	319	170	1750	516	345	325	2520	1370	373	171
3	160	735	744	293	2070	553	305	296	2610	989	804	141
4	315	553	603	162	1420	316	284	278	2640	1170	696	621
5	263	1170	150	874	1990	758	433	270	1860	353	1370	996
6	788	1080	225	695	1980	1090	425	320	949	1770	993	238
7	823	730	140	857	1190	731	372	334	2010	2320	520	217
8	465	383	148	861	231	524	338	296	2090	2160	411	176
9	977	336	147	673	882	430	341	297	2190	1710	313	448
10	785	486	614	351	910	375	365	290	2130	1980	701	854
11	219	470	439	155	2250	336	370	895	1720	1390	841	752
12	156	311	318	668	2750	304	297	837	1750	1220	1430	221
13	778	304	179	988	3330	284	388	1040	1530	1890	1530	253
14	860	432	172	652	3320	275	450	1380	839	1940	2140	582
15	1330	133	323	619	1480	251	493	1220	1890	2040	1170	1530
16	615	305	164	902	565	368	345	402	2030	2050	309	1450
17	753	1270	479	585	611	411	428	416	1850	2060	200	921
18	392	1340	233	1210	428	439	622	1600	1410	1980	450	798
19	282	1640	223	1350	466	584	509	1540	297	1340	161	252
20	596	1870	766	1810	659	531	2540	2670	267	1630	148	221
21	656	775	603	1840	671	251	1730	2710	343	1700	144	634
22	782	321	1160	1920	525	250	954	1230	1700	1730	138	1020
23	790	150	410	1900	796	405	761	743	1960	794	137	830
24	969	399	171	973	1040	366	1220	469	1710	771	646	708
25	594	474	416	204	864	244	906	942	1890	451	504	742
26	237	813	269	1200	677	238	673	345	1900	392	717	360
27	898	412	208	813	357	236	1200	1370	1420	1630	379	146
28	685	666	192	781	326	230	568	2580	681	1820	612	1150
29	1360	550	303	552	---	225	425	3610	1820	1640	206	729
30	1070	202	345	776	---	417	400	1990	1660	410	292	756
31	844	---	423	525	---	431	---	1050	---	783	656	---
TOTAL	20832	18970	11055	25648	33818	12717	18875	32096	49456	45413	19407	18143
MEAN	672	632	357	827	1208	410	629	1035	1649	1465	626	605
MAX	1360	1870	1160	1920	3330	1090	2540	3610	2640	2320	2140	1530
MIN	156	133	140	155	231	225	284	270	267	353	137	141
(†)	-10100	-7700	+1400	-16000	+13500	+19700	+28400	+23600	-10500	-28200	-10100	-7900
MEAN†	346	376	402	311	1690	1046	1576	1797	1299	555	300	341
CFSM†	.50	.54	.58	.45	2.44	1.51	2.28	2.60	1.88	.80	.43	.49
IN.†	.58	.61	.67	.52	2.54	1.74	2.54	2.99	2.09	.92	.50	.55

CAL YR 1980 TOTAL 414535 MEAN 1133 MAX 4240 MIN 133 MEAN† 991 CFSM† 1.43 IN† 19.47
WTR YR 1981 TOTAL 306430 MEAN 840 MAX 3610 MIN 133 MEAN† 829 CFSM† 1.20 IN† 16.25

† Change in contents, in cfs-days, in Watauga Lake, furnished by Tennessee Valley Authority.

‡ Adjusted for change in contents in lakes or reservoirs listed above.

03487550 REEDY CREEK AT OREBANK, TN

LOCATION.--Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, on left bank, 50 ft (15 m) upstream from Anderson Bridge, 0.1 mi (0.2 km) south of U. S. Highway 11W, 0.3 mi (0.5 km) north of Orebank, 1.0 mi (1.6 km) upstream from Gaines Branch, and at mile 9.8 (15.8 km).

DRAINAGE AREA.--36.3 mi² (94.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD TN 1973: 1971(P), 1972(M), 1979(M), 1980 (M).

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 1,232.61 ft (375.700 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 4, 1975, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records good. The Bloomingdale Utility District diverts an average of about 0.6 ft³/s (0.017 m³/s) for water supply, 0.8 mi (1.3 km) upstream from the gage.

AVERAGE DISCHARGE.--18 years, 45.7 ft³/s (1.294 m³/s), 17.10 in/yr (434 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,940 ft³/s (140 m³/s) Oct. 2, 1977, gage height, 11.61 ft (3.539 m) from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 2.9 ft³/s (0.082 m³/s) Sept. 14, 1978, gage height, 1.00 ft (0.305 m), result of up-stream pumpage.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1927, reached a stage of 11.4 ft (3.47 m), discharge, about 11,000 ft³/s (312 m³/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 988 ft³/s (28.0 m³/s) June 7, gage height, 7.50 ft (2.286 m) no other peaks above base of 750 ft³/s (21.2 m³/s); minimum, 3.2 ft³/s (0.091 m³/s) Jan. 31, gage height, 1.02 ft (0.311 m), result of ice regulation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	7.5	9.1	12	12	31	19	30	62	40	11	11
2	7.5	7.2	8.5	10	134	24	19	28	101	28	11	10
3	8.1	6.9	8.0	9.2	62	23	18	25	87	17	11	21
4	7.5	13	7.8	8.5	37	32	17	23	98	17	10	106
5	7.2	11	7.7	7.2	25	75	60	22	92	16	9.6	34
6	7.2	8.4	7.4	7.8	22	72	46	20	183	33	23	18
7	6.6	8.0	7.2	8.7	20	50	34	19	405	23	40	14
8	6.6	8.0	7.1	7.8	20	39	28	17	113	118	77	17
9	6.6	7.4	7.9	8.1	17	34	27	16	84	29	28	16
10	6.6	7.0	10	7.4	22	31	24	15	69	23	21	12
11	6.3	6.7	8.6	7.5	77	28	22	26	55	20	17	10
12	6.6	6.3	8.1	7.5	41	25	20	19	48	18	16	9.7
13	6.3	6.3	7.8	7.2	33	24	19	15	41	17	13	9.4
14	6.3	6.7	7.4	7.5	30	23	19	14	39	15	12	10
15	6.1	7.3	6.9	7.5	26	21	28	24	34	15	11	33
16	5.9	7.9	7.2	7.3	24	23	23	16	31	136	20	70
17	6.0	8.2	6.9	7.5	27	21	41	14	29	71	15	32
18	10	23	6.6	10	35	20	81	13	27	39	10	22
19	26	14	6.4	16	35	18	55	84	25	30	10	16
20	9.8	9.9	5.9	13	85	17	234	174	24	29	9.6	14
21	8.0	8.8	6.6	34	64	17	116	133	23	28	9.2	12
22	7.4	8.0	6.9	25	43	16	75	71	21	22	8.9	11
23	5.5	8.8	6.8	19	91	17	66	49	20	18	8.8	8.8
24	5.8	36	13	14	77	15	92	38	19	17	8.7	8.9
25	28	26	13	12	50	14	69	33	18	22	8.6	8.8
26	18	15	10	11	40	13	53	30	20	16	8.6	8.7
27	10	15	8.8	11	34	13	44	41	16	14	8.5	8.4
28	10	14	8.5	10	31	13	38	90	15	16	8.2	8.3
29	9.0	12	8.3	9.3	---	12	35	70	14	25	8.2	7.9
30	8.2	10	16	10	---	22	33	50	14	14	8.5	7.9
31	7.8	---	15	8.7	---	19	---	60	---	13	9.2	---
TOTAL	279.0	334.3	265.4	341.7	1214	802	1455	1279	1827	939	470.6	575.8
MEAN	9.00	11.1	8.56	11.0	43.4	25.9	48.5	41.3	60.9	30.3	15.2	19.2
MAX	28	36	16	34	134	75	234	174	405	136	77	106
MIN	5.5	6.3	5.9	7.2	12	12	17	13	14	13	8.2	7.9
CFSM	.25	.31	.24	.30	1.20	.71	1.34	1.14	1.68	.84	.42	.53
IN.	.29	.34	.27	.35	1.24	.82	1.49	1.31	1.87	.96	.48	.59
CAL YR 1980	TOTAL	12762.1	MEAN	34.9	MAX	547	MIN	5.5	CFSM	.96	IN	13.08
WTR YR 1981	TOTAL	9782.8	MEAN	26.8	MAX	405	MIN	5.5	CFSM	.74	IN	10.03

TENNESSEE RIVER BASIN

03487550 REEDY CREEK AT OREBANK, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
15...	1515	5.9	395	12.0	2	.03
NOV						
26...	1130	15	355	6.0	16	.65
JAN						
14...	1650	7.9	370	1.0	5	.11
FEB						
20...	0840	93	320	8.0	100	25
MAR						
26...	1430	13	360	11.0	11	.39
MAY						
06...	1645	20	420	16.5	35	1.9
JUN						
11...	1600	52	355	20.5	48	6.7
JUL						
16...	0945	16	366	23.0	88	3.8
AUG						
12...	1530	15	380	23.0	24	.99
SEP						
16...	0900	80	395	17.5	83	18

TENNESSEE RIVER BASIN

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03490500 HOLSTON RIVER AT SURGOINSVILLE, TN

LOCATION.--Lat 36°28'19", long 82°50'50", Hawkins County, Hydrologic Unit 06010104, on right bank 1,500 ft (500 m) upstream from Surgoinsville Creek and county bridge at Surgoinsville, 9.8 mi (15.8 km) upstream from Big Creek, and at mile 118.7 (191.0 km). Records include flow of Surgoinsville Creek.

DRAINAGE AREA.--2,874 mi² (7,444 km²), includes that of Surgoinsville Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to April 1941 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,088.46 ft (331.763 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for growing season, which are fair. Flow partly regulated by four reservoirs (see p.).

AVERAGE DISCHARGE.--41 years, 3,791 ft³/s (107.4 m³/s), 17.91 in/yr (455 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,600 ft³/s (1,690 m³/s) Feb. 18, 1944, gage height, 17.48 ft (5.328 m); minimum, 470 ft³/s (13.3 m³/s), Oct. 21, 1941; minimum daily, 528 ft³/s (15.0 m³/s) Oct. 21, 1941. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 59,300 ft³/s (1,680 m³/s) Mar. 13, 1963, gage height, 17.13 ft (5.221 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft³/s (362 m³/s) May 21, gage height, 6.57 ft (2.003 m); minimum daily, 974 ft³/s (27.6 m³/s) Nov. 16; minimum, 910 ft³/s (25.8 m³/s) Jan. 10, 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	3730	1720	1210	1410	1730	1590	1680	3540	4660	2720	1650
2	1790	1200	1440	1230	3520	1660	1610	1590	5520	5380	1790	1370
3	1510	1570	2110	1470	7080	1590	1560	1510	7050	3900	1870	1630
4	1200	2110	2370	1180	7030	1580	1540	1420	8270	2610	2000	2430
5	1030	3740	1740	1710	5190	2160	1980	1380	7910	2540	3430	3370
6	1430	2940	1580	1640	4300	3040	2130	1350	6510	1690	3360	2140
7	1710	2010	1080	1950	1590	3200	2040	1540	10100	3620	2820	3300
8	2050	1870	993	1550	1390	3110	1790	1280	8790	5480	2080	2280
9	2180	1750	1200	1610	2470	2370	1710	1270	8000	5520	2130	2550
10	2160	1120	1130	1070	1460	1970	1630	1270	6050	5420	2270	2680
11	2020	2050	1990	1230	3950	1900	1670	1390	4550	3950	2990	3830
12	1570	1190	2140	1450	5970	1700	1670	1670	4580	2860	3590	4060
13	1510	1360	1440	1730	5140	1620	1630	2040	4450	3540	3650	2610
14	1740	1080	1080	1120	3250	1550	1760	2350	3390	5020	3530	1690
15	1980	1450	1410	1330	1790	1500	1660	2660	2440	4950	4020	4110
16	2370	974	1240	1360	1590	1500	1710	2580	4560	3750	3390	5300
17	2760	2050	1660	1540	1540	1490	1780	1500	2730	5740	1720	4510
18	2620	4990	1790	3190	1690	1470	2150	1520	2430	3750	1230	5550
19	1150	4820	1070	3050	2010	1780	2930	3940	2270	4730	3850	3700
20	1510	4620	2340	3080	2480	1760	4390	6580	1340	3800	2390	1900
21	1920	1300	1650	5100	3290	1460	5300	9060	1320	4620	2410	1410
22	2210	1820	3180	4710	3050	1390	4340	6430	1500	4080	1680	3070
23	2370	1270	2040	4470	2560	1390	3230	3400	2910	4000	1220	3710
24	1950	1340	1560	4090	2990	1410	3250	2480	2430	2960	980	3630
25	2620	2340	1710	2040	2750	1350	3360	2100	2770	2730	1430	3510
26	1490	2420	1860	2380	2370	1370	2900	1890	2040	1870	1300	3200
27	1250	2700	1680	3130	2060	1410	2510	1900	1430	2470	2500	1570
28	3380	2290	1030	3040	1850	1430	2790	2650	1220	3530	1040	1670
29	2270	2670	1420	2330	---	1450	1930	9570	1690	3900	3000	3190
30	2170	1390	1900	1930	---	1550	1810	7550	3220	3200	2510	2450
31	2940	---	1980	2490	---	1600	---	4760	---	2450	1270	---
TOTAL	60690	66164	51533	69410	85770	54490	70350	92310	125010	118720	74170	88070
MEAN	1958	2205	1662	2239	3063	1758	2345	2978	4167	3830	2393	2936
MAX	3380	4990	3180	5100	7080	3200	5300	9570	10100	5740	4020	5550
MIN	1030	974	993	1070	1390	1350	1540	1270	1220	1690	980	1370

CAL YR 1980	TOTAL	1371573	MEAN	3747	MAX	21400	MIN	531	MEAN‡	3460	CFSM‡	1.20	IN‡	16.39
WTR YR 1981	TOTAL	956687	MEAN	2621	MAX	10100	MIN	974	MEAN‡	2650	CFSM‡	.92	IN‡	12.52

‡ Adjusted for change in contents in South Holston, Watauga, Boone and Fort Patrick Henry Lakes.

TENNESSEE RIVER BASIN

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1974 to current year.

INSTRUMENTATION.--Temperature recorder since November 1974.

REMARKS.--Flow partly regulated by four reservoirs (see p. 288).

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.5°C on several days during summer periods; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.0°C June 15, 21, 22, 29; minimum, 0.0°C Jan 12, Feb. 3, 4, 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	19.0	16.5	14.0	11.0	7.0	7.0	6.0	5.0	2.0	13.0	10.5
2	21.5	20.5	16.5	13.0	10.5	8.0	8.0	5.5	5.5	2.0	13.5	10.5
3	20.5	18.0	17.0	13.0	11.0	8.0	6.5	4.5	2.0	.0	13.5	9.0
4	18.5	16.5	17.0	15.5	10.0	6.0	6.5	3.0	2.0	.0	10.0	9.0
5	17.0	15.0	16.5	13.5	10.5	8.0	4.0	.5	4.0	.5	9.5	8.5
6	18.5	14.0	16.0	13.0	10.5	8.0	4.0	3.0	4.5	2.0	10.5	8.0
7	19.5	15.5	16.0	12.0	11.5	8.5	5.5	3.0	4.0	1.5	9.5	6.5
8	20.0	16.5	18.5	14.5	13.0	9.0	5.5	2.0	5.5	3.0	10.0	6.0
9	21.5	18.0	18.5	16.0	13.0	11.5	6.5	4.0	5.5	1.5	10.5	7.0
10	22.0	19.0	18.0	15.5	13.5	10.5	6.0	3.0	5.0	4.0	11.5	7.0
11	21.5	19.0	16.0	13.5	10.5	9.0	3.0	.5	7.0	1.5	11.0	9.0
12	20.0	17.0	14.0	10.5	11.0	8.5	3.5	.0	4.5	.0	12.0	8.0
13	19.0	15.5	14.5	10.0	10.5	8.0	4.5	1.0	4.5	.5	12.0	8.5
14	20.0	15.5	14.5	13.0	10.5	7.0	6.5	4.0	6.5	1.5	13.5	9.5
15	20.0	16.5	16.0	13.5	9.5	6.5	6.0	4.0	8.0	2.0	13.0	8.5
16	20.5	17.0	16.0	13.5	9.5	8.5	6.5	3.0	9.0	6.0	11.5	8.5
17	21.0	18.0	16.0	13.0	11.0	8.5	4.0	2.0	10.0	8.5	12.0	8.0
18	19.5	18.5	16.0	11.5	9.5	7.0	5.0	1.0	11.5	9.0	12.0	9.5
19	21.0	18.5	13.5	10.5	9.0	5.5	5.5	1.5	11.5	10.5	10.0	8.0
20	20.5	17.0	13.0	9.0	8.0	4.0	5.0	3.5	11.0	9.5	8.0	6.0
21	20.5	16.5	11.5	8.5	6.5	4.0	5.0	4.0	11.5	8.5	10.5	6.0
22	20.0	16.5	11.5	7.0	8.0	3.5	5.0	3.5	10.0	8.5	9.5	8.5
23	19.5	16.5	11.5	10.5	8.5	6.5	5.0	3.5	10.5	9.0	10.5	8.5
24	19.0	16.0	12.0	10.5	8.5	4.5	5.5	3.0	10.5	8.0	13.5	8.5
25	18.5	13.5	14.5	10.5	6.5	3.5	6.5	3.0	10.5	7.0	15.0	10.0
26	15.5	12.0	11.0	9.0	5.5	3.5	8.0	4.0	12.0	8.0	15.5	11.0
27	14.5	12.0	11.5	9.5	8.0	5.0	6.5	5.0	12.0	8.0	15.5	13.0
28	17.0	14.5	10.5	9.0	9.0	5.0	6.0	4.0	11.0	9.5	17.0	12.0
29	16.5	14.5	10.0	7.0	10.5	8.0	5.5	4.0	---	---	17.0	14.5
30	17.0	14.0	9.5	6.5	10.0	8.5	4.5	1.5	---	---	19.0	15.5
31	17.0	14.5	---	---	9.5	7.0	5.5	1.0	---	---	20.5	15.0
MONTH	22.0	12.0	18.5	6.5	13.5	3.5	8.0	.0	12.0	.0	20.5	6.0

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	14.5	21.0	19.0	22.0	19.5	24.0	19.5	23.0	20.5	25.0	23.0
2	19.0	14.5	20.5	18.0	22.0	19.5	21.5	18.5	25.0	20.5	26.0	21.5
3	19.0	14.5	22.0	16.5	22.0	18.5	21.0	18.5	27.0	22.0	25.5	23.0
4	19.5	15.5	23.5	18.5	21.0	18.5	22.0	20.0	28.0	23.0	24.5	21.5
5	19.0	15.5	25.0	21.0	21.0	17.0	23.0	20.5	24.5	20.5	23.0	19.5
6	18.0	14.0	24.0	22.0	20.5	18.0	24.5	21.5	24.0	20.5	25.5	20.0
7	17.0	13.0	22.0	20.0	21.0	18.0	24.5	20.5	23.5	21.0	24.0	20.5
8	18.0	14.0	22.0	18.5	20.0	16.5	24.5	19.0	27.0	22.0	23.5	20.0
9	16.5	15.5	24.0	19.0	20.5	16.5	24.5	18.5	26.0	23.5	22.0	19.0
10	20.0	16.0	23.5	21.0	21.5	17.0	24.0	18.5	28.0	23.5	23.5	19.0
11	21.5	16.0	22.0	19.5	23.0	18.0	25.0	19.0	24.5	22.0	21.5	19.5
12	21.0	19.5	20.5	18.5	24.0	19.0	25.5	22.0	24.5	20.5	21.5	18.0
13	23.5	19.5	23.0	19.0	24.0	18.5	25.5	21.0	23.5	19.5	23.5	19.5
14	24.0	19.5	21.5	20.0	24.5	19.5	24.5	18.5	23.5	19.5	24.0	20.0
15	22.0	18.5	24.0	19.5	29.0	23.0	24.5	19.0	23.5	19.0	23.5	19.0
16	21.0	18.0	24.5	21.5	26.5	19.5	24.5	19.0	23.0	19.5	20.5	18.0
17	19.0	17.0	23.0	21.5	24.0	19.5	25.0	19.0	26.0	20.0	20.5	18.0
18	21.0	17.0	24.0	20.0	25.0	22.0	25.0	20.0	25.0	23.0	19.5	17.0
19	20.5	18.0	22.0	19.0	25.5	24.0	24.5	18.5	24.0	19.5	18.5	16.0
20	18.5	14.5	21.0	16.0	26.5	23.0	24.5	21.5	24.0	19.0	20.5	16.0
21	16.5	14.0	16.5	15.0	29.0	25.0	24.0	18.5	23.0	20.5	20.5	17.0
22	18.0	15.0	18.0	15.0	29.0	26.0	24.0	18.5	24.0	19.0	20.5	19.0
23	18.0	16.5	21.0	16.0	26.5	21.0	24.0	18.0	24.5	20.0	20.5	18.5
24	17.0	15.0	23.5	18.5	26.0	24.0	24.5	21.0	25.0	22.0	20.0	16.5
25	17.0	14.0	24.0	20.5	25.5	21.5	25.0	21.5	26.0	23.0	20.0	17.0
26	19.5	15.0	24.0	21.5	26.0	21.5	28.5	21.0	24.5	20.5	20.5	18.5
27	22.0	18.0	23.5	22.0	28.0	22.0	28.5	21.5	23.5	21.0	23.0	19.0
28	23.5	20.0	22.0	20.5	27.0	24.0	25.0	20.0	24.5	20.0	23.0	19.5
29	22.0	16.5	20.5	17.0	29.0	24.5	25.0	19.5	24.5	19.5	21.0	17.0
30	23.0	20.5	19.0	16.0	26.5	20.0	24.5	19.5	23.0	19.0	22.0	18.0
31	---	---	20.5	18.5	---	---	24.5	20.5	25.0	20.5	---	---
MONTH	24.0	13.0	25.0	15.0	29.0	16.5	28.5	18.0	28.0	19.0	26.0	16.0

03491000 BIG CREEK NEAR ROGERSVILLE, TN

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, Hydrologic Unit 06010104, on left bank 300 ft (90 m) upstream from county road bridge, 3 mi (5 km) northeast of Rogersville, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--47.3 mi² (122.5 km²).

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

REVISED RECORDS.--WSP 1436: 1945.

GAGE.--Water-stage recorder. Datum of gage is 1,128.9 ft (344.09 m) National Geodetic Vertical Datum of 1929 (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

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

AVERAGE DISCHARGE.--31 years (water years 1942-48, 1958-81), 59.9 ft³/s (1.696 m³/s), 17.20 in/yr (437 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft³/s (163 m³/s) Mar. 12, 1963, gage height, 9.40 ft (2.865 m), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of contracted-opening measurement of peak flow; maximum gage height, 10.68 ft (3.255 m) Dec. 30, 1969, backwater from log jam; minimum discharge observed, 1.3 ft³/s (0.037 m³/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 12, Oct. 2, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft³/s (40.2 m³/s) at 1315 hours, Apr. 20, gage height, 4.91 ft (1.497 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 4.1 ft³/s (0.12 m³/s) Jan. 18, but may have been less during period of no gage-height record Aug. 12 to Sept. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	6.4	11	8.8	11	27	48	52	58	21	6.8	6.0
2	8.5	6.0	10	8.2	305	24	40	47	363	27	6.5	6.0
3	8.0	6.0	9.1	7.7	98	22	32	42	205	21	6.6	6.0
4	8.1	6.7	8.2	7.3	49	23	28	37	190	15	6.4	10
5	7.5	7.3	7.7	6.4	37	103	123	32	195	14	6.1	20
6	6.8	7.6	7.4	6.0	28	124	102	27	212	22	6.4	17
7	6.4	6.9	7.2	6.6	24	71	60	23	543	105	10	14
8	6.0	6.4	6.9	6.4	23	51	45	20	175	36	52	12
9	5.8	6.3	8.1	6.9	20	41	41	18	113	23	22	11
10	5.7	6.1	20	6.4	22	35	40	17	82	18	12	9.5
11	5.6	5.9	19	6.1	194	31	38	30	64	16	9.0	8.5
12	5.1	5.7	14	5.7	72	28	37	25	52	14	8.0	7.5
13	5.1	5.5	12	5.3	50	25	34	19	47	12	7.8	7.0
14	5.0	5.5	10	5.8	41	24	82	17	38	12	7.6	6.0
15	5.1	6.1	9.3	6.7	33	22	148	34	33	12	7.4	35
16	5.1	6.6	9.0	6.9	30	23	64	27	29	11	35	169
17	5.1	7.6	8.5	6.2	33	23	64	20	27	11	37	48
18	5.2	16	8.0	5.8	56	21	105	18	25	10	25	26
19	8.0	16	7.6	5.6	55	20	73	114	22	10	15	19
20	6.8	11	7.1	5.9	75	19	463	136	22	10	12	15
21	6.0	8.4	6.3	18	66	18	203	85	21	14	9.0	13
22	5.7	7.4	6.0	27	50	18	114	54	19	12	7.0	11
23	5.4	7.2	6.1	19	51	21	105	38	17	9.4	6.0	9.8
24	5.2	20	8.1	16	51	22	188	30	16	8.4	5.6	8.9
25	7.3	37	13	13	41	21	110	25	15	7.7	5.4	8.4
26	10	18	10	12	35	20	76	22	15	7.6	5.2	8.0
27	9.1	16	9.2	11	30	19	71	27	15	7.6	5.2	7.6
28	8.0	22	8.7	11	28	18	66	83	13	7.4	5.2	7.1
29	7.4	17	8.6	11	---	17	62	45	11	10	5.3	6.9
30	7.4	13	9.1	11	---	63	57	32	11	9.8	5.3	6.9
31	6.8	---	9.4	9.6	---	78	---	27	---	7.7	5.4	---
TOTAL	206.4	317.6	294.6	289.3	1608	1072	2719	1223	2648	521.6	363.2	540.1
MEAN	6.66	10.6	9.50	9.33	57.4	34.6	90.6	39.5	88.3	16.8	11.7	18.0
MAX	10	37	20	27	305	124	463	136	543	105	52	169
MIN	5.0	5.5	6.0	5.3	11	17	28	17	11	7.4	5.2	6.0
CFSM	.14	.22	.20	.20	1.21	.73	1.92	.84	1.87	.36	.25	.38
IN.	.16	.25	.23	.23	1.26	.84	2.14	.96	2.08	.41	.29	.42
CAL YR 1980	TOTAL	18830.5	MEAN	51.4	MAX	1600	MIN	4.3	CFSM	1.09	IN	14.81
WTR YR 1981	TOTAL	11802.8	MEAN	32.3	MAX	543	MIN	5.0	CFSM	.68	IN	9.28

NOTE.--No gage-height record Aug. 12 to Sept. 15.

TENNESSEE RIVER BASIN

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03491300 BEECH CREEK AT KEPLER, TN

LOCATION.--Lat 36°24'06", long 82°53'09", Hawkins County, Hydrologic Unit 06010104, on upstream right wingwall of county road bridge, at Kepler, 5.9 mi (9.5 km) east of intersection of U. S. Highway 11W and Burem Road, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--47.0 mi² (121.7 km²).

PERIOD OF RECORD.--October 1965 to current year. Occasional low-flow measurements, water years 1961-62, 1964-65.

GAGE.--Water-stage recorder. Datum of gage is 1,107.83 ft (337.667 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--16 years, 51.2 ft³/s (1.450 m³/s), 14.79 in/yr (376 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,480 ft³/s (98.6 m³/s); Mar. 30, 1975, gage height, 13.38 ft (4.078 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s); minimum observed, 0.97 ft³/s (0.027 m³/s) Sept. 17, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 12, 1963, reached a stage of 14.6 ft (4.45 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft³/s (32.0 m³/s) at 0600 hours, Feb. 2, gage height, 7.87 ft (2.399 m), no peak above base of 1,200 ft³/s (34.0 m³/s); minimum discharge, 1.6 ft³/s (0.045 m³/s) Aug. 29, 30, Sept. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	6.8	14	18	29	20	20	21	20	15	3.7	2.1
2	6.6	6.9	13	15	664	18	20	19	80	11	3.4	2.1
3	5.9	6.8	12	14	107	16	18	17	54	9.0	3.4	2.1
4	5.1	14	11	13	94	35	17	16	153	7.5	3.8	3.7
5	4.5	17	11	12	62	184	175	16	87	9.9	3.2	5.6
6	4.1	11	10	11	30	128	77	14	188	54	3.7	3.8
7	3.8	9.4	9.8	10	22	58	43	14	406	46	4.6	3.2
8	3.6	8.6	9.8	9.5	20	39	34	14	105	15	13	3.1
9	3.6	8.0	21	9.0	17	31	33	12	64	9.8	6.3	2.9
10	3.4	7.9	82	9.0	33	26	30	12	46	7.8	3.9	2.9
11	3.4	7.3	26	8.5	162	23	26	17	36	6.8	3.2	2.4
12	3.2	6.9	19	8.5	59	20	23	14	31	5.9	2.9	1.9
13	3.2	7.1	16	8.0	49	19	22	12	36	7.0	2.8	1.9
14	3.3	7.2	14	8.0	29	18	44	12	23	6.1	2.5	1.7
15	3.7	7.7	13	8.0	25	16	95	21	19	6.1	2.4	13
16	3.9	9.4	13	8.0	23	17	35	14	17	5.8	8.3	48
17	4.4	9.5	12	7.5	34	17	66	12	16	5.7	9.1	9.0
18	8.3	31	11	7.5	85	16	80	11	14	5.1	4.9	4.3
19	42	22	10	7.5	59	15	49	57	12	4.8	3.4	3.1
20	10	15	9.5	7.5	71	14	214	131	13	4.8	2.9	2.6
21	6.9	12	14	94	45	13	118	119	14	5.9	2.5	2.2
22	5.8	11	10	37	34	13	67	39	12	4.9	2.2	2.0
23	5.5	11	8.9	26	41	15	60	26	10	4.1	2.0	2.0
24	5.9	106	14	20	35	14	102	21	9.1	3.7	2.0	1.9
25	12	51	25	17	27	12	59	18	8.4	3.5	1.9	1.7
26	15	23	35	15	24	12	44	17	8.5	3.4	1.8	1.7
27	9.5	24	32	16	21	11	35	29	7.6	3.0	1.7	1.8
28	9.1	25	19	15	20	11	30	73	6.9	4.0	1.7	1.8
29	8.5	20	12	13	---	11	26	38	6.2	20	1.6	1.8
30	7.8	16	22	14	---	26	24	26	6.5	7.5	1.7	1.7
31	7.2	---	24	17	---	25	---	23	---	4.6	1.7	---
TOTAL	228.9	518.5	553.0	483.5	1921	893	1686	885	1509.2	307.7	112.2	138.0
MEAN	7.38	17.3	17.8	15.6	68.6	28.8	56.2	28.5	50.3	9.93	3.62	4.60
MAX	42	106	82	94	664	184	214	131	406	54	13	48
MIN	3.2	6.8	8.9	7.5	17	11	17	11	6.2	3.0	1.6	1.7
CFSM	.16	.37	.38	.33	1.46	.61	1.20	.61	1.07	.21	.08	.10
IN.	.18	.41	.44	.38	1.52	.71	1.33	.70	1.19	.24	.09	.11
CAL YR 1980	TOTAL	15526.8	MEAN 42.4	MAX 1380	MIN 2.5	CFSM .90	IN 12.29					
WTR YR 1981	TOTAL	9236.0	MEAN 25.3	MAX 664	MIN 1.6	CFSM .54	IN 7.31					

TENNESSEE RIVER BASIN

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°00'56", 83°49'54", Knox County, Hydrologic Unit 06010104, on right bank at bridge on U. S. Highway 70, at Knoxville city limits, and 5.5 mi (8.8 km) upstream from confluence with French Broad River.

DRAINAGE AREA.--3,747 mi² (9,705 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1976, January 1978 to current year. Published as "at Strawberry Plains" 1930-48. Records published for both sites June 1945 to September 1948. Gage-height records collected at Strawberry Plains from December to March 1885-97 are contained in reports of the U. S. Weather Bureau.

REVISED RECORDS.--WSP 893: 1935(M). WSP 1336: 1939.

GAGE.--Water-stage recorder. Datum of gage is 815.84 ft (248.668 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1930, to June 8, 1931, nonrecording gage, and June 9, 1931, to Sept. 30, 1948, water-stage recorder, at site 12 mi (19 km) upstream at datum 22.55 ft (6.873 m) higher. June 19, 1945, to Oct. 4, 1960, 300 ft (90 m) upstream at present datum.

REMARKS.--Records fair. Flow regulated by five reservoirs (see p. 288).

AVERAGE DISCHARGE.--48 years (water years 1931-75, 1979-81), 4,735 ft³/s (134.1 m³/s), 17.16 in/yr (436 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 62,900 ft³/s (1,780 m³/s) Mar. 28, 1935, gage height, 20.20 ft (6.157 m), site and datum then in use; minimum, 44 ft³/s (1.25 m³/s) Dec. 12, 21, 22, 1941, gage height, -0.58 ft (-0.77 m), site and datum then in use; minimum daily, 44 ft³/s (1.25 m³/s) Dec. 21, 22, 1941. Maximum discharge since closure of Cherokee Dam on Dec. 5, 1941, 31,400 ft³/s (899 m³/s) Mar. 22, 1963, gage height, 11.20 ft (3.414 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, about 41 ft (12.5 m) in March 1867, from profile by Tennessee Valley Authority. Flood in 1901 reached a stage of about 32 ft (9.8 m), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, recorded, 21,700 ft³/s (615 m³/s) Sept. 16, gage height, 8.91 ft (2.716 m); minimum recorded, 166 ft³/s (4.70 m³/s) Mar. 30, minimum daily, 181 ft³/s (5.13 m³/s) Mar. 29, May 18, 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3180	4860	2440	2710	2550	358	576	400	348	3340	3850	6810
2	647	2570	3780	2670	3090	900	409	400	672	3510	3760	6380
3	2140	2690	4340	2550	4460	1300	319	350	3970	3150	2890	6660
4	2550	3990	2810	2670	4710	1200	281	300	8200	2400	5440	6590
5	2630	5310	1670	3800	3130	1200	773	300	5810	2400	5570	6660
6	3620	5310	2230	3580	2910	1700	660	300	11200	2420	6740	5020
7	3070	3150	2310	3360	2070	1800	530	350	3470	5970	5920	2600
8	3470	4200	2270	3490	1770	1000	500	300	1720	8660	5810	2420
9	4760	2210	3620	3510	2440	1100	500	250	2610	8290	2830	5690
10	4730	933	2610	3050	2200	1500	450	200	7340	8840	2550	4850
11	4040	4810	4250	1960	1160	1300	400	197	4040	7260	7900	5330
12	2310	1910	3800	2500	6830	1300	350	197	3970	5210	6770	4930
13	2180	1890	3640	2870	3940	1300	300	189	5710	4910	8140	4850
14	1590	1380	3150	2650	1630	2300	300	189	6080	9440	9630	3920
15	1500	947	3320	2710	420	3100	350	189	3110	8320	7930	8490
16	1620	1000	3320	2710	263	3700	300	197	9630	7930	6220	10500
17	2950	2480	3430	2730	906	3800	500	197	10800	8050	3390	4140
18	3030	2990	3470	2590	1160	3000	950	181	11300	6630	10100	5490
19	2090	3200	3180	3110	564	2870	750	2830	11700	6600	9340	5270
20	1800	2420	3850	5420	576	2000	2800	3780	10400	5570	4150	4870
21	2400	1700	5080	5870	660	1820	2400	1520	6800	7570	4300	4730
22	2400	2460	1980	5310	564	1770	1300	485	7310	5840	4150	6610
23	2400	1670	4660	5970	420	1840	1400	300	6830	3690	2990	6610
24	2300	1180	3560	4760	389	1860	2900	237	3320	5650	3110	3790
25	3000	1870	4040	2380	839	623	1400	181	3640	5710	8550	3690
26	3600	2070	4460	2570	2000	530	1000	197	4560	4560	5970	3570
27	2700	4180	4610	2400	2420	378	750	228	2180	3870	6180	3610
28	2100	1960	3710	2930	485	220	600	474	1650	6520	5930	4180
29	2140	1690	3690	2400	---	181	550	399	1420	5470	5280	9660
30	4960	2360	2930	2180	---	508	500	309	6000	4930	4490	6550
31	4630	---	2770	2330	---	660	---	378	---	5160	3660	---
TOTAL	86537	79390	104980	99720	54556	47118	24798	16004	165790	177870	173540	164470
MEAN	2792	2646	3386	3217	1948	1520	827	516	5526	5738	5598	5482
MAX	4960	5310	5080	5970	6830	3800	2900	3780	11700	9440	10100	10500
MIN	647	933	1670	1960	263	181	281	181	348	2400	2550	2420

CAL YR 1980 TOTAL 1808906 MEAN 4942 MAX 16000 MIN 647 MEAN# 4497 CFSM# 1.20 IN# 16.34
WTR YR 1981 TOTAL 1194773 MEAN 3273 MAX 11700 MIN 181 MEAN# 3377 CFSM# .90 IN# 12.23

* Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

NOTE.--No gage-height record, Apr. 8 to May 11.

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1980 to current year.

WATER TEMPERATURE: February 1980 to current year.

INSTRUMENTATION.--Water quality-monitor since Feb. 23, 1980.

REMARKS.--Flow regulated by five reservoirs (see p.288). Interruptions in the record due to instrument malfunction.

EXTREMES FOR DAILY PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 365 micromhos Mar. 1, 1981; minimum, 192 micromhos Mar. 14, 1980.

WATER TEMPERATURE: Maximum, 26.5°C several days in August and September 1980; minimum, 1.5°C Feb. 3, 5, and 12, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 365 micromhos Mar. 1; minimum, 221 micromhos Sept. 16.

WATER TEMPERATURE: Maximum, 26.0°C Aug. 31, Sept. 1, 6; minimum, 1.5°C Feb. 3, 5, 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 18...	1200	2970	290	7.6	--	.80	7.8	210	90	100	20	28
MAR 18...	1030	2520	335	8.2	8.0	1.4	11.8	K23	K10	140	40	38
APR 13...	1200	317	300	8.1	20.5	.80	8.3	K27	K16	130	10	38
MAY 14...	1400	215	342	7.4	20.5	3.0	7.4	104	49	160	0	41
JUL 08...	1130	6770	340	7.6	18.5	3.2	5.5	K170	37	130	30	38
SEP 08...	1100	6210	286	7.7	25.0	8.2	7.0	K96	68	110	19	30

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 18...	7.7	12	20	.5	2.1	80	26	13	.1	3.1	149
MAR 18...	10	16	20	.6	1.9	100	37	18	.2	.4	189
APR 13...	9.5	6.8	10	.3	2.1	120	21	7.4	.1	.7	177
MAY 14...	13	7.1	9	.2	2.3	160	22	9.1	.1	3.8	204
JUL 08...	8.3	18	23	.7	2.0	100	29	16	.1	1.8	191
SEP 08...	7.5	12	19	.5	2.0	91	21	14	.1	3.4	164

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)
NOV 18...	143	.20	1190	.71	.69	.000	.000	.29	.24	.29	.24
MAR 18...	185	.26	1290	.69	.69	.010	.010	.35	.15	.36	.16
APR 13...	159	.24	151	.27	.26	.210	.120	.37	--	.58	--
MAY 14...	197	.28	118	.48	.49	.130	.070	.63	--	.76	<.10
JUL 08...	176	.26	3490	.56	.56	.010	.020	.38	.35	.39	.37
SEP 08...	146	.22	2750	.35	.30	.040	.030	--	.46	--	.49

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

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 18,80	APR 13,81	MAY 14,81	JUL 8,81	SEP 8,81
TIME	1200	1200	1400	1130	1100
TOTAL CELLS/ML	39	570	740	2200	14
DIVERSITY: DIVISION	1.6	1.8	1.6	1.1	0.0
..CLASS	1.6	1.8	1.6	1.1	0.0
..ORDER	1.6	2.1	2.3	1.9	0.0
...FAMILY	1.6	2.4	2.9	2.1	0.0
....GENUS	1.6	2.8	3.2	2.3	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	13	2	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	52	7	--	-	--	-
....OOCYSTIS	--	-	--	-	77	11	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	150#	27	77	11	330#	15	--	-
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13#	33	13	2	26	4	--	-	--	-
...ZYGNEATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	13	1	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	13#	33	77	14	--	-	39	2	--	-
....MELOSIRA	--	-	--	-	39	5	--	-	--	-
....STEPHANODISCUS	--	-	150#	27	52	7	--	-	--	-
...PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	26	1	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	26	1	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	52	2	--	-
....SYNEDRA	--	-	13	2	--	-	13	1	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	--	-	13	2	13	1	--	-
...NAVICULACEAE										
....NAVICULA	--	-	13	2	52	7	26	1	--	-
...NITZSCHACEAE										
....NITZSCHIA	--	-	--	-	52	7	26	1	14#	100
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	13#	33	39,	7	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	64	11	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	410#	19	--	-
....ANACYSTIS	--	-	13	2	52	7	150	7	--	-
...HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	230#	32	1100#	49	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	13	2	--	-	--	-	--	-
....TRACHELONAS	--	-	13	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

TENNESSEE RIVER BASIN

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	261	258	260	275	272	274	294	287	290	305	298	302
2	264	261	262	278	272	276	294	287	290	306	298	302
3	266	263	264	279	276	277	290	288	289	306	299	303
4	266	260	262	279	275	276	292	287	290	304	298	302
5	262	259	260	277	274	276	295	288	291	304	297	301
6	263	259	261	279	275	277	295	290	292	303	297	301
7	262	259	261	281	276	278	295	290	293	304	297	301
8	264	259	262	280	277	279	297	291	294	307	298	304
9	265	261	262	282	279	280	296	290	293	305	297	303
10	267	260	263	287	282	284	298	290	294	305	297	303
11	269	262	266	286	281	283	301	295	298	307	298	303
12	267	262	265	289	280	284	300	295	298	308	301	304
13	266	262	264	287	282	284	302	295	299	306	299	303
14	269	262	265	287	283	285	304	296	302	308	298	304
15	270	263	266	291	287	288	307	299	303	311	300	306
16	270	265	268	291	287	288	306	298	303	310	301	307
17	275	267	271	289	284	286	308	300	304	310	299	306
18	283	273	277	286	282	284	305	299	303	310	300	306
19	279	273	276	287	284	286	---	---	---	310	300	305
20	280	276	278	289	285	286	307	300	305	310	300	308
21	291	279	285	293	284	288	303	298	301	307	304	306
22	292	286	289	293	285	289	309	298	304	314	306	310
23	290	285	288	291	283	287	303	298	301	314	309	312
24	288	283	286	291	287	290	303	299	301	313	310	312
25	289	272	279	293	288	290	301	298	300	320	310	314
26	275	269	272	292	286	289	301	298	300	321	311	316
27	276	271	274	289	284	286	301	297	300	323	313	319
28	276	273	274	292	287	289	302	298	301	326	314	319
29	277	275	276	296	289	292	302	296	299	328	318	324
30	277	273	275	295	288	292	304	297	302	329	321	325
31	275	273	274	---	---	---	307	299	303	326	319	323
MONTH	292	258	270	296	272	284	309	287	298	329	297	308
	FEBRUARY			MARCH			APRIL			MAY		
1	326	314	320	365	361	363	---	---	---	343	339	340
2	318	284	297	364	358	362	---	---	---	341	338	339
3	322	291	308	360	351	356	---	---	---	340	336	339
4	328	317	324	349	346	347	---	---	---	343	339	341
5	332	317	327	345	342	343	---	---	---	346	342	344
6	332	318	327	347	343	345	---	---	---	348	345	346
7	338	320	329	349	346	348	---	---	---	349	345	347
8	339	320	330	348	343	345	---	---	---	350	347	349
9	336	319	328	344	342	343	---	---	---	350	347	349
10	335	316	329	344	337	341	---	---	---	351	348	350
11	328	263	294	340	336	338	---	---	---	353	349	351
12	325	265	303	337	333	335	---	---	---	355	351	353
13	329	320	325	338	334	336	302	297	300	352	348	350
14	351	318	334	338	333	337	312	303	307	351	344	348
15	362	349	354	329	325	327	317	312	314	346	343	345
16	362	349	354	336	313	329	320	312	316	348	345	347
17	361	340	346	342	316	333	325	317	319	352	347	349
18	353	328	340	337	316	328	327	325	327	359	352	356
19	362	350	357	340	336	338	328	315	320	360	340	348
20	358	345	353	---	---	---	326	320	323	363	352	358
21	356	345	352	---	---	---	330	326	328	---	---	---
22	348	338	344	---	---	---	329	323	326	---	---	---
23	347	343	345	---	---	---	329	325	327	---	---	---
24	347	341	344	---	---	---	332	328	330	---	---	---
25	351	347	350	---	---	---	334	330	332	---	---	---
26	348	330	340	---	---	---	336	329	332	---	---	---
27	359	333	353	---	---	---	337	335	336	---	---	---
28	364	358	362	---	---	---	338	335	336	---	---	---
29	---	---	---	---	---	---	339	337	338	---	---	---
30	---	---	---	---	---	---	341	338	340	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	364	263	335	---	---	---	---	---	---	---	---	---

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1				---	---	---	297	287	293	275	268	273
2				---	---	---	295	287	291	273	268	271
3				---	---	---	291	283	288	276	265	269
4				---	---	---	289	281	287	267	260	265
5				---	---	---	288	278	285	267	258	263
6				---	---	---	296	274	284	267	256	264
7				---	---	---	285	279	282	265	255	260
8				---	---	---	284	274	282	268	259	264
9				334	323	330	285	276	283	266	260	262
10				333	322	329	286	278	283	263	256	260
11				331	324	329	285	273	283	262	255	259
12				331	317	328	281	274	278	268	254	263
13				331	320	326	282	272	279	272	259	268
14				325	315	323	279	274	277	270	261	267
15				323	315	321	278	267	276	265	252	259
16				323	293	316	278	267	275	245	221	238
17				319	314	317	279	271	277	260	232	247
18				318	310	315	279	271	276	266	253	260
19				316	308	312	276	267	274	272	260	266
20				316	306	310	278	271	275	279	267	272
21				311	303	308	282	266	271	283	273	277
22				308	302	305	277	267	271	282	274	277
23				308	296	305	279	269	275	285	274	279
24				307	292	302	279	270	275	286	277	282
25				304	295	299	274	267	271	297	278	286
26				304	290	298	275	269	273	319	294	305
27				300	293	297	275	267	273	333	309	319
28				300	288	297	274	268	272	341	321	330
29				295	287	293	276	268	274	347	318	335
30				296	283	292	278	272	275	339	321	330
31				298	289	294	284	271	276	---	---	---
MONTH				---	---	---	297	266	279	347	221	276

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.5	3.0	3.0	9.5	9.0	9.5	16.0	15.5	16.0	22.0	21.0	21.5
2	3.5	3.0	3.0	11.0	9.5	10.0	17.0	15.0	16.0	22.0	20.5	21.0
3	3.0	1.5	2.5	11.0	10.0	10.5	17.0	15.5	16.0	21.5	19.5	20.5
4	3.0	2.0	2.5	10.5	10.0	10.0	17.5	16.0	16.5	21.0	19.0	20.0
5	3.0	1.5	2.0	10.0	8.5	9.0	18.0	16.5	17.0	22.0	19.0	20.5
6	3.0	2.5	2.5	9.5	8.5	8.5	17.5	16.0	17.0	22.0	20.5	21.0
7	3.5	3.0	3.5	9.0	8.0	8.5	16.5	14.5	15.5	21.5	20.0	20.5
8	4.0	3.5	4.0	8.5	8.0	8.5	16.0	15.0	15.5	21.5	19.5	20.5
9	4.0	3.0	3.5	9.5	7.5	8.5	16.5	16.0	16.0	22.0	19.5	20.5
10	4.5	3.0	3.5	9.5	8.0	9.0	17.5	16.0	17.0	21.5	20.5	21.0
11	4.0	3.5	4.0	9.5	8.5	9.5	19.0	17.0	18.0	21.0	19.0	20.0
12	3.5	1.5	2.5	10.0	9.0	9.5	20.0	18.5	19.5	20.5	19.0	19.5
13	3.5	2.0	2.5	10.5	9.0	9.5	21.0	19.5	20.0	20.5	18.5	19.0
14	4.0	3.0	3.5	11.0	9.5	10.0	21.5	20.0	21.0	20.5	18.5	19.0
15	6.0	3.0	4.5	10.5	8.5	9.0	21.5	20.0	21.0	19.0	18.5	19.0
16	6.0	4.5	5.0	9.0	8.5	9.0	20.5	19.5	20.0	20.5	18.0	19.0
17	8.0	6.0	7.0	9.0	7.0	8.0	19.5	18.5	19.0	19.5	18.5	19.0
18	8.5	7.5	8.0	9.0	8.0	8.0	18.5	17.5	18.0	20.5	18.5	19.0
19	9.5	8.5	9.0	8.0	7.5	7.5	19.0	17.0	18.0	21.0	16.5	19.0
20	10.5	8.5	9.5	---	---	---	19.0	18.0	18.5	16.5	13.0	14.5
21	11.5	9.0	10.0	---	---	---	18.5	17.5	18.0	14.0	12.5	13.0
22	11.0	9.0	10.0	---	---	---	18.5	16.5	17.5	17.5	13.0	15.5
23	10.5	10.0	10.5	---	---	---	19.0	17.5	18.5	19.5	16.0	17.5
24	11.0	9.5	10.5	---	---	---	19.0	17.5	18.5	21.0	18.5	19.5
25	11.0	9.5	10.0	---	---	---	19.5	17.0	18.0	22.5	20.0	21.5
26	11.5	9.5	10.5	---	---	---	19.0	17.0	18.0	22.5	21.5	22.0
27	10.5	7.5	8.0	---	---	---	20.5	18.5	19.5	22.0	21.5	22.0
28	9.5	7.5	8.5	---	---	---	22.0	19.5	21.0	21.5	21.0	21.0
29	---	---	---	---	---	---	22.5	21.0	21.5	21.5	20.5	21.0
30	---	---	---	---	---	---	22.5	21.0	21.5	23.0	20.5	22.0
31	---	---	---	---	---	---	---	---	---	23.5	22.0	22.5
MONTH	11.5	1.5	6.0	---	---	---	22.5	14.5	18.5	23.5	12.5	19.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.5	22.5	23.0	19.5	18.0	18.5	23.0	22.0	22.5	26.0	24.5	25.0
2	23.5	22.5	23.0	18.5	17.0	17.5	22.0	21.0	21.5	25.0	24.0	24.5
3	23.5	18.5	22.0	19.0	18.0	18.5	22.5	21.5	22.0	25.5	25.0	25.0
4	17.5	13.0	14.5	19.5	18.0	19.0	23.5	22.0	23.0	25.0	24.5	25.0
5	16.0	14.0	15.0	20.0	19.0	19.5	24.5	22.5	23.5	25.5	25.0	25.0
6	18.0	12.5	15.5	20.0	19.0	19.5	25.5	22.5	23.5	26.0	25.0	25.5
7	18.0	17.0	17.5	20.0	17.0	18.0	24.0	23.0	23.5	25.0	24.0	25.0
8	19.5	18.0	18.5	20.5	17.5	18.5	24.5	23.0	23.5	25.0	24.5	25.0
9	21.0	19.5	20.5	21.0	18.0	19.0	24.5	23.5	24.0	24.5	23.5	24.0
10	21.0	13.0	14.5	21.0	18.0	19.5	25.5	24.0	24.5	24.5	23.5	24.0
11	16.5	15.5	16.0	20.5	18.5	19.5	25.0	23.0	23.5	24.5	24.0	24.5
12	17.0	16.0	16.5	21.5	19.0	20.0	24.5	23.0	24.0	25.0	24.0	24.5
13	17.0	14.0	15.5	21.5	19.5	20.5	25.0	23.0	24.0	25.0	24.5	24.5
14	16.5	13.5	15.0	21.5	19.0	20.0	24.5	23.0	24.0	25.0	24.5	25.0
15	20.5	16.0	17.5	21.5	19.0	20.0	25.0	23.5	24.0	25.5	23.5	24.5
16	18.0	13.0	14.5	22.0	19.5	20.0	25.0	24.0	24.0	23.0	22.0	23.0
17	15.5	13.5	14.5	21.5	19.0	20.0	25.0	24.0	24.5	23.0	21.0	22.5
18	16.5	13.0	14.5	22.0	20.0	20.5	25.0	24.0	24.0	22.5	21.5	22.0
19	17.0	14.0	15.0	22.0	20.0	21.0	25.0	24.0	24.5	22.0	21.0	21.5
20	16.5	14.0	15.0	23.0	21.0	21.5	25.0	24.0	24.5	22.5	21.0	21.5
21	17.0	15.0	16.0	22.5	20.0	21.0	25.0	24.5	24.5	22.5	21.5	22.0
22	18.5	15.0	16.5	22.5	20.5	21.5	24.5	23.5	24.0	23.0	22.0	22.5
23	18.5	15.5	16.5	23.0	21.5	22.0	25.0	24.0	24.5	23.5	23.0	23.0
24	19.0	17.5	19.0	23.5	21.0	22.0	25.5	24.5	25.0	23.0	21.5	22.0
25	19.5	18.5	18.5	23.0	21.0	22.0	25.5	24.5	25.0	22.0	21.0	21.5
26	18.5	16.5	17.5	23.5	22.0	22.5	25.5	24.5	25.0	22.5	21.5	22.0
27	20.0	17.5	18.5	24.0	23.0	23.0	25.5	24.5	25.0	22.5	22.0	22.5
28	21.0	20.0	20.5	24.0	21.5	22.5	25.5	24.5	25.0	23.0	22.0	22.5
29	22.0	20.5	21.5	24.5	22.0	22.5	25.5	24.5	25.0	22.5	21.5	22.0
30	22.0	16.5	18.0	23.5	22.0	22.5	25.0	24.0	24.5	22.0	21.0	21.5
31	---	---	---	22.5	21.5	22.0	26.0	25.0	25.5	---	---	---
MONTH	23.5	12.5	17.5	24.5	17.0	20.5	26.0	21.0	24.0	26.0	21.0	23.5

03497000 TENNESSEE RIVER AT KNOXVILLE, TN

LOCATION.--Lat 35°57'17", long 83°51'42", Knox County, Hydrologic Unit 06010201, on left bank 0.7 mi (1.1 km) downstream from confluence of French Broad and Holston Rivers, 3.5 mi (5.6 km) upstream from First Creek, 3.6 mi (5.8 km) upstream from Gay Street Bridge at Knoxville, and at mile 651.4 (1,048.1 km). Records include flow of First Creek.

DRAINAGE AREA.--8,934 mi² (23,139 km²), includes that of First Creek.

PERIOD OF RECORD.--October 1899 to current year. Prior to October 1918 monthly discharge only, published in WSP 1306 (daily discharges contained in Tennessee Division of Geology, Bulletin 34). Gage-height records collected in this vicinity since 1883 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 583: 1902(M), 1904(m). WSP 853: Drainage area. WSP 1306: 1899-1918. WSP 1706: Maximum stage and discharge since at least 1791.

GAGE.--Water-stage recorder. Datum of gage is 797.38 ft (243.041 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1943, nonrecording gages or water-stage recorder at several sites within 4 mi (6 km) of present site at various datums. Since Sept. 1, 1943, auxiliary water-stage recorder 6.3 mi (10.0 km) downstream from base gage at same datum.

REMARKS.--Records good except those below 5,000 ft³/s (141.6 m³/s), which are fair. Flow regulated by six reservoirs (see p. 288).

AVERAGE DISCHARGE.--82 years, 13,080 ft³/s (370.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 195,000 ft³/s (5,520 m³/s) Mar. 1, 1902, gage height, 36.4 ft (11.09 m) site and datum then in use, from rating curve extended above 130,000 ft³/s (3,680 m³/s); minimum daily, 1,010 ft³/s (28.6 m³/s) Mar. 28, 1954; minimum gage height, -1.7 ft (-0.52 m) Sept. 11, 1925, site and datum then in use. Maximum discharge since completion of several upstream dams in Dec. 1941, 89,200 ft³/s (2,530 m³/s) Mar. 12, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 45.0 ft (13.72 m) Mar. 8, 1967, site and datum of gage at old city pumping plant, 3.2 mi (5.1 km) downstream from base gage, discharge, 290,000 ft³/s (8,210 m³/s), from rating curve extended above 130,000 ft³/s (3,680 m³/s), from high-water profile by Corps of Engineers and Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,500 ft³/s (977 m³/s) Aug. 19; maximum gage height, 17.49 ft (5.331 m) Aug. 18; minimum daily discharge, 1,220 ft³/s (34.6 m³/s) May 4; minimum gage height, 9.86 ft (3.005 m) Feb. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3310	9060	5830	5520	4440	2220	2750	2270	4700	12200	10700	12700
2	4130	5170	8490	5100	10200	2850	2600	2060	7000	14800	8740	11900
3	6330	4540	10400	5240	11200	6970	2650	1630	9800	8900	10600	12800
4	6040	6660	8930	4710	10300	5200	2350	1220	17300	5710	15200	12800
5	5430	10900	8150	6880	8470	6540	3550	2140	9700	5040	20300	12400
6	10100	9550	8680	8380	7650	6140	4750	2150	16900	11600	16400	8560
7	8650	6090	8620	8090	4200	4700	2450	1940	11200	14300	15700	7170
8	12000	6410	8400	7990	3470	3670	1850	2160	5700	18700	12600	8000
9	13300	3650	10400	8320	5420	2650	2700	1840	10800	17200	8130	9590
10	11900	3020	9810	6440	5170	3820	2600	1990	13800	18600	10400	10800
11	11000	6870	11700	4990	7840	3900	2850	2950	8400	15900	18900	11000
12	5660	2100	10900	5950	13700	3540	2300	3190	8000	13100	18500	10800
13	4710	2570	10300	7730	11100	2870	3000	2070	10100	14700	19100	10900
14	3510	1310	7810	6760	6150	5170	2300	2460	9900	19200	20500	10300
15	3420	1490	7570	6670	3000	7890	2050	3660	9000	18400	18400	16200
16	4440	1940	7890	6920	4070	9670	2500	1990	17900	17400	12500	18200
17	5810	4280	8230	7100	6960	10400	2750	2000	17800	18100	13100	11200
18	6570	5650	8520	6910	7310	9150	3900	2400	18800	14200	22000	11200
19	4030	6120	8210	6260	6520	9530	3700	7790	19600	13300	19300	8020
20	3470	4410	6910	9440	6100	7170	6900	7880	18600	13200	10500	5130
21	3690	3300	8110	9960	3940	5980	8500	4280	11400	16800	11000	6540
22	4020	3310	5540	8130	2240	5890	4450	2890	17000	11700	10100	12300
23	4140	2930	7760	8150	4300	6550	3550	2170	17500	8180	6700	13200
24	4050	1820	6410	7060	8470	4770	8000	1650	13200	14800	11600	10400
25	4730	4070	6660	3930	8670	2020	4200	1800	15000	10800	15900	10300
26	10400	5200	8220	4180	6590	2520	2850	1790	13600	7720	12800	10300
27	5410	7620	7650	3970	7370	2980	3180	2260	8200	11000	12800	9850
28	4230	4580	6680	4370	4200	2400	4340	4330	4700	13900	11700	11500
29	5240	5340	6230	4040	---	1820	3090	5710	7600	13300	9690	15300
30	10400	7010	6320	3760	---	3750	3730	3130	15600	14700	7340	11900
31	10800	---	4430	3620	---	3240	---	2700	---	13300	9840	---
TOTAL	200920	146970	249760	196570	189050	155970	106390	88500	368800	420750	421040	331260
MEAN	6481	4899	8057	6341	6752	5031	3546	2855	12290	13570	13580	11040
MAX	13300	10900	11700	9960	13700	10400	8500	7880	19600	19200	22000	18200
MIN	3310	1310	4430	3620	2240	1820	1850	1220	4700	5040	6700	5130
CAL YR 1980	TOTAL	4380600	MEAN	11970	MAX	32900	MIN	1310				
WTR YR 1981	TOTAL	2875980	MEAN	7879	MAX	22000	MIN	1220				

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 State Highway 73, 0.3 mi (0.5 km) upstream from Rush Branch, 0.4 mi (0.6 km) southeast of Park entrance, 2.2 mi (3.5 km) southeast of Townsend, and at mile 35.3 (56.8 km).

DRAINAGE AREA.--106 mi² (275 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,106.92 ft (337.389 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years, 289 ft³/s (8.184 m³/s), 37.02 in/yr (940 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) Mar. 16, 1973, gage height, 12.30 ft (3.749 m); minimum, 21 ft³/s (0.595 m³/s) Jan. 18, 1981, gage height, 1.13 ft (0.344 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,350 ft³/s (123 m³/s) at 2115 hours, Feb. 10, gage height, 6.60 ft (2.012 m), no other peak above base of 3,100 ft³/s (87.8 m³/s); minimum discharge, 21 ft³/s (0.595 m³/s) Jan. 18, result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	87	172	87	109	286	518	258	298	112	140	109
2	68	78	153	82	771	261	429	261	282	108	156	96
3	69	72	136	76	370	232	357	227	340	92	178	80
4	56	71	119	74	272	245	315	210	475	99	135	143
5	56	72	110	44	224	449	559	197	432	95	111	112
6	61	64	101	80	206	509	437	190	434	172	206	93
7	51	59	94	95	183	423	374	194	670	117	302	182
8	47	58	89	67	191	355	329	175	501	114	374	185
9	44	57	129	73	160	308	328	161	395	98	288	152
10	42	54	282	61	1240	274	295	152	333	87	216	123
11	39	51	209	43	2300	249	269	233	348	102	178	106
12	36	48	182	45	897	226	249	184	276	111	157	95
13	35	48	165	60	556	210	231	169	277	81	133	87
14	35	47	146	84	414	212	221	157	298	74	114	80
15	34	147	131	69	341	187	243	165	244	77	101	102
16	33	159	125	59	303	201	204	153	213	158	97	380
17	31	146	115	49	309	180	301	143	196	195	115	219
18	55	336	105	44	626	173	402	137	179	157	128	173
19	298	243	101	72	729	169	374	179	163	194	105	149
20	116	187	92	59	654	160	872	215	154	137	101	130
21	83	154	82	79	514	153	980	234	153	178	270	114
22	70	127	86	71	420	187	620	205	132	121	182	102
23	63	127	82	62	441	200	742	184	249	100	143	94
24	56	338	117	57	363	181	1240	167	142	89	119	86
25	110	311	143	56	317	174	740	159	122	104	105	80
26	99	251	99	57	286	170	536	148	123	80	95	76
27	77	291	95	121	259	168	421	411	103	73	91	72
28	173	276	91	135	240	171	350	755	95	77	83	69
29	150	233	92	99	---	175	332	561	90	145	76	64
30	117	196	97	101	---	874	289	400	86	204	76	63
31	100	---	90	92	---	570	---	338	---	128	75	---
TOTAL	2385	4388	3830	2253	13695	8332	13557	7322	7803	3679	4650	3616
MEAN	76.9	146	124	72.7	489	269	452	236	260	119	150	121
MAX	298	338	282	135	2300	874	1240	755	670	204	374	380
MIN	31	47	82	43	109	153	204	137	86	73	75	63
CFSM	.73	1.38	1.17	.69	4.61	2.54	4.26	2.23	2.45	1.12	1.42	1.14
IN.	.84	1.54	1.34	.79	4.81	2.92	4.76	2.57	2.74	1.29	1.63	1.27
CAL YR 1980	TOTAL	79736	MEAN 218	MAX 3350	MIN 30	CFSM 2.06	IN 27.98					
WTR YR 1981	TOTAL	75510	MEAN 207	MAX 2300	MIN 31	CFSM 1.95	IN 26.50					

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

REMARKS.--Missing record due to monitor malfunction and damage to the installation by high water. The instruments were reinstalled in July 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C June 23, 1964, July 3, 1970; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum not determined; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 02...	1300	66	21	18.0	19	3.4
NOV 12...	1145	48	21	5.5	8	1.0
DEC 16...	1155	124	18	4.5	<1	.33
FEB 05...	1145	178	18	.0	3	1.4
MAR 19...	1300	156	17	4.5	<1	.21
MAY 06...	1500	194	19	16.0	1	.52
JUN 24...	1015	136	20	19.5	3	1.1
AUG 04...	1530	129	23	20.5	<1	--
SEP 17...	1145	222	21	16.5	2	1.2

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on right bank on downstream side of bridge on U. S. highway 411, 0.8 mi (1.3 km) downstream from Crooked Creek, 5.0 mi (8.0 km) east of Maryville, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--269 mi² (697 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft (259.080 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverted an average of about 2.5 ft³/s (0.071 m³/s) for municipal supply 300 ft (90 m) upstream from gage.

AVERAGE DISCHARGE.--30 years, 534 ft³/s (15.12 m³/s), 26.96 in/yr (685 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft³/s (912 m³/s) Mar. 12, 1963, gage height, 24.20 ft (7.376 m), from rating curve extended above 20,000 ft³/s (566 m³/s) on basis of area-velocity study and road overflow computations; minimum, 32 ft³/s (0.91 m³/s) Aug. 27, 1956; minimum gage height, 6.16 ft (1.878 m) Aug. 11, 1980; minimum daily, 44 ft³/s (1.25 m³/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft (9.4 m), discharge, 50,000 ft³/s (1,420 m³/s), and flood of April 1, 1896, reached a stage of 26 ft (7.9 m), discharge, 36,000 ft³/s (1,020 m³/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,830 ft³/s (193 m³/s), at 0030 hours Feb. 11, gage height, 13.53 ft (4.124 m), no other peak above base of 6,000 ft³/s (170 m³/s); minimum, 57 ft³/s (1.61 m³/s) Oct. 17; minimum gage height, 6.20 ft (1.890 m) Jan. 18, 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	134	258	143	197	433	724	473	525	216	221	154
2	120	122	227	134	1830	424	657	466	830	267	281	185
3	113	111	206	127	861	373	534	415	866	213	287	187
4	104	124	183	124	529	382	472	385	2270	210	235	476
5	98	133	169	70	411	721	1110	362	1510	204	202	314
6	106	109	159	110	365	837	848	344	2390	291	238	224
7	97	101	149	140	313	690	655	364	2330	227	699	404
8	88	96	141	105	320	576	560	334	1180	218	665	332
9	83	96	210	110	294	497	551	305	846	190	488	277
10	78	94	494	100	1190	441	524	292	709	170	357	230
11	75	90	388	75	4050	398	459	507	998	155	293	202
12	72	83	313	80	1460	362	425	396	637	197	257	181
13	67	81	271	90	955	335	395	346	528	152	230	168
14	64	80	240	130	686	337	386	321	558	137	202	155
15	64	169	215	120	565	296	415	358	456	138	181	275
16	63	322	202	110	494	302	351	309	408	147	176	1110
17	61	229	188	90	467	292	600	281	373	347	182	552
18	64	463	171	73	775	270	839	274	345	765	204	389
19	319	412	161	73	1300	270	705	312	316	604	203	326
20	201	299	151	104	1100	249	1570	364	303	287	175	286
21	134	242	136	119	859	238	2000	411	302	366	430	256
22	112	203	125	130	698	265	1130	352	309	263	325	232
23	98	188	137	113	699	345	1270	315	1130	212	246	202
24	92	419	144	104	597	286	2870	288	413	190	213	173
25	113	479	238	99	513	268	1460	263	313	219	188	157
26	185	373	155	99	461	258	993	269	301	180	170	148
27	125	440	163	146	417	251	775	606	253	156	175	140
28	173	440	145	260	384	249	644	1170	230	152	158	133
29	232	355	152	195	---	252	604	894	216	199	145	129
30	175	300	156	186	---	1060	544	660	203	296	140	122
31	152	---	155	198	---	948	---	616	---	225	136	---
TOTAL	3674	6787	6202	3757	22790	12905	25070	13052	22048	7593	8102	8119
MEAN	119	226	200	121	814	416	836	421	735	245	261	271
MAX	319	479	494	260	4050	1060	2870	1170	2390	765	699	1110
MIN	61	80	125	70	197	238	351	263	203	137	136	122
CFSM	.44	.84	.74	.45	3.03	1.55	3.11	1.57	2.73	.91	.97	1.01
IN.	.51	.94	.86	.52	3.15	1.78	3.47	1.80	3.05	1.05	1.12	1.12
CAL YR 1980	TOTAL	160474	MEAN	438	MAX	9130	MIN	59	CFSM	1.63	IN	22.19
WTR YR 1981	TOTAL	140099	MEAN	384	MAX	4050	MIN	61	CFSM	1.43	IN	19.37

TENNESSEE RIVER BASIN

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03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 01...	1400	143	108	18.0	10	3.9
NOV 14...	1600	80	120	10.5	6	1.3
DEC 19...	1130	153	92	5.0	12	5.0
FEB 13...	1445	852	57	2.5	6	14
APR 07...	1115	688	67	10.0	9	17
MAY 07...	1540	362	108	16.0	10	9.8
JUN 24...	0800	416	100	22.0	49	55
AUG 04...	1030	234	97	22.0	11	6.9
SEP 17...	1300	536	94	17.5	23	33
22...	1020	227	125	15.0	--	--
25...	1100	152	140	15.5	--	--
29...	1100	131	145	15.5	--	--

TENNESSEE RIVER BASIN

03518500 TELlico RIVER AT TELlico PLAINS, TN

LOCATION.--Lat 35°21'42", long 84°16'44", Monroe County, Hydrologic Unit 06010204, on right bank 1,300 ft (400 m) upstream from bridge on Tellico Plains-Ballplay Road, 0.4 mi (0.6 km) downstream from Laurel Creek, 0.8 mi (1.3 km) east of Tellico Plains, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year. Published as "near Tellico Plains" October 1927 to September 1930.

REVISED RECORDS.--WSP 1336: 1927-28(M), 1936, 1940, 1944.

GAGE.--Water-stage recorder. Datum of gage is 846.64 ft (258.056 m) National Geodetic Vertical Datum of 1929. July 20, 1925, to Sept. 30, 1927, nonrecording gage at same site and datum. Oct. 1, 1927, to Sept. 30, 1930, nonrecording gage at site 0.5 mi (0.8 km) upstream at datum 8.29 ft (2.527 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--56 years, 284 ft³/s (8.043 m³/s), 32.68 in/yr (830 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft³/s (564 m³/s) Mar. 16, 1973, gage height, 14.18 ft (4.322 m) from dross line in well, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum, 13 ft³/s (0.37 m³/s) Sept. 7, 1925, gage height, 0.25 ft (0.076 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1840 reached a stage of 15 ft (4.6 m), discharge, about 21,500 ft³/s (609 m³/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,990 ft³/s (170 m³/s) at 1945 hours Feb. 10, gage height, 9.33 ft (2.844 m), no other peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 23 ft³/s (0.65 m³/s) Jan. 5, gage height, 0.64 ft (0.195 m), result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	52	83	63	79	207	369	239	324	104	96	103
2	60	49	78	61	696	189	304	231	333	110	126	113
3	54	47	74	58	237	172	264	210	467	108	119	71
4	49	47	69	58	164	179	240	196	733	102	92	534
5	46	51	66	48	135	285	603	186	536	106	82	155
6	48	46	64	58	131	249	449	178	396	163	79	115
7	45	44	63	76	108	220	347	188	394	108	111	175
8	43	44	61	70	114	200	302	173	398	112	225	156
9	42	44	100	69	105	184	362	161	325	96	137	116
10	41	43	376	52	1690	173	356	160	305	90	100	92
11	40	42	167	56	1690	167	317	513	640	88	88	80
12	38	40	126	50	561	159	290	299	374	90	85	74
13	36	40	108	72	361	153	257	249	306	88	76	69
14	36	40	96	68	288	160	240	219	258	79	71	65
15	36	123	88	63	243	146	273	214	220	76	66	80
16	36	142	84	58	218	163	229	197	203	83	67	335
17	36	90	79	88	215	154	261	183	185	140	67	147
18	40	114	74	99	310	145	267	177	174	130	70	109
19	196	114	71	57	425	146	241	270	157	165	69	96
20	66	86	68	57	416	137	239	228	150	96	71	87
21	49	76	58	79	331	134	228	210	155	83	103	79
22	45	68	82	72	282	182	209	190	140	81	75	73
23	43	69	68	62	323	213	664	174	157	69	65	69
24	41	171	73	60	269	180	994	163	137	71	61	65
25	61	147	107	56	236	170	499	156	123	137	58	62
26	76	110	68	57	217	164	376	157	119	81	55	60
27	53	128	74	90	200	158	318	349	110	68	53	58
28	111	130	68	102	186	152	284	469	108	125	52	56
29	87	104	70	75	---	147	302	338	104	215	59	54
30	64	92	69	77	---	794	273	265	102	124	89	52
31	57	---	65	88	---	511	---	254	---	97	69	---
TOTAL	1758	2393	2797	2099	10230	6393	10357	7196	8133	3285	2636	3400
MEAN	56.7	79.8	90.2	67.7	365	206	345	232	271	106	85.0	113
MAX	196	171	376	102	1690	794	994	513	733	215	225	534
MIN	36	40	58	48	79	134	209	156	102	68	52	52
CFSM	.48	.68	.76	.57	3.09	1.75	2.92	1.97	2.30	.90	.72	.96
IN.	.55	.75	.88	.66	3.23	2.02	3.27	2.27	2.56	1.04	.83	1.07
CAL YR 1980	TOTAL	90422	MEAN 247	MAX	4690	MIN 34	CFSM 2.09	IN 28.51				
WTR YR 1981	TOTAL	60677	MEAN 166	MAX	1690	MIN 36	CFSM 1.41	IN 19.13				

03518500 TELlico RIVER AT TELlico PLAINS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1964 to September 1970, October 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 21...	1130	51	36	11.0	1	.14
DEC 03...	1045	74	54	4.5	1	.20
JAN 13...	1245	43	28	1.0	15	1.7
FEB 25...	1115	246	20	5.5	3	2.0
MAR 31...	1015	519	22	11.0	5	7.0
MAY 12...	1150	304	22	11.0	4	3.3
JUN 16...	1220	208	24	22.0	4	2.2
JUL 29...	1115	302	33	24.0	61	50
SEP 02...	1330	102	33	23.0	13	3.6

03528000 CLINCH RIVER ABOVE TAZEWEEL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi (0.6 km) upstream from Grissom Island, 4.6 mi (7.4 km) downstream from Big War Creek, 10 mi (16 km) east of Tazewell, and at mile 159.8 (257.1 km).

DRAINAGE AREA.--1,474 mi² (3,818 km²).

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,060.7 ft (323.30 m) National Geodetic Vertical Datum of 1929. Apr. 1, 1919 to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi (37.5 km) downstream of datum 102.7 ft (31.30 m) lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi (12.9 km) downstream at datum 47.2 ft (14.39 m) lower. Water-stage recorder at present site and datum since July 29, 1935.

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

AVERAGE DISCHARGE.--63 years, 2,101 ft³/s (59.50 m³/s), 19.36 in/yr (492 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 98,100 ft³/s (2,780 m³/s) Apr. 5, 1977, gage height, 29.32 ft (8.937 m), from floodmarks; minimum, 108 ft³/s (3.06 m³/s) Sept. 11, 1925; minimum gage height, at present site and datum, 0.33 ft (0.101 m) Sept. 20, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft (7.3 m), present site and datum, from information by local resident; discharge, about 66,000 ft³/s (1,870 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft³/s (314 m³/s), at 2000 hours June 7, gage height, 8.41 ft (2.563 m), no peak above base of 14,000 ft³/s (396 m³/s); minimum discharge, 206 ft³/s (5.83 m³/s) Sept. 1; minimum gage height, 0.68 ft (0.207 m) Oct. 20-22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	290	642	360	553	1530	2480	1400	2910	639	366	242
2	266	269	550	355	2750	1360	2130	1260	3130	1310	350	271
3	250	252	491	352	4370	1240	1890	1150	4180	960	326	242
4	246	250	444	345	3030	1150	1700	1040	4660	912	312	263
5	253	251	409	320	1900	1590	2090	936	3510	730	294	298
6	251	253	377	327	1290	2950	2980	865	3670	687	303	426
7	246	246	357	280	1090	3700	2840	811	9200	1160	345	1240
8	242	246	341	301	991	3280	2350	759	8980	1460	1610	1020
9	237	245	362	298	887	2500	1990	716	6230	1000	1960	560
10	235	241	475	340	1090	1980	1840	680	4180	819	1580	471
11	233	233	560	413	3690	1650	1820	687	3080	680	944	393
12	230	229	557	314	5840	1430	1970	716	2410	618	694	336
13	227	227	527	333	5850	1260	1850	730	2000	592	530	298
14	225	225	497	295	4520	1130	1710	716	1710	612	448	271
15	223	225	461	273	1980	1020	1930	716	1960	530	409	781
16	221	225	424	273	1630	958	1830	774	1730	512	482	3760
17	221	231	396	381	1500	944	1860	796	1410	653	524	4500
18	221	286	370	378	1930	981	2260	737	1170	912	1240	2850
19	221	352	350	340	2780	1140	3590	928	1020	737	694	1700
20	220	455	333	254	3150	1120	5520	1790	912	618	488	1140
21	218	470	309	342	3510	1050	7700	5200	842	572	448	842
22	233	447	272	405	3460	997	7130	4640	781	518	371	680
23	230	407	258	464	3000	1030	4720	2820	730	471	326	572
24	227	497	281	513	2810	1160	3650	2030	659	448	298	494
25	225	858	312	555	3150	1250	3210	1580	612	471	280	442
26	236	1320	348	533	2720	1440	2810	1290	592	431	263	403
27	266	998	324	495	2180	1610	2390	1100	625	393	250	371
28	341	905	333	488	1790	1580	2030	1230	612	376	237	345
29	399	884	329	543	---	1440	1760	2150	646	403	225	326
30	397	777	338	581	---	1860	1550	5260	548	426	218	312
31	332	---	351	577	---	2560	---	4150	---	393	214	---
TOTAL	7844	12794	12378	12028	73441	48890	83580	49657	74699	21043	17029	25849
MEAN	253	426	399	388	2623	1577	2786	1602	2490	679	549	862
MAX	399	1320	642	581	5850	3700	7700	5260	9200	1460	1960	4500
MIN	218	225	258	254	553	944	1550	680	548	376	214	242
CFSM	.17	.29	.27	.26	1.78	1.07	1.89	1.09	1.69	.46	.37	.59
IN.	.20	.32	.31	.30	1.85	1.23	2.11	1.25	1.89	.53	.43	.65
CAL YR 1980	TOTAL	611432	MEAN	1671	MAX	17700	MIN	218	CFSM	1.13	IN	15.43
WTR YR 1981	TOTAL	439232	MEAN	1203	MAX	9200	MIN	214	CFSM	.82	IN	11.09

03532000 POWELL RIVER NEAR ARTHUR, TN

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, Hydrologic Unit 06010206, on left bank 500 ft (150 m) upstream from bridge on U. S. Highway 25E, 2.3 mi (3.7 km) east of Arthur, 2.4 mi (3.9 km) downstream from Indian Creek, and at mile 65.4 (105.2 km).

DRAINAGE AREA.--685 mi² (1,774 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1919 to current year. Gage-height records collected at same site December 1892 to August 1893, September 1904 to March 1925 are in reports of U. S. Weather Bureau (published as "near Tazewell").

REVISED RECORDS.--WSP 1336: 1920, 1921(M), 1923.

GAGE.--Water-stage recorder. Datum of gage is 1,043.84 ft (318.162 m) Tennessee River Survey datum. Prior to July 23, 1927, nonrecording gage, and July 23, 1927, to Sept. 30, 1970, water-stage recorder, at same site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--62 years, 1,145 ft³/s (32.43 m³/s), 22.70 in/yr (577 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,500 ft³/s (1,690 m³/s) Apr. 6, 1977, gage height, 38.96 ft (11.875 m), from floodmark; minimum, 47 ft³/s (1.33 m³/s) Jan. 6, 1940, result of freezeup; minimum daily, 60 ft³/s (1.70 m³/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 6, 1975, result of dredging.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1826 reached a stage of 29.5 ft (8.99 m) present datum, discharge, 34,000 ft³/s (963 m³/s), and flood of Jan. 29, 1918, reached a stage of 29.2 ft (8.90 m) present datum, discharge, 33,000 ft³/s (935 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,080 ft³/s (229 m³/s) at 0600 hours, June 8, gage height, 12.63 ft (3.850 m), no peak above base of 9,000 ft³/s (255 m³/s); minimum, 74 ft³/s (2.10 m³/s) Jan. 18, gage height, 1.41 ft (0.430 m) result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	126	314	168	246	797	1730	706	411	252	307	190
2	139	119	266	170	1990	732	1400	646	601	268	252	193
3	139	115	233	173	2800	679	1170	589	678	650	240	205
4	139	122	209	164	1880	643	995	543	824	586	219	215
5	138	125	195	149	988	946	1440	496	678	435	204	207
6	132	126	185	141	714	1810	1860	460	833	391	306	200
7	130	127	174	142	601	2020	1970	433	4180	389	393	207
8	129	138	165	127	543	1560	1540	407	6720	800	3190	261
9	123	147	215	134	505	1200	1270	389	2990	764	1960	255
10	119	132	354	131	571	979	1160	365	1820	548	1190	271
11	114	122	398	118	1840	845	1180	361	1340	441	785	250
12	108	115	468	133	4320	754	1110	358	1050	378	739	211
13	104	111	367	133	2900	684	1070	365	871	349	541	187
14	102	110	300	136	1630	629	971	345	754	320	441	171
15	102	110	256	129	1210	582	903	328	665	312	393	212
16	102	110	231	127	984	570	828	312	601	315	371	733
17	102	122	212	118	895	565	821	316	559	416	408	1230
18	102	216	194	107	988	654	1000	309	505	384	382	871
19	110	250	183	124	1300	662	1480	358	450	499	450	590
20	112	240	173	130	1380	628	3360	496	419	385	367	438
21	110	295	157	169	1410	592	4850	932	403	374	532	358
22	112	217	150	281	1380	571	3710	776	368	336	508	310
23	114	182	142	317	1420	721	2310	612	362	288	378	275
24	114	402	149	309	1550	893	1700	496	351	273	318	246
25	164	517	164	276	1450	946	1470	418	326	257	283	225
26	178	550	194	242	1210	896	1260	365	344	253	258	211
27	153	528	206	223	1020	880	1090	351	328	265	239	200
28	143	438	198	215	885	826	950	386	302	266	227	189
29	162	360	183	210	---	767	846	365	280	341	215	181
30	159	353	178	225	---	1160	768	358	256	306	205	173
31	140	---	172	238	---	1570	---	393	---	314	196	---
TOTAL	3943	6625	6985	5459	38610	27761	46212	14034	30269	12155	16497	9465
MEAN	127	221	225	176	1379	896	1540	453	1009	392	532	316
MAX	178	550	468	317	4320	2020	4850	932	6720	800	3190	1230
MIN	102	110	142	107	246	565	768	309	256	252	196	171
CFSM	.19	.32	.33	.26	2.01	1.31	2.25	.66	1.47	.57	.78	.46
IN.	.21	.36	.38	.30	2.10	1.51	2.51	.76	1.64	.66	.90	.51
CAL YR 1980	TOTAL	307045	MEAN 839	MAX	12300	MIN 102	CFSM 1.23	IN 16.67				
WTR YR 1981	TOTAL	218015	MEAN 597	MAX	6720	MIN 102	CFSM .87	IN 11.84				

TENNESSEE RIVER BASIN

03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-65, 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
02...	1430	136	350	19.0	10	3.7
NOV						
13...	1050	115	225	8.0	1	.31
JAN						
06...	1220	118	330	1.5	20	6.4
FEB						
24...	1445	1580	265	8.5	46	196
APR						
17...	1500	786	250	16.5	13	28
MAY						
20...	1145	468	320	17.5	7	8.8
JUL						
10...	1545	499	318	26.5	22	30
AUG						
21...	1030	543	--	--	32	47

TENNESSEE RIVER BASIN

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03535000 BULLRUN CREEK NEAR HALLS CROSSROADS, TN

LOCATION.--Lat 36°06'52", long 83°59'16", Knox County, Hydrologic Unit 06010207, on left bank on downstream side of bridge on U. S. Highway 441, 2.1 mi (3.4 km) downstream from Smith Branch, 4 mi (6 km) northwest of Halls Crossroads, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--68.5 mi² (177.4 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 854.91 ft (260.577 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--24 years, 101 ft³/s (2.860 m³/s), 20.02 in/yr (509 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft³/s (518 m³/s) Apr. 4, 1977, gage height, 13.28 ft (4.048 m), from rating curve extended above 5,000 ft³/s (142 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 2.5 ft³/s (0.071 m³/s) Aug. 12, 1974, caused by regulation upstream of unknown origin.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,560 ft³/s (44.2 m³/s) at 0300 hours Sept. 16, gage height, 7.92 ft (2.414 m), no other peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 6.0 ft³/s (0.17 m³/s) Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.8	13	10	13	36	113	34	69	16	10	15
2	9.4	8.8	12	9.6	20	33	88	32	96	35	17	16
3	9.3	8.6	11	9.3	75	30	70	30	96	27	19	15
4	9.1	9.2	10	9.0	59	40	61	28	214	22	14	24
5	8.4	9.6	10	8.8	46	95	247	26	246	18	11	29
6	8.1	9.1	9.8	8.5	38	91	156	25	471	19	14	20
7	8.0	8.8	9.7	8.2	26	68	106	25	360	18	25	50
8	7.9	8.8	9.5	9.0	27	54	84	24	269	16	41	24
9	8.0	8.8	30	9.5	27	46	85	22	147	14	23	19
10	7.3	8.8	41	9.0	164	41	77	21	102	12	16	15
11	7.1	8.0	25	8.0	336	37	66	22	90	14	13	13
12	6.4	7.9	19	7.0	154	35	57	21	66	16	88	12
13	6.3	7.8	16	6.5	119	33	53	19	58	24	29	11
14	6.2	8.1	14	6.2	64	32	47	18	47	15	19	11
15	6.8	10	12	6.5	53	29	70	20	40	13	16	411
16	7.2	13	12	7.0	47	31	54	19	35	36	16	613
17	7.1	17	11	7.5	57	30	133	18	32	23	21	109
18	7.8	34	11	7.0	87	29	175	18	28	16	20	61
19	9.9	20	10	6.5	99	28	122	48	26	20	23	42
20	10	13	9.7	6.2	222	27	165	50	26	25	16	33
21	8.9	11	11	6.5	139	26	156	49	25	25	88	28
22	8.5	9.7	10	8.0	91	33	117	32	23	17	41	24
23	8.1	11	11	9.0	83	112	97	25	27	13	25	20
24	8.3	79	12	8.5	69	79	83	22	20	12	20	18
25	16	35	16	8.0	56	63	66	20	30	11	16	17
26	22	19	16	8.0	48	53	55	19	52	11	14	16
27	13	30	16	7.5	42	47	49	28	24	10	13	15
28	11	28	13	8.0	38	42	43	45	19	11	12	14
29	10	19	11	9.0	---	39	40	30	17	14	12	14
30	9.6	15	11	8.0	---	301	38	30	16	13	12	13
31	9.2	---	10	9.0	---	186	---	47	---	10	11	---
TOTAL	285.9	484.8	432.7	248.8	2299	1826	2773	867	2771	546	715	1722
MEAN	9.22	16.2	14.0	8.03	82.1	58.9	92.4	28.0	92.4	17.6	23.1	57.4
MAX	22	79	41	10	336	301	247	50	471	36	88	613
MIN	6.2	7.8	9.5	6.2	13	26	38	18	16	10	10	11
CFSM	.14	.24	.20	.12	1.20	.86	1.35	.41	1.35	.26	.34	.84
IN.	.16	.26	.23	.14	1.25	.99	1.51	.47	1.50	.30	.39	.94
CAL YR 1980	TOTAL	28387.3	MEAN	77.6	MAX	2520	MIN	5.9	CFSM	1.13	IN	15.42
WTR YR 1981	TOTAL	14971.2	MEAN	41.0	MAX	613	MIN	6.2	CFSM	.60	IN	8.13

TENNESSEE RIVER BASIN

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°53'07", long 84°18'03", Loudon County, Hydrologic Unit 06010201, at downstream side of Melton Hill Dam, 1.4 mi (2.2 km) downstream from Hope Creek, and at mile 23.1 (37.2 km).

DRAINAGE AREA.--3,343 mi² (8,658 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1936 to January 1941 (published as "near Wheat"), February 1941 to September 1960 (published as "near Scarboro"), October 1960 to September 1964 (published as "at Melton Hill Dam"), October 1967 to September 1968 (published as "near Oak Ridge"), October 1978 to current year. Equivalent record for the period October 1964 to December 1978 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 1941, at site 8.7 miles (14.0 km) downstream at datum 717.36 ft (218.651 m) higher. February 1941 to September 1962 at site 15.9 miles (25.6 km) upstream at datum 753.35 ft (229.621 m) higher. October 1962 to September 1964, headwater gage at upstream side of dam at present datum. October 1967 to September 1968, at site 8.6 miles (13.8 km) downstream at datum 731.62 ft (222.998 m) higher.

REMARKS.--Records good. Flow regulated by Melton Hill Lake (station 03535900) and Norris Lake (station 03532500) above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--32 years, (1936-64, 1967-68, 1978-81), 4,626 ft³/s (131 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 39,600 ft³/s (1,120 m³/s) Feb. 18, 1937; minimum daily, no flow, many days in 1963, 1964, Dec. 2, 1978, Mar. 16, May 13, and June 1, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 10,800 ft³/s (459 m³/s) Sept. 16; minimum daily, no flow many days November to March, and May.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	1030	1620	4080	0	0	879	430	1120	3150	3830	6980
2	1970	22	1470	3030	5520	22	1200	1800	1320	3450	2980	5910
3	2100	2620	870	1290	6850	3230	1250	1900	1330	2150	5690	5900
4	1780	3760	410	44	5360	2800	66	1780	2420	1790	5950	6520
5	1920	4630	0	4000	2190	860	22	22	774	1770	6340	3990
6	2300	4040	0	3130	22	22	1430	44	2970	4000	5740	950
7	3890	3380	22	2990	22	0	1230	0	3570	4620	5530	1620
8	5570	3040	858	3740	1350	0	1020	0	3240	6270	3860	5530
9	6310	1670	22	3830	1740	0	1340	22	6270	5390	1960	6780
10	2640	5160	0	3100	3450	0	1560	22	3020	4750	6220	6740
11	433	4890	2680	2180	0	0	22	22	3360	3960	5610	5450
12	438	6270	2660	3350	3390	0	22	804	3090	2310	6210	5270
13	2250	1920	2250	5480	1140	44	1020	842	1540	7620	7710	3220
14	2340	850	2180	7440	22	22	562	454	1030	6260	6470	5420
15	3030	22	2870	3230	0	22	405	1410	3310	5460	4750	5550
16	3150	0	4350	1180	685	0	429	540	2390	4100	2950	10800
17	2830	1660	44840	0	871	0	417	490	2520	4360	5500	7790
18	3450	1670	1280	0	0	690	22	1850	2170	4420	5770	6370
19	3150	2110	1500	2100	22	1120	22	2420	2050	3600	5700	4490
20	1610	1940	1310	2840	0	0	1290	2820	866	6650	4090	3550
21	7020	2220	1850	3250	22	22	1210	986	480	6540	6470	4340
22	3190	1430	1810	2280	22	0	1360	22	3380	6890	6870	5780
23	3040	1260	1530	950	3070	22	1710	22	5020	4050	4820	5140
24	1040	3080	1640	396	3840	810	2170	44	5490	2900	6370	4800
25	22	4500	0	22	3460	490	1210	44	4840	3200	5860	5000
26	22	5660	3530	0	0	413	1400	0	3890	3560	6160	2250
27	4890	1100	3330	2600	0	404	990	1470	4160	5310	6140	870
28	6500	0	3550	1740	0	448	488	2020	2230	6020	5320	4490
29	6920	22	7260	22	---	433	474	3610	3890	6250	4830	5070
30	4820	22	7460	0	---	442	1340	438	3700	6180	3370	4950
31	4970	---	6970	0	---	1250	---	920	---	6210	6150	---
TOTAL	95525	69978	70122	68294	43048	13566	26560	26948	85440	143190	165220	151520
MEAN	3081	2333	2262	2203	1537	438	885	869	2848	4619	5330	5051
MAX	7020	6270	7460	7440	6850	3230	2170	3610	6270	7620	7710	10800
MIN	22	0	0	0	0	0	22	0	480	1770	1960	870

CAL YR 1980 TOTAL 1764153 MEAN 4820 MAX 16200 MIN 0 MEAN‡ 4096 CFSM‡ 1.23 IN.‡ 16.68
WTR YR 1981 TOTAL 959411 MEAN 2629 MAX 10800 MIN 0 MEAN‡ 2771 CFSM‡ .83 IN.‡ 11.25

‡ Adjusted for change in contents in Norris and Melton Hill Lakes.

TENNESSEE RIVER BASIN

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03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March to September 1981.

WATER TEMPERATURES: March to September 1981.

INSTRUMENTATION.--Water-quality monitor since March 21, 1981.

REMARKS.--Flow regulated by Melton Hill and Norris Lakes.

EXTREMES FOR PERIOD OF DAILY RECORD.--March to September, 1981:

SPECIFIC CONDUCTANCE: Maximum, 292 micromhos May 27, 1981; minimum, 224 micromhos Mar. 30, 1981.

WATER TEMPERATURES: Maximum, 22.5°C June 11-16, 18, 23-26, 1981; minimum, 8.5°C Mar. 23-24, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 19...	1200	100	290	7.7	14.5	.35	8.8	25	K5	130	10	37
APR 07...	1200	100	255	8.6	12.5	2.4	12.2	K3	K9	120	22	31
JUN 22...	1300	5500	275	7.6	21.0	4.4	6.0	50	K15	120	10	34
JUL 09...	1140	10600	275	7.4	20.5	2.1	7.5	31	K18	120	20	33
AUG 05...	1130	100	270	7.6	18.5	3.1	8.8	K3	K4	130	20	35
25...	1215	1200	260	7.5	19.5	.50	7.9	K2	84	120	10	33

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 19...	10	3.2	5	.1	1.4	120	22	3.1	.1	4.0	152
APR 07...	9.5	4.5	8	.2	1.6	98	23	4.2	.1	<.1	142
JUN 22...	9.6	4.3	7	.2	1.8	110	21	4.1	<.1	3.3	154
JUL 09...	10	4.9	8	.2	1.7	100	20	4.1	<.1	2.4	150
AUG 05...	10	5.8	9	.2	1.4	110	24	4.4	<.1	3.3	149
25...	8.7	4.3	7	.2	1.6	110	21	4.6	<.1	3.8	158

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
NOV 19...	154	.21	41.0	.22	.23	.030	.000	.50	.21	.53	.21
APR 07...	134	.19	38.3	.11	.11	.030	.040	.26	.11	.29	.15
JUN 22...	146	.21	2290	.33	.34	.040	.050	.50	.19	.54	.24
JUL 09...	137	.20	4290	.27	.27	.020	.010	.28	.26	.30	.27
AUG 05...	152	.20	40.2	.49	.51	.010	<.010	.34	--	.35	--
25...	144	.21	512	.56	.10	.020	.010	.32	--	.34	--

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

TENNESSEE RIVER BASIN

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
NOV 19...	.75	.44	.020	.010	--	.6	5.8	8	2.2	70	1700
APR 07...	.40	.26	.020	.010	--	.3	2.1	6	1.6	73	--
JUN 22...	.87	.58	.030	<.010	--	.9	2.9	14	208	68	7600
JUL 09...	.57	.54	<.010	<.010	--	.6	1.9	2	57	58	90
AUG 05...	.84	--	.020	.010	2.1	--	--	3	.81	89	16000
25...	.90	--	.050	<.010	1.2	--	--	6	19	82	--

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 19...	1	1	100	40	0	1	10	<10	1	1
APR 07...	0	0	100	30	0	2	<10	<10	0	0
JUN 22...	0	0	100	40	1	2	--	20	2	1
JUL 09...	1	1	100	40	1	<1	10	<10	1	1

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 19...	1	0	320	0	0	0	90	40	<.1
APR 07...	7	1	130	<10	9	0	20	3	<.1
JUN 22...	2	1	260	<10	5	4	120	9	<.1
JUL 09...	1	1	110	<10	6	1	30	<1	<.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	<.1	4	0	0	0	0	0	9	2
APR 07...	<.1	6	0	1	1	0	0	30	<4
JUN 22...	<.1	5	4	1	1	0	0	10	10
JUL 09...	<.1	1	3	1	1	0	0	20	<4

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER),TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 19,80		JUN 22,81		JUL 9,81		AUG 5,81		AUG 25,81	
TIME	1200		1300		1140		1130		1215	
TOTAL CELLS/ML	1700		7600		90		16000		1200	
DIVERSITY: DIVISION	1.4		1.5		1.7		1.3		1.6	
..CLASS	1.4		1.5		1.7		1.3		1.6	
..ORDER	1.5		2.1		1.7		1.9		2.0	
...FAMILY	1.6		2.5		1.7		2.6		2.1	
....GENUS	2.1		2.6		1.7		2.9		2.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...MICRACTINIACEAE										
....GOLENKINIA	--	-			--	-	440	3	--	-
...MICRACTINIUM	--	-	230	3	51#	57	--	-	58	5
...OOCYSTACEAE										
....ANKISTRODESMUS	26	1	75	1	--	-	320	2	170	14
....DICTYOSPHAERIUM	--	-	150	2	--	-	--	-	--	-
....SELENASTRUM	--	-	*	0	--	-	--	-	--	-
....TETRAEDRON	--	-	130	2	--	-	*	0	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	160	1	--	-
...SCENEDESMUS	130	7	1500#	19	--	-	480	3	--	-
...VOLVOCELES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13	1	*	0	--	-	160	1	100	8
CHRYSTOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	190	11	1000	14	13	14	480	3	--	-
....MELOSIRA	720#	42	--	-	--	-	1400	9	630#	53
....STEPHANODISCUS	26	1	75	1	--	-	*	0	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	14	1
...FRAGILARIACEAE										
....SYNEDRA	--	-	150	2	--	-	720	5	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	300	4	--	-	--	-	--	-
...NITZSCHACEAE										
....NITZSCHIA	26	1	50	1	--	-	--	-	14	1
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	560	4	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	13	1	--	-	13	14	--	-	160	13
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	640	4	--	-
....ANACYSTIS	--	-	750	10	13	14	600	4	--	-
...HORMOGONALES										
...NOSTOCACEAE										
....CYLINDROSPERMUM	--	-	--	-	--	-	1800	12	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	480	3	--	-
....OSCILLATORIA	580#	34	3100#	41	--	-	--	-	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	7200#	46	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	*	0	--	-	--	-	29	2
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...CERATACEAE										
....CERATIUM	--	-	--	-	--	-	*	0	--	-
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	14	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

TENNESSEE RIVER BASIN

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	234	230	231	264	262	263
2				---	---	---	234	229	231	264	259	261
3				---	---	---	233	228	231	262	260	261
4				---	---	---	231	229	231	262	259	260
5				---	---	---	239	229	233	262	259	260
6				---	---	---	235	229	232	262	259	261
7				---	---	---	250	230	241	272	261	267
8				---	---	---	252	249	250	266	261	264
9				---	---	---	252	250	251	275	266	272
10				---	---	---	253	249	251	286	269	275
11				---	---	---	252	250	251	275	270	273
12				---	---	---	262	250	256	275	264	268
13				---	---	---	260	251	256	266	264	265
14				---	---	---	256	251	254	266	264	265
15				---	---	---	258	254	255	266	264	265
16				---	---	---	258	254	256	268	264	265
17				---	---	---	259	254	256	266	264	265
18				---	---	---	259	254	256	266	264	265
19				---	---	---	263	258	260	266	264	265
20				---	---	---	266	255	260	268	264	266
21				234	231	233	258	254	255	266	261	265
22				233	232	232	259	254	256	266	261	265
23				233	231	232	259	255	257	266	264	265
24				235	230	232	260	259	259	274	260	265
25				233	230	232	261	259	260	271	264	269
26				233	230	232	262	259	260	272	268	270
27				233	230	232	262	259	261	292	265	273
28				234	230	232	263	259	261	270	265	268
29				234	230	232	263	260	262	271	268	269
30				234	224	230	263	260	262	270	264	268
31				234	225	230	---	---	---	270	265	268
MONTH				---	---	---	266	228	251	292	259	266
	JUNE			JULY			AUGUST			SEPTEMBER		
1	271	264	269	276	266	270	272	258	265	264	259	261
2	271	268	269	271	265	269	270	260	263	267	259	262
3	271	264	268	274	261	269	271	257	265	263	258	261
4	271	265	270	271	261	269	270	255	262	266	258	260
5	274	270	272	274	268	270	270	260	268	267	258	261
6	274	268	270	274	269	271	273	268	270	262	258	259
7	271	265	269	276	268	271	274	263	269	260	258	259
8	269	260	267	272	258	267	271	261	266	260	258	259
9	270	260	266	268	257	265	269	264	265	259	257	258
10	274	265	270	268	258	267	268	258	264	258	257	258
11	274	261	270	267	266	267	267	258	262	258	256	257
12	271	261	269	274	266	268	265	256	260	258	248	256
13	271	268	270	275	255	266	263	254	259	258	256	258
14	275	270	272	273	256	265	262	253	257	257	255	256
15	278	261	271	275	255	265	269	251	259	258	255	256
16	271	268	270	273	255	266	264	250	257	257	255	256
17	275	261	269	269	255	264	268	247	258	256	254	255
18	269	260	267	268	254	263	270	246	259	256	254	255
19	270	260	268	268	262	264	269	244	256	254	251	253
20	271	260	268	273	262	265	268	243	253	254	249	251
21	275	270	272	272	262	265	266	241	253	250	249	250
22	279	271	274	269	252	263	265	240	252	251	245	248
23	283	265	277	275	252	265	263	238	252	248	245	247
24	275	264	272	271	260	266	267	237	251	247	244	246
25	275	272	274	265	260	262	261	255	259	247	243	244
26	278	271	273	275	260	266	262	260	261	245	244	245
27	275	273	274	270	259	264	262	260	261	246	244	245
28	276	272	273	274	259	266	261	259	260	249	245	247
29	276	272	273	273	258	266	261	259	260	249	248	249
30	275	262	271	273	258	265	264	259	260	250	248	249
31	---	---	---	268	258	262	263	259	260	---	---	---
MONTH	283	260	271	276	252	266	274	237	260	267	243	254

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03538225 POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°59'55", long 84°20'23", Roane County, Hydrologic Unit 06010207, on right bank, 1,000 ft (300 m) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Indian Creek, 8.2 mi (13.2 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 13.8 (22.2 km).

DRAINAGE AREA.--82.5 mi² (213.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 743.50 ft (226.619 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--21 years, 176 ft³/s (4.984 m³/s), 28.97 in/yr (736 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) Apr. 5, 1977, gage height, 27.93 ft (8.513 m) from floodmarks, from rating curve extended above 8,000 ft³/s (227 m³/s); minimum, 4.0 ft³/s (0.11 m³/s) Oct. 14, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1928, at site about 5.0 mi (8.0 km) upstream, drainage area, 55.9 mi² (144.8 km²), discharge, about 14,000 ft³/s (396 m³/s) was the greatest known since at least 1900, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) at 1600 hours Mar. 30, gage height, 10.78 ft (3.286 m), no peak above base of 1,800 ft³/s (51.0 m³/s); minimum discharge, 4.0 ft³/s (0.12 m³/s) Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	5.7	22	16	27	61	280	63	32	16	11	22
2	8.6	5.3	19	14	681	53	194	56	28	33	11	24
3	7.7	6.0	17	13	170	45	150	49	55	31	11	14
4	7.2	8.6	15	13	88	55	123	45	41	23	10	13
5	8.9	8.9	14	11	58	219	743	41	34	20	9.7	13
6	8.3	8.3	14	9.9	36	283	471	38	195	25	11	11
7	7.5	7.5	14	11	28	198	281	36	318	44	16	11
8	7.7	7.7	14	12	30	142	209	34	147	32	35	14
9	5.5	8.3	135	11	25	109	234	31	93	24	24	10
10	5.3	8.6	177	10	161	88	230	30	72	20	14	8.6
11	5.0	8.6	68	9.2	774	75	201	32	109	29	10	7.7
12	4.8	7.7	42	8.2	354	64	178	30	73	21	23	6.9
13	4.8	7.7	31	7.3	196	56	152	27	57	18	27	6.9
14	4.4	7.7	26	8.2	140	52	127	25	45	16	15	6.9
15	5.0	13	18	9.1	109	45	107	26	37	14	12	111
16	5.3	15	19	9.5	89	51	88	25	31	31	14	382
17	5.5	20	17	8.6	113	46	166	24	27	64	18	71
18	6.7	35	15	8.4	164	41	268	24	23	18	12	38
19	6.9	21	14	8.3	201	38	265	53	20	25	12	27
20	7.5	13	12	8.6	204	36	478	59	20	22	14	22
21	6.4	9.7	11	12	173	33	403	37	24	53	25	18
22	5.5	8.3	10	14	134	47	270	28	21	31	24	15
23	5.3	12	10	13	147	199	229	24	21	21	16	13
24	5.7	137	20	12	117	189	225	22	18	16	12	11
25	7.7	67	44	12	94	144	171	21	39	21	10	11
26	10	29	28	11	80	110	139	23	140	23	8.9	10
27	9.2	60	25	12	69	89	114	42	40	16	8.0	10
28	9.2	73	22	13	62	76	95	56	26	17	7.7	9.8
29	8.8	37	20	11	---	65	84	37	21	17	7.2	8.0
30	7.5	27	19	12	---	670	76	30	17	15	7.7	7.4
31	6.7	---	17	15	---	509	---	37	---	12	8.6	---
TOTAL	214.3	683.6	929	343.3	4524	3888	6751	1105	1824	768	444.8	933.2
MEAN	6.91	22.8	30.0	11.1	162	125	225	35.6	60.8	24.8	14.3	31.1
MAX	10	137	177	16	774	670	743	63	318	64	35	382
MIN	4.4	5.3	10	7.3	25	33	76	21	17	12	7.2	6.9
CFSM	.08	.28	.36	.14	1.96	1.52	2.73	.43	.74	.30	.17	.38
IN.	.10	.31	.42	.15	2.04	1.75	3.04	.50	.82	.35	.20	.42
CAL YR 1980	TOTAL	49718.6	MEAN	136	MAX	4690	MIN	4.4	CFSM	1.65	IN	22.42
WTR YR 1981	TOTAL	22408.2	MEAN	61.4	MAX	774	MIN	4.4	CFSM	.74	IN	10.10

03538225 POPLAR CREEK NEAR OAK RIDGE, TN--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
DATE	TIME									
OCT 24...	1400	5.3	340	7.6	12.5	--	150	21	203	
DEC 08...	1230	14	355	7.9	7.0	--	110	72	223	
FEB 03...	1430	159	194	6.4	1.5	13.1	34	53	128	
27...	1330	71	248	7.2	8.5	--	50	56	146	
MAR 27...	1100	88	208	7.3	9.0	--	--	49	131	
MAY 04...	1045	45	275	7.5	14.0	8.9	--	57	169	
26...	1230	21	300	7.4	18.0	6.3	--	53	200	
JUN 29...	1330	20	294	7.6	22.0	8.0	--	50	205	
JUL 23...	1130	21	265	7.7	22.5	6.3	85	38	180	
AUG 18...	1330	11	315	7.5	23.0	6.7	100	52	203	
SEP 28...	1130	10	320	7.7	17.0	7.2	--	34	204	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DATE										
OCT 24...	2.9	.28	330	20	210	180	31	.44	51	
DEC 08...	8.4	.30	220	20	160	140	5	.19	--	
FEB 03...	55.0	.17	810	40	350	290	56	24	--	
27...	28.1	.20	390	0	350	320	9	1.7	--	
MAR 27...	31.1	.18	830	40	--	250	10	2.4	--	
MAY 04...	20.5	.23	490	30	220	200	12	1.5	--	
26...	11.3	.27	560	20	220	170	19	1.1	--	
JUN 29...	11.3	.28	1000	30	220	160	31	1.7	--	
JUL 23...	10.2	.24	1200	40	260	220	99	5.6	--	
AUG 18...	6.0	.28	--	20	--	330	--	--	--	
SEP 28...	5.5	.28	670	20	250	190	17	.46	--	

03538250 EAST FORK POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°57'58", long 84°21'30", Roane County, Hydrologic Unit 06010207, near left bank, on upstream side of county road bridge, 0.3 mi (0.5 km) north of State Highway 95, 1.7 mi (2.7 km) upstream from Bear Creek, 5.8 mi (9.3 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 3.3 (5.3 km).

DRAINAGE AREA.--19.5 mi² (50.5 km²).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 754.16 ft (229.868 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow includes effect of operations of the Department of Energy's Y-12 Plant, which may add up to 20 ft³/s (0.57 m³/s), and the west end sewage treatment plant of the City of Oak Ridge, which may add up to 10 ft³/s (0.28 m³/s). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--21 years, 51.9 ft³/s (1.470 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft³/s (116 m³/s) Nov. 28, 1973, gage height, 16.0 ft (4.88 m) from floodmarks, backwater from low steel on bridge, on basis of runoff comparison with nearby stations; minimum daily, 14 ft³/s (0.40 m³/s) Oct. 8, 1978, Aug. 7, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1944, the greatest known since 1900, reached a discharge of about 4,600 ft³/s (130 m³/s) at site 5.1 mi (8.2 km) upstream, from report of the Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 328 ft³/s (9.29 m³/s) at 0015 hours Jan. 22, gage height, 4.28 ft (1.305 m), but was probably higher on Feb. 11 during period of missing record. No peaks recorded above base of 700 ft³/s (19.8 m³/s); minimum daily, 15 ft³/s (0.42 m³/s) June 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	20	22	19	50	32	80	28	26	17	18	27
2	22	19	22	19	90	31	60	27	28	32	18	21
3	22	20	21	19	135	29	50	26	44	26	19	23
4	21	27	21	18	102	31	45	24	39	19	17	25
5	20	22	21	18	53	70	130	23	31	17	16	45
6	20	21	20	19	42	65	110	22	129	22	25	19
7	20	21	19	20	36	55	90	21	81	23	27	18
8	20	21	21	19	32	45	80	20	46	21	39	19
9	20	21	87	19	30	35	70	19	37	20	18	19
10	22	20	42	20	100	33	65	19	33	21	17	18
11	21	20	29	20	250	31	60	18	49	22	18	18
12	20	20	25	21	150	29	55	18	30	19	23	18
13	21	21	24	21	70	28	50	17	26	19	18	17
14	22	21	22	19	50	26	45	17	23	19	17	17
15	21	39	21	20	45	24	36	17	22	19	17	81
16	21	22	21	22	42	27	29	18	21	29	19	80
17	22	44	20	21	45	26	71	17	15	25	20	24
18	23	35	21	20	50	26	60	17	20	19	17	21
19	25	22	22	26	80	25	52	19	20	19	20	19
20	22	21	21	21	130	25	127	40	25	21	18	17
21	22	20	21	94	100	24	81	30	18	24	43	17
22	22	19	21	123	70	30	59	25	18	19	19	18
23	22	29	21	44	60	80	53	18	22	18	18	17
24	22	87	36	35	50	60	46	17	16	19	17	18
25	34	32	25	30	45	50	44	19	28	19	17	18
26	21	28	21	27	40	45	42	21	80	18	17	16
27	21	67	20	25	35	40	38	30	18	20	18	16
28	29	32	19	26	33	36	35	26	18	19	17	16
29	22	26	19	24	---	35	32	21	17	21	17	17
30	21	23	20	24	---	200	30	21	17	19	17	17
31	21	---	19	25	---	130	---	34	---	19	17	---
TOTAL	684	840	764	878	2015	1423	1825	689	997	644	618	716
MEAN	22.1	28.0	24.6	28.3	72.0	45.9	60.8	22.2	33.2	20.8	19.9	23.9
MAX	34	87	87	123	250	200	130	40	129	32	43	81
MIN	20	19	19	18	30	24	29	17	15	17	16	16

CAL YR 1980 TOTAL 14831 MEAN 40.5 MAX 853 MIN 14
WTR YR 1981 TOTAL 12093 MEAN 33.1 MAX 250 MIN 15

NOTE.--No gage-height record Jan. 30 to Apr. 14.

TENNESSEE RIVER BASIN

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03539800 OBED RIVER NEAR LANCING, TN

LOCATION.--Lat 36°04'53", long 84°40'15", Morgan County, Hydrologic Unit 06010208, on left bank at Alley Ford, 2.9 mi (4.7 km) southwest of Lancing, 3.0 mi (4.8 km) downstream from Clear Creek, and at mile 1.5 (2.4 km).

DRAINAGE AREA.--518 mi² (1,342 km²).

PERIOD OF RECORD.--October 1956 to September 1968, March 1973 to current year. Prior to May 1957, monthly discharge only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 891.91 ft (271.854 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--20 years (water years 1957-68, 1974-81), 1,058 ft³/s (29.96 m³/s), 27.74 in/yr (705 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft³/s (2,970 m³/s), May 27, 1973, gage height, 29.51 ft (8.995 m), dross line in gage well, 30.5 ft (9.30 m), from floodmarks, from rating curve extended above 33,000 ft³/s (935 m³/s) on basis of slope conveyance study at gage height 22.40 ft (6.828 m), and slope-area measurement of peak flow; minimum, 0.4 ft³/s (0.011 m³/s) Oct. 31, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 33.9 ft (10.33 m), 35 ft (11 m) downstream from gage, from high water marks by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 8,690 ft³/s (246 m³/s) at 1200 hours, Apr. 5, gage height, 8.98 ft (2.737 m), no peak above base of 13,000 ft³/s (368 m³/s); minimum, 0.90 ft³/s (0.025 m³/s) Nov. 1, 3.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	.98	100	77	137	615	2430	600	507	44	17	23
2	3.5	.98	77	69	1360	568	1700	550	542	37	19	77
3	3.0	.96	62	66	2060	491	1320	500	870	33	17	52
4	2.5	1.1	52	61	1690	460	1060	450	1180	31	15	52
5	2.0	1.1	45	58	1020	1390	5810	400	804	28	14	49
6	1.6	2.0	39	58	886	2640	4410	350	1180	26	16	52
7	1.4	4.0	35	56	584	1900	2580	300	2780	25	19	80
8	1.3	3.9	31	54	497	1430	1810	250	2060	23	115	62
9	1.2	4.2	36	52	489	1140	1580	200	1400	21	303	42
10	1.2	3.8	379	48	1140	927	2060	180	978	20	147	39
11	1.2	3.5	590	45	3600	808	2500	180	4090	21	87	31
12	1.2	3.3	351	43	2900	698	1790	250	3200	24	64	25
13	1.1	3.1	237	43	1830	601	1410	237	1880	20	47	23
14	1.1	3.1	176	43	1160	524	1150	195	1620	16	37	19
15	1.4	4.0	138	43	961	461	972	181	1190	15	30	27
16	1.5	3.8	118	44	818	446	799	210	741	16	26	685
17	1.5	5.8	98	44	834	479	1190	190	563	17	22	566
18	1.7	6.6	87	44	952	425	2850	190	374	25	20	267
19	1.8	8.2	77	44	1640	387	2290	350	261	58	20	168
20	1.7	16	66	44	1630	347	3220	700	204	58	18	121
21	1.6	14	62	46	1310	311	3440	600	177	50	19	95
22	1.4	12	58	52	1080	331	2360	400	152	43	41	77
23	1.3	14	55	60	1280	1030	1800	300	131	56	50	62
24	1.2	23	53	70	1450	1440	1600	250	114	44	77	50
25	1.2	280	48	80	1160	1250	1400	220	107	35	61	41
26	1.0	168	172	110	969	1030	1200	190	101	30	52	34
27	1.0	121	176	153	808	848	1050	350	94	25	40	29
28	1.1	138	176	147	694	712	900	1320	85	24	29	26
29	1.1	210	168	137	---	605	800	974	66	24	24	21
30	1.1	141	109	135	---	2840	700	633	53	20	20	20
31	.98	---	87	130	---	4010	---	484	---	18	18	---
TOTAL	48.88	1201.42	3958	2156	34939	31144	58181	12184	27504	927	1484	2915
MEAN	1.58	40.0	128	69.5	1248	1005	1939	393	917	29.9	47.9	97.2
MAX	4.0	280	590	153	3600	4010	5810	1320	4090	58	303	685
MIN	.98	.96	31	43	137	311	700	180	53	15	14	19
CFSM	.003	.08	.25	.13	2.41	1.94	3.74	.76	1.77	.06	.09	.19
IN.	.00	.09	.28	.15	2.51	2.24	4.18	.87	1.98	.07	.11	.21
CAL YR 1980	TOTAL	283071.40	MEAN	773	MAX	31700	MIN	.96	CFSM	1.49	IN	20.33
WTR YR 1981	TOTAL	176642.30	MEAN	484	MAX	5810	MIN	.96	CFSM	.93	IN	12.69

03540500 EMORY RIVER AT OAKDALE, TN

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, Hydrologic Unit 06010208, on left bank, at Oakdale, 1,000 ft (300 m) downstream from highway bridge, 1,100 ft (340 m) downstream from Mud Lick Creek, and at mile 18.5 (29.4 km).

DRAINAGE AREA.--764 mi² (1,979 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emory River at Harriman and October 1929 to September 1934 as Emory River at Oakdale.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

GAGE.--Water-stage recorder. Datum of gage is 761.38 ft (232.069 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi (9.3 km) downstream at datum 43.60 ft (13.289 m) lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--54 years, 1,461 ft³/s (41.38 m³/s), 25.96 in/yr (659 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft³/s (5,520 m³/s) Mar. 23, 1929, gage height, 41.2 ft (12.56 m), present site and datum, and 61.1 ft (18.62 m), site and datum then in use, from floodmarks and flood profile, from rating curve extended above 85,000 ft³/s (2,410 m³/s), confirmed by slope-area measurement of May 28, 1973, flood at gage height 38.68 ft (11.790 m); no flow at times in 1944, 1952-53.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,700 ft³/s (388 m³/s) at 1300 hours Apr. 5, gage height, 14.14 ft (4.310 m) no peak above base of 19,000 ft³/s (538 m³/s); minimum recorded, 2.2 ft³/s (0.062 m³/s) Oct. 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	3.2	173	128	165	822	3360	754	627	88	48	29
2	9.6	3.0	135	116	2520	750	2290	659	649	82	39	42
3	7.6	3.0	109	106	2330	675	1730	572	916	90	37	107
4	5.6	3.7	89	99	1310	631	1420	503	1230	70	35	135
5	4.0	3.5	74	87	949	1510	8650	442	973	60	31	197
6	5.6	5.0	65	73	848	3560	6320	405	1560	55	29	137
7	6.9	6.8	57	69	663	2550	3480	350	3820	54	37	135
8	8.8	6.6	49	69	636	1840	2310	318	2620	62	61	155
9	9.6	7.0	77	66	618	1450	2150	303	1680	51	324	137
10	9.6	6.6	343	65	1630	1210	2800	272	1170	45	261	75
11	9.6	6.2	702	62	5870	1050	3830	272	3930	53	171	51
12	10	5.8	468	51	3460	936	2630	360	3680	54	133	37
13	9.6	5.4	341	48	2020	813	1990	360	2190	52	106	32
14	10	5.1	267	49	1540	738	1590	286	1760	43	79	24
15	12	6.9	218	49	1210	660	1450	280	1380	32	58	21
16	13	8.7	184	49	1060	639	1240	306	919	29	50	1080
17	13	12	160	49	1040	660	1410	277	718	32	45	1750
18	14	22	142	49	1260	630	4230	248	536	65	40	1200
19	14	21	126	49	2450	593	4060	334	403	66	40	400
20	13	22	109	52	2360	548	6920	764	329	99	41	320
21	13	20	93	63	1840	509	5700	645	284	91	43	230
22	13	22	82	77	1480	510	3570	490	254	73	73	150
23	14	21	71	127	1610	1270	2600	394	224	57	99	110
24	14	102	72	188	1880	1900	2420	309	193	70	116	85
25	6.0	241	75	180	1520	1680	2040	260	176	544	116	70
26	4.6	293	155	176	1260	1400	1650	225	230	238	98	60
27	4.0	243	255	177	1070	1190	1370	356	177	140	82	50
28	2.7	270	239	171	914	1020	1140	1300	155	99	56	40
29	4.0	301	222	165	---	886	949	1130	126	104	43	35
30	4.0	238	194	165	---	3860	892	776	100	88	37	31
31	3.2	---	147	157	---	5910	---	605	---	64	32	---
TOTAL	278.0	1914.5	5493	3031	45513	42400	86191	14555	33009	2750	2460	6925
MEAN	8.97	63.8	177	97.8	1625	1368	2873	470	1100	88.7	79.4	231
MAX	14	301	702	188	5870	5910	8650	1300	3930	544	324	1750
MIN	2.7	3.0	49	48	165	509	892	225	100	29	29	21
CFSM	.01	.08	.23	.13	2.13	1.79	3.76	.62	1.44	.12	.10	.30
IN.	.01	.09	.27	.15	2.22	2.06	4.20	.71	1.61	.13	.12	.34
CAL YR 1980	TOTAL	393837.1	MEAN	1076	MAX	50000	MIN	2.7	CFSM	1.41	IN	19.18
WTR YR 1981	TOTAL	244519.5	MEAN	670	MAX	8650	MIN	2.7	CFSM	.88	IN	11.91

03540500 EMORY RIVER AT OAKDALE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-67, 1974 to September 1981 (discontinued).

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 29...	1230	3.8	305	7.4	12.5	--	--	36	86
DEC 02...	1130	134	145	7.5	5.0	--	--	18	24
JAN 29...	1245	165	104	7.2	2.0	12.8	--	18	22
FEB 25...	1300	1520	70	7.1	7.0	--	--	--	13
MAR 26...	1100	1470	63	6.9	7.5	--	.0	16	13
APR 28...	1245	1150	60	7.1	16.0	9.6	--	12	14
MAY 27...	1145	274	98	7.1	19.5	8.9	--	24	20
JUL 07...	1000	54	125	7.1	25.0	7.0	--	34	29
JUL 24...	1030	74	115	7.7	28.5	7.3	--	32	22
AUG 18...	1630	40	190	7.6	25.5	--	--	30	39
SEP 29...	1145	35	115	6.8	19.5	7.8	--	31	22
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 29...	192	1.9	.26	230	10	60	30	7	.07
DEC 02...	82	29.7	.11	300	70	100	90	3	1.1
JAN 29...	60	26.7	.08	130	10	60	60	2	.89
FEB 25...	47	193	.06	120	0	70	40	12	49
MAR 26...	37	147	.05	950	30	60	40	5	20
APR 28...	42	130	.06	270	50	50	50	8	25
MAY 27...	56	41.4	.08	260	30	50	30	4	3.0
JUL 07...	90	13.1	.12	250	30	70	50	<1	--
JUL 24...	74	14.8	.10	240	20	50	30	1	.20
AUG 18...	114	12.4	.16	--	30	--	30	--	--
SEP 29...	66	6.2	.09	220	40	60	50	6	.57

TENNESSEE RIVER BASIN

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06020001, on right bank in powerhouse at Watts Bar Dam, 6.5 mi (10.4 km) southeast of Spring City, and at mile 529.9 (852.6 km).

DRAINAGE AREA.--17,310 mi² (44,830 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1934 to February 1940 (published as "at Breedenton"), October 1974 to current year.
Equivalent record for period January 1942 to December 1974 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to March 1940 at site 6.7 mi (10.8 km) downstream at datum 666.22 ft (203.064 m) higher.

REMARKS.--Flow regulated since 1936 by many reservoirs above station (see p.288 and Water Resources Data for North Carolina, 1981).

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--12 years (water years 1935-39, 1975-81), 28,840 ft³/s (816.7 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 202,000 ft³/s (5,720 m³/s) Mar. 28, 1936; minimum daily, 4,200 ft³/s (119 m³/s) Jan. 29, 30, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 41,200 ft³/s (1,170 m³/s) Aug. 14; minimum daily, 4,600 ft³/s (130 m³/s) Apr. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13700	13500	16100	15900	11200	7400	10500	10000	16700	19400	21400	21100
2	13100	14200	16600	17200	19600	9700	11900	7600	14500	18200	20100	22800
3	16200	19800	18700	12700	33700	15900	11200	6400	25000	18600	19900	22700
4	13900	20500	14200	8900	26600	19600	5100	6800	23100	19100	22300	21400
5	13100	19400	13800	14500	23800	22500	5500	6700	32600	20600	26400	21000
6	17400	21300	12900	17100	19100	15500	7700	8800	30700	19000	24400	13200
7	20400	22400	14700	16800	14700	10600	6100	8000	30800	21000	25300	9900
8	19400	15000	14900	17400	11200	8900	5600	5600	24400	20500	23300	18900
9	19800	12300	13000	18000	17400	9500	5500	6700	22300	25600	22700	22900
10	19000	15400	15200	14400	15400	10200	8500	6600	26700	33600	22500	23800
11	16600	16200	21300	13300	19600	10800	4600	8200	27600	26600	23900	22800
12	14200	16600	20200	16300	21300	9600	4800	7100	23400	18700	27000	20400
13	14700	16200	20200	16400	19900	10000	9500	7700	26400	24100	29000	16100
14	13400	15300	13700	19600	24500	10300	8400	6400	22600	24900	41200	21100
15	12800	10600	18400	17700	22900	12600	10700	8700	29400	23700	31300	21500
16	15100	11000	19600	17700	25500	12400	6800	6400	28300	27000	20500	25300
17	14900	20600	20300	13800	21000	17700	7400	6200	28700	31800	20000	27500
18	16400	25400	16000	14900	9000	10600	5600	10000	28900	32600	28300	31900
19	14600	20300	14300	14900	7800	12000	7400	9900	22300	24300	19800	13900
20	14000	20300	17300	16300	18400	13400	8500	14700	19000	25000	19100	7500
21	16900	15400	14000	18600	18300	12500	13400	8100	18600	24500	21600	24400
22	14900	12200	13900	14400	17200	12000	20800	10000	22800	19000	24100	21000
23	16200	11100	12400	12400	22100	10200	13500	8100	24500	21400	21100	21200
24	14900	15500	14100	12700	20400	5100	17100	5400	23800	25400	21400	20200
25	16900	19800	15000	11500	18500	5800	17200	5400	26600	20500	23000	18100
26	17200	22100	15000	7500	10600	5900	13000	4900	30700	19300	22800	13900
27	14700	16000	15200	12700	10500	6100	13500	9100	18200	21200	19000	14500
28	15900	20400	15800	10600	7900	6900	8100	14100	13500	20900	15800	18900
29	20300	16800	16100	10000	---	7500	8200	17500	17200	22800	17600	20200
30	20400	9900	16800	10200	---	7300	8300	8000	19400	22800	15300	19200
31	23200	---	14900	11200	---	8600	---	11600	---	17500	21900	---
TOTAL	504200	505500	494600	445600	508100	337100	284400	260700	718700	709600	712000	597300
MEAN	16260	16850	15950	14370	18150	10870	9480	8410	23960	22890	22970	19910
MAX	23200	25400	21300	19600	33700	22500	20800	17500	32600	33600	41200	31900
MIN	12800	9900	12400	7500	7800	5100	4600	4900	13500	17500	15300	7500
CAL YR 1980	TOTAL	9594200	MEAN	26210	MAX	79200	MIN	4400				
WTR YR 1981	TOTAL	6077800	MEAN	16650	MAX	41200	MIN	4600				

TENNESSEE RIVER BASIN

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03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1976 to current year (discontinued).

WATER TEMPERATURE: February 1976 to current year (discontinued).

INSTRUMENTATION.--Water-quality monitor February 1976 to September 1981.

REMARKS.--Interruptions in the record due to instrument malfunction. Flow regulated by many reservoirs above station (see p.288 and Water Resources Data For North Carolina, 1981.)

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 270 micromhos July 27, 1978 and July 6, 1981; minimum, 88 micromhos June 14, 1979.

WATER TEMPERATURE: Maximum, 31.5°C Aug. 22, 1980; minimum, 2.0°C Jan. 23, 29, 1977, Feb. 7-10, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, not determined; minimum, not determined.

WATER TEMPERATURE: Maximum, 27.0°C July 29, Aug. 6, 8; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 20...	1000	31100	190	7.5	12.0	.25	8.1	K7	K5	67	14	19
APR 14...	1130	11100	175	7.5	14.0	.60	10.0	K3	<1	59	15	17
JUN 09...	1100	32500	155	7.2	22.0	1.7	8.6	--	--	59	14	17
24...	1330	32800	160	7.5	25.0	2.0	4.0	K3	K7	65	16	19
AUG 06...	1200	32300	212	7.5	26.0	1.5	9.0	K2	K200	84	15	24
SEP 09...	1150	43000	208	7.4	25.5	1.4	6.5	K14	K4	73	14	22

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 20...	4.7	8.1	20	.4	1.6	53	15	9.7	.1	4.9	--
APR 14...	4.0	9.9	26	.6	1.5	44	19	10	<.1	2.1	103
JUN 09...	4.0	5.9	17	.3	1.4	45	14	6.3	<.1	3.8	95
24...	4.2	6.4	17	.3	1.4	49	12	6.2	<.1	4.6	102
AUG 06...	5.9	10	20	.5	1.6	69	20	9.4	.1	4.4	125
SEP 09...	4.3	7.6	18	.4	1.4	69	14	8.7	<.1	5.0	123

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
NOV 20...	96	.13	7730	.31	.30	.140	.050	--	.06	.10	.11
APR 14...	91	.14	3090	.31	.30	.140	.070	.13	.09	.27	.16
JUN 09...	81	.13	8340	.24	.26	.050	--	.29	--	.34	<.10
24...	85	.14	9030	.29	.29	.050	.050	.51	.35	.56	.40
AUG 06...	118	.17	10900	.23	.24	.020	.010	.38	--	.40	--
SEP 09...	105	.17	14300	.13	.10	.020	.010	.29	.21	.31	.22

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

TENNESSEE RIVER BASIN

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
NOV 20...	.41	.41	.020	.020	--	.5	2.8	4	336	88	370
APR 14...	.58	.46	.030	.010	--	--	8.3	3	90	74	--
JUN 09...	.58	--	.020	.000	4.7	--	--	10	877	22	4800
JUN 24...	.85	.69	.050	.030	--	--	3.0	4	354	85	7800
AUG 06...	.63	--	.020	.020	2.9	--	--	1	87	82	--
SEP 09...	.44	.32	.020	.020	--	--	2.0	2	232	30	52000

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 20...	1	1	100	30	0	2	20	<10	0	1
APR 14...	2	1	100	30	0	3	10	10	1	0
JUN 24...	1	1	<50	20	0	2	10	<10	1	1
SEP 09...	2	2	<50	<50	<1	<1	<10	<10	3	<1

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 20...	2	1	200	0	1	2	40	5	<.1
APR 14...	6	2	70	<10	7	0	30	<1	.1
JUN 24...	2	3	150	<10	6	0	140	40	<.1
SEP 09...	3	1	100	<10	4	1	10	10	<.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 20...	<.1	3	2	0	0	0	0	10	0
APR 14...	.1	1	1	0	0	1	0	40	<4
JUN 24...	<.1	6	5	0	0	0	0	10	7
SEP 09...	<.1	4	<1	<1	<1	<1	<1	30	10

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 20,80	APR 14,81	JUN 9,81	JUN 24,81	SEP 9,81					
TIME	1000	1130	1100	1330	1150					
TOTAL CELLS/ML	370	1400	4800	7800	52000					
DIVERSITY: DIVISION	1.1	0.2	1.4	0.9	0.4					
.CLASS	1.1	0.2	1.4	0.9	0.4					
.ORDER	1.1	0.2	2.3	0.9	1.3					
...FAMILY	1.2	0.2	2.6	2.0	1.9					
...GENUS	1.8	0.4	3.0	2.0	2.5					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...CHARACIACEAE										
...SCHROEDERIA	--	-	--	-	28	1	--	-	--	-
...COELASTRACEAE										
...COELASTRUM	--	-	--	-	220	5	230	3	--	-
...HYDRODICTYACEAE										
...PEDIASTRUM	--	-	--	-	--	-	100	1	--	-
...MICRACTINIACEAE										
...GOLENKINIA	--	-	--	-	--	-	--	-	*	0
...MICRACTINIUM	100#	28	--	-	140	3	--	-	290	1
...OOCYSTACEAE										
...ANKISTRODESMUS	13	3	--	-	28	1	*	0	360	1
...DICTYOSPHAERIUM	--	-	--	-	84	2	--	-	--	-
...FRANCEIA	--	-	--	-	--	-	--	-	*	0
...KIRCHNERIELLA	--	-	--	-	56	1	77	1	*	0
...OOCYSTIS	--	-	--	-	110	2	100	1	--	-
...TETRAEDRON	--	-	--	-	--	-	--	-	*	0
...SCENEDESMACEAE										
...SCENEDESMUS	--	-	--	-	84	2	100	1	870	2
...TETRASPORALES										
...COCCOMYXACEAE										
...ELAKATOTHRIX	--	-	26	2	28	1	--	-	--	-
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
...CHLAMYDOMONAS	--	-	--	-	42	1	77	1	*	0
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
...CYCLOTELLA	64#	17	--	-	290	6	*	0	510	1
...MELOSIRA	180#	48	1300#	94	310	6	--	-	*	0
...STEPHANODISCUS	--	-	51	4	--	-	--	-	--	-
...PENNALES										
...ACHNANTHACEAE										
...ACHNANTHES	--	-	--	-	--	-	52	1	--	-
...FRAGILARIACEAE										
...FRAGILARIA	--	-	--	-	170	4	210	3	290	1
...SYNEDRA	--	-	--	-	280	6	*	0	--	-
...NITZSCHIA										
...NITZSCHIA	--	-	--	-	--	-	320	4	*	0
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
...CHROOMONAS	--	-	--	-	--	-	*	0	--	-
...CRYPTOMONADACEAE										
...CRYPTOMONAS	--	-	13	1	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
...AGMENELLUM	--	-	--	-	--	-	--	-	4800	9
...ANACYSTIS	13	3	--	-	1700#	36	*	0	24000#	47
...HORMOGONALES										
...NOSTOCACEAE										
...APHANIZOMENON	--	-	--	-	--	-	2100#	27	4200	8
...OSCILLATORIA										
...LYNGBYA	--	-	--	-	--	-	--	-	6100	12
...OSCILLATORIA	--	-	--	-	1100#	24	4300#	56	5400	10
...SPIRULINA	--	-	--	-	--	-	--	-	*	0
...RIVULARIACEAE										
...RAPHIDIOPSIS	--	-	--	-	--	-	--	-	3400	7
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
...TRACHELOMONAS	--	-	--	-	28	1	--	-	--	-

NOTE: # - Dominant organism; equal to or greater than 15%.

* - Observed organism, may not have been counted; less than 1/2%.

TENNESSEE RIVER BASIN

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 20,80 1000	APR 14,81 1130	JUN 9,81 1100	JUN 24,81 1330	SEP 9,81 1150					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	*	0	--	-	*	0

NOTE: * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%.

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	200	191	194	204	202	203
2				---	---	---	194	188	190	205	202	203
3				---	---	---	190	185	188	206	202	204
4				---	---	---	190	182	185	206	202	204
5				---	---	---	186	177	181	207	202	205
6				---	---	---	181	176	177	206	200	202
7				---	---	---	179	173	176	203	200	201
8				---	---	---	175	171	173	204	199	201
9				---	---	---	173	169	171	203	198	201
10				---	---	---	171	169	170	203	199	202
11				---	---	---	171	170	170	205	---	---
12				---	---	---	172	171	171	---	---	---
13				---	---	---	171	169	170	---	---	---
14				---	---	---	171	169	170	---	---	---
15				---	---	---	173	169	171	---	---	---
16				---	---	---	170	168	170	---	---	---
17				---	---	---	174	170	171	---	---	---
18				---	---	---	176	173	175	---	---	---
19				---	---	---	181	176	178	---	---	---
20				---	---	---	186	181	183	---	---	---
21				---	---	---	190	182	186	---	---	---
22				---	---	---	192	188	190	---	---	---
23				---	---	---	194	188	191	---	---	---
24				---	---	---	196	193	194	---	---	---
25				197	192	193	201	197	199	---	---	---
26				198	195	197	202	199	201	---	---	---
27				199	195	198	204	199	201	---	---	---
28				203	199	201	204	200	203	---	---	---
29				202	198	200	204	202	203	---	---	---
30				201	195	198	204	201	202	---	---	---
31				---	---	---	204	202	203	---	---	---
MONTH				---	---	---	204	168	184	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	191	177	181	185	163	168
2				---	---	---	195	175	179	180	162	166
3				197	175	177	193	174	179	181	161	167
4				189	175	178	188	177	179	177	159	164
5				180	176	177	193	176	180	176	158	163
6				181	174	177	198	175	183	175	156	161
7				185	177	179	194	176	181	166	158	162
8				185	178	180	194	176	182	178	155	161
9				181	178	179	192	176	181	167	153	158
10				185	178	180	192	176	180	171	155	159
11				191	177	180	194	175	181	166	156	159
12				185	178	180	188	176	179	167	159	161
13				190	180	182	179	175	177	170	159	161
14				187	179	182	180	175	177	170	158	161
15				190	180	183	184	174	176	174	158	161
16				191	180	183	191	174	177	173	157	161
17				192	181	185	179	171	175	174	157	162
18				194	181	184	189	173	175	179	155	160
19				185	181	183	180	173	175	169	154	158
20				186	181	182	182	170	174	174	153	157
21				193	181	184	177	171	173	166	154	158
22				193	181	184	179	171	174	176	153	159
23				191	178	183	181	173	175	173	152	158
24				194	181	185	180	172	174	169	153	158
25				195	181	184	178	171	173	163	152	156
26				194	181	184	183	171	173	185	152	160
27				196	181	185	174	169	171	187	150	160
28				197	181	185	176	166	169	187	152	161
29				187	181	183	185	164	169	184	153	160
30				187	179	181	180	166	169	203	155	167
31				190	178	181	---	---	---	190	154	162
MONTH				197	174	182	198	164	176	203	150	161

TENNESSEE RIVER BASIN

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	186	155	163	208	121	157	198	177	185	204	190	198
2	200	156	166	220	158	179	189	178	183	209	191	198
3	178	156	161	240	177	200	195	179	184	213	193	203
4	202	158	167	239	189	209	193	180	184	214	198	203
5	161	156	159	260	152	218	---	---	---	215	197	203
6	160	155	157	270	143	222	---	---	---	212	200	206
7	156	152	154	251	132	205	---	---	---	210	197	203
8	195	151	159	---	---	---	---	---	---	213	201	207
9	179	150	157	195	177	183	---	---	---	---	---	---
10	188	152	159	192	178	181	214	191	206	226	202	212
11	155	152	153	198	180	186	220	204	211	218	196	208
12	192	151	159	198	182	187	221	193	206	---	---	---
13	187	150	157	196	181	187	213	189	205	---	---	---
14	192	150	159	190	183	186	210	188	202	---	---	---
15	156	150	152	---	---	---	211	186	205	---	---	---
16	204	152	158	---	---	---	212	199	206	---	---	---
17	184	151	159	---	---	---	209	181	202	---	---	---
18	190	154	161	186	178	182	217	196	204	---	---	---
19	203	153	162	196	178	184	228	207	215	---	---	---
20	207	155	165	198	178	184	243	213	224	---	---	---
21	201	155	169	198	180	186	259	177	214	---	---	---
22	185	156	165	202	182	189	247	186	214	---	---	---
23	192	158	164	203	180	187	227	183	210	---	---	---
24	186	160	165	188	178	181	225	180	207	---	---	---
25	---	---	---	199	180	187	223	184	210	---	---	---
26	---	---	---	201	180	189	223	182	211	---	---	---
27	237	130	178	200	179	185	227	185	210	---	---	---
28	225	140	178	197	179	186	221	188	208	---	---	---
29	216	154	179	192	180	185	212	187	203	---	---	---
30	230	138	181	193	181	186	207	198	203	---	---	---
31	---	---	---	200	181	188	210	189	201	---	---	---
MONTH	237	130	163	270	121	189	259	177	204	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03543500 SEWEE CREEK NEAR DECATUR, TN

LOCATION.--Lat 35°34'53", long 84°44'53", Meigs County, Hydrologic Unit 06020001, on right bank, 0.3 mi (0.5 km) downstream from bridge on State Highway 58, 0.5 mi (0.8 km) downstream from Dry Fork, 5.0 mi (8.0 km) north of Decatur, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--117 mi² (303 km²).

PERIOD OF RECORD.--May 1934 to current year. Prior to October 1935, published as Suee Creek near Decatur.

REVISED RECORDS.--WSP 1910: 1936(M), 1939(M), 1943(M), 1946, 1948(M), 1949, 1951, 1957, 1958(P). WSP 2110: 1951 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 694.32 ft (211.629 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--47 years, 194 ft³/s (5.494 m³/s), 22.52 in/yr (572 mm/yr).

EXTREMES FOR PERIOD RECORD.--Maximum discharge, 23,900 ft³/s (677 m³/s) Jan. 7, 1946, gage height, 23.97 ft (7.306 m), from floodmarks, from rating curve extended above 11,300 ft³/s (320 m³/s) on basis of slope-area measurement at gage height 22.81 ft (6.952 m); minimum, 8.0 ft³/s (0.23 m³/s) Jan. 12, 1981, result of freezeup; minimum gage height, 0.15 ft (0.046 m) Sept. 2, 3, 7-9, 13, 20, 1954, Jan. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) at 2230 hours, Feb. 11, gage height, 4.19 ft (1.277 m), no peak above base of 2,300 ft³/s (65.1 m³/s); minimum discharge, 8.0 ft³/s (0.23 m³/s) Jan. 12, gage height, 0.15 ft (0.046 m) result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	32	40	28	58	101	194	64	88	34	38	21
2	28	32	35	26	691	90	151	61	63	35	45	22
3	26	32	32	26	173	84	124	56	54	34	35	20
4	25	34	30	26	96	101	104	53	136	124	27	20
5	24	35	30	24	70	194	612	50	199	47	25	20
6	24	33	28	24	61	156	321	51	291	43	25	21
7	24	32	26	26	56	128	232	69	243	38	44	20
8	24	32	26	24	50	111	191	54	176	33	84	26
9	24	33	40	26	45	96	204	51	130	30	39	20
10	24	32	98	24	385	90	191	48	129	31	30	18
11	23	32	63	24	771	80	154	50	441	24	26	16
12	22	33	49	22	213	74	138	47	188	24	25	16
13	22	32	43	22	111	70	121	44	146	29	23	16
14	23	32	39	24	84	70	104	42	120	28	22	16
15	27	52	35	24	70	64	89	48	96	29	22	20
16	25	62	35	24	61	64	81	45	81	34	22	31
17	25	52	32	22	90	58	99	41	72	43	26	23
18	26	72	30	22	454	58	147	42	65	33	26	20
19	52	53	28	22	681	56	106	78	60	29	24	19
20	34	42	28	24	362	53	105	73	55	27	24	19
21	29	39	26	32	206	48	138	56	54	25	31	17
22	29	35	26	32	172	58	109	47	49	24	28	16
23	28	40	26	30	161	90	116	42	100	24	23	17
24	28	110	30	30	140	80	129	39	55	25	22	16
25	32	76	32	28	134	70	105	37	47	25	21	16
26	32	46	30	28	128	61	89	38	42	24	20	16
27	32	74	28	32	120	58	79	54	40	22	20	14
28	43	80	28	38	111	56	72	52	37	23	20	15
29	43	53	28	32	---	53	76	42	36	22	20	15
30	36	42	28	35	---	371	73	37	34	25	26	16
31	34	---	28	42	---	283	---	48	---	22	23	---
TOTAL	903	1384	1077	843	5754	3026	4454	1559	3327	1010	886	562
MEAN	29.1	46.1	34.7	27.2	206	97.6	148	50.3	111	32.6	28.6	18.7
MAX	52	110	98	42	771	371	612	78	441	124	84	31
MIN	22	32	26	22	45	48	72	37	34	22	20	14
CFSM	.25	.39	.30	.23	1.76	.83	1.27	.43	.95	.28	.24	.16
IN.	.29	.44	.34	.27	1.83	.96	1.42	.50	1.06	.32	.28	.18
CAL YR 1980	TOTAL	61590	MEAN	168	MAX	6800	MIN	20	CFSM	1.44	IN	19.58
WTR YR 1981	TOTAL	24785	MEAN	67.9	MAX	771	MIN	14	CFSM	.58	IN	7.88

TENNESSEE RIVER BASIN

229

03544500 RICHLAND CREEK NEAR DAYTON, TN

LOCATION.--Lat 35°30'17", long 85°01'20", Rhea County, Hydrologic Unit 06020001, on left bank at Morgantown, 0.4 mi (0.6 km) upstream from bridge on State Highway 30, 1.0 mi (1.6 km) northwest of Dayton, 1.8 mi (2.9 km) downstream from Payne Creek, and at mile 5.2 (8.4 km).

DRAINAGE AREA.--50.2 mi² (130.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1927 to September 1931, June 1934 to September 1955, October 1955 to June 1979 (annual maximums only), July 1979 to current year. Published as "at Dayton" June 1927 to September 1931.

REVISED RECORDS.--WSP 823: 1935-36 (M), 1937, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 727.59 ft (221.769 m) National Geodetic Vertical Datum of 1929. June 1927 to September 1931 nonrecording gage at bridge 1.0 mi (1.6 km) downstream at datum 43.61 ft (13.292 m) lower. October 1955 to June 1979 at present site and at datum 1.00 ft (0.305 m) higher. July 1979 to current year at present site and datum.

REMARKS.--Records good except those below 10 ft³/s (0.28 m³/s) and above 2,000 ft³/s (56.6 m³/s) which are poor due to measuring conditions and indefinite stage-discharge relation.

AVERAGE DISCHARGE.--27 years, 106 ft³/s (3.002 m³/s), 28.68 in/yr (728 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 11,000 ft³/s (312 m³/s) Nov. 18, 1957, gage height 11.2 ft (3.41 m) present datum, from rating curve extended above 4,600 ft³/s (130 m³/s) based on logarithmic plotting and contracted-opening measurement of peak flow; minimum no flow, many days during 1929, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,540 ft³/s (43.6 m³/s) at 2130 hours Feb. 10, gage height 4.55 ft (1.387 m); minimum daily discharge .09 ft³/s (0.002 m³/s) Oct. 14, 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.65	22	11	34	45	210	35	84	2.3	1.9	4.2
2	.56	.62	18	9.6	314	40	140	29	92	1.9	1.8	3.1
3	.49	.60	14	8.8	168	34	106	26	68	1.8	1.7	3.9
4	.40	.71	11	8.2	102	44	82	23	96	2.1	1.4	8.2
5	.34	.70	10	8.1	72	120	479	20	218	1.7	1.2	5.6
6	.27	.70	9.2	6.7	58	104	285	18	312	2.0	1.1	3.8
7	.22	.60	8.4	7.3	50	85	174	17	340	4.5	1.0	3.1
8	.20	.60	7.6	7.5	50	70	122	16	271	4.4	1.1	2.3
9	.18	.60	23	5.9	47	58	161	14	152	3.3	.91	1.8
10	.16	.53	70	6.0	524	50	175	12	98	2.6	.78	1.4
11	.14	.46	52	5.8	1060	43	133	15	128	2.1	.74	1.1
12	.10	.40	40	4.6	427	37	103	16	93	1.7	.72	.96
13	.10	.37	31	4.1	220	33	83	13	121	1.3	.64	.85
14	.09	.37	25	4.3	149	29	66	11	101	1.0	.52	.73
15	.09	1.1	21	4.7	114	25	52	11	67	.88	.46	.81
16	.09	1.1	18	4.8	95	27	43	11	46	.94	.45	.90
17	.10	2.1	15	4.5	139	25	64	10	32	.86	.46	.82
18	.32	5.4	13	4.7	400	23	115	10	22	.85	.53	.78
19	.45	3.6	11	4.4	510	21	82	33	16	.81	.61	.66
20	.44	2.9	9.8	4.3	274	19	95	47	13	.76	.60	.63
21	.33	2.3	8.7	9.9	171	17	90	34	12	.68	.84	.67
22	.25	1.9	7.7	18	124	30	74	25	11	.74	.79	.61
23	.22	2.5	7.7	17	125	79	84	19	9.0	.70	.66	.54
24	.24	46	9.5	16	99	69	109	15	8.4	.67	.63	.45
25	.43	35	17	15	80	60	87	12	6.9	.67	.63	.37
26	.37	19	16	13	68	51	69	12	5.6	.63	.60	.34
27	.42	78	14	15	57	44	54	33	4.5	.65	.52	.30
28	.80	73	13	19	50	37	43	69	3.8	5.7	.38	.22
29	.72	43	13	17	---	33	42	42	3.2	4.0	.63	.14
30	.71	29	12	19	---	514	48	31	2.8	3.4	2.5	.11
31	.71	---	11	26	---	378	---	33	---	2.5	5.4	---
TOTAL	10.57	353.81	558.6	310.2	5581	2244	3470	712	2437.2	58.14	32.20	49.39
MEAN	.34	11.8	18.0	10.0	199	72.4	116	23.0	81.2	1.88	1.04	1.65
MAX	.80	78	70	26	1060	514	479	69	340	5.7	5.4	8.2
MIN	.09	.37	7.6	4.1	34	17	42	10	2.8	.63	.38	.11
CFSM	.007	.24	.36	.20	3.96	1.44	2.31	.46	1.62	.04	.02	.03
IN.	.01	.26	.41	.23	4.14	1.66	2.57	.53	1.81	.04	.02	.04
CAL YR 1980	TOTAL	33979.92	MEAN	92.8	MAX	2940	MIN	.03	CFSM	1.85	IN	25.18
WTR YR 1981	TOTAL	15817.11	MEAN	43.3	MAX	1060	MIN	.09	CFSM	.86	IN	11.72

TENNESSEE RIVER BASIN

03544500 RICHLAND CREEK NEAR DAYTON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OR RECORD.--May 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 07...	1010	.24	168	7.9	11.0	--	48	32	--
NOV 19...	1530	3.5	100	7.7	8.5	--	24	18	49
JAN 06...	1020	9.7	59	--	.0	14.2	--	11	40
FEB 24...	1045	107	48	7.5	6.5	12.0	3	8.3	34
APR 09...	1815	224	40	7.2	13.0	10.5	4	6.6	26
MAY 12...	1200	17	51	6.8	13.0	10.4	6	7.5	37
JUN 30...	1300	2.7	85	7.9	24.0	--	24	13	49
AUG 05...	1245	1.2	112	8.1	25.0	9.2	34	14	68
18...	1815	.65	158	7.3	22.5	8.3	54	18	92

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 07...	--	--	270	0	20	10	1	.00
NOV 19...	.07	.47	170	50	10	10	3	.03
JAN 06...	.05	1.0	90	10	20	10	--	--
FEB 24...	.05	9.8	60	0	20	20	--	--
APR 09...	.04	15.7	70	10	20	10	--	--
MAY 12...	.05	1.7	70	10	10	10	1	.05
JUN 30...	.07	.36	60	10	0	0	--	--
AUG 05...	.09	.23	220	10	10	10	--	--
18...	.13	.16	140	10	20	10	--	--

03556500 HIWASSEE RIVER NEAR MCFARLAND, TN

LOCATION.--Lat 35°10'48", long 84°26'36", Polk County, Hydrologic Unit 06020002, on left bank 0.2 mi (0.3 km) downstream from Smith Creek, 0.4 mi (0.6 km) downstream from Apalachia powerhouse of Tennessee Valley Authority, 2.8 mi (4.5 km) west of McFarland, and at mile 53.2 (85.6 km).

DRAINAGE AREA.--1,136 mi² (2,942 km²).

PERIOD OF RECORD.--October 1942 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 830.56 ft (253.155 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by four reservoirs (see Water Resources data for North Carolina and Georgia, 1980). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--39 years, 2,416 ft³/s (68.42 m³/s), 28.88 in/yr (734 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,100 ft³/s (1,330 m³/s) May 28, 1973, gage height, 15.34 ft (4.676 m), from rating curve extended above 15,000 ft³/s (425 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft³/s (0.85 m³/s) estimated, Sept. 18-20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,090 ft³/s (144 m³/s) Feb. 10, gage height, 5.03 ft (1.533 m); minimum recorded, 42 ft³/s (1.19 m³/s) Sept. 30, gage height, 1.32 ft (0.402 m) but may have been less during period of missing record; minimum daily, 140 ft³/s (3.96 m³/s) Apr. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	958	1450	1480	2880	688	717	633	1420	1320	915	1550
2	984	1400	1500	1480	3320	1140	655	579	1500	897	509	1500
3	1030	1380	1500	1490	2910	1100	638	583	1470	713	1800	1310
4	1020	1370	1520	1480	2670	1140	616	716	1680	707	1850	1350
5	1020	1380	1550	1470	2640	1290	728	632	1630	486	1900	814
6	1030	1350	1590	1480	2650	1390	369	543	703	1340	1850	699
7	1320	1430	1630	1490	1880	1230	188	570	567	1340	1800	808
8	1320	1410	1670	1520	1670	1200	156	566	1390	1320	700	1520
9	1310	1460	1680	1500	1780	1170	181	551	1470	1430	520	1310
10	1330	1450	1780	1510	2470	1150	201	572	1400	1410	1800	1300
11	1350	1470	1600	1480	3020	1150	266	807	1610	829	1800	1270
12	1350	1440	1550	1480	2880	1140	149	987	1550	490	1750	653
13	1350	1430	1520	1490	2680	1010	140	959	1150	1840	1750	466
14	1350	1480	1500	1500	1810	1130	335	910	750	1730	1750	1270
15	1350	1540	1500	1510	1630	1100	660	945	1500	1760	1400	1330
16	1340	1560	1500	1500	1640	1420	612	646	1600	1740	540	1400
17	400	1500	1500	1490	1640	1130	682	544	894	1870	1800	1350
18	290	1490	1510	1490	1970	1110	741	899	1330	1140	1750	1310
19	300	1470	1550	1500	2130	1110	671	1010	1400	494	1300	684
20	300	1470	3140	1510	2050	1130	792	999	767	1710	1100	471
21	300	1460	3140	1520	1870	1110	673	744	497	1700	1150	1590
22	200	1470	3010	1530	1810	658	649	649	1740	1740	700	1540
23	344	1450	1610	1540	1850	1150	1070	640	1660	1720	540	1510
24	310	1450	1510	1540	1870	1080	1470	544	1420	1320	1700	1510
25	310	1450	1520	1500	1830	1130	899	539	1440	794	1350	1510
26	320	1450	1500	1530	1760	803	768	721	1440	455	1350	670
27	350	1450	1500	1560	1550	656	1030	1180	693	1750	1350	462
28	396	1450	1500	1930	705	612	806	1210	479	1870	1300	1630
29	379	1450	1470	2590	---	634	770	1370	1390	1700	1000	1510
30	360	1450	1510	2910	---	975	781	851	1300	1510	500	1600
31	349	---	1490	2900	---	881	---	378	---	1320	1500	---
TOTAL	25072	42968	52500	50900	59565	32617	18413	23477	37840	40445	41024	35897
MEAN	809	1432	1694	1642	2127	1052	614	757	1261	1305	1323	1197
MAX	1710	1560	3140	2910	3320	1420	1470	1370	1740	1870	1900	1630
MIN	200	958	1450	1470	705	612	140	378	479	455	500	462
CAL YR 1980	TOTAL	891390	MEAN	2435	MAX	8240	MIN	200				
WTR YR 1981	TOTAL	460718	MEAN	1262	MAX	3320	MIN	140				

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 (210 m) downstream from Tennessee Valley Authority powerplant, 0.8 mi (1.3 km) upstream from former village of Emf, 2.0 mi (3.2 km) downstream from Goforth Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--524 mi² (1,357 km²).

PERIOD OF RECORD.--October 1912 to current year. Prior to January 1913, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1913-34. WSP 853: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 837.88 ft (255.386 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, Oct. 22 to Dec. 4, which are fair. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1981), Ocoee No. 3 Lake (station 03562500), and by powerplant above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--69 years, 1,249 ft³/s (35.37 m³/s), 32.37 in/yr (822 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s (833 m³/s) July 10, 1916, gage height, 13.7 ft (4.18 m), from rating curve extended above 17,000 ft³/s (481 m³/s); minimum, 3.4 ft³/s (0.096 m³/s) Sept. 20, 1962, gage height, 2.12 ft (0.646 m); minimum daily, 4.6 ft³/s (0.13 m³/s) Sept. 14, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 62,000 ft³/s (1,760 m³/s) was the greatest known since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft³/s (143 m³/s) Feb. 11; gage height, 6.91 ft (2.106 m); minimum, 11 ft³/s (0.31 m³/s) Oct. 22, gage height, 2.44 ft (0.744 m); minimum daily, 50 ft³/s (1.42 m³/s) Nov. 13, 19, 20, 25, 26, Dec. 1, Apr. 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	942	850	50	983	753	535	635	546	1050	1200	1010	793
2	805	850	350	979	1130	688	807	289	700	571	872	530
3	805	900	1050	702	1210	647	674	290	1050	1120	982	1240
4	813	350	1050	712	1220	985	692	348	1500	1040	1150	1260
5	805	300	1120	832	1030	868	632	345	1100	823	1180	1130
6	445	150	873	974	433	686	426	342	900	968	959	911
7	942	450	906	1020	824	459	728	337	900	581	940	1540
8	924	600	232	1150	699	357	700	410	750	1110	1000	1520
9	915	300	307	1020	1020	621	573	346	700	689	865	1010
10	915	250	1100	998	830	655	565	353	1100	695	946	904
11	906	300	1150	797	2390	408	562	648	1050	967	848	1130
12	906	150	1190	1000	1580	349	437	474	1050	953	945	1140
13	951	50	1110	1010	1210	349	419	647	750	638	1120	948
14	1010	100	965	157	774	347	429	652	500	883	1130	1130
15	987	650	236	286	737	344	451	867	1200	696	1130	1290
16	996	600	353	1120	752	639	960	532	550	684	925	1200
17	821	400	1080	971	598	353	379	1060	1100	1120	1000	1120
18	855	200	1160	806	1140	450	411	984	550	1020	1180	1260
19	996	50	1170	795	1640	398	382	1050	1120	887	1270	1070
20	960	50	1150	910	1550	479	465	926	1000	1010	895	1010
21	846	300	1160	1100	902	351	462	881	863	1020	1270	1200
22	900	1200	1160	1040	876	228	630	800	976	1020	1130	951
23	950	800	846	1030	999	553	589	650	1060	1140	1010	950
24	900	150	1130	770	879	384	955	500	1130	1140	1210	927
25	950	50	1170	724	993	372	843	600	768	830	837	939
26	900	50	1160	971	317	453	486	500	1120	852	1240	937
27	950	800	856	1030	630	381	386	900	984	963	1240	754
28	950	850	743	1170	613	475	50	1030	814	1020	1240	759
29	1050	1050	1030	1000	---	325	349	1050	1040	1140	1110	778
30	1100	850	1140	1000	---	1070	566	650	561	1150	986	750
31	1100	---	1080	778	---	1550	---	550	---	1160	1180	---
TOTAL	28295	13650	28077	27835	27729	16759	16643	19557	27936	29090	32800	31081
MEAN	913	455	906	898	990	541	555	631	931	938	1058	1036
MAX	1100	1200	1190	1170	2390	1550	960	1060	1500	1200	1270	1540
MIN	445	50	50	157	317	228	50	289	500	571	837	530
(+)	-14300	+4300	-11400	-14200	+8800	+10300	+13600	+7600	+900	-12400	-20100	-17100
MEAN†	451	598	538	440	1305	873	1008	876	961	538	410	466
CFSM†	.86	1.14	1.03	.84	2.49	1.67	1.92	1.67	1.83	1.03	.78	.89
IN.†	.99	1.27	1.18	.97	2.59	1.92	2.15	1.93	2.05	1.18	.90	.99
CAL YR 1980 TOTAL	474618			1297	9660	50	MEAN†	1339	CFSM†	2.55	IN.†	34.78
WTR YR 1981 TOTAL	299452			820	2390	50	MEAN†	700	CFSM†	1.34	IN.†	18.14

† Change in contents, in cfs-days, in Blue Ridge Lake (Georgia), furnished by Tennessee Valley Authority.

‡ Adjusted for change in contents in lakes or reservoirs listed above.

TENNESSEE RIVER BASIN

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03564500 OCOEE RIVER AT PARKSVILLE, TN

LOCATION.--Lat 35°05'48", long 84°39'15", Polk County, Hydrologic Unit 06020203, on right bank 0.4 mi (0.6 km) downstream from Lake Ocoee Dam and Ocoee No. 1 powerplant of Tennessee Valley Authority at Parksville, and at mile 11.5 (18.5 km).

DRAINAGE AREA.--595 mi² (1,541 km²).

PERIOD OF RECORD.--January 1911 to September 1916, March 1921 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1916, 1921-36 (adjusted runoff). WSP 1386: 1926.

GAGE.--Water-stage recorder. Datum of gage is 716.96 ft (218.529 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1981), Ocoee No. 3 Lake (station 03562500), and Lake Ocoee (station 03564000). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--65 years, 1,334 ft³/s (37.78 m³/s), 30.45 in/yr (773 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft³/s (615 m³/s), Mar. 29, 1951, gage height, 20.22 ft (6.163 m); minimum daily, 10 ft³/s (0.28 m³/s) Oct. 28, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1906, discharge, 65,000 ft³/s (1,840 m³/s) was the greatest known flood since at least 1840, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,800 ft³/s (79.3 m³/s) Feb. 27, gage height, 6.22 ft (1.896 m); minimum, 67 ft³/s (1.90 m³/s) Oct. 17, gage height, 2.81 ft (0.856 m); minimum daily, 92 ft³/s (2.61 m³/s) Jan. 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1040	1080	100	1100	900	438	480	340	1090	847	938	628	
2	1140	1080	1080	1100	850	911	814	340	921	931	778	1060	
3	979	534	1140	770	1170	688	839	340	1120	1310	1100	1070	
4	907	424	1180	900	1050	555	658	350	1450	999	1050	1070	
5	890	382	928	930	850	604	605	250	1500	817	1150	989	
6	660	376	855	780	950	1730	611	340	1930	975	904	818	
7	878	381	760	840	950	437	706	340	1100	554	1050	901	
8	814	440	98	840	950	433	721	340	1120	831	983	1160	
9	780	383	340	840	950	732	725	250	1030	809	798	1580	
10	904	503	1190	1000	1500	606	733	250	774	699	1080	1360	
11	999	428	1250	900	2600	341	717	250	942	702	1080	1250	
12	979	452	1240	940	2600	312	721	900	1050	647	1000	906	
13	1020	434	1220	900	1250	324	747	730	813	628	934	818	
14	1010	389	1070	92	820	323	705	734	614	622	1070	1240	
15	1110	347	542	92	820	324	333	739	843	726	996	1190	
16	1100	108	548	929	820	456	306	256	859	778	727	1240	
17	1250	996	1020	906	820	240	300	823	914	924	1080	1270	
18	832	883	1010	693	740	437	300	969	850	1060	1100	1160	
19	959	870	1040	929	840	266	300	929	842	932	1170	993	
20	1000	267	994	920	1300	254	300	995	881	919	809	995	
21	911	630	1110	903	1550	272	300	1060	916	1120	1350	1060	
22	888	506	1210	992	2000	256	350	726	1050	981	1080	910	
23	1010	499	897	1170	1150	274	370	589	911	980	990	903	
24	994	505	1140	734	950	239	1650	411	895	936	962	898	
25	938	506	1020	738	950	246	1250	432	904	883	986	1080	
26	900	516	1020	927	700	253	1100	328	1080	924	1240	725	
27	856	822	650	805	632	246	550	1070	1070	1130	1240	738	
28	970	814	650	931	435	265	380	1130	965	1060	1280	880	
29	1310	791	1100	1050	---	256	420	1490	892	918	1100	614	
30	1220	796	1200	1040	---	981	350	1160	862	986	1000	685	
31	1290	---	1100	898	---	832	---	809	---	943	1250	---	
TOTAL	30538	17142	28702	26589	31097	14531	18341	19670	30188	27571	32275	30191	
MEAN	985	571	926	858	1111	469	611	635	1006	889	1041	1006	
MAX	1310	1080	1250	1170	2600	1730	1650	1490	1930	1310	1350	1580	
MIN	660	108	98	92	435	239	300	250	614	554	727	614	
CAL YR 1980	TOTAL	516777	MEAN	1412	MAX	15900	MIN 98	MEAN‡	1452	CFSM‡	2.44	IN.‡	33.21
WTR YR 1981	TOTAL	306835	MEAN	841	MAX	2600	MIN 92	MEAN‡	720	CFSM‡	1.21	IN.‡	16.43

‡ Adjusted for change in contents in Blue Ridge Lake (Georgia) and Lake Ocoee.

TENNESSEE RIVER BASIN

03565300 SOUTH CHESTUEE CREEK NEAR BENTON, TN

LOCATION.--Lat 35°10'02", long 84°42'59", Bradley County, Hydrologic Unit 06020002, on right bank 50 ft (15 m) downstream from county highway bridge, 0.2 mi (0.3 km) downstream from Climer Branch, 2.4 mi (3.9 km) southwest of Benton Station, 2.8 mi (4.5 km) north of Ocoee, 3.6 mi (5.8 km) west of Benton, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--31.8 mi² (82.4 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 712.14 ft (217.060 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--24 years, 53.0 ft³/s (1.501 m³/s), 22.63 in/yr (575 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) Mar. 16, 1973, gage height, 12.11 ft (3.691 m), from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.7 ft³/s (0.048 m³/s) Oct. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 709 ft³/s (20.1 m³/s) Apr. 24 at 0030 hours, gage height, 6.75 ft (2.057 m), no peak above base of 800 ft³/s (22.7 m³/s); minimum discharge, 1.7 ft³/s (0.048 m³/s) Oct. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.1	7.9	4.4	10	17	59	20	15	9.7	8.1	4.3
2	2.9	7.6	7.0	4.3	165	15	46	18	36	9.8	8.1	4.4
3	2.6	5.2	6.3	4.1	47	13	35	17	83	9.8	7.6	4.6
4	2.4	5.3	5.7	4.0	29	24	30	16	364	9.7	7.2	5.7
5	2.3	5.3	5.4	4.0	21	95	220	15	84	10	7.0	5.1
6	2.2	5.4	5.1	4.7	17	52	83	14	226	12	7.9	4.6
7	2.1	5.7	5.0	4.8	15	33	57	14	207	9.6	13	4.2
8	2.0	5.9	4.9	4.9	15	25	46	13	161	9.1	9.1	4.4
9	1.9	6.7	7.3	4.4	12	20	61	12	54	8.6	8.1	4.6
10	2.0	6.5	16	4.2	101	17	57	14	39	8.3	7.2	4.4
11	1.8	6.6	11	4.0	194	16	42	27	35	8.3	7.2	4.4
12	1.8	6.6	8.1	4.2	64	14	34	15	34	8.2	9.4	4.4
13	2.0	7.1	7.2	4.4	49	13	29	13	27	8.0	7.2	4.2
14	2.1	7.6	6.2	4.3	31	12	29	11	23	7.8	6.8	4.2
15	2.2	22	5.5	4.5	26	10	35	12	20	10	6.6	6.6
16	2.4	15	5.3	4.5	23	13	24	11	18	11	6.6	11
17	2.6	15	5.0	4.6	27	11	46	11	17	25	6.8	5.3
18	3.2	16	4.4	4.5	123	11	54	12	16	9.9	6.6	4.6
19	8.2	9.8	4.4	4.2	127	11	36	62	15	8.8	6.8	4.6
20	3.3	7.7	4.1	4.1	99	9.9	72	27	14	8.4	9.6	4.4
21	2.8	7.3	3.9	13	59	9.1	50	18	14	7.8	69	4.4
22	3.2	6.5	4.0	12	42	16	30	14	13	7.6	6.6	4.4
23	3.6	8.6	4.0	8.5	43	26	144	12	12	7.4	4.8	4.4
24	4.5	41	5.1	7.1	33	18	290	11	12	7.3	4.6	4.4
25	6.7	19	6.1	6.2	27	14	65	9.9	11	7.3	4.6	4.4
26	5.7	11	5.0	5.8	22	12	44	10	12	7.2	4.6	4.4
27	5.3	27	4.8	14	19	11	34	23	11	7.2	4.4	4.4
28	12	21	4.6	19	17	9.7	27	19	11	7.0	4.4	4.6
29	6.7	13	4.6	12	---	8.9	25	13	10	8.0	4.2	4.6
30	4.9	9.4	4.5	11	---	260	24	11	9.9	17	4.6	4.8
31	4.3	---	4.5	11	---	133	---	9.9	---	8.6	4.4	---
TOTAL	113.8	334.9	182.9	206.7	1457	949.6	1828	504.8	1603.9	294.4	273.1	144.8
MEAN	3.67	11.2	5.90	6.67	52.0	30.6	60.9	16.3	53.5	9.50	8.81	4.83
MAX	12	41	16	19	194	260	290	62	364	25	69	11
MIN	1.8	4.1	3.9	4.0	10	8.9	24	9.9	9.9	7.0	4.2	4.2
CFSM	.12	.35	.19	.21	1.64	.96	1.92	.51	1.68	.30	.28	.15
IN.	.13	.39	.21	.24	1.70	1.11	2.14	.59	1.88	.34	.32	.17
CAL YR 1980	TOTAL	20057.5	MEAN 54.8	MAX 1780	MIN 1.8	CFSM 1.72	IN 23.46					
WTR YR 1981	TOTAL	7893.9	MEAN 21.6	MAX 364	MIN 1.8	CFSM .68	IN 9.23					

TENNESSEE RIVER BASIN

235

03565500 OOSTANAULA CREEK NEAR SANFORD, TN

LOCATION.--Lat 35°19'39", long 84°42'19", McMinn County, Hydrologic Unit 06020002, on right bank 20 ft (6 m) downstream from highway bridge, 1.3 mi (2.1 km) southeast of Sanford, 3.5 mi (5.6 km) northeast of Calhoun, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--57.0 mi² (147.6 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 716.51 ft (218.392 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--27 years, 95.1 ft³/s (2.693 m³/s), 22.66 in/yr (576 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s (227 m³/s) Mar. 16, 1973, gage height, 13.43 ft (4.093 m); minimum, 15 ft³/s (0.42 m³/s) Jan. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 200 ft³/s (5.66 m³/s) Feb. 11 at 1045 hours, gage height, 3.58 ft (1.091 m) no peak above base of 600 ft³/s (17.0 m³/s). Minimum discharge, 15 ft³/s (0.42 m³/s) Jan. 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	39	21	23	50	70	42	34	27	21	24
2	28	24	37	21	122	51	61	38	31	30	23	32
3	24	25	32	22	109	47	53	39	32	28	31	26
4	23	25	30	20	58	45	47	38	36	33	25	24
5	22	25	28	21	48	62	111	37	81	36	21	24
6	24	24	28	21	44	63	126	35	74	30	20	33
7	24	23	27	20	41	55	78	34	89	30	21	25
8	21	23	28	20	39	51	70	33	83	25	59	31
9	22	23	30	20	40	50	71	32	59	25	55	35
10	21	24	37	20	51	47	79	32	49	24	28	25
11	21	24	35	19	170	44	67	35	78	25	26	23
12	20	23	30	19	101	43	62	32	91	24	23	22
13	22	22	28	20	69	42	59	27	57	24	22	22
14	23	22	27	22	62	41	54	27	51	24	21	22
15	21	28	27	19	57	40	52	27	47	22	21	29
16	21	53	28	19	56	42	49	28	42	32	21	43
17	21	40	25	19	52	41	48	29	39	30	25	27
18	22	46	24	19	54	38	54	30	37	27	32	23
19	30	41	23	20	79	37	49	34	36	24	23	22
20	33	32	24	21	88	37	47	46	34	24	22	21
21	24	29	22	21	75	43	45	34	36	23	28	22
22	22	28	24	21	68	38	43	30	38	21	41	21
23	22	27	23	20	67	45	45	28	33	21	26	19
24	21	49	22	20	65	44	72	27	31	21	24	20
25	24	69	23	20	58	38	56	28	30	21	22	26
26	31	44	24	27	55	35	52	28	29	21	21	20
27	27	50	24	24	52	34	50	31	32	22	20	19
28	29	76	22	28	50	33	46	32	28	21	20	20
29	35	51	23	23	---	33	45	27	28	20	20	20
30	27	40	23	22	---	69	46	26	27	20	36	19
31	25	---	21	25	---	120	---	26	---	22	35	---
TOTAL	762	1034	838	654	1853	1458	1807	992	1392	777	833	739
MEAN	24.6	34.5	27.0	21.1	66.2	47.0	60.2	32.0	46.4	25.1	26.9	24.6
MAX	35	76	39	28	170	120	126	46	91	36	59	43
MIN	20	22	21	19	23	33	43	26	27	20	20	19
CFSM	.43	.61	.47	.37	1.16	.83	1.06	.56	.81	.44	.47	.43
IN.	.50	.67	.55	.43	1.21	.95	1.18	.65	.91	.51	.54	.48
CAL YR 1980	TOTAL	32078	MEAN 87.6	MAX 2000	MIN 20	CFSM 1.54	IN 20.93					
WTR YR 1981	TOTAL	13139	MEAN 36.0	MAX 170	MIN 19	CFSM .63	IN 8.57					

03565500 OOSTANAULA CREEK NEAR SANFORD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 23...	1115	20	315	12.5	14	.76
DEC 04...	1445	30	325	7.5	15	1.2
JAN 14...	1430	20	335	3.5	38	2.1
FEB 27...	1000	53	310	10.5	35	5.0
APR 01...	1330	66	280	17.0	20	3.6
MAY 14...	1025	29	330	14.5	38	3.0
JUN 17...	1000	44	322	21.5	78	9.3
JUL 30...	1345	20	300	23.0	36	1.9
SEP 04...	0900	23	275	21.5	34	2.1

TENNESSEE RIVER BASIN

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03566420 WOLFTEVER CREEK NEAR OOLTEWAH, TN

LOCATION.--Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi (1.0 km) downstream from Southern Railway bridge, 0.9 mi (1.4 km) south of Ooltewah, 1.6 mi (2.6 km) upstream from Little Wolftever Creek, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--18.8 mi² (48.7 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 755.08 ft (230.148 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--17 years, 33.6 ft³/s (0.952 m³/s), 24.27 in/yr (616 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s) Mar. 16, 1973, gage height, 9.75 ft (2.972 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 28, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 764 ft³/s (21.6 m³/s) at 2000 hours Feb. 10, gage height 5.09 ft (1.551 m), no other peak above base of 700 ft³/s (19.8 m³/s); minimum 1.5 ft³/s (0.042 m³/s) Sept. 28, 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.9	11	4.9	19	15	51	10	34	4.5	2.3	3.3
2	3.2	5.2	9.4	4.9	130	13	35	9.3	23	4.7	2.7	3.2
3	3.1	4.9	8.6	4.6	39	12	27	9.1	20	4.6	2.5	3.4
4	3.8	5.2	7.9	4.6	25	35	22	8.7	36	4.4	2.3	5.3
5	3.5	4.9	7.5	4.4	19	61	122	8.3	26	4.6	2.2	3.8
6	3.5	5.2	6.8	4.6	16	36	48	8.1	17	4.9	2.2	3.1
7	3.6	4.9	6.8	6.1	14	26	35	8.1	46	4.4	2.7	2.8
8	4.3	4.9	6.5	5.2	14	21	28	7.6	37	4.0	3.8	2.7
9	4.1	5.5	13	4.9	12	18	56	6.7	21	3.8	2.5	2.5
10	4.0	5.5	15	4.6	283	17	41	9.8	16	3.6	2.2	2.3
11	4.0	5.2	11	4.4	154	15	31	13	16	3.4	2.5	2.3
12	4.0	5.2	9.4	4.1	37	14	25	8.3	14	3.2	2.7	2.3
13	4.0	5.2	8.2	4.1	25	13	22	7.6	18	3.1	2.3	2.1
14	4.0	5.2	7.9	4.6	22	12	19	7.1	12	3.0	2.2	2.0
15	4.0	27	7.5	4.9	80	12	17	7.2	10	5.9	2.0	6.4
16	4.0	12	7.5	4.6	103	13	15	6.5	8.9	5.2	4.9	9.0
17	4.0	40	6.8	3.8	104	12	21	7.8	7.9	3.8	4.9	3.6
18	5.2	19	6.5	4.1	70	13	19	8.1	7.1	3.6	6.8	2.9
19	7.9	10	6.1	4.4	46	12	17	48	6.8	3.4	5.5	2.7
20	4.6	8.2	5.5	6.1	40	11	16	22	6.2	3.2	19	2.5
21	4.4	7.1	5.5	17	35	9.7	13	13	5.9	2.9	45	2.3
22	4.1	6.1	5.2	11	26	21	12	9.7	5.6	2.6	6.8	2.2
23	4.1	29	5.5	9.4	28	26	45	8.2	5.6	2.5	4.8	2.2
24	4.6	71	6.8	7.9	25	19	47	7.4	5.2	2.5	4.0	2.0
25	7.9	24	6.1	7.1	23	15	25	6.9	9.2	3.7	3.5	2.0
26	5.8	15	5.8	7.1	20	14	19	12	11	2.7	3.2	1.9
27	6.1	34	5.2	19	21	13	16	22	5.4	2.5	3.1	1.8
28	14	22	5.5	16	16	12	13	10	4.9	2.5	2.9	1.7
29	7.5	15	5.5	12	---	11	13	7.9	4.7	2.8	4.6	1.6
30	6.5	12	5.2	12	---	194	12	6.9	4.5	2.7	7.6	1.7
31	5.5	---	5.2	11	---	71	---	12	---	2.5	3.8	---
TOTAL	152.6	423.3	230.4	223.4	1446	786.7	882	337.3	444.9	111.2	167.5	87.6
MEAN	4.92	14.1	7.43	7.21	51.6	25.4	29.4	10.9	14.8	3.59	5.40	2.92
MAX	14	71	15	19	283	194	122	48	46	5.9	45	9.0
MIN	3.1	4.9	5.2	3.8	12	9.7	12	6.5	4.5	2.5	2.0	1.6
CFSM	.26	.75	.40	.38	2.75	1.35	1.56	.58	.79	.19	.29	.16
IN.	.30	.84	.46	.44	2.86	1.56	1.75	.67	.88	.22	.33	.17
CAL YR 1980 TOTAL	12788.5											
WTR YR 1981 TOTAL	5292.9											
MEAN 34.9												
MAX 1730												
MIN 2.9												
CFSM 1.86												
IN 25.30												
MIN 1.6												
CFSM .77												
IN 10.47												

NOTE.--No gage-height record Dec. 17 to Jan. 23.

TENNESSEE RIVER BASIN

03567500 SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TN

LOCATION.--Lat 35°00'51", long 85°12'35", Hamilton County Hydrologic Unit 06020001, on left bank 0.1 mi (0.2 km) upstream from bridge on U.S. Highway 11, 1.5 mi (2.4 km) south of Chickamauga, 6.0 mi (9.7 km) east of the city hall in Chattanooga, and at mile 12.2 (19.6 km).

DRAINAGE AREA.--428 mi² (1,109 km²).

PERIOD OF RECORD.--October 1928 to September 1978, October 1980 to September 1981. Monthly discharge only for December 1930, published in WSP 1306. Gage-height record collected October 1978 to September 1980 (fragmentary). Prior to October 1937, published as Chickamauga Creek near Chickamauga.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1937. WSP 1386: 1932.

GAGE.--Water-stage recorder. Datum of gage is 644.12 ft (196.328 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1930, nonrecording gage. Oct. 7, 1930, to Oct. 29, 1980, water-stage recorder at site 1,000 ft (305 m) upstream at datum 7.00 ft (2.134 m) higher.

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

AVERAGE DISCHARGE.--51 years (water years 1929-78, 1981), 697 ft³/s (19.74 m³/s), 22.12 in/yr (562 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) Mar. 17, 1973, gage height, 28.70 ft (8.748 m); maximum gage height, 30.75 ft (9.373 m), Mar. 17, 1973, present datum from floodmarks (backwater from Tennessee River); minimum discharge, 61 ft³/s (1.73 m³/s) Oct. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 5,030 ft³/s (142 m³/s) at 1230 hours Feb. 11, gage height 14.73 ft (4.490 m), no peak above base of 5,500 ft³/s (156 m³/s); minimum, 116 ft³/s (3.285 m³/s) July 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	161	276	163	223	381	2410	245	701	157	124	248
2	220	159	256	161	1330	360	1550	224	710	172	123	195
3	200	157	237	161	1050	331	1050	212	565	185	122	210
4	190	155	219	159	650	406	784	205	992	159	121	279
5	180	152	207	155	463	1000	1930	200	1640	228	120	317
6	170	156	200	156	383	1010	1950	194	782	194	121	286
7	160	164	200	172	342	675	1020	188	675	164	132	183
8	160	162	195	164	320	529	771	184	1720	154	154	167
9	150	156	210	160	294	456	781	182	922	147	145	163
10	150	155	263	157	1150	410	805	183	525	142	128	154
11	150	153	352	155	4670	375	614	236	411	206	124	149
12	150	152	277	147	3130	347	521	244	378	154	142	144
13	150	152	246	146	1760	327	467	193	509	142	159	142
14	150	152	226	154	853	311	420	181	396	140	138	147
15	150	389	214	153	680	293	387	190	268	148	129	157
16	150	646	205	152	572	294	350	184	239	156	123	192
17	160	657	197	150	657	280	341	182	217	158	125	159
18	170	457	190	148	1790	266	397	190	202	142	124	152
19	160	326	185	148	2680	285	425	405	194	136	177	144
20	150	250	184	151	2950	284	345	357	186	152	186	141
21	140	218	176	241	2340	260	317	242	179	134	238	139
22	140	201	173	308	1100	312	287	207	175	125	184	139
23	150	361	171	262	848	502	387	190	170	118	157	136
24	160	1140	175	224	716	539	700	180	162	127	146	133
25	170	806	175	205	588	432	406	189	157	201	135	133
26	170	409	171	193	502	370	318	172	174	153	130	133
27	180	444	167	232	452	336	284	191	165	132	128	133
28	220	495	166	231	407	312	261	196	152	134	129	131
29	200	399	166	217	---	293	249	175	150	135	135	130
30	185	319	164	203	---	2320	260	166	148	129	309	141
31	170	---	164	201	---	3760	---	427	---	124	321	---
TOTAL	5255	9703	6407	5629	32900	18056	20787	6714	13864	4748	4729	5077
MEAN	170	323	207	182	1175	582	693	217	462	153	153	169
MAX	250	1140	352	308	4670	3760	2410	427	1720	228	321	317
MIN	140	152	164	146	223	260	249	166	148	118	120	130
CFSM	.40	.76	.48	.43	2.75	1.36	1.62	.51	1.08	.36	.36	.40
IN.	.46	.84	.56	.49	2.86	1.57	1.81	.58	1.20	.41	.41	.44

WTR YR 1981 TOTAL 133869 MEAN 367 MAX 4670 MIN 118 CFSM .86 IN 11.64

03568000 TENNESSEE RIVER AT CHATTANOOGA, TN

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, Hydrologic Unit 06020001, on right bank at Rivermont Golf and Country Club, 0.5 mi (0.8 km) downstream from South Chickamauga Creek, 3.0 mi (4.8 km) downstream from Chickamauga Dam, 3.5 mi (5.6 km) upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6 (752.4 km).

DRAINAGE AREA.--21,400 mi² (55,430 km²), approximately.

PERIOD OF RECORD.--April 1874 to current year. Monthly discharges only for some periods, published in WSP 1306. July 1930 to December 1935, published as "at Hales Bar, near Chattanooga." Gage-height records collected in this vicinity since 1874 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1306: 1916(M). WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft (189.317 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi (11.3 km) upstream from Chattanooga to Hales Bar Dam 33 mi (53 km) downstream at or within 0.2 ft (0.06 m) of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi (80.3 km) downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi (3.5 km) downstream from base gage at same datum.

REMARKS.--Records good. Flow regulated since 1936 by increasing number of upstream reservoirs (see p. and Water Resources Data for adjoining states, 1981).

AVERAGE DISCHARGE.--107 years, 37,120 ft³/s (1,051 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft³/s (11,600 m³/s) Mar. 1, 1875, gage height, 53.8 ft (16.40 m), present datum, at Walnut Street, from rating curve extended above 250,000 ft³/s (7,080 m³/s); minimum daily, 1,200 ft³/s (34.0 m³/s) Nov. 1, 1953; minimum gage height, 0.0 ft (0.00 m) Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft (17.65 m) Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft³/s (13,000 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,800 ft³/s (1,440 m³/s) Feb. 12; maximum gage height 16.63 ft (5.069 m) Feb. 12; maximum gage height at Walnut Street, 15.71 ft (4.788 m) Feb. 12; minimum daily discharge, 9,070 ft³/s (257 m³/s) May 24, minimum gage height, 11.16 ft (3.402 m) Jan. 25, Feb. 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20600	23600	20600	19500	20300	14000	18100	12100	19500	23200	15900	25600
2	19200	21900	20800	20900	30000	15100	25000	10800	20800	19300	13100	26000
3	20700	23500	22200	16000	38900	19000	19400	10100	26800	18800	27200	27900
4	17900	28100	19400	15500	35500	26600	11900	10100	24000	18000	26700	21400
5	17300	27700	19000	17600	33900	30900	12200	10100	34100	20500	32500	21000
6	20100	27200	16800	21000	30100	22200	10700	11900	33200	22500	27600	13100
7	23500	26200	17800	20300	18100	16000	11000	11200	32000	28600	30100	17100
8	23000	21100	18000	20200	16400	13800	11300	10100	33400	27100	18600	22100
9	22400	11600	17600	20100	23300	15500	10700	9710	32800	26100	19600	26900
10	22800	15000	19000	16400	27300	15300	15500	9100	32000	26900	27200	22800
11	20500	15100	23800	17300	29700	16700	11000	11300	31800	26200	28400	28700
12	20300	23700	26000	19100	36000	13900	10100	11800	32200	17000	36600	17000
13	23700	25100	24900	20100	31700	13400	9870	11600	32200	25900	35000	12600
14	18400	26400	18900	21600	38500	13500	10400	11500	31400	30900	37400	24600
15	18500	20800	19400	20000	32100	18300	9900	12600	31900	31100	31700	26000
16	20300	21100	21500	19500	37200	19900	10100	11100	31300	31300	12900	31000
17	24000	32300	21600	17800	31500	20600	9970	13200	30300	31300	30500	32000
18	15600	31300	19900	17900	18200	15500	10200	14400	30900	31000	34800	32300
19	18500	27600	16800	20700	19600	16200	10200	10900	23300	21400	23600	15800
20	19700	24900	23300	19700	30500	17500	9610	16100	19200	29900	26800	13400
21	22700	18500	21400	23000	28900	16100	17100	10100	17100	30900	22000	29300
22	18200	17700	19100	20400	27900	15200	16200	17600	21700	30300	22200	22900
23	19200	13900	17100	18600	32400	14100	16800	11000	26800	26900	14100	22000
24	19300	18700	16500	17100	27600	11100	19900	9070	25600	21000	25900	22700
25	19900	27200	17800	13900	22500	12500	21900	9090	30100	20500	26400	21700
26	21200	28300	17700	12200	18000	11400	22100	9420	30600	15000	27000	11500
27	23100	22800	17500	15200	17500	10700	19200	12800	22200	26000	24400	10500
28	17800	25500	17400	14900	14900	10700	14700	17600	21100	28100	24200	18200
29	24500	22400	20800	15900	---	11400	13200	25400	22400	28200	10300	22100
30	25200	15700	19500	14200	---	16000	11700	11500	24700	28100	12900	23500
31	24600	---	19700	19000	---	15900	---	16400	---	23300	27300	---
TOTAL	642700	684900	611800	565600	768500	499000	419950	379690	825400	785300	772900	661700
MEAN	20730	22830	19740	18250	27450	16100	14000	12250	27510	25330	24930	22060
MAX	25200	32300	26000	23000	38900	30900	25000	25400	34100	31300	37400	32300
MIN	15600	11600	16500	12200	14900	10700	9610	9070	17100	15000	10300	10500

CAL YR 1980 TOTAL 12330200 MEAN 33690 MAX 149000 MIN 11600
WTR YR 1981 TOTAL 7617440 MEAN 20870 MAX 38900 MIN 9070

TENNESSEE RIVER BASIN

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, Hydrologic Unit 06020004, on right bank 15 ft (5 m) downstream from county road bridge, 1.5 mi (2.4 km) east of Whitwell, 3.0 mi (4.8 km) upstream from bridge on State Highway 27, 4.5 mi (7.2 km) downstream from Griffith Creek, and at mile 25.1 (40.4 km).

DRAINAGE AREA.--402 mi² (1,041 km²), includes 18 mi² (47 km²) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Prior to December 1920 monthly discharges only, published in WSP 1306.

REVISED RECORDS.--WSP 603: 1922(M). WSP 758: 1929(M). WSP 1033: 1943(M). WSP 1386: 1921-22, 1923-25(M), 1927-28(M), 1930(M), 1933(M). WSP 1910: Drainage area. WDR TN-76-1: 1973-75(P).

GAGE.--Water-stage recorder. Datum of gage is 632.73 ft (192.856 m) Tennessee Valley Authority datum. Prior to Sept. 18, 1927, nonrecording gage at same site at datum 0.03 ft (0.009 m) higher. Sept. 18, 1927, to Sept. 30, 1930, nonrecording gage at bridge 15 ft (5 m) upstream at present datum.

REMARKS.--Records good. Prior to 1950 some diurnal fluctuation caused by small mills above station.

AVERAGE DISCHARGE.--61 years, 744 ft³/s (21.07 m³/s), 25.13 in/yr, (638 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s (920 m³/s) Mar. 16, 1973, gage height, 17.65 ft (5.380 m); minimum, 16 ft³/s (0.45 m³/s) Sept. 6-21, 27, 28, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of about 19 ft (5.8 m) from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,390 ft³/s (124 m³/s) at 0130 Mar. 31, gage height 11.99 ft (3.655 m), no peak above base of 5,500 ft³/s (156 m³/s); minimum, 35 ft³/s (0.991 m³/s), Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	48	150	78	119	484	2110	417	276	104	66	75
2	51	49	127	77	609	436	1410	372	589	101	65	65
3	48	49	113	75	759	391	1080	337	1050	97	65	68
4	46	50	103	72	655	383	879	307	787	96	64	69
5	46	51	95	70	442	653	1740	283	899	93	63	63
6	45	51	89	69	320	776	2130	266	1010	92	61	64
7	45	50	87	71	259	809	1720	252	1030	93	61	63
8	44	51	82	69	228	686	1280	242	1400	89	67	62
9	45	51	85	69	202	566	1220	228	1900	85	62	63
10	44	51	94	68	450	484	1330	217	1100	83	61	59
11	43	52	112	66	2390	428	1180	224	1150	80	62	55
12	42	51	137	64	2590	386	1020	238	1000	79	62	54
13	42	51	134	64	1740	347	875	236	650	84	59	53
14	42	52	121	64	1150	317	756	221	450	77	58	50
15	42	60	110	63	872	287	658	209	375	79	57	52
16	42	62	103	63	719	272	575	201	300	81	57	51
17	42	69	95	62	656	252	547	196	250	85	56	48
18	44	73	91	61	965	236	597	193	225	105	54	47
19	49	72	88	60	1520	220	833	200	200	103	53	46
20	48	73	82	61	1420	204	716	235	175	100	54	45
21	48	71	80	65	1210	190	716	282	165	90	57	46
22	44	69	76	69	980	204	797	290	150	86	56	46
23	44	72	75	72	959	352	782	255	140	85	55	44
24	44	181	76	76	1010	482	788	224	130	85	55	43
25	46	209	76	81	906	505	759	205	125	86	54	41
26	46	183	77	82	762	439	694	195	115	77	53	39
27	47	211	80	91	632	383	594	193	110	75	52	38
28	51	252	87	98	541	340	511	192	110	74	51	38
29	50	206	85	101	---	304	464	207	110	74	53	36
30	49	186	82	106	---	2380	456	301	105	71	75	35
31	48	---	81	106	---	3480	---	312	---	69	67	---
TOTAL	1416	2756	2973	2293	25065	17676	29217	7730	16076	2678	1835	1558
MEAN	45.7	91.9	95.9	74.0	895	570	974	249	536	86.4	59.2	51.9
MAX	51	252	150	106	2590	3480	2130	417	1900	105	75	75
MIN	42	48	75	60	119	190	456	192	105	69	51	35
CFSM	.11	.23	.24	.18	2.23	1.42	2.42	.62	1.33	.22	.15	.13
IN.	.13	.26	.28	.21	2.32	1.64	2.70	.72	1.49	.25	.17	.14
CAL YR 1980	TOTAL	242450	MEAN 662	MAX 17700	MIN 39	CFSM 1.65	IN 22.44					
WTR YR 1981	TOTAL	111273	MEAN 305	MAX 3480	MIN 35	CFSM .76	IN 10.30					

TENNESSEE RIVER BASIN

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03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 06...	1550	44	235	8.2	16.0	--	120	6.5	--
NOV 19...	1230	73	248	8.0	9.0	--	130	9.6	128
JAN 08...	1140	71	--	8.3	2.0	13.9	100	13	124
FEB 23...	1530	1020	148	7.9	11.5	10.2	52	11	75
APR 09...	1210	1170	140	7.7	14.5	9.5	52	11	85
MAY 12...	1500	238	202	7.8	15.0	9.8	88	8.5	107
JUN 30...	1630	106	215	7.8	24.0	--	94	7.3	133
JUL 29...	1100	73	245	7.9	26.0	6.1	110	6.6	152
AUG 18...	1100	54	242	7.9	24.5	7.9	120	7.6	141

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 06...	--	--	250	--	50	30	9	1.1
NOV 19...	.17	25.2	230	50	30	30	4	.79
JAN 08...	.17	23.8	310	10	20	20	--	--
FEB 23...	.10	207	440	20	80	30	19	52
APR 09...	.12	269	670	20	130	10	54	171
MAY 12...	.15	68.8	370	20	50	30	4	2.6
JUN 30...	.18	38.1	760	20	110	50	--	--
JUL 29...	.21	30.0	590	10	90	40	--	--
AUG 18...	.19	20.6	520	20	90	50	--	--

TENNESSEE RIVER BASIN

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°00'41", long 85°41'51", Marion County, Hydrologic Unit 06030001, on right bank at South Pittsburg Ferry landing on Tennessee State Highway 156, 0.5 mi (0.8 km) downstream from Battle Creek, 0.5 mi (0.8 km) east of South Pittsburg, 4.6 mi (7.4 km) downstream from Sequatchie River, 6.5 mi (10.5 km) downstream from Nickajack Dam, and at mile 418.2 (672.9 km).

DRAINAGE AREA.--22,640 mi² (58,640 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1930 to current year. Published as "at Hales Bar, near Chattanooga, Tenn." July 1930 to July 1966.

REVISED RECORDS.--WSP 853: Drainage area. WSP 973: 1942. WSP 1306 (monthly runoff). WSP 1386: 1932-34.

GAGE.--Water-stage recorder. Datum of gage is 581.01 ft (177.092 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1932, at site 12.9 mi (20.8 km) upstream at datum 7.85 ft (2.393 m) higher. Feb. 13, 1932, to July 17, 1966, at site 11.5 mi (18.5 km) upstream at datum 7.50 ft (2.286 m) higher. Since Jan. 27, 1939, auxiliary water-stage recorder at site 10.6 mi (17.1 km) downstream.

REMARKS.--Records good. Flow regulated since 1936 by increasing number of reservoirs above station (see p. 288) and Water Resources Data for adjoining states, 1981).

AVERAGE DISCHARGE.--51 years, 37,810 ft³/s (1,071 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 315,000 ft³/s (8,920 m³/s) Mar. 18, 1973, gage height, 34.33 ft (10.464 m); minimum daily, 2,900 ft³/s (82.1 m³/s) Nov. 1, 15, 1953; minimum gage height, 1.21 ft (0.369 m) Oct. 27, 1931, site and datum used 1932-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 44.6 ft (13.59 m) March 1867, site and datum used 1932-65. Flood of Mar. 8, 1917, reached a stage of 37.4 ft (11.40 m), site and datum used 1932-65, discharge, 320,000 ft³/s (9,060 m³/s), from rating curve extended above 225,000 ft³/s (6,370 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59,100 ft³/s (1,670 m³/s), Aug. 13, maximum gage height, 16.59 ft (5.057 m) June 8; minimum daily, 9,440 ft³/s (267 m³/s) May 17; minimum gage height, 11.51 ft (3.508 m) Oct. 1.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25500	21000	24500	23900	21700	10800	26900	16200	25100	30700	20600	30500
2	21600	20600	26400	23300	38000	18400	34200	12100	26800	23900	17200	25700
3	22500	28800	27900	20200	48900	23300	24000	12700	32600	24300	31500	30600
4	20200	30000	23900	20800	42000	30500	20800	15000	29200	20700	35500	26900
5	19000	29100	21300	24300	39300	36800	18000	16200	40900	24200	37500	27300
6	22800	30200	20400	21600	30100	36900	20900	17300	37300	29700	31300	16700
7	25300	32200	18500	24500	20400	17000	18500	14900	32100	34200	34000	23800
8	24900	23500	23100	25300	19000	12800	18200	15300	40000	32800	22000	26300
9	24200	15300	22400	21800	25100	22800	18700	13400	44300	34900	21200	27500
10	26000	21300	21800	17700	31100	14700	23600	13100	42300	31300	33700	27300
11	22700	20000	31300	22500	43800	16500	17000	19600	35300	28000	33000	28200
12	21400	23300	30200	27400	47300	17900	13600	17800	35200	21400	38800	22800
13	20700	25200	25700	23400	33000	16200	16500	16800	36500	34400	41000	16500
14	19300	23700	20600	19500	39900	14100	15500	18600	34100	37500	42900	27600
15	20000	20700	23500	20700	35500	16500	13200	17000	39100	37200	36200	29600
16	22300	18400	28000	22500	40500	23500	13900	10800	38300	32100	18500	33600
17	26800	32500	25200	21200	38100	25600	12600	9440	34100	32400	31400	33400
18	21200	36800	22500	18200	26200	19700	16400	23900	34900	29300	37700	33400
19	21300	30400	19100	24600	26700	18800	13800	20400	26600	24100	28700	17500
20	19800	29000	28800	25700	38100	16800	16100	20900	24200	35000	30100	17100
21	21100	19300	23800	25300	38000	11100	23200	13700	23400	36900	27100	28100
22	20600	19800	25000	21800	31200	13400	19900	19300	29100	31600	29500	27700
23	21300	15300	19700	21500	37100	21400	20500	15100	29200	30200	18300	26500
24	20500	25600	17500	17700	39200	12600	27800	17800	33400	24100	28000	26100
25	22500	34100	22000	12600	29100	15700	26500	18300	33900	25400	30400	24900
26	24400	34800	21300	16300	24700	12200	24900	15000	33400	20100	33200	14400
27	21900	23200	18600	18600	20300	13700	25600	19200	23000	32000	29100	12900
28	21900	27600	20300	19900	16900	12500	20400	22500	20900	35100	29700	26200
29	28100	28000	24800	16700	---	15400	19800	24300	26200	29100	14100	27100
30	27000	20000	24500	17700	---	24500	16900	12300	29700	31500	18800	24400
31	26900	---	23500	20800	---	30000	---	18800	---	25700	32100	---
TOTAL	703700	759700	726100	658000	921200	592100	597900	517740	971100	919800	913100	760600
MEAN	22700	25320	23420	21230	32900	19100	19930	16700	32370	29670	29450	25350
MAX	28100	36800	31300	27400	48900	36900	34200	24300	44300	37500	42900	33600
MIN	19000	15300	17500	12600	16900	10800	12600	9440	20900	20100	14100	12900
CAL YR 1980	TOTAL	14238300	MEAN	38900	MAX	170000	MIN	12700				
WTR YR 1981	TOTAL	9041040	MEAN	24770	MAX	48900	MIN	9440				

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN-Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1975 to September 1981 (discontinued).

WATER TEMPERATURES: July 1975 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since July 1975 to September 1981.

REMARKS.--Interruptions in record due to recorder malfunction. Flow regulated by many reservoirs (see p.288 and Water Resources Data for adjoining states, 1981).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 211 micromhos Sept. 27-28, 1981; minimum, 94 micromhos Dec. 31, 1975.

WATER TEMPERATURES: Maximum, 31.0°C Aug. 26-28, 30, 1975, June 15, 1978; minimum, 2.0°C Jan. 22, 1977, Feb. 7, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, not determined; minimum, not determined.

WATER TEMPERATURES: Maximum, 29.0°C July 15, 17-23; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 30...	1030	38700	193	7.8	17.0	.50	9.2	53	K17	73	18	21
NOV 24...	1130	10000	218	7.5	11.5	1.3	9.1	K350	160	84	14	26
DEC 17...	1215	39000	190	7.7	10.0	.30	9.8	K8	<1	71	20	20
FEB 19...	1200	35700	160	7.8	7.0	2.0	12.2	--	49	56	10	20
APR 08...	1000	30000	160	7.2	14.5	9.3	9.5	K150	35	60	17	18
MAY 28...	1030	24000	180	7.4	20.0	3.1	8.8	90	46	61	14	18
JUN 25...	0930	39600	170	7.6	27.0	3.4	4.5	97	K8	64	16	19
JUL 22...	1200	35900	200	7.6	28.0	2.3	5.6	76	75	72	14	21
AUG 26...	1100	24000	195	7.1	26.5	3.0	6.7	120	80	72	--	21
SEP 16...	1100	22000	205	7.2	26.0	1.6	7.0	72	72	72	9	21
30...	1430	28000	175	7.3	23.0	1.8	6.5	K120	42	42	9	21

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 30...	5.0	8.3	19	.4	1.5	55	18	10	.0	5.4	110
NOV 24...	4.7	6.4	14	.3	1.5	70	17	7.7	.2	4.9	120
DEC 17...	5.0	11	25	.6	1.4	51	18	14	.1	5.5	117
FEB 19...	1.4	5.5	17	.3	1.1	46	14	6.8	.5	5.4	97
APR 08...	3.6	6.9	20	.4	1.3	43	15	7.8	<.1	2.2	95
MAY 28...	3.9	10	26	.6	1.4	47	19	12	<.1	3.2	118
JUN 25...	4.0	7.5	20	.4	1.3	48	14	8.2	<.1	4.8	104
JUL 22...	4.8	8.7	20	.4	1.6	58	17	9.7	.1	4.1	106
AUG 26...	4.7	8.5	20	.4	1.5	--	17	11	<.1	4.8	122
SEP 16...	4.7	8.8	21	.5	1.5	63	19	9.8	<.1	4.6	115
30...	5.4	8.0	28	.6	1.8	63	18	10	.1	5.0	--

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

TENNESSEE RIVER BASIN

03571850 - TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)
OCT 30...	104	.15	11500	.29	.29	.090	--	.14	--	.23	--
NOV 24...	112	.16	3240	.38	.40	--	.040	--	.21	--	.25
DEC 17...	107	.16	12300	.44	.39	.020	--	.23	--	.25	--
FEB 19...	83	.13	9350	.43	.19	<.010	--	--	--	--	--
APR 08...	82	.13	7700	.40	.36	--	.090	--	.02	---	.11
MAY 28...	96	.16	7650	.32	--	.130	.020	.45	--	.58	--
JUN 25...	89	.14	11100	.30	.32	--	.110	--	1.3	---	1.4
JUL 22...	103	.14	10300	.31	.29	.040	--	.24	--	.28	--
AUG 26...	110	.17	7910	.34	.31	.040	.040	5.0	.25	5.00	.29
SEP 16...	107	.16	6830	.21	--	.050	--	.37	--	.42	--
30...	95	.18	10100	.22	.22	.050	.050	.10	--	.15	<.10
DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT 30...	.52	--	.040	.030	2.5	--	--	9	940	59	--
NOV 24...	--	.65	.090	.090	--	.7	2.0	22	594	64	51
DEC 17...	.69	--	.020	.000	2.1	--	--	5	526	80	--
FEB 19...	.58	--	.060	--	11	--	--	20	1930	81	--
APR 08...	--	.47	.040	.020	--	.8	3.0	15	1220	84	2000
MAY 28...	.90	--	--	.040	3.3	--	--	7	454	77	2800
JUN 25...	--	1.7	.050	.050	--	--	2.6	11	1180	78	1300
JUL 22...	.59	--	.050	<.010	2.9	--	--	4	388	88	--
AUG 26...	5.3	.60	--	.090	--	.6	2.8	3	194	90	2700
SEP 16...	.63	--	.050	.020	1.3	--	--	4	238	59	910
30...	.37	--	.040	.030	3.0	--	--	7	529	58	440

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

[illegible]

TENNESSEE RIVER BASIN

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 24,80	APR 8,81	MAY 28,81	JUN 25,81
TIME	1130	1000	1030	0930
TOTAL CELLS/ML	51	2000	2800	1300
DIVERSITY: DIVISION	0.0	0.5	1.0	1.3
..CLASS	0.0	0.5	1.0	1.3
..ORDER	0.8	1.4	1.1	1.5
...FAMILY	0.8	1.4	1.1	1.5
....GENUS	0.8	1.8	1.5	1.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
....OOCYSTACEAE								
....ANKISTRODESMUS	--	-	13	1	--	-	13	1
....FRANCEIA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	64	5
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	26	1	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	39#	75	--	-	120	4	100	8
....MELOSIRA	--	-	900#	46	800#	28	550#	43
....STEPHANODISCUS	--	-	190	10	150	5	--	-
...PENNALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	640#	33	--	-	--	-
....SYNEDRA	--	-	13	1	--	-	--	-
...NITZSCHACEAE								
....NITZSCHIA	--	-	--	-	26	1	39	3
...SURIRELLACEAE								
....SURIRELLA	13#	25	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	13	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	190	10	1700#	60	490#	38
...HORMOGONALES								
....RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...PERIDINIALES								
....PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

TENNESSEE RIVER BASIN

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03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	AUG 26,81	SEP 16,81	SEP 30,81
TIME	1100	1100	1430
TOTAL CELLS/ML	2700	910	440
DIVERSITY: DIVISION	1.4	1.1	0.0
.CLASS	1.4	1.1	0.0
.ORDER	1.5	1.3	0.7
...FAMILY	1.6	1.4	0.7
....GENUS	2.2	1.7	0.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...HYDRODICTYACEAE						
...PEDIASTRUM	110	4	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	42	5	--	-
....FRANCEIA	28	1	--	-	--	-
....OOCYSTIS	170	6	--	-	--	-
....SELENASTRUM	28	1	--	-	--	-
...SCENEDESMACEAE						
...SCENEDESMUS	--	-	28	3	--	-
..TETRASPORALES						
...PALMELLACEAE						
...SPHAEROCYSTIS	28	1	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	28	1	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCEAE						
...CYCLOTELLA	250	9	56	6	--	-
...MELOSIRA	500#	18	600#	66	350#	81
...STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...FRAGILARIACEAE						
...ASTERIONELLA	--	-	--	-	--	-
...SYNEDRA	--	-	--	-	--	-
...NITZSCHACEAE						
...NITZSCHIA	--	-	--	-	82#	19
...SURIPELLACEAE						
...SURIPELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
...CHROOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	110	4	--	-	--	-
....ANACYSTIS	1400#	54	70	8	--	-
...HORMOGONALES						
...RIVULARIACEAE						
...RAPHIIDOPSIS	--	-	110	12	--	-
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
...PERIDINIACEAE						
...PERIDINIUM	14	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

TENNESSEE RIVER BASIN

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN-Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	174	170	172
2	---	---	---	162	152	158	---	---	---	172	169	171
3	---	---	---	162	154	159	---	---	---	172	169	170
4	---	---	---	163	148	159	---	---	---	173	165	171
5	---	---	---	164	141	157	---	---	---	174	170	172
6	---	---	---	166	147	159	---	---	---	175	167	173
7	---	---	---	166	141	152	---	---	---	177	174	175
8	---	---	---	165	141	153	---	---	---	178	175	176
9	---	---	---	166	146	159	166	146	157	179	176	178
10	---	---	---	167	151	163	167	149	160	179	173	179
11	---	---	---	165	142	160	167	139	160	181	176	180
12	---	---	---	166	149	163	167	136	156	181	172	180
13	---	---	---	167	149	162	168	138	159	183	180	181
14	---	---	---	167	155	164	167	150	161	183	177	182
15	---	---	---	167	155	164	167	156	163	184	177	183
16	---	---	---	168	160	165	166	148	161	183	178	183
17	---	---	---	170	161	166	166	161	164	183	182	182
18	---	---	---	170	161	168	170	159	163	183	182	183
19	---	---	---	171	155	167	171	163	168	183	178	182
20	156	137	150	170	162	168	172	165	168	185	177	183
21	160	139	153	170	157	164	171	163	168	186	179	184
22	163	146	158	163	144	160	174	168	172	185	180	184
23	161	142	155	163	152	160	178	170	174	185	179	183
24	159	144	154	170	153	161	180	173	177	184	181	183
25	160	144	153	170	153	164	181	174	179	183	177	182
26	160	139	153	169	152	161	181	170	178	182	171	180
27	162	148	155	169	154	162	179	170	176	182	177	180
28	162	149	157	170	148	161	178	169	175	184	173	181
29	---	---	---	166	145	159	176	166	173	183	178	182
30	---	---	---	169	139	156	175	170	173	182	181	182
31	---	---	---	---	---	---	---	---	---	183	180	181
MONTH	---	---	---	171	139	161	---	---	---	186	165	179
	JUNE			JULY			AUGUST			SEPTEMBER		
1	182	170	179	162	147	160	205	202	204	197	194	196
2	182	170	180	163	159	161	205	203	204	199	196	197
3	180	170	179	164	158	161	205	202	203	199	197	198
4	179	170	177	165	160	162	204	194	201	200	197	199
5	179	174	177	163	160	162	205	201	202	201	199	200
6	180	176	178	165	161	163	202	201	201	202	198	201
7	180	174	178	166	162	164	202	191	200	203	201	202
8	176	170	173	166	161	164	202	185	198	203	200	201
9	174	156	170	167	162	164	201	199	200	202	199	201
10	172	167	170	165	163	164	202	195	200	202	199	201
11	171	168	169	165	157	164	202	199	200	202	200	201
12	171	158	168	165	162	164	202	199	201	202	201	201
13	171	167	169	167	151	165	202	199	201	204	201	202
14	170	167	168	171	158	167	201	195	200	203	201	202
15	170	162	167	177	162	173	201	195	200	205	203	204
16	168	165	167	182	164	178	201	195	199	208	206	207
17	167	163	166	184	177	182	200	195	199	209	206	207
18	165	163	164	187	181	185	198	195	197	208	204	207
19	165	163	164	190	184	187	199	196	198	208	200	206
20	165	163	164	191	186	189	199	195	197	208	201	206
21	166	158	164	193	189	191	197	188	195	207	205	206
22	165	164	165	201	191	196	198	195	197	207	205	206
23	166	163	164	202	193	200	198	186	193	209	198	206
24	166	163	164	203	199	201	199	193	197	210	196	208
25	165	162	163	205	197	202	197	195	196	210	203	208
26	163	161	162	204	201	202	197	192	195	210	205	208
27	164	161	162	205	199	203	197	195	196	211	196	209
28	164	153	161	207	202	205	196	195	196	211	178	203
29	162	158	160	207	202	205	198	182	195	181	178	180
30	161	148	160	206	203	205	196	190	194	209	178	182
31	---	---	---	205	194	203	197	194	196	---	---	---
MONTH	182	148	168	207	147	180	205	182	199	211	178	202

TENNESSEE RIVER BASIN

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03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN-Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN-Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

TENNESSEE RIVER BASIN

251

03578000 ELK RIVER NEAR PELHAM, TN

LOCATION.--Lat 35°17'48", long 85°52'12", Grundy County, Hydrologic Unit 06030003, on right bank at downstream side of bridge on U. S. Highway 41, 1.1 mi (1.8 km) southeast of Pelham, 1.8 mi (2.9 km) upstream from Caldwell Creek, and at mile 194.2 (312.5 km).

DRAINAGE AREA.--65.6 mi² (169.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year. Prior to November 1951 monthly discharges only, published in WSP 1726.

REVISED RECORDS.--WRD TN 1973: 1963(P), 1965 (M), 1966(P), 1969(M), 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 981.62 ft (299.198 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--30 years, 141 ft³/s (3.993 m³/s), 29.19 in/yr (741 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) Mar. 16, 1973, gage height, 14.08 ft (4.292 m); minimum, 1.0 ft³/s (0.028 m³/s) Sept. 27, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft³/s (33.4 m³/s) at 2000 hours Mar. 30, gage height, 9.07 ft (2.765 m), no peak above base of 1,500 ft³/s (42.5 m³/s); minimum daily, 1.9 ft³/s (0.054 m³/s) Oct. 12, 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.5	34	23	81	78	349	59	101	8.3	3.9	42
2	2.8	3.2	29	21	444	96	228	49	144	8.3	3.9	50
3	2.7	3.1	24	19	349	79	172	42	123	7.8	3.8	41
4	2.4	2.9	20	17	195	98	141	38	165	7.8	3.6	55
5	2.2	3.7	18	16	134	252	570	34	132	7.7	3.6	47
6	2.1	3.1	16	15	101	220	442	32	99	8.1	3.9	34
7	2.1	2.9	15	15	86	165	259	30	195	8.1	13	26
8	2.0	2.8	14	19	82	126	187	27	376	8.5	50	21
9	2.0	2.6	20	19	86	103	425	23	196	7.9	53	16
10	2.1	2.5	107	18	196	88	508	20	122	7.5	26	14
11	2.0	2.4	91	17	531	81	299	20	115	7.1	15	11
12	1.9	2.3	62	15	358	75	210	23	108	6.6	11	8.2
13	2.0	2.2	48	14	221	71	165	20	133	6.3	9.5	7.1
14	2.1	3.2	39	13	168	67	131	16	95	5.9	7.8	6.1
15	2.1	6.4	34	14	134	61	105	13	66	5.4	6.3	6.1
16	2.0	5.8	31	14	112	58	87	13	49	5.5	7.8	7.3
17	1.9	6.1	28	13	125	59	81	13	40	6.2	7.8	14
18	2.2	7.5	24	12	187	55	93	13	34	47	10	9.9
19	2.7	7.8	20	11	257	52	80	22	29	34	8.5	7.4
20	2.1	6.7	19	11	289	50	76	53	24	21	8.7	5.8
21	2.1	4.9	16	24	228	47	83	43	21	19	11	4.8
22	2.2	4.0	15	51	168	52	76	33	19	13	17	4.3
23	2.1	4.9	14	46	139	155	124	24	16	10	15	3.9
24	2.3	135	15	43	116	141	225	19	15	8.0	11	3.5
25	3.2	103	42	39	94	113	181	15	13	6.8	8.5	3.2
26	2.5	52	42	36	81	92	135	20	12	5.9	6.8	3.0
27	3.0	56	37	61	74	80	104	22	11	5.1	5.7	2.9
28	7.0	83	34	119	66	70	83	24	10	4.6	5.0	2.6
29	5.5	57	31	87	---	63	72	21	9.2	4.5	4.7	2.6
30	4.5	41	29	73	---	731	75	18	8.4	4.7	71	2.7
31	4.0	---	26	82	---	810	---	30	---	4.3	58	---
TOTAL	82.8	621.5	994	977	5102	4288	5766	829	2480.6	310.9	470.8	462.4
MEAN	2.67	20.7	32.1	31.5	182	138	192	26.7	82.7	10.0	15.2	15.4
MAX	7.0	135	107	119	531	810	570	59	376	47	71	55
MIN	1.9	2.2	14	11	66	47	72	13	8.4	4.3	3.6	2.6
CFSM	.04	.32	.49	.48	2.77	2.10	2.93	.41	1.26	.15	.23	.24
IN.	.05	.35	.56	.55	2.89	2.43	3.27	.47	1.41	.18	.27	.26

CAL YR 1980 TOTAL 39574.1 MEAN 108 MAX 3770 MIN 1.5 CFSM 1.65 IN 22.44
WTR YR 1981 TOTAL 22385.0 MEAN 61.3 MAX 810 MIN 1.9 CFSM .93 IN 12.69

TENNESSEE RIVER BASIN

03578000 ELK RIVER NEAR PELHAM, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 08...	1520	2.0	295	7.8	17.5	--	130	23	--
NOV 17...	1050	5.5	295	7.5	11.0	--	130	24	167
JAN 09...	1025	19	172	--	3.5	12.2	--	17	99
FEB 27...	1400	70	140	7.6	10.5	11.0	49	12	88
APR 08...	1600	180	135	8.0	12.5	10.0	48	12	78
MAY 11...	1230	18	200	7.5	14.0	9.6	78	14	103
JUL 01...	1245	7.9	235	7.6	21.5	9.5	100	16	136
AUG 05...	1645	3.6	250	7.0	25.0	5.8	96	17	151
18...	1330	9.8	227	7.5	21.0	6.8	90	20	140

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 08...	--	--	280	0	110	60	18	.10
NOV 17...	.23	2.4	390	50	120	80	9	.13
JAN 09...	.13	5.0	160	40	30	30	--	--
FEB 27...	.12	16.7	190	0	50	30	--	--
APR 08...	.11	37.9	170	10	40	20	--	--
MAY 11...	.14	5.0	290	60	60	60	1	.05
JUL 01...	.18	2.9	420	30	130	80	--	--
AUG 05...	.21	1.4	420	20	120	110	--	--
18...	.19	3.7	550	50	100	80	--	--

TENNESSEE RIVER BASIN

253

03579100 ELK RIVER NEAR ESTILL SPRINGS, TN

LOCATION.--Lat 35°17'08", long 86°06'20", Franklin County, Hydrologic Unit 06030003, on left bank at bridge on Corn Mill Road, 1.7 mi (2.7 km) northeast of Estill Springs, 2.7 mi (4.3 km) downstream from Elk River Dam, 4.0 mi (6.4 km) upstream from U. S. Highway 41A bridge, and at mile 167.3 (269.2 km).

DRAINAGE AREA.--275 mi² (712 km²).

PERIOD OF RECORD.--October 1920 to September 1981 (discontinued). Monthly discharge only for some periods, published in WSP 1306 and 1726. Prior to January 1967 published as "at Estill Springs."

REVISED RECORDS.--WSP 803: 1929(M), 1934-35, WSP 1306: 1922(M).

GAGE.--Water-stage recorder. Datum of gage is 886.43 ft (270.184 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1926, nonrecording gage, and Oct. 1, 1926, to Dec. 31, 1966, water-stage recorder at site 4.0 mi (6.4 km) downstream at datum 27.33 ft (8.330 m) lower. Water-stage recorder at present site and datum since Nov. 22, 1966.

REMARKS.--Records good. Flow regulated by Woods Reservoir (station 03579000) 2.7 mi (4.3 km) upstream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--61 years, 487 ft³/s (13.79 m³/s), 24.05 in/yr (611 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft³/s (1,080 m³/s) Mar. 16, 1973, gage height, 20.33 ft (6.197 m); minimum, 10 ft³/s (0.28 m³/s) Oct. 9, 10, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) at 2345 hours Mar. 30, gage height, 5.98 ft (1.823 m); minimum, 16 ft³/s (0.453 m³/s) Nov. 20-23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	154	239	116	217	302	1310	225	839	59	46	75
2	37	143	136	116	618	180	635	225	437	63	45	75
3	39	132	124	116	795	69	383	162	305	62	43	76
4	39	122	124	116	613	71	401	115	305	62	41	78
5	41	113	124	116	309	314	1260	113	305	65	40	80
6	38	105	124	98	309	431	914	113	305	72	44	84
7	34	96	124	66	305	431	819	113	309	69	45	88
8	32	91	124	66	305	382	593	113	431	68	57	84
9	32	88	126	67	302	173	1010	113	576	66	61	77
10	30	83	124	67	305	65	1420	115	384	66	61	68
11	32	76	122	67	549	65	877	113	358	74	64	64
12	32	73	122	67	917	64	588	113	288	71	63	60
13	31	68	122	67	681	64	606	113	272	71	61	59
14	28	67	122	67	540	64	291	113	277	67	58	58
15	28	80	122	67	451	64	293	97	274	63	57	60
16	35	80	122	67	277	63	336	63	180	61	76	60
17	65	74	122	67	329	62	356	63	170	59	146	59
18	63	19	122	67	374	62	356	63	135	59	76	57
19	64	17	120	67	467	62	356	239	65	63	77	55
20	64	16	118	68	505	62	357	126	65	65	76	52
21	58	16	118	70	505	62	241	116	67	64	77	49
22	55	16	118	69	505	63	231	116	68	62	74	45
23	53	21	118	69	431	235	352	116	66	60	73	44
24	56	404	120	69	305	227	444	107	65	58	70	41
25	61	332	118	68	290	227	286	67	63	57	66	38
26	61	170	118	68	302	292	329	68	66	57	64	37
27	115	126	116	329	302	299	483	68	64	55	60	39
28	227	124	116	305	302	299	307	67	62	53	58	38
29	205	185	116	305	---	300	229	67	61	51	58	36
30	182	239	116	305	---	1140	226	67	58	51	65	34
31	168	---	116	198	---	1730	---	186	---	47	64	---
TOTAL	2044	3330	3873	3470	12110	7924	16289	3555	6920	1920	1966	1770
MEAN	65.9	111	125	112	433	256	543	115	231	61.9	63.4	59.0
MAX	227	404	239	329	917	1730	1420	239	839	74	146	88
MIN	28	16	116	66	217	62	226	63	58	47	40	34
(+)	-1200	0	-800	-200	+100	+2900	-100	+200	-500	-200	+300	-600
MEAN†	27.2	111	99.1	105	436	349	540	121	214	55.5	73.1	59.0
CFSM†	.10	.40	.36	.38	1.59	1.27	1.96	.44	.78	.20	.27	.14
IN.‡	.11	.45	.42	.44	1.65	1.46	2.19	.51	.87	.23	.31	.16
CAL YR 1980	TOTAL	150014	MEAN 410	MAX	14600	MIN 16	MEAN† 410	CFSM†	1.49	IN.‡ 20.31		
WTR YR 1981	TOTAL	65171	MEAN 179	MAX	1730	MIN 16	MEAN† 178	CFSM†	.65	IN.‡ 8.80		

† Change in contents, in cfs-days, in Woods Reservoir.

‡ Adjusted for change in contents.

TENNESSEE RIVER BASIN

03582000 ELK RIVER ABOVE FAYETTEVILLE, TN

LOCATION.--Lat 35°08'04", long 86°32'23", Lincoln County, Hydrologic Unit 06030003, on right bank 100 ft (30 m) downstream from highway bridge, 1.8 mi (2.9 km) southeast of Fayetteville, 4.0 mi (6.4 km) upstream from Norris Creek, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--827 mi² (2,142 km²).

PERIOD OF RECORD.--August 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 650.58 ft (198.297 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Prior to August 1949, diurnal fluctuation at low flow caused by powerplants upstream. Flow regulated by Woods Reservoir since 1952 (see station 03579000), and Tims Ford Lake since December 1970 (see station 03580740).

AVERAGE DISCHARGE.--47 years, 1,442 ft³/s (40.84 m³/s), 23.68 in/yr (601 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,600 ft³/s (1,180 m³/s) Mar. 16, 1973, gage height, 28.63 ft (8.726 m); minimum, 67 ft³/s (1.90 m³/s) Dec. 9, 10, 11, 1970, gage height, 0.75 ft (0.229 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1842 reached a stage of 27.5 ft (8.38 m), discharge, 37,000 ft³/s (1,050 m³/s), and flood of Mar. 23, 1929, reached a stage of 27.2 ft (8.29 m), discharge, 36,000 ft³/s (1,020 m³/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,900 ft³/s (110 m³/s) at 0900 hours Mar. 30, gage height, 8.35 ft (2.545 m); minimum, 93 ft³/s (2.63 m³/s) July 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	415	275	418	518	168	900	135	1480	437	373	478
2	400	426	1680	411	2250	289	619	282	1120	415	133	464
3	389	430	1760	381	2220	656	473	284	528	397	136	403
4	396	1130	2220	381	1760	588	445	264	634	389	328	391
5	385	1180	1380	774	1140	744	1780	258	788	198	349	399
6	381	1170	838	1110	918	1270	1110	261	413	267	407	162
7	392	1150	461	856	574	759	726	274	420	268	358	143
8	381	1010	441	1330	557	579	547	239	1020	351	376	356
9	400	461	319	973	449	325	1390	255	1980	373	161	356
10	392	574	477	628	666	539	1250	257	355	368	136	393
11	392	1290	1880	411	565	535	802	279	282	370	354	381
12	392	1310	1810	638	1650	461	582	270	284	126	382	392
13	378	1310	1580	905	1530	182	458	889	1080	147	352	148
14	389	1320	350	457	690	163	384	286	487	328	346	138
15	396	1250	403	411	295	149	349	246	347	338	359	406
16	392	574	973	367	255	325	291	1020	243	348	167	485
17	381	739	973	341	261	583	281	293	202	382	179	454
18	403	1560	1270	374	522	301	362	286	175	409	424	418
19	407	1980	481	389	485	143	284	331	158	173	510	440
20	415	1990	1140	403	415	272	251	315	151	215	432	154
21	396	1980	1530	690	347	272	229	279	156	381	440	144
22	400	1280	1700	610	304	489	203	242	179	376	413	390
23	400	374	1700	350	338	1040	218	330	408	362	138	401
24	415	978	1490	161	574	510	295	166	418	363	125	388
25	434	1590	1070	263	749	357	232	128	408	416	335	389
26	418	2650	1560	272	769	298	196	407	401	178	352	409
27	418	2050	1380	661	418	252	172	416	409	213	354	153
28	453	1320	165	799	177	220	155	402	119	355	351	133
29	441	1160	328	661	---	197	154	421	123	366	365	380
30	426	680	1900	588	---	2700	155	400	387	375	265	391
31	426	---	1520	477	---	1580	---	904	---	361	204	---
TOTAL	12495	35331	35054	17490	21396	16946	15293	10819	15155	10045	9604	10139
MEAN	403	1178	1131	564	764	547	510	349	505	324	310	338
MAX	453	2650	2220	1330	2250	2700	1780	1020	1980	437	510	485
MIN	378	374	165	161	177	143	154	128	119	126	125	133

CAL YR 1980 TOTAL 516902 MEAN 1412 MAX 19600 MIN 165 MEAN+ 1382 CFSM+ 1.67 IN.+ 22.74
WTR YR 1981 TOTAL 209767 MEAN 575 MAX 2700 MIN 119 MEAN+ 545 CFSM+ .66 IN.+ 8.94

* Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03584500 ELK RIVER NEAR PROSPECT, TN

LOCATION.--Lat 35°01'39", long 86°56'52", Giles County, Hydrologic Unit 06030004, on right bank 50 ft (15 m) upstream from county road bridge, 1.1 mi (1.8 km) downstream from Richland Creek, 3.2 mi (5.1 km) east of Prospect, 5.4 mi (8.7 km) upstream from Ford Creek, 7.9 mi (12.7 km) upstream from Tennessee - Alabama State line, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--1,784 mi² (4,621 km²).

PERIOD OF RECORD.--July 1904 to February 1908, January 1919 to current year. Published as "near Elkmont, Ala." 1904-8, 1919-34. Record for both sites published January to March 1934.

REVISED RECORDS.--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. WSP 1436: 1920-22, 1923(M), 1924, 1927, 1929, 1931-32(M).

GAGE.--Water-stage recorder. Datum of gage is 563.29 ft (171.691 m) National Geodetic Vertical Datum of 1929. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934, nonrecording gage 11.9 mi (19.1 km) downstream at datum 13.52 ft (4.121 m) lower.

REMARKS.--Records good. Flow regulated by Woods Reservoir (station 03579000) since May 1952, and Tims Ford Lake (station 03580740) since December 1970. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--65 years (1905-7, 1920-82), 3,071 ft³/s (86.97 m³/s), 23.38 in/yr (594 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft³/s (3,310 m³/s) Mar. 17, 1973, gage height, 40.12 ft (12.229 m), from rating curve extended above 63,000 ft³/s (1,780 m³/s) on basis of slope-area measurement at gage height 38.17 ft (11.634 m) and contracted-opening measurement at gage height 38.96 ft (11.875 m); minimum, 78 ft³/s (2.21 m³/s) Sept. 29, 1961 (caused by highway construction upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage of 40.9 ft (12.47 m), discharge, 130,000 ft³/s (3,680 m³/s), and may have been equaled by a flood in March 1897, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s (300 m³/s) at 0130 hours Mar. 31, gage height, 13.39 ft (4.081 m); minimum, 258 ft³/s (7.31 m³/s) Aug. 5, 11, 12.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	488	725	1440	1480	658	4150	529	1780	459	461	473
2	493	477	664	570	7020	605	2860	478	1780	526	473	568
3	477	493	1800	531	4920	670	2170	538	1560	524	314	623
4	461	515	2070	515	3600	1300	1830	554	1070	499	265	765
5	461	1120	2310	467	2780	2750	3090	513	1870	586	367	690
6	456	1160	1370	1030	1910	2590	3590	497	1360	1140	442	606
7	446	1200	750	1230	1440	2640	2430	524	1750	782	472	425
8	451	1180	553	781	1200	1800	1900	506	2140	585	464	346
9	441	883	576	1540	1070	1370	2320	438	2510	534	468	419
10	451	520	537	1070	1180	1130	4940	476	1970	591	357	470
11	446	664	1230	634	1590	1180	3330	492	865	537	270	485
12	441	1300	1860	498	1830	1110	2490	502	754	526	362	473
13	441	1340	2010	832	2760	947	1980	597	897	342	448	468
14	430	1350	1460	845	2240	676	1660	925	1430	310	425	380
15	436	1590	542	565	1270	605	1400	508	846	402	418	321
16	441	1310	605	520	941	582	1160	556	624	450	447	477
17	446	820	1050	498	1300	756	1060	1010	508	455	460	561
18	420	1160	1090	477	1860	858	1020	587	443	499	853	553
19	451	1820	1260	441	2730	652	1120	606	404	518	954	512
20	446	2190	582	509	2550	520	998	626	388	394	845	536
21	456	2180	1390	756	1960	553	883	592	367	347	693	370
22	441	2100	1700	1180	1590	839	769	519	342	465	640	330
23	441	1230	1760	967	1330	2710	816	460	345	463	586	485
24	456	570	1750	652	1230	2430	1010	462	511	471	424	500
25	477	1300	1720	472	1260	1680	989	439	540	510	314	480
26	488	2180	1490	451	1380	1280	807	583	535	516	393	480
27	488	2820	1770	670	1180	1070	674	697	506	399	466	490
28	553	2430	1130	1470	889	915	605	713	517	353	461	400
29	582	1710	420	1260	---	814	575	643	320	417	459	350
30	542	1170	980	1020	---	6620	559	647	274	474	474	330
31	504	---	1770	889	---	8360	---	716	---	479	416	---
TOTAL	14424	39270	38924	24780	56490	50670	53185	17933	29206	15553	14891	14366
MEAN	465	1309	1256	799	2018	1635	1773	578	974	502	480	479
MAX	582	2820	2310	1540	7020	8360	4940	1010	2510	1140	954	765
MIN	420	477	420	441	889	520	559	438	274	310	265	321

CAL YR 1980 TOTAL 1114940 MEAN 3046 MAX 42900 MIN 275 MEAN+ 3016 CFSM+ 1.69 IN.+ 23.01
WTR YR 1981 TOTAL 369692 MEAN 1013 MAX 8360 MIN 265 MEAN+ 983 CFSM+ .55 IN.+ 7.48

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

TENNESSEE RIVER BASIN

03588000 SHOAL CREEK AT LAWRENCEBURG, TN

LOCATION.--Lat 35°14'40", long 87°21'02", Lawrence County, Hydrologic Unit 06030005, on left bank at Lawrenceburg municipal water-supply intake, 500 ft (152 m) downstream from Little Shoal Creek, 0.5 mi (0.8 km) upstream from Crowson Creek, 0.9 mi (1.4 km) west of courthouse in Lawrenceburg, and at mile 55.9 (89.9 km).

DRAINAGE AREA.--55.4 mi² (143.5 km²).

PERIOD OF RECORD.--June 1932 to March 1934, March 1967 to current year.

REVISED RECORDS.--WSP 1306: Drainage area. WSP 2110: 1933.

GAGE.--Water-stage recorder. Datum of gage is 784.41 ft (239.088 m) National Geodetic Vertical Datum of 1929. June 7, 1932, to Mar. 31, 1934, nonrecording gage at site 500 ft (152 m) downstream at datum 4.01 ft (1.222 m) lower. Mar. 22, 1967, to Sept. 30, 1970, at site 1,300 ft (396 m) downstream at datum 7.71 ft (2.350 m) lower.

REMARKS.--Records poor. About 6 ft³/s (0.17 m³/s) were diverted by Lawrenceburg water plant, some of which was returned to the stream through sewage treatment plant 0.6 mi (1.0 km) downstream. Records of periodic water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--15 years (water years 1933, 1968-81), 109 ft³/s (3.087 m³/s), 26.72 in/yr (679 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s (430 m³/s) Mar. 15, 1973, gage height, 18.71 ft (5.703 m), from rating curve extended above 6,700 ft³/s (190 m³/s) on basis of computation of peak flow over dam; minimum daily, 19 ft³/s (0.54 m³/s) Nov. 2, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1846, 20.0 ft (6.10 m) present site and datum, Mar. 28, 1902, discharge, 23,000 ft³/s (651 m³/s); flood of Mar. 21, 1955, reached a stage of 17.2 ft (5.24 m), present site and datum, discharge 18,000 ft³/s (510 m³/s), from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,080 ft³/s (58.9 m³/s) at 0830 hours Aug. 18, gage height 5.53 ft (1.686 m), no other peak above base of 1,800 ft³/s (51.0 m³/s); minimum daily discharge, 21 ft³/s (0.59 m³/s) June 29, July 22, Aug. 4.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	29	26	25	182	36	65	34	34	22	22	36
2	31	30	25	24	113	32	56	34	38	22	22	94
3	31	29	25	23	51	32	50	34	35	22	22	148
4	32	29	25	24	42	67	77	33	47	81	21	75
5	32	26	25	24	39	59	87	32	72	58	25	56
6	31	26	25	26	36	46	52	32	42	31	22	52
7	30	27	24	25	36	42	46	31	72	27	40	46
8	30	26	24	23	39	40	43	31	49	26	26	42
9	31	27	34	23	33	37	188	31	38	25	24	40
10	31	26	28	23	50	35	81	37	35	25	22	38
11	30	25	25	23	51	34	62	31	36	24	22	36
12	31	26	24	23	40	34	55	30	37	23	22	35
13	29	26	25	23	37	33	49	30	34	22	24	34
14	29	32	25	23	37	34	46	31	32	22	30	33
15	28	31	25	23	36	34	42	29	26	22	26	38
16	28	27	25	23	46	32	40	30	34	22	214	33
17	29	40	24	23	71	31	45	44	26	33	44	32
18	31	30	23	23	56	32	66	33	25	22	818	32
19	30	27	23	23	52	31	61	34	61	31	126	31
20	29	26	23	32	47	30	48	30	42	24	81	30
21	28	26	23	26	46	30	43	29	32	22	66	29
22	28	26	25	23	44	52	42	29	30	21	60	28
23	28	30	24	23	39	45	67	28	27	56	55	27
24	32	27	39	24	37	38	54	28	24	32	49	26
25	32	26	27	24	36	35	45	79	24	26	46	26
26	30	29	25	25	34	34	42	46	23	24	44	26
27	61	40	24	32	33	33	39	33	24	23	277	25
28	36	28	24	25	35	33	37	32	22	26	81	26
29	30	28	25	25	---	64	38	31	21	24	47	25
30	30	28	24	26	---	428	35	36	22	22	40	25
31	29	---	23	25	---	84	---	35	---	22	38	---
TOTAL	969	853	786	757	1398	1627	1701	1057	1064	882	2456	1224
MEAN	31.3	28.4	25.4	24.4	49.9	52.5	56.7	34.1	35.5	28.5	79.2	40.8
MAX	61	40	39	32	182	428	188	79	72	81	818	148
MIN	28	25	23	23	33	30	35	28	21	21	21	25
CFSM	.57	.51	.46	.44	.90	.95	1.02	.62	.64	.51	1.43	.74
IN.	.65	.57	.53	.51	.94	1.09	1.14	.71	.71	.59	1.65	.82
CAL YR 1980	TOTAL	46612	MEAN	127	MAX	3270	MIN	23	CFSM	2.29	IN	31.30
WTR YR 1981	TOTAL	14774	MEAN	40.5	MAX	818	MIN	21	CFSM	.73	IN	9.92

TENNESSEE RIVER BASIN

257

03588400 CHISHOLM CREEK AT WESTPOINT, TN

LOCATION.--Lat 35°08'04", long 87°31'45", Lawrence County, Hydrologic Unit 06030005, on left bank at downstream side of pier of county road bridge, 0.3 mi (0.5 km) northeast of Westpoint, and at mile 1.2 (1.9 km).

DRAINAGE AREA.--43.0 mi² (111 km²).

PERIOD OF RECORD.--July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft (182.947 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--19 years, 86.6 ft³/s (2.453 m³/s), 27.35 in/yr (695 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s (507 m³/s) Mar. 15, 1973, gage height, 14.74 ft (4.493 m), from rating curve extended above 4,100 ft³/s (116 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 8.4 ft³/s (0.24 m³/s) July 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 768 ft³/s (21.7 m³/s) at 2345 hours Feb. 1, gage height, 5.79 ft (1.765 m), no peak above base of 1,200 ft³/s (34.0 m³/s); minimum, 11 ft³/s (0.312 m³/s) Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	27	32	25	335	36	137	30	31	16	19	15
2	25	26	29	25	399	31	106	27	34	16	18	25
3	23	26	28	24	158	28	87	26	35	15	17	50
4	22	26	27	23	109	63	83	25	31	14	16	40
5	22	26	26	23	83	87	120	23	56	50	15	30
6	21	26	26	25	66	74	97	23	47	40	15	20
7	21	26	26	32	54	65	85	23	57	27	18	19
8	21	27	26	28	52	56	76	22	44	21	17	17
9	21	27	38	26	38	43	163	21	39	18	14	16
10	21	27	38	25	76	39	170	23	33	17	14	15
11	21	26	32	23	102	40	136	26	34	18	13	14
12	22	25	29	21	80	37	112	23	41	17	13	13
13	24	25	28	23	68	35	93	21	32	15	14	12
14	25	27	27	25	59	33	79	21	28	14	16	12
15	25	40	26	24	52	32	64	21	25	13	14	42
16	26	34	26	23	57	32	55	21	23	13	66	37
17	27	43	25	21	94	29	56	31	25	21	40	20
18	31	84	25	21	100	28	42	37	21	21	120	16
19	32	46	24	23	94	28	42	34	21	19	80	15
20	31	37	23	28	83	25	41	28	30	19	50	14
21	31	32	23	42	71	25	40	25	23	19	35	13
22	32	30	23	36	63	39	38	22	20	18	25	12
23	32	29	24	32	54	52	57	21	22	16	22	12
24	33	31	44	30	36	42	59	20	19	22	19	11
25	48	28	40	28	42	40	53	30	17	38	17	11
26	38	27	34	28	37	37	33	56	17	38	25	11
27	41	46	31	40	34	35	43	34	16	24	90	12
28	85	52	28	40	32	33	38	29	15	21	50	13
29	37	41	28	36	---	35	37	25	15	25	30	12
30	31	35	27	35	---	265	34	28	15	27	20	11
31	28	---	26	33	---	185	---	35	---	20	15	---
TOTAL	924	1002	889	868	2528	1629	2276	831	866	672	937	560
MEAN	29.8	33.4	28.7	28.0	90.3	52.5	75.9	26.8	28.9	21.7	30.2	18.7
MAX	85	84	44	42	399	265	170	56	57	50	120	50
MIN	21	25	23	21	32	25	33	20	15	13	13	11
CFSM	.69	.78	.67	.65	2.10	1.22	1.77	.62	.67	.51	.70	.44
IN.	.80	.87	.77	.75	2.19	1.41	1.97	.72	.75	.58	.81	.48
CAL YR 1980	TOTAL	41858	MEAN	114	MAX	2870	MIN	19	CFSM	2.65	IN	36.21
WTR YR 1981	TOTAL	13982	MEAN	38.3	MAX	399	MIN	11	CFSM	.89	IN	12.10

TENNESSEE RIVER BASIN

03588500 SHOAL CREEK AT IRON CITY, TN

LOCATION.--Lat 35°01'27", long 87°34'44", Lawrence County, Hydrologic Unit 06030005, near center of span on downstream side of bridge on county road, 400 ft (122 m) downstream from Holly Creek, 1,350 ft (411 m) upstream from Louisville and Nashville Railroad bridge, 1,350 ft (411 m) northeast of Iron City Post Office, and at mile 22.3 (35.9 km).

DRAINAGE AREA.--348 mi² (901 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1113: 1927(M). WSP 1436: 1926(M), 1927-29, 1930(M), 1932, 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 534.22 ft (162.830 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 25, 1931, nonrecording gage at railroad bridge, 1,350 ft (411 m) downstream at datum 0.85 ft (0.259 m) lower. Feb. 25, 1931, to Sept. 30, 1933, nonrecording gage at site 825 ft (251 m) downstream and Oct. 1, 1933, to Sept. 30, 1957, water-stage recorder at site 750 ft (229 m) downstream at datum 0.69 ft (0.210 m) higher.

REMARKS.--Records good. Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg.

AVERAGE DISCHARGE.--56 years, 648 ft³/s (18.35 m³/s), 25.29 in/yr (642 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 132,000 ft³/s (3,740 m³/s) Mar. 21, 1955, gage height, 27.25 ft (8.306 m), site and datum then in use, present site and datum, 28.4 ft (8.656 m) from high water profile, rating curve extended above 50,000 ft³/s (1,416 m³/s) on basis of slope-area measurement made 1,500 ft (457 m) downstream; minimum, 38 ft³/s (1.08 m³/s) Aug. 31, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage about 3 ft (0.914 m) higher than that of Mar. 21, 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,910 ft³/s (111 m³/s) at 0400 hours Feb. 2, gage height 8.44 ft (2.573 m), no peak above base of 6,500 ft³/s (184 m³/s); minimum, 87 ft³/s (2.464 m³/s) Aug. 14, 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	184	204	160	1140	272	1000	242	262	130	134	201
2	179	179	197	156	2880	252	752	222	275	140	128	222
3	167	177	187	153	1160	232	620	207	290	124	122	597
4	160	177	177	153	747	338	550	198	254	231	115	549
5	158	177	174	145	564	659	717	189	441	270	113	358
6	151	177	172	151	460	578	601	181	386	464	111	276
7	151	177	170	184	391	497	528	178	424	270	119	234
8	151	179	167	172	369	432	510	172	464	197	138	208
9	151	182	199	160	325	380	831	168	350	165	121	193
10	149	179	243	158	401	345	1260	172	283	149	109	178
11	145	179	204	151	678	316	937	189	256	165	105	166
12	140	174	189	147	573	287	747	174	297	147	99	157
13	140	172	184	151	497	269	629	163	250	132	93	151
14	143	184	177	149	440	261	536	160	219	122	88	148
15	147	258	170	149	394	243	453	159	192	117	87	190
16	149	226	170	143	398	243	392	151	175	110	383	346
17	151	281	167	136	620	221	375	182	192	145	618	215
18	160	428	160	128	697	215	356	258	175	243	1260	179
19	165	294	158	132	654	210	387	217	163	153	1130	167
20	156	235	153	149	582	192	383	198	211	162	532	160
21	156	212	149	246	510	184	367	175	205	149	363	153
22	158	197	149	221	456	229	319	160	173	140	281	145
23	158	202	153	197	409	380	386	151	174	119	230	138
24	167	210	204	184	362	329	497	145	160	140	198	134
25	202	197	267	174	329	306	429	195	150	252	182	132
26	189	189	210	167	303	287	382	526	143	264	168	130
27	199	300	192	207	278	272	341	316	130	179	160	130
28	440	306	179	246	261	258	304	241	124	149	886	134
29	278	246	174	210	---	255	298	200	121	153	347	128
30	210	218	170	199	---	2070	275	186	122	202	258	122
31	189	---	165	194	---	1500	---	301	---	156	218	---
TOTAL	5466	6496	5634	5272	16878	12512	16162	6376	7061	5539	8896	6241
MEAN	176	217	182	170	603	404	539	206	235	179	287	208
MAX	440	428	267	246	2880	2070	1260	526	464	464	1260	597
MIN	140	172	149	128	261	184	275	145	121	110	87	122
CFSM	.51	.62	.52	.49	1.73	1.16	1.55	.59	.68	.51	.83	.60
IN.	.58	.69	.60	.56	1.80	1.34	1.73	.68	.75	.59	.95	.67
CAL YR 1980	TOTAL	305215	MEAN 834	MAX 14300	MIN 140	CFSM 2.40	IN 32.63					
WTR YR 1981	TOTAL	102533	MEAN 281	MAX 2880	MIN 87	CFSM .81	IN 10.96					

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

[illegible]

TENNESSEE RIVER BASIN

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°03'54", long 88°15'08", Hardin County, Hydrologic Unit 06040001, at downstream end of lockwall in lower pool at Pickwick Landing Dam, 16.8 mi (27.0 km) upstream from Savannah, Tennessee, and at mile 206.7 (332.6 km).

DRAINAGE AREA.--32,820 mi² (85,000 km²), approximately.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1976 to September 1981 (discontinued).

WATER TEMPERATURE: April 1976 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor from April 1976 to September 1981.

REMARKS.--Flow regulated by Pickwick Landing Dam and many other reservoirs above the station. Continuous discharge records are published under station 03593500 Tennessee River at Savannah, Tn. Interruptions in the records were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 326 micromhos Sept. 18, 19, 1978; minimum, 116 micromhos Apr. 27, 1979.

WATER TEMPERATURE: Maximum, 31.5°C July 7, 1978; minimum, 2.0°C Feb. 8, 9, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 195 micromhos Jan. 12-14; minimum, 130 micromhos July 5.

WATER TEMPERATURE: Maximum, 30.5°C July 18-21; minimum, 4.0°C Jan. 18, 19, Feb. 5, 6, 11-14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT												
15...	0945	33500	163	6.3	20.0	.70	7.8	K2	<1	58	6	16
NOV												
19...	0930	63800	175	7.0	13.5	1.0	--	K4	<1	65	13	19
DEC												
18...	1445	19500	191	7.3	9.5	.70	9.8	K2	<1	72	19	21
JAN												
19...	1500	24500	195	7.5	4.0	.40	12.8	<1	<1	72	16	22
FEB												
12...	1130	76100	185	8.2	4.5	1.0	13.2	<1	1	66	10	20
MAR												
19...	0900	19700	179	7.3	11.0	.80	9.9	K1	K2	62	7	20
APR												
16...	1000	27400	167	7.4	17.5	1.6	8.0	<1	<1	64	16	20
MAY												
14...	0915	23700	165	7.1	19.0	3.7	8.2	<1	--	64	0	20
JUN												
18...	1000	13500	160	7.1	26.5	4.5	--	K5	K4	59	10	18
JUL												
16...	1130	33200	160	7.2	29.0	2.3	4.8	K5	K1200	61	5	18
AUG												
13...	1000	36600	162	7.4	29.0	2.7	5.9	K2	K460	55	10	16
SEP												
16...	1630	60300	182	7.6	26.0	3.5	--	--	160	56	5	16

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

TENNESSEE RIVER BASIN

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03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 15...	4.3	7.9	22	.5	1.4	52	13	9.2	.1	6.4	95
NOV 19...	4.3	7.9	20	.4	1.6	52	15	9.8	.1	5.5	92
DEC 18...	4.7	9.2	21	.5	1.5	53	15	11	.1	5.5	110
JAN 19...	4.2	8.9	21	.5	1.6	56	15	10	.1	4.8	126
FEB 12...	3.8	9.6	24	.5	1.4	56	18	12	.1	.1	109
MAR 19...	3.0	8.1	22	.4	1.5	55	16	9.7	.1	.2	102
APR 16...	3.5	7.7	20	.4	1.4	48	14	8.4	.1	.8	93
MAY 14...	3.3	7.1	19	.4	1.4	66	16	8.2	.1	2.0	99
JUN 18...	3.4	7.5	21	.4	1.5	49	14	9.1	<.1	2.4	82
JUL 16...	3.9	9.4	25	.5	1.6	56	17	12	.1	3.4	97
AUG 13...	3.7	8.7	25	.5	1.6	45	15	9.6	.1	4.7	100
SEP 16...	4.0	8.8	25	.5	1.5	51	17	9.2	.1	4.4	104
DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 15...	91	.13	8590	.30	.33	--	.030	--	.19	.32	.22
NOV 19...	96	.13	15800	.35	.37	--	.020	--	.06	.25	.08
DEC 18...	102	.15	5790	.39	.41	--	.090	--	.24	.38	.33
JAN 19...	102	.17	8330	.50	.50	.080	.040	.17	.16	.25	.20
FEB 12...	99	.13	6370	.18	.19	.020	.010	.56	.16	.58	.17
MAR 19...	94	.14	5430	--	.46	.070	.070	--	.46	--	.53
APR 16...	87	.13	6880	--	.49	--	.130	--	.49	.61	.62
MAY 14...	100	.13	6340	--	.51	.050	.070	.50	.39	.55	.46
JUN 18...	87	.11	2990	.32	.32	.040	.040	.25	.16	.29	.20
JUL 16...	100	.13	8700	.21	.23	.030	.040	.37	.35	.40	.39
AUG 13...	87	.14	9880	.11	.13	--	.070	--	.24	.32	.31
SEP 16...	93	.14	16900	--	.22	.030	.030	.65	.38	.68	.41

TENNESSEE RIVER BASIN

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT 15...	.62	.55	--	.060	4.4	--	--	10	904	66	--
NOV 19...	.60	.45	.120	.040	--	.2	2.7	17	2930	30	370
DEC 18...	.77	.74	.040	.030	3.8	--	--	2	105	88	--
JAN 19...	.75	.70	.040	.030	5.9	--	--	28	1850	24	--
FEB 12...	.76	.36	.010	.010	--	.9	7.6	12	2470	49	--
MAR 19...	--	.99	.050	.020	2.8	--	--	8	426	39	640
APR 16...	--	1.1	.040	.020	2.6	--	--	4	296	88	--
MAY 14...	1.0	.97	--	.080	2.6	--	--	16	1020	53	220
JUN 18...	.61	.52	.050	.030	--	.1	2.8	11	401	57	3800
JUL 16...	.61	.62	.050	.020	3.0	--	--	4	359	56	2300
AUG 13...	.43	.44	.050	.020	--	.4	2.6	4	395	87	6300
SEP 16...	--	.63	.060	.030	2.0	--	--	6	977	84	9200

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 19...	1	2	100	30	0	2	20	<10	0	1
FEB 12...	0	0	100	20	1	--	10	12	0	0
JUN 18...	2	1	100	30	1	<1	10	10	1	0
AUG 13...	2	1	<50	30	1	<1	10	<10	--	4

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 19...	5	3	230	30	1	2	50	30	.1
FEB 12...	28	3	280	10	5	2	60	4	.2
JUN 18...	3	2	240	10	2	0	40	20	.2
AUG 13...	4	2	210	<10	6	<1	50	4	.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	<.1	4	3	1	0	0	0	20	2
FEB 12...	.1	2	3	0	0	0	0	10	<4
JUN 18...	<.1	4	5	0	0	0	0	10	10
AUG 13...	<.1	4	3	<1	<1	<1	1	30	8

TENNESSEE RIVER BASIN

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03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 19,80	MAR 19,81	MAY 21,81	JUN 18,81
TIME	0930	0900	0915	1000
TOTAL CELLS/ML	370	640	220	3800
DIVERSITY: DIVISION	0.9	0.4	1.2	1.4
..CLASS	0.9	0.4	1.2	1.4
..ORDER	0.9	0.5	1.4	1.6
...FAMILY	0.9	0.5	1.4	1.7
....GENUS	1.5	1.2	2.0	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	*	0
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	51	1
...OOCYSTACEAE								
....ANKISTRODESMUS	26	7	--	-	--	-	*	0
....KIRCHNERIELLA	--	-	--	-	--	-	140	4
...OOCYSTIS	51	14	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	52#	24	51	1
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTIRIX	--	-	--	-	--	-	--	-
...PALMELLACEAE								
....GLOBEOCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	13	6	100	3
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	26	7	120#	18	--	-	220	6
....MELOSIRA	260#	69	--	-	90#	41	1100#	28
....STEPHANODISCUS	--	-	480#	74	52#	24	300	8
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	39	1
...NITZSCHIA								
....NITZSCHIA	--	-	13	2	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	13	3	13	2	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	26	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	26	4	13	6	1800#	47
....EUCAPSIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....CYLINDROSPERMUM	--	-	--	-	--	-	--	-
...OSCILLARIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%.

TENNESSEE RIVER BASIN

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 16,81	AUG 13,81	SEP 16,81
TIME	1130	1000	1630
TOTAL CELLS/ML	2300	6300	9200
DIVERSITY: DIVISION	1.3	1.3	1.4
...CLASS	1.3	1.3	1.4
...ORDER	2.0	2.1	2.2
...FAMILY	2.0	2.4	2.2
...GENUS	2.3	3.1	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
...SCHROEDERIA	--	-	--	-	--	-
...MICRACTINIACEAE						
...MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
...ANKISTRODESMUS	--	-	--	-	--	-
...KIRCHNERIELLA	--	-	--	-	--	-
...OOCYSTIS	--	-	--	-	--	-
...TETRAEDRON	--	-	41	1	--	-
...SCENEDESMACEAE						
...CRUCIGENIA	--	-	380	6	--	-
...SCENEDESMUS	150	7	230	4	--	-
...TETRASTRUM	--	-	--	-	640	7
..TETRASPORALES						
...COCCOMYXACEAE						
...ELAKATOTHRIX	--	-	54	1	--	-
...PALMELLACEAE						
...GLOEOCYSTIS	--	-	--	-	1400#	15
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
...CYCLOTELLA	240	11	200	3	--	-
...MELOSIRA	490#	21	1300#	20	1700#	18
...STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
...COCCONEIS	--	-	--	-	160	2
...FRAGILARIACEAE						
...SYNEDRA	26	1	110	2	--	-
...NITZSCHACEAE						
...NITZSCHIA	180	8	180	3	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
...CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
...CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...AGMENELLUM			540	9	1500#	17
...ANACYSTIS	940#	41	710	11	--	-
...EUCAPSIDIS	--	-	800	13	--	-
..HORMOGONALES						
...NOSTOCACEAE						
...CYLINDROSPERMUM	--	-	270	4	--	-
...OSCILLATORIACEAE						
...OSCILLATORIA	270	12	1500#	24	3800#	41

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1				---	---	---	186	185	185	192	191	191
2				---	---	---	187	185	186	192	191	192
3				---	---	---	186	185	186	194	192	193
4				---	---	---	187	185	186	193	192	192
5				---	---	---	187	186	186	194	192	193
6				---	---	---	187	185	186	194	193	194
7				172	171	171	187	186	187	194	193	194
8				172	171	171	188	186	187	194	193	194
9				173	171	172	188	187	188	194	193	194
10				173	172	172	189	188	188	194	193	194
11				173	172	172	189	188	189	194	193	194
12				173	172	173	189	188	189	195	194	194
13				174	173	174	189	187	188	195	194	195
14				174	173	174	189	187	188	195	194	195
15				178	174	176	190	189	189	194	193	194
16				178	175	177	190	189	190	194	192	193
17				178	175	178	191	189	190	192	191	191
18				178	173	176	190	189	189	191	190	190
19				174	173	174	190	188	189	191	190	190
20				175	173	174	189	188	189	---	---	---
21				175	174	174	190	188	189	---	---	---
22				177	175	176	190	189	189	---	---	---
23				177	176	176	190	189	189	---	---	---
24				177	176	177	188	187	188	---	---	---
25				178	176	177	188	186	187	---	---	---
26				178	177	178	188	186	189	---	---	---
27				179	178	178	188	187	189	---	---	---
28				180	178	179	189	187	188	---	---	---
29				183	179	181	189	188	189	---	---	---
30				185	183	184	190	189	189	---	---	---
31				---	---	---	191	189	191	---	---	---
MONTH				185	171	176	191	185	188	---	---	---
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	170	167	168	168	165	166
2	---	---	---	---	---	---	167	166	166	167	165	166
3	188	182	185	---	---	---	169	166	168	170	165	166
4	190	188	189	---	---	---	171	169	170	167	165	166
5	190	188	189	186	185	185	171	170	170	174	165	167
6	189	187	189	186	185	185	170	167	169	169	163	166
7	---	---	---	187	185	182	168	166	167	168	165	166
8	---	---	---	---	---	---	167	165	166	168	165	166
9	---	---	---	---	---	---	167	165	166	167	164	165
10	---	---	---	---	---	---	166	165	165	171	164	166
11	175	143	156	---	---	---	164	162	163	166	165	165
12	180	154	175	---	---	---	163	161	162	166	165	165
13	181	158	173	---	---	---	162	161	161	166	165	165
14	183	162	178	---	---	---	162	161	161	169	164	165
15	184	174	181	---	---	---	162	161	162	166	164	165
16	184	177	182	---	---	---	165	161	163	167	165	166
17	186	180	184	---	---	---	166	163	164	167	165	166
18	187	183	185	---	---	---	167	163	164	166	164	165
19	187	186	187	174	173	173	169	164	166	167	164	165
20	188	186	186	174	173	173	166	164	165	167	164	166
21	189	187	188	174	173	173	165	164	165	166	164	165
22	189	187	188	174	173	173	167	165	166	166	164	165
23	190	188	189	174	173	173	166	165	165	167	164	165
24	190	189	189	173	172	173	166	165	165	165	163	164
25	191	189	190	173	172	173	166	164	165	166	164	165
26	189	180	188	173	172	173	172	164	165	166	162	165
27	189	186	186	173	172	172	168	164	165	166	164	165
28	187	180	185	172	171	172	166	165	166	166	164	165
29	---	---	---	172	171	171	166	165	166	166	164	164
30	---	---	---	172	170	171	167	164	165	166	163	164
31	---	---	---	171	169	170	---	---	---	165	163	164
MONTH	191	143	184	---	---	---	172	161	165	174	162	165

TENNESSEE RIVER BASIN

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	166	164	165	166	160	161	165	163	164	168	167	168
2	166	164	165	162	159	161	165	161	163	169	166	168
3	167	165	166	162	160	161	168	162	164	171	168	169
4	167	166	166	161	132	140	165	163	165	173	171	172
5	169	165	167	161	130	137	167	163	165	174	172	173
6	167	166	167	137	131	133	167	163	165	174	173	174
7	167	165	166	135	133	134	167	164	165	175	152	158
8	166	165	165	161	134	147	167	165	165	174	153	155
9	166	163	165	161	133	136	166	164	165	175	153	159
10	165	162	164	137	134	135	166	164	165	176	154	162
11	165	162	164	137	135	136	167	162	164	176	154	170
12	163	161	162	141	135	138	165	161	163	178	155	162
13	163	161	162	140	134	138	165	162	163	178	177	177
14	167	162	163	141	137	140	162	159	160	179	156	177
15	163	162	163	142	138	140	161	144	159	182	176	179
16	163	159	162	149	138	145	160	139	152	180	179	180
17	166	160	162	148	146	147	144	142	143	182	179	181
18	161	158	161	150	145	147	160	143	146	183	181	182
19	161	158	159	152	148	149	159	143	145	184	182	183
20	161	158	159	151	148	150	160	146	153	184	183	183
21	161	158	160	152	150	151	162	155	157	183	160	166
22	160	156	159	153	151	152	158	151	154	184	160	162
23	163	157	160	157	152	155	153	150	151	185	161	168
24	164	160	161	168	154	159	152	137	143	187	162	172
25	166	158	161	170	166	168	140	138	139	187	163	175
26	162	159	161	169	166	167	160	140	145	187	163	174
27	161	158	160	167	165	166	162	157	160	187	164	171
28	161	159	160	167	164	165	166	160	162	188	187	187
29	161	156	159	168	163	165	164	162	163	188	164	176
30	162	157	160	166	164	165	165	163	164	188	165	174
31	---	---	---	166	163	165	168	158	165	---	---	---
MONTH	169	156	162	170	130	150	168	137	158	188	152	172

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	24.5	24.5	24.5	18.0	17.5	17.5	10.5	10.5	10.5	6.0	6.0	6.0
2	24.5	24.0	24.0	17.5	17.5	17.5	10.5	10.5	10.5	6.0	6.0	6.0
3	24.0	23.0	23.5	17.5	17.5	17.5	10.5	10.0	10.0	6.5	6.0	6.0
4	23.0	22.5	23.0	17.5	17.5	17.5	10.0	10.0	10.0	6.5	6.0	6.0
5	22.5	22.0	22.0	17.0	17.0	17.0	10.0	10.0	10.0	6.0	5.5	6.0
6	22.0	21.5	21.5	17.0	17.0	17.0	10.0	10.0	10.0	6.0	5.5	6.0
7	21.0	21.0	21.0	17.0	16.5	16.5	10.5	10.0	10.0	5.5	5.5	5.5
8	21.5	21.0	21.0	17.0	16.5	16.5	10.5	10.5	10.5	5.5	5.5	5.5
9	22.0	21.0	21.5	17.0	16.5	17.0	11.0	10.5	10.5	6.0	5.5	5.5
10	22.0	21.5	21.5	17.0	17.0	17.0	10.5	10.0	10.5	5.5	5.0	5.5
11	22.0	21.5	21.5	16.5	16.5	16.5	10.0	10.0	10.0	5.5	5.0	5.0
12	21.5	21.0	21.5	16.5	16.0	16.5	10.0	10.0	10.0	5.0	4.5	5.0
13	21.0	20.5	21.0	16.0	16.0	16.0	10.0	10.0	10.0	4.5	4.5	4.5
14	20.5	20.5	20.5	16.0	16.0	16.0	10.0	10.0	10.0	4.5	4.5	4.5
15	23.5	20.5	22.5	15.5	15.5	15.5	10.0	10.0	10.0	4.5	4.5	4.5
16	23.5	23.5	23.5	15.5	15.0	15.5	10.0	9.5	9.5	4.5	4.5	4.5
17	23.5	23.0	23.5	15.0	14.5	14.5	9.5	9.0	9.0	4.5	4.5	4.5
18	23.5	23.0	23.5	14.5	14.0	14.5	9.0	9.0	9.0	4.5	4.0	4.0
19	23.5	23.0	23.5	14.0	13.5	14.0	9.0	8.5	8.5	4.5	4.0	4.5
20	23.0	22.5	23.0	13.5	13.0	13.5	8.5	7.5	8.0	---	---	---
21	22.5	22.5	22.5	13.0	13.0	13.0	7.5	7.0	7.5	---	---	---
22	22.5	22.5	22.5	13.0	12.5	13.0	7.0	7.0	7.0	---	---	---
23	22.5	22.0	22.0	12.5	12.5	12.5	7.0	7.0	7.0	---	---	---
24	22.0	21.5	22.0	12.5	12.0	12.5	7.0	6.5	7.0	---	---	---
25	21.5	21.0	21.0	12.0	12.0	12.0	6.5	6.0	6.5	---	---	---
26	20.5	20.5	20.5	12.0	11.5	11.5	6.5	6.0	6.5	---	---	---
27	20.5	20.0	20.0	11.5	11.0	11.5	6.0	6.0	6.0	---	---	---
28	20.0	19.5	20.0	11.0	11.0	11.0	6.0	6.0	6.0	---	---	---
29	19.5	19.0	19.5	11.0	11.0	11.0	6.0	6.0	6.0	---	---	---
30	19.0	18.5	18.5	11.0	10.5	10.5	6.0	6.0	6.0	---	---	---
31	18.0	18.0	18.0	---	---	---	6.5	6.0	6.0	---	---	---
MONTH	24.5	18.0	21.5	18.0	10.5	14.5	11.0	6.0	8.5	---	---	---

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	13.5	13.0	13.5	20.0	19.5	19.5
2	---	---	---	---	---	---	14.0	13.0	13.5	20.0	19.0	19.5
3	5.5	5.0	5.0	---	---	---	14.5	14.0	14.5	20.5	19.5	20.0
4	5.0	4.5	4.5	---	---	---	15.5	15.0	15.0	21.0	20.5	20.5
5	4.5	4.0	4.0	9.5	9.0	9.5	15.5	15.0	15.0	21.0	20.5	21.0
6	4.0	4.0	4.0	9.5	9.0	9.5	15.0	14.5	15.0	21.0	20.5	21.0
7	---	---	---	9.5	9.0	9.0	15.0	15.0	15.0	20.5	20.0	20.5
8	---	---	---	---	---	---	15.5	15.0	15.0	20.5	20.0	20.0
9	---	---	---	---	---	---	15.5	15.5	15.5	20.5	20.0	20.5
10	---	---	---	---	---	---	16.5	16.0	16.0	20.5	20.5	20.5
11	5.0	4.0	4.5	---	---	---	16.5	16.5	16.5	20.0	19.5	20.0
12	4.5	4.0	4.0	---	---	---	17.0	16.5	17.0	20.0	19.5	19.5
13	4.5	4.0	4.5	---	---	---	17.5	17.0	17.5	20.0	19.5	20.0
14	4.5	4.0	4.5	---	---	---	18.5	17.5	18.0	20.0	20.0	20.0
15	4.5	4.5	4.5	---	---	---	18.0	17.0	17.5	20.0	20.0	20.0
16	5.0	4.5	4.5	---	---	---	18.0	17.5	18.0	20.0	19.5	19.5
17	5.5	5.0	5.0	---	---	---	18.5	18.0	18.5	19.5	19.5	19.5
18	6.0	5.5	5.5	---	---	---	19.0	18.5	18.5	19.5	19.5	19.5
19	6.0	5.5	6.0	10.5	10.0	8.0	19.0	18.5	19.0	19.5	19.5	19.5
20	6.5	5.0	6.0	10.0	10.0	10.0	19.5	19.0	19.0	19.5	19.0	19.5
21	7.0	6.0	5.5	10.0	10.0	10.0	19.5	18.5	19.0	20.0	19.0	19.5
22	7.5	7.0	7.0	10.0	10.0	10.0	19.5	19.0	19.0	20.0	19.5	19.5
23	7.5	7.5	7.5	10.5	10.0	10.0	19.5	19.0	19.5	20.5	19.5	20.0
24	7.5	7.5	7.5	10.5	10.0	10.0	19.0	19.0	19.0	21.5	20.5	21.0
25	7.5	7.0	7.5	10.5	10.0	10.0	19.0	19.0	19.0	21.5	21.0	21.5
26	8.0	7.0	8.0	11.0	10.5	10.5	19.5	19.0	19.0	21.5	21.5	21.5
27	8.5	7.5	8.0	11.5	11.0	11.5	20.5	19.5	20.0	21.5	21.0	21.0
28	10.5	8.0	8.5	12.0	11.5	11.5	21.0	20.0	20.5	21.0	20.5	21.0
29	---	---	---	12.5	12.0	12.5	21.0	20.5	20.5	21.5	21.0	21.0
30	---	---	---	12.5	12.5	12.5	20.5	20.0	20.0	22.0	21.0	21.5
31	---	---	---	13.5	12.5	13.0	---	---	---	22.0	21.5	21.5
MONTH	10.5	4.0	5.5	---	---	---	21.0	13.0	17.5	22.0	19.0	20.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	21.5	22.0	28.5	28.5	28.5	29.0	29.0	29.0	28.0	27.5	28.0
2	23.0	22.5	23.0	28.5	28.0	28.5	29.0	29.0	29.0	28.0	27.5	27.5
3	23.5	22.5	23.0	28.5	28.5	28.5	29.0	29.0	29.0	27.5	27.5	27.5
4	23.5	23.0	23.5	28.5	28.0	28.5	29.5	29.0	29.5	27.5	27.5	27.5
5	23.5	23.0	23.5	28.5	28.0	28.5	29.5	29.0	29.5	27.5	27.5	27.5
6	24.0	23.0	23.5	28.0	28.0	28.0	29.5	29.0	29.5	27.5	27.5	27.5
7	24.0	23.0	23.5	28.5	28.0	28.0	29.5	29.0	29.5	27.5	27.0	27.5
8	24.5	23.5	24.0	28.5	28.0	28.5	29.5	29.5	29.5	27.5	27.5	27.5
9	25.0	24.0	24.5	28.5	28.0	28.5	29.5	29.0	29.5	27.0	27.0	27.0
10	25.0	24.5	25.0	28.5	28.0	28.5	29.5	29.0	29.5	27.0	26.5	27.0
11	25.0	24.5	24.5	29.0	28.0	28.5	29.5	29.5	29.5	27.0	26.5	27.0
12	25.5	25.0	25.0	29.0	28.5	29.0	29.5	29.5	29.5	27.0	26.5	27.0
13	26.0	25.0	25.5	29.5	29.0	29.0	29.5	29.0	29.5	27.0	27.0	27.0
14	26.5	25.5	26.0	29.5	29.0	29.5	29.5	29.0	29.5	27.0	27.0	27.0
15	26.5	25.5	26.0	29.5	29.5	29.5	29.5	29.5	29.5	27.0	26.5	27.0
16	26.5	26.0	26.0	30.0	29.5	29.5	30.0	29.5	29.5	26.5	26.0	26.5
17	26.0	25.0	25.5	30.0	29.5	29.5	29.5	29.5	29.5	26.5	25.5	26.0
18	27.0	25.5	26.0	30.5	29.5	30.0	29.5	29.0	29.0	25.5	25.0	25.5
19	27.0	26.5	27.0	30.5	30.0	30.5	29.0	28.5	28.5	25.0	24.5	24.5
20	27.5	27.0	27.0	30.5	30.0	30.5	28.5	28.0	28.0	24.5	24.0	24.5
21	27.5	27.0	27.5	30.5	30.0	30.0	28.0	28.0	28.0	24.5	24.0	24.0
22	28.0	27.5	27.5	30.0	30.0	30.0	28.0	28.0	28.0	24.0	24.0	24.0
23	27.5	27.0	27.5	30.0	29.5	30.0	28.0	27.5	28.0	24.5	24.0	24.0
24	28.0	27.0	27.5	30.0	30.0	30.0	28.0	28.0	28.0	24.0	23.5	24.0
25	29.0	27.5	28.0	30.0	29.5	30.0	28.0	28.0	28.0	24.0	23.5	23.5
26	28.5	27.5	28.0	30.0	29.5	29.5	28.5	28.0	28.0	24.0	24.0	24.0
27	28.0	27.5	28.0	30.0	29.5	30.0	28.5	28.0	28.0	24.0	24.0	24.0
28	28.5	28.0	28.0	30.0	30.0	30.0	28.0	27.5	28.0	24.5	24.0	24.0
29	28.5	28.5	28.5	30.0	29.5	30.0	28.0	27.5	28.0	24.0	24.0	24.0
30	28.5	28.5	28.5	29.5	29.0	29.5	28.0	27.5	28.0	24.0	24.0	24.0
31	---	---	---	29.0	29.0	29.0	28.0	27.5	28.0	---	---	---
MONTH	29.0	21.5	26.0	30.5	28.0	29.5	30.0	27.5	29.0	28.0	23.5	26.0

03593500 TENNESSEE RIVER AT SAVANNAH, TN

LOCATION.--Lat 35°13'29", long 88°15'26", Hardin County, Hydrologic Unit 06040001, on right bank at downstream side of bridge on U.S. Highway 64, at Savannah, 16.8 mi (27.0 km) downstream from Pickwick Landing Dam and at mile 189.9 (305.5 km).

DRAINAGE AREA.--33,140 mi² (85,830 km²), approximately.

PERIOD OF RECORD.--September 1930 to current year. Gage-height records collected in this vicinity since June 1905, are in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1306: 1936 (monthly runoff). WSP 2110: 1966. WRD Tenn. 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft (91.440 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 7, 1945, at datum 41.61 ft (12.683 m) higher. Oct. 1, 1948, to Apr. 13, 1978, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam. Since Apr. 13, 1978, auxiliary water-stage recorder over the tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, 16.8 mi (27.0 km) upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi (6.4 km) downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi (6.9 km) downstream from base gage at same datum.

REMARKS.--Records fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 288 and Water Resources Data for adjoining states, 1979). Flow now is almost completely regulated.

AVERAGE DISCHARGE.--51 years, 54,812 ft³/s (1,552 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 585,000 ft³/s (16,600 m³/s) Mar. 17, 1973, from Pickwick Landing Dam releases furnished by Tennessee Valley Authority; maximum gage height, 96.11 ft (29.294 m) Mar. 20, 1973; minimum discharge 60 ft³/s (1.70 m³/s) Apr. 23, 1966; minimum gage height, 41.20 ft (12.558 m), present datum, Oct. 20, 1931; minimum gage height since Kentucky Lake reached minimum pool elevation on Apr. 7, 1945, 53.40 ft (16.276 m) Jan. 12, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft (30.85 m) Mar. 21, 1897, present datum, from floodmarks, discharge, 450,000 ft³/s (12,700 m³/s), from rating curve extended above 320,000 ft³/s (9,060 m³/s). Flood of Jan. 2, 1927, reached a stage of 92.7 ft (28.25 m), present datum, discharge, 349,000 ft³/s (9,880 m³/s). Minimum stage since 1905, 38.8 ft (11.83 m) present datum, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78,800 ft³/s (2,005 m³/s) Feb. 12; maximum gage height, 64.28 ft (19.593 m) June 6; minimum daily discharge, 8,500 ft³/s (241 m³/s) May 17; minimum gage height, 54.25 ft (16.535 m) Sept. 28.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52400	25300	35500	20700	27900	33200	43300	16100	42700	24200	28500	39200
2	32600	24800	28500	20900	46500	33700	57200	19700	47800	30800	33900	40300
3	26700	28300	34700	20900	61900	32800	52600	16800	41400	29800	26800	39700
4	21000	31600	30400	21500	68000	38300	32100	19000	44900	35000	27800	38000
5	21000	30500	28800	23300	64000	46900	45000	18700	47500	38400	29800	21800
6	25900	27800	25900	22900	49400	44100	58100	20100	59500	27700	29500	17300
7	23300	25300	24100	22900	32900	34800	52000	15700	46900	40200	29300	24600
8	24200	23500	27800	23500	28100	28200	49300	15300	47900	37300	29100	35700
9	24800	26000	29400	24400	33100	28800	39000	13100	50800	40800	28100	33400
10	24700	26500	32300	24400	56000	23600	47700	13700	49300	41100	29600	26600
11	23400	25100	34100	24200	55800	22900	27600	15700	53400	36700	30200	26400
12	20200	25900	33100	29100	70200	23500	22800	13700	41900	34300	35800	22200
13	20800	24600	32900	28200	55700	24700	24700	13900	56200	36500	33400	21900
14	21100	25400	23200	30700	56500	29000	24100	13100	43700	34700	45100	27800
15	21900	25500	23000	31000	49900	26500	19400	15600	47000	24500	34500	32600
16	20300	26400	27900	27700	52900	27500	15300	9500	43200	31000	27400	35100
17	20100	40500	31300	22500	57000	28000	15600	8500	39500	33800	25600	41000
18	22200	62700	24000	16000	30700	19400	10400	22400	34000	42700	25400	29500
19	20900	40300	23300	27400	39200	19400	9830	15400	23700	40000	31100	21100
20	21300	33400	32900	26700	48100	18800	12400	18500	24800	32900	31800	19600
21	23400	34300	24200	26000	42200	18700	15100	12800	23200	31200	33700	32300
22	22900	26600	27100	22800	47200	18500	21900	24700	38100	23700	32900	30700
23	22800	23500	20900	22500	51800	17000	26400	12300	34300	22600	33600	31100
24	23400	24100	22300	22700	49400	15100	30400	14000	30500	29800	37400	28400
25	22800	44700	22900	22000	38100	14900	21900	15100	30600	33200	40900	23100
26	20700	46000	21600	21700	39000	17700	27200	32900	31200	34800	31700	21800
27	20600	40400	22200	26700	39700	16700	28600	25800	26600	30900	28500	22600
28	27100	50300	22000	28000	35800	15400	23700	23100	26100	29900	27500	24000
29	32500	45300	22200	23000	---	13900	18800	28600	36400	34100	22000	26000
30	33400	30400	23100	26300	---	18100	23900	14200	29700	29900	21000	26300
31	32800	---	20900	22700	---	31800	---	16300	---	29700	44200	---
TOTAL	771200	965000	832500	753300	1327000	781900	896330	534300	1192800	1022200	966100	860100
MEAN	24880	32170	26850	24300	427390	25220	29880	17240	39760	32970	31160	28670
MAX	52400	62700	35500	31000	70200	46900	58100	32900	59500	42700	45100	41000
MIN	20100	23500	20900	16000	27900	13900	9830	8500	23200	22600	21000	17300

CAL YR 1980 TOTAL 20089000 MEAN 54890 MAX 299000 MIN 12000
WTR YR 1981 TOTAL 10902730 MEAN 29870 MAX 70200 MIN 8500

TENNESSEE RIVER BASIN

269

03596000 DUCK RIVER BELOW MANCHESTER, TN

LOCATION.--Lat 35°28'15", long 86°07'18", Coffee County, Hydrologic Unit 06040002, on right bank 50 ft (15 m) downstream from Powers Bridge, 2.0 mi (3.2 km) southwest of Manchester, 3.2 mi (5.1 km) downstream from Little Duck River, 7.0 mi (11.3 km) upstream from Crumpton Creek, and at mile 265.4 (427.0 km).

DRAINAGE AREA.--107 mi² (277 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1934 to current year.

REVISED RECORDS.--WSP 1436: 1946-47.

GAGE.--Water-stage recorder. Datum of gage is 878.23 ft (267.685 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation for short periods during low flow by small reservoirs above station.

AVERAGE DISCHARGE.--47 years, 186 ft³/s (5.268 m³/s), 23.61 in/yr (600 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft³/s (1,080 m³/s) May 27, 1973, gage height, 20.95 ft (6.386 m), from rating curve extended above 12,000 ft³/s (340 m³/s), based on contracted-opening measurement at gage height 15.04 ft (4.584 m), and slope-area measurements at gage heights 18.93 ft (5.770 m) and 20.95 ft (6.386 m); minimum, 8.0 ft³/s (0.23 m³/s) Aug. 12, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 23.2 ft (7.07 m) from floodmarks by Tennessee Valley Authority, discharge, about 50,000 ft³/s (1,420 m³/s). Flood in March 1902 reached approximately same stage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 899 ft³/s (25.5 m³/s) at 1315 hours Apr. 5, gage height, 3.94 ft (1.201 m), no peak above base of 2,500 ft³/s (70.8 m³/s); minimum 13 ft³/s (0.368 m³/s) July 26, 27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	21	29	25	51	45	208	41	121	29	22	24
2	21	21	28	24	205	43	148	37	71	31	21	24
3	20	21	27	24	126	41	109	35	53	25	21	31
4	19	21	26	24	78	54	95	33	42	23	21	28
5	19	21	26	23	63	131	670	31	36	60	21	24
6	19	20	25	25	55	119	324	30	33	56	21	22
7	19	21	24	31	51	85	176	29	80	63	32	21
8	19	21	24	27	57	68	133	28	57	46	110	20
9	19	21	38	26	57	57	318	27	42	27	38	20
10	19	21	38	25	63	54	425	33	42	25	30	59
11	18	20	34	24	109	50	226	35	90	24	28	93
12	18	20	31	22	98	47	152	31	99	23	26	43
13	18	20	29	22	75	45	117	29	61	22	24	21
14	19	21	27	24	68	42	95	27	46	22	22	41
15	19	55	27	24	64	42	77	26	38	22	22	52
16	19	33	27	23	63	41	65	25	33	23	46	24
17	19	34	25	22	64	40	64	27	30	57	33	20
18	20	34	25	23	68	40	107	28	29	39	31	19
19	21	27	25	23	88	38	79	76	27	80	30	18
20	20	25	24	25	113	37	70	100	26	64	26	18
21	20	24	23	43	83	36	64	56	26	36	26	18
22	20	24	24	36	70	49	56	41	26	30	24	18
23	20	31	24	32	63	87	72	34	27	26	22	18
24	24	89	34	31	56	82	143	30	24	14	21	17
25	27	43	32	29	50	64	104	43	26	14	20	16
26	23	33	30	28	47	55	71	47	31	13	19	17
27	25	48	28	31	44	49	56	44	24	24	18	16
28	35	40	27	29	42	47	47	45	23	32	18	16
29	24	33	27	28	---	45	47	36	22	26	20	16
30	22	31	26	31	---	572	47	33	22	25	21	15
31	21	---	25	30	---	373	---	58	---	23	20	---
TOTAL	647	894	859	834	2071	2578	4365	1195	1307	1004	854	789
MEAN	20.9	29.8	27.7	26.9	74.0	83.2	146	38.5	43.6	32.4	27.5	26.3
MAX	35	89	38	43	205	572	670	100	121	80	110	93
MIN	18	20	23	22	42	36	47	25	22	13	18	15
CFSM	.20	.28	.26	.25	.69	.78	1.36	.36	.41	.30	.26	.25
IN.	.22	.31	.30	.29	.72	.90	1.52	.42	.45	.35	.30	.27
CAL YR 1980	TOTAL	65228	MEAN	178	MAX	6090	MIN	18	CFSM	1.66	IN	22.68
WTR YR 1981	TOTAL	17397	MEAN	47.7	MAX	670	MIN	13	CFSM	.45	IN	6.05

TENNESSEE RIVER BASIN

03596000 DUCK RIVER BELOW MANCHESTER, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1975 to September 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C Aug. 16, 1977, July 14, 16-17, 1980; minimum, 1.5°C Feb. 2, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
10...	1030	19	185	17.0	6	.31
NOV						
18...	1445	33	185	9.0	4	.36
JAN						
19...	1305	22	170	2.0	1	.06
FEB						
04...	1245	75	140	2.0	4	.81
27...	1145	44	165	12.0	5	.59
APR						
08...	1245	131	102	14.5	19	6.7
MAY						
11...	1130	35	152	16.0	7	.66
JUN						
25...	0830	23	195	24.0	12	.75
AUG						
06...	0915	20	200	25.0	15	.81
SEP						
02...	1545	23	205	24.0	12	.75

03598000 DUCK RIVER NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, Hydrologic Unit 06040002, on right bank 150 ft (50 m) downstream from Sims Bridge, 2.1 mi (3.4 km) upstream from Sugar Creek, 2.2 mi (3.5 km) west of Shelbyville, 2.9 mi (4.7 km) downstream from Flat Creek, and at mile 216.2 (347.9 km).

DRAINAGE AREA.--481 mi² (1,246 km²).

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1934. WSP 853: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 683.51 ft (208.334 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1966, at datum 2.0 ft (0.6 m) higher.

REMARKS.--Records good. Prior to 1948 diurnal fluctuation caused by powerplant upstream. Flow regulated by Normandy Reservoir (station 03596460) since January 1976. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--48 years, 820 ft³/s (23.22 m³/s), 23.15 in/yr (588 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,900 ft³/s (1,780 m³/s) Feb. 13, 1948, gage height, 38.40 ft (11.704 m), present datum, from floodmarks, from rating curve extended above 35,000 ft³/s (991 m³/s) on basis of slope-area measurement of peak flow; minimum, 5.0 ft³/s (0.14 m³/s) Aug. 23, 1936; minimum daily, 20 ft³/s (0.57 m³/s) Sept. 2, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft (12.07 m) present datum, discharge, about 70,000 ft³/s (1,980 m³/s), from high water profile by Tennessee Valley Authority. Flood in March 1902 reached a stage about 2.0 ft (0.61 m) higher than that in March 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,930 ft³/s (111 m³/s) at 1430 hours Mar. 30, gage height, 10.61 ft (3.233 m); minimum, 139 ft³/s (3.936 m³/s) July 17; minimum daily, 141 ft³/s (3.993 m³/s) July 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	209	570	164	277	176	737	193	209	146	172	267
2	176	204	559	161	1510	184	544	188	550	146	170	250
3	176	201	544	156	636	184	410	186	323	144	166	228
4	174	195	530	151	338	241	348	182	215	144	164	254
5	172	193	519	149	253	592	1130	180	187	187	164	210
6	171	193	509	146	224	479	737	179	176	245	164	180
7	169	193	497	156	212	368	499	171	269	204	162	170
8	171	190	486	164	229	303	376	169	448	161	189	160
9	171	190	516	169	262	250	691	167	250	146	215	153
10	171	190	544	171	238	229	953	167	196	146	194	148
11	174	190	516	169	417	215	623	170	324	147	182	150
12	171	187	479	166	442	198	472	180	293	149	177	151
13	169	187	457	164	352	187	370	184	632	149	173	154
14	171	187	435	161	303	184	300	181	363	147	171	154
15	171	265	414	161	268	187	243	175	245	144	169	164
16	171	265	250	159	259	187	216	171	199	141	300	168
17	171	256	190	159	271	187	221	172	186	311	342	164
18	174	244	171	156	355	187	335	180	176	639	218	157
19	174	238	166	154	671	187	272	361	166	248	286	155
20	171	229	161	156	570	182	243	302	161	482	227	153
21	174	221	156	284	403	176	231	221	158	228	207	150
22	174	212	151	306	328	256	227	198	155	177	203	148
23	174	204	149	250	280	588	282	190	154	167	197	146
24	176	206	154	224	229	396	381	180	153	655	196	146
25	179	212	176	215	206	262	272	172	151	287	194	149
26	182	215	201	204	195	235	226	169	153	218	194	153
27	201	256	204	198	182	238	202	174	158	197	191	152
28	238	277	198	195	176	241	182	227	154	226	191	152
29	229	530	193	182	---	238	181	237	150	199	193	147
30	224	584	184	171	---	2530	192	209	148	186	261	149
31	215	---	174	169	---	1310	---	188	---	178	242	---
TOTAL	5608	7123	10453	5590	10086	11377	12096	6023	7102	6944	6274	5082
MEAN	181	237	337	180	360	367	403	194	237	224	202	169
MAX	238	584	570	306	1510	2530	1130	361	632	655	342	267
MIN	169	187	149	146	176	176	181	167	148	141	162	146
(+)	-4000	-3500	-6200	-2400	+1200	+1300	+4900	-900	-200	-1400	-2500	-2700
MEAN+	51.9	121	137	103	403	409	567	165	230	179	122	79.4
CFSM+	.11	.25	.28	.21	.84	.85	1.18	.34	.48	.37	.25	.17
IN.+	.12	.28	.33	.25	.87	.98	1.31	.40	.53	.43	.29	.18
CAL YR 1980	TOTAL	279408	MEAN	763	MAX	18700	MIN	149	MEAN+	763	CFSM+	1.59
WTR YR 1981	TOTAL	93758	MEAN	257	MAX	2530	MIN	141	MEAN+	212	CFSM+	.44
											IN.+	21.59
												5.98

+ Change in contents, in cfs-days, in Normandy Lake.

* Adjusted for change in contents.

03599460 DUCK RIVER NEAR COLUMBIA, TN

LOCATION.--Lat 35°35'53", long 86°57'27", Maury County, Hydrologic Unit 06040002, on right bank on Sowell Mill Pike, 0.8 mi (1.3 km) west of Union Grove School, 5.4 mi (8.7 km) east of Columbia, and at mile 141.1 (227.0 km).

DRAINAGE AREA.--1,176 mi² (3,046 km²).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1973 to current year.

INSTRUMENTATION.--Temperature recorder since November 1973.

COOPERATION.--Temperature records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 33.0°C July 15-17, 1977, July 16, 17, 1979; minimum, 0.0°C Jan. 12-16, 18-20, 1981.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.5°C July 15, 16; minimum, 0.0°C Jan. 12-16, 18-20.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.5	19.0	19.5	11.5	10.5		---	---	---	4.0	3.5	3.5
2	19.5	19.5	19.5	11.5	10.5		---	---	---	4.0	3.5	3.5
3	20.0	18.5	19.0	11.5	10.5		8.0	6.0	6.5	3.5	3.0	3.0
4	19.0	16.5	18.0	13.0	11.5		6.5	5.0	5.5	3.0	2.0	2.0
5	17.0	15.5	16.0	13.0	12.0		6.0	5.0	5.5	3.0	1.0	2.0
6	16.0	14.5	15.0	12.0	11.0		7.0	6.0	6.5	1.5	.5	1.0
7	15.5	14.0	14.5	11.5	10.5		8.0	6.5	7.0	1.5	.5	1.0
8	16.0	14.5	15.5	13.0	11.0		8.5	8.0	8.0	1.5	1.0	1.0
9	18.0	15.5	16.5	14.0	13.0		10.0	8.5	9.5	1.5	1.0	1.0
10	18.5	16.5	18.0	14.5	13.5		10.0	9.5	9.5	1.0	.5	1.0
11	19.0	18.0	18.5	14.5	13.5		9.5	8.5	9.0	1.0	.5	.5
12	19.0	16.5	18.0	13.5	11.5		9.0	8.0	8.5	.5	.0	.5
13	17.0	15.5	16.0	12.0	11.0		8.5	8.0	8.5	.5	.0	.0
14	16.0	14.0	15.0	11.0	10.5		8.5	7.0	8.0	.0	.0	.0
15	15.0	14.0	14.5	11.0	10.5		8.0	6.0	6.5	.5	.0	.0
16	15.5	14.0	15.0	11.0	10.5		6.5	6.0	6.5	.5	.0	.5
17	16.5	15.0	16.0	10.5	10.0		6.5	5.5	6.0	.5	.5	.5
18	18.0	16.5	17.0	10.0	9.5		6.0	5.5	5.5	.5	.0	.5
19	18.5	18.0	18.0	9.5	8.5		6.0	5.5	5.5	.5	.0	.5
20	18.5	16.5	17.0	---	---		5.5	3.5	4.5	1.0	.0	.5
21	16.5	15.5	16.0	---	---		4.0	2.0	3.0	1.5	1.0	1.0
22	16.0	14.5	15.5	---	---		2.0	1.5	2.0	3.5	1.5	2.0
23	15.5	14.5	15.0	---	---		2.0	1.5	1.5	3.5	3.0	3.0
24	15.5	14.5	15.0	---	---		3.5	2.0	3.0	3.5	2.0	3.0
25	15.0	14.0	14.5	---	---		3.5	2.0	3.0	4.0	3.0	3.5
26	14.0	13.5	13.5	---	---		3.0	2.0	2.0	6.0	4.0	5.0
27	13.5	13.0	13.5	---	---		3.0	2.0	2.0	8.0	6.0	6.5
28	13.5	13.0	13.5	---	---		3.0	1.5	2.0	8.0	7.0	7.0
29	13.5	12.0	13.0	---	---		3.0	2.0	2.0	7.0	6.0	6.5
30	13.0	11.0	11.5	---	---		3.5	2.0	3.0	6.0	5.0	5.5
31	11.5	11.0	11.0	---	---		3.5	3.0	3.5	5.0	4.0	4.5
MONTH	20.0	11.0	16.0	---	---		10.0	1.5	5.5	8.0	.0	2.5

03599460 DUCK RIVER NEAR COLUMBIA, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	24.0	23.0	23.5	25.5	25.0	25.0	25.0	24.5	25.0	25.0	24.5	25.0
2	24.0	23.0	23.5	26.0	25.0	25.5	25.0	24.5	25.0	25.0	24.5	24.5
3	25.0	23.0	24.0	26.0	25.0	25.5	25.5	24.5	25.0	24.5	24.5	24.5
4	25.0	24.5	24.5	27.0	25.5	26.0	27.0	25.0	26.0	24.5	24.0	24.0
5	25.0	24.0	24.5	26.5	23.0	25.0	29.0	26.5	28.0	24.5	23.5	24.0
6	25.0	24.5	24.5	25.0	23.0	24.5	29.5	28.0	28.5	24.0	23.0	23.5
7	24.5	22.0	23.5	25.5	24.0	25.0	28.5	28.0	28.0	24.5	24.0	24.0
8	24.5	23.0	23.5	26.0	24.5	25.0	28.5	26.5	28.0	24.5	24.0	24.0
9	25.5	24.0	25.0	26.5	25.5	26.0	28.0	26.5	27.0	24.0	23.0	23.5
10	25.5	24.0	25.0	28.0	26.5	27.0	28.0	26.0	26.5	24.0	22.0	23.0
11	24.0	23.0	23.5	27.0	26.5	27.0	27.0	26.5	26.5	23.5	21.5	23.0
12	24.0	22.0	23.0	29.0	26.5	28.0	28.0	26.0	26.5	24.0	22.0	23.0
13	25.0	23.5	24.0	29.5	28.0	28.5	28.0	26.0	26.5	24.0	22.0	23.5
14	26.0	25.0	25.5	30.0	28.5	29.0	27.0	25.5	26.0	24.5	23.5	24.0
15	26.0	25.0	26.0	30.5	29.0	29.5	27.0	26.0	26.5	24.0	24.0	24.0
16	27.0	26.0	26.5	30.5	29.0	29.5	27.0	25.5	26.0	24.0	23.0	23.5
17	26.5	26.0	26.5	29.5	28.5	29.0	26.0	24.5	25.0	23.0	21.0	22.0
18	26.5	25.5	26.0	28.5	27.0	28.0	24.5	23.5	24.0	21.0	19.5	20.5
19	26.0	25.0	25.5	28.5	27.0	28.0	23.5	23.0	23.5	19.5	18.5	19.0
20	26.0	25.0	25.0	28.0	27.0	28.0	23.0	22.0	23.0	19.0	18.0	18.5
21	27.0	25.0	26.0	28.0	27.0	28.0	22.0	22.0	22.0	19.5	18.0	18.5
22	28.5	26.0	27.0	28.0	27.0	28.0	23.5	22.0	23.0	20.0	18.5	19.0
23	29.0	26.5	27.0	28.0	26.5	27.0	24.0	23.5	23.5	20.5	19.5	20.0
24	29.0	26.5	28.0	28.0	26.5	27.0	25.0	24.0	24.5	20.5	19.5	20.0
25	30.0	28.0	28.5	27.0	25.0	26.5	25.5	24.5	25.0	20.5	19.5	20.0
26	29.0	27.0	28.0	26.5	25.0	25.5	26.5	25.0	25.5	21.0	19.5	20.5
27	28.5	26.5	27.0	28.0	26.5	27.0	26.5	25.5	26.0	21.0	20.0	20.5
28	28.0	26.5	27.0	28.0	27.0	27.0	26.0	25.0	25.5	21.0	20.0	20.5
29	27.0	26.5	26.5	28.0	25.5	26.5	26.0	25.5	25.5	21.0	19.5	20.5
30	26.5	25.5	26.0	25.5	24.5	25.0	25.5	23.0	24.0	20.5	19.5	20.0
31	---	---	---	25.0	24.5	24.5	25.0	24.0	24.5	---	---	---
MONTH	30.0	22.0	25.5	30.5	23.0	27.0	29.5	22.0	25.5	25.0	18.0	22.0

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 (1 m) downstream from bridge on former U. S. Highway 31, 2 blocks north of public square in Columbia, 0.7 mi (1.1 km) downstream from Columbia hydroelectric plant, 2.4 mi (3.9 km) upstream from Rutherford Creek, and at mile 132.8 (213.7 km).

DRAINAGE AREA.--1,208 mi² (3,129 km²).

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to current year. Monthly discharge only for some periods, published in WSP 1306. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Water-stage recorder. Datum of gage is 535.33 ft (163.169 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft (0.722 m) higher prior to Oct. 1, 1933.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Flow regulated by Normandy Lake (station 03596460) since Jan. 5, 1976.

AVERAGE DISCHARGE.--65 years, 1905-8, 1921-81, 1,997 ft³/s (56.56 m³/s), 22.45 in/yr (570 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,500 ft³/s (1,740 m³/s) Mar. 17, 1973; maximum gage height, 51.75 ft (15.773 m) Feb. 14, 1948; no flow Oct. 22, 1922.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1902, reached a stage of 48.0 ft (14.63 m), present datum, discharge, 50,700 ft³/s (1,440 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,490 ft³/s (269 m³/s) at 0630 hours Mar. 31, gage height, 16.70 ft (5.090 m); minimum, 138 ft³/s (3.91 m³/s) Aug. 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	215	554	232	645	466	4770	324	233	167	212	336
2	222	206	592	215	3880	429	2670	317	258	167	198	283
3	212	200	567	206	4500	415	1840	307	300	159	188	436
4	209	193	550	203	2420	477	1540	294	623	163	184	576
5	203	190	530	193	1390	1220	3240	283	435	725	181	516
6	200	190	517	197	920	2000	3570	278	333	1220	180	487
7	197	190	505	197	726	1660	2480	272	716	905	179	330
8	197	190	497	203	640	1240	1680	262	803	612	182	230
9	197	190	601	222	623	961	1860	234	864	383	174	207
10	193	190	797	229	698	782	3090	257	740	261	164	190
11	197	187	712	225	768	662	2980	248	675	226	191	178
12	193	187	667	206	987	575	2040	239	672	237	165	169
13	190	187	584	206	1170	509	1560	230	802	228	148	161
14	184	190	526	212	930	462	1240	239	665	214	141	159
15	187	203	485	209	773	429	971	230	674	205	138	178
16	187	209	462	206	726	415	786	219	434	200	428	191
17	190	283	433	203	1440	388	698	213	318	188	560	202
18	193	314	321	197	1680	374	650	213	261	190	556	199
19	190	314	229	200	2100	356	694	239	241	415	520	185
20	190	296	209	206	2780	324	683	257	223	599	410	174
21	190	261	200	250	2240	317	591	390	205	373	489	164
22	190	236	193	429	1620	383	537	349	205	440	380	158
23	190	222	190	610	1250	884	524	239	202	281	274	153
24	197	219	203	546	997	1660	556	216	189	217	240	147
25	203	219	212	438	792	1420	770	225	191	323	210	144
26	200	232	254	364	640	951	715	217	192	944	187	142
27	229	292	299	333	554	724	542	211	180	495	173	146
28	243	343	296	333	497	618	430	211	179	342	165	148
29	250	389	276	364	---	610	388	228	182	333	181	148
30	254	351	257	372	---	6500	347	251	176	331	569	143
31	236	---	246	343	---	8740	---	245	---	268	345	---
TOTAL	6338	7088	12964	8549	38386	36951	44442	7937	12171	11811	8312	6880
MEAN	204	236	418	276	1371	1192	1481	256	406	381	268	229
MAX	254	389	797	610	4500	8740	4770	390	864	1220	569	576
MIN	184	187	190	193	497	317	347	211	176	159	138	142
(†)	-4000	-3500	-6200	-2400	+1200	+1300	+4900	-900	-200	-1400	-2500	-2700
MEAN‡	75.4	120	218	198	1414	1234	1645	227	399	336	187	139
CFSM‡	.06	.10	.18	.16	1.17	1.02	1.36	.19	.33	.28	.15	.12
IN.‡	.07	.11	.21	.19	1.22	1.18	1.52	.22	.37	.32	.18	.13
CAL YR 1980 TOTAL	736936	MEAN 2013	MAX 34200	MIN 184	MEAN‡ 2013	CFSM‡ 1.67	IN.‡ 22.68					
WTR YR 1981 TOTAL	201829	MEAN 553	MAX 8740	MIN 138	MEAN‡ 508	CFSM‡ .42	IN.‡ 5.71					

† Change in contents, in cfs-days, in Normandy Lake.

‡ Adjusted for change in contents.

03600500 BIG BIGBY CREEK AT SANDY HOOK, TN

LOCATION.--Lat 35°29'19", long 87°13'59", Maury County, Hydrologic Unit 06040003, on right bank 45 ft (14 m) west of Louisville and Nashville Railroad track, 0.2 mi (0.3 km) downstream from bridge on U. S. Highway 43, 0.4 mi (0.6 km) northeast of Sandy Hook, 0.5 mi (0.8 km) upstream from Dry Creek, 3.5 mi (5.6 km) southwest of Mount Pleasant, and at mile 17.9 (28.8 km).

DRAINAGE AREA.--17.5 mi² (45.3 km²).

PERIOD OF RECORD.--September 1953 to current year.

REVISED RECORDS.--WRD TN 1974: 1954(P), 1955, 1956-57(P), 1958(M), 1961(M), 1962-65(P), 1966 (M), 1967-68(P), 1969(M), 1970(P), 1971(M), 1972-73(P).

GAGE.--Water-stage recorder. Datum of gage is 670.44 ft (204.350 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--28 years, 28.2 ft³/s (0.799 m³/s), 21.88 in/yr (556 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,700 ft³/s (218 m³/s) Mar. 15, 1973, gage height, 11.55 ft (3.520 m), from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 1.0 ft³/s (0.028 m³/s) Sept. 10, 1958, and July 9, 1959, caused by removal of gravel 0.2 mi (0.3 km) upstream; minimum natural discharge, 1.5 ft³/s (0.042 m³/s) Sept. 4-7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 574 ft³/s (16.3 m³/s) Mar. 30, at 0130 gage height, 4.74 ft (1.445 m), no peak above base of 600 ft³/s (17 m³/s); minimum, 3.1 ft³/s (0.088 m³/s) Sept. 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	6.2	8.0	5.8	132	9.4	38	7.1	39	5.9	4.9	5.7
2	7.1	6.2	7.5	5.8	106	8.4	26	6.9	32	7.2	4.7	9.2
3	6.6	6.2	7.0	5.4	39	8.0	21	6.6	14	5.9	4.5	102
4	6.2	6.6	6.6	5.4	20	22	42	6.5	11	5.6	4.2	26
5	6.2	6.6	6.6	5.0	15	26	74	6.4	9.4	21	4.0	14
6	6.2	6.2	6.6	5.8	13	20	42	6.4	12	15	4.0	9.9
7	6.2	7.1	6.6	7.1	12	16	29	6.4	11	9.9	4.3	7.9
8	6.2	8.9	6.6	5.8	13	14	23	6.2	9.0	8.0	4.7	6.9
9	6.2	8.9	15	5.8	11	12	90	5.9	8.1	7.0	3.7	6.0
10	6.2	8.9	11	5.4	21	11	62	6.5	7.7	6.5	4.0	5.3
11	6.6	8.9	8.9	4.7	23	9.9	40	6.7	30	6.5	3.7	4.9
12	7.1	8.4	8.0	4.3	17	9.4	29	6.5	88	6.0	4.3	4.6
13	7.1	8.4	7.5	4.3	15	8.9	23	6.1	88	5.6	3.6	4.2
14	7.1	9.9	6.6	5.4	13	8.4	19	6.1	32	5.2	3.6	4.7
15	7.1	11	6.6	5.8	12	8.4	16	6.1	19	4.9	3.6	8.8
16	7.5	9.4	6.2	5.4	16	8.4	14	5.9	15	4.6	4.7	7.3
17	8.4	17	5.8	5.0	34	8.0	14	7.3	13	8.0	4.3	5.2
18	9.4	14	5.8	5.4	29	8.0	12	7.4	10	7.0	4.3	4.8
19	8.4	10	5.8	5.8	23	7.5	11	8.6	9.4	5.6	8.6	4.5
20	8.4	8.9	5.0	7.5	19	7.1	11	6.9	8.6	5.2	7.1	4.3
21	8.4	8.4	5.0	13	15	7.1	10	6.4	7.6	6.3	6.2	3.9
22	8.4	8.0	5.0	9.4	15	22	11	5.9	7.2	5.0	5.5	3.7
23	8.4	8.4	5.4	8.0	13	31	13	5.6	7.7	4.6	4.9	3.6
24	10	7.5	8.9	7.5	12	20	11	5.4	6.5	5.9	4.7	3.5
25	12	7.1	7.5	7.5	10	17	9.9	7.7	6.1	6.1	4.3	3.3
26	9.4	7.5	6.6	7.1	9.9	14	9.3	8.1	6.0	5.5	4.3	3.6
27	17	15	6.6	10	8.9	13	8.6	6.5	5.6	5.1	4.3	4.2
28	13	9.9	6.2	9.4	9.4	12	8.0	6.0	5.5	5.2	5.8	4.4
29	8.0	8.9	6.2	8.4	---	18	8.2	5.6	5.2	5.5	5.5	3.6
30	6.6	8.5	6.2	9.4	---	248	7.6	5.4	5.3	5.4	6.3	3.4
31	6.6	---	5.8	8.9	---	76	---	5.6	---	5.0	5.5	---
TOTAL	249.1	266.9	217.1	209.5	676.2	708.9	732.6	200.7	528.9	210.2	148.1	283.4
MEAN	8.04	8.90	7.00	6.76	24.2	22.9	24.4	6.47	17.6	6.78	4.78	9.45
MAX	17	17	15	13	132	248	90	8.6	88	21	8.6	102
MIN	6.2	6.2	5.0	4.3	8.9	7.1	7.6	5.4	5.2	4.6	3.6	3.3
CFSM	.46	.51	.40	.39	1.38	1.31	1.39	.37	1.01	.39	.27	.54
IN.	.53	.57	.46	.45	1.44	1.51	1.56	.43	1.12	.45	.31	.60

CAL YR 1980 TOTAL 12745.5 MEAN 34.8 MAX 1000 MIN 5.0 CFSM 1.99 IN 27.09
WTR YR 1981 TOTAL 4431.6 MEAN 12.1 MAX 248 MIN 3.3 CFSM .69 IN 9.42

03602500 PINEY RIVER AT VERNON, TN

LOCATION.--Lat 35°52'16", long 87°30'05", Hickman County, Hydrologic Unit 06040003, on right bank at county highway bridge, 40 ft (12 m) upstream from Pretty Creek, 0.2 mi (0.3 km) northwest of Vernon, 2.3 mi (3.7 km) downstream from Mill Creek, 6.5 mi (10.5 km) north of Centerville, and at mile 8.3 (13.4 km).

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 758: 1927(M). WSP 823: Drainage area. WSP 1306: Drainage area at site used Feb. 9, 1931, to May 10, 1934. WSP 1436: 1926(M), 1927, 1929, 1930-31(M), 1932, 1934(M).

GAGE.--Water-stage recorder. Datum of gage is 461.72 ft (140.732 m) National Geodetic Vertical Datum of 1929. Prior to May 11, 1934, nonrecording gage; July 3, 1925, to Feb. 8, 1931, at site 350 ft (107 m) upstream at datum 3.17 ft (0.966 m) higher; Feb. 9, 1931, to May 10, 1934, at site 0.4 mi (0.6 km) downstream at datum 0.40 ft (0.122 m) higher. May 11, 1934, to Sept. 30, 1970, water-stage recorder at site 350 ft (107 m) upstream; prior to June 29, 1965, at datum 3.17 ft (0.996 m) higher, and 2.17 ft (0.661 m) higher thereafter.

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

AVERAGE DISCHARGE.--56 years, 315 ft³/s (8.921 m³/s), 21.18 in/yr (538 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s (920 m³/s) Dec. 21, 1926, gage height, 16.5 ft (5.03 m), site and datum then in use; minimum, 35 ft³/s (0.991 m³/s) Sept. 19, 20, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1897 reached a stage of 17.5 ft (5.33 m), original site and datum, discharge, 37,000 ft³/s (1,050 m³/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,360 ft³/s (95.2 m³/s) at 0545 hours June 7, gage height, 8.96 ft (2.731 m), no peak above base of 4,000 ft³/s (113 m³/s; minimum, 90 ft³/s (2.55 m³/s) Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	114	103	98	273	138	388	174	798	145	205	198
2	123	113	103	98	526	129	330	162	564	140	184	199
3	118	113	101	97	261	125	296	151	512	135	170	200
4	117	112	101	97	256	186	281	144	400	132	158	175
5	110	112	101	95	201	388	294	139	345	201	146	156
6	108	111	102	97	186	345	262	137	894	208	142	143
7	106	110	101	110	166	300	244	133	2310	168	197	132
8	104	112	102	101	156	265	230	127	1110	149	172	124
9	102	113	147	99	139	236	253	123	704	140	148	120
10	103	113	149	98	246	215	250	138	553	154	136	114
11	102	112	129	97	391	197	240	151	610	275	129	110
12	101	111	123	94	249	182	229	131	670	175	127	107
13	102	111	119	97	205	171	218	125	473	152	121	103
14	102	117	115	97	190	159	203	122	386	141	116	101
15	102	126	114	95	188	152	187	119	328	135	114	135
16	102	120	11	95	200	150	176	116	286	129	163	202
17	109	166	1	94	222	141	189	117	259	266	155	141
18	134	198	109	93	285	136	196	182	234	334	135	125
19	117	137	107	94	260	131	187	978	225	200	130	117
20	110	115	103	98	235	127	219	571	214	169	136	113
21	108	110	102	106	210	123	208	386	197	187	134	108
22	108	107	102	102	200	128	207	301	188	160	126	106
23	108	105	103	101	185	131	260	258	249	148	119	101
24	110	103	109	99	171	125	284	232	193	203	116	98
25	118	99	107	98	158	123	265	223	180	599	113	97
26	116	98	105	98	148	121	241	225	170	787	110	96
27	123	114	102	98	140	120	219	202	158	418	115	96
28	137	111	102	97	137	117	200	180	152	317	121	95
29	124	106	101	97	---	126	214	167	146	320	146	92
30	118	106	99	101	---	463	192	161	141	266	152	91
31	115	---	99	99	---	465	---	251	---	230	183	---
TOTAL	3473	3495	3384	3040	6184	5915	7162	6626	13649	7183	4419	3795
MEAN	112	117	109	98.1	221	191	239	214	455	232	143	127
MAX	137	198	149	110	526	465	388	978	2310	787	205	202
MIN	101	98	99	93	137	117	176	116	141	129	110	91
CFSM	.55	.58	.54	.49	1.09	.95	1.18	1.06	2.25	1.15	.71	.63
IN.	.64	.64	.62	.56	1.14	1.09	1.32	1.22	2.51	1.32	.81	.70
CAL YR 1980	TOTAL	124961	MEAN 341	MAX 5430	MIN 91	CFSM 1.69	IN 23.01					
WTR YR 1981	TOTAL	68325	MEAN 187	MAX 2310	MIN 91	CFSM .93	IN 12.58					

TENNESSEE RIVER BASIN

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03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, Hydrologic Unit 06040003, on left bank 0.4 mi (0.6 km) downstream from Tumbling Creek, 1.3 mi (2.1 km) upstream from bridge on State Highway 13, 3.6 mi (5.8 km) Southeast of Hurricane Mills, and at mile 26.0 (41.8 km).

DRAINAGE AREA.--2,557 mi² (6,623 km²).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1951, published as "near Hurricane Mills."

REVISED RECORDS.--WSP 803: 1935. WSP 823: 1927(M). WSP 853: Drainage area. WSP 1436: 1926-28, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 370.53 ft (112.938 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 21, 1934, nonrecording gage and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder at bridge 5.6 mi (9.0 km) downstream at datum 8.80 ft (2.682 m) lower.

REMARKS.--Records good. Flow regulated since January 1976 by Normandy Lake (station 03596460). Prior to 1953 occasional regulation at low flow from small dams upstream. Minor diversions for irrigation. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--56 years, 4,106 ft³/s (116.3 m³/s), 21.81 in/yr (554 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 122,000 ft³/s (3,460 m³/s) Feb. 14, 1948, gage height, 30.70 ft (9.357 m), from floodmark in gage house, present site and datum; minimum, 185 ft³/s (5.24 m³/s) Sept. 11, 12, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,400 ft³/s (379 m³/s) at 1815 hours Mar. 31, gage height, 11.42 ft (3.481 m); minimum, 570 ft³/s (16.1 m³/s) Aug. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	908	921	1150	935	1510	1590	12900	1350	1500	788	1200	1400
2	889	889	1120	915	3330	1500	9030	1220	1910	788	1060	1760
3	863	869	1200	895	6200	1390	5800	1150	2060	800	948	1800
4	836	869	1270	876	6540	1490	4420	1110	1860	770	869	4660
5	818	843	1240	843	4940	2110	4550	1070	1680	882	806	3260
6	812	800	1220	836	3300	2900	6350	1030	2550	1020	758	2280
7	812	788	1210	869	2530	3610	6440	981	5310	1530	806	1880
8	794	794	1210	902	2130	3550	5340	941	5390	1890	812	1670
9	782	824	1390	895	1890	2990	4200	908	4160	1570	782	1430
10	764	830	1690	856	1890	2550	4140	935	3300	1290	723	1210
11	764	830	1890	863	2610	2240	4940	988	3450	1550	711	1080
12	764	818	1800	869	2890	2000	5310	1000	3750	1340	664	996
13	746	782	1620	824	2620	1810	4350	948	3760	1030	634	930
14	764	788	1500	836	2630	1650	3540	882	4050	921	622	887
15	758	849	1410	863	2480	1530	2960	836	3190	843	587	913
16	740	863	1320	856	2240	1470	2550	812	2600	770	806	1050
17	746	1040	1240	849	2190	1390	2290	806	2220	776	1300	1150
18	818	1320	1190	836	2780	1300	2140	882	1830	1320	1780	1050
19	836	1390	1140	812	3750	1230	2050	1850	1600	1370	1570	939
20	818	1270	1050	836	3640	1180	2040	2190	1470	1050	1390	902
21	812	1150	928	895	4230	1120	2070	1590	1320	1120	1330	866
22	794	1060	863	968	4050	1100	1970	1310	1220	1390	1160	828
23	770	1000	849	1070	3330	1160	1910	1230	1160	1140	1160	793
24	770	961	869	1200	2750	1550	1980	1190	1120	1120	1070	747
25	806	935	889	1380	2360	2190	1930	1070	1030	1640	931	713
26	794	902	908	1320	2090	2480	1870	1140	1040	2210	819	687
27	856	961	902	1220	1870	2130	1960	2100	988	2010	764	680
28	981	1020	908	1140	1680	1810	1800	1480	902	2050	721	684
29	1080	1140	968	1090	---	1640	1610	1160	830	1920	802	677
30	1090	1140	974	1100	---	2730	1490	1040	800	1510	837	667
31	961	---	961	1140	---	11900	---	1110	---	1320	1070	---
TOTAL	25746	28646	36879	29789	84450	69290	113930	36309	68050	39728	29492	38589
MEAN	831	955	1190	961	3016	2235	3798	1171	2268	1282	951	1286
MAX	1090	1390	1890	1380	6540	11900	12900	2190	5390	2210	1780	4660
MIN	740	782	849	812	1510	1100	1490	806	800	770	587	667

CAL YR 1980	TOTAL	1678141	MEAN	4585	MAX	58500	MIN	740	MEAN†	4585	CFSM†	1.79	IN.†	24.40
WTR YR 1981	TOTAL	600898	MEAN	1646	MAX	12900	MIN	587	MEAN†	1601	CFSM†	0.63	IN.†	8.50

† Adjusted for change in contents in Normandy Lake.

TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, Hydrologic Unit 06040004, on right bank 0.4 mi (0.6 km) downstream from Little Opossum Creek, 0.5 mi (0.8 km) downstream from bridge on State Highway 13, 1.3 mi (2.1 km) north of Flat Woods, 3.9 mi (6.3 km) upstream from Sinking Creek, and at mile 58.7 (94.4 km).

DRAINAGE AREA.--447 mi² (1,158 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1920 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 803: 1935. WSP 823: Drainage area. WSP 1436: 1921(M), 1922-24, 1925(M), 1927(M), 1934(M), WRD TN 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 513.58 ft (156.539 m) National Geodetic Vertical Datum of 1929. Prior to May 27, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--61 years, 751 ft³/s (21.27 m³/s), 22.81 in/yr (579 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft³/s (2,550 m³/s) Feb. 13, 1948, gage height, 32.0 ft (9.75 m), from high-water mark in gage house, from rating curve extended above 50,000 ft³/s (1,420 m³/s) on basis of slope-area and contracted-opening measurements of peak flow and rainfall-runoff study; minimum, 65 ft/s (1.84 m³/s) Sept. 9, 1925.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge 4,610 ft³/s (131 m³/s) at 2000 hours Mar. 30, gage height, 10.70 ft (3.261 m), no other peak above base of 4,500 ft³/s (127 m³/s); minimum, 166 ft³/s (4.70 m³/s) Aug. 16, gage height, 2.24 ft (0.683 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	277	362	280	640	358	1630	355	321	323	251	308
2	265	265	348	277	2450	345	1130	328	494	281	237	352
3	247	259	341	274	1600	321	903	312	742	301	228	572
4	236	259	331	283	955	400	866	300	486	260	219	640
5	239	253	325	321	720	693	2130	290	506	520	209	549
6	236	250	315	331	589	688	1730	282	582	831	202	419
7	236	250	315	376	517	597	1180	277	694	690	214	362
8	233	259	315	372	493	531	978	266	662	469	215	318
9	233	262	379	335	469	482	1130	257	524	376	203	289
10	230	262	445	293	489	445	1780	269	443	321	191	265
11	227	262	386	271	635	412	1410	309	587	324	182	250
12	220	256	345	256	606	386	1100	281	1610	313	175	239
13	220	256	325	250	531	365	914	265	1230	270	171	227
14	222	271	321	274	486	348	784	254	894	246	172	220
15	225	299	312	274	455	328	679	252	634	230	169	268
16	230	302	308	271	439	325	592	245	523	228	414	286
17	233	355	305	265	510	308	538	257	460	246	1250	296
18	247	507	296	256	720	296	502	306	425	330	917	246
19	253	435	289	259	743	286	481	312	382	270	866	230
20	244	352	283	274	675	274	529	289	387	246	662	223
21	239	312	277	318	601	265	516	271	361	241	517	218
22	241	293	277	328	549	280	462	250	313	244	432	210
23	241	302	280	296	507	383	487	238	306	226	372	204
24	244	312	305	277	465	400	541	231	288	216	325	201
25	253	305	348	265	429	372	528	234	265	422	293	196
26	268	302	325	259	396	362	488	362	247	524	271	195
27	286	403	305	274	372	352	452	418	233	371	256	206
28	435	445	296	321	355	341	422	352	225	297	372	212
29	459	409	289	305	---	369	403	287	219	284	338	206
30	335	379	286	296	---	3210	387	268	217	298	308	192
31	289	---	283	305	---	3150	---	267	---	277	293	---
TOTAL	8065	9353	9917	9036	18396	17672	25672	8884	15260	10475	10924	8599
MEAN	260	312	320	291	657	570	856	287	509	338	352	287
MAX	459	507	445	376	2450	3210	2130	418	1610	831	1250	640
MIN	220	250	277	250	355	265	387	231	217	216	169	192
CFSM	.58	.70	.72	.65	1.47	1.28	1.92	.64	1.14	.76	.79	.64
IN.	.67	.78	.83	.75	1.53	1.47	2.14	.74	1.27	.87	.91	.72
CAL YR 1980	TOTAL	365640	MEAN 999	MAX	32200	MIN 207	CFSM 2.24	IN 30.43				
WTR YR 1981	TOTAL	152253	MEAN 417	MAX	3210	MIN 169	CFSM .93	IN 12.67				

TENNESSEE RIVER BASIN

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03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1964 to January 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 31.0°C July 13-15, 1966; minimum, 0.0°C many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
DEC 09...	1200	360	58	6.7	12.0	10.4	K260	K220	37	7	12
JAN 22...	1000	337	54	7.1	4.0	12.2	K15	K39	35	7	12
MAR 12...	1130	359	84	7.4	9.0	11.8	--	--	37	8	12
MAY 29...	1100	299	93	6.9	20.0	8.1	K94	K230	43	0	14
JUL 06...	1430	826	170	--	23.0	--	--	--	--	--	--
JUL 14...	1230	247	101	6.9	27.0	7.2	K120	K65	45	0	15
SEP 17...	1100	332	100	6.5	20.0	8.1	K400	480	49	3	16
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
DEC 09...		1.7	1.3	7	.1	.5	30	3.2	1.7	.1	2.2
JAN 22...		1.2	1.3	7	.1	.4	28	2.9	1.4	<.1	2.3
MAR 12...		1.7	1.7	9	.1	.7	29	7.5	2.3	<.1	3.2
MAY 29...		2.0	1.4	6	.1	.7	44	4.0	1.8	<.1	6.1
JUL 14...		1.9	1.3	6	.1	.8	49	2.8	1.8	<.1	7.1
SEP 17...		2.2	.2	1	.0	1.0	46	3.6	2.0	<.1	7.2
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
DEC 09...		51	41	.07	49.6	--	.04	--	.010	--	.08
JAN 22...		49	38	.07	44.6	.10	--	.020	--	--	--
MAR 12...		54	48	.07	52.3	--	.29	--	.050	--	.12
MAY 29...		64	59	.09	51.7	--	.47	.090	.050	--	.25
JUL 14...		53	60	.07	35.3	.24	--	.020	--	.22	--
SEP 17...		69	61	.09	61.9	--	.24	.010	<.010	.28	--

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

TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DEC 09...	--	.09	--	.13	.010	.000	--	2.3	8	7.8
JAN 22...	<.10	--	--	--	.020	<.010	1.9	--	6	5.5
MAR 12...	--	.17	--	.46	.020	<.010	1.9	--	6	5.8
MAY 29...	--	.30	--	.77	.040	.020	.1	--	10	8.1
JUL 06...	--	--	--	--	--	--	--	--	147	328
SEP 14...	.24	.20	.48	--	.120	<.010	--	--	12	8.0
SEP 17...	.29	.10	--	.34	.030	.010	--	2.3	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)
DEC 09...	1	1	<50	20	--	2	10	1	<3
SEP 17...	--	1	100	2	1	1	20	<1	3

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
DEC 09...	1	<10	170	28	1	<10	20	6	.7
SEP 17...	4	1	40	28	10	10	40	10	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DEC 09...	<.1	0	0	0	0	37	30	<4	--
SEP 17...	.1	--	<1	<1	<1	62	30	6	<.01

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL (UG/KG)
DATE SEP 17...	<1.1	.8	<.9	.6	.09	.07	<.10	6	<.10	<.01	<.1
	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL (UG/KG)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)
DATE SEP 17...	<.10	.0	<.01	.3	<.01	<.1	<.01	<.1	<.01	<.1	<.01
	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/KG)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	
DATE SEP 17...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	
	MIREX, TOTAL (UG/L)	MIREX, TOTAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE TOTAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
DATE SEP 17...	<.01	<.1	<.01	<.10	<.10	<.0	<.01	<.01	<.01	<.01	

TENNESSEE RIVER BASIN

03604500 BUFFALO RIVER NEAR LOBELVILLE, TN

LOCATION.--Lat 35°48'46", long 87°47'51", Perry County, Hydrologic Unit 06040004, on right bank 30 ft (9 m) upstream from Standing Rock Bridge, 1.4 mi (2.3 km) downstream from bridge on State Highway 13, 3 mi (5 km) north of Lobelville, 13 mi (21 km) downstream from Cane Creek, and at mile 17.7 (28.5 km).

DRAINAGE AREA.--707 mi² (1,831 km²).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935. WSP 823: Drainage area. WSP 853: 1928-37. WSP 1436: 1932(M).

GAGE.--Water-stage recorder. Datum of gage 403.02 ft (122.840 m) National Geodetic Vertical Datum of 1929. Nov. 1, 1927, to May 31, 1934, nonrecording gage 40 ft (12 m) downstream at same datum.

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

AVERAGE DISCHARGE.--54 years, 1,188 ft³/s (33.64 m³/s), 22.82 in/yr (580 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s (2,830 m³/s) Feb. 14, 1948, gage height, 23.76 ft (7.242 m) from high-water mark in gage house, from rating curve extended above 40,000 ft³/s (1,130 m³/s) on basis of slope-area measurement of peak flow; minimum, 135 ft³/s (3.82 m³/s) Aug. 18, 1953, caused by regulations upstream at unknown location; minimum discharge unaffected by regulation, 142 ft³/s (4.02 m³/s) Oct. 1-8, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 14, 1948. Flood of March 1902 reached a stage of about 21.8 ft (6.64 m), discharge not determined, from flood profile by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 5,420 ft³/s (153 m³/s) at 2000 hours Mar. 31, gage height, 9.92 ft (3.024 m), no other peak above base of 5,200 ft³/s (147 m³/s); minimum 294 ft³/s (8.33 m³/s) Aug. 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	492	549	663	512	847	706	3910	645	549	430	485	481
2	500	512	631	504	2750	679	2430	605	600	498	449	500
3	468	488	609	500	3160	652	1850	566	769	499	419	576
4	437	476	592	492	2280	746	1540	541	993	473	397	709
5	418	468	579	488	1650	1260	1760	520	851	580	380	833
6	406	460	570	524	1330	1420	2690	508	972	804	369	819
7	402	452	562	579	1140	1360	2280	500	1280	1060	399	700
8	402	456	553	605	1030	1220	1790	488	1240	990	397	609
9	402	464	717	609	940	1100	1590	472	1130	793	377	550
10	399	472	861	583	1010	1000	1910	492	1000	658	354	502
11	395	472	812	537	1580	918	2270	549	941	570	337	468
12	387	468	745	472	1500	835	1970	528	1040	519	321	439
13	380	464	676	479	1340	780	1650	504	1750	509	307	418
14	376	468	622	469	1180	732	1430	480	1590	464	301	403
15	384	504	596	484	1060	693	1260	460	1310	430	296	419
16	387	520	579	488	975	671	1130	448	1070	408	346	473
17	395	600	566	481	971	638	1040	448	896	419	492	470
18	452	881	549	472	1040	613	993	492	783	421	1180	463
19	464	851	541	466	1200	585	916	516	722	474	1220	435
20	448	798	524	472	1240	559	856	528	690	456	1130	411
21	437	694	516	518	1170	539	866	500	636	467	979	396
22	425	618	504	546	1100	540	851	472	600	443	832	385
23	418	574	504	566	1020	579	841	448	579	414	717	374
24	418	557	524	537	942	627	837	429	528	521	622	361
25	445	553	545	512	870	668	856	437	496	697	548	355
26	452	553	562	495	814	642	841	448	472	826	498	352
27	464	618	566	488	762	622	793	492	441	822	463	351
28	541	704	545	486	717	607	745	622	421	700	451	358
29	592	736	528	514	---	609	722	579	406	588	500	363
30	681	713	520	539	---	2090	685	537	398	547	531	362
31	627	---	516	542	---	4600	---	528	---	512	499	---
TOTAL	13894	17143	18377	15959	35618	29290	43302	15782	25153	17992	16596	14335
MEAN	448	571	593	515	1272	945	1443	509	838	580	535	478
MAX	681	881	861	609	3160	4600	3910	645	1750	1060	1220	833
MIN	376	452	504	466	717	539	685	429	398	408	296	351
CFSM	.63	.81	.84	.73	1.80	1.34	2.04	.72	1.19	.82	.76	.68
IN.	.73	.90	.97	.84	1.87	1.54	2.28	.83	1.32	.95	.87	.75
CAL YR 1980	TOTAL	542517	MEAN	1482	MAX	25100	MIN	354	CFSM	2.10	IN	28.55
WTR YR 1981	TOTAL	263441	MEAN	722	MAX	4600	MIN	296	CFSM	1.02	IN	13.86

03605555 TRACE CREEK ABOVE DENVER, TN

LOCATION.--Lat 36°03'08", long 87°54'27", Humphreys County, Hydrologic Unit 06040005, on left bank at bridge on U.S. Highway 70, 1.0 mi (1.6 km) east of Denver, 3.9 mi (6.3 km) northeast of New Johnsonville, and at mile 4.2 (6.8 km).

DRAINAGE AREA.--31.9 mi² (82.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Published as "near Denver" prior to October 1972.

REVISED RECORDS.--WDR TN-76-1: 1973-75(P).

GAGE.--Water-stage recorder. Datum of gage is 377.05 ft (114.925 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1973, at site 1.1 mi (1.8 km) upstream. Oct. 22 to Nov. 6, 1963, at different datum and Nov. 7, 1963, to Dec. 31, 1972, at datum 12.47 ft (3.801 m) higher.

REMARKS.--Records fair. Natural flow of stream effected by periodic transbasin diversion of water from the Duck River basin into the Trace Creek basin to supplement the Waverly municipal water supply.

AVERAGE DISCHARGE.--18 years, 53.0 ft³/s (1.501 m³/s), 22.56 in/yr (573 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft³/s (260 m³/s), Apr. 19, 1973, gage height, 12.43 ft (3.789 m); maximum discharge at prior site and datum, 3,640 ft³/s (103 m³/s), May 13, 1967, gage height, 9.08 ft (2.768 m); minimum discharge, 3.0 ft³/s (0.085 m³/s) Aug. 9, 13, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1886, 14 ft (4.3 m) January 1937, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,280 ft³/s (121 m³/s) at 1200 hours June 6, gage height, 9.47 ft (2.886 m), no other peak above base of 1,850 ft³/s (52.4 m³/s); minimum, 4.8 ft³/s (0.14 m³/s) Nov. 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	6.0	19	11	77	26	47	41	86	15	13	13
2	9.4	5.7	20	10	97	25	49	39	72	15	11	18
3	8.8	5.5	18	10	56	26	44	36	62	17	15	15
4	8.5	5.5	17	9.8	47	76	46	32	57	18	16	15
5	8.0	5.8	17	9.6	40	100	69	35	53	23	15	13
6	7.4	5.7	15	9.6	35	66	56	32	1570	44	15	12
7	7.4	5.5	15	13	30	55	49	32	447	29	49	12
8	8.0	5.1	15	11	29	48	47	31	113	23	29	11
9	8.0	5.4	27	10	25	42	47	29	79	21	21	12
10	8.0	5.1	25	10	38	40	44	48	82	24	17	12
11	8.2	4.8	23	9.8	54	35	42	47	94	30	16	12
12	8.5	5.1	23	9.8	40	33	39	42	71	25	16	12
13	8.8	5.2	21	10	37	31	37	40	66	21	15	11
14	9.1	5.4	19	12	32	29	37	39	66	22	14	11
15	9.1	6.4	17	12	29	26	33	37	62	20	13	21
16	9.4	5.7	17	11	30	27	32	35	57	19	16	19
17	17	19	14	10	38	27	33	32	55	18	14	16
18	21	29	12	9.5	37	25	36	48	49	19	13	15
19	10	24	11	9.8	35	24	46	91	46	17	13	14
20	5.5	22	10	13	32	23	65	71	36	17	13	13
21	5.2	22	9.6	13	30	23	53	59	32	23	13	13
22	5.4	17	9.6	11	27	23	51	53	36	21	17	12
23	5.2	17	13	11	25	23	60	47	49	17	13	12
24	5.7	17	15	11	25	23	57	42	37	21	12	12
25	6.4	18	13	10	24	23	50	42	31	38	12	11
26	5.8	18	11	10	23	23	47	44	29	67	11	10
27	6.7	24	9.8	11	23	23	46	44	21	23	13	11
28	9.4	23	9.6	11	23	23	42	41	15	18	14	10
29	7.4	20	12	10	---	25	49	38	15	17	14	11
30	6.4	18	10	14	---	111	46	39	12	16	12	11
31	6.0	---	13	12	---	68	---	107	---	14	11	---
TOTAL	259.5	375.9	480.6	334.9	1038	1172	1399	1393	3500	712	486	430
MEAN	8.37	12.5	15.5	10.8	37.1	37.8	46.6	44.9	117	23.0	15.7	14.3
MAX	21	29	27	14	97	111	69	107	1570	67	49	21
MIN	5.2	4.8	9.6	9.5	23	23	32	29	12	14	11	11
CFSM	.26	.39	.49	.34	1.16	1.19	1.46	1.41	3.67	.72	.49	.45
IN.	.30	.44	.56	.39	1.21	1.37	1.63	1.62	4.08	.83	.57	.50
CAL YR 1980	TOTAL	17616.4	MEAN 48.1	MAX 1490	MIN 4.8	CFSM 1.51	IN 20.54					
WTR YR 1981	TOTAL	11580.9	MEAN 31.7	MAX 1570	MIN 4.8	CFSM .99	IN 13.50					

TENNESSEE RIVER BASIN

03605555 TRACE CREEK ABOVE DENVER, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT						
07...	1300	7.4	245	15.5	5	.10
NOV						
25...	1440	19	245	9.0	2	.10
JAN						
14...	1430	11	240	4.5	3	.09
FEB						
24...	1540	24	200	12.0	5	.32
APR						
07...	1230	49	190	16.0	4	.53
MAY						
21...	1520	57	195	18.5	4	.62
JUL						
01...	1430	16	235	23.5	3	.13
AUG						
21...	1230	13	235	22.0	6	.21
SEP						
09...	1740	11	245	23.0	1	.03

03606500 BIG SANDY RIVER AT BRUCETON, TN

LOCATION.--Lat 36°02'19", long 88°13'42", Carroll County, Hydrologic Unit 06040005, on right bank on downstream end of abutment of county bridge, 700 ft (213 m) downstream from bridge on U.S. Highway 70, 0.6 mi (1.0 km) upstream from Cherry Creek, 0.9 mi (1.4 km) east of Bruceton, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--205 mi² (531 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 853: Drainage area. WSP 923: 1929-35.

GAGE.--Water-stage recorder. Datum of gage is 380.58 ft (116.001 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 1, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--52 years, 293 ft³/s (8.298 m³/s), 19.41 in/yr (493 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft³/s (481 m³/s) Jan. 21, 1935, gage height, 16.16 ft (4.926 m) from graph based on gage readings, from rating curve extended above 9,200 ft³/s (261 m³/s); minimum, 28 ft³/s (0.79 m³/s) Aug. 17-19, 22, Sept. 1, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1897 reached a stage of 18 ft (5.5 m), discharge, 25,000 ft³/s (708 m³/s), and flood in March 1919 reached a stage of 17 ft (5.2 m), discharge, 21,000 ft³/s (595 m³/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,890 ft³/s (110 m³/s) at 2330 hours June 6, gage height 13.48 ft (4.109 m), no other peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily 70 ft³/s (1.98 m³/s) Sept. 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	123	140	116	837	220	559	110	492	123	85	164
2	97	120	138	110	996	170	269	105	499	115	82	174
3	91	117	131	110	669	146	192	101	608	111	81	220
4	88	114	125	106	368	475	189	98	896	105	79	154
5	88	114	126	100	195	771	269	97	1380	249	78	111
6	88	113	130	125	181	603	192	97	2530	557	78	97
7	88	114	123	211	177	352	173	96	3790	494	112	91
8	88	115	123	146	202	202	152	96	3150	294	118	88
9	88	118	385	128	177	170	204	96	2200	210	90	83
10	86	118	309	117	263	161	216	125	918	109	82	80
11	84	114	195	108	386	148	171	172	757	125	78	78
12	82	111	154	108	230	140	155	132	383	111	78	76
13	83	111	137	108	169	139	145	122	248	99	77	76
14	85	118	126	116	167	135	140	117	193	92	73	75
15	85	174	124	119	176	138	131	113	163	89	73	80
16	88	149	122	114	184	158	123	109	145	125	113	111
17	112	517	117	107	311	144	125	105	137	105	219	97
18	315	637	117	105	258	134	134	131	131	96	128	93
19	211	518	115	108	205	131	126	737	128	91	145	83
20	128	325	108	119	179	125	125	416	141	86	114	78
21	106	168	105	155	161	121	128	221	132	127	97	76
22	105	141	108	140	165	142	130	151	130	136	94	76
23	102	148	117	128	164	208	167	137	133	97	90	73
24	114	197	152	125	136	160	155	134	139	95	84	73
25	167	162	140	121	134	138	137	141	129	119	80	72
26	131	141	121	121	131	133	130	159	125	117	78	70
27	154	332	120	117	132	130	123	182	124	95	93	73
28	294	264	115	114	145	127	117	151	122	90	111	80
29	187	185	116	108	---	123	114	146	121	110	159	76
30	138	152	116	173	---	848	114	146	121	100	143	73
31	130	---	114	173	---	665	---	562	---	90	100	---
TOTAL	3817	5830	4369	3856	7498	7457	5105	5305	20165	4562	3112	2851
MEAN	123	194	141	124	268	241	170	171	672	147	100	95.0
MAX	315	637	385	211	996	848	559	737	3790	557	219	220
MIN	82	111	105	100	131	121	114	96	121	86	73	70
CFSM	.60	.95	.69	.61	1.31	1.18	.83	.83	3.28	.72	.49	.46
IN.	.69	1.06	.79	.70	1.36	1.35	.93	.96	3.66	.83	.56	.52

CAL YR 1980 TOTAL 105950 MEAN 289 MAX 4060 MIN 72 CFSM 1.41 IN 19.23
WTR YR 1981 TOTAL 73927 MEAN 203 MAX 3790 MIN 70 CFSM .99 IN 13.41

TENNESSEE RIVER BASIN

03606500 BIG SANDY RIVER AT BRUCETON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968, 1970-72, 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM			
		OCT 07...	1050	87	33	12.5	16	3.8	--			
		NOV 25...	1225	160	42	8.0	1150	497	72			
		JAN 13...	1055	106	32	1.0	10	2.9	--			
		FEB 24...	1330	143	40	9.5	13	5.0	--			
		APR 07...	1515	163	37	14.5	37	16	--			
		MAY 21...	1300	207	42	16.5	102	57	--			
		JUL 01...	1045	134	32	22.0	98	35	--			
		AUG 20...	1400	108	41	20.5	67	20	--			
		SEP 09...	1250	76	40	19.0	96	20	--			
DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
OCT 07...	1050	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
FEB 24...	1330	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01	
APR 07...	1515	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01	
JUL 01...	1045	<.10	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01	
DATE	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 07...		.00	.00	.00	.00	.00	.00	.00	--	--	--	--
FEB 24...		<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01
APR 07...		<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01
JUL 01...		<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01

03609500 TENNESSEE RIVER NEAR PADUCAH, KY.

LOCATION.--Lat 37°01'11", long 88°16'50", Marshall County, Hydrologic Unit 06040006, on left bank at Gilbertsville, 4,000 ft (1,200 m) downstream from Kentucky Dam, 2.3 mi (3.7 km) upstream from Shadie Creek, 16 mi (26 km) east of Paducah, and at mile 21.6 (34.8 km).

DRAINAGE AREA.--40,200 mi² (104,100 km²), approximately.

PERIOD OF RECORD.--October 1875 to September 1889 (gage heights only), October 1889 to current year. Prior to October 1931, published as "at Johnsonville, Tenn.", and October 1931 to September 1939, published as "near Johnsonville, Tenn."

REVISED RECORDS.--WSP 1306: 1936 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 286.35 ft (87.279 m) National Geodetic Vertical Datum of 1929. Prior to October 1939, various types of gages between 75 and 80 mi (121 and 129 km) upstream at datums from 33.16 to 34.67 ft (10.107 to 10.567 m) higher. October 1939 to September 1942, water-stage recorder 16.4 mi (26.4 km) downstream at present datum. Auxiliary water-stage recorder 16.3 mi (26.2 km) downstream at present datum since Oct. 1, 1942. October 1939 to Sept. 30, 1942, auxiliary water-stage recorder at same site and datum as present base gage at Gilbertsville. (See WSP 1706 for details).

REMARKS.--Records good. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other lakes have been built above station (see basic data releases for adjoining states). Flow completely regulated. Barkley-Kentucky Canal (station 03438190) diverts water from or to Lake Barkley in Cumberland River basin.

AVERAGE DISCHARGE.--76 years (1889-1965, prior to opening of Barkley-Kentucky Canal), 64,060 ft³/s (1,814 m³/s), unadjusted; 16 years (1965-81, since opening of Barkley-Kentucky Canal), 65,230 ft³/s (1,847 m³/s), 22.04 in/yr (560 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500,000 ft³/s (14,200 m³/s) Feb. 17, 1948; maximum gage height, 62.43 ft (19.029 m) Feb. 2, 1937, at Gilbertsville, present datum; minimum daily discharge, 60 ft³/s (1.70 m³/s) May 16, 1961.

Maximum discharge since closure of Kentucky Dam on Aug. 30, 1944, 500,000 ft³/s (14,200 m³/s) Feb. 17, 1948.

Maximum discharge since opening of Barkley-Kentucky Canal in June 1966, 420,000 ft³/s (11,900 m³/s) Mar. 17, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 141,000 ft³/s (3,990 m³/s) June 8; maximum gage height, 35.97 ft (10.964 m) June 9; minimum daily discharge, 14,900 ft³/s (422 m³/s) May 18; minimum gage height, 12.98 ft (3.956 m) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39500	23200	35300	23000	27300	42300	39600	26100	39600	34500	32400	35900
2	26900	23000	32200	22600	45300	39600	52000	25500	40300	34300	32100	37500
3	27100	23500	28700	22500	53200	37600	44000	23400	45400	31200	31700	37700
4	27200	27200	27000	21900	51700	46000	23500	23400	49700	31300	31100	39200
5	27400	27200	26300	24500	52100	50500	21300	24700	52200	22500	29500	34600
6	23400	23900	27400	25100	51900	44900	29600	26900	66400	38200	29700	34500
7	19000	24000	27000	23000	43500	40400	38900	20000	110000	46000	28100	25600
8	19000	20400	27300	22200	44900	34300	40100	20200	134000	46500	29200	36400
9	16700	23200	28400	22800	48100	35700	41200	18500	119000	47600	27200	30700
10	19600	23100	32300	22400	53500	34600	41100	18800	96400	46100	32000	27500
11	20000	22700	35100	22900	56400	35800	32700	20100	81600	37900	34900	26500
12	17900	22800	37000	22700	54000	35500	29800	17800	82300	36400	36100	26000
13	18500	23400	34300	22500	53800	34300	28100	16600	82100	35900	35700	26200
14	18500	23800	30300	22500	36600	30400	29000	19300	81500	43500	35500	28100
15	18000	24100	30200	22200	36400	27800	27200	18800	61600	37000	35200	30500
16	17400	23300	30000	22700	44400	26100	24900	18500	54300	38400	36000	38400
17	17700	23200	29500	23200	47200	28300	28100	17800	53000	38800	35500	50200
18	18500	41000	31500	23200	36100	27600	22900	14900	47700	37900	29400	49800
19	19100	39900	27700	25000	34100	29000	25000	31400	43800	38000	30400	30300
20	20200	39900	31100	27800	47600	27400	24500	41700	42300	34000	30300	30800
21	19200	40200	26500	27900	51300	20300	25600	47800	43400	37900	30500	38000
22	18100	25900	26600	28200	48900	20600	33000	35300	46100	36200	30200	37600
23	18700	25900	26000	27800	47400	22200	39400	25700	47000	34200	30000	37800
24	20000	31100	26600	23500	41600	22500	39500	25500	41400	33600	37500	38300
25	21400	41800	25700	19500	38200	19900	20500	27600	37700	29600	36000	37300
26	18900	40700	26000	23200	38100	20700	25200	39700	38000	29400	36400	25400
27	17900	35300	25800	21500	38900	21300	27000	44100	38500	33200	35800	25700
28	19400	32900	25900	21800	40000	21400	24600	40800	35700	38000	29100	26500
29	23400	31200	23600	21200	---	20400	21400	43600	34400	38300	28900	31700
30	23200	27800	22000	22400	---	28600	27400	34600	34800	37100	29000	33900
31	23300	---	22500	21100	---	33100	---	37100	---	38600	39200	---
TOTAL	655100	855600	885800	722800	1262500	959100	927100	846200	1780200	1142100	1004600	1018600
MEAN	21130	28520	28570	23320	45090	30940	30900	27300	59340	36840	32410	33950
MAX	39500	41800	37000	28200	56400	50500	52000	47800	134000	47600	39200	50200
MIN	16700	20400	22000	19500	27300	19900	20500	14900	34400	22500	27200	25400
CAL YR 1980	TOTAL	22527800	MEAN	61550	MAX	355000	MIN	16700				
WTR YR 1981	TOTAL	12059700	MEAN	33040	MAX	134000	MIN	14900				

RESERVOIRS IN TENNESSEE RIVER BASIN, TN

03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at Douglas Dam on French Broad River, 6.5 mi (10.5 km) north of Sevierville, and at mile 32.3 (52.0 km). DRAINAGE AREA, 4,541 mi² (11,761 km²). PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gates, 32 ft (10 m) high by 40 ft (12 m) wide and 8 sluice gates 10 ft (3 m) high by 5.67 ft (1.73 m) wide. Closure of dam was made Feb. 19, 1943; water in reservoir first reached minimum pool elevation Feb. 25, 1943. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,002.00 ft (305.410 m), top of gates, is 743,600 cfs-days (1,820 hm³), of which 631,200 cfs-days (1,545 hm³) is controlled storage above elevation 940.00 ft (286.512 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 760,000 cfs-days (1,860 hm³) July 25, 1949, elevation, 1,001.79 ft (305.346 m); minimum after first filling, 1,000 cfs-days (2.447 hm³) Jan. 16, 1956, elevation, 883.7 ft (269.35 m) estimated.

EXTREMES FOR CURRENT YEAR: Maximum contents, 653,600 cfs-days (1,599 hm³) June 15, elevation, 996.32 ft (303.678 m); minimum, 95,400 cfs-days (233.4 hm³) Jan. 21, elevation, 936.44 ft (285.427 m).

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft (140 m) upstream from South Holston Dam on South Fork Holston River, 7.0 mi (11.3 km) southeast of Bristol, Virginia-Tennessee, and at mile 49.8 (80.1 km). DRAINAGE AREA, 703 mi² (1,821 km²). PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 11, 1951, non-recording gage at same site and datum.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft (530.962 m), spillway crest, is 385,200 cfs-days (942.6 hm³), of which 220,800 cfs-days (540.3 hm³) is controlled storage above elevation 1,675.00 ft (510.540 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 347,100 cfs-days (849.3 hm³) Apr. 3, 1975, elevation, 1,732.82 ft (528.164 m); minimum after first filling, 57,700 cfs-days (141.2 hm³) Jan. 13, 1956, elevation, 1,614.15 ft (491.993 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 316,600 cfs-days (774.7 hm³) June 29, elevation, 1,725.10 ft (525.810 m); minimum, 162,400 cfs-days (397.4 hm³) Feb. 13, elevation, 1,674.22 ft (510.302 m).

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi (8 km) east of Elizabethton, and at mile 36.7 (59.0 km). DRAINAGE AREA, 468 mi² (1,212 km²). PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) in diameter. Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,975.00 ft (601.980 m), spillway crest, is 341,300 cfs-days (835.2 hm³), of which 178,500 cfs-days (436.8 hm³) is controlled storage above elevation 1,915.00 ft (583.692 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 293,300 cfs-days (717.7 hm³) Apr. 6, 1974, elevation, 1,961.07 ft (597.734 m); minimum after first filling, 25,100 cfs-days (61.42 hm³) Jan. 13, 1956, elevation, 1,813.47 ft (552.746 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 253,700 cfs-days (620.8 hm³) June 9, elevation, 1,948.55 ft (593.918 m); minimum, 161,000 cfs-days (394.0 hm³) Feb. 10, elevation, 1,914.20 ft (583.448 m).

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi (1.1 km) northeast of Spurgeon, 1.3 mi (2.1 km) downstream from Watauga River, and at mile 18.6 (29.9 km). DRAINAGE AREA, 1,840 mi² (4,766 km²). PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, 35 ft (11 m) high by 35 ft (11 m) wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,385.0 ft (422.15 m), top of gates, is 97,500 cfs-days (238.6 hm³), of which 74,800 cfs-days (183.0 hm³) is controlled storage above elevation 1,330 ft (405.4 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 99,100 cfs-days (242.5 hm³) May 19, 1964, elevation, 1,384.99 ft (422.145 m); minimum after first filling, 21,300 cfs-days (52.12 hm³) Jan. 23, 1956, elevation, 1,327.06 ft (404.488 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 93,800 cfs-days (229.5 hm³) July 18, elevation, 1,383.30 ft (421.630 m); minimum, 38,100 cfs-days (93.23 hm³) Feb. 6, elevation, 1,347.04 ft (410.578 m).

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi (0.3 km) upstream from bridge on U. S. Highway 23, 4.5 mi (7.2 km) southeast of Kingsport, and at mile 8.2 (13.2 km). DRAINAGE AREA, 1,903 mi² (4,929 km²). PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, 35 ft (11 m) high by 35 ft (11 m) wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,263 ft (385.0 m), top of gates, is 13,600 cfs-days (33.28 hm³), of which 2,200 cfs-days (5.383 hm³) is controlled storage above elevation 1,258 ft (383.4 m), normal minimum pool. Reservoir is used for navigation, flood control and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 14,000 cfs-days (34.26 hm³) Feb. 11, 1954, elevation, 1,263.80 ft (385.206 m), minimum after first filling, 9,300 cfs-days (22.76 hm³) Mar. 16, 1954, elevation, 1,252.32 ft (381.707 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 13,600 cfs-days (33.28 hm³) Oct. 13, elevation, 1,263.00 ft (384.962 m); minimum, 11,400 cfs-days (27.90 hm³) Feb. 4, elevation 1,257.80 ft (383.377 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

- 03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi (0.5 km) upstream from bridge on State Highway 92, 2.7 mi (4.3 km) upstream from Mill Spring Creek, 2.8 mi (4.5 km) north of Jefferson City, and at mile 52.3 (84.2 km). DRAINAGE AREA, 3,429 mi² (8,881 km²). PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
- Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates 32 ft (10 m) high by 40 ft (12 m) wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,075.0 ft (327.66 m), top of gates, is 778,400 cfs-days (1,905 hm³), of which 580,300 cfs-days (1,420 hm³) is controlled storage above elevation 1,020.0 ft (310.90 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 779,400 cfs-days (1,907 hm³) May 11, 1944, maximum elevation, 1,074.47 ft (327.498 m) May 30, 1973; minimum after first filling, 48,400 cfs-days (118.4 hm³) Jan. 7, 1954, elevation, 980.77 ft (298.939 m).
- EXTREMES FOR CURRENT YEAR: Maximum contents, 541,900 cfs-days (1,326 hm³) June 15, elevation, 1,057.86 ft (322.436 m); minimum, 180,700 cfs-days (442.2 hm³) Jan. 23, elevation, 1,017.09 ft (310.009 m).
- 03499500 FORT LOUDOUN - TELlico LAKE.--Lat 35°47'30", long 84°14'35", Loudoun County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi (2 km) northeast of Lenoir City, and at mile 602.3 (969.1 km). DRAINAGE AREA, 12,177 mi² (31,538.4 km²). PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
- Fort Loudoun reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates 32 ft (10 m) high by 40 ft (12 m) wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943.
- Tellico reservoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates 42 ft (13 m) high by 40 ft (12 m) wide. Closure of dam was made Nov. 29, 1979; water in reservoir first reached ordinary minimum pool elevation Dec. 24, 1979.
- Combined capacity table used is edition of March 1972. Total level pool capacity at elevation 815.00 ft (248.412 m), top of gates, is 423,700 cfs-days (1,037 hm³), of which 119,500 cfs-days (292.4 hm³) is controlled flood storage above elevation 807.00 ft (245.974 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.
- Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft (300 m) long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River. Since that date the two reservoirs have been operated as one.
- EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 815.00 ft (248.412 m) Sept. 11, 1943, May 14, 1945; minimum after first filling, 805.54 ft (245.529 m) Jan 18, 1954. Contents based on backwater profile.
- EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 397,000 cfs-days (971.5 hm³) June 6; maximum elevation, 813.29 ft (247.891 m) June 6; minimum midnight contents, 309,000 cfs-days (756.1 hm³) Feb. 16; minimum elevation, 807.27 ft (246.056 m) Feb. 17.
- 03518200 CHILHOWEE LAKE.--Lat 35°32'43", long 84°03'02", Monroe County, Hydrologic Unit 06010204, at Chilhowee Dam on Little Tennessee River, 2.4 mi (3.9 km) southwest of Chilhowee, 2.6 mi (4.2 km) upstream from Citico Creek, 10.1 mi (16.2 km) downstream from Calderwood Dam, and at mile 33.6 (54.1 km). DRAINAGE AREA, 1,977 mi² (5,120 km²). PERIOD OF RECORD, August 1957 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
- Reservoir is formed by concrete dam with rockfill end abutments. Spillway controlled by six radial gates 38 ft (12 m) high by 35 ft (11 m) wide. Closure of dam was made June 9, 1957; storage began Aug. 1, 1957; water in reservoir first reached minimum pool elevation Aug. 9, 1957. Total capacity at elevation 874.0 ft (266.40 m), top of gates, is 24,800 cfs-days (60.68 hm³), of which 3,400 cfs-days (8.320 hm³) is controlled storage above elevation 870.0 ft (265.18 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 25,400 cfs-days (62.15 hm³) May 28, 1973, elevation, 874.60 ft (266.578 m); minimum after first filling, 18,100 cfs-days (44.29 hm³) May 18, 1963, elevation, 865.94 ft (263.938 m).
- EXTREMES FOR CURRENT YEAR: Maximum contents, 24,800 cfs-days (60.69 hm³) Apr. 1, elevation, 873.98 ft (266.389 m); minimum, 22,000 cfs-days (53.83 hm³) Oct. 2, elevation, 870.67 ft (265.380 m).
- 03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi (4.0 km) northwest of Norris, and at mile 79.8 (128.4 km). DRAINAGE AREA, 2,912 mi² (7,542 km²). PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of gage is 0.11 ft (0.034 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.
- Reservoir is formed by concrete gravity dam with three drum gates 100 ft (30 m) wide by 14 ft (4 m) high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,034.11 ft (315.197 m), top of gates, is 1,286,600 cfs-days (3,148 hm³), of which 969,000 cfs-days (2,371 hm³) is controlled storage above elevation 960.11 ft (292.642 m), normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,236,700 cfs-days (3,026 hm³) Feb. 11, 1937, elevation, 1,031.21 ft (314.313 m); minimum after first filling, 75,500 cfs-days (184.7 hm³) Jan. 24, 1956, elevation, 909.46 ft (277.203 m).
- EXTREMES FOR CURRENT YEAR: Maximum contents, 808,900 cfs-days (1,979 hm³) June 22, elevation, 1,006.13 ft (306.668 m); minimum, 295,500 cfs-days (723.1 hm³) Jan. 22, elevation, 957.07 ft (291.715 m).
- 03535900 MELTON HILL LAKE.--Lat 35°53'04", 84°18'01", Loudoun-Roane County line, Hydrologic Unit 06010207, 9 mi (14 km) southwest of Oak Ridge, 19 mi (31 km) west of Knoxville, 57 mi (92 km) downstream from Norris Dam on Clinch River, and at mile 23.1 (37.2 km). DRAINAGE AREA, 3,343 mi² (8,658 km²). PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
- Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft (13 m) high by 40 ft (12 m) wide. Dam completed and storage began May 1, 1963; water in reservoir first reached minimum pool elevation May 23, 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 796 ft (242.6 m), top of gates, is 63,500 cfs-days (155.4 hm³), of which 16,100 cfs-days (39.40 hm³) is controlled storage above elevation 790.0 ft (240.79 m), normal minimum pool. Reservoir is used for navigation, power, and recreation. Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents, 64,900 cfs-days (158.8 hm³) Mar. 16, 1973, elevation, 796.45 ft (242.758 m); minimum after first filling, 35,100 cfs-days (85.89 hm³) Feb. 9, 1966, elevation, 784.10 ft (238.994 m).
- EXTREMES FOR CURRENT YEAR: Maximum contents, 60,600 cfs-days (148.3 hm³) June 6, elevation, 795.02 ft (242.322 m); minimum, 47,800 cfs-days (117.0 hm³) Feb. 10, elevation, 790.17 ft (240.844 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

03543000 WATTS BAR LAKE.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06010201, at Watts Bar Dam on Tennessee River, 6.5 mi (10.4 km) southeast of Spring City, 72.4 mi (116.5 km) downstream from Fort Loudoun Dam, and at mile 529.9 (852.6 km). DRAINAGE AREA, 17,310 mi² (44,830 km²), approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates 32 ft (10 m) high by 40 ft (12 m) wide, also one 2-section leaf trashway gate 16.3 ft (5.0 m) high by 24 ft (7 m) wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 745.0 ft (227.08 m), top of gates, is 592,400 cfs-days (1,450 hm³), of which 191,000 cfs-days (467.6 hm³) is controlled flood storage above elevation 735.0 ft (224.03 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 745.40 ft (227.198 m) Mar. 17, 1973; minimum after first filling, 733.44 ft (223.552 m) Mar. 20, 1945. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 538,000 cfs-days (1,316 hm³) June 10; maximum elevation, 742.51 ft (226.317 m) June 11; minimum midnight contents, 407,000 cfs-days (995.9 hm³) Feb. 7; minimum elevation, 735.19 ft (224.086 m) Feb. 7.

03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi (22.2 km) east of Cleveland, and at mile 11.9 (19.1 km). DRAINAGE AREA, 595 mi² (1,541 km²). PERIOD OF RECORD, June 1914 to current year. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir," and October 1953 to September 1968, as "Parksville Lake." GAGE, nonrecording gage. Datum of gage is 6.89 ft (2.100 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 347 ft (110 m) of spillway. Spillway is equipped with four floodgates 6 ft (2 m) high by 20 ft (6 m) wide and 265 ft (80 m) of flashboards about 5.7 ft (2 m) high. Crest of spillway under gates is at elevation 830.82 ft (253.234 m); remainder of spillway is 1.0 ft (0.3 m) higher. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1979. Total capacity at elevation 837.55 ft (255.285 m), about top of flashboards, is 42,300 cfs-days (103.5 hm³), of which 15,600 cfs-days (38.17 hm³) is controlled storage above elevation 817.9 ft (249.30 m), normal minimum pool. Reservoir is used for power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight contents observed, 53,300 cfs-days (130.4 hm³) July 9, 1916; maximum midnight elevation observed, 840.2 ft (256.09 m) Feb. 10, 1946; minimum contents observed, 27,300 cfs-days (66.80 hm³) Jan. 27, 1956, elevation, 817.7 ft (249.23 m); minimum midnight elevation observed, 814.8 ft (248.35 m) Dec. 14, 1934.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 41,400 cfs-days (101.3 hm³) Sept. 8, elevation, 836.6 ft (255.00 m); minimum contents observed, 32,700 cfs-days (80.02 hm³) Jan. 6, elevation, 826.6 ft (251.95 m).

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi (9.3 km) northeast of Chattanooga, 58.9 mi (94.8 km) downstream from Watts Bar Dam, and at mile 471.0 (757.8 km). DRAINAGE AREA, 20,790 mi² (53,850 km²), approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft (12.33 m) high by 40 ft (12 m) wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 685.44 ft (208.922 m), top of gates, is 372,600 cfs-days (911.8 hm³), of which 175,000 cfs-days (428.2 hm³) is controlled flood storage above elevation 675.0 ft (205.74 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 686.10 ft (209.123 m) Mar. 18, 1973; minimum after first filling, 673.27 ft (205.213 m) Jan. 21, 1942. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 337,000 cfs-days (824.6 hm³) June 7; maximum elevation, 683.75 ft (208.407 m) June 7; minimum midnight contents, 206,000 cfs-days (504.1 hm³) Mar. 6; minimum elevation, 674.75 ft (205.664 m) Mar. 6.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi (3 km) upstream from Sequatchie River, 5 mi (8 km) south of Jasper, 46.3 mi (74.5 km) downstream from Chickamauga Dam, and at mile 424.7 (683.3 km). DRAINAGE AREA, 21,870 mi² (56,640 km²), approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft (181.36 m), is equipped with 10 radial gates, each 40 ft (12 m) high by 40 ft (12 m) wide. A trash gate, 5.5 ft (1.7 m) high by 15 ft (5 m) wide, is located between the spillway and powerhouse. Dam was completed and storage began on Dec. 14, 1967. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 635.0 ft (193.55 m), top of gates, is 127,200 cfs-days (311.3 hm³), of which 16,200 cfs-days (39.64 hm³) is controlled storage above elevation 632.0 ft (192.63 m), ordinary minimum. Reservoir is used for navigation and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 634.99 ft (193.545 m) Apr. 19, 1969; minimum after first filling, 630.82 ft (192.274 m) Feb. 20, 1968. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 126,000 cfs-days (308.3 hm³) Sept. 14; maximum elevation, 634.44 ft (193.577 m) Feb. 11; minimum midnight contents, 118,000 cfs-days (288.7 hm³) July 15; minimum elevation, 632.38 ft (192.749 m) Sept. 18.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi (1.9 km) upstream from Spring Creek, 2.5 mi (4.0 km) northeast of Estill Springs, 6.8 mi (10.9 km) upstream from bridge on U. S. Highway 41-A, and at mile 170.0 (273.5 km). DRAINAGE AREA, 263 mi² (681 km²). PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, 25 ft (8 m) high by 50 ft (15 m) wide and two sluice gates 6 ft (2 m) high by 4 ft (1 m) wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft (293.22 m), surcharge pool, is 44,400 cfs-days (108.6 hm³), of which 9,900 cfs-days (24.22 hm³) is controlled storage above elevation 957.0 ft (291.69 m), normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes. Twice-daily gage readings (0600 and 2400 hours) furnished by U. S. Air Force.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,300 cfs-days (103.5 hm³) April 21 and 22, 1956, elevation, 960.98 ft (292.907 m); minimum after first filling, 26,300 cfs-days (64.36 hm³) Nov. 8-11, 1953, elevation, 951.93 ft (290.148 m).

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 39,500 cfs-days (96.66 hm³) May 31, elevation, 959.61 ft (292.489 m); minimum midnight contents, 36,300 cfs-days (88.83 hm³) Jan. 19, elevation, 957.91 ft (291.971 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--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 (0.6 km) upstream from bridge on State Highway 50, 9.5 mi (15.3 km) west of Winchester, and at mile 133.4 (214.6 km). DRAINAGE AREA, 529 mi² (1,370 km²). PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates 42 ft (13 m) high by 40 ft (12 m) wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 3, 1971. Total capacity at elevation 895 ft (272.8 m), top of gates, is 306,500 cfs-days (750.0 hm³), of which 142,400 cfs-days (348.5 hm³) is controlled storage above elevation 865 ft (263.7 m), normal minimum pool. Reservoir is used for flood control, power, and recreation. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 296,300 cfs-days (725.0 hm³) Mar. 17, 1973, elevation, 893.24 ft (272.260 m); minimum after first filling 154,000 cfs-days (376.8 hm³) Oct. 15, 1972, elevation, 862.24 ft (262.811 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 243,600 cfs-days (596.1 hm³) June 22, elevation, 883.44 ft (269.273 m); minimum, 179,000 cfs-days (438.0 hm³) Jan. 22, elevation, 868.87 ft (264.832 m).

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi (2.4 km) north of town of Pickwick Dam, 6.1 mi (9.8 km) upstream from Lick Creek, 52.7 mi (84.8 km) downstream from Wilson Dam, and at mile 206.7 (332.6 km). DRAINAGE AREA, 38,820 mi² (85,000 km²), approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 2-section lift gates 40 ft (12 m) high by 40 ft (12 m) wide, one of which is used as a trash gate. Dam completed and storage began Feb. 8, 1938; water in reservoir first reached minimum pool elevation Feb. 18, 1938. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 418.0 ft (127.41 m), top of gates, is 557,100 cfs-days (1,363 hm³), of which 210,200 cfs-days (514.4 hm³) is controlled flood storage above elevation 408.0 ft (124.36 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 419.49 ft (127.860 m) Mar. 30, 1944; minimum after first filling, 407.12 ft (124.090 m) Dec. 18, 1944. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 472,000 cfs-days (1,155 hm³) Apr. 28; maximum elevation, 414.38 ft (126.303 m) Apr. 28; minimum midnight contents, 359,000 cfs-days (878.5 hm³) Feb. 10; minimum elevation, 408.05 ft (124.374 m) Dec. 13.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'48", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi (2.4 km) northeast of Normandy, 2.6 mi (4.2 km) downstream from Riley Creek, 8 mi (13 km) north of Tullahoma, and at mile 248.6 (400.0 km). DRAINAGE AREA, 195 mi² (505 km²). PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, 40 ft (12 m) high by 36 ft (11 m) wide. Storage began Jan. 5, 1976; water in reservoir first reached minimum pool elevation Mar. 22, 1976. Revised capacity table put into use Jan. 1, 1977. Total capacity at elevation 880 ft (268.2 m), top of gates, is 64,000 cfs-days (156.6 hm³), of which 30,400 cfs-days (74.39 hm³) is controlled storage above elevation 859 ft (261.8 m), normal minimum pool. Reservoir is used for flood control, water supply, water quality control, recreation, and shoreline development. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 61,800 cfs-days (151.2 hm³) Apr. 5, 1977, elevation, 878.66 ft (276.816 m); minimum after first filling, 28,300 cfs-days (69.25 hm³) Dec. 15, 1977, elevation, 854.48 ft (260.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 47,200 cfs-days (115.5 hm³) Oct. 1, elevation, 869.34 ft (264.975 m); minimum, 30,800 cfs-days (75.37 hm³) Sept. 30, elevation, 856.64 ft (261.104 m).

03609000 KENTUCKY LAKE.--Lat. 37°00'49", long 88°16'06", Marshall County, KY, Hydrologic Unit 06040006, at Kentucky Dam on Tennessee River at Gilbertsville, and at mile 22.4 (36.0 km). DRAINAGE AREA, 40,200 mi² (104,100 km²), approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 24 lift gates 50 ft (15 m) high by 40 ft (12 m) wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft (114.30 m), top of gates, is 3,090,000 cfs-days (7,561 hm³), of which 2,020,700 cfs-days (4,945 hm³) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 369.01 ft (112.474 m) Mar. 28, 1973; minimum after first filling, 348.02 ft (106.076 m) Mar. 11, 1961. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 1,587,000 cfs-days (3,883 hm³) June 6; maximum elevation, 361.02 ft (110.039 m) June 7; minimum midnight contents, 1,078,000 cfs-days (2,638 hm³) Dec. 28; minimum elevation, 353.82 ft (107.844 m) Dec. 2.

OTHER RESERVOIRS.--The following small reservoirs in the Tennessee River basin are described below, but records of contents are not published herein.

03466400 DAVY CROCKETT LAKE on Nolichucky River at Nolichucky Dam, TN, with a total capacity of 1,300 cfs-days (3.181 hm³), none of which is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, TN, with a total capacity of 20,800 cfs-days (50.90 hm³) of which 840 cfs-days (2.055 hm³) is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles (8.0 km) west of Ducktown, TN, with a total capacity of 1,660 cfs-days (4.062 hm³), of which 1,550 cfs-days (3.793 hm³) is controlled storage. Records of contents previous to 1971 water year published (as Ocoee No. 3 Lake near Ducktown, TN).

TENNESSEE RIVER BASIN

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03468500 DOUGLAS LAKE				03476000 SOUTH HOLSTON LAKE			03483500 WATAUGA LAKE		
Sept. 30.....	955.84	212900	-	1693.65	214000	-	1927.88	195600	-
Oct. 31.....	949.08	165300	-47600	1687.67	197200	-16800	1923.95	185500	-10100
Nov. 30.....	950.83	177000	+11700	1683.21	185100	-12100	1920.94	177800	-7700
Dec. 31.....	942.90	127900	-49100	1681.24	179900	-5200	1921.48	179200	+1400
CAL YR 1980	-	-	+3300	-	-	-56800	-	-	-52000
Jan. 31.....	937.90	102100	-25800	1674.84	164000	-15900	1915.16	163200	-16000
Feb. 28.....	956.61	218800	+116700	1680.48	178000	+14000	1920.50	176700	+13500
Mar. 31.....	962.55	268400	+49600	1687.86	197700	+19700	1928.18	196400	+19700
Apr. 30.....	979.99	441700	+173300	1700.66	234800	+37100	1938.56	224800	+28400
May 31.....	989.07	555900	+114200	1715.22	281800	+47000	1946.74	248400	+23600
June 30.....	992.09	595900	+40000	1724.84	315600	+33800	1943.16	237900	+10500
July 31.....	981.98	467400	-128500	1718.24	292200	-23400	1933.14	209700	-28200
Aug. 31.....	966.74	306000	-161400	1708.91	260700	-31500	1929.43	199600	-10100
Sept. 30.....	956.55	218400	-87600	1699.19	230300	-30400	1926.39	191700	-7900
WTR YR 1981	-	-	+5500	-	-	+16300	-	-	-3900
03486800 BOONE LAKE				03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30.....	1377.34	81700	-	1259.68	12100	-	1031.47	278600	-
Oct. 31.....	1372.60	73100	-8600	1261.44	12900	+800	1029.41	262700	-15900
Nov. 30.....	1366.35	62700	-10400	1259.30	12000	-900	1030.05	267600	+4900
Dec. 31.....	1356.70	49700	-13000	1261.26	12800	+800	1022.61	214800	-52800
CAL YR 1980	-	-	+3800	-	-	0	-	-	-58100
Jan. 31.....	1351.07	42600	-7100	1259.87	12200	-600	1018.06	186400	-28400
Feb. 28.....	1358.17	51500	+8900	1260.77	12600	+400	1028.47	255700	+69300
Mar. 31.....	1360.95	54800	+3300	1260.97	12700	+100	1032.54	287200	+31500
Apr. 30.....	1371.16	70600	+15800	1260.90	12600	-100	1042.91	377600	+90400
May 31.....	1379.72	86300	+15700	1259.83	12200	-400	1052.11	473700	+96100
June 30.....	1381.93	90900	+4600	1260.04	12300	+100	1053.00	483800	+10100
July 31.....	1381.66	90300	-600	1260.75	12600	+300	1048.40	432900	-50900
Aug. 31.....	1381.75	90500	+200	1261.32	12800	+200	1039.31	344700	-88200
Sept. 30.....	1378.30	83500	-7000	1261.06	12700	-100	1034.74	305200	-39500
WTR YR 1981	-	-	-1800	-	-	+600	-	-	+26600
03499500 FORT LOUDOUN - TELlico LAKE†				03518200 CHILHOWEE LAKE			03532500 NORRIS LAKE		
Sept. 30.....	812.73	388000	-	871.91	23000	-	980.06	491000	-
Oct. 31.....	812.46	384000	-4000	873.87	24700	+1700	972.76	421300	-69700
Nov. 30.....	808.40	323000	-61000	872.14	23200	-1500	968.34	382600	-38700
Dec. 31.....	807.70	314000	-9000	873.68	24600	+1400	964.12	348300	-34300
CAL YR 1980	-	-	a+168000	-	-	+1200	-	-	-193000
Jan. 31.....	807.77	315000	+1000	873.70	24600	0	957.96	301900	-46400
Feb. 28.....	808.40	324000	+9000	873.66	24500	-100	971.76	412300	+110400
Mar. 31.....	809.07	333000	+9000	873.46	24400	-100	981.18	502500	+90200
Apr. 30.....	812.63	387000	+54000	873.25	24200	-200	995.55	666400	+163900
May 31.....	812.73	388000	+1000	872.17	23200	-1000	999.76	720800	+54400
June 30.....	812.47	384000	-4000	873.30	24200	+1000	1004.67	788100	+67300
July 31.....	812.25	381000	-3000	873.71	24600	+400	998.91	709600	-78500
Aug. 31.....	812.29	382000	+1000	873.55	24400	-200	992.26	626000	-83600
Sept. 30.....	812.50	385000	+3000	873.74	24600	+200	984.81	540800	-85200
WTR YR 1981	-	-	-3000	-	-	+1600	-	-	+49800

† Contents based on backwater profile.

a Tellico - Fort Loudoun canal opened Jan. 19, 1980.

TENNESSEE RIVER BASIN

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RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03535900	MELTON HILL LAKE		03543000	WATTS BAR LAKE#		03564000	LAKE OCOEE	
Sept. 30.....	793.25	55600	-	740.98	509000	-	835.5	40400	-
Oct. 31.....	791.00	49800	-5800	738.87	469000	-40000	834.6	39600	-800
Nov. 30.....	792.60	53900	+4100	736.44	426000	-43000	832.0	37200	-2400
Dec. 31.....	790.50	48600	-5300	736.28	423000	-3000	828.6	34300	-2900
CAL YR 1980	-	-	-7200	-	-	+7000	-	-	-700
Jan. 31.....	793.13	55300	+6700	736.01	418000	-5000	828.0	33800	-500
Feb. 28.....	792.79	54400	-900	735.87	416000	-2000	827.4	33300	-500
Mar. 31.....	794.15	58000	+3600	737.37	442000	+26000	832.1	37300	+4000
Apr. 30.....	793.18	55400	-2600	741.13	512000	+70000	834.7	39700	+2400
May 31.....	794.30	58500	+3100	741.13	512000	0	835.8	40700	+1000
June 30.....	793.68	56800	-1700	740.77	505000	-7000	834.9	39900	-800
July 31.....	793.30	55700	-1100	741.03	510000	+5000	835.4	40300	+400
Aug. 31.....	794.00	57600	+1900	740.77	505000	-5000	835.2	40200	-100
Sept. 30.....	794.10	57900	+300	741.06	511000	+6000	835.5	40400	+200
WTR YR 1981	-	-	+2300	-	-	+2000	-	-	0
	03566500	CHICKAMAUGA LAKE#		03570520	NICKAJACK LAKE#		03579000	WOODS RESERVOIR	
Sept. 30.....	681.08	290000	-	633.65	122000	-	959.16	38600	-
Oct. 31.....	678.80	252000	-38000	633.57	121000	-1000	958.55	37400	-1200
Nov. 30.....	676.42	217000	-35000	633.37	120000	-1000	958.54	37400	0
Dec. 31.....	676.20	214000	-3000	633.40	120000	0	958.12	36600	-800
CAL YR 1980	-	-	+7000	-	-	-5000	-	-	+200
Jan. 31.....	676.20	214000	0	633.76	122000	+2000	957.99	36400	-200
Feb. 28.....	676.05	211000	-3000	633.31	120000	-2000	958.05	36500	+100
Mar. 31.....	677.87	237000	+26000	633.60	119000	-1000	959.54	39400	+2900
Apr. 30.....	682.25	312000	+75000	633.12	117000	-2000	959.52	39300	-100
May 31.....	682.44	314000	+2000	633.54	121000	+4000	959.61	39500	+200
June 30.....	682.17	309000	-5000	633.54	121000	0	959.36	39000	-500
July 31.....	681.00	288000	-21000	633.60	121000	0	959.27	38800	-200
Aug. 31.....	680.93	287000	-1000	633.46	121000	0	959.43	39100	+300
Sept. 30.....	680.97	288000	+1000	633.50	121000	0	959.12	38500	-600
WTR YR 1981	-	-	-2000	-	-	-6000	-	-	-100
	03580740	TIMS FORD LAKE		03593000	PICKWICK LAKE#		03596460	NORMANDY LAKE	
Sept. 30.....	882.54	239100	-	411.60	417000	-	869.34	47200	-
Oct. 31.....	881.06	231900	-7200	410.23	389000	-28000	866.54	43200	-4000
Nov. 30.....	876.50	210900	-21000	409.61	378000	-11000	863.94	39700	-3500
Dec. 31.....	870.72	186400	-24500	409.44	375000	-3000	858.96	33500	-6200
CAL YR 1980	-	-	-11400	-	-	-12000	-	-	-200
Jan. 31.....	869.30	180700	-5700	408.81	363000	-12000	856.93	31100	-2400
Feb. 28.....	872.13	192200	+11500	409.00	366000	+3000	857.91	32300	+1200
Mar. 31.....	875.13	204900	+12700	412.24	429000	+63000	859.04	33600	+1300
Apr. 30.....	881.59	234500	+29600	413.90	464000	+35000	863.00	38500	+4900
May 31.....	881.82	235600	+1100	413.77	461000	-3000	862.28	37600	-900
June 30.....	883.07	241800	+6200	413.93	465000	+4000	862.17	37400	-200
July 31.....	882.30	238000	-3800	412.85	442000	-23000	860.95	36000	-1400
Aug. 31.....	881.55	234300	-3700	412.27	429000	-13000	858.95	33500	-2500
Sept. 30.....	880.28	228200	-6100	411.16	407000	-22000	856.64	30800	-2700
WTR YR 1981	-	-	-10900	-	-	-10000	-	-	-16400

Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03609000 KENTUCKY LAKE†			
Sept. 30.....	355.15	1153000	-
Oct. 31.....	355.27	1147000	-6000
Nov. 30.....	354.65	1093000	-54000
Dec. 31.....	354.29	1081000	-12000
CAL YR 1980	-	-	-81000
Jan. 31.....	356.00	1169000	+88000
Feb. 28.....	354.45	1098000	-71000
Mar. 31.....	356.13	1164000	+66000
Apr. 30.....	358.90	1411000	+247000
May 31.....	359.53	1455000	+44000
June 30.....	359.27	1439000	-16000
July 31.....	357.72	1320000	-119000
Aug. 31.....	356.62	1245000	-75000
Sept. 30.....	355.35	1153000	-92000
WTR YR 1981	-	-	0

† Contents based on backwater profile.

OBION RIVER BASIN

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07024300 BEAVER CREEK AT HUNTINGDON, TN

LOCATION.--Lat 35°59'56", long 88°26'01", Carroll County, Hydrologic Unit 08010203, on left bank on downstream end of pier of bridge on U.S. Highway 70, 0.3 mi (0.5 km) southwest of Huntingdon, 0.6 mi (1.0 km) downstream from Brier Creek, and at mile 5.6 (9.0 km).

DRAINAGE AREA.--55.5 mi² (143.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1946, 1948, 1952-54, 1958-61 and annual maximum, water years 1954-62. October 1962 to current year.

REVISED RECORDS.--WSP 1920: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 364.20 ft (111.008 m) National Geodetic Vertical Datum of 1929 (Tennessee State Highway Department bench mark). Dec. 21, 1945, to Oct. 3, 1962, nonrecording gage at site 30 ft (9.1 m) downstream at same datum; Jan. 6, 1954, to Oct. 3, 1962, crest-stage gage at same site at datum 1.17 ft (0.356 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--19 years, 115 ft³/s (3.257 m³/s), 28.14 in/yr (715 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,350 ft³/s (236 m³/s) Sept. 9, 1970, gage height, 13.96 ft (4.255 m) from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of contracted opening measurement of peak flow; minimum, 19 ft³/s (0.54 m³/s) May 17, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,910 ft³/s (139 m³/s) at 2315 hours June 6, gage height 12.58 ft (3.834 m) no other peaks above base of 1,800 ft³/s (51.0 m³/s); minimum, 24 ft³/s (0.68 m³/s) July 19, 20.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	34	42	41	359	84	77	29	248	26	28	51
2	31	33	43	40	658	53	59	29	148	26	27	58
3	31	33	40	41	159	44	53	29	236	28	27	44
4	31	34	40	39	59	289	53	29	169	26	27	35
5	31	34	40	37	47	455	59	29	501	37	26	32
6	30	34	39	59	47	136	48	29	2390	53	104	32
7	30	35	39	75	47	74	45	30	3110	31	157	31
8	30	36	42	50	58	61	43	30	610	27	44	29
9	30	37	171	46	48	56	55	30	85	26	32	28
10	30	36	71	43	109	53	50	65	157	26	28	27
11	30	35	52	41	120	50	44	55	483	28	28	28
12	30	35	47	39	52	48	40	38	368	26	28	28
13	30	35	44	40	43	48	38	34	88	25	27	28
14	30	39	42	43	45	46	37	39	51	25	26	28
15	30	51	42	43	49	47	36	41	41	26	27	41
16	30	42	41	41	53	50	36	39	36	38	80	36
17	54	237	41	39	112	46	36	34	33	25	68	30
18	62	253	41	39	77	46	36	69	31	26	38	29
19	37	68	42	42	59	44	35	296	32	25	36	29
20	34	47	39	48	50	43	36	144	33	25	32	29
21	34	42	38	58	45	42	35	53	30	41	29	29
22	34	39	39	50	48	53	44	42	28	28	28	29
23	33	46	43	47	46	56	57	38	28	28	27	28
24	45	55	55	46	42	47	42	47	28	68	27	28
25	46	43	44	47	40	45	36	60	27	58	27	28
26	38	43	43	46	39	44	34	49	26	32	27	28
27	71	176	43	45	38	43	32	46	26	29	57	32
28	67	68	42	43	52	41	31	40	26	42	37	33
29	38	50	43	43	---	95	35	36	26	54	35	30
30	34	44	42	92	---	464	32	102	26	33	31	30
31	33	---	42	61	---	216	---	373	---	28	39	---
TOTAL	1146	1794	1472	1464	2601	2919	1294	2004	9121	1016	1254	968
MEAN	37.0	59.8	47.5	47.2	92.9	94.2	43.1	64.6	304	32.8	40.5	32.3
MAX	71	253	171	92	658	464	77	373	3110	68	157	58
MIN	30	33	38	37	38	41	31	29	26	25	26	27
CFSM	.67	1.08	.86	.85	1.67	1.70	.78	1.16	5.48	.59	.73	.58
IN.	.77	1.20	.99	.98	1.74	1.96	.87	1.34	6.11	.68	.84	.65

CAL YR 1980 TOTAL 31668 MEAN 86.5 MAX 2500 MIN 27 CFSM 1.56 IN 21.23
WTR YR 1981 TOTAL 27053 MEAN 74.1 MAX 3110 MIN 25 CFSM 1.34 IN 18.13

07024300 BEAVER CREEK AT HUNTINGDON, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1963-65, July 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

				STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)		
		DATE	TIME							
		NOV 05...	0930	34	54	11.5	16	1.5		
		DEC 17...	0845	40	90	6.5	8	.86		
		JAN 28...	0930	43	55	7.0	8	.93		
		MAR 04...	1005	243	65	7.5	1370	899		
		APR 15...	1000	37	53	14.0	19	1.9		
		MAY 28...	1000	40	80	17.0	55	5.9		
		JUL 08...	0930	29	44	21.0	47	3.7		
		AUG 19...	0950	34	54	16.0	64	5.9		
		PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...	0845	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 04...	1005	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAY 28...	1000	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 08...	0930	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	<1.0
		DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DATE		DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 04...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY 28...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 08...		<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1
		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DATE		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC 17...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 04...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAY 28...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 08...		<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01
		MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DATE		MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 17...		--	<.01	--	<.10	--	.00	.00	.00	.00
MAR 04...		--	<.01	--	<.10	--	<.01	.01	<.01	<.01
MAY 28...		--	<.01	--	<.10	--	<.01	<.01	<.01	<.01
JUL 08...		<.1	<.01	<.10	<.10	<1.0	<.01	<.01	<.01	<.01

OBION RIVER BASIN

297

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN

LOCATION.--Lat 36°07'05", long 88°48'39", Weakley County, Hydrologic Unit 08010203, on left bank 75 ft (23 m) downstream from bridge on U.S. Highway 45E, 1.1 mi (1.8 km) downstream from Mosley Branch, 2.5 mi (4.0 km) south of Greenfield, and 9.7 mi (15.6 km) upstream from confluence with Middle Fork.

DRAINAGE AREA.--383 mi² (992 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 1311: 1936(M). WSP 1920: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 300.36 ft (91.550 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1939, recording gage at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--52 years, 585 ft³/s (16.57 m³/s), 20.74 in/yr (527 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Jan. 22, 1937, gage height, 17.82 ft (5.432 m), from floodmarks, from rating curve extended above 14,000 ft³/s (396 m³/s); minimum, 61 ft³/s (1.73 m³/s) Aug. 21, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8320 ft³/s (236 m³/s) at 1300 hours June 12, gage height 15.48 ft (4.718 m) no other peaks above base of 3,000 ft³/s (85.0 m³/s); minimum, 125 ft³/s (3.54 m³/s) Sept. 27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	218	357	207	973	330	1090	165	410	151	200	346
2	160	192	303	200	1080	325	882	157	719	150	180	920
3	159	177	259	201	1180	349	571	156	748	149	169	784
4	157	168	232	196	1320	1130	477	153	882	148	157	561
5	155	163	217	189	1130	1160	424	153	739	724	150	423
6	154	162	208	196	673	1260	349	152	3870	463	462	322
7	154	161	201	224	457	1330	311	151	3880	733	428	251
8	153	160	215	240	380	953	279	150	2970	783	495	208
9	153	160	487	248	336	588	295	150	3070	910	471	183
10	152	160	364	233	379	428	307	169	4160	776	348	168
11	152	159	426	217	666	362	284	237	6050	507	260	158
12	151	159	407	201	557	323	268	277	7970	336	205	150
13	150	158	348	196	506	299	250	294	7020	246	176	145
14	149	158	298	196	442	280	229	313	5030	193	162	141
15	148	167	267	196	385	271	208	252	2840	534	153	187
16	147	176	245	196	388	276	194	218	1560	605	709	150
17	365	884	228	190	499	262	208	199	751	431	634	143
18	316	664	217	187	521	243	199	200	451	304	495	141
19	279	756	214	186	605	231	207	223	358	231	533	138
20	274	726	204	193	564	222	215	322	328	268	461	137
21	251	559	198	312	466	212	204	417	300	571	343	135
22	210	404	193	224	402	213	199	375	259	337	265	134
23	177	326	196	229	352	223	222	292	221	275	214	132
24	164	290	207	229	316	226	234	221	195	377	188	129
25	162	263	210	226	289	226	228	191	176	361	173	127
26	169	256	215	217	269	223	220	223	165	295	166	127
27	246	564	219	217	260	216	200	224	157	254	725	125
28	276	421	214	222	266	208	186	205	155	236	439	127
29	274	470	214	209	---	341	198	189	153	323	369	126
30	271	427	212	267	---	1030	176	198	153	291	351	125
31	249	---	209	274	---	938	---	269	---	232	337	---
TOTAL	6140	9708	7984	6618	15661	14678	9314	6895	55740	12194	10398	6944
MEAN	198	324	258	213	559	473	310	222	1858	393	335	231
MAX	365	884	487	274	1320	1330	1090	417	7970	910	725	920
MIN	147	158	193	186	260	208	176	150	153	148	150	125
CFSM	.52	.85	.67	.56	1.46	1.24	.81	.58	4.85	1.03	.88	.60
IN.	.60	.94	.78	.64	1.52	1.43	.90	.67	5.41	1.18	1.01	.67

CAL YR 1980 TOTAL 177969 MEAN 486 MAX 6210 MIN 138 CFMS 1.27 IN 17.29
WTR YR 1981 TOTAL 162274 MEAN 445 MAX 7970 MIN 125 CFMS 1.16 IN 15.76

OBION RIVER BASIN

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, July 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

				STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)		
		DATE	TIME							
		NOV 06...	1015		166	52	11.0	33	15	
		DEC 16...	1600		229	60	8.0	15	9.3	
		JAN 29...	1000		199	52	8.0	14	7.5	
		MAR 05...	1120		1160	57	8.5	282	883	
		APR 15...	1430		203	65	19.5	55	30	
		MAY 29...	1030		204	85	22.5	69	38	
		JUL 08...	1210		772	59	27.0	442	921	
		AUG 20...	0910		458	44	22.0	150	185	
		PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DATE	TIME									
DEC 16...	1600	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 05...	1120	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAY 29...	1030	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 08...	1210	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	<.1
		DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DATE										
DEC 16...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 05...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY 29...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 08...		<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1
		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DATE										
DEC 16...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 05...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAY 29...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 08...		<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01
		MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DATE										
DEC 16...		--	<.01	--	<.10	--	.00	.00	.00	.00
MAR 05...		--	<.01	--	<.10	--	.03	.01	<.01	<.01
MAY 29...		--	<.01	--	<.10	--	<.01	<.01	<.01	<.01
JUL 08...		<.1	<.01	<.10	<.10	<1.0	.01	.01	<.01	<.01

OBION RIVER BASIN

299

07026000 OBION RIVER AT OBION, TN
(National stream-quality accounting network station)

LOCATION.--Lat 36°15'04", long 89°11'33", Obion County, Hydrologic Unit 08010202, near left bank on downstream end of pier of bridge on U.S. Highway 51, 0.5 mi (0.8 km) upstream from Richland Creek, 0.6 mi (1.0 km) south of Obion, 14.5 mi (23.3 km) downstream from North Fork, and at mile 62.4 (100.4 km). Water quality sampling site at same location.

DRAINAGE AREA.--1,852 mi² (4,797 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to September 1958, October 1966 to current year. Gage height and discharge records at this site from 1964 to 1975 are in reports of Corps of Engineers.

REVISED RECORD.--WSP 1211: 1930, 1943. WSP 2120: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 246.48 ft (75.127 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1932, nonrecording gage at present site at datum 5.00 ft (1.524 m) higher; Oct. 1, 1932, to Aug. 2, 1939, nonrecording gage, and Aug. 3, 1939, to Sept. 1958, water-stage recorder at present site at datum 15.00 ft (4.572 m) higher.

REMARKS.--Records good.

COOPERATION.--Thirty-eight discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--44 years, (water years 1930-58, 1967-81), 2,685 ft³/s (76.04 m³/s), 19.69 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99,500 ft³/s (2,820 m³/s) Jan. 24, 1937, gage height 40.4 ft (12.31 m), present datum; minimum, under conditions of no backwater, 230 ft³/s (6.51 m³/s) Oct. 7-9, 1943; minimum daily discharge, 15 ft³/s (0.42 m³/s), backwater from Mississippi River, Feb. 4, 1937; reverse flow of 57 ft³/s (1.61 m³/s) measured by current meter on that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,000 ft³/s (793 m³/s) June 9, gage height, 33.36 ft (10.168 m); minimum, 445 ft³/s (12.60 m³/s) Oct. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	646	772	1130	768	4380	3480	3170	831	2180	840	784	1430
2	608	736	1000	754	8730	2220	2140	736	2160	720	736	1930
3	581	703	927	731	5750	1480	1580	680	10000	660	722	2170
4	558	680	860	717	3240	4440	3650	651	7670	630	754	1330
5	529	656	830	694	2410	9000	9790	632	7220	625	668	1050
6	502	608	820	694	1820	7040	6180	594	15100	5460	737	898
7	498	585	810	781	1460	4590	2780	603	20700	6150	2560	809
8	498	581	900	845	1310	3080	1410	599	23000	4930	1200	768
9	507	576	2500	855	1250	1960	1390	594	26000	3660	1080	736
10	498	567	1900	840	1230	1470	1400	1640	19000	2600	924	717
11	485	553	1550	791	3700	1290	1210	2420	25000	1610	768	604
12	468	548	1350	745	2550	1230	1060	1180	22000	1200	715	684
13	468	548	1750	726	1510	1150	985	918	16000	1000	660	661
14	472	571	1050	759	1320	1100	923	2490	11000	887	625	646
15	481	651	940	768	1230	1050	874	1660	8000	4250	608	1550
16	476	759	880	768	1240	1080	818	956	6000	3100	744	2170
17	3690	4670	855	749	1910	1070	822	791	4000	1490	2250	932
18	10300	9010	818	717	2260	1020	884	800	2300	1980	1470	694
19	5290	5480	781	712	1820	985	1130	2120	1600	2600	1140	622
20	1830	2510	763	759	1660	951	2090	2690	1200	1110	1040	594
21	980	1540	722	879	1480	908	1780	1430	1000	6230	912	576
22	804	1190	717	985	1350	918	1200	1120	880	3040	790	567
23	694	1000	731	889	1280	903	3980	951	850	1430	815	562
24	613	971	804	845	1180	908	3610	813	810	1470	680	548
25	722	942	942	822	1090	827	1570	884	760	4350	623	543
26	646	840	845	809	1020	786	1110	1960	720	1720	628	534
27	903	3420	800	795	985	772	951	3320	700	1060	1960	539
28	1960	3140	786	795	1270	749	874	1280	685	922	3530	749
29	1160	1670	772	763	---	1060	1020	903	680	1370	2380	543
30	903	1320	777	961	---	8510	1010	1950	780	1080	2040	498
31	818	---	786	1300	---	6280	---	2880	---	859	1310	---
TOTAL	39588	47797	31096	25016	60435	72307	61391	41076	237995	69033	35853	26654
MEAN	1277	1593	1003	807	2158	2332	2046	1325	7933	2227	1157	888
MAX	10300	9010	2500	1300	8730	9000	9790	3320	26000	6230	3530	2170
MIN	468	548	717	694	985	749	818	594	680	625	608	498
CFSM	.69	.86	.54	.44	1.17	1.26	1.11	.72	4.28	1.20	.63	.48
IN.	.80	.96	.62	.50	1.21	1.45	1.23	.83	4.78	1.39	.72	.54
CAL YR 1980	TOTAL	727201	MEAN	1987	MAX	13600	MIN	463	CFSM	1.07	IN	14.61
WTR YR 1981	TOTAL	748241	MEAN	2050	MAX	26000	MIN	468	CFSM	1.11	IN	15.03

OBION RIVER BASIN

07026000 OBION RIVER AT OBION, TN--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1975 to September 1981 (discontinued).

WATER TEMPERATURE: June 1975 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor from June 1975 to September 1981.

REMARKS.--Interruptions in the records were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 488 micromhos Dec. 14, 1976; minimum, 35 micromhos July 21, 22, 1975.

WATER TEMPERATURES: Maximum, 33.5°C June 18, 1978; minimum, -0.5°C several days in Jan. and Feb., 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--A water temperature of 90°F (32°C) was observed Aug. 21, 1952; a water temperature of 37°F (3°C) was observed Mar. 25, 1955, and Feb. 11, 1958.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 246 micromhos Nov. 7; minimum, 54 micromhos June 6, Sept. 3.

WATER TEMPERATURE: Maximum, not determined; minimum, 0.5°C Jan. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
16...	1030	476	75	--	17.5	3.5	8.5	200	100	18	0	4.4
NOV												
18...	0930	9590	65	6.4	6.5	60	--	>50000	>100000	16	4	3.9
DEC												
16...	1400	874	89	6.3	7.5	3.0	10.4	2300	170	23	0	5.4
JAN												
13...	1330	666	80	--	2.0	3.5	12.7	K40	K32	21	4	5.0
FEB												
10...	1430	1320	80	6.1	6.5	18	11.4	100	230	21	4	5.0
MAR												
17...	1245	990	85	6.8	12.0	3.5	10.1	96	--	24	3	5.8
APR												
14...	1400	956	95	6.3	20.5	6.0	7.7	230	280	29	3	6.8
MAY												
13...	1430	913	85	6.7	17.5	88	8.5	3400	1900	25	3	6.2
JUN												
16...	1500	6000	78	6.1	26.5	90	--	2700	48	25	7	6.7
JUL												
14...	1430	879	91	6.9	30.5	33	6.6	5200	400	28	0	7.1
AUG												
11...	1500	781	70	5.8	26.5	40	7.2	--	190	24	0	6.0
SEP												
15...	1400	1310	98	--	23.0	250	--	62000	130000	28	0	7.1

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT											
16...	1.7	6.8	43	.7	1.0	21	3.9	4.9	.1	13	58
NOV											
18...	1.6	2.6	20	.3	5.1	12	5.8	3.8	.1	5.7	47
DEC											
16...	2.2	6.0	34	.6	1.9	23	6.2	5.1	.1	12	63
JAN											
13...	2.1	6.0	37	.6	1.2	17	5.0	4.5	.0	12	50
FEB											
10...	2.1	5.2	33	.5	1.8	17	7.7	4.7	.1	11	52
MAR											
17...	2.2	6.0	34	.5	1.4	21	5.9	5.0	<.1	11	59
APR											
14...	2.8	7.1	33	.6	1.8	26	8.0	4.8	<.1	10	66
MAY											
13...	2.3	6.2	33	.5	1.7	22	4.5	4.5	<.1	12	62
JUN											
16...	2.1	2.7	17	.2	3.1	18	4.8	3.4	.2	8.3	53
JUL											
14...	2.6	6.1	30	.5	2.0	31	3.7	4.4	.1	13	65
AUG											
11...	2.1	5.4	31	.5	1.9	24	3.7	4.2	.1	12	76
SEP											
15...	2.5	4.8	25	.4	2.1	34	3.9	4.2	.1	8.4	67

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

07026000 OBION RIVER AT OBION, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT											
16...	51	.08	74.5	.61	.64	--	.050	--	.19	.56	.24
NOV											
18...	40	.06	1220	.60	.62	.320	.170	1.3	.05	1.60	.22
DEC											
16...	55	.09	149	--	.53	.360	.370	--	.49	--	.86
JAN											
13...	48	.07	89.9	.46	.47	--	.220	--	.00	.21	.22
FEB											
10...	51	.07	185	.56	.55	.300	.220	.26	.26	.56	.48
MAR											
17...	53	.08	158	--	.66	--	.160	--	1.1	--	1.3
APR											
14...	59	.09	170	.49	.51	--	.140	.44	.27	.54	.41
MAY											
13...	54	.08	153	--	.80	--	.200	--	1.3	--	1.5
JUN											
16...	45	.07	859	--	.24	--	.170	--	1.0	1.30	1.2
JUL											
14...	59	.09	154	.31	.34	--	.090	--	.65	--	.74
AUG											
11...	52	.10	160	.49	.44	--	.100	--	.60	--	.70
SEP											
15...	56	.09	237	.59	.54	.270	.130	.83	.70	1.10	.83
DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT											
16...	1.2	.88	.120	.080	3.0	--	--	45	58	89	--
NOV											
18...	2.2	.84	.610	.060	--	3.3	8.1	886	22900	82	2200
DEC											
16...	--	1.4	.140	.080	3.2	--	--	35	83	67	--
JAN											
13...	.67	.69	.070	.050	2.3	--	--	16	29	85	--
FEB											
10...	1.1	1.0	.160	.050	--	--	3.5	129	460	93	--
MAR											
17...	--	2.0	.100	<.010	2.3	--	--	197	527	67	930
APR											
14...	1.0	.92	.100	.060	4.0	--	--	94	243	92	--
MAY											
13...	--	2.3	.280	.080	3.3	--	--	266	656	88	2600
JUN											
16...	--	1.4	.290	.020	--	--	6.0	359	5820	73	9600
JUL											
14...	--	1.1	.110	.060	4.4	--	--	85	202	96	13000
AUG											
11...	--	1.1	.180	.070	--	1.4	2.6	265	559	88	25000
SEP											
15...	1.7	1.4	1.10	.050	14	--	--	3680	13000	99	6400

OBION RIVER BASIN

07026000 OBION RIVER AT OBION, TN--Continued

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 18...	1	1	300	40	0	0	20	<10	8	2
FEB 10...	0	0	100	40	0	2	20	10	1	0
JUN 16...	4	2	200	50	1	3	20	10	3	0
AUG 11...	2	2	100	30	2	1	20	10	2	2

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 18...	15	5	16000	310	20	7	1700	730	<.1
FEB 10...	6	2	--	3300	13	2	220	130	.1
JUN 16...	9	5	8800	440	33	1	1000	830	.1
AUG 11...	5	2	3000	40	8	7	180	80	.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 18...	<.1	12	4	0	0	0	0	50	7
FEB 10...	.1	7	2	0	0	0	0	60	4
JUN 16...	<.1	11	7	0	0	0	0	30	10
AUG 11...	.1	6	3	<1	<1	1	<1	20	4

07026000 OBION RIVER AT OBION, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 18,80 0930	MAR 17,81 1245	MAY 13,81 1430	JUN 16,81 1500
TOTAL CELLS/ML	2200	930	2600	9600
DIVERSITY: DIVISION	0.7	0.8	1.7	1.0
...CLASS	0.7	0.8	1.7	1.0
...ORDER	0.9	1.6	2.1	1.3
...FAMILY	0.9	2.4	2.9	1.8
...GENUS	1.2	2.6	3.5	2.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	84	1
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	64	7	16	1	150	2
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	64	7	220	8	360	4
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	140	6	--	-	370	14	660	7
....KIRCHNERIELLA	--	-	--	-	47	2	--	-
...OOCYSTIS	--	-	52	6	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRUM	--	-	--	-	16	1	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	280	3
....CRUCIGENIA	--	-	--	-	62	2	--	-
....SCENEDESMUS	--	-	370 #	40	310	12	140	1
....TETRASTRUM	--	-	--	-	--	-	56	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	170 #	18	93	4	84	1
...ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	--	-	--	-
....STAUSTRUM	--	-	--	-	--	-	--	-
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	52	6	93	4	170	2
....MELOSIRA	--	-	26	3	110	4	150	2
...PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	16	1	*	0
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	16	1	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	13	1	31	1	--	-
....SYNEDRA	--	-	13	1	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	16	1	--	-
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	69	3	--	-	200	8	--	-
....PINNULARIA	--	-	--	-	16	1	--	-
...NITZSCHACEAE								
....NITZSCHIA	69	3	100	11	280	11	*	0
...SURIPELLACEAE								
....SURIPELLA	--	-	--	-	16	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	69	3	--	-	650 #	25	530	6
...HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	340	4
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	1700 #	78	--	-	--	-	--	-
....OSCILLATORIA	140	6	--	-	--	-	6400 #	67
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	47	2	*	0
...TRACHELONAS	--	-	--	-	16	1	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07026000 OBION RIVER AT OBION, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 14, 81	AUG 11, 81	SEP 15, 81
TIME	0000	1500	1400
TOTAL CELLS/ML	13000	25000	6400
DIVERSITY: DIVISION	0.8	0.9	0.8
..CLASS	0.8	0.9	0.8
..ORDER	0.9	1.8	1.0
...FAMILY	1.1	2.3	1.2
....GENUS	1.1	2.7	1.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	--	-
...COELASTRACEAE						
...COELASTRUM	--	-	370	2	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	350	3	*	0	--	-
...OOCYSTACEAE						
...ANKISTRODESMUS	200	2	1200	5	--	-
...CHODATELLA	--	-	*	0	--	-
...DICTYOSPHAERIUM	--	-	930	4	--	-
...KIRCHNERIELLA	--	-	420	2	--	-
...OOCYSTIS	200	2	470	2	--	-
...SELENASTRUM	100	1	--	-	--	-
...TETRAEDRON	*	0	--	-	--	-
...SCENEDESMACEAE						
...ACTINASTRUM	--	-	--	-	--	-
...CRUCIGENIA	200	2	--	-	--	-
...SCENEDESMUS	--	-	930	4	--	-
...TETRASTRUM	--	-	--	-	--	-
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	450	3	700	3	--	-
...ZYGNEMATALES						
...DESMIDIACEAE						
...COSMARIUM	--	-	*	0	--	-
...EUASTRUM	*	0	--	-	--	-
...STAUSTRUM	--	-	*	0	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
...CYCLOTELLA	--	-	470	2	280	4
...MELOSIRA	--	-	--	-	--	-
...PENNALES						
...ACHNANTHACEAE						
...ACHNANTHES	--	-	--	-	--	-
...CYMBELLACEAE						
...CYMBELLA	--	-	--	-	--	-
...FRAGILARIACEAE						
...FRAGILARIA	--	-	--	-	--	-
...SYNEDRA	--	-	--	-	140	2
...GOMPHONEMACEAE						
...GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
...GYROSIGMA	--	-	--	-	140	2
...NAVICULA	--	-	*	0	140	2
...PINNULARIA	--	-	--	-	--	-
...NITZSCHIACEAE						
...NITZSCHIA	450	3	140	1	840	13
...SURIRELLACEAE						
...SURIRELLA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...ANACYSTIS	11000#	83	6100#	25	--	-
...HORMOGONALES						
...NOSTOCACEAE						
...ANABAENA	--	-	--	-	--	-
...APHANIZOMENON	--	-	2000	8	--	-
...OSCILLATORIACEAE						
...LYNGBYA	--	-	700	3	--	-
...OSCILLATORIA	--	-	10000#	41	4900#	76
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	100	1	--	-	--	-
...TRACHELOMONAS	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07026000 OBION RIVER AT OBION, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	84	79	81	147	133	141	78	76	77	80	78	79
2	87	80	82	163	149	158	81	78	80	80	77	78
3	87	79	82	183	163	173	83	80	81	81	77	78
4	86	81	84	218	184	199	86	83	85	78	76	77
5	82	77	79	241	221	231	87	85	86	76	74	75
6	81	74	77	243	231	239	90	86	87	78	74	76
7	79	72	74	246	225	239	86	82	84	80	76	78
8	85	78	81	231	165	207	86	78	81	82	77	79
9	82	79	80	163	126	149	112	78	86	80	76	78
10	83	76	79	141	123	135	83	79	82	80	77	79
11	81	76	78	150	138	146	84	82	83	77	75	76
12	79	71	76	142	135	139	96	83	86	76	74	75
13	77	70	74	142	134	139	86	84	85	82	74	78
14	78	70	75	138	109	124	86	83	85	81	79	80
15	82	74	77	137	125	133	85	83	84	82	79	80
16	79	73	77	137	97	111	90	84	88	80	77	79
17	87	72	78	109	62	87	90	88	89	78	77	78
18	79	69	73	66	61	64	92	88	90	78	75	77
19	78	75	76	67	64	66	90	86	88	77	75	76
20	93	76	84	68	66	67	87	85	86	77	74	76
21	115	80	92	72	69	71	86	83	85	85	74	80
22	92	78	84	76	72	75	85	83	84	80	77	78
23	83	79	81	78	74	75	87	84	85	80	76	78
24	87	83	85	81	75	77	89	83	85	81	75	79
25	92	85	88	80	76	78	88	78	83	78	74	77
26	88	85	87	90	80	84	80	78	79	76	74	75
27	89	74	84	106	69	83	84	79	82	76	74	75
28	95	83	88	72	68	71	82	79	81	78	74	76
29	103	86	95	74	71	72	79	77	78	79	77	78
30	123	104	115	77	75	76	79	76	78	110	76	86
31	133	124	129	---	---	---	80	78	79	105	84	88
MONTH	133	69	84	246	61	124	112	76	84	110	74	78
FEBRUARY			MARCH			APRIL			MAY			
1	113	72	87	122	86	100	73	69	71	97	94	95
2	72	67	69	86	83	85	76	72	74	96	93	94
3	69	66	67	86	83	84	82	75	79	93	89	92
4	68	67	68	99	65	82	86	62	80	91	89	90
5	69	67	68	68	65	68	65	55	60	94	89	90
6	73	69	71	71	67	68	78	65	71	93	90	91
7	76	72	75	71	69	70	---	---	---	94	90	92
8	76	74	75	73	69	72	---	---	---	95	91	93
9	78	74	75	76	72	74	---	---	---	93	90	92
10	85	77	79	84	76	81	---	---	---	127	81	98
11	113	78	91	88	83	86	---	---	---	83	75	80
12	80	75	77	98	86	91	---	---	---	83	76	80
13	80	75	78	91	88	90	---	---	---	86	83	84
14	85	80	83	91	87	89	---	---	---	103	79	86
15	84	82	83	88	84	86	---	---	---	91	86	87
16	84	80	81	91	84	87	99	95	96	101	89	91
17	99	87	95	86	82	84	100	96	98	91	88	89
18	93	86	90	86	82	84	98	90	93	121	88	92
19	87	84	86	85	82	83	110	90	97	110	67	84
20	88	84	86	85	82	84	101	79	88	69	63	66
21	87	84	86	87	82	84	87	75	81	73	69	71
22	89	84	86	85	80	83	108	86	93	78	74	76
23	88	84	86	82	78	79	105	64	81	82	77	80
24	87	83	85	80	77	78	80	68	74	83	80	81
25	89	84	86	82	78	80	87	80	84	112	81	94
26	91	85	87	84	78	81	90	87	88	94	64	78
27	88	86	87	85	80	82	92	88	90	82	73	77
28	117	84	88	84	80	82	96	90	92	90	82	87
29	---	---	---	111	79	84	105	91	97	107	90	94
30	---	---	---	103	64	73	102	92	96	132	91	107
31	---	---	---	70	66	68	---	---	---	109	86	97
MONTH	117	66	81	122	64	81	---	---	---	132	63	87

OBION RIVER BASIN

07026000 OBION RIVER AT OBION, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	108	82	90				---	---	---	83	69	75
2	103	73	83				---	---	---	76	55	69
3	120	56	74				---	---	---	70	54	64
4	81	70	75				---	---	---	76	69	73
5	95	71	83				---	---	---	80	76	79
6	93	54	69				---	---	---	83	79	81
7	64	58	60				---	---	---	85	81	82
8	76	63	70				---	---	---	84	81	82
9	87	76	81				---	---	---	87	83	85
10	106	87	95				---	---	---	91	86	89
11	---	---	---				---	---	---	97	89	92
12	---	---	---				---	---	---	95	88	91
13	---	---	---				---	---	---	90	87	89
14	---	---	---				---	---	---	90	86	87
15	---	---	---				---	---	---	98	85	88
16	---	---	---				---	---	---	---	---	---
17	---	---	---				---	---	---	---	---	---
18	---	---	---				---	---	---	---	---	---
19	---	---	---				---	---	---	---	---	---
20	---	---	---				75	73	74	---	---	---
21	---	---	---				78	73	76	---	---	---
22	---	---	---				82	76	79	---	---	---
23	---	---	---				91	79	83	---	---	---
24	---	---	---				84	81	82	---	---	---
25	---	---	---				86	82	84	---	---	---
26	---	---	---				109	84	89	---	---	---
27	---	---	---				113	66	89	---	---	---
28	---	---	---				69	66	67	---	---	---
29	---	---	---				82	62	70	---	---	---
30	---	---	---				66	59	61	---	---	---
31	---	---	---				74	62	68	---	---	---
MONTH	---	---	---				---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.0	19.0	20.5	12.0	11.0	11.5	10.0	7.5	8.5	7.5	6.0	6.5
2	22.0	20.0	21.0	13.0	12.5	12.5	11.0	9.0	10.5	6.0	5.0	5.5
3	20.5	17.5	18.5	13.5	13.0	13.0	8.5	6.5	7.5	6.5	5.0	6.0
4	17.0	15.5	16.0	13.5	13.0	13.5	8.5	6.0	7.0	6.0	3.0	4.0
5	16.0	14.0	15.0	13.5	13.0	13.5	10.5	8.0	9.0	3.0	1.5	2.5
6	16.0	13.5	15.0	13.0	12.5	12.5	12.5	10.0	11.0	3.0	2.5	3.0
7	18.0	14.5	16.5	13.5	12.5	13.0	13.0	12.0	12.5	4.0	2.5	3.5
8	20.0	17.0	18.5	15.0	13.5	14.0	13.5	12.5	13.0	4.0	2.5	3.0
9	21.5	19.0	20.5	16.5	15.5	16.0	13.0	11.5	12.0	4.0	3.0	3.5
10	22.0	20.0	21.0	6.5	6.0	15.5	11.5	9.0	10.0	3.5	2.5	3.0
11	21.5	18.5	19.5	15.5	13.5	14.0	9.0	8.0	8.0	3.0	2.0	2.5
12	18.5	16.0	17.0	13.5	12.0	12.5	8.5	7.0	8.0	2.0	.5	1.0
13	16.5	14.0	15.5	12.5	11.5	12.0	8.5	7.5	2.0	3.5	1.0	2.0
14	16.5	14.0	15.5	12.5	12.0	12.0	8.0	6.5	7.5	5.0	2.5	3.5
15	18.5	15.5	17.0	12.0	11.5	12.0	8.0	7.0	7.5	5.0	4.0	4.5
16	20.0	17.0	18.5	11.5	10.0	10.5	8.0	7.0	7.5	4.5	3.5	7.5
17	20.0	18.5	19.0	10.0	6.5	8.0	7.0	6.0	6.5	3.5	2.0	2.5
18	19.0	18.5	18.5	6.5	6.0	6.5	8.5	6.0	7.0	4.0	1.5	2.5
19	19.0	18.0	18.5	7.0	6.0	6.5	8.5	5.0	7.0	5.5	3.5	4.5
20	18.0	15.5	16.5	7.0	6.0	6.5	4.5	2.0	2.5	6.0	5.5	5.5
21	17.0	15.5	16.5	7.5	6.0	6.5	2.0	1.0	1.5	6.5	5.5	6.0
22	18.0	16.0	17.0	7.0	6.0	6.5	3.5	1.0	2.0	6.5	5.5	6.0
23	18.0	16.5	17.0	8.0	7.0	7.5	6.0	3.5	4.5	6.5	4.5	5.5
24	18.0	15.0	16.5	8.5	8.0	8.5	7.5	7.0	5.5	7.5	5.0	6.5
25	14.5	13.0	13.5	8.0	7.5	8.0	3.5	1.5	2.5	9.0	6.5	7.5
26	14.0	12.5	13.0	8.0	6.5	7.0	4.0	2.5	3.0	10.0	9.0	9.5
27	13.5	12.0	12.5	6.5	4.5	5.0	4.5	3.0	3.5	10.0	9.0	9.5
28	12.5	12.0	12.5	5.5	4.5	5.0	4.5	3.0	4.0	9.5	8.0	8.5
29	12.0	11.0	11.5	6.5	5.0	5.5	5.5	4.0	5.0	9.0	6.0	7.5
30	11.5	10.5	11.0	8.0	5.5	6.5	6.0	5.0	5.5	6.0	5.0	5.5
31	11.5	10.5	11.0	---	---	---	7.5	5.5	6.5	5.0	4.0	4.5
MONTH	22.0	10.5	16.5	16.5	4.5	10.0	13.5	1.0	6.5	10.0	.5	5.0

07026000 OBION RIVER AT OBION, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	5.0	5.0	13.0	11.0	12.0	19.5	17.5	18.5	22.5	20.5	21.5
2	5.0	3.0	4.0	11.5	10.0	10.5	19.5	17.5	18.5	21.0	18.0	20.0
3	2.5	1.5	2.0	11.0	9.5	10.0	19.0	17.5	18.5	21.0	18.5	20.0
4	2.0	1.0	1.5	10.5	7.5	9.0	19.0	15.5	17.5	21.0	19.0	20.0
5	2.5	1.0	1.5	8.5	8.0	8.5	15.5	14.5	15.0	21.0	19.5	20.5
6	4.5	2.0	3.0	8.5	7.5	8.0	16.5	14.5	15.5	20.5	16.5	18.5
7	5.0	4.0	4.5	9.0	8.0	8.5	17.5	15.5	16.5	17.5	15.0	16.0
8	5.5	4.5	5.0	9.5	8.0	9.0	18.0	16.0	17.0	18.5	16.0	17.5
9	6.0	4.0	5.0	10.5	8.0	9.5	19.5	17.5	18.5	18.5	18.0	18.0
10	7.0	6.0	6.0	12.0	9.0	10.5	21.5	18.5	20.0	18.5	17.0	17.5
11	6.5	3.5	4.5	12.0	10.5	11.5	22.5	20.5	21.5	17.0	15.0	15.5
12	3.0	1.0	1.5	12.5	10.0	11.5	23.0	20.5	22.0	18.0	13.5	15.5
13	3.0	1.0	2.0	13.0	11.0	12.0	22.5	21.0	22.0	18.0	16.5	17.5
14	5.0	2.5	3.5	13.0	11.0	12.5	22.0	18.5	20.5	18.0	16.0	16.5
15	7.5	4.5	5.5	13.0	10.5	11.5	18.0	16.5	17.5	18.5	15.0	16.5
16	8.5	7.5	8.0	12.0	10.0	11.0	18.5	16.5	17.5	18.5	17.5	18.0
17	10.5	8.5	9.5	13.5	10.5	12.0	21.5	18.5	20.0	17.0	16.0	16.5
18	11.5	9.5	10.5	13.5	10.5	12.0	22.5	19.5	21.0	20.0	16.5	18.0
19	13.5	11.0	12.0	11.0	8.5	10.0	22.5	21.0	22.0	19.5	15.0	17.5
20	13.5	11.5	12.5	12.0	9.5	11.0	21.0	18.0	19.5	18.0	15.0	16.0
21	13.0	11.5	12.5	12.0	11.0	12.0	19.5	16.5	18.0	20.0	16.0	18.0
22	13.5	12.0	13.0	12.0	10.5	11.0	19.0	17.5	18.0	21.5	18.5	20.0
23	12.0	10.5	11.5	13.0	9.5	11.0	18.0	17.5	18.0	23.0	20.0	21.5
24	12.0	10.0	11.0	14.0	11.0	13.0	19.0	17.0	18.0	24.0	21.0	22.5
25	13.0	10.5	11.5	15.0	12.5	14.0	19.0	17.0	18.0	23.5	22.0	23.0
26	15.0	12.5	13.5	16.0	14.0	15.0	21.5	18.0	19.5	23.5	19.5	21.0
27	16.0	14.0	15.0	18.0	15.0	16.5	23.0	20.0	21.5	21.5	19.0	20.0
28	16.0	13.5	15.0	19.0	16.5	18.0	24.0	21.0	22.5	24.0	20.5	22.0
29	---	---	---	18.5	15.0	17.0	23.5	22.0	23.0	25.0	22.5	24.0
30	---	---	---	15.5	14.0	14.5	23.0	21.5	22.5	25.0	21.0	22.5
31	---	---	---	18.5	15.5	17.0	---	---	---	21.5	21.0	21.5
MONTH	16.0	1.0	7.5	19.0	7.5	12.0	24.0	14.5	19.5	25.0	13.5	19.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	21.0	21.5				---	---	---	24.0	23.0	23.5
2	23.5	22.5	23.0				---	---	---	24.0	22.5	23.0
3	23.0	21.0	21.5				---	---	---	24.5	22.5	23.5
4	23.5	22.0	22.5				---	---	---	24.5	22.5	23.5
5	23.5	23.0	23.5				---	---	---	24.5	22.5	23.5
6	23.0	21.0	22.0				---	---	---	24.5	22.5	23.5
7	24.0	22.0	22.5				---	---	---	25.0	22.5	24.0
8	24.5	23.5	24.0				---	---	---	25.0	23.0	24.0
9	26.0	24.5	25.0				---	---	---	24.0	21.5	22.5
10	26.0	24.5	25.5				---	---	---	23.5	21.0	22.5
11	---	---	---				---	---	---	24.0	21.0	23.0
12	---	---	---				---	---	---	24.5	22.0	23.5
13	---	---	---				---	---	---	25.0	22.5	24.0
14	---	---	---				---	---	---	25.0	23.0	24.5
15	---	---	---				---	---	---	25.0	23.0	24.0
16	---	---	---				---	---	---	---	---	---
17	---	---	---				---	---	---	---	---	---
18	---	---	---				---	---	---	---	---	---
19	---	---	---				---	---	---	---	---	---
20	---	---	---				24.0	22.0	23.5	---	---	---
21	---	---	---				25.0	22.5	23.5	---	---	---
22	---	---	---				26.0	23.5	24.5	---	---	---
23	---	---	---				26.5	24.0	25.0	---	---	---
24	---	---	---				27.5	24.5	26.0	---	---	---
25	---	---	---				28.0	25.5	27.0	---	---	---
26	---	---	---				28.0	25.5	26.5	---	---	---
27	---	---	---				26.0	22.0	23.5	---	---	---
28	---	---	---				23.5	21.5	22.5	---	---	---
29	---	---	---				25.0	23.0	24.0	---	---	---
30	---	---	---				24.5	23.0	24.0	---	---	---
31	---	---	---				24.5	23.5	24.0	---	---	---
MONTH	---	---	---				---	---	---	---	---	---

OBION RIVER BASIN

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mi (0.6 km) east of Blue Bank, 0.8 mi (1.3 km) west of the spillway and 3.3 mi (5.3 km) southeast of Tiptonville.

DRAINAGE AREA.--240 mi² (622 km²).

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft (82.363 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft (4.770 m), from recorded range in stage, about Apr. 26, 1973; minimum, 10.42 ft (3.176 m) Oct. 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft (5.18 m), at spillway, present datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.84 ft (3.914 m) June 10; minimum, 10.42 ft (3.176 m) Oct. 17.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.71	11.12	11.43	11.74	11.87	---	12.26	12.09	12.13	12.05	11.95	11.65
2	10.72	11.11	11.53	11.69	11.90	---	12.23	12.05	12.07	12.03	11.93	11.65
3	10.69	11.10	11.48	11.79	11.90	---	12.08	12.02	12.18	11.99	11.91	11.66
4	10.69	11.11	11.45	11.76	11.93	12.33	12.31	12.03	12.23	11.97	11.90	11.63
5	10.65	11.10	11.47	11.76	11.93	12.33	12.29	12.05	12.21	12.00	11.87	11.62
6	10.63	11.05	11.48	11.73	11.93	12.34	12.27	12.04	12.58	12.02	11.85	11.59
7	10.61	11.03	11.47	11.76	11.95	12.27	12.20	12.02	12.76	12.01	11.86	11.55
8	10.60	11.04	11.68	11.74	11.95	12.19	12.19	11.98	12.79	12.01	11.85	11.57
9	10.60	11.06	11.71	11.74	11.92	12.11	12.27	12.02	12.69	12.00	11.82	11.53
10	10.61	11.10	11.73	11.74	12.12	12.14	12.25	12.11	12.83	12.00	11.80	11.51
11	10.58	11.07	11.70	11.74	12.05	12.13	12.22	12.14	12.80	11.98	11.80	11.49
12	10.56	11.03	11.71	11.74	12.05	12.10	12.22	12.16	12.73	11.96	11.78	11.47
13	10.54	11.03	11.76	11.72	12.05	12.13	12.19	12.32	12.62	11.92	11.75	11.46
14	10.52	11.09	11.74	11.72	---	12.13	12.25	12.27	12.52	11.90	11.71	11.44
15	10.50	11.12	11.76	11.72	---	12.13	12.19	12.29	12.41	11.90	11.70	11.57
16	10.47	11.12	11.79	11.72	---	12.14	12.13	12.36	12.32	11.88	11.76	11.55
17	10.86	11.31	11.70	11.72	---	12.10	12.13	12.40	12.18	11.85	11.72	11.51
18	10.88	11.25	11.83	11.72	---	12.14	12.15	12.38	12.18	11.97	11.70	11.48
19	10.93	11.26	11.89	11.71	---	12.11	12.19	12.33	12.20	11.97	11.67	11.44
20	10.96	11.26	11.80	11.77	---	12.10	12.25	12.26	12.19	11.98	11.65	11.43
21	11.00	11.28	11.80	11.76	---	12.12	12.19	12.20	12.14	12.01	11.64	11.40
22	11.02	11.26	11.71	11.73	---	12.16	12.09	12.18	12.17	11.99	11.60	11.46
23	11.00	11.34	11.75	11.74	---	12.13	12.16	12.17	12.16	12.05	11.59	11.42
24	11.02	11.38	11.87	11.73	---	12.11	12.17	12.19	12.14	12.06	11.57	11.38
25	11.03	11.38	11.84	11.66	---	12.09	12.13	12.19	12.15	12.04	11.57	11.36
26	11.01	11.47	11.75	11.73	---	12.07	12.10	12.21	12.10	12.04	11.59	11.33
27	11.09	11.39	11.75	11.74	---	12.08	12.10	12.17	12.06	12.02	11.60	11.37
28	11.14	11.37	11.75	11.71	---	12.03	12.11	12.14	12.03	12.06	11.61	11.35
29	11.13	11.46	11.76	11.88	---	12.18	12.10	12.10	12.00	12.03	11.60	11.32
30	11.12	11.41	11.73	11.83	---	12.24	12.11	12.14	12.05	12.00	11.59	11.29
31	11.11	---	11.75	11.66	---	12.26	---	12.15	---	11.97	11.63	---
MEAN	10.81	11.20	11.70	11.74	---	---	12.18	12.17	12.32	11.99	11.73	11.48
MAX	11.14	11.47	11.89	11.88	---	---	12.31	12.40	12.83	12.06	11.95	11.66
MIN	10.47	11.03	11.43	11.66	---	---	12.08	11.98	12.00	11.85	11.57	11.29

HATCHIE RIVER BASIN

309

07029500 HATCHIE RIVER AT BOLIVAR, TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank on upstream end of bridge pier on State Highway 18, 250 ft (76 m) upstream from Illinois Central Gulf Railroad bridge, 0.6 mi (1.0 km) downstream from Spring Creek, and 1.5 mi (2.4 km) northeast of Bolivar and at mile 135.1 (217.4 km).

DRAINAGE AREA.--1,480 mi² (3,833 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 323.49 ft (98.600 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--52 years, 2,401 ft³/s (68.00 m³/s), 22.03 in/yr (560 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,600 ft³/s (1,740 m³/s) Mar. 18, 1973, gage height, 21.66 ft (6.602 m), from rating curve extended above 34,000 ft³/s (963 m³/s); minimum, 78 ft³/s (2.21 m³/s) Sept. 2, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,510 ft³/s (184 m³/s) at 1800 hours June 6, gage height 14.76 ft (4.499 m), no peak above base of 8,500 ft³/s (241 m³/s); minimum, 254 ft³/s (7.19 m³/s) Sept. 27, 29, 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701	771	1630	825	1040	1240	4840	1540	5340	589	447	829
2	694	622	1400	810	1680	1320	4870	1490	5950	687	411	735
3	608	575	1200	780	2250	1410	5170	1350	5950	697	378	942
4	515	536	1070	748	2650	1610	5490	1150	5460	725	351	1290
5	445	504	982	724	2770	2280	5730	973	5100	786	342	1410
6	405	485	930	727	2840	2790	5460	866	5890	991	412	1300
7	392	479	904	807	2960	2990	5120	802	5370	1460	359	974
8	382	476	893	932	3080	2910	4800	770	4750	1690	361	673
9	376	478	995	1020	3090	2860	4800	752	4290	1690	398	515
10	374	481	1090	970	3290	2850	4710	786	3710	1530	399	429
11	367	480	1130	886	3880	2760	4470	914	3210	1200	348	380
12	355	476	1080	828	4100	2480	4170	1080	2920	833	309	350
13	345	472	991	815	4120	2020	3830	1170	2490	815	286	326
14	340	515	925	810	3620	1630	3430	1170	2040	823	274	309
15	339	733	881	790	3060	1360	2810	1090	1790	696	268	320
16	340	1210	856	760	2530	1240	2160	955	1640	563	268	392
17	356	1680	829	740	2120	1210	1700	929	1450	492	261	504
18	460	2150	810	730	1980	1230	1410	1220	1200	481	262	493
19	658	2510	788	720	2050	1220	1270	1770	1040	540	281	415
20	683	2900	762	708	2200	1260	1230	2140	959	575	299	342
21	595	2790	736	778	2300	1280	1390	2440	882	768	363	304
22	506	2680	717	918	2380	1260	1700	2570	827	748	420	289
23	450	2590	724	1060	2370	1390	1830	2650	786	746	490	281
24	432	2270	753	1050	2270	1630	1910	2570	734	810	486	273
25	435	1780	802	980	2000	1740	2070	2270	687	743	421	269
26	444	1420	874	898	1700	1710	2120	2300	849	796	351	264
27	490	1400	898	845	1430	1580	1980	3280	719	997	328	260
28	621	1540	862	885	1260	1400	1750	3700	644	980	335	260
29	852	1730	829	986	---	1310	1490	3930	613	769	449	257
30	1070	1780	800	982	---	2750	1460	4070	587	595	471	256
31	1000	---	806	925	---	4210	---	4580	---	496	649	---
TOTAL	16030	38513	28947	26437	71020	58930	95170	57277	77877	26311	11477	15641
MEAN	517	1284	934	853	2536	1901	3172	1848	2596	849	370	521
MAX	1070	2900	1630	1060	4120	4210	5730	4580	5950	1690	649	1410
MIN	339	472	717	708	1040	1210	1230	752	587	481	261	256
CFSM	.35	.87	.63	.58	1.71	1.28	2.14	1.25	1.75	.57	.25	.35
IN.	.40	.97	.73	.66	1.79	1.48	2.39	1.44	1.96	.66	.29	.39
CAL YR 1980	TOTAL	994036	MEAN	2716	MAX	42600	MIN	336	CFSM	1.84	IN	24.99
WTR YR 1981	TOTAL	523630	MEAN	1435	MAX	5950	MIN	256	CFSM	.97	IN	13.16

HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1968, 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1980 to current year.

WATER TEMPERATURE: June 1980 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 140 micromhos Aug. 5, 1981; minimum, 50 micromhos Apr. 1, June 1, 1981.

WATER TEMPERATURE: Maximum, 31.5° July 15, 16, 1980; minimum, 0.5° Jan. 12, 13, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 140 micromhos Aug. 5; minimum 50 micromhos Apr. 1, June 1.

WATER TEMPERATURE: Maximum, 29.5° July 18, 20; minimum, 0.5°C Jan. 12, 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER AS CAC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 14...	1130	338	85	5.7	15.0	7.5	9.3	84	250	14	0	3.6
NOV 19...	1400	2510	60	5.6	8.5	18	--	2500	6000	13	6	3.2
FEB 11...	1200	3960	54	5.5	3.0	45	11.0	460	2900	14	7	3.9
APR 15...	1030	2860	86	6.5	18.5	1.4	6.4	K40	K43	25	8	6.9
JUN 25...	0900	693	90	6.6	28.0	25	--	--	--	26	3	7.7
JUL 28...	1030	1010	68	6.4	26.5	93	5.8	1600	630	18	4	5.1
SEP 16...	1000	382	98	6.9	22.0	35	--	3900	2600	19	0	5.0

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 14...	1.2	9.9	58	1.2	1.3	15	6.9	11	.1	12	67
NOV 19...	1.2	3.7	33	.4	2.6	7.0	9.3	5.0	.1	8.8	44
FEB 11...	1.1	2.5	25	.3	1.6	7.0	8.2	3.2	.1	8.6	45
APR 15...	1.8	5.1	29	.4	1.5	17	7.8	5.2	<.1	9.4	60
JUN 25...	1.7	7.0	35	.6	1.7	23	5.7	6.6	<.1	12	66
JUL 28...	1.2	4.2	32	.4	1.7	14	4.9	5.0	.1	7.7	49
SEP 16...	1.5	10	51	1.0	1.6	22	6.3	9.0	<.1	9.6	70

DATE	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 14...	57	.09	61.1	.49	.51	.320	.330	.36	.00	.68	.27
NOV 19...	44	.06	298	.20	.21	.190	.180	.52	.08	.71	.26
FEB 11...	34	.02	481	.31	.32	.110	.040	.99	.32	1.10	.36
APR 15...	49	.08	463	--	.25	.300	.310	.39	.31	.69	.62
JUN 25...	59	.09	123	.39	.40	.330	.310	.14	.10	.47	.41
JUL 28...	41	.07	134	.64	.60	.100	.090	.69	.61	.79	.70
SEP 16...	59	.10	72.2	.66	.64	.290	.290	.42	.24	.71	.53

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

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
OCT 14...	1.2	.78	.060	.030	6.3	--	--	47	43	58	--
NOV 19...	.91	.47	.120	.020	--	.9	9.3	100	678	89	1200
FEB 11...	1.4	.68	.150	.020	--	1.4	11	133	1420	90	--
APR 15...	--	.87	.070	.040	5.3	--	--	34	263	61	--
JUN 25...	.86	.81	.080	.020	--	.6	--	73	137	63	2100
JUL 28...	1.4	1.3	.410	.060	6.7	--	--	93	254	90	840
SEP 16...	1.4	1.2	.140	.070	3.0	--	--	59	61	77	150

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)
NOV 19...	1	0	100	30	0	0	20	<10	0	2
FEB 11...	1	0	200	30	1	2	10	10	5	0
JUN 25...	2	1	100	40	1	2	10	<10	1	0

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 19...	7	2	3000	390	3	2	410	280	.1
FEB 11...	16	4	14000	270	15	2	950	160	.1
JUN 25...	12	6	3100	370	9	1	680	570	<.1

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	<.1	4	5	0	0	0	0	20	8
FEB 11...	.1	11	0	0	0	0	0	40	9
JUN 25...	<.1	10	12	1	1	0	0	20	20

07029500 HATCHIE RIVER AT BOLIVAR, TN--(Continued)

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 17,80	APR 15,81	JUN 25,81	JUL 28,81	SEP 16,81
TIME	1400	1030	0900	1030	1000
TOTAL CELLS/ML	1200	140	2100	840	150
DIVERSITY: DIVISION	1.5	1.6	1.4	1.5	0.0
...CLASS	1.5	1.6	1.4	1.5	0.0
...ORDER	2.3	1.8	1.4	1.7	0.0
...FAMILY	3.3	1.8	2.2	2.0	0.0
...GENUS	3.3	2.4	2.7	3.0	0.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...CHARACIACEAE										
...SCHROEDERIA	14	1	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
...ANKISTRODESMUS	14	1	--	-	84	4	27	3	--	-
...CHODATELLA	--	-	--	-	14	1	--	-	--	-
...CLOSTERIOPSIS	--	-	13	9	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	170	8	--	-	--	-
...FRANCEIA	--	-	--	-	--	-	14	2	--	-
...KIRCHNERIELLA	69	6	--	-	56	3	--	-	--	-
...OOCYSTIS	--	-	--	-	--	-	55	7	--	-
...SELENASTRUM	--	-	13	9	--	-	--	-	--	-
...TETRAEDRON	--	-	--	-	14	1	--	-	--	-
...TREUBARIA	--	-	--	-	--	-	14	2	--	-
...SCENEDESMACEAE										
...CRUCIGENIA	--	-	--	-	220	11	--	-	--	-
...SCENEDESMUS	140	11	--	-	110	5	55	7	150#100	
...TETRASTRUM	--	-	--	-	--	-	120	15	--	-
...TETRASPORALES										
...PALMELLACEAE										
...SPHAEROCYSTIS	96	8	--	-	--	-	--	-	--	-
...VOLVOCALLES										
...CHLAMYDOMONADACEAE										
...CHLAMYDOMONAS	41	3	13	9	14	1	14	2	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
...CYCLOTELLA	41	3	--	-	--	-	27	3	--	-
...MELOSIRA	--	-	26#	18	--	-	--	-	--	-
...STEPHANODISCUS	--	-	26#	18	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
...ACHNANTHES	14	1	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
...CYMBELLA	28	2	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
...SYNEDRA	83	7	--	-	--	-	14	2	--	-
...NAVICULACEAE										
...NAVICULA	28	2	--	-	28	1	--	-	--	-
...NITZSCHACEAE										
...NITZSCHIA	28	2	--	-	28	1	27	3	--	-
...SURIPELLACEAE										
...SURIPELLA	14	1	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
...ANACYSTIS	83	7	52#	36	--	-	--	-	--	-
...HORMOGONALES										
...NOSTOCACEAE										
...NODULARIA	--	-	--	-	940#	44	--	-	--	-
...OSCILLATORACEAE										
...LYNGBYA	--	-	--	-	--	-	230#	28	--	-
...OSCILLATORIA	140	11	--	-	310	15	210#	25	--	-
...RIVULARIACEAE										
...RAPHIDIOPSIS	370#	31	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
...EUGLENA	--	-	--	-	28	1	27	3	--	-
...PHACUS	--	-	--	-	14	1	--	-	--	-
...TRACHELOMONAS	--	-	--	-	84	4	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%.

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	74	66	70	87	80	84	73	69	71	71	67	69
2	73	64	69	87	83	85	75	71	72	74	65	69
3	77	65	72	95	84	87	73	70	71	74	68	71
4	83	75	79	89	82	85	74	69	71	80	67	72
5	82	76	79	90	84	87	72	68	70	74	65	70
6	81	73	78	86	82	83	70	68	69	66	60	63
7	86	73	80	101	82	85	71	67	69	60	55	56
8	91	78	84	85	80	82	71	67	69	55	52	54
9	90	75	85	84	79	81	82	66	70	55	52	54
10	93	82	87	88	80	83	69	63	66	56	53	54
11	93	81	87	86	79	82	67	62	64	59	53	55
12	90	78	84	90	79	84	69	64	67	65	59	63
13	95	82	88	87	78	82	72	68	70	70	62	65
14	99	82	92	100	79	87	73	67	70	75	69	72
15	100	89	94	93	71	82	77	69	73	78	68	73
16	100	89	94	79	68	73	80	73	76	77	69	73
17	113	91	99	90	61	74	77	72	74	78	72	75
18	104	83	93	70	64	67	78	69	74	79	70	75
19	87	74	81	67	57	62	68	59	63	71	62	66
20	83	74	78	61	57	59	72	68	69	72	62	72
21	84	74	78	65	60	62	72	65	69	70	58	63
22	86	78	82	69	61	65	75	66	70	74	60	66
23	92	80	86	68	65	66	72	67	69	77	68	74
24	130	86	93	68	65	67	0	73	76	79	71	75
25	89	78	83	72	68	70	74	67	71	90	78	85
26	79	71	75	97	67	72	72	65	69	90	80	85
27	87	73	78	73	64	68	73	67	69	85	77	80
28	78	69	71	66	61	64	72	65	68	81	76	78
29	70	63	66	67	61	64	82	67	71	83	76	78
30	80	69	75	71	61	66	80	68	75	92	82	86
31	83	70	75	---	---	---	74	66	70	84	78	81
MONTH	130	63	82	101	57	75	82	59	70	92	52	70
FEBRUARY			MARCH			APRIL			MAY			
1	100	75	83	86	81	83	57	50	53	76	68	73
2	75	64	69	84	78	81	60	54	57	77	69	73
3	70	62	66	83	77	80	61	53	57	79	74	76
4	67	61	62	93	69	77	60	54	57	76	71	74
5	67	61	63	73	63	68	54	52	53	85	77	81
6	66	60	63	66	59	63	61	53	56	88	82	85
7	70	62	65	66	59	62	67	61	64	88	84	85
8	71	64	67	67	61	64	71	66	68	87	83	85
9	66	62	64	68	62	65	78	66	70	87	82	84
10	66	58	61	73	67	70	77	71	74	103	74	82
11	59	53	55	76	71	74	79	72	76	74	70	71
12	60	54	56	78	72	74	80	74	77	73	67	70
13	62	53	57	82	74	78	83	76	79	78	72	75
14	66	60	63	84	79	82	91	82	85	79	71	76
15	70	65	68	84	79	82	94	82	88	80	76	78
16	70	67	68	79	72	75	97	87	91	78	75	76
17	74	69	71	78	73	75	95	90	92	92	72	78
18	74	70	72	80	73	76	92	88	90	72	67	69
19	76	71	73	79	75	77	91	85	88	68	64	66
20	74	71	73	81	76	79	96	81	85	64	61	63
21	75	72	73	85	79	82	81	74	78	64	61	62
22	76	72	73	85	77	82	88	68	74	70	61	65
23	73	71	72	85	79	83	78	68	72	77	69	71
24	79	72	76	82	75	78	75	70	72	77	72	74
25	80	75	78	81	74	78	74	69	71	75	68	71
26	82	71	78	85	80	83	73	68	70	69	63	65
27	78	67	70	85	75	82	76	71	72	64	57	60
28	91	78	83	75	70	72	82	75	78	59	51	55
29	---	---	---	85	70	73	97	79	83	56	52	54
30	---	---	---	67	53	57	81	74	77	57	53	55
31	---	---	---	59	51	55	---	---	---	63	51	54
MONTH	100	53	69	93	51	75	97	50	74	103	51	71

HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	54	50	52	84	69	72	124	82	98	81	65	75
2	54	51	52	92	78	85	116	74	92	74	64	68
3	59	54	56	89	76	82	109	72	81	68	60	65
4	65	60	62	86	72	77	117	83	90	72	63	68
5	75	64	67	92	65	73	140	86	102	67	59	63
6	95	62	66	74	53	63	131	90	98	70	62	66
7	65	62	64	78	66	72	97	90	93	77	68	72
8	68	62	65	71	61	64	130	89	99	79	73	75
9	74	65	69	75	63	69	125	76	108	86	74	78
10	80	74	77	95	74	78	114	74	94	89	80	84
11	83	77	80	86	79	83	120	75	97	90	80	85
12	79	75	77	88	80	84	134	89	105	92	82	85
13	89	79	84	95	76	83	117	96	105	98	86	91
14	94	86	91	96	82	87	109	90	98	102	87	94
15	94	88	91	103	85	93	107	89	93	105	89	94
16	93	90	92	112	91	103	105	83	90	92	78	87
17	96	92	94	132	97	106	90	81	85	84	73	79
18	98	95	96	119	93	102	101	82	90	87	71	79
19	99	94	97	112	81	92	102	82	91	92	75	81
20	96	87	93	97	76	84	93	77	85	93	71	80
21	92	85	88	102	74	86	88	78	82	88	76	80
22	89	83	86	96	70	80	86	77	81	108	84	94
23	91	83	86	98	70	82	84	74	79	114	74	95
24	88	83	85	127	72	88	88	69	76	106	82	93
25	94	84	88	97	74	82	96	89	91	114	78	90
26	96	55	75	102	75	84	97	75	83	103	79	85
27	80	75	78	98	72	77	99	81	89	95	78	87
28	76	72	74	92	67	74	105	81	87	96	79	87
29	73	69	71	105	72	85	103	74	82	89	78	83
30	78	70	71	122	82	96	85	73	77	93	80	84
31	---	---	---	118	81	95	91	66	77	---	---	---
MONTH	99	50	78	132	53	83	140	66	90	114	59	82

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.5	6.0	6.0	12.5	12.0	12.5	19.0	16.5	18.0	21.5	20.5	21.0
2	5.5	4.0	5.0	12.5	11.5	12.0	19.0	15.5	17.5	21.0	19.5	20.5
3	4.0	3.0	3.5	12.0	11.0	11.5	18.0	16.5	17.5	20.5	19.5	20.0
4	3.5	2.5	3.0	11.5	10.0	10.5	18.0	17.0	17.5	20.5	19.5	20.0
5	2.5	2.0	2.5	10.0	9.0	10.0	18.0	16.0	17.0	20.5	19.5	20.0
6	3.5	2.5	3.0	9.5	8.0	9.0	18.0	15.0	16.5	19.5	19.0	19.5
7	3.0	2.5	3.0	9.5	8.0	9.0	18.0	15.5	16.5	18.5	17.5	18.0
8	4.0	3.0	3.5	10.0	8.0	9.0	17.0	16.0	16.5	18.0	17.0	17.5
9	4.0	2.5	3.0	10.0	8.0	9.0	18.5	16.5	17.5	18.0	17.5	18.0
10	6.0	4.0	5.0	10.0	8.0	9.0	20.0	17.5	18.5	18.5	17.5	18.0
11	5.5	2.0	3.5	10.5	8.5	9.5	20.0	18.5	19.5	17.5	16.5	17.0
12	2.0	1.0	1.5	10.5	8.5	9.5	20.5	19.0	19.5	17.5	15.5	16.5
13	3.0	1.0	2.0	11.0	9.0	10.0	21.0	19.0	20.0	17.5	16.5	17.0
14	4.0	1.5	3.0	11.5	10.0	10.5	20.5	19.5	20.0	18.0	17.5	17.5
15	4.5	3.0	3.5	11.0	10.0	10.0	19.5	18.5	19.0	18.0	16.5	17.5
16	5.5	4.5	5.0	11.0	9.5	10.5	19.5	18.0	19.0	17.5	17.0	17.5
17	7.5	5.5	6.5	11.5	10.0	11.0	19.5	19.0	19.0	17.0	16.5	16.5
18	9.5	7.5	8.5	11.0	10.0	11.0	20.0	18.5	19.5	17.5	16.5	17.0
19	11.0	9.0	10.0	10.5	9.0	10.0	20.5	19.5	20.0	17.5	16.5	17.0
20	12.0	10.5	11.5	11.0	9.5	10.0	20.0	19.0	19.5	18.0	16.0	17.0
21	12.5	11.0	11.5	10.5	9.5	10.0	19.5	18.5	19.0	18.0	16.5	17.5
22	13.0	12.0	12.5	10.5	9.5	10.0	19.0	18.5	19.0	18.0	17.0	17.5
23	12.0	11.5	12.0	11.0	9.0	10.0	18.5	18.0	18.5	18.5	17.5	18.0
24	12.0	11.0	11.5	11.5	9.5	10.5	18.5	17.5	18.0	19.0	18.0	18.5
25	12.0	10.5	11.5	11.5	10.0	11.0	18.0	17.5	18.0	20.0	19.0	19.5
26	12.5	11.0	11.5	12.5	10.5	11.5	18.5	17.5	18.0	20.0	19.5	19.5
27	13.0	11.5	12.0	13.5	12.0	13.0	19.5	18.0	18.5	20.5	19.0	19.5
28	13.0	12.5	13.0	15.0	12.5	14.0	20.0	18.5	19.5	21.0	19.5	20.0
29	---	---	---	15.0	14.5	14.5	21.5	19.5	20.5	21.5	20.0	21.0
30	---	---	---	17.0	14.0	15.5	21.5	20.5	21.0	21.5	21.0	21.5
31	---	---	---	18.5	15.0	16.5	---	---	---	21.5	21.0	21.0
MONTH	13.0	1.0	6.5	18.5	8.0	11.0	21.5	15.0	18.5	21.5	15.5	18.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	21.0	21.0	26.0	25.0	25.5	26.0	25.0	25.5	24.5	23.0	24.0
2	22.0	21.0	21.5	26.0	24.5	25.5	26.5	24.5	25.5	24.5	24.0	24.0
3	22.5	21.5	22.0	26.0	25.0	25.5	26.5	25.0	25.5	25.0	24.0	24.5
4	23.0	22.0	22.5	26.5	25.0	26.0	27.5	25.0	26.5	24.5	24.0	24.5
5	23.0	22.5	23.0	26.0	25.0	25.5	28.0	25.5	27.0	24.0	23.5	24.0
6	23.0	22.5	23.0	26.0	25.0	25.5	28.0	25.5	27.0	24.5	23.5	24.0
7	23.5	22.5	23.0	26.0	25.0	25.5	27.0	25.5	26.5	24.5	23.5	24.0
8	24.0	23.0	23.5	26.0	25.0	25.5	27.5	25.5	26.5	24.5	24.0	24.0
9	25.0	23.5	24.5	26.5	25.5	26.0	27.0	25.5	26.5	24.0	23.0	23.5
10	25.0	24.5	24.5	27.5	26.5	27.0	27.5	25.5	26.5	23.5	22.0	23.0
11	25.0	24.5	24.5	27.5	25.5	27.0	27.5	25.5	27.0	23.5	22.0	23.0
12	25.0	24.0	24.5	28.5	26.5	27.5	28.0	26.0	27.0	23.5	22.0	23.0
13	26.0	24.5	25.0	28.5	27.5	28.0	27.5	25.5	27.0	24.0	22.5	23.0
14	26.5	25.0	26.0	28.5	27.5	28.0	28.0	26.0	27.0	23.5	23.0	23.5
15	27.0	25.5	26.0	29.0	27.5	28.0	28.0	26.5	27.5	23.5	23.0	23.5
16	27.0	26.0	26.5	29.0	27.0	28.5	28.5	27.0	27.5	23.0	22.5	23.0
17	26.5	25.5	26.0	29.0	28.0	28.5	27.5	26.0	27.0	22.0	20.5	21.0
18	26.5	25.0	26.0	29.5	27.0	28.5	26.0	25.0	25.5	20.5	19.5	20.0
19	26.0	25.0	25.5	29.0	27.0	28.5	25.0	24.0	24.5	19.5	18.5	19.0
20	26.5	24.5	25.5	29.5	27.0	28.5	24.5	23.5	24.0	19.5	18.0	18.5
21	27.0	25.5	26.5	29.0	25.5	27.5	24.5	23.5	24.0	19.5	18.0	18.5
22	27.5	26.0	26.5	28.5	27.0	28.0	25.0	23.5	24.5	20.0	18.5	19.0
23	27.5	25.5	26.5	28.0	26.0	27.0	25.0	23.5	24.5	20.5	19.0	19.5
24	28.0	26.0	27.0	27.5	25.5	26.5	25.5	24.0	25.0	20.0	18.5	19.5
25	28.5	27.0	27.5	27.0	26.0	26.0	26.5	24.5	25.5	20.0	18.5	19.5
26	27.5	23.0	25.5	28.0	26.0	27.0	26.0	24.5	25.5	20.5	19.5	20.0
27	27.5	25.5	26.5	28.0	27.0	27.5	25.5	25.0	25.0	21.0	20.0	20.5
28	27.0	25.5	26.0	27.5	26.5	27.0	25.5	24.5	25.0	21.5	20.5	21.0
29	27.0	25.5	26.5	27.0	25.5	---	25.5	23.5	24.5	21.0	19.5	20.0
30	26.5	25.5	26.0	26.0	24.5	25.5	26.0	24.5	25.0	21.0	19.5	20.0
31	---	---	---	26.0	24.5	25.5	25.5	23.0	24.5	---	---	---
MONTH	28.5	21.0	25.0	29.5	24.5	27.0	28.5	23.0	26.0	25.0	18.0	22.0

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 (6 m) downstream from bridge on U.S. Highways 70 and 79, 1.5 mi (2.4 km) upstream from Beaver Creek, 1.5 mi (2.4 km) northeast of Arlington, and at mile 30.4 (48.9 km).

DRAINAGE AREA.--262 mi² (679 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--12 years, 357 ft³/s (10.11 m³/s), 18.50 in/yr (470 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) Mar. 13, 1975, gage height, 24.96 ft (7.608 m); minimum, 66 ft³/s (1.87 m³/s) Apr. 6, 7, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,310 ft³/s (207 m³/s) at 0645 hours, June 7, gage height 20.84 ft (6.352), no other peak above base of 5,500 ft³/s (156 m³/s); minimum, 81 ft³/s (2.294 m³/s) Sept. 22-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	98	89	88	561	106	158	102	1820	135	101	422
2	93	98	88	89	593	105	128	101	749	142	101	286
3	93	98	88	89	147	103	120	101	253	100	101	115
4	93	98	87	89	121	1500	119	101	186	93	101	94
5	92	96	86	90	112	1090	129	101	1510	679	100	90
6	92	96	86	94	111	245	115	101	6000	120	116	89
7	92	96	86	101	109	144	111	101	5400	100	113	88
8	92	96	87	96	109	124	108	101	529	93	101	88
9	92	96	1180	93	107	116	356	101	139	89	100	87
10	92	96	210	93	139	112	173	107	117	88	100	86
11	92	96	110	93	287	110	122	103	108	87	100	86
12	92	96	99	93	128	107	113	101	120	87	100	86
13	92	96	94	93	111	105	108	101	100	87	100	86
14	92	115	91	94	108	105	105	116	98	86	100	85
15	92	140	91	93	107	104	102	104	97	86	100	85
16	92	104	90	93	122	104	102	102	96	86	100	85
17	101	2080	89	94	208	104	102	242	94	86	100	84
18	132	583	88	94	137	106	103	183	94	86	100	83
19	97	120	88	94	119	107	102	116	94	86	100	83
20	94	99	87	95	111	103	270	108	104	86	100	83
21	94	93	87	98	106	104	169	105	94	458	100	83
22	94	91	87	98	105	110	127	104	93	112	103	81
23	94	90	87	98	104	120	175	104	92	92	102	81
24	95	89	88	97	102	108	133	102	92	91	100	81
25	95	88	88	97	101	104	112	103	147	106	100	81
26	94	90	88	97	100	102	106	545	244	123	100	81
27	302	396	88	97	100	102	105	483	94	244	101	81
28	307	128	88	98	100	99	104	122	93	135	392	81
29	108	98	88	98	---	755	107	112	98	108	1110	81
30	100	91	88	97	---	3290	106	316	151	102	110	81
31	98	---	88	98	---	461	---	3830	---	101	285	---
TOTAL	3383	5751	3979	2931	4365	10055	3990	8219	18906	4174	4637	3103
MEAN	109	192	128	94.5	156	324	133	265	630	135	150	103
MAX	307	2080	1180	101	593	3290	356	3830	6000	679	1110	422
MIN	92	88	86	88	100	99	102	101	92	86	100	81
CFSM	.42	.73	.49	.36	.60	1.24	.51	1.01	2.41	.52	.57	.39
IN.	.48	.82	.56	.42	.62	1.43	.57	1.17	2.68	.59	.66	.44
CAL YR 1980	TOTAL	120910	MEAN 330	MAX 8290	MIN 86	CFSM 1.26	IN 17.17					
WTR YR 1981	TOTAL	73493	MEAN 201	MAX 6000	MIN 81	CFSM .77	IN 10.43					

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)		
		OCT 02...	1150	93	34	18.0	41	10		
		NOV 14...	1030	120	52	13.5	28	9.1		
		DEC 23...	1000	87	45	9.0	12	2.8		
		FEB 05...	0945	112	65	5.0	29	8.8		
		MAR 12...	1130	106	56	13.0	24	6.9		
		APR 22...	1130	115	68	14.0	80	25		
		JUN 04...	1015	161	82	16.0	325	141		
		JUL 14...	1235	86	49	23.0	46	11		
		AUG 25...	1130	100	47	21.0	37	10		
DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...	1000	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 12...	1130	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUN 04...	1015	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 14...	1235	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	.2
DATE	TIME	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 12...		<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUN 04...		<.01	--	.03	--	.01	--	<.01	<.01	--
JUL 14...		<.01	.3	<.01	1.2	<.01	<.1	<.01	<.01	<.1
DATE	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC 23...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 12...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUN 04...		<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 14...		<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01
DATE	TIME	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 23...		--	<.01	--	.00	--	.00	.00	.00	.00
MAR 12...		--	<.01	--	.00	--	.01	<.01	<.01	<.01
JUN 04...		--	<.01	--	<.10	--	<.01	<.01	<.01	<.01
JUL 14...		<.1	<.01	<.10	<.10	<1.0	<.01	<.01	<.01	<.01

LOOSAHATCHIE RIVER BASIN

07030295 LOOSAHATCHIE RIVER TRIBUTARY AT NEW ALLEN ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°14'17", long 89°57'04", Shelby County, Hydrologic Unit 08010209, on right bank at downstream end of bridge at the intersection of New Allen Road and Hawkins Mill Road in Memphis, 0.82 mi (1.32 km) east of Illinois Central Gulf Railroad, and 3.4 mi (5.5 km) east of U.S. Highway 51.

DRAINAGE AREA.--1.26 mi² (3.26 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 243 ft (74.1 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,550 ft³/s (43.9 m³/s) July 22, 1980, gage height 8.57 ft (2.612 m) from rating curve extended above 170 ft³/s (4.81 m³/s) on basis of slope-area measurement of peak flow; no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peaks above base of 175 ft³/s (4.96 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 30	1400	222 6.29	3.54 1.079	June 6	0315	201 5.69	3.38 1.030
May 31	0020	*329 9.32	4.24 1.292				

No flow several days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.05	.09	.08	7.3	1.5	.77	.16	2.9	.34	.02	.06
2	.02	.04	.08	.08	.91	.65	.53	.10	.73	.92	.02	.03
3	.01	.04	.08	.08	.33	.19	.59	.08	.52	.11	.02	.01
4	.01	.04	.08	.08	.32	11	1.4	.08	.34	.06	.03	.01
5	.01	.05	.08	.08	.28	.35	.59	.09	1.9	10	.03	.01
6	.01	.05	.08	4.6	.40	.32	.36	.08	37	.89	.25	.02
7	.01	.05	.08	.20	.42	.29	.35	.08	1.7	.05	.05	.02
8	.01	.04	3.3	.08	.67	.26	.24	.10	.61	.04	.02	.02
9	.01	.04	8.3	.08	.37	.23	7.8	.57	.28	.05	.02	.02
10	.01	.04	.54	.08	.48	.20	.95	2.0	.15	.05	.02	.02
11	.01	.03	.29	.07	1.5	.16	.60	.24	.11	.06	.02	.02
12	.01	.05	.21	.07	.28	.16	.46	.11	.11	.07	.02	.02
13	.01	.05	.14	.06	.28	.16	.27	.11	.11	.08	.02	.02
14	.01	16	.10	.06	.28	.11	.18	1.3	.08	.06	.01	.02
15	.01	1.9	.08	.05	.28	.15	.15	.15	.06	.06	.01	.09
16	.02	.41	.08	.05	.75	.14	.20	.35	.06	.06	.02	.04
17	4.2	20	.08	.04	.28	.10	.16	7.1	.07	.06	.02	.01
18	.17	.95	.08	.04	.28	1.4	.15	.67	.08	.06	.01	.01
19	.01	.35	.08	.04	.28	.33	.14	.24	.10	.08	.01	.01
20	.01	.15	.08	.29	.28	.16	.14	.14	.08	.09	.01	.01
21	.02	.10	.08	.26	.28	.22	.08	.11	.08	1.3	.00	.01
22	.01	.08	.08	.06	.30	2.4	1.3	.13	.06	.04	.00	.01
23	.02	.20	.08	.04	.20	.55	2.0	.11	.06	.04	.01	.01
24	.01	.11	.20	.04	.19	.27	.29	.08	.06	.04	.01	.03
25	.01	.08	.08	.03	.18	.16	.16	1.8	.39	.63	.01	.02
26	.01	4.1	.08	.03	.17	.19	.16	13	.11	.09	.02	.02
27	8.7	2.4	.08	.03	.16	.16	.16	.20	.06	.03	.03	.02
28	.22	.40	.08	.03	.16	.16	.16	.13	.07	.10	.02	.02
29	.07	.15	.08	.02	---	30	.41	.12	.08	.03	.01	.02
30	.05	.11	.08	.10	---	4.9	.11	28	.48	.03	.01	.02
31	.05	---	.08	.04	---	1.2	---	42	---	.02	.48	---
TOTAL	13.74	48.06	14.93	6.89	17.61	58.07	20.86	99.43	48.44	15.54	1.23	.65
MEAN	.44	1.60	.48	.22	.63	1.87	.70	3.21	1.61	.50	.040	.022
MAX	8.7	20	8.3	4.6	7.3	30	7.8	42	37	10	.48	.09
MIN	.01	.03	.08	.02	.16	.10	.08	.08	.06	.02	.00	.01
CFSM	.35	1.27	.38	.18	.50	1.48	.56	2.55	1.28	.40	.03	.02
IN.	.41	1.42	.44	.20	.52	1.71	.62	2.93	1.43	.46	.04	.02

CAL YR 1980 TOTAL 658.92 MEAN 1.80 MAX 110 MIN .00 CFSM 1.43 IN 19.44
WTR YR 1981 TOTAL 345.45 MEAN .95 MAX 42 MIN .00 CFSM .75 IN 10.19

WOLF RIVER BASIN

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07031650 WOLF RIVER AT GERMANTOWN, TN

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, Hydrologic Unit 08010210, on left bank at bridge on Germantown Road at Germantown, 3.6 mi (5.8 km) downstream from Grays Creek, 6.4 mi (10.3 km) upstream from Fletcher Creek, at at mile 18.9 (30.4 km).

DRAINAGE AREA.--699 mi² (1,810 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Published as "near Germantown" prior to 1978.

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft (71.860 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records good.

AVERAGE DISCHARGE.--12 years, 1,023 ft³/s (28.97 m³/s), 19.87 in/yr (505 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft³/s (946 m³/s) Mar. 14, 1975, gage height, 27.98 ft (8.528 m); minimum, 190 ft³/s (5.38 m³/s) Sept. 15, 16, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,240 ft³/s (177 m³/s) at 0100 hours Mar. 30, gage height 13.12 ft (3.999 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum, 221 ft³/s (6.26 m³/s) Aug. 17, 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	431	454	562	357	1070	663	2060	454	1480	364	269	1130
2	417	458	555	350	1300	628	1710	416	1440	322	257	1560
3	407	445	520	349	1050	581	1650	389	1020	310	300	1770
4	398	411	478	334	804	1900	1770	374	886	314	275	2020
5	377	383	449	336	739	1940	1660	361	1110	389	245	1430
6	352	369	423	374	770	1740	1040	353	4010	387	389	666
7	341	355	402	408	776	1250	762	345	5220	419	451	535
8	329	341	414	420	717	920	674	337	3820	445	266	469
9	326	344	1090	407	654	817	1020	335	2840	492	248	416
10	315	336	574	383	758	743	1030	398	2350	506	238	376
11	311	336	544	380	1080	682	941	361	1580	464	239	346
12	300	336	486	376	1040	591	842	357	993	383	239	326
13	296	330	451	368	1010	544	758	355	785	331	236	311
14	293	559	429	361	1000	513	709	450	677	303	231	299
15	292	725	427	353	977	493	648	415	563	286	227	298
16	289	613	414	343	979	486	590	402	479	303	224	305
17	347	1640	394	332	947	484	549	680	430	275	222	312
18	424	1250	385	324	768	496	528	625	399	261	234	309
19	382	1280	373	331	706	506	507	553	373	286	243	298
20	369	1110	349	346	660	498	515	499	365	269	246	287
21	367	985	334	380	626	487	587	489	364	841	241	278
22	404	894	338	398	614	611	644	517	347	697	232	272
23	431	849	344	400	595	672	660	516	326	504	231	266
24	425	722	348	391	563	623	595	472	310	375	231	262
25	405	585	350	394	537	585	567	442	295	403	232	258
26	385	508	357	404	520	562	538	1220	306	558	230	256
27	640	842	353	398	511	555	535	694	304	327	240	256
28	651	729	356	395	529	542	549	537	275	298	330	253
29	517	662	367	385	---	1460	539	549	261	296	613	249
30	462	589	368	379	---	3250	488	607	269	292	434	247
31	438	---	369	377	---	2230	---	1600	---	280	634	---
TOTAL	12121	19440	13603	11533	22300	28052	25665	16102	33881	11980	8927	16060
MEAN	391	648	439	372	796	905	856	519	1129	386	288	535
MAX	651	1640	1090	420	1300	3250	2060	1600	5220	841	634	2020
MIN	289	330	334	324	511	484	488	335	261	261	222	247
CFSM	.56	.93	.63	.53	1.14	1.30	1.23	.74	1.62	.55	.41	.77
IN.	.65	1.03	.72	.61	1.19	1.49	1.37	.86	1.80	.64	.48	.85

CAL YR 1980	TOTAL	424565	MEAN	1160	MAX	18000	MIN	253	CFSM	1.66	IN	22.59
WTR YR 1981	TOTAL	219664	MEAN	602	MAX	5220	MIN	222	CFSM	.86	IN	11.69

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

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

. WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
06...	1145	362	55	16.0	42	41	--
NOV							
12...	1145	340	74	12.0	80	73	94
DEC							
23...	1230	344	40	4.0	27	25	--
FEB							
04...	1400	735	44	4.0	89	177	77
MAR							
11...	1200	653	41	12.0	94	166	--
APR							
23...	1400	641	65	20.0	172	298	--
JUN							
04...	1415	812	--	--	325	712	--
JUL							
13...	1030	335	58	27.0	93	84	--
AUG							
11...	1115	241	39	26.0	76	49	--
SEP							
22...	1200	268	42	19.5	45	33	--

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...	1230	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 11...	1200	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUN 04...	1415	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 13...	1030	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	<.1

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 11...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUN 04...	<.01	--	.01	--	<.01	--	<.01	<.01	--
JUL 13...	<.01	<.1	<.01	.2	<.01	<.1	<.01	<.01	<.1

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL (UG/L)
DEC 23...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 11...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUN 04...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 13...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01

DATE	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 23...	--	<.01	--	.00	--	.00	.00	.00	.00
MAR 11...	--	<.01	--	.00	--	.03	<.01	<.01	<.01
JUN 04...	--	<.01	--	<.10	--	.01	<.01	<.01	<.01
JUL 13...	<.1	<.01	<.10	<.10	<1.0	<.01	<.01	<.01	<.01

WOLF RIVER BASIN

07031680 FLETCHER CREEK NEAR CORDOVA, TN

LOCATION.--Lat 35°11'21", long 89°45'42", Shelby County, Hydrologic Unit 08010210, on right bank at upstream side of bridge at Berryhill Road, 1.3 mi (2.1 km) south of U.S. Highway 64, and 2.5 mi (4.0 km) north of Cordova.

DRAINAGE AREA.--1.45 mi² (3.76 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 319 ft (97 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years (water years 1975-81), 2.57 ft³/s (0.073 m³/s), 24.07 in/yr (611 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 740 ft³/s (21.0 m³/s) Mar. 12, 1975, gage height, 13.00 ft (3.962 m), from graphic comparison with nearby stations; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 29	1920	312 8.84	8.83 2.691	June 6	0415	*329 9.32	8.97 2.734

No flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	28	3.0	.46	.00	5.5	1.2	.00	.04
2	.00	.00	.00	.00	2.0	.80	.21	.00	1.3	.00	.00	4.5
3	.00	.00	.00	.00	.40	.18	.14	.00	.44	.00	.00	.00
4	.00	.00	.00	.00	.14	35	.43	.00	1.2	.00	.00	.00
5	.00	.00	.00	.00	.10	9.0	.23	.00	6.5	2.3	.00	.00
6	.00	.00	.00	5.0	.08	.70	.07	.00	57	.00	.00	.00
7	.00	.00	.00	.11	.08	.20	.08	.00	.44	.00	.00	.00
8	.00	.00	5.7	.00	.18	.10	.10	.00	.00	.00	.00	.00
9	.00	.00	30	.00	.07	.08	1.5	.00	.00	.00	.00	.00
10	.00	.00	.05	.00	9.8	.07	.16	2.2	.00	.00	.00	.00
11	.00	.00	.00	.00	2.9	.06	.06	.10	.00	.00	.00	.00
12	.00	.00	.00	.00	.16	.05	.04	.01	.00	.00	.00	.00
13	.00	.00	.00	.00	.11	.30	.03	.00	.00	.00	.00	.00
14	.00	13	.00	.00	.12	.30	.03	3.3	.00	.00	.00	.00
15	.00	1.6	.00	.00	.13	.31	.02	.02	.00	.00	.00	.00
16	.00	.00	.00	.00	8.6	.65	.02	.02	.00	.00	.00	.00
17	5.9	32	.00	.00	3.4	.36	.01	19	.00	.00	.00	.00
18	.02	.16	.00	.00	.69	3.6	.02	1.1	.00	.00	.00	.00
19	.00	.00	.00	.00	.29	.21	.02	.09	.00	.00	.00	.00
20	.00	.00	.00	.45	.15	.05	.03	.03	.00	.00	.00	.00
21	.00	.00	.00	.95	.10	.11	.02	.01	.00	16	.00	.00
22	.00	.00	.00	.04	.40	7.3	.19	.00	.00	.00	.00	.00
23	.00	.00	.00	.02	.13	1.1	1.7	.00	.00	.00	.00	.00
24	.00	.00	.75	.01	.07	.18	.04	.00	.00	.00	.00	.00
25	.00	.00	.02	.00	.06	.09	.01	6.7	.00	.00	.00	.00
26	.00	8.2	.01	.00	.05	.03	.00	33	.00	.00	.00	.00
27	21	6.9	.00	.00	.04	.03	.00	.49	.00	.00	.00	.00
28	1.4	.01	.00	.00	2.0	.05	.00	.06	.00	.00	15	.00
29	.01	.00	.00	.00	---	56	.28	.02	.00	.00	.08	.00
30	.00	.00	.00	.02	---	12	.01	2.7	2.7	.00	.00	.00
31	.00	---	.00	.01	---	1.5	---	30	---	.00	3.3	---
TOTAL	28.33	61.87	36.53	6.61	60.25	133.41	5.91	98.85	75.08	19.50	18.38	4.54
MEAN	.91	2.06	1.18	.21	2.15	4.30	.20	3.19	2.50	.63	.59	.15
MAX	21	32	30	5.0	28	56	1.7	33	57	16	15	4.5
MIN	.00	.00	.00	.00	.04	.03	.00	.00	.00	.00	.00	.00
CFSM	.63	1.42	.81	.15	1.48	2.97	.14	2.20	1.72	.43	.41	.10
IN.	.73	1.59	.94	.17	1.54	3.42	.15	2.53	1.92	.50	.47	.12

CAL YR 1980 TOTAL 826.53 MEAN 2.26 MAX 85 MIN .00 CFSM 1.56 IN 21.19
WTR YR 1981 TOTAL 549.26 MEAN 1.50 MAX 57 MIN .00 CFSM 1.03 IN 14.08

WOLF RIVER BASIN

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07031683 FLETCHER CREEK AT WHITTEN ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°11'16", long 89°50'09", Shelby County, Hydrologic Unit 08010210, on left bank at upstream end of bridge on Whitten Road, 0.9 mi (1.45 km) north of I-40 and 1.0 mi (1.6 km) south of U.S. Highway 70.

DRAINAGE AREA.--21.4 mi² (55.4 km²).

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

REVISED RECORDS.--WRD TN-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (73.2 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,160 ft³/s (203 m³/s) Apr. 2, 1979, gage height, 18.46 ft (5.627 m); no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 29	2015	3740 106	14.67 4.471	May 31	0200	2040 57.8	12.25 3.734
May 26	0030	2780 78.7	13.50 4.115	June 6	0455	*3880 110	14.82 4.517

No flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.09	.10	.25	504	45	7.1	.14	122	5.0	.00	3.4
2	.00	.07	.07	.22	42	5.8	3.8	.03	26	4.0	.00	28
3	.00	.05	.05	.23	6.0	2.5	2.2	.00	5.5	.68	.00	.21
4	.00	.04	.04	.23	2.8	523	4.9	.00	53	.39	.01	.00
5	.00	.03	.03	.15	1.4	242	3.8	.00	103	72	.00	.00
6	.00	.02	.03	67	2.0	18	1.2	.00	981	16	4.4	.00
7	.00	.02	.03	7.8	2.9	7.2	.87	.00	44	.72	.54	.00
8	.00	.02	60	.86	4.7	3.7	.27	.00	6.1	.35	.06	.00
9	.00	.02	450	.58	1.6	2.0	50	.00	1.3	.31	.00	.00
10	.00	.02	40	.35	133	1.5	1.9	74	.74	.32	.00	.00
11	.00	.05	8.0	.37	50	1.1	.60	8.1	.45	.24	.00	.00
12	.00	.04	.90	.16	3.5	.86	.30	1.1	.51	.01	.00	.00
13	.00	.09	.40	.21	2.0	.70	.18	.00	.12	.00	.00	.00
14	.00	120	.20	.30	1.6	.64	.10	75	.03	.00	.00	.00
15	.00	25	.15	.26	2.0	1.1	.06	.87	.00	.00	.00	.00
16	.00	.50	.10	.21	59	1.6	.04	2.3	.00	.00	.00	.00
17	136	600	.10	.11	30	.68	.18	315	.16	.00	.07	.00
18	2.0	100	.09	.11	8.2	36	.20	25	.17	.00	.09	.00
19	.03	5.0	.08	.17	4.3	7.0	.18	4.4	2.6	.00	.00	.00
20	.02	.50	.07	6.4	2.4	2.1	2.0	2.7	1.4	.33	.00	.00
21	.01	.20	.07	12	1.4	1.2	.25	4.2	.61	271	.00	.00
22	.01	.10	.07	1.4	4.8	119	.11	.65	.48	.36	.00	.00
23	.01	.08	.36	.77	1.9	25	38	.18	.48	.04	.00	.00
24	.01	.06	1.8	.82	.94	6.3	2.6	.75	.50	.02	.00	.00
25	.01	.05	.42	.52	.70	2.9	.33	145	.09	14	.00	.00
26	.01	100	.34	.48	.67	1.5	.11	827	.00	.32	1.2	.00
27	450	100	.37	.42	.87	.94	.16	16	.00	.00	.13	.00
28	60	2.5	.27	.33	31	.76	.05	2.4	.00	.13	88	.00
29	5.0	.40	.29	.34	---	820	13	.47	.00	.29	5.7	.00
30	.20	.20	.29	.79	---	269	.32	90	1.8	.00	.00	.00
31	.12	---	.28	.59	---	22	---	597	---	.00	33	---
TOTAL	653.43	1055.15	565.00	104.43	905.68	2171.08	145.70	2192.29	1352.04	386.51	133.20	31.61
MEAN	21.1	35.2	18.2	3.37	32.3	70.0	4.86	70.7	45.1	12.5	4.30	1.05
MAX	450	600	450	67	504	820	50	827	981	271	88	28
MIN	.00	.02	.03	.11	.67	.64	.04	.00	.00	.00	.00	.00
CFSM	.99	1.65	.85	.16	1.51	3.27	.23	3.30	2.11	.58	.20	.05
IN.	1.14	1.83	.98	.18	1.57	3.77	.25	3.81	2.35	.67	.23	.05

CAL YR 1980	TOTAL	13673.49	MEAN	37.4	MAX	1520	MIN	.00	CFSM	1.75	IN	23.77
WTR YR 1981	TOTAL	9696.12	MEAN	26.6	MAX	981	MIN	.00	CFSM	1.24	IN	16.85

WOLF RIVER BASIN

07031777 LICK CREEK AT DICKINSON STREET AT MEMPHIS, TN

LOCATION.--Lat 35°09'24", long 90°00'12", Shelby County, Hydrologic Unit 08010210, on right bank 100 ft (30 m) upstream from bridge on Dickinson Street, and 1,200 ft (366 m) south of Jackson Avenue in Memphis.

DRAINAGE AREA.--2.96 mi² (7.67 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 234 ft (71 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years (water years 1976-81), 6.02 ft³/s (0.170 m³/s), 27.62 in/yr (702 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) Aug. 10, 1978, gage height, 12.29 ft (3.746 m); minimum, 0.05 ft³/s (0.001 m³/s) July 27, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft³/s (15.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 22	1050	552 15.6	7.54 2.298	July 5	0410	825 23.4	8.97 2.734
May 25	2205	563 15.9	7.60 2.316	Aug. 31	1110	*931 26.4	9.47 2.886

Minimum discharge, 0.15 ft³/s (0.004 m³/s) Sept. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.90	2.4	1.4	35	2.0	2.0	4.2	2.3	5.2	3.2	9.1
2	2.4	1.4	2.5	1.6	2.4	.86	2.3	2.5	2.4	3.8	4.1	2.3
3	1.9	1.4	2.0	1.4	1.8	1.0	2.7	2.2	6.4	4.0	4.7	.76
4	2.2	1.2	1.7	1.4	1.6	39	11	2.4	5.4	3.9	3.7	.74
5	2.3	1.8	1.5	1.4	1.4	8.4	3.0	2.5	19	44	3.9	.84
6	1.8	2.0	1.4	21	1.4	3.9	2.7	2.5	40	2.7	21	.70
7	.79	2.0	1.7	1.2	4.6	3.0	1.8	2.5	1.5	2.1	5.6	.92
8	1.2	2.4	37	.89	2.9	2.8	2.3	1.6	2.0	2.5	2.6	.76
9	2.0	2.5	16	1.0	1.8	2.8	12	19	1.3	2.6	3.1	.69
10	2.5	2.8	2.0	1.1	20	2.5	1.9	24	1.2	2.4	2.0	.71
11	2.5	1.4	1.8	1.2	2.3	2.5	1.9	2.0	1.7	2.6	2.3	.62
12	2.5	1.5	1.6	1.3	1.4	2.6	2.0	1.1	1.8	2.7	1.6	.96
13	2.4	1.3	1.8	2.1	1.4	2.6	2.2	1.2	2.1	2.8	2.0	1.3
14	2.2	45	1.8	2.8	1.5	3.3	1.6	13	2.1	2.7	2.0	1.2
15	1.9	3.3	1.6	2.3	1.3	6.2	1.9	1.8	2.4	3.3	2.2	.86
16	1.8	2.6	1.4	2.4	6.9	4.7	1.8	6.5	2.6	3.6	2.2	.93
17	31	60	1.3	2.6	1.6	3.8	3.3	26	2.1	2.7	7.5	1.0
18	1.9	2.5	1.4	2.6	1.5	17	1.6	3.0	1.9	1.9	9.0	.80
19	1.7	1.7	1.4	2.5	1.4	3.1	2.9	2.0	2.2	2.2	2.5	1.1
20	2.1	1.5	1.4	7.8	1.1	2.6	36	1.8	2.9	3.1	2.2	1.7
21	1.3	1.9	1.4	2.9	1.0	3.3	1.4	2.1	3.3	22	1.8	1.5
22	1.2	1.9	1.4	1.3	3.0	17	23	1.7	3.4	2.5	1.8	1.4
23	1.2	4.1	1.4	1.6	1.1	3.0	19	1.7	3.2	2.8	1.9	1.4
24	4.9	1.6	7.8	1.6	1.0	2.6	2.4	1.6	3.1	2.8	2.1	1.2
25	1.1	1.5	1.4	1.3	1.8	2.5	2.1	26	6.0	3.3	7.7	1.1
26	1.5	26	1.7	1.6	1.6	3.9	2.0	36	2.5	3.2	1.6	.69
27	53	6.3	1.8	2.2	1.0	2.9	2.7	1.8	2.5	3.1	1.5	1.3
28	1.5	2.6	1.6	2.4	17	2.0	2.3	2.1	3.3	4.6	3.4	1.4
29	.88	2.3	1.4	1.6	---	59	12	2.3	3.7	3.1	1.7	.92
30	.81	2.2	1.5	3.9	---	4.4	2.7	6.0	14	2.7	1.5	1.3
31	.77	---	1.3	2.2	---	2.0	---	20	---	3.0	46	---
TOTAL	137.75	189.60	106.4	82.59	120.8	217.26	166.5	223.1	148.3	153.9	158.4	40.20
MEAN	4.44	6.32	3.43	2.66	4.31	7.01	5.55	7.20	4.94	4.96	5.11	1.34
MAX	53	60	37	21	35	59	36	36	40	44	46	9.1
MIN	.77	.90	1.3	.89	1.0	.86	1.4	1.1	1.2	1.9	1.5	.62
CFSM	1.50	2.14	1.16	.90	1.46	2.37	1.88	2.43	1.67	1.68	1.73	.45
IN.	1.73	2.38	1.34	1.04	1.52	2.73	2.09	2.80	1.86	1.93	1.99	.51

CAL YR 1980 TOTAL 2373.59 MEAN 6.49 MAX 340 MIN .10 CFSM 2.19 IN 29.82
WTR YR 1981 TOTAL 1744.80 MEAN 4.78 MAX 60 MIN .62 CFSM 1.62 IN 21.92

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN
(National stream-quality accounting and pesticide station)

LOCATION.--Lat 35°07'37", long 90°04'25", Shelby County, Hydrologic Unit 08010100, on left bank 50 ft (15 m) downstream from Harahan Bridge at Memphis, 1.3 mi (2.1 km) downstream from Beale Street gage, 3.5 mi (5.6 km) downstream from Wolf River, 62.4 mi (100.4 km) upstream from St. Francis River, and at mile 734.8 (1,182.3 km).

DRAINAGE AREA.--932,800 mi² (2,416,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: January 1933 to current year. Monthly discharge only for some periods, published in WSP 1311.

Gage heights: October 1934 to September 1951 and October 1952 to September 1978 in reports of Geological Survey. Since November 1871, at Beale Street gage, in reports of Mississippi River Commission, December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at nonrecording gage 1,000 ft (305 m) downstream, and since December 1934 at water-stage recorder at present site, in reports of National Weather Service.

REVISED RECORDS.--WDR TN-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 183.91 ft (56.056 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1934, Beale Street nonrecording gage 1.3 mi (2.1 km) upstream at present datum. Apr. 16 to Dec. 21, 1934, nonrecording gage 1,000 ft (305 m) downstream at present datum.

REMARKS.--Flow regulated by many locks, dams, and reservoirs upstream.

COOPERATION.--Records furnished by Corps of Engineers.

AVERAGE DISCHARGE.--46 years, 474,700 ft³/s (13,400 m³/s), 343,900,000 acre-ft/yr (424 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980,000 ft³/s (56,100 m³/s) Feb. 8, 1937; maximum gage height, 48.69 ft (14.841 m) Feb. 10, 1937; minimum discharge, 79,200 ft³/s (2,240 m³/s) Aug. 26, 1936; minimum gage height, -5.70 ft (-1.737 m) Sept. 21, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1937, 46.55 ft (14.188 m) Apr. 9, 1913, at Beale Street gage or about 45.2 ft (13.78 m) at present site.

EXTREMES FOR 1979 WATER YEAR.--Maximum discharge, 1,540,000 ft³/s (43,600 m³/s) Apr. 21; maximum gage height, 39.24 ft (11.96 m) Apr. 24; minimum daily discharge, 170,000 ft³/s (4,810 m³/s) Nov. 15.

NOTE.--Records for 1980 and 1981 water years were not available in time for inclusion in this report. These records will be published in a subsequent report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340000	228000	401000	632000	923000	1000000	1140000	1240000	592000	483000	575000	577000
2	332000	239000	429000	612000	915000	1050000	1190000	1170000	611000	464000	607000	599000
3	310000	234000	464000	612000	898000	1100000	1210000	1100000	634000	438000	625000	605000
4	285000	216000	489000	637000	866000	1170000	1250000	1070000	658000	400000	629000	606000
5	269000	199000	484000	679000	816000	1200000	1270000	1040000	665000	388000	634000	603000
6	259000	189000	509000	726000	743000	1240000	1300000	970000	659000	390000	632000	597000
7	249000	181000	571000	763000	663000	1270000	1320000	1000000	643000	389000	617000	576000
8	241000	175000	649000	787000	586000	1320000	1350000	1000000	609000	389000	587000	541000
9	236000	174000	702000	805000	523000	1370000	1390000	1010000	581000	388000	559000	507000
10	231000	175000	741000	823000	481000	1420000	1410000	1020000	567000	400000	538000	480000
11	222000	175000	788000	838000	444000	1480000	1430000	1020000	535000	407000	518000	457000
12	219000	176000	840000	853000	409000	1500000	1460000	1030000	535000	408000	504000	438000
13	218000	174000	879000	859000	387000	1510000	1460000	1030000	542000	403000	491000	427000
14	217000	171000	909000	861000	371000	1530000	1460000	1020000	552000	403000	475000	422000
15	221000	170000	930000	848000	360000	1520000	1450000	988000	554000	412000	478000	411000
16	234000	174000	947000	835000	348000	1500000	1460000	946000	544000	416000	478000	406000
17	251000	181000	957000	807000	341000	1490000	1480000	901000	531000	421000	483000	422000
18	261000	195000	963000	769000	342000	1470000	1490000	847000	516000	425000	486000	481000
19	266000	217000	970000	723000	350000	1450000	1510000	802000	498000	427000	476000	557000
20	272000	246000	974000	698000	369000	1440000	1530000	774000	456000	429000	450000	604000
21	276000	285000	981000	674000	401000	1430000	1540000	746000	440000	426000	415000	638000
22	261000	318000	974000	659000	442000	1400000	1540000	724000	419000	423000	368000	631000
23	235000	343000	964000	675000	498000	1390000	1540000	701000	405000	420000	342000	604000
24	222000	354000	941000	715000	553000	1360000	1530000	671000	409000	415000	346000	582000
25	209000	347000	897000	748000	634000	1320000	1490000	632000	426000	404000	385000	574000
26	199000	324000	849000	783000	741000	1280000	1470000	595000	439000	398000	428000	592000
27	192000	318000	794000	820000	844000	1240000	1430000	574000	459000	404000	470000	625000
28	184000	322000	745000	853000	928000	1210000	1380000	562000	479000	417000	503000	647000
29	182000	347000	704000	884000	---	1180000	1350000	566000	479000	430000	523000	652000
30	192000	375000	669000	900000	---	1160000	1300000	570000	484000	460000	541000	651000
31	209000	---	643000	916000	---	1140000	---	576000	---	521000	562000	---
TOTAL	7494000	7222000	23757000	23794000	16176000	41140000	42130000	26895000	15921000	12998000	15725000	16512000
MEAN	241700	240700	766400	767500	577700	1327000	1404000	867600	530700	419300	507300	550400
MAX	340000	375000	981000	916000	928000	1530000	1540000	1240000	665000	521000	634000	652000
MIN	182000	170000	401000	612000	341000	1000000	1140000	562000	405000	388000	342000	406000
AC-FT	14860000	14320000	47120000	47200000	32090000	81600000	83560000	53350000	31580000	25780000	31190000	32750000
CAL YR 1978	TOTAL	192550000	MEAN	527500	MAX	1320000	MIN	170000	AC-FT	381900000		
WTR YR 1979	TOTAL	249764000	MEAN	684300	MAX	1540000	MIN	170000	AC-FT	495400000		

MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1973 to current year.

PERIOD DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1973 to September 1981 (discontinued).

WATER TEMPERATURES: February 1973 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 571 micromhos July 30, 1977; minimum daily, 174 micromhos Feb. 7, 1979.

WATER TEMPERATURES: Maximum daily, 32.0°C July 22, 24, 1981; minimum daily, 0.0°C Jan. 12, 13, 14, 17, 18, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 524 micromhos December 8; minimum daily, 270 micromhos March 4.

WATER TEMPERATURES: Maximum daily, 32.0°C July 22, 24; minimum daily, 0.0°C January 12, 13, 14, 17, 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
DATE	TIME											
OCT 21...	0800	158000	441	8.0	17.0	5.3	8.3	600	240	170	35	
DEC 04...	0915	296000	495	8.1	10.0	34	12.0	K89	K36	180	68	
16...	1330	344000	460	8.3	6.5	36	13.2	K350	K24	170	48	
JAN 20...	1600	106000	500	8.5	1.5	1.8	13.2	K4700	960	200	47	
FEB 17...	1215	299000	387	8.2	3.0	52	12.6	700	360	130	45	
MAR 17...	1445	354000	385	8.1	8.0	57	10.6	K44	K36	140	55	
APR 07...	1230	307000	376	8.2	15.0	60	8.0	K2900	300	130	42	
MAY 05...	1400	429000	391	7.9	19.5	56	7.5	K6200	350	150	51	
JUN 03...	0900	691000	358	7.7	21.5	160	6.6	390	K340	150	71	
JUL 08...	0930	559000	378	8.0	26.5	150	6.1	870	200	150	51	
AUG 04...	1530	646000	309	8.0	27.0	170	7.7	500	240	110	20	
SEP 02...	0915	240000	444	8.2	23.5	34	7.3	670	400	170	40	
		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
DATE												
OCT 21...	43	14	28	26	.9	3.5	130	78	18	.1	5.4	
DEC 04...	45	16	31	27	1.0	3.6	110	90	26	.1	4.1	
16...	41	16	26	25	.9	2.9	120	71	22	.3	4.6	
JAN 20...	51	17	29	24	.9	2.9	150	80	18	.3	6.3	
FEB 17...	37	10	21	25	.8	2.3	89	61	21	.2	4.5	
MAR 17...	37	11	17	21	.6	2.9	85	59	20	.2	5.9	
APR 07...	35	11	18	22	.7	2.8	88	59	15	.2	3.2	
MAY 05...	40	12	16	19	.6	2.9	99	57	15	.2	6.2	
JUN 03...	40	12	14	16	.5	5.8	79	55	15	.2	5.9	
JUL 08...	40	12	19	21	.7	2.3	99	56	19	.3	7.0	
AUG 04...	31	8.7	15	22	.7	2.9	90	44	14	.5	7.1	
SEP 02...	43	15	21	21	.8	3.5	130	63	17	.2	6.8	

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

MISSISSIPPI RIVER MAIN STEM

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07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 21...	289	272	.39	123000	.82	.84	.030	.020	1.1	1.1	1.1
DEC 04...	305	286	.41	244000	1.1	1.0	--	.170	1.4	.82	.99
16...	277	261	.38	257000	1.2	1.2	--	.200	1.8	.72	.92
JAN 20...	310	301	.42	88700	1.2	1.3	.290	.210	.81	.72	.93
FEB 17...	221	215	.30	178000	.91	.90	--	.320	.91	.19	.51
MAR 17...	221	215	.30	211000	2.1	2.4	--	.310	1.6	1.2	1.5
APR 07...	218	199	.30	181000	1.1	.34	.140	.130	1.1	.86	.99
MAY 05...	232	218	.32	269000	--	2.1	--	.100	--	1.1	1.2
JUN 03...	215	207	.29	401000	2.8	2.7	.050	--	1.7	--	1.2
JUL 08...	249	230	.34	376000	2.4	2.6	.090	.100	2.0	1.5	1.6
AUG 04...	188	182	.26	328000	.98	.97	--	.230	1.9	1.3	1.5
SEP 02...	260	253	.35	168000	1.7	1.3	.160	.140	1.4	1.3	1.4

DATE	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	1.9	.450	.440	--	5.9	1.7	15000	159	67800	94
DEC 04...	2.5	.100	.090	7.2	--	--	17000	71	56700	85
16...	3.0	.220	.090	22	--	--	--	96	89200	63
JAN 20...	2.3	.200	.060	--	6.0	1.7	--	25	7160	91
FEB 17...	2.1	.140	.070	25	--	--	--	78	63000	91
MAR 17...	3.8	.220	.070	8.7	--	--	5300	112	107000	90
APR 07...	2.3	.230	.090	--	11	.9	--	93	77100	89
MAY 05...	--	.230	.100	15	--	--	7500	115	133000	96
JUN 03...	4.5	.340	.080	10	--	--	4100	287	535000	92
JUL 08...	4.5	.440	.100	--	6.7	1.7	4300	367	554000	91
AUG 04...	2.9	.440	.100	13	--	--	--	286	499000	96
SEP 02...	3.3	.200	.090	5.8	--	--	--	96	62200	94

MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
OCT 21...	0800	3	2	200	200	1	<1	10	10	0
JAN 20...	1600	2	1	100	70	0	<1	10	0	0
APR 07...	1230	1	1	--	50	0	<1	20	10	2
JUL 08...	0930	8	1	--	1200	0	<1	10	10	4

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 21...	<3	31	16	3800	20	7	2	250	3	.1
JAN 20...	<3	7	1	1200	30	26	2	110	40	.3
APR 07...	<3	7	5	3000	70	3	0	140	5	.1
JUL 08...	<3	90	15	10000	30	11	5	420	6	.2

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 21...	.1	9	2	0	0	0	0	--	150
JAN 20...	.3	8	6	0	0	1	1	30	6
APR 07...	.0	10	5	5	0	1	0	80	6
JUL 08...	.4	13	8	1	1	1	1	--	440

MISSISSIPPI RIVER MAIN STEM

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07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 21,80	DEC 3,80	MAY 17,81	MAY 5,81	JUN 3,81	JUL 9,81
TIME	0800	0915	1445	1400	0900	0930
TOTAL CELLS/ML	15000	17000	5300	7500	4100	4300
DIVERSITY: DIVISION	1.5	1.0	1.0	1.7	1.6	1.5
...CLASS	1.5	1.0	1.0	1.7	1.6	1.5
...ORDER	2.0	1.3	1.6	2.2	2.1	2.2
...FAMILY	2.1	1.5	2.0	2.6	2.5	2.3
...GENUS	3.2	2.5	2.5	3.3	3.1	2.7

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
...HYDRODICTYACEAE												
...PEDIASTRUM	300	2	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE												
...MICRACTINIUM	--	-	670	4	280	5	140	2	220	5	*	0
...OOCYSTACEAE												
...ANKISTRODESMUS	*	0	200	1	210	4	280	4	84	2	--	-
...DICTYOSPHAERIUM	--	-	--	-	--	-	730	10	--	-	--	-
...FRANCEIA	*	0	--	-	--	-	--	-	*	0	--	-
...KIRCHNERIELLA	--	-	--	-	--	-	56	1	--	-	*	0
...OOCYSTIS	*	0	--	-	--	-	--	-	--	-	--	-
...POLYEDRIOPSIS	--	-	--	-	--	-	--	-	--	-	*	0
...SELENASTRUM	*	0	--	-	--	-	--	-	--	-	--	-
...TETRAEDRON	*	0	--	-	--	-	--	-	*	0	--	-
...TREUBARIA	--	-	--	-	--	-	--	-	--	-	28	1
...SCENEDESMACEAE												
...ACTINASTRUM	--	-	--	-	--	-	--	-	110	3	--	-
...CRUCIGENIA	450	3	--	-	--	-	--	-	42	1	--	-
...SCENEDESMUS	2400 #	16	540	3	140	3	340	4	220	5	390	9
...TETRASTRUM	300	2	270	2	280	5	220	3	--	-	170	4
...VOLVOCELES												
...CHLAMYDOMONADACEAE												
...CHLAMYDOMONAS	76	1	470	3	490	9	110	1	70	2	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISACEAE												
...CYCLOTELLA	1300	9	3200 #	19	2900 #	55	1200 #	16	550	13	260	6
...MELOSIRA	2500 #	17	7800 #	45	320	6	620	8	840 #	20	890 #	21
...STEPHANODISCUS	--	-	1800	11	70	1	140	2	140	3	--	-
...PENNALES												
...CYMBELLACEAE												
...CYMBELLA	--	-	--	-	35	1	--	-	28	1	--	-
...DIATOMACEAE												
...DIATOMA	--	-	740	4	--	-	--	-	*	0	--	-
...FRAGILARIACEAE												
...ASTERIONELLA	--	-	--	-	70	1	170	2	--	-	--	-
...FRAGILARIA	--	-	--	-	210	4	360	5	--	-	41	1
...SYNEDRA	--	-	--	-	70	1	*	0	--	-	*	0
...GOMPHONEMATAACEAE												
...GOMPHONEMA	--	-	--	-	--	-	--	-	*	0	*	0
...NAVICULACEAE												
...GYROSIGMA	--	-	--	-	--	-	--	-	--	-	*	0
...NAVICULA	--	-	--	-	70	1	110	1	56	1	--	-
...NITZSCHACEAE												
...NITZSCHIA	110	1	--	-	35	1	--	-	150	4	180	4
...SURIRELLACEAE												
...SURIRELLA	--	-	*	0	--	-	*	0	110	3	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
..CRYPTOPHYCEAE												
...CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
...CHROOMONAS	--	-	*	0	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE												
...CRYPTOMONAS	--	-	--	-	--	-	84	1	*	0	--	-

See footnotes at end of the table.

MISSISSIPPI RIVER MAIN STEM

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	OCT 21,80 0800	DEC 3,80 0915	MAY 17,81 1445	MAY 5,81 1400	JUN 3,81 0900	JUL 9,81 0930						
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	1500	10	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	3300#	22	--	-	110	2	340	4	42	1	690#	16
....COCCOCHLORIS	830	6	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	1300	9	1300	8	--	-	2500#	34	1300#	32	1500#	36
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	*	0	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	--	-	*	0	*	0	41	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	423	464	468	514	513	420	---	378	357	329	329	430
2	435	480	470	522	521	406	410	372	355	335	320	450
3	446	500	493	538	509	415	421	378	386	334	310	459
4	455	502	501	530	484	270	414	379	355	336	310	449
5	443	488	514	524	479	397	396	389	345	333	315	446
6	445	488	538	522	482	380	390	402	344	394	310	465
7	446	486	537	513	432	358	375	410	341	395	307	453
8	437	508	542	514	418	341	386	415	341	---	311	446
9	437	502	533	517	422	337	411	419	350	399	323	442
10	449	486	526	531	426	348	432	417	344	394	331	457
11	445	496	520	535	441	353	428	419	330	---	350	465
12	434	494	516	534	452	350	413	421	328	---	361	446
13	436	490	514	538	460	356	415	434	327	---	399	444
14	438	490	517	540	452	361	418	442	323	---	418	441
15	454	501	514	534	425	361	422	442	332	---	416	444
16	454	494	480	531	406	362	419	455	331	---	411	450
17	473	449	484	535	401	365	430	463	326	---	411	454
18	474	514	470	526	402	367	426	446	330	---	407	465
19	460	498	439	532	413	384	435	424	333	---	403	485
20	448	492	427	525	419	392	431	425	332	---	403	477
21	469	499	432	517	408	407	426	437	343	386	412	475
22	466	494	430	509	409	409	423	430	344	380	418	463
23	478	498	436	513	411	407	410	406	354	392	415	456
24	479	470	445	511	396	422	407	362	357	392	417	457
25	440	462	452	508	394	413	405	348	353	400	420	474
26	482	474	461	509	401	409	391	334	353	388	431	488
27	514	485	481	515	406	409	396	340	352	358	446	490
28	501	506	498	516	405	408	390	337	345	352	450	499
29	496	511	515	517	---	412	393	347	324	354	434	510
30	505	486	519	511	---	414	392	348	320	337	429	526
31	503	---	519	502	---	408	---	344	---	318	422	---
MEAN	460	490	490	522	435	382	411	399	342	365	382	464

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	14.0	8.0	4.0	4.0	5.0	---	18.0	18.0	28.0	30.0	28.0
2	20.0	15.0	8.0	3.0	1.0	6.0	10.0	18.0	18.0	28.0	28.0	28.0
3	25.0	15.0	8.0	3.0	1.0	6.0	12.0	18.0	20.0	27.0	28.0	28.0
4	20.0	14.0	8.0	3.0	2.0	8.0	12.0	18.0	20.0	29.0	28.0	27.0
5	20.0	14.0	8.0	1.0	2.0	8.0	12.0	18.0	21.0	29.0	28.0	28.0
6	20.0	14.0	8.0	2.0	2.0	8.0	12.0	18.0	21.0	30.0	28.0	28.0
7	20.0	14.0	8.0	2.0	2.0	8.0	12.0	18.0	20.0	30.0	28.0	27.0
8	20.0	15.0	10.0	1.0	2.0	8.0	12.0	20.0	22.0	30.0	27.0	28.0
9	20.0	15.0	10.0	2.0	2.0	8.0	15.0	20.0	24.0	30.0	28.0	27.0
10	20.0	14.0	8.0	1.0	4.0	8.0	18.0	18.0	24.0	30.0	28.0	27.0
11	20.0	14.0	8.0	1.0	2.0	8.0	18.0	18.0	24.0	---	29.0	27.0
12	20.0	14.0	8.0	.0	1.0	8.0	18.0	18.0	24.0	---	30.0	28.0
13	20.0	14.0	8.0	.0	1.0	8.0	18.0	18.0	24.0	---	28.0	27.0
14	18.0	14.0	8.0	.0	2.0	8.0	18.0	18.0	24.0	---	28.0	27.0
15	20.0	14.0	8.0	1.0	2.0	8.0	16.0	18.0	25.0	---	29.0	27.0
16	20.0	12.0	8.0	1.0	2.0	9.0	15.0	18.0	25.0	---	29.0	27.0
17	20.0	12.0	8.0	.0	2.0	10.0	18.0	16.0	25.0	---	28.0	25.0
18	20.0	10.0	8.0	.0	3.0	10.0	18.0	16.0	24.0	---	28.0	25.0
19	18.0	10.0	8.0	1.0	4.0	8.0	18.0	16.0	26.0	---	28.0	22.0
20	20.0	10.0	6.0	1.0	4.0	8.0	18.0	16.0	26.0	---	28.0	23.0
21	20.0	10.0	5.0	1.0	4.0	8.0	18.0	16.0	27.0	30.0	27.0	24.0
22	20.0	10.0	5.0	2.0	4.0	9.0	18.0	16.0	28.0	32.0	27.0	24.0
23	20.0	10.0	5.0	2.0	4.0	8.0	18.0	16.0	28.0	30.0	28.0	24.0
24	20.0	10.0	5.0	2.0	4.0	8.0	18.0	16.0	28.0	32.0	28.0	22.0
25	18.0	10.0	4.0	2.0	5.0	8.0	18.0	18.0	28.0	30.0	28.0	24.0
26	18.0	10.0	4.0	3.0	6.0	10.0	18.0	16.0	27.0	29.0	28.0	24.0
27	15.0	10.0	3.0	4.0	6.0	10.0	18.0	18.0	28.0	29.0	28.0	24.0
28	15.0	8.0	4.0	4.0	6.0	10.0	18.0	18.0	28.0	29.5	28.0	23.0
29	15.0	8.0	4.0	4.0	---	10.0	18.0	18.0	28.0	28.5	28.0	23.0
30	12.0	8.0	4.0	4.0	---	10.0	18.0	18.0	28.0	28.0	28.0	24.0
31	13.0	---	4.0	4.0	---	10.0	---	20.0	---	25.0	28.0	---
MEAN	19.0	12.0	6.5	2.0	3.0	8.5	16.0	17.5	24.5	29.0	28.0	25.5

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, Hydrologic Unit 08010211, on left bank at downstream side of bridge on Winchester Road, 2.6 mi (4.2 km) south of Germantown, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--68.2 mi² (176.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-1964, 1969; October 1969 to current year.

REVISED RECORDS.--WRD TN 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft (80.138 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--12 years, 106 ft³/s (3.00 m³/s), 21.11 in/yr (536 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,680 ft³/s (274 m³/s) Mar. 12, 1975, gage height, 27.11 ft (8.263 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft³/s (105 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 29	2200	*4360 123	17.08 5.206	June 6	0730	4180 118	17.02 5.188

Minimum discharge, .03 ft³/s (<.001 m³/s) Sept. 26, 27-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	.21	3.8	.43	667	130	49	.90	57	1.5	.38	23
2	1.3	.21	5.8	.35	201	37	24	.69	49	.73	.38	109
3	.49	.16	5.9	.50	32	15	16	.59	17	.55	15	4.5
4	.30	.16	4.2	1.5	10	956	27	.44	7.2	1.9	3.3	.51
5	.15	.11	2.8	1.7	3.7	527	27	.38	59	24	.49	.32
6	.12	.09	2.4	35	1.4	93	15	.38	2040	4.2	97	.22
7	.12	.06	2.7	26	.72	33	10	.38	355	.61	127	.15
8	.12	.06	13	5.9	2.7	16	9.1	.41	35	.44	3.2	.11
9	.12	.07	189	2.4	1.8	8.5	416	1.1	14	.44	.44	.11
10	3.2	.10	30	1.4	188	5.2	66	34	7.9	.44	.27	.10
11	.14	.10	11	1.0	211	2.9	26	5.1	4.3	.47	.20	.09
12	.08	.10	3.8	.50	26	2.8	12	1.2	2.3	.50	.17	.09
13	.08	.06	1.7	.28	7.4	2.4	5.8	.71	2.3	.49	.17	.12
14	.08	280	.90	.37	3.8	1.3	3.5	45	1.0	.47	.16	.13
15	.08	97	.60	1.1	2.4	1.1	7.7	7.1	.63	.45	.19	.10
16	.08	13	.45	1.1	106	3.8	6.2	2.6	.56	.44	.20	.13
17	111	1160	.39	.97	110	2.0	15	195	.54	.41	.18	.17
18	45	117	.38	.68	42	8.5	3.6	56	.54	.46	.31	.13
19	4.8	18	.37	.68	22	7.9	1.3	12	4.2	1.5	1.0	.11
20	1.1	4.5	.37	11	12	3.4	9.5	4.8	2.1	.62	.54	.13
21	.30	1.3	.37	26	6.0	1.2	4.0	2.4	.68	525	.41	.13
22	.13	.88	.37	11	7.4	185	1.9	1.6	.51	11	.33	.11
23	.09	.68	.45	5.8	6.0	80	17	1.3	.44	1.8	.29	.10
24	.14	.57	1.4	4.3	2.4	25	5.3	1.2	1.3	.71	1.1	.10
25	.12	.36	.77	2.1	2.0	11	1.5	37	2.3	17	3.9	.10
26	.12	41	.68	1.3	1.4	5.1	.95	653	.50	14	.31	.05
27	248	315	.85	1.5	1.0	2.5	.63	60	.47	1.0	6.4	.03
28	64	51	.60	1.6	28	.93	.51	15	.47	.53	3.4	.03
29	11	20	.53	1.6	---	965	16	21	.47	.43	.49	.03
30	2.3	12	.48	1.8	---	1070	2.3	29	1.0	.38	.41	.03
31	.75	---	.72	2.0	---	131	---	237	---	.38	20	---
TOTAL	497.91	2133.78	286.78	151.86	1705.12	4333.53	799.79	1427.28	2667.71	612.85	287.62	139.93
MEAN	16.1	71.1	9.25	4.90	60.9	140	26.7	46.0	88.9	19.8	9.28	4.66
MAX	248	1160	189	35	667	1070	416	653	2040	525	127	109
MIN	.08	.06	.37	.28	.72	.93	.51	.38	.44	.38	.16	.03
CFSM	.24	1.04	.14	.07	.89	2.05	.39	.67	1.30	.29	.14	.07
IN.	.27	1.16	.16	.08	.93	2.36	.44	.78	1.46	.33	.16	.08

CAL YR 1980	TOTAL	41901.78	MEAN	114	MAX	4450	MIN	.01	CFSM	1.67	IN	22.86
WTR YR 1981	TOTAL	15044.16	MEAN	41.2	MAX	2040	MIN	.03	CFSM	.60	IN	8.21

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	1145	.31	120	20.0	57	.05	89
NOV 13...	0850	.07	150	10.5	43	.01	--
DEC 23...	1000	.38	120	4.0	22	.02	--
FEB 04...	1000	9.6	70	1.5	64	1.7	--
MAR 04...	1345	1850	49	9.5	2450	12200	--
10...	1530	4.4	80	12.5	46	.55	--
APR 22...	1400	1.9	200	20.5	68	.35	--
JUN 04...	1100	8.7	--	--	221	5.2	--
JUL 13...	1330	.48	140	33.0	27	.03	--
AUG 12...	1300	.17	100	31.0	79	.04	--
SEP 23...	1300	.10	125	25.0	35	.01	--

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...	1000	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 10...	1530	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUN 04...	1100	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 13...	1330	<.01	<.1	<.10	<.01	<.1	<.10	<.10	<.01	<.1

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 23...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 10...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUN 04...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 13...	<.01	<.10	<.01	<.1	<.01	<.1	<.01	<.01	<.1

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC 23...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 10...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUN 04...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 13...	<.01	<.1	<.10	<.1	<.01	<.1	<.01	<.1	<.01

DATE	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 23...	--	<.01	--	.00	--	.03	.00	.00	.00
MAR 10...	--	<.01	--	.00	--	<.01	<.01	<.01	<.01
JUN 04...	--	<.01	--	.00	--	<.01	<.01	<.01	<.01
JUL 13...	<.0	<.01	<.01	.00	<.10	.07	.05	.02	<.01

07032222 JOHNS CREEK TRIBUTARY AT HOLMES ROAD NEAR MEMPHIS, TN

LOCATION.--Lat 35°00'20", long 89°52'16", Shelby County, Hydrologic Unit 08010211, on left bank at upstream side of bridge at Holmes Road, 1,200 ft (366 m) east of St. Louis-San Francisco Railroad, 2.0 mi (3.2 km) east of U.S. Highway 78, and 2.2 mi (3.5 km) southeast of Memphis city limits.

DRAINAGE AREA.--5.83 mi² (15.10 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 304 ft (93 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years, 8.07 ft³/s (0.229 m³/s), 18.80 in/yr (478 mm/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,970 ft³/s (55.8 m³/s) May 22, 1979, gage height, 12.99 ft (3.959 m); minimum, 0.02 ft³/s (<0.001 m³/s) Sept. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 702 ft³/s (19.9 m³/s) at 1925 hours, Mar. 29, gage height, 5.62 ft (1.713 m), no peak above base of 850 ft³/s (24.1 m³/s); minimum, 0.02 ft³/s (<0.001 m³/s) Sept. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.07	.31	.14	55	13	1.5	.55	3.8	.48	.05	.80
2	.23	.08	.31	.18	6.0	3.1	.79	.53	9.4	.36	.05	1.1
3	.15	.12	.27	.23	1.3	1.7	.74	.48	4.3	.36	.04	.14
4	.13	.12	.27	.23	.72	82	1.7	.51	2.7	.50	.08	.07
5	.13	.14	.27	.23	.45	22	1.7	.55	16	2.0	.09	.04
6	.12	.15	.27	2.8	.30	4.0	.66	.55	154	.23	.09	.03
7	.12	.17	.27	1.6	.60	1.9	.55	.55	5.8	.23	.10	.04
8	.12	.17	1.6	.58	.40	1.2	.55	.55	1.7	.23	.11	.04
9	.12	.17	18	.42	.30	.86	47	.65	.78	.23	.12	.04
10	.12	.17	.82	.32	27	.68	2.7	7.9	.54	.23	.13	.04
11	.12	.17	.42	.26	12	.60	1.2	.80	.32	.23	.19	.04
12	.12	.17	.31	.20	.98	.53	.73	.48	.29	.23	.21	.04
13	.12	.21	.22	.17	.55	.45	.56	.38	.25	.23	.27	.04
14	.12	28	.15	.16	.48	.45	.46	5.6	.23	.27	.29	.05
15	.12	1.7	.14	.15	.42	1.2	.38	.61	.21	.27	.31	.07
16	.14	.23	.14	.14	7.3	.90	.36	.42	.20	.31	.31	.04
17	6.5	79	.14	.14	5.6	.60	.36	52	.20	.37	.31	.04
18	.33	1.5	.14	.14	1.8	4.0	.36	6.1	.20	.30	.36	.03
19	.17	.43	.14	.14	.74	2.5	.36	1.6	.80	.27	.14	.03
20	.17	.42	.14	.30	.48	1.2	2.0	.93	.20	.27	.14	.03
21	.17	.41	.14	.98	.36	.70	.55	.57	.18	3.5	.14	.03
22	.19	.36	.14	.85	.55	43	.50	.55	.18	.60	.12	.03
23	.30	.36	.14	.27	.64	9.3	9.5	.55	.20	.35	.10	.04
24	.36	.36	.14	.20	.42	4.4	1.5	.57	.20	.25	.10	.04
25	.31	.31	.14	.17	.31	2.9	.65	12	.23	2.5	.13	.05
26	.26	13	.14	.14	.27	2.4	.55	187	.23	.21	.15	.04
27	26	11	.14	.14	.20	2.4	.50	6.9	.23	.03	.17	.03
28	.17	1.0	.14	.14	12	2.2	.42	2.4	.23	.04	.19	.03
29	.09	.61	.14	.13	---	179	2.8	1.5	.31	.04	.21	.03
30	.08	.34	.14	.12	---	34	.56	3.2	.31	.05	.23	.03
31	.08	---	.14	.12	---	3.7	---	85	---	.06	2.0	---
TOTAL	37.39	140.94	25.87	11.79	137.17	426.87	82.19	381.98	204.22	15.23	6.93	3.10
MEAN	1.21	4.70	.83	.38	4.90	13.8	2.74	12.3	6.81	.49	.22	.10
MAX	26	79	18	2.8	55	179	47	187	154	3.5	2.0	1.1
MIN	.08	.07	.14	.12	.20	.45	.36	.38	.18	.03	.04	.03
CFSM	.21	.81	.14	.07	.84	2.37	.47	2.11	1.17	.08	.04	.02
IN.	.24	.90	.17	.08	.88	2.72	.52	2.44	1.30	.10	.04	.02
CAL YR 1980	TOTAL	2866.26	MEAN 7.83	MAX 331	MIN .03	CFSM 1.34	IN 18.29					
WTR YR 1981	TOTAL	1473.68	MEAN 4.04	MAX 187	MIN .03	CFSM .69	IN 9.40					

NONCONNAH CREEK BASIN

07032224 JOHNS CREEK AT RAINES ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°02'05", long 89°53'10", Shelby County, Hydrologic Unit 08010211, on right bank at upstream side of Raines Road, 500 ft (152 m) west of Mendenhall Road, and 1.0 mi (1.6 km) south of Winchester Road in Memphis.

DRAINAGE AREA.--19.4 mi² (50.2 km²).

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

REVISED RECORDS.--WRD TN-80-1: 1975-79 (P).

GAGE.--Water-stage recorder. Altitude of gage is 276 ft (84 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years, 31.3 ft³/s (0.886 m³/s), 21.91 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,630 ft³/s (216 m³/s) Dec. 3, 1978, gage height, 17.75 ft (5.456 m); minimum, 0.04 ft³/s (0.001 m³/s) Sept. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft³/s revised (73.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 29	2020	3800 108	13.65 4.161	June 6	0515	3090 87.5	12.60 3.840
May 26	0305	*3950 112	13.85 4.221				

Minimum discharge, 0.06 ft³/s (0.002 m³/s) Feb. 28, May 25.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.28	1.3	.19	178	42	11	1.4	13	2.3	2.3	9.3
2	1.0	.21	3.5	.19	26	7.3	7.8	.44	29	1.1	1.9	19
3	.93	.21	4.0	.19	4.9	3.1	6.1	.44	10	2.2	2.2	2.6
4	.64	.21	1.3	.19	1.8	258	13	.51	9.3	2.5	2.1	.85
5	.42	.21	.80	.53	.66	80	9.0	.65	54	11	2.3	.52
6	.52	.25	1.4	1.8	.64	17	4.4	.54	648	2.1	2.3	.41
7	.54	.26	1.5	3.5	1.9	8.7	3.3	.42	28	1.6	2.5	.42
8	.54	.27	10	3.7	3.0	4.7	2.8	.38	11	1.4	2.0	.38
9	.54	.28	107	1.9	.83	3.1	193	1.3	7.2	1.1	1.7	.41
10	.54	.28	12	.54	86	2.4	19	38	5.3	1.3	1.7	.40
11	.54	.28	6.4	.40	40	1.5	9.4	4.1	3.6	1.2	2.1	.36
12	.49	.28	5.4	.24	4.6	.94	5.4	1.2	2.9	.64	2.5	.31
13	.52	.30	3.2	.45	1.2	.40	3.1	.43	2.0	.68	1.7	.26
14	.66	103	2.4	.76	1.2	.41	1.5	37	1.6	.70	1.4	.28
15	.83	47	1.2	.75	1.2	2.4	.67	3.1	1.5	.76	1.6	.37
16	1.4	21	1.1	.61	25	1.8	.62	1.2	2.0	.86	2.1	.43
17	37	195	1.1	.49	18	.88	1.2	148	1.2	1.8	2.2	.35
18	3.7	13	1.2	.47	7.5	12	.73	22	1.3	.53	4.8	.35
19	.30	4.8	1.2	.47	4.7	4.2	.55	6.7	5.0	.50	2.5	.27
20	.27	2.9	.67	9.6	1.4	1.4	20	2.4	1.7	.68	1.9	.19
21	.28	1.6	.64	11	.48	1.4	2.7	1.1	1.2	33	1.2	.22
22	.22	1.3	.40	4.4	5.6	89	.64	.37	1.0	1.2	1.4	.34
23	.24	1.6	.42	2.6	1.2	22	41	.18	1.4	.83	.97	.30
24	.73	.76	4.5	1.3	.35	8.8	6.3	.14	1.4	.72	6.9	.32
25	.38	.37	.98	.89	.18	5.5	1.5	106	1.9	27	2.5	.35
26	.35	20	.76	.54	.19	3.6	3.3	1030	2.1	7.6	1.6	.28
27	118	37	.68	.54	.21	2.4	.56	22	1.7	3.2	4.3	.26
28	5.1	89	.48	.54	30	1.5	.41	6.4	1.1	2.8	2.5	.24
29	.53	45	.47	.47	---	767	29	2.0	1.2	2.9	1.8	.29
30	.36	20	.41	.41	---	135	2.6	17	3.1	2.6	1.3	.28
31	.32	---	.25	.35	---	21	---	199	---	2.7	24	---
TOTAL	179.19	606.65	176.66	50.01	446.74	1509.43	400.58	1654.40	853.7	119.50	92.27	40.34
MEAN	5.78	20.2	5.70	1.61	16.0	48.7	13.4	53.4	28.5	3.85	2.98	1.34
MAX	118	195	107	11	178	767	193	1030	648	33	24	19
MIN	.22	.21	.25	.19	.18	.40	.41	.14	1.0	.50	.97	.19
CFSM	.30	1.04	.29	.08	.83	2.51	.69	2.75	1.47	.20	.15	.07
IN.	.34	1.16	.34	.10	.86	2.89	.77	3.17	1.64	.23	.18	.08

CAL YR 1980 TOTAL 11358.39 MEAN 31.0 MAX 1670 MIN .20 CFSM 1.60 IN 21.78
WTR YR 1981 TOTAL 6129.47 MEAN 16.8 MAX 1030 MIN .14 CFSM .87 IN 11.75

NONCONNAH CREEK BASIN

337

07032241 BLACK BAYOU AT SOUTHERN AVENUE AT MEMPHIS, TN

LOCATION.--Lat 35°06'55", long 89°56'00", Shelby County, Hydrologic Unit 08010211, on right bank 130 ft (40 m) downstream from Southern Avenue, and 150 ft (46 m) east of Normal Street in Memphis.

DRAINAGE AREA.--0.59 mi² (1.53 km²).

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

REVISED RECORDS.--WRD TN-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map.

REMARKS.--Records poor. Water used to wash the aeration trays at Sheahan Pumping Station is a major portion of the base flow of this stream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--6 years (water years 1976-81), 1.63 ft³/s (.046 m³/s), 37.52 in/yr (953 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 486 ft³/s (13.8 m³/s) Sept. 29, 1977, gage height, 9.05 ft (2.758 m); no flow part of each day Jan. 16, 23, 24, 1981, result of freeze up.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 25	2140	382 10.8	7.43 2.265	July 5	0410	356 10.1	7.28 2.219
June 6	0250	297 8.41	6.91 2.106	Aug. 31	1100	*416 11.8	7.62 2.323

No flow part of each day Jan 16, 23, 24, result of freeze up.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.30	.67	.27	6.6	.54	.92	1.0	.51	.93	.53	2.9
2	.62	.25	.43	.19	.39	.37	1.0	.77	.91	.85	.43	.89
3	.69	.50	.53	.25	.31	.56	.80	.91	1.4	.75	.62	.61
4	.31	.26	.23	.30	.24	9.4	1.3	.71	1.7	.66	.63	.54
5	.40	.33	.26	.21	.36	1.0	.75	.75	4.5	10	.55	.50
6	.36	.31	.25	2.8	.32	.47	1.0	.85	15	.54	2.3	.61
7	.40	.38	.29	.21	.59	.54	.99	.67	.68	.59	.82	.54
8	.33	.39	7.1	.16	.40	.38	.81	.61	.79	.59	.52	.48
9	.47	.31	3.5	.13	.39	.44	2.7	5.1	.55	.49	.54	.56
10	.36	.28	.73	.36	3.0	.50	.68	1.2	.69	.44	.64	.56
11	.46	.21	.58	.20	.27	.52	.81	.44	.75	.55	.47	.46
12	.38	.26	.53	.36	.35	.52	.78	.52	.67	.51	.54	.58
13	.39	.32	.74	.33	.26	.61	.87	.59	.67	.46	.67	.51
14	.32	9.7	.71	.19	.36	.66	.76	3.3	.72	.55	.64	.49
15	.28	.80	.36	.25	.32	1.1	.83	.50	.67	.49	.63	.61
16	.34	1.0	.69	.24	1.2	.79	.76	.82	.70	.47	.61	.51
17	4.7	8.9	.61	.19	.42	.58	.86	5.2	.80	.52	3.4	.51
18	.27	.77	.61	.24	.33	2.6	.80	.50	.68	.44	1.6	.59
19	.26	.73	.53	.26	.43	.79	.77	.45	.94	.40	.69	.49
20	.36	.91	.65	1.1	.35	.69	3.4	.42	.88	.51	.48	.48
21	.35	.46	.74	.32	.34	.82	.74	.42	.80	6.6	.53	.59
22	.31	.84	.29	.24	.62	3.3	2.8	.40	.72	.41	.76	.52
23	.34	.59	.32	.17	.40	.94	5.1	.39	.81	.46	.61	.47
24	.53	.51	.95	.24	.55	.50	2.2	.48	.77	.45	.58	.60
25	.41	.64	.61	.23	.88	.70	.74	17	.82	.72	4.2	.50
26	.40	.28	.61	.16	.92	.60	.79	11	.89	.46	.56	.47
27	9.6	.75	.64	.28	.35	.62	.95	.65	.84	.43	.54	.56
28	.32	.71	.39	.22	3.3	.75	.44	.67	.84	.81	1.0	.46
29	.28	.60	.50	.17	---	20	2.4	.53	.93	.46	.49	.50
30	.27	.65	.35	.45	---	1.3	.91	3.6	1.4	.42	.63	.64
31	.31	---	.30	.27	---	1.1	---	5.1	---	.35	11	---
TOTAL	25.50	32.94	25.70	10.99	24.25	53.69	38.66	65.55	43.03	32.31	38.21	18.73
MEAN	.82	1.10	.83	.35	.87	1.73	1.29	2.11	1.43	1.04	1.23	.62
MAX	9.6	9.7	7.1	2.8	6.6	20	5.1	17	15	10	11	2.9
MIN	.26	.21	.23	.13	.24	.37	.44	.39	.51	.35	.43	.46
CFSM	1.39	1.86	1.41	.59	1.48	2.93	2.19	3.58	2.42	1.76	2.09	1.05
IN.	1.61	2.07	1.62	.69	1.53	3.38	2.43	4.13	2.71	2.03	2.41	1.18

CAL YR 1980	TOTAL	394.40	MEAN	1.08	MAX	33	MIN	.21	CFSM	1.83	IN	24.83
WTR YR 1981	TOTAL	409.56	MEAN	1.12	MAX	20	MIN	.13	CFSM	1.90	IN	25.78

NONCONNAH CREEK BASIN

07032248 CANE CREEK AT EAST PERSON AVENUE AT MEMPHIS, TN

LOCATION.--Lat 35°06'02", long 90°00'43", Shelby County, Hydrologic Unit 08010211, on left bank 40 ft (12.2 km) upstream from bridge on East Person Avenue, 0.4 mi (0.6 km) east of Elvis Presley Boulevard, 0.6 mi (1.0 km) south of South Parkway East in Memphis, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--4.98 mi² (12.90 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 243 ft (74 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years (water years 1976-81), 10.1 ft³/s (0.286 m³/s), 27.54 in/yr (700 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) July 22, 1980, gage height, 13.25 ft (4.039 m); minimum, 0.70 ft³/s (0.020 m³/s) Aug. 5, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above a base of 1,400 ft³/s (39.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
July 5	0415	1910 54.1	10.74 3.274	Aug. 31	all40	a*2430 68.8	Unknown

a. Estimated from rainfall-runoff model.

Minimum discharge, 1.66 ft³/s (0.047 m³/s) Jan. 7, 9, 11, July 1, 2, but may have been lower during period of no gage-height record.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	2.1	3.2	2.4	59	3.0	3.4	3.9	4.2	3.1	3.5	4.0
2	4.1	2.0	3.5	2.4	2.5	2.4	3.5	3.8	3.8	2.1	3.8	2.6
3	3.6	2.1	3.6	2.6	2.5	2.9	3.4	3.4	8.3	2.5	4.3	2.1
4	3.3	2.2	4.1	2.4	2.3	81	8.9	3.6	7.7	2.5	3.7	2.0
5	3.1	2.4	3.8	2.6	2.7	7.1	3.2	3.6	37	93	3.5	2.5
6	3.1	2.6	3.3	34	2.9	2.9	3.1	3.3	105	3.5	30	2.0
7	3.2	2.5	3.5	1.8	5.0	2.9	3.3	3.4	2.4	3.3	3.4	2.2
8	3.1	2.5	64	2.1	2.5	3.0	3.4	3.2	2.3	2.6	3.5	2.1
9	2.7	2.5	34	2.1	2.4	3.2	30	33	2.4	2.9	4.0	2.0
10	2.9	2.7	2.1	1.9	33	3.3	2.9	20	2.5	2.7	2.8	2.0
11	3.1	3.0	2.2	2.0	1.9	3.0	2.8	2.9	2.6	2.9	3.0	2.1
12	2.4	2.9	2.4	2.2	1.8	3.4	2.9	2.8	2.8	3.0	2.3	2.5
13	2.5	3.1	2.1	2.3	2.1	3.3	3.0	3.0	2.5	3.2	2.5	4.0
14	3.0	77	2.3	2.3	2.1	3.1	2.9	21	2.4	2.8	2.7	3.0
15	3.2	4.0	2.3	2.3	2.2	4.0	3.0	3.3	2.6	3.3	2.8	2.5
16	3.5	4.2	2.3	2.4	6.7	3.6	3.2	6.8	3.2	3.9	2.9	2.4
17	41	106	2.3	2.4	2.1	3.7	3.6	42	2.6	2.8	12	2.7
18	3.5	3.0	2.4	2.4	2.0	22	2.8	3.2	2.6	2.5	15	2.1
19	2.7	2.3	2.2	2.7	2.3	2.7	3.2	3.0	2.9	2.4	3.9	2.1
20	3.1	2.5	2.3	8.5	2.5	3.1	21	2.9	2.7	3.5	3.0	4.5
21	3.5	2.6	2.5	2.5	2.3	4.1	3.2	2.9	2.9	34	2.6	3.0
22	3.8	2.5	2.5	2.2	3.3	19	39	3.0	3.0	3.1	2.5	2.7
23	3.5	3.0	2.5	2.4	2.4	2.6	40	2.8	3.0	3.2	2.7	2.7
24	5.8	2.2	3.6	2.3	2.4	2.5	3.7	2.8	2.8	3.3	2.9	2.5
25	3.0	2.2	3.0	2.5	2.3	2.7	3.4	66	3.3	3.9	8.7	2.0
26	3.0	40	2.0	2.6	2.3	2.8	4.0	89	2.7	3.6	2.4	1.9
27	96	4.9	2.2	2.8	2.5	2.7	3.9	3.8	2.5	3.4	2.2	5.0
28	2.3	2.4	2.2	2.8	35	2.3	3.8	3.5	2.3	5.0	5.0	4.5
29	2.0	2.3	2.3	2.7	---	134	26	3.5	2.4	3.5	2.5	3.5
30	2.0	2.3	2.4	3.6	---	5.0	3.6	14	13	3.2	2.0	3.0
31	2.0	---	2.5	2.3	---	3.5	---	43	---	3.3	98	---
TOTAL	228.2	296.0	175.6	112.5	193.0	344.8	244.1	406.4	240.4	217.8	244.1	82.2
MEAN	7.36	9.87	5.66	3.63	6.89	11.1	8.14	13.1	8.01	7.03	7.87	2.74
MAX	96	106	64	34	59	134	40	89	105	93	98	5.0
MIN	2.0	2.0	2.0	1.8	1.8	2.3	2.8	2.8	2.3	2.1	2.0	1.9
CFSM	1.48	1.98	1.14	.73	1.38	2.23	1.64	2.63	1.61	1.41	1.58	.55
IN.	1.70	2.21	1.31	.84	1.44	2.58	1.82	3.04	1.80	1.63	1.82	.61

CAL YR 1980	TOTAL	3997.3	MEAN	10.9	MAX	506	MIN	2.0	CFSM	2.19	IN	29.85
WTR YR 1981	TOTAL	2785.1	MEAN	7.63	MAX	134	MIN	1.8	CFSM	1.53	IN	20.80

MISSISSIPPI RIVER BASIN

339

07032260 CYPRESS CREEK AT NEELY ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°01'36", long 90°03'23", Shelby County, Hydrologic Unit 08010211, on right bank at downstream end of bridge on Neely Road, 1.8 mi (2.9 km) west of U.S. Highway 51 and 1.1 mi (1.8 km) southeast of U.S. Highway 61 in Memphis.

DRAINAGE AREA.--3.18 mi² (8.24 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 244 ft (74.4 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years (water years 1976-1981), 4.29 ft³/s (0.121 m³/s), 18.32 in/yr (465 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,830 ft³/s (51.8 m³/s) Apr. 11, 1979, gage height, 12.72 ft (3.877 m); no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)(m ³ /s)		Gage height (ft)(m)		Date	Time	Discharge (ft ³ /s)(m ³ /s)		Gage height (ft)(m)	
Mar. 29	1900	486	13.8	6.03	1.838	Aug. 31	1630	632	17.9	7.01	2.137
June 6	0250	*652	18.5	7.14	2.176						

No flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.00	.03	.04	32	.59	.16	.03	10	.08	.00	2.4
2	.04	.00	.02	.02	.21	.13	.13	.02	2.0	.04	.00	2.1
3	.03	.00	.02	.01	.08	.13	.09	.02	.18	.05	.01	.05
4	.03	.00	.02	.01	.13	42	.58	.02	3.6	.05	.00	.02
5	.03	.00	.02	.02	.10	3.9	.12	.01	33	9.2	.00	.01
6	.03	.00	.03	10	.09	.22	.08	.01	72	.02	.03	.01
7	.10	.00	.03	.03	.71	.20	.07	.01	.22	.01	.01	.00
8	.11	.00	21	.00	.24	.18	.08	.01	.09	.00	.00	.01
9	.07	.00	22	.00	.09	.15	14	.01	.06	.00	.00	.01
10	.11	.00	.08	.00	18	.13	.15	4.0	.03	.01	.00	.00
11	.05	.00	.04	.00	.58	.10	.12	.20	.02	.02	.00	.00
12	.03	.00	.03	.00	.18	.10	.09	.05	.03	.00	.00	.00
13	.02	.01	.03	.00	.18	.13	.08	.03	.02	.01	.00	.00
14	.02	50	.02	.00	.16	.17	.07	6.0	.02	.01	.00	.01
15	.04	1.1	.02	.00	.16	.44	.06	.04	.02	.01	.00	.11
16	.06	.42	.02	.00	2.2	.19	.07	1.0	.03	.00	.00	.04
17	14	59	.02	.00	.26	.18	.18	30	.01	.00	.01	.02
18	.12	.13	.02	.00	.22	6.2	.09	3.0	.03	.00	7.6	.01
19	.04	.03	.02	.00	.12	.20	.09	.30	.24	.01	.36	.00
20	.03	.02	.02	1.1	.12	.18	.43	.08	.06	.00	.12	.00
21	.02	.01	.01	.06	.12	.27	.06	.03	.04	.05	.11	.00
22	.01	.01	.02	.00	.36	4.1	4.0	.02	.03	.02	.07	.01
23	.01	.10	.02	.00	.12	.18	3.0	.02	.04	.01	.08	.01
24	1.3	.02	.18	.00	.10	.15	.20	.02	.03	.01	.05	.01
25	.02	.00	.02	.00	.09	.13	.09	20	.02	.51	1.2	.01
26	.01	23	.02	.00	.09	.13	.05	55	.05	.10	.09	.00
27	45	1.8	.02	.04	.09	.15	.03	3.0	.06	.03	.10	.00
28	.13	.08	.02	.03	13	.16	.02	.20	.05	.09	2.0	.00
29	.02	.05	.02	.03	---	80	.65	.07	.06	.05	.24	.00
30	.01	.03	.02	.08	---	1.7	.04	3.0	10	.01	.12	.00
31	.00	---	.07	.00	---	.20	---	50	---	.00	63	---
TOTAL	61.58	135.81	43.91	11.47	69.80	142.69	24.88	176.20	132.04	10.40	75.20	4.84
MEAN	1.99	4.53	1.42	.37	2.49	4.60	.83	5.68	4.40	.34	2.43	.16
MAX	45	59	22	10	32	80	14	55	72	9.2	63	2.4
MIN	.00	.00	.01	.00	.08	.10	.02	.01	.01	.00	.00	.00
CFSM	.63	1.43	.45	.12	.78	1.45	.26	1.79	1.38	.11	.76	.05
IN.	.72	1.59	.51	.13	.82	1.67	.29	2.06	1.54	.12	.88	.06

CAL YR 1980	TOTAL	1891.79	MEAN	5.17	MAX	187	MIN	.00	CFSM	1.63	IN	22.12
WTR YR 1981	TOTAL	888.82	MEAN	2.44	MAX	80	MIN	.00	CFSM	.77	IN	10.39

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first table is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. Other measurements made for seepage investigations are listed in subsequent tables.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Mobile River basin						
*02384900	Coahulla Creek near Cleveland, TN	Lat 35°07'00", long 84°50'18", Bradley County, at bridge on State Highway 74, 2.5 miles southeast of intersection of State Highways 60 and 74 in Cleveland.	4.35	1975-81	9-21-81	.51
Green River basin						
03312287	Long Fork Creek near Galen, TN	Lat 36°34'37", long 85°56'23", Macon County, at secondary road, 1.4 miles east of Galen.	22.0	1980-81	9-21-81	5.5
03312295	White Oak Creek at White Oak, TN	Lat 36°35'35", long 85°58'40", Macon County, at secondary road, 0.8 mile east of White Oak.	20.6	1980-81	9-21-81	11
03312413	Puncheon Creek near Green Valley, TN	Lat 36°35'42", long 86°01'15", Macon County, at ford below Spring Creek and Lick Branch, 1.1 miles northeast of Spring Creek Church.	9.3	1980-81	9-21-81	5.7
03312457	Long Creek at Long Creek, TN	Lat 36°33'48", long 86°05'30", Macon County, at secondary road just below Johns Creek, 0.5 mile north of Long Creek.	15.5	1980-81	9-21-81	8.9
Cumberland River basin						
03407879	Smoky Creek at Smoky Junction, TN	Lat 36°16'38", long 84°22'27", Scott County, 1.0 mile south- west of Smoky Junction, and at mile 0.9.	32.8	1975-81	11-13-80 9-24-81	.40 5.8
**03414340	East Fork Obey River at Obey City, TN	Lat 36°11'02", long 85°09'53", Overton County, at county road bridge, 0.7 mile north of Obey City, 0.8 mile west of Cliff Springs, and at mile 39.6.	34.6	1975-76, 1978-81	8-18-81	2.7
**03414680	West Fork Obey River near Allred, TN	Lat 36°18'52", long 85°10'53", Overton County, at bridge on State Highway 85, 1.1 miles south of Allred, and at mile 15.4.	70.8	1975-76, 1978-81	8-17-81	6.5
03417695	Roaring River at Okalona, TN	Lat 36°19'08", long 85°20'30", Overton County, at bridge on State Highway 42, 0.4 mile south of Okalona, 4.5 miles south of Livingston, and at mile 33.0.	15.3	1929, 1975-76, 1978-81	8- 4-81 9-21-81	3.2 4.5

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Cumberland River basin--Continued						
03418030	Spring Creek near Algood, TN	Lat 36°14'46", long 85°23'14", Overton County, at bridge on State Highway 42, 4.8 miles northeast of Algood, and at mile 21.2.	13.8	1929, 1975-76, 1978-81	8- 4-81 9-21-81	3.8 6.8
03418180	Blackburn Fork near Dodson Branch, TN	Lat 36°20'53", long 85°34'00", Jackson County, at bridge on State Highway 135, 3.1 miles northwest of Dodson Branch, and at mile 0.24.	61.0	1974-76, 1978-81	8- 3-81 9-21-81	15 25
**03418935	Beaverdam Creek at Lantana Road near Bellview, TN	Lat 35°44'07", long 85°11'43", Bledsoe County, Hydrologic Unit 05130108, 1.2 miles southwest of Bellview, 2.8 miles southwest of Winesap, 3.1 miles southeast of Herbert Domain.	17.0	1979-81	8-18-81	.10
**03418995	Glade Creek near Lonewood, TN	Lat 35°45'35", long 85°15'57", Bledsoe County line, Hydro- logic Unit 05130108, 1.2 miles above confluence of Bee Creek, 1.7 miles west of Herbert Domain, and 2.3 miles east of Lonewood.	39.1	1979-81	8-18-81	.56
**03419270	Calfkiller River near Taylors, TN	Lat 36°01'53", long 85°20'10", White County, at bridge on State Highway 84, 1.9 miles northeast of Taylors, and at mile 34.7.	37.7	1975-76, 1978-81	8-19-81	11
**03420156	Collins River at Barkertown, TN	Lat 35°23'35", long 85°34'00", Grundy County, Hydrologic Unit 05130107, 100 ft below Jonathan Creek at county road bridge.	22.9	1979-81	8-17-81	.26
**03420230	Scott Creek at Irving College, TN	Lat 35°34'17", long 85°42'42", Warren County, Hydrologic Unit 05130107, at State High- way 56 bridge, 1.0 mile south of Irving College, and 0.6 mile above mouth.	34.1	1979-81	8-19-81	5.8
03425275	Goose Creek at Hillsdale, TN	Lat 36°26'46", long 86°03'50", Macon County, at secondary road in Hillsdale.	27.4	1980-81	9-21-81	6.9
03430120	McCrory Creek at Donelson, TN	Lat 36°09'27", long 86°38'10", Davidson County, at bridge on Stewarts Ferry Pike, 1.6 miles southeast of Donelson, and at mile 1.5.	8.64	1974-75, 1978-81	9-21-81	.62
03430140	Stoners Creek near Green Hill, TN	Lat 36°12'00", long 86°34'56", Davidson County, at bridge on Chandler Road, upstream from Louisville and Nashville Rail- road bridge, 2.4 miles east of Hermitage, 3.5 miles southwest of Green Hill, and at mile 5.2.	15.0	1974-75, 1978-81	9-21-81	1.4
03431570	Whites Creek near Jordonia, TN	Lat 36°13'34", long 86°49'21", Davidson County, at bridge on county road, 0.2 mile upstream from Ewing Creek, 2.7 miles northeast of Jordonia, and at mile 6.3.	35.9	1974-76, 1978-81	9-21-81	6.2
03431578	Ewing Creek at Gwynwood Drive, near Jordonia, TN	Lat 36°13'58", long 86°47'32", Davidson County, at bridge on Gwynwood Drive, 0.3 mile down- stream from North Fork, 3.4 miles northeast of Bordeaux, and 4.5 miles northeast of Jordonia, and at mile 2.1.	9.98	1974-76, 1978-81	9-21-81	1.8

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Cumberland River basin--Continued						
*03432925	Little Harpeth River at Granny White Pike at Brentwood, TN	Lat 36°01'30", long 86°49'09", Williamson County, at bridge on Granny White Pike, 2.0 miles southwest of Brentwood, and at mile 1.1.	22.0	1978-81	9-14-81	2.7
03433660	South Harpeth River at Fernvale, TN	Lat 35°57'15", long 87°04'43", Williamson County, at new county road bridge, at Fernvale, 3.1 miles southeast of Fairview, and at mile 14.0.	27.6	1974-75, 1978-81	10-21-80 7-10-81 8-10-81 9-14-81	14 13 13 12
03433700	South Harpeth River at Linton, TN	Lat 36°00'32", long 87°01'43", Davidson County, at new bridge on Old Harding Pike, 0.2 mile downstream from East Fork Creek, and 0.9 mile south of Linton.	59.7	1967-68, 1970-73, 1975, 1978-81	10-21-80 7-1-81 8-10-81 9-14-81	20 27 19 20
03433902	Big Turnbull Creek near Liberty Hill, TN	Lat 35°57'59", long 87°11'56", Williamson County, at county road bridge, 1.5 miles southeast of Liberty Hill.	11.3	1981	9-22-81	6.7
03433910	Turnbull Creek near New Hope, TN	Lat 36°01'55", long 87°12'48", Dickson County, at bridge on State Highway 96, 0.1 mile down- stream from Nails Creek, 0.25 mile downstream from I-40 bridge, 3.2 miles west of New Hope, and at mile 13.1.	66.2	1974-75, 1978-81	9-21-81	30
03434560	Trace Creek near White Bluff, TN	Lat 36°07'06", long 87°11'49", Dickson County, at county road bridge, 1.5 miles northeast of White Bluff, and at mile 3.5.	1.99	1974-75, 1978-81	9-24-81	1.4
03434590	Jones Creek near Burns, TN	Lat 36°06'15", long 87°19'05", Dickson County, at bridge on Rock Church Road, 3.5 miles north of Burns, and at mile 21.9.	13.3	1974-76, 1978-81	9-21-81	3.0
03434620	Town Branch near Charlotte, TN	Lat 36°10'44", long 87°18'15", Dickson County, at bridge on Old Ashland City road, 2.0 miles east of Charlotte, and at mile 1.5.	8.33	1974-76, 1978-81	9-22-81	1.8
03435007	Hurricane Creek near Salem, TN	Lat 36°25'34", long 87°19'02", Montgomery County, at Chapel Hill Road bridge, 2.4 miles south of Salem, 3.0 miles east of Orgains Crossroads, and 3.6 miles north of Southside.	11.2	1964, 1974-75, 1978-81	9-22-81	6.2
03435110	South Fork Red River at Cross Plains, TN	Lat 36°33'30", long 86°41'32", Robertson County, at county road bridge, 0.7 mile north of Cross Plains, and at mile 24.4.	19.7	1974-76 1978-81	9-21-81	3.4
03435120	South Fork Red River near Orlinda, TN	Lat 36°35'34", long 86°45'53", Robertson County, at bridge on State Highway 49, 2.75 miles west of Orlinda, and at mile 17.9.	69.2	1969, 1974-76, 1978-81	9-21-81	17
03436130	Passenger Creek near Sango, TN	Lat 36°32'07", long 87°11'50", Montgomery County, at county road bridge, 2.4 miles north- east of Sango.	20.5	1964 1974-76, 1978, 1980-81	9-21-81	14
03436460	Little West Fork Red River near New Providence, TN	Lat 36°35'31", long 87°23'23", Montgomery County, at bridge on Peachers Mill Road, 3.0 miles north of New Providence.	179.0	1964, 1974, 1978-81	9-21-81	67

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Cumberland River basin--Continued						
03436655	Yellow Creek near Ruskin, TN	Lat 36°12'30", long 87°31'46", Dickson County, at county road bridge, 0.1 mile downstream from Cedar Creek, 3.4 miles north of Ruskin, and at mile 22.6.	52.2	1974-76 1978, 1980-81	9-22-81	18
Tennessee River basin						
03454790	Trail Fork Big Creek at Del Rio, TN	Lat 35°54'27", long 83°01'26", Cocke County, at county road bridge, 1.0 mile south of Del Rio, and at mile 0.6.	32.6	1975-81	11-12-80 9-24-81	6.6 11
03454850	Long Creek near Del Rio, TN	Lat 35°56'53", long 83°03'12", Cocke County, at bridge on U.S. Highways 25 and 70, 2.5 miles northwest of Del Rio, and at mile 0.1.	11.7	1953-54, 1975-81	11-12-80 9-24-81	1.8 1.5
03461266	Greenbrier Creek at Cosby, TN	Lat 35°48'12", long 83°14'52", Cocke County, near mouth at bridge on State Highway 32, 0.9 mile northwest of inter- section of State Highway 73 and 32, 0.9 mile south of Cosby.	4.96	1978-81	11-12-80 9-24-81	1.6 3.6
03464815	South Indian Creek near Erwin, TN	Lat 36°07'38", long 82°26'45", Unicoi County, 0.1 mile above mouth, near Erwin.	81.0	1972, 1974, 1978-81	11-11-80 9-24-81	22 24
03466099	Jockey Creek at Limestone, TN	Lat 36°13'31", long 82°38'06", Washington County, 0.25 mile west of Limestone, at county road bridge 400 ft above mouth.	19.0	1954, 1972-73, 1976-77, 1979-81	11-11-80 9-24-81	4.0 6.6
03466695	Little Chucky Creek below McNew Branch near Rader, TN	Lat 36°09'27", long 82°57'34", Greene County, 150 ft down- stream from bridge on county road, 1.8 miles southwest of Rader, 2.3 miles south of Mosheim, at mile 14.7.	22.5	1977-81	11-11-80 9-24-81	2.6 4.2
03466870	Roaring Fork near Greeneville, TN	Lat 36°13'18", long 82°52'05", Greene County, at county road bridge, 0.4 mile southeast of Bales Chapel, and 4.5 miles northwest of Greeneville.	20.6	1975-81	11-11-80 9-24-81	2.0 5.3
03466880	Roaring Fork near Mosheim, TN	Lat 36°14'38", long 82°53'37", Greene County, at first bridge upstream from the mouth, and 4.5 miles northeast of Mosheim.	46.4	1975-81	11-11-80 9-24-81	5.8 9.3
03467490	Bent Creek near Springvale, TN	Lat 36°11'14", long 83°09'53", Hamblen County, at bridge 0.6 mile above mouth, 2.4 miles southeast of Springvale.	41.2	1954, 1959, 1975-81	11-11-80 9-24-81	4.7 8.0
a/03468240	Muddy Creek near Chestnut Hill, TN	Lat 35°56'57", long 83°20'51", Jefferson County, at county road bridge, 1.4 miles north of Chest- nut Hill, and at mile 0.7.	1.78	1976-81	11-11-80 9-24-81	.05 .04
03470330	Tuckahoe Creek at Peters Mill, TN	Lat 35°58'02", long 83°42'07", Knox County, at county road bridge at Peters Mill, 4.0 miles east of Riverdale, and at mile 0.9.	28.3	1975-81	11-11-80 9-25-81	4.4 6.2
03476515	Beidleman Creek near Caywood Ford, TN	Lat 36°31'28", long 82°07'53", Sullivan County, at second bridge upstream from mouth, 0.7 mile north of Caywood Ford, and 2.4 miles west of South Holston Dam.	27.4	1975-81	11-11-80 9-25-81	7.5 15
03499053	Culton Creek at Alcoa, TN	Lat 35°46'41", long 83°59'46", Blount County, at county road bridge, 1,000 ft upstream from Louisville and Nashville Railroad bridge, at Alcoa.	11.8	1975-81	11-11-80 9-25-81	3.2 4.1

See footnotes at end of the tables.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Tennessee River basin--Continued						
03518470	Bald River near Tellico Plains, TN	Lat 35°19'20", long 84°10'40", Monroe County, just below Bald River Falls, 50 ft above mouth, and 7.0 miles southeast of Tellico Plains.	21.7	1927, 1975-81	11-11-80 9-24-81	10 15
03518700	Cane Creek at Belltown Mill, TN	Lat 35°25'31", long 84°15'16", Monroe County, at county road bridge at Belltown Mill, 0.3 mile southwest at Cane Creek (Belltown P.O.).	18.2	1975-77, 1979-81	11-11-80 9-24-81	2.4 4.9
03520170	Pond Creek near Adolphus, TN	Lat 35°42'20", long 84°27'35", Loudon County, 150 ft below county road bridge, 2.5 miles southwest of Prospect, 3.1 miles southwest of Adolphus, and 3.6 miles northwest of Philadelphia.	30.8	1953, 1975-77, 1979-81	11-11-80 9-24-81	8.6 14
03531700	Mulberry Creek at Alanthus Hill, TN	Lat 36°33'18", long 83°22'51", Hancock County, at county road bridge, 1.0 mile southeast of Alanthus Hill, and at mile 0.1.	23.9	1975-77, 1979-81	11-11-80 9-24-81	4.6 12
03543300	Little Sewee Creek near Center Point, TN	Lat 35°35'54", long 84°42'13", Meigs County, at bridge on Center Point Road, 1.6 miles southwest of Center Point, and at mile 0.9.	32.3	1959, 1975, 1977, 1979-81	11-11-80 9-25-81	7.9 7.2
03566117	East Fork North Mouse Creek near Niota, TN	Lat 35°32'54", long 84°33'45", McMinn County, at first bridge upstream from mouth, 2.4 miles north of Niota, and at mile 0.5.	2.87	1975, 1977, 1979-81	11-11-80 9-25-81	.19 .15
03566253	Greasy Creek near Hopewell, TN	Lat 35°12'17", long 84°53'11", Bradley County, at Bridge on Eureka Road, 0.2 mile north of Hopewell, 3.9 miles north of Cleveland, and at mile 0.9.	3.12	1978-81	11-11-80 9-25-81	.06 .01
03579900	Boiling Fork Creek at Cowan, TN	Lat 35°09'45", long 86°00'20", Franklin County, at bridge on county road, 1,200 ft southeast of intersection of county road and U.S. Highway 64 in Cowan, and at mile 14.6.	17.0	1955-81	9-21-81	.54
03582205	Norris Creek below Howell, TN	Lat 35°13'33", long 86°33'56", Lincoln County, at bridge on U.S. Highway 231, 2.6 miles east of Howell, 5.1 miles north of Fayetteville, and at mile 8.4.	15.1	1952, 1975, 1978-81	9- 8-81	.11
03582591	Cane Creek near Egam, TN	Lat 35°11'13", long 86°37'38", Lincoln County, at county road bridge, 1.1 miles east of Egam, and at mile 3.8.	93.0	1975, 1979-81	9- 8-81	1.4
03583320	Richland Creek at Milky Way, TN	Lat 35°18'46", long 87°01'48", Giles County, at bridge on U.S. Highway 31, 0.8 mile north of Milky Way, 1.0 mile downstream from Robertson Fork Creek, and at mile 44.2.	149.0	1956, 1975, 1979-81	9- 9-81	7.8
03601100	Big Bigby Creek at Needmore, TN	Lat 35°32'43", long 87°14'05", Maury County, at county road bridge (Needmore Bridge), at Needmore, 1.2 miles downstream from West Fork, and 1.7 miles west of Mount Pleasant, Tn.	48.3	1934, 1969, 1972-73, 1975, 1978-81	9-21-81	13
03602192	West Piney River near Dickson, TN	Lat 36°01'40", long 87°27'00", Dickson County, at State Highway bridge, 2.3 miles northeast of Oak Grove, and at mile 1.2.	21.2	1950-52, 1962-63, 1965, 1979-81	9-21-81	13
03602207	East Piney River below Dickson, TN	Lat 36°00'37", long 87°26'20", Dickson County, at county road bridge, 0.2 mile above West Piney River, 2.5 miles east of Oak Grove.	17.9	1979-81	9-21-81	9.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Tennessee River basin--Continued						
03602220	Piney River below Dickson, TN	Lat 35°59'30", long 87°26'19", Dickson County, at county road crossing, 2.7 miles southeast of Oak Grove.	46.7	1980-81	9-21-81	26
03604750	Birdsong Creek at Holladay, TN	Lat 35°52'53", long 88°08'39", Benton County, at bridge on State Highway 69, 0.7 mile north of Holladay.	15.7	1975-78, 1980-81	10-23-80 9-10-81	2.7 4.8
03606350	Big Sandy River at Westport, TN	Lat 35°53'34", long 88°18'32", Carroll County, at county road bridge, 0.3 mile southeast of Westport, and at mile 43.4.	110	1975-78, 1980-81	10-23-80 9-10-81	56 45
Obion River basin						
07024760	Spring Creek near Greenfield, TN	Lat 36°11'24", long 88°45'53", Weakley County, at bridge on State Highway 54, 3.2 miles northeast of Greenfield, and at mile 2.3.	93.4	1955 1975-78, 1980-81	10-24-80 9-11-81	27 26
07025190	Mud Creek near Sharon, TN	Lat 36°15'59", long 88°50'05", Weakley County, at bridge on U.S. Highway 45-E, 2.2 miles north of Sharon, and at mile 11.0.	45.6	1958, 1975-78, 1980-81	10-24-80 9-11-81	1.0 .27
07025300	North Fork Obion River at Jones Mill, TN	Lat 36°26'46", long 88°27'57", Henry County, at county road bridge at Jones Mill, and at mile 42.8.	83.7	1958-61, 1964, 1975-78, 1980-81	10-24-80 9-11-81	71 42
07026100	Reeds Creek near Trimble, TN	Lat 36°10'48", long 89°15'15", Dyer County, at county road bridge, 0.4 mile north of Locust Grove, 4.0 miles south- west of Trimble, and at mile 1.6.	51.8	1975-78, 1980-81	10-24-80 9-11-81	3.7 1.5
07027280	Jacks Creek at Jacks Creek, TN	Lat 35°28'16", long 88°31'21", Chester County, at bridge on State Highway 100, at town of Jacks Creek, and at mile 8.5.	17.9	1975-78, 1980-81	10-23-80 9-10-81	5.8 3.9
07027750	Nixon Creek near Nut Bush, TN	Lat 35°41'59", long 89°16'36", Haywood County, 1.6 miles north- east of Christmasville, at county road bridge, 7.2 miles east of Nut Bush, and at mile 6.60.	42.5	1976-78, 1980-81	9-11-81	.54
07029070	Pond Creek near Bonicord, TN	Lat 35°55'16", long 89°19'31", Dyer County, at county road bridge, 2.3 miles south of Bonicord, and 2.6 miles west of State Highway 20.	53.9	1980-81	10-23-80 9-10-81	0 .09
Hatchie River basin						
07029450	Cub Creek near Hebron, TN	Lat 35°10'28", long 88°54'50", Hardeman County, at county road bridge, 0.3 mile southeast of State Highway 125, 1.4 miles northwest of Hebron, and 7.8 miles northwest of Middleton.	15.0	1980-81	9-10-81	1.6
07030140	Cane Creek near Cherry, TN	Lat 35°40'30", long 89°41'21", Lauderdale County, at bridge on State Highway 87-A, 1.2 miles east of Cherry, and at mile 4.6.	83.9	1958-60, 1962, 1964, 1975-78, 1980-81	10-23-80 9-11-81	5.5 3.1

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Hatchie River basin--Continued						
07030160	Indian Creek at Gilt Edge, TN	Lat 35°33'09", long 89°49'20", Tipton County, at bridge on State Highway 59, 0.2 mile east of Gilt Edge.	65.9	1976-78, 1980-81	10-23-80 9-10-81	5.0 0
Loosahatchie River basin						
07030220	Jones Creek near Somerville, TN	Lat 35°14'11", long 89°23'39", Fayette County, at bridge on U.S. Highway 64, 2.4 miles west of Somerville.	15.5	1980-81	10-24-80 9-10-81	0 0
07030244	East Beaver Creek near Braden, TN	Lat 35°23'12", long 89°37'01", Fayette County, at county road bridge, 2.8 miles west of Braden, and 4.2 miles north of Gallaway.	62.0	1980-81	10-23-80 9-10-81	0 1.4

* Also crest-stage partial-record station.

** Also synoptic coal-hydrology partial-record station.

a Published incorrectly as 03468140, 1976-80.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from current meter or indirect measurements of peak flow. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1981

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Mobile River basin							
*02384900	Coahulla Creek near Cleveland, TN	Lat 35°07'00", long 84°50'18", Bradley County, at bridge on State Highway 74, 2.5 miles southeast of intersection of State Highways 74 and 60 at Cleveland. Datum of gage is 828.3 ft National Geodetic Vertical Datum of 1929.	4.35	1955-81	2-10-81	5.24	182
Green River basin							
03313600	West Fork Drakes Creek tributary near Fountain Head, TN	Lat 36°33'34", long 86°27'26", Sumner County, at culvert under county road, 2.3 miles northeast of Fountain Head, and 0.4 mile upstream from mouth.	0.95	1967-81	6- 6-81	9.51	541
Cumberland River basin							
03409000	White Oak Creek at Sunbright, TN	Lat 36°14'38", long 84°40'14", Morgan County, at bridge on U.S. Highway 27 in Sunbright. Datum of gage is 1,294.05 ft National Geodetic Vertical Datum of 1929.	13.5	1933+, 1955-81	1981	<7.37	-
03414700	Puncheon Camp Creek at Allred, TN	Lat 36°19'35", long 85°11'10", Overton County, at bridge on State Highway 85 at Allred, 3.9 miles south of inter- section of State Highways 85 and 52.	15.5	1955-81	6- 6-81	3.13	-
03417700	Mathews Branch tributary near Livingston, TN	Lat 36°20'04", long 85°20'23", Overton County, at culvert under State Highway 42, 3.0 miles south of intersection of State Highways 85 and 42, 2.9 miles southwest of Livingston.	0.49	1955-81	6- 6-81	3.38	118
03418201	Doe Creek at Gainesboro, TN	Lat 36°21'23", long 85°39'20", Jackson County, at bridge on Highway 56, at Gainesboro. Datum of gage is 519.37 ft National Geodetic Vertical Datum of 1929.	5.72	1978-81	1981	<3.77	-
03420360	Mud Creek tributary No. 2 near Summitville, TN	Lat 35°36'10", long 86°01'33", Coffee County, at culvert under county road, 3.5 miles northwest of Summitville, and 0.7 mile upstream from mouth.	2.28	1967-81	5-19-81	4.75	415
03420500	Barren Fork near Trousdale, TN	Lat 35°39'55", long 85°53'00", Warren County, at county highway bridge on Trousdale-McMinnville pike, 3.2 miles east of Trousdale. Datum of gage is 925.61 ft National Geodetic Vertical Datum of 1929.	126	1933-57+, 1958-81	1981	<7.39	<2,960
03420600	Owen Branch near Centertown, TN	Lat 35°42'30", long 85°53'05", Warren County, at bridge on U.S. Highway 70-S, 2.4 miles southeast of Centertown.	4.60	1955-81	8-29-81	3.29	200

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis-charge (ft ³ /s)
Cumberland River basin--Continued							
03421200	Charles Creek near McMinnville, TN	Lat 35°43'00", long 85°46'05", Warren County, at bridge on county road at Faulkner Springs, 2.7 miles north of McMinnville.	31.1	1955-81	1-11-74 3-14-75 10-17-75 4- 4-77 1981	h9.53 h13.00 12.15 h8.01 <7.13	h3,400 h8,950 h7,050 h2,280 <1,700
03425500	Spring Creek near Lebanon, TN	Lat 36°10'49", long 86°14'29", Wilson County, at bridge on Eastover Road, 3.4 miles southeast of Lebanon. Datum of gage is 556.08 ft National Geodetic Vertical Datum of 1929.	35.3	1955-61+, 1962-81	6-11-81	6.39	2,900
03425644	Town Creek above Gallatin, TN	Lat 36°24'17", long 86°25'36", Sumner County, 200 ft above culvert on U.S. Highway 31E, 1.3 miles northeast of intersection of Highway 109 and 31E in Gallatin.	2.25	1981f	6-10-81	5.52	-
03425646	Town Creek at Gallatin, TN	Lat 36°22'50", long 86°27'15", Sumner County, at bridge on Maple Street, 0.5 mile downstream from U.S. Highway 31E and Main Street junction at Gallatin.	4.90	1978-81f	6-10-81	9.15	1,920
03425700	Spencer Creek near Lebanon, TN	Lat 36°14'20", long 86°24'03", Wilson County, at bridge on county road, 100 ft north of junction of county road and U.S. Highway 70, 6.5 miles west of square in Lebanon.	3.32	1955-81	6-11-81	4.56	320
03425800	Cedar Creek tributary at Green Hill, TN	Lat 36°13'52", long 86°31'40", Wilson County, at culvert under U.S. Highway 70, 0.2 mile east of Green Hill.	0.86	1955-57, 1959-81	6-11-81	4.01	205
03426000	Drakes Creek above Hendersonville, TN	Lat 36°22'14", long 86°37'00", Sumner County, at bridge on Long Hollow Pike, 4.5 miles north of Hendersonville. Datum of gage is 503.06 ft National Geodetic Vertical Datum of 1929.	19.2	1955-61+, 1962-81	6- 6-81	9.61	4,290
03428043	Lytile Creek at Sanbyrne Drive at Murfreesboro, TN	Lat 35°49'38", long 86°23'28", Rutherford County, at bridge on Sanbyrne Drive, 1 mile south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft National Geodetic Vertical Datum of 1929.	17.6	1978-81	1981	<0.00	-
03429500	Stewart Creek near Smyrna, TN	Lat 35°59'54", long 86°30'18", Rutherford County, at bridge on Fifteenth Avenue at former Sewart Air Force Base, 1.3 miles northeast of Smyrna. Datum of gage is 490.00 ft National Geodetic Vertical Datum of 1929.	69.7	1953-58+, 1959-63, 1965-81	3-30-81	a4.96	814
*03430118	McCrory Creek at Ironwood Drive at Donelson, TN	Lat 36°09'07", long 86°39'02", Davidson County, at bridge under Ironwood Drive, 1.3 miles southeast of intersection of U.S. Highway 70 (Lebanon Road) and Donelson Pike in Donelson.	7.31	1977-81f	6- 6-81	7.22	1,460
03430400	Mill Creek at Nolensville, TN	Lat 35°57'32", long 86°40'31", Williamson County, at bridge on Sunset Road, 0.6 mile northwest of Nolensville. Datum of gage is 586.18 ft National Geodetic Vertical Datum of 1929.	12.0	1965-81	3-30-81	5.19	1,560

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
03431000	Mill Creek near Antioch, TN	Lat 36°04'54", long 86°40'50", Davidson County, at bridge on Franklin-Limestone Road, 1.6 miles north of Antioch. Datum of gage is 472.57 ft National Geodetic Vertical Datum of 1929.	64.0	1954-61+, 1962-63, 1964-75+, 1976-81		<10.01	<2,810
03431040	Sevenmile Creek at Blackman Road, at Nashville, TN	Lat 36°04'21", long 86°44'00", Davidson County, at bridge on Blackman Road, 7.0 miles southeast of State capitol in Nashville. Datum on gage is 499.08 ft National Geodetic Vertical Datum of 1929.	12.2	1965-81	6- 6-81	6.12	-
03431060	Mill Creek at Thompson Lane, near Woodbine, TN	Lat 36°07'04", long 86°43'08", Davidson County, at bridge on Thompson Lane, 1.5 miles northeast of intersection of Thompson Lane and Nolensville Road (U.S. Highway 31-A, 41-A) in Woodbine. Datum of gage is 432.55 ft National Geodetic Vertical Datum of 1929.	93.4	1965-81	6- 6-81	10.56	5,370
03431062	Mill Creek trib- utary at Glenrose Avenue, at Wood- bine, TN	Lat 36°07'02", long 86°43'37", Davidson County, at culvert under Glenrose Avenue, 1.1 miles northeast of inter- section of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth.	1.17	1977-81f	6- 6-81	4.18	227
03431120	West Fork Browns Creek at General Bates Drive, at Nashville, TN	Lat 36°06'29", long 86°47'07", Davidson County, at bridge on General Bates Drive, 4.0 miles south of State capitol in Nashville. Datum of gage is 499.94 ft National Geodetic Vertical Datum of 1929.	3.30	1965-81	6- 6-81	3.46	252
03431240	East Fork Browns Creek at Baird- Ward Printing Company, at Nashville, TN	Lat 36°06'33", long 86°46'00", Davidson County, at bridge on access road to Baird-Ward Printing Co., Plant No. 1, 500 ft west of 100-Oaks Shopping Center, and 4.0 miles southeast of State capitol in Nashville. Datum of gage is 497.91 ft National Geodetic Vertical Datum of 1929.	1.58	1965-81	6- 6-81	2.78	145
03431340	Browns Creek at Factory Street, at Nashville, TN	Lat 36°08'26", long 46°45'31", Davidson County, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 miles southeast of State capitol in Nashville. Datum of gage is 418.92 ft National Geodetic Vertical Datum of 1929.	13.2	1965-81	9-15-81	7.14	1,860
*03431490	Pages Branch at Avondale, TN	Lat 36°12'22", long 86°46'24", Davidson County, at culvert under Trinity Lane, 900 ft east of intersection of Interstate 65 and Trinity Lane at Avondale, 0.9 mile upstream from mouth.	2.01	1977-81f	6- 6-81	3.77	227
*03431520	Claylick Creek at Lickton, TN	Lat 36°18'02", long 86°48'37", Davidson County, at bridge on Lickton Road in Lickton, 1,200 ft upstream from mouth.	4.13	1965-81	9-15-81	7.59	2,260
03431550	Earthman Fork at Whites Creek, TN	Lat 36°15'55", long 86°49'51", Davidson County, at bridge on Whites Creek Pike in town of Whites Creek, 1,800 ft upstream from mouth.	6.29	1965-81	9-15-81	9.34	2,450

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
03431580	Ewing Creek at Knight Road, near Bordeaux, TN	Lat 36°13'55", long 86°48'14", Davidson County, at bridge on Knight Road, 3.0 miles north-east of Bordeaux. Datum of gage is 438.27 ft National Geodetic Vertical Datum of 1929.	13.3	1965-81	6- 6-81	7.67	2,050
03432371	Harpeth River tributary at Franklin, TN	Lat 35°55'24", long 86°52'46", Williamson County, on right bank 10 ft above culvert on 11th Avenue, 0.4 mile southwest of junction of U.S. Highway 431 and State Highway 96, 0.6 mile west of Courthouse, at Franklin.	1.81	1978-81f	3-13-78 5- 4-79 7-22-80 6- 6-81	4.92 7.74 7.28 4.70	g149 g742 g503 133
*03432925	Little Harpeth River at Granny White Pike, at Brentwood, TN	Lat 36°01'30", long 86°49'09", Williamson County, at bridge on Granny White Pike, 2.0 miles southwest of Brentwood. Datum of gage is 618.29 ft National Geodetic Vertical Datum of 1929.	22.0	1978-81	6- 6-81	7.26	800
03434583	Jones Creek tributary at Dickson, TN	Lat 36°05'08", long 87°22'39", Dickson County, on right bank 50 ft above bridge on a private drive, 1.0 mile northeast of County Courthouse, 0.3 mile northeast of intersection of U.S. Highway 70 bypass and State Highway 48, at Dickson.	2.4	1978-81f	7-10-81	7.48	575
03435030	Red River near Portland, TN	Lat 36°33'24", long 86°34'14", Sumner County, at county road bridge, 1.5 miles upstream from Austin Branch, 3.5 miles southwest of Portland and at mile 93.0.	15.1	1966-75+, 1976-81	6-10-81	14.07	10,400
Tennessee River basin							
03461230	Caney Creek near Cosby, TN	Lat 35°47'03", long 83°12'11", Cocke County, at culvert under State Highway 32, 3.3 miles southeast of Cosby.	1.62	1967-81	2-10-81	3.95	72
03465000	North Indian Creek near Unicoi, TN	Lat 36°10'35", long 82°17'36", Unicoi County, on right bank 900 ft upstream from Rocky Branch, 3.4 miles southeast of Unicoi. Datum of gage is 2,209.56 ft National Geodetic Vertical Datum of 1929.	15.9	1945-57+, 1959-81	7-16-81	4.84	840
03466361	Richland Creek at Greeneville, TN	Lat 36°08'33", long 82°49'27", Greene County, at sewage treatment plant, 0.2 mile upstream from bridge on Old Asheville Highway, 1.4 miles south-southeast of Greeneville post office, and at mile 6.3.	3.48	1978-81f	6- 6-81	6.25	680
03467500	Nolichucky River near Morristown, TN	Lat 36°10'49", long 83°10'32", Hamblen County, on right bank along Southern Railway, 0.6 mile upstream from Susong Bridge, 7 miles southeast of Morristown. Datum of gage is 1,015.73 ft National Geodetic Vertical Datum of 1929.	1,679	1921-57+, 1959-81	1981	<9.05	<9,970
03469110	Ramsey Creek near Pittman Center, TN	Lat 35°45'33", long 83°20'49", Sevier County, at culvert under State Highway 73, 1.5 miles southeast of Pittman Center.	2.18	1967-81	1981	<6.00	<400

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis- charge (ft ³ /s)
Tennessee River basin--Continued							
03469130	Little Pigeon River near Sevierville, TN	Lat 35°51'38", long 83°30'13", Sevier County, at bridge on U.S. Highway 411, 2.9 miles east of Sevierville. Datum of gage is 928.21 ft National Geodetic Vertical Datum of 1929.	110	1954-81	1981	<11.77	<7,700
03469160	East Fork Little Pigeon River near Sevierville, TN	Lat 35°51'55", long 83°29'17", Sevier County, at bridge on U.S. Highway 411, 5.2 miles east of Sevierville. Datum of gage is 929.20 ft National Geodetic Vertical Datum of 1929.	64.1	1954-81	1981	<7.95	<1,500
03469500	West Prong Little Pigeon River near Pigeon Forge, TNb/	Lat 35°48'21", long 83°34'28", Sevier County, at bridge on old State Highway 71, 1.6 miles northwest of Pigeon Forge. Datum of gage is 965.23 ft National Geodetic Vertical Datum of 1929.	76.2	1946-49+, 1954-81	2-10-81	7.69	3,080
03481600	Corn Creek at Moun- tain City, TN	Lat 36°29'23", long 81°48'52", Johnson County, at bridge on county road, 600 ft north of junction of county road and U.S. Highway 421, 1 mile northwest of Mountain City.	5.34	1959-61, 1963-81	5-28-81	2.46	-
03482000	Roan Creek near Neva, TN	Lat 36°22'37", long 81°53'14", Johnson County, on right bank on Butler-Neva road, 1.7 miles southwest of Neva. Datum of gage is 2,103.11 ft National Geodetic Vertical Datum of 1929.	102	1943-55+, 1959-81	5-28-81	6.12	3,050
03486225	Powder Branch near Johnson City, TN	Lat 36°19'03", long 82°16'40", Carter County, at culvert under county road, 4.0 miles east of Johnson City, 4.3 miles southwest of Elizabethton, and at mile 0.2.	4.88	1973-81	7-17-81	9.45	166
03491200	Big Creek tributary near Rogersville, TN	Lat 36°25'30", long 82°57'17", Hawkins County, at culvert under county road, 300 ft upstream from mouth, 2.8 miles northeast of Rogersville.	2.00	1955-81	6- 7-81	3.30	62
03492006	Turkey Creek at Morristown, TN	Lat 36°14'09", long 83°17'51", Hamblen County, 300 ft down- stream from bridge on South Outer Street at Morristown.	5.09	1978-81f	6-30-81	4.51	305
03498700	Nails Creek near Knoxville, TN	Lat 35°52'49", long 83°46'47", Sevier County, at culvert under State Highway 71, 0.8 mile southeast of Shooks Gap, 10.5 miles southeast of Knoxville.	0.36	1955-81	6- 6-81	4.60	132
03499007	Pistol Creek at Calderwood Avenue, at Alcoa, TN	Lat 36°46'08", long 83°58'58", Blount County, 150 ft upstream from bridge on Calderwood Avenue at Alcoa.	15.7	1978-81f	6-12-78 3- 4-79 3-21-80 6-23-81	5.04 5.59 6.08 8.86	g320 g458 g622 2,460
03519610	Baker Creek trib- utary near Binfield, TN	Lat 35°41'56", long 84°02'46", Blount County, at culvert under county road, 1.5 miles east of Binfield.	2.10	1966-77, 1979-81	5-24-79 3-21-80 6-23-81	g4.19 g4.14 8.29	g146 g139 -
03519640	Baker Creek near Greenback, TN	Lat 35°40'21", long 86°46'28", Blount County, at county road bridge, 1.0 mile upstream from Little Baker Creek, 3.4 miles east of Greenback, and at mile 15.0.	16.0	1965-75+, 1976-81	6-23-81	9.20	-

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis- charge (ft /s)
Tennessee River basin--Continued							
03520100	Sweetwater Creek near Loudon, TN	Lat 35°44'17", long 84°22'25", Loudon County, at bridge on State Highway 72, 2.0 miles west of Loudon. Datum of gage is 737.03 ft National Geodetic Vertical Datum of 1929.	62.2	1954-81	6- 6-81	6.18	820
03534000	Coal Creek at Lake City, TN _c /	Lat 36°13'14", long 84°09'27", Anderson County, at bridge on U.S. Highway 25-W, at Lake City. Datum of gage is 842.91 ft National Geodetic Vertical Datum of 1929.	24.5	1932-34‡, 1955-81	1981	<2.43	<560
03534500	Buffalo Creek at Norris, TN	Lat 36°11'05", long 84°03'34", Anderson County, at culvert under Norris Freeway (State Highway 71), 1.0 mile south- east of Norris. Datum of gage is 901.71 ft National Geodetic Vertical Datum of 1929.	49.92	1948-50‡, 1955-81	7-16-81	7.18	600
03535180	Willow Fork near Halls Crossroads, TN	Lat 36°05'59", long 83°54'27", Knox County, at culvert under Quarry Road, 1.7 miles northeast of Halls Crossroads. Datum of gage is 1,027.82 ft National Geodetic Vertical Datum of 1929.	3.23	1967-81	7-29-67 12-22-67 h6-23-69 h12-30-69 5-13-71 3-16-73 3- 8-76 4- 4-77 9-16-81	g6.17 g5.59 5.72 6.32 5.62 8.08 5.58 7.17 5.69	g221 g79 99 266 g83 g878 g78 g560 94
03538130	Caney Creek near Kingston, TN	Lat 35°51'53", long 84°23'07", Roane County, 1.5 miles up- stream from mouth, 2.4 miles northeast of intersection of U.S. Highway 70 and Buttermilk Road, 7.5 miles east of Kingston.	5.55	1962-81	6- 6-81	6.55	960
03538200	Poplar Creek near Oliver Springs, TN	Lat 36°01'20", long 84°18'37", Anderson County, at bridge on State Highway 61, 0.9 mile downstream from Brushy Fork, 2.5 miles southeast of Oliver Springs, 4 miles upstream from Indian Creek.	55.9	1954-81	1981	<8.85	<820
03538500	Emory River near Wartburg, TN	Lat 36°06'46", long 84°36'54", Morgan County, at bridge on Wartburg-Lancing Road, 1.2 miles northwest of Wartburg. Datum of gage is 1,003.06 ft National Geodetic Vertical Datum of 1929.	83.2	1935-57‡, 1958-66, 1967-68‡, 1969-81	4- 5-81	8.97	2,480
03538600	Obed River at Crossville, TN	Lat 35°57'27", long 85°03'00", Cumberland County, at bridge on former U.S. Highway 70-S, 0.5 mile southwest of junction of U.S. Highways 70-S and 70-N, 1.5 miles northwest of Crossville.	12.0	1955-81	1981	<4.10	<290
03538900	Self Creek near Big Lick, TN	Lat 35°47'54", long 85°02'33", Cumberland County, at culvert under county road, 1.3 miles southwest of Big Lick.	3.80	1968-81	6-11-81	3.71	155
03541100	Bitter Creek near Camp Austin, TN	Lat 36°00'53", long 84°31'33", Morgan County, at culvert under U.S. Highway 27, 3.0 miles southeast of Camp Austin.	5.53	1967-81	2-11-81	4.30	240
03542500	Piney River at Spring City, TN	Lat 35°41'59", long 84°51'17", Rhea County, at bridge on U.S. Highway 27, 0.5 mile northeast of Spring City. Datum of gage is 749.65 ft National Geodetic Vertical Datum of 1929.	95.9	1928-30‡, 1955-81	1981	<11.73	-

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Tennessee River basin--Continued							
03566036	South Mouse Creek at 20th Street, at Cleveland, TN	Lat 35°10'30", long 84°52'37", Bradley County, at bridge on 20th Street at Cleveland.	7.31	1978-81f	7-16-81	6.50	800
03566200	Brymer Creek near McDonald, TN	Lat 35°07'20", long 84°57'00", Bradley County, at bridge on U.S. Highways 11 and 64, 1.9 miles east of McDonald.	9.68	1955-81	2-10-81	4.78	475
03566599	North Chickamauga Creek at Greens Mill, near Hixson, TN	Lat 35°10'30", long 85°13'40", Hamilton County, at bridge on Boy Scout Road, 2.3 miles north of Hixson.	99.5	1925,1944, 1953-56, 1980-81	2-10-81	27.98	-
035686655 (3500360 85173400)	South Fork Dobbs Branch at Chattanooga, TN	Lat 35°00'36", long 85°17'34", Hamilton County, 33 ft upstream from culvert under Clie Street, 2.9 miles south-southeast of County Courthouse, and at mile 1.3.	1.12	1980-81f	5-31-81	48.06	245
03569168	Stringers Branch at Leawood Drive, at Redbank, TN	Lat 35°07'00", long 85°17'28", Hamilton County, at bridge on Leawood Drive at Redbank.	1.54	1980-81	8-29-81	22.45	-
**03570800	Little Brush Creek near Dunlap, TN	Lat 35°24'15", long 85°23'18", Sequatchie County, at bridge on former State Highway 8, 1.5 miles north of Dunlap.	15.4	1959-81	2-10-81	4.13	680
**03571500	Little Sequatchie River at Sequatchie, TN	Lat 35°07'47", long 85°35'10", Marion County, at Highway 27 bridge, 1.0 mile northeast of Sequatchie.	116	1925,1929, 1930, 1932-34*, 1944,1951-54, 1965,1979-81	1981	<7.76	-
**03571800	Battle Creek near Monteagle, TN	Lat 35°08'03", long 85°46'15", Marion County, at bridge on former U.S. Highways 41 and 64, 9.2 miles southeast of Monteagle. Datum of gage is 621.51 ft National Geodetic Vertical Datum of 1929.	50.4	1955-81	1981	<7.00	<2,700
03578500	Bradley Creek near Prairie Plains, TN	Lat 35°21'21", long 85°58'45", Coffee County, on left bank 165 ft downstream from highway bridge, 1.1 miles northwest of Prairie Plains. Datum of gage is 968.13 ft National Geodetic Vertical Datum of 1929.	41.3	1952-59*, 1960-81	3-30-81	5.78	571
03581500	West Fork Mulberry Creek at Mulberry, TN	Lat 35°12'34", long 86°27'46", Lincoln County, at old bridge 1,000 ft downstream from State Highway 50, 0.2 mile southwest of Mulberry. Datum of gage is 687.72 ft National Geodetic Vertical Datum of 1929.	41.2	1954-62*, 1963-66, 1967-68*, 1969-81	1981	<10.01	<2,940
03582300	Norris Creek near Fayetteville, TN	Lat 35°09'53", long 86°32'45", Lincoln County, at bridge on old State Highway 50, 2.0 miles northeast of Fayetteville. Datum of gage is 666.27 ft National Geodetic Vertical Datum of 1929.	42.6	1954-81	6- 6-81	8.53	3,850

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Dis- charge (ft ³ /s)
Tennessee River basin--Continued							
03582395	Tanyard Branch at Fayetteville, TN	Lat 35°09'02", long 86°34'22", Lincoln County, 20 ft above culvert on West Cambell Street, 0.1 mile west of junction of West Cambell Street and U.S. Highway 231-431, 0.2 mile southwest of Courthouse, at Fayetteville.	.47	1978-81f	8-17-81	3.98	-
03583200	Chicken Creek at McBurg, TN	Lat 35°11'03", long 86°48'47", Lincoln County, at bridge on county highway R7374 in McBurg.	7.66	1955-81	3-30-81	4.19	990
03583300	Richland Creek near Cornersville, TN	Lat 35°19'10", long 86°52'20", Marshall County, at bridge on U.S. Highway 31-A, 3.4 miles southwest of Cornersville. Datum of gage is 754.28 ft National Geodetic Vertical Datum of 1929.	47.5	1962-68*, 1969-81	1981	<7.65	<1,480
03584060	Pleasant Run Creek at East College Street, at Pulaski, TN	Lat 35°11'47", long 87°01'52", Giles County, at culvert under U.S. Highway 64, 0.1 mile east of junction of U.S. Highway 31 and U.S. Highway 64, 0.2 mile south of the Courthouse, at Pulaski.	.29	1978-81f	8-17-81	6.48	-
03587200	Bluewater Creek tributary near Leoma, TN	Lat 35°08'29", long 87°22'05", Lawrence County, at culvert under U.S. Highway 43, 1.8 miles southeast of Leoma.	0.49	1955-81	8-18-81	3.00	121
03587500	Shoal Creek above Little Shoal Creek at Lawrenceburg, TN _e /	Lat 35°14'02", long 87°20'00", Lawrence County, at bridge on U.S. Highway 43, 0.5 mile south of intersection of U.S. Highways 43 and 64 in Lawrenceburg.	27.0	1932-33*, 1955-81	8-18-81	6.22	1,400
03594200	Eagle Creek near Clifton Junction, TN	Lat 35°20'21", long 87°58'22", Wayne County, at bridge on State Highway 114, 2.5 miles northwest of Clifton Junction and 2.6 miles upstream from mouth.	19.0	1955-81	7- 5-81	3.36	582
03594300	Cypress Creek tributary near Pope, TN	Lat 35°37'10", long 87°57'20", Perry County, at culvert under State Highways 20 and 100, in Craig Hollow, 2.0 miles east of Pope.	0.75	1955-81	1981	<2.63	<86
03595520	Grindstone Hollow Creek at Manchester, TN	Lat 35°28'56", long 86°05'33", Coffee County, 30 ft above culvert on Oakdale Street, 0.2 mile west of County Courthouse, at Manchester.	2.11	1978-81f	11-23-80	2.78	86.9
03597000	Garrison Fork at Fairfield, TN	Lat 35°33'59", long 86°17'00", Bedford County, at bridge on county road, 0.1 mile east of Fairfield. Datum of gage is 800.25 ft National Geodetic Vertical Datum of 1929.	66.3	1954-58*, 1959-66, 1967-68*, 1970-81	3-30-81	5.89	1,510
03597300	Wartrace Creek above Bell Buckle, TN	Lat 35°37'45", long 86°21'22", Bedford County, at culvert under county road, 2.7 miles north of Bell Buckle.	4.99	1966-81	3-30-81	4.99	448
03597450	Kelly Creek tributary near Bell Buckle, TN	Lat 35°36'34", long 86°19'11", Bedford County, at bridge on county road, 3.0 miles northeast of Bell Buckle.	0.73	1966-81	1981	<3.56	<404

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Tennessee River basin--Continued							
03597500	Wartrace Creek at Bell Buckle, TN	Lat 35°35'16", long 86°20'22", Bedford County, at bridge on State Highway 82, 0.2 mile downstream from Kelly Creek, 0.9 mile east of Bell Buckle, and at mile 7.7. Datum of gage is 822.44 ft National Geodetic Vertical Datum of 1929.	16.3	1953-61+, 1962-66, 1966-75+, 1979-81	3-30-81	6.48	894
03598200	Weakley Creek near Rover, TN	Lat 35°38'05", long 86°33'03", Bedford County, at culvert under county road, 3.7 miles southeast of intersection of county road with U.S. Highway 41-A at Rover.	9.46	1955-81	3-30-81	4.33	425
03599200	East Rock Creek at Farmington, TN	Lat 35°30'05", long 86°42'50", Marshall County, at bridge on old State Highway 64, 0.2 mile west of Farmington.	43.1	1954-81	3-30-81	6.75	900
03602100	Moss Spring Hollow at Centerville, TN	Lat 35°45'44", long 87°27'47", Hickman County, at bridge on State Highways 48 and 100, 1.2 miles south of Centerville.	3.68	1954-81	1981	<3.27	-
03604070	Coon Creek trib- utary near Hohenwald, TN	Lat 35°34'07", long 87°40'02", Perry County, at culvert under State Highway 20, 7 miles northwest of Hohenwald.	0.51	1967-81	7- 5-81	3.72	78
03604080	Hugh Hollow Branch near Hohenwald, TN	Lat 35°34'59", long 87°40'36", Perry County, at culvert under State Highway 20, 8 miles northwest of Hohenwald.	1.52	1967-81	3-30-81	2.95	120
03604090	Coon Creek above Chop Hollow, near Hohenwald, TN	Lat 35°35'19", long 87°41'09", Perry County, at bridge on State Highway 20, 9 miles northwest of Hohenwald.	6.02	1967-81	1981	<2.43	<46
03605700	Deer Creek trib- utary near Waverly, TN	Lat 36°10'20", long 87°44'40", Humphreys County, at culvert under State Highway 13 in Smith Hollow, 8.0 miles northeast of Waverly.	1.04	1955-81	6- 6-81	4.11	-
03607274	Bailey Fork Creek tributary at Paris, TN	Lat 36°18'17", long 88°17'39", Henry County, on left bank 15 ft downstream from bridge on Wilson Street in Paris, 0.36 mile south of U.S. Highway 79.	1.04	1978-81f	5-12-78 8-30-79 6-29-80 6- 6-81	7.37 9.60 7.68 8.03	294 - 308 323
Obion River basin							
07025220	Cane Creek near Martin, TN	Lat 36°19'36", long 88°51'05", Weakley County, at bridge on U.S. Highway 45-E, 1.2 miles south of Martin. Datum of gage is 350.67 ft National Geodetic Vertical Datum of 1929.	6.79	1955-81	6- 6-81	11.39	-
07027530	South Fork Forked Deer River trib- utary at Jackson, TN	Lat 35°37'01", long 88°49'19", Madison County, on right bank 15 ft upstream of bridge on Farrar Street and 10 ft east of intersection of Union Street in Jackson.	.98	1978-81f	6- 6-81	10.71	549

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Obion River basin--Continued							
07028500	North Fork Forked Deer River at Trenton, TN	Lat 35°58'49", long 88°55'35", Gibson County, at bridge on State Highways 77 and 104, 0.8 mile east of Trenton, 1.0 mile downstream from Thompson Levee Creek and 1.6 miles upstream from Cain Creek.	73.5	1950-71+, 1980-81	9- 2-81	11.50	-
07028600	Cain Creek tributary near Trenton, TN	Lat 35°56'17", long 88°56'27", Gibson County, at culvert under U.S. Highway 45-W, 2.9 miles south of square in Trenton.	0.95	1955-57, 1959-81	6- 6-81	5.45	365
07028700	Cain Creek near Trenton, TN	Lat 35°57'56", long 88°57'14", Gibson County, at bridge on U.S. Highway 54, 1.6 miles southwest of Trenton.	14.4	1954-81	6- 6-81	9.35	445
07028940	Turkey Creek near Medina, TN	Lat 35°47'39", long 88°48'37", Gibson County, at county road (Lewis Road) bridge, 1.7 miles southwest of Medina.	7.87	1967-81	6- 6-81	9.33	1,650
07028985	Middle Fork Forked Deer River tributary at Humboldt, TN	Lat 35°49'16", long 88°55'23", Gibson County, on left bank 30 ft upstream of bridge on Sixth Street, 350 ft northwest of U.S. Highways 79 and 70 alternate, in Humboldt.	2.12	1978-81f	6-11-81	6.21	525
07029090	Lewis Creek near Dyersburg, TN	Lat 36°03'14", long 89°21'42", Dyer County, at bridge on U.S. Highway 51, 2.1 miles northeast of square in Dyersburg. Datum of gage is 276.52 ft National Geodetic Vertical Datum of 1929.	25.5	1955-78, 1980-81	6- 6-81	17.46	-
07030147	Town Creek tributary at Covington, TN	Lat 35°33'59", long 89°38'55", Tipton County, on left bank 550 ft downstream of Liberty Avenue, 20 ft east of College Street, and 125 ft west of U.S. Highway 51, in Covington.	.75	1978-81f	6- 6-81	9.87	555
07030270	Clear Creek near Arlington, TN	Lat 35°16'20", long 89°42'17", Shelby County, at bridge on U.S. Highways 70 and 79, 3.0 miles southwest of Arlington. Datum of gage is 245.78 ft National Geodetic Vertical Datum of 1929.	60.5	1954-56, 1959-81	6- 6-81	14.75	3,440
07030300	Loosahatchie River tributary at St. Elmo Avenue, at Memphis, TN	Lat 35°13'56", long 89°58'51", Shelby County, 120 ft downstream from culvert under St. Elmo Avenue, at Memphis.	0.82	1975-81f	5-30-81	8.49	1,170
Wolf River basin							
07031653	Wolf River tributary at Willey Road, at Germantown, TN	Lat 35°05'54", long 89°48'36", Shelby County, 16 ft upstream from culvert on Willey Road and 700 ft west of Cordova Road, at Germantown.	0.21	1975-81f	8- 6-81	7.93	147
07031657	Wolf River tributary at Neshoba Road, at Germantown, TN	Lat 35°06'21", long 89°49'54", Shelby County, 30 ft upstream from culvert on Neshoba Road and 150 ft west of Brookside Drive, at Germantown.	0.36	1975-81f	7-21-81	10.71	278
07031665	White Station Creek at Rich Road, at Memphis, TN	Lat 35°08'09", long 89°53'37", Shelby County, at downstream side of bridge on Rich Road, 2,000 ft west of White Station Road, at Memphis.	2.45	1975-81f	5-25-81	7.13	1,810

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Wolf River basin--Continued							
07031690	Fletcher Creek tributary at Whitten Road, at Memphis, TN	Lat 35°09'38", long 89°50'13", Shelby County, at upstream end of culvert under Whitten Road, 0.5 mile north of Mullins Station Road, 1.1 miles northeast of Shelby Penal Farm.	0.54	1975-81f	3-29-81	5.05	109
07031694	Harrington Creek tributary at Elmore Park Road, at Bartlett, TN	Lat 35°12'08", long 89°51'26", Shelby County, 25 ft upstream from culvert under Elmore Park Road, 750 ft south of Stage Road, 1 mile east of Bartlett.	0.33	1975-81f	7-25-81	13.92	122
07031695	Harrington Creek tributary at Hawthorne Road, at Bartlett, TN	Lat 35°11'43", long 89°51'21", Shelby County, 25 ft downstream from culvert under Hawthorne Road, 30 ft west of Elmore Park Road, 1 mile southeast of Bartlett.	0.21	1975-81f	5-25-81	9.18	52
07031697	Harrington Creek tributary at Stage Road, at Bartlett, TN	Lat 35°12'30", long 89°53'05", Shelby County, 30 ft upstream from culvert under Stage Road, 300 ft west of Chaucer Road, 1 mile west of Bartlett.	0.91	1975-81f	7- 5-81	8.06	227
07031710	Harrison Creek at Charleswood Road, at Memphis, TN	Lat 35°08'34", long 89°55'00", Shelby County, upstream side of bridge at Charleswood Road, 300 ft west of Waring Road, at Memphis.	1.59	1975-81f	5-25-81	11.73	1,410
07031725	Workhouse Bayou tributary at Isabelle Street, at Memphis, TN	Lat 35°09'24", long 89°56'01", Shelby County, 200 ft upstream from culvert under Isabelle Street, at Memphis.	0.09	1975-81f	8-31-81	3.26	25
07031758	Cypress Creek at Broad Street, at Memphis, TN	Lat 35°08'51", long 89°57'33", Shelby County, at bridge on Broad Street, 650 ft east of intersection of Tillman Street, 700 ft west of intersection of Vandalia Street, at Memphis.	4.97	1978-81f	8-10-78 4- 1-79 6-24-80 8-31-81	11.03 10.92 9.64 9.10	5,780 5,650 4,330 3,800
07031761	Cypress Creek tributary at Cumberland Street at Memphis, TN	Lat 35°08'22", long 89°58'10", Shelby County, 2,900 ft south of Broad Street, 300 ft east of Missouri Pacific Railroad, and 150 ft west of Illinois Central Gulf Railroad, at Memphis.	0.47	1978-81	8-31-81	9.03	360
07031765	Overton Bayou at North Drive, at Memphis, TN	Lat 35°09'20", long 89°58'52", Shelby County, beside Cypress Drive, 45 ft upstream from culvert under North Drive, at Memphis.	0.30	1975-81f	8- 6-81	5.51	220
07031773	Lick Creek at Jefferson Avenue, at Memphis, TN	Lat 35°08'20", long 89°59'30", Shelby County, 20 ft upstream from culvert under Jefferson Avenue, at Memphis.	1.00	1975-81f	8-31-81	7.06	606
07031795	Wolf River tributary at Whitney Avenue, at Memphis, TN	Lat 35°12'31", long 90°01'15", Shelby County, at upstream end of culvert under Whitney Avenue, at Memphis.	0.35	1975-81f	6- 1-81	9.70	202
Nonconnah Creek basin							
07032195	Nonconnah Creek tributary at Shelby Drive, at Memphis, TN	Lat 35°01'13", long 89°49'57", Shelby County, at upstream end of culvert under Shelby Drive, at Memphis.	1.58	1975-81f	3-29-81	8.56	-
07032242	Cherry Bayou at Park Avenue, at Memphis, TN	Lat 35°06'24", long 89°54'13", Shelby County, 20 ft downstream from culvert under Park Avenue, 150 ft west of Colonial Road, at Memphis.	0.18	1975-81f	8-31-81	5.12	111

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1981--Continued

						Annual maximum	
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis-charge (ft ³ /s)
Nonconnah Creek basin--Continued							
07032244	Cherokee Creek at Kimball Avenue, at Memphis, TN	Lat 35°05'43", long 89°57'31", Shelby County, at downstream end of culvert under Kimball Avenue, at intersection of Alamo Street, at Memphis.	0.49	1975-81f	8-31-81	7.10	407
07032246	Days Creek at Shelby Drive, at Memphis, TN	Lat 35°01'14", long 90°00'37", Shelby County, 75 ft upstream from culvert under Shelby Drive, at Memphis.	2.63	1975-81f	3-29-81	5.33	517
07032247	Parkway Bayou at South Parkway East, at Memphis, TN	Lat 35°06'33", long 89°59'41", Shelby County, between one-way lanes of South Parkway East, 100 ft west of Castalia Street, at Memphis.	0.49	1975-81f	8-31-81	8.30	863
07032249	Latham Branch at Valley Boulevard, at Memphis, TN	Lat 35°05'56", long 90°02'43", Shelby County, between one-way lanes of Valley Boulevard, 200 ft downstream from Dison Avenue, at Memphis.	0.05	1975-81f	8-31-81	13.88	44

- * Also a low-flow partial-record station.
- ** Also synoptic coal-hydrology partial-record station.
- † Operated as a continuous-record gaging station.
- a Furnished by Corps of Engineers, Nashville district.
- b Published as West Fork Little Pigeon River prior to 1966.
- c Published as at Coal Creek prior to 1935.
- d Includes 2.10 mi² without surface drainage.
- e Published as Beeler Fork at Lawrenceburg
prior to 1934.
- f Operated as a flood hydrograph station.
- g Revised.
- h Not previously published.

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 1981

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements Discharge (ft ³ /s)
Green River basin						
03313870 Trammel Creek	Drakes Creek	Lat 36°34'20", long 86°13'03", Sumner County, 30 ft upstream from David Creek, 1.8 miles northeast of Westmoreland.	4.09	1975-76, 1979	9-25-81	*a1.3
Cumberland River basin						
03420880 Barren Fork River	Collins River	Lat 35°40'28", long 85°46'37", Warren County, at old State Highway 55 bridge at McMinnville.	297	1948, 1954	10-16-80	*57
03430142 Stoners Creek	Stones River	Lat 36°12'07", long 86°35'29", Davidson County, at bridge on Tulip Grove Road, at Tulip Grove.	15.4	1968, 1975-76, 1979	9-21-81	*2.6
3554240865059 Harpeth River	Cumberland River	Lat 35°54'24", long 86°50'59", Williamson County, 0.4 mile above Watson Branch, 1.7 miles southeast of Franklin, and at mile 89.6.	-	-	9-24-80	0
03432346 Harpeth River	Cumberland River	Lat 35°54'52", long 86°51'49", Williamson County, 0.8 mile south of Franklin, and at mile 88.6.	190	1975	10-17-80 10-20-80	*.38 *.39
03432417 Harpeth River	Cumberland River	Lat 35°57'32", long 86°53'23", Williamson County, 2.7 miles northwest of Franklin, and at mile 81.3.	214	1975-76	10- 1-80	*5.6
3557360865325 Harpeth River	Cumberland River	Lat 35°57'36", long 86°53'25", Williamson County, 2.8 miles northwest of Franklin, and at mile 81.1.	-	1976	10- 1-80	*4.9
03432426 Harpeth River	Cumberland River	Lat 35°58'05", long 86°54'03", Williamson County, at Cotton Road bridge, 3.5 miles north- west of Franklin, and at mile 79.8.	219	1975-76	10- 1-80 10-20-80	*6.3 *7.0
03432436 Harpeth River	Cumberland River	Lat 35°58'07", long 86°54'56", Williamson County, 0.8 mile southeast of Forest Home, 3.9 miles northwest of Franklin, and at mile 78.8.	221	1975-76	10-14-80	*4.3
03432690 West Harpeth River	Harpeth River	Lat 35°58'02", long 86°55'07", Williamson County, 0.8 mile southeast of Forest Home, 4.0 miles northwest of Franklin, and at mile 0.1.	117	1975	10-14-80	*1.9
03432692 Harpeth River	Cumberland River	Lat 35°58'16", long 86°55'07", Williamson County, at mouth of West Harpeth River, 4.0 miles northwest of Franklin, and at mile 78.5.	-	1976	10-14-80	*6.6
03432700 Harpeth River	Cumberland River	Lat 35°59'36", long 86°54'10", Williamson County, at Wray bridge on old Hillsboro Road, 5.0 miles north of Franklin, and at mile 74.9.	340	1975	10-14-80 10-20-80	*5.7 *11
03432701 Harpeth River	Cumberland River	Lat 35°59'41", long 86°55'02", Williamson County, 1.0 mile below Wray bridge, 5.1 miles northwest of Franklin, and at mile 73.9.	-	-	10-14-80	* 5.5

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Cumberland River basin--continued						
03434610 Town Branch	Jones Creek	Lat 36°10'39", long 87°20'11", Dickson County, at county road bridge (Old State High- way 47 bridge) 1,700 ft east of intersection of State Highway 48 and 49 at Charlotte and 2,000 ft upstream from Matlock Branch.	2.05	1973, 1975-76, 1978-79	9-22-81	*,77
03435030 Red River	Cumberland River	Lat 36°33'24", long 86°34'14", Sumner County, at county road bridge, 1.5 miles upstream from Austin Branch, 3.5 miles southwest of Portland, and at mile 93.0.	15.1	1966-75† 1976-80	6-10-81	†10,400
03435041 Red River	Cumberland River	Lat 36°37'27", long 86°39'07", Robertson County, at county road bridge, 2.1 miles north- west of Handleyton.	47.9	-	3-16-81 5-19-81	28 396
03435042 Summers Branch	Red River	Lat 36°38'18", long 86°39'09", Robertson County, 4.0 miles northeast of Orlinda, and at mile 0.5.	22.4	1951	3-16-81 5-19-81	12 367
03435043 Red River Trib.	Red River	Lat 36°37'43", long 86°40'23", Robertson County, at county road bridge, 3.0 miles north- east of Orlinda.	4.60	-	3-16-81 5-19-81	1.9 32
03435122 South Fork Red River	Red River	Lat 36°36'20", long 86°48'04", Robertson County, at county road bridge, 1.9 miles north- east of Youngville, 2.3 miles northwest of Milldale.	77.1	-	3-16-81 5-19-81	47 660
03435298 Red River	Cumberland River	Lat 36°38'20", long 86°58'31", Robertson County, at State Highway 161 bridge, 0.4 mile south of Kentucky-Tennessee state line, 4.0 miles north- west of Barren Plain.	547	-	3-16-81 5-19-81	469 5,870
03435400 Elk Fork	Red River	Lat 36°36'59", long 87°05'42", Robertson County, at bridge on Mint Spring Road, 1.2 miles northeast of Sadlersville, and at mile 3.4.	98.0	1962-64, 1967, 1970-71	3-16-81 5-19-81	105 1,500
03436082 Sulphur Fork Red River	Red River	Lat 36°32'23", long 87°06'51", Robertson County, at State Highway 76 bridge, 0.5 mile southwest of Walnut Grove, 1.7 miles southeast of Port Royal.	214	-	3-16-81 5-19-81	115 1,970
03436135 Red River	Cumberland River	Lat 36°31'35", long 87°16'52", Montgomery County, at county road bridge 4.0 miles east of Clarksville.	992	-	3-16-81 5-19-81	855 2,500
03436760 Wells Creek	Cumberland River	Lat 36°18'39", long 87°40'36", Houston County, 0.3 mile south of Erin School, 0.6 mile up- stream from State Highway 49, 1.0 mile southeast of Erin.	19.1	-	6-6-81	†11,200
03436780 Erin Branch	Wells Creek	Lat 36°19'13", long 87°40'51", Houston County, 750 ft down- stream from State Highway 49 bridge, at east edge of Erin, 2,200 ft upstream from mouth.	7.42	1941-42, 1968	6-6-81	†5,620
03436890 Wells Creek	Cumberland River	Lat 36°19'48", long 87°40'11", Houston County, at second L&N Railroad bridge downstream from State Highway 49 bridge, 1.5 miles northeast of Erin.	32	1968	6-6-81	†14,300

See footnotes at end of the table.

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Tennessee River basin						
03464650 Nolichucky River	French Broad River	Lat 36°07'24", long 82°26'37", Unicoi County, at bridge on U.S. Highways 19-W and 23, about 2 miles southwest of Erwin, and at mile 95.9.	639	1966, 1972, 1974-75, 1977-80	11-11-80	*344
03465220 North Indian Creek	Nolichucky River	Lat 36°09'02", long 82°25'06", Unicoi County, at John Sevier Highway Bridge, at Erwin.	57.3	1900-01, 1945, 1953, 1978-80	11-11-80	*16
03467000 Lick Creek	Nolichucky River	Lat 36°12'05", long 83°02'52", Greene County, 100 ft up- stream from county highway bridge, 0.2 mile east of Mohawk, 0.6 mile upstream from Riley Creek, and at mile 17.4.	220	1946-71+ 1977-80	11-11-80	*23
03498850 Little River	Tennessee River	Lat 35°48'32", long 83°55'36", Blount County, 900 ft above Alcoa water treatment plant, 1.6 miles upstream from Pistol Creek, 1.0 mile north- east of Maryville, 1.8 miles southeast of Rockford.	-	-	9-25-81	*182
03580590 Little Hurricane Creek	Elk River	Lat 35°16'34", long 86°12'22", Franklin County, 0.6 mile northwest of Pleasant Grove Church, 2.8 miles west of Estill Springs.	-	-	10-30-80	*.74
03580591 Little Hurricane Creek	Elk River	Lat 35°16'32", long 86°12'22", Franklin County, 0.6 mile northwest of Pleasant Grove Church, 2.8 miles west of Estill Springs.	-	-	10-30-80	*3.7
03602208 East Piney River	Piney River	Lat 36°00'42", long 87°26'32", Dickson County, 20 ft above West Piney River, 5.4 miles southwest of Dickson.	-	-	11-05-80	*4.3
03602194 West Piney River	Piney River	Lat 36°00'43", long 87°26'33", Dickson County, 75 ft above East Piney River, 5.4 miles southwest of Dickson.	-	-	11-05-80	*8.5

* Base flow.

† Peak flow.

‡ Operated as a continuous-record station.

a Not previously published.

Discharge measurements made at selected sites at Acorn Lake in Montgomery Bell State Park, Dickson County

Data were collected at Acorn Lake as a part of the Clean Lakes Project in cooperation with the Tennessee Department of Public Health, Division of Water Quality Control. The following table contains the measurements and water-quality data collected at five (5) contributing tributaries and at the outflow of the lake.

Site number and name	Location	Drainage area (mi ²)	Date	Discharge (cfs)	Temp. (°C) water	Specific Conduc- tance (umhos at 25°C)
034345921 Acorn Lake Tributary 1-6	Lat 36°06'06", long 87°15'55"	0.41	10-14-80	0.19	14.5	240
			11-18-80	0.20	9.0	200
			12-16-80	0.22	9.0	--
			2- 2-81	0.48	6.0	145
			2-17-81	0.46	14.0	200
			3-20-81	0.27	14.5	210
			4-21-81	0.55	17.0	145
			5- 4-81	0.21	17.0	200
			6- 9-81	0.85	20.5	120
			7-24-81	0.37	21.0	220
			8-25-81	0.17	21.0	185
			9-22-81	0.17	19.0	220
034345922 Acorn Lake Tributary 1-5	Lat 36°06'08", long 87°15'55"	0.55	10-14-80	0.21	14.0	220
			11-18-80	0.20	9.0	200
			12-16-80	0.17	8.5	--
			2- 2-81	0.26	5.5	183
			2-17-81	0.65	13.5	160
			3-20-81	0.23	11.0	175
			4-21-81	1.08	17.5	158
			5- 4-81	0.46	17.0	170
			6- 9-81	1.32	21.0	145
			7-24-81	0.39	22.0	240
			8-25-81	0.17	18.0	230
			9-22-81	0.22	19.0	220
034345923 Acorn Lake Tributary 1-4	Lat 36°06'07", long 87°16'03"	0.04	10-14-80	0.03	14.0	110
			11-18-80	0.02	9.5	83
			12-16-80	0.04	9.0	--
			2- 2-81	0.03	5.0	78
			2-17-81	0.07	13.0	103
			3-20-81	0.01	13.0	72
			4-21-81	0.04	17.0	75
			5- 4-81	a<0.01	--	--
			6- 9-81	0.01	19.0	70
			7-24-81	0.02	21.0	160
			8-25-81	a<0.01	17.0	195
			9-22-81	b<0.02	--	--
034345926 Acorn Lake Tributary 1-7	Lat 36°05'53", long 87°16'17"	0.09	10-14-80	0.02	11.0	185
			11-18-80	0.03	8.0	185
			12-16-81	0.02	7.0	--
			2- 2-81	0.10	3.0	--
			2-17-81	0.09	9.5	150
			3-20-81	0.01	7.0	200
			4-21-81	0.09	13.0	100
			5- 4-81	0.04	15.0	200
			6- 9-81	0.16	19.0	110
			7-24-81	0.04	20.0	180
			8-25-81	b0.01	23.0	190
			9-22-81	b0.01	--	210
034345927 Acorn Lake Tributary 1-8	Lat 36°05'47", long 87°16'30"	0.12	10-14-80	0.04	12.0	220
			11-18-80	0.04	7.0	125
			12-16-80	0.05	7.5	--
			2- 2-81	0.26	3.5	100
			2-17-81	0.19	11.0	160
			3-20-81	0.09	9.0	120
			4-21-81	0.24	14.0	90
			5- 4-81	0.08	15.5	165
			6- 9-81	0.26	19.5	75
			7-24-81	0.04	22.0	175
			8-25-81	a<0.01	23.0	195
			9-22-81	0.05	17.0	200
034345928 Acorn Lake Outflow	Lat 36°06'00", long 87°16'38"	1.42	10-14-80	0.52	17.0	170
			11-18-80	1.06	11.5	165
			12-16-80	0.62	8.5	--
			2- 2-81	2.22	4.5	180
			2-17-81	3.20	9.5	175
			3-20-81	0.96	10.0	170
			4-21-81	3.60	21.0	155
			5- 4-81	0.67	22.0	160
			6- 9-81	3.10	24.0	120
			7-24-81	1.55	28.0	180
			8-25-81	0.42	18.0	175
			9-22-81	0.43	22.0	170

a Estimated.

b Volumetric measurement.

Springs

In 1931 a study of large springs in Tennessee was made and the results published in WSP 713. From 1950 to 1954 a more detailed study, including some of these springs, was made. Results of this study and all subsequent spring measurements were published annually in WSP's from 1950 to 1960. Since 1960 results of measurements have been published in annual State reports.

Spring measurements made in the 1981 Water Year include three springs in Dickson and Williamson counties as part of a study of ground water resources of the Dickson and Fairview areas. The results of measurements showing the discharge, water temperature and specific conductance, are given in the following tables.

Discharge measurements of springs during water year 1981

Site number and name	Location	Tributary to--	Date	Discharge (gpm)	Temp. (°C) Water	Specific Conductance (umhos at 25°C)
Bledsoe County						
3528440851953 Unnamed	Lat 35°28'44", long 85°19'53", 0.8 mile northwest of Pallo.	Unnamed tributary to Lamb Creek to Sequatchie River	8-31-81	10	12.5	310
3529440851916 Unnamed	Lat 35°29'44", long 85°19'16", 1.7 miles north of Pallo.	Pond Creek to Cannon Creek to Sequatchie River	8-31-81	35	12.0	240
Dickson County						
03602197 Tice Spring	Lat 36°03'58", long 87°23'58", 0.1 mile south of inter- section of county road with Highway 48, 0.9 mile south- west of Dickson.	East Piney River	11-24-80	20	13.5	310
			12-22-80	55	13.0	260
			1-12-81	75	13.0	280
			2-02-81	80	14.0	290
			2-23-81	100	13.0	270
			4-13-81	125	14.5	250
			5-21-81	360	13.0	190
			6-29-81	95	14.5	295
			8-11-81	195	14.5	-
Union County						
03534920 Lay Spring	Lat 36°16'28", long 83°44'36", 4 miles northeast of Maynardville.	Hamilton Gap Branch to Woods Gap Branch to Bullrun Creek	8-28-81	165	13.0	288
			9-30-81	144	13.5	350
Williamson County						
03433790 Horn Tavern Spring	Lat 35°59'33", long 87°06'26", on right bank of Brush Creek, 50 ft north of county road, at Fairview.	Brush Creek to South Harpeth River	10-14-80	a80	16.0	240
			11-12-80	a70	14.5	235
			12-22-80	a80	14.0	200
			2-02-81	a120	14.0	200
			2-23-81	a80	13.5	210
			4-12-81	a115	16.0	210
			5-21-81	a120	14.0	200
			6-29-81	a115	14.0	195
			9-08-81	a90	14.5	225
03433800 Morgan Spring	Lat 35°59'34", long 87°06'43", on left bank of Brush Creek, 300 ft south of county road, at Fairview.	Brush Creek to South Harpeth River	10-14-80	110	15.0	230
			11-12-80	110	14.0	180
			2-02-81	185	14.0	210
			2-23-81	130	13.0	225
			4-13-81	160	15.0	170
			5-21-81	160	14.0	170
			6-29-81	125	14.0	185
			9-08-81	145	15.0	205

a Includes 70 gpm pumpage.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at Fox Camp Spring, Rutherford County

During the 1977-80 Water Years two springs in Rutherford County were measured as part of a study of ground-water resources of the Murfreesboro area. The results of measurements showing the discharge, and in some instances water temperature and specific conductance, are given in the following table. (Continuous discharge record at Fox Camp Spring at Mankinville is published elsewhere in this report.)

Site number and name	Location	Tributary to--	Date	Discharge (gpm)	Temp. (°C) water	Specific Conduc- tance (umhos at 25°C)
03428048 Fox Camp Spring above Irby Lane	Lat 35°48'17", long 86°20'56", above Irby Lane, 3.6 miles southeast of Courthouse in Murfreesboro.	Todd Lake	12-11-78	1,140	6.0	175
			1-26-79	140	4.0	165
			3-22-79	38	18.0	280
			5- 9-79	a18	--	--
			10-10-79	120	13.0	225
			11-27-79	230	9.0	235

CORRECTIONS.--Fox Camp Spring at Irby Lane, near Murfreesboro (03428049) was incorrectly published as Fox Camp Spring at Mankinville (03428047) in WDR TN-77-1: 1977, WDR TN-78-1: 1978, WDR TN-79-1: 1979, and WDR TN-80-1: 1980. The following table contains the correct information.

03428049 Fox Camp Spring at Irby Lane	Lat 35°48'25", long 86°21'13", at Irby Lane, 3.4 miles southeast of Courthouse in Murfreesboro.	Todd Lake	6- 1-77	260	25.5	300
			9- 1-77	165	21.0	--
			10-14-77	740	12.0	360
			12-12-77	880	11.0	300
			2- 6-78	670	8.0	220
			3- 8-78	835	16.0	300
			5-16-78	1,170	17.0	260
			6- 5-78	405	22.5	330
			6-19-78	420	21.0	350
			7-14-78	415	23.0	360
			8-16-78	360	21.5	385
			9-28-78	285	18.5	400
			10-11-78	250	18.5	370
			11-13-78	110	19.5	420
			12-11-78	3,070	9.0	235
			1-26-79	1,830	13.5	230
			3-22-79	660	16.5	300
			5- 9-79	750	17.5	285
			6-11-79	740	19.0	280
			8- 9-79	200	21.0	375
			8-22-79	660	21.5	300
			9-17-79	1,060	20.0	260
			10-10-79	1,050	15.5	310
			10-26-79	480	13.0	340
			11-27-79	1,360	15.0	290
			12-18-79	690	10.0	330
			1- 3-80	770	11.5	330
			3-26-80	1,420	15.0	215
			4-21-80	890	19.0	280
			6- 6-80	400	20.0	340

a Estimated.

Synoptic coal-hydrology partial-record stations

Measurements of streamflow in the coal resource area made at synoptic coal-hydrology partial-record stations are given in the following table. If the synoptic coal-hydrology station is located at an existing low-flow partial-record station, base-flow measurements are published in the low-flow partial-record table located elsewhere in this report. Measurements at the following synoptic stations were made during low-flow and floodflow stream-flow conditions. Field water-quality determinations and samples for laboratory analyses were collected during the same visit to each station. Water-quality data for each station are also published in the water-quality sections of this report. All data and information at these stations are collected to help define the hydrology in the coal resource area, and to determine if the hydrologic regime changes in time.

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981.

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
Cumberland River basin							
03403697	Clear Fork at Highway 90 at Anthras, TN	Lat 36°32'46", long 83°59'36", Campbell County, Hydrologic Unit 05130101, 0.8 mile below Rose Creek, 1.0 mile southwest of Eagan, 14.5 miles southeast of Jellico.	49.0	1979-81	8-17-81	1.84	17
03403710	Tackett Creek at Anthras, TN	Lat 36°32'25", long 84°00'20", Campbell County, Hydrologic Unit 05130101, 7.1 miles southeast of Jellico, 0.8 mile southwest of Anthras and 0.5 mile above mouth.	34.5	1945, 1979-81	2-10-81 8-17-81	2.91 2.52	103 20
03403715	Stinking Creek near Newcomb, TN	Lat 36°30'26", long 84°08'36", Campbell County, Hydrologic Unit 05130101, at county road bridge near Stinking Creek School, 3.2 miles southeast of Newcomb, and 5.5 miles southwest of Jellico.	38.3	1979-81	2- 9-81 2-10-81 2-12-81 3- 2-81 5- 5-81 8-17-81	2.31 3.00 2.73 2.08 2.07 2.02	38 285 115 22 20 12
03403720	Lick Creek at Habersham, TN	Lat 36°30'01", long 84°04'32", Campbell County, Hydrologic Unit 05130101, 6 miles southeast of Jellico, 10 miles north of La Follette and 0.5 mile above mouth.	20.7	1979-81	2-10-81 8-17-81	3.68 2.87	53 9.1
03403740	Hickory Creek at Morley, TN	Lat 36°33'00", long 84°02'42", Campbell County, Hydrologic Unit 05130101, 0.2 mile below White Oak Creek, 4.5 miles southeast of Jellico, 14.0 miles northwest of La Follette and 1.2 miles above mouth.	117	1945, 1952-53, 1979-81	2-10-81 8-17-81	2.30 1.70	131 43
03403770	Elk Creek at Newcomb, TN	Lat 36°33'10", long 84°09'53", Campbell County, Hydrologic Unit 05130101, at Newcomb 0.3 mile above Burnt Pone Creek, 0.6 mile below Whistle Creek and 3.1 miles southwest of Jellico.	40.5	1979-81	2-10-81 8-18-81	6.16 5.18	40 6.1
03404150	Jellico Creek at Ketchen, TN	Lat 36°34'13", long 84°19'01", Scott County, Hydrologic Unit 05130101, 0.5 mile downstream from Gum Fork Creek and 9.0 miles northwest of Winfield.	28.2	1979-81	2-10-81 8-17-81	6.35 5.67	40 .95
03407850	New River at Stainville, TN	Lat 36°12'34", long 84°19'18", Anderson-Campbell County line, Hydrologic Unit 05130104, 400 ft below mouth of Ligias Fork, 0.6 mile northwest of Stainville.	66.0	1962, 1975-81	8-17-81	1.08	23
03407873	Beech Fork at Shea, TN	Lat 36°14'17", long 84°19'49", Campbell County, Hydrologic Unit 05130104, 500 ft above mouth to New River, 3 miles below Ligias Creek (mouth) at Shea.	27.9	1975, 1979-81	8-17-81	-0.23	13

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
03407890	Montgomery Fork at Montgomery, TN	Lat 36°19'43", long 84°22'01", Scott County, Hydrologic Unit 05130104, 3 miles northwest of Smoky Junction and 0.6 mile above mouth.	22.1	1975, 1979-81	8-17-81	12.58	5.9
03407920	Buffalo Creek near Winona, TN	Lat 36°23'16", long 84°25'13", Scott County, Hydrologic Unit 05130104, 3 miles be- low Rockhouse Fork, 4.5 miles southeast of Hunts- ville, and 1.9 miles north- east of Winona.	42.5	1975-81	8-18-81	6.61	3.4
03407960	Paint Rock Creek near Huntsville, TN	Lat 36°24'14", long 84°26'59", Scott County, Hydrologic Unit 05130104, 400 ft above tributary mouth on right bank, 2.4 miles southeast of Huntsville and 1.4 miles above mouth.	21.5	1975-81	2-13-81 3-12-81 5- 5-81 8-18-81	8.05 7.63 7.35 7.05	44 17 7.7 1.5
03408200	Brimstone Creek near Robbins, TN	Lat 36°20'43", long 84°32'22", Scott County, Hydrologic Unit 05130104 at Rural Road S-2342-1, at bridge 3.0 miles east of Robbins.	48.7	1955-71, 1975-81	8-18-81	1.64	5.8
03408550	North Prong Clear Fork near Grimsley, TN	Lat 36°18'25", long 84°54'35", Fentress County, Hydrologic Unit 05130104, 200 ft below Brushy Fork, 1.0 mile above Buck Spring Branch, 8.8 miles southeast of Jamestown, 4.8 miles northeast of Grimsley.	27.1	1979-81	8-18-81	2.19	3.2
03408700	Clear Fork at Gateway, TN	Lat 36°17'13", long 84°50'33", Fentress-Morgan County line, Hydrologic Unit 5130104, 0.9 mile above Joe Branch 1.2 miles below South Prong, 7 miles southwest of Armathwaite.	70.2	1979-81	6- 7-81 8-19-81	22.15 20.33	331 31
03408860	Clear Fork near Burrville, TN	Lat 36°19'28", long 84°47'13", Fentress-Morgan County line, Hydrologic Unit 05130104, 1.2 miles above Cave Creek, at Crooked Creek tributary, 3.0 miles northwest of Burrville, and 3.4 miles southwest of Armathwaite.	120	1929, 1979-81	6- 6-81 8-18-81	18.47 14.80	1210 74
03409350	Bone Camp Creek near Burrville, TN	Lat 36°17'12", long 84°42'15", Morgan County, Hydrologic Unit 05130104, 75 ft below tributary on left bank, 0.3 mile below Buck Creek, 0.8 mile above Coon Creek, 2.5 miles southeast of Burrville, 3.0 miles northwest of Sunbright.	23.0	1929, 1979-81	2-13-81 3- 3-81 5- 5-81 6- 6-81 8-18-81	4.73 5.21 4.16 5.19 3.46	34 11 10 68 .28
03409395	Black Wolf Creek near Glenmary, TN	Lat 36°19'16", long 84°39'13", Scott County, Hydrologic Unit 05130104, 0.6 mile below Wolfpen Branch, 150 ft above Potter Branch, 3.8 miles southeast of Rugby, 1.7 miles northwest of Glenmary, 1.4 miles above mouth.	31.4	1979-81	6- 6-81 8-18-81	5.51 3.09	77 2.1

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
*03414340	East Fork Obey River at Obey City, TN	Lat 36°11'02", long 85°09'53", Overton County, Hydrologic Unit 05130105, at county bridge, 0.7 mile north of Obey City, 0.8 mile west of Cliff Springs, and at mile 39.6.	34.6	1975-76, 1978-81	6- 7-81	18.04	175
03414346	Hurricane Creek at Camp Ground, TN	Lat 36°11'42", long 85°04'06", Fentress County, Hydrologic Unit 05130105, at county road bridge 3.2 miles from intersection of State Highway 62 and U.S. Highway 127 - State Highway 28.	15.8	1979-81	6- 7-81 8-18-81	28.97 27.42	110 .66
03414430	East Fork Obey River near Wilder, TN	Lat 36°16'24", long 85°02'40", Fentress County, Hydrologic Unit 05130105, at State Highway 85 bridge, 3.5 miles east of Wilder.	117	1979-81	6- 7-81 8-18-81	29.31 24.59	245 2.8
03414470	Buffalo Cove Creek near Boatland, TN	Lat 36°23'06", long 85°00'34", Fentress County, Hydrologic Unit 05130105, at county road bridge 3.4 miles south of junction with State Highway 52. Site 0.42 mile above mouth.	23.4	1965, 1979-81	6- 7-81 8-17-81	26.02 24.59	187 0
*03414680	West Fork Obey River near Allred, TN	Lat 36°18'52", long 85°10'53", Overton County, Hydrologic Unit 05130105, at State Highway 85 bridge, 250 ft above Cub Branch, 1.1 miles south of Allred.	70.8	1975-76, 1978-81	6- 7-81	16.93	382
03415960	Wolf River at Wolf River, TN	Lat 36°32'14", long 84°57'09", Fentress County, Hydrologic Unit 05130105, at county road bridge, 200 ft east of junction with State Highway 28 - U.S. Highway 127, 0.4 mile south of Pall Mall Post Office.	41.0	1979-81	6- 7-81 8-18-81	24.19 21.62	510 5.8
03415975	Rotten Fork Wolf near Pall Mall, TN	Lat 36°32'20", long 84°56'56", Fentress County, Hydrologic Unit 05130105, 0.25 mile above Wolf River at John W. Painter Memorial Bridge (county bridge) 1.3 miles southeast of Pall Mall.	21.6	1979-81	6- 7-81 8-18-81	19.93 16.90	292 1.4
03418500	Caney Fork River at Clifty, TN	Lat 35°53'28", long 85°13'05", Cumberland County, Hydrologic Unit 05130108, at county road bridge 0.9 mile south of Clifty.	111	1930-49, 1979-81	8-18-81	20.65	2.3
03418520	Clifty Creek at Mobra, TN	Lat 35°53'10", long 85°15'05", White County, Hydrologic Unit 05130108, at county road culvert 0.5 mile north- east of Mobra.	14.8	1979-81	8-18-81	---	0

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
03418925	Bee Creek at Lantana Road at Winesap, TN	Lat 35°45'46", long 85°10'09", Bledsoe County, Hydrologic Unit 05130108, 0.4 mile south of Winesap, 1.4 miles north of Bellview, 4.0 miles east of Herbert Domain.	16.9	1979-81	8-18-81	19.31	.06
*03418935	Beaverdam Creek at Lantana Road near Bellview, TN	Lat 35°44'07", long 85°11'43", Bledsoe County, Hydrologic Unit 05130108, 1.2 miles southwest of Bellview, 2.8 miles southwest of Winesap, 3.1 miles southeast of Herbert Domain.	17.0	1979-81	8-18-81	16.58	.10
*03418995	Glade Creek near Lonewood, TN	Lat 35°45'35", long 85°15'57", Bledsoe County line, Hydro- logic Unit 05130108, 1.2 miles above confluence of Bee Creek, 1.7 miles west of Herbert Domain, and 2.3 miles east of Lonewood.	39.1	1979-81	2- 9-81 3- 2-81 5- 4-81	22.30 22.24 22.06	46 33 20
03419200	Cane Creek near Spencer, TN	Lat 35°44'36", long 85°23'33", Van Buren County, Hydrologic Unit 05130108, at bridge on State Highway 30, 4.0 miles east of Spencer.	134	1929-30, 1951,1953, 1958-63, 1965-66, 1979-81	8-17-81	---	0
*03419270	Calfkiller River near Taylors, TN	Lat 36°01'53", long 85°20'10", White County, Hydrologic Unit 05130108, at county road bridge 100 ft south of junction with State Highway 84, 0.2 mile south of Putnam- White County line.	37.7	1975-76, 1979-81	8-19-81	27.84	11
03420000	Calfkiller River below Sparta, TN	Lat 35°54'31", long 85°28'46", White County, Hydrologic Unit 05130108, below City Lake Dam at new State High- way 111 bridge 0.5 mile south of U.S. Highway 70S - State Highway 111 intersection in Sparta.	175	1940-71, 1979-81	8-19-81	8.44	44
03420116	Rocky River at Rocky River Road at Riverview, TN	Lat 35°42'04", long 85°34'40", Van Buren County, Hydrologic Unit 05130108, on Rocky River Road 3.0 miles south of Rocky River Road - State Highway 30 intersection.	72.0	1979-81	8-19-81	7.62	5.2
*03420156	Collins River at Barkertown, TN	Lat 35°23'35", long 85°34'00", Grundy County, Hydrologic Unit 05130107, 100 ft below Jonathan Creek at county road bridge.	22.9	1979-81	2-11-81 3- 3-81 3- 4-81 3- 4-81 3- 4-81 3- 4-81 3- 5-81	14.88 11.12 11.20 11.60 11.86 12.23 10.67	389 24 28 48 74 94 11
03420200	Collins River near Tarlton, TN	Lat 35°31'04", long 85°40'27", Grundy County, Hydrologic Unit 05130107, at State Highway 56 bridge 1.9 miles south of Warren-Grundy County line.	174	1929,1952 1962,1965, 1975, 1978-81	2-11-81 3- 3-81 5- 5-81 8-18-81	18.83 16.35 16.03 15.55	1570 214 116 16
*03420230	Scott Creek at Irving College, TN	Lat 35°34'17", long 85°42'42", Warren County, Hydrologic Unit 05130107, at State Highway 56 bridge 1.0 mile south of Irving College and 0.6 mile above mouth.	34.1	1979-81	2-11-81 3- 3-81 5- 5-81	21.87 18.33 18.27	171 17 12

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Cumberland River basin--Continued							
03420260	Hills Creek near Irving College, TN	Lat 35°34'06", long 85°40'49", Warren County, Hydrologic Unit 05130107, at county road bridge 1.8 miles above mouth.	55.6	1979-81	8-19-81	14.93	9.0
03420720	Hickory Creek near Viola, TN	Lat 35°34'32", long 85°51'02", Warren County, Hydrologic Unit 05130107, at State Highway 108 bridge, 2.9 miles north of Viola.	58.2	1954, 1979-81	8-18-81	---	8.1
03422850	Falling Water River at State Highway 42 near Cookeville, TN	Lat 36°04'54", long 85°30'21", White County, Hydrologic Unit 05130108, at State Highway 42 bridge 3.9 miles south of State Highway 42-I-40 interchange.	38.0	1952, 1979-81	8-19-81	20.54	7.8

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s.)
Tennessee River basin							
03532070	Old Town Creek near Red Hill, TN	Lat 36°31'45", long 83°44'26", Claiborne County, Hydrologic Unit 06010206, 0.4 mile above Key Branch, 5.5 miles south of Middlesboro, Ky.	6.72	1979-81	8-17-81	8.78	5.4
03532100	Davis Creek near Speedwell, TN	Lat 36°26'36", long 83°54'59", Claiborne County, Hydrologic Unit 06010206, 2.3 miles southwest of Speedwell, 11.7 miles northeast of La Follette.	31.2	1936-37, 1953-55, 1979-81	8-17-81	14.52	32
03532202	Big Creek at Aspen Street at La Follette, TN	Lat 36°23'04", long 84°07'22", Campbell County, Hydrologic Unit 06010205, and at mile 19.5.	24.2	1950-54, 1959-64, 1979-81	8-17-81	18.97	8.4
03532480	Cove Creek above Cove Lake, near Caryville, TN	Lat 36°18'25", long 84°13'35", Campbell County, Hydrologic Unit 06010205, 0.6 mile below Duncan Branch, 0.6 mile northwest of Caryville, 3.0 miles southwest of Jacksboro.	23.8	1967, 1979-81	2- 9-81 3- 2-81 5- 4-81 8-18-81	16.52 16.57 16.35 16.23	13 18 11 4.7
03538160	Poplar Creek at Batley Road near Oliver Springs, TN	Lat 36°01'57", long 84°18'16", Anderson County, Hydrologic Unit 06010207, 0.5 mile be- low Blue Spring tributary, 0.8 mile above Brushy Fork, 1.1 miles southeast of Oliver Springs, 1.9 miles northwest of Oak Ridge.	30.3	1961-64, 1979-81	8-18-81	4.90	3.1
035382968 (360858- 084355000)	Emory River at Gobey, TN	Lat 36°08'58", long 84°35'50", Morgan County, Hydrologic Unit 06010208, 0.1 mile east of Gobey, 0.6 mile above mouth of Cane Branch and 1.4 miles below mouth of Greasy Creek and at mile 39.6.	43.3	1979-81	2-14-81 3-11-81 5- 6-81 8-18-81	--- --- --- ---	57 43 15 1.7
03538398	Rock Creek near Gobey, TN	Lat 36°08'02", long 84°37'31", Morgan County, Hydrologic Unit 06010208, 0.2 mile be- low Sculcheon's Creek, 2.5 miles northwest of Wartburg, 1.9 miles southwest of Gobey, 0.5 mile above mouth.	31.2	1952, 1954-55, 1979-81	8-19-81	11.62	.7
03539600	Daddys Creek near Hebberts- burg, TN	Lat 35°59'53", long 84°49'24", Cumberland County, Hydro- logic Unit 06010208, 2.1 miles southwest of Hebbertsburg, 6.9 miles northeast of Crab Orchard, and at mile 9.1.	139	1965, 1957-68, 1979-81	8-18-81	2.54	5.6
03539719	White Creek at Twin Bridges, TN	Lat 36°10'40", long 84°48'01", Morgan County, Hydrologic Unit 06010208, 0.1 mile below Cook Creek, 12.0 miles northwest of Lancing, 6.8 miles above mouth.	38.4	1979-81	8-19-81	2.27	.5
03539750	Clear Creek near Lancing, TN	Lat 36°07'18", long 84°44'46", Morgan County, Hydrologic Unit 06010208, at bridge 0.4 mile below Gordon Branch, 2.3 miles above Little Clear Creek, 5.0 miles west of Lancing, and at mile 4.1.	153	1966-68 1979-81	2-14-81 3- 3-81 5- 8-81 5-19-81 5-19-81 5-19-81 5-20-81 5-21-81 8-19-81	10.49 9.83 8.81 9.92 11.25 11.44 10.76 10.33 8.34	232 105 76 130 443 537 331 232 4.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Tennessee River basin--Continued							
03539831	Island Creek near Catoosa, TN	Lat 36°03'10", long 86°40'01", Morgan County, Hydrologic Unit 06010208, 1.0 mile below Panther Branch, 2.7 miles southwest of Lancing, 3.5 miles south- west of Wartburg and 2.4 miles above mouth.	18.4	1979-81	8-18-81	8.22	.24
03539860	Crooked Fork near Wartburg, TN	Lat 36°05'05", long 84°33'18", Morgan County, Hydrologic Unit 06010208, 25 feet downstream from Mud Creek, 2.6 miles southeast of Wartburg, and 6.2 miles above mouth.	50.3	1965-68, 1979-81	8-18-81	1.41	5.27
03540100	Crab Orchard Creek near Deermont, TN	Lat 36°00'40", long 84°36'44", Morgan County, Hydrologic Unit 06010208, at bridge, 0.2 mile above Smith Branch, 1.9 miles southwest of Deermont, and 2.0 miles above mouth.	33.7	1966-68, 1979-81	8-18-81	1.29	.28
03541485	Whites Creek at Bakers Bridge near Glen Alice, TN	Lat 35°47'50", long 84°48'43", Rhea County, Hydrologic Unit 06010201 at bridge on Opussum Trot Road, 2.1 miles below Sandy Creek, 2.5 miles above Piney Creek, 5.0 miles northeast of Grandview, 10 miles north- west of Spring City, and 11.4 miles above mouth.	33.8	1958, 1979-81	2-13-81 3- 3-81 5- 6-81 8-19-81	19.06 18.73 --- 17.44	133 30 18 .72
03541487	Piney Creek near Westel, TN	Lat 35°51'14", long 84°44'17", Roane County, Hydrologic Unit 06010201, at bridge on U.S. Highway 70, 3.5 miles southwest of Rockwood and 5.0 miles above mouth.	19.0	1944, 1952-53 1955-56, 1979-81	8-19-81	16.84	.16
03541496	Fall Creek near Ozone, TN	Lat 35°50'16", long 84°47'56", Cumberland County, Hydrologic Unit 06010201, at bridge 2.9 miles south of Ozone, 8.0 miles southwest of Rockwood and 2.4 miles above mouth.	21.1	1955-57, 1979-81	8-18-81	8.28	2.21
03542495	Piney River above Spring City, TN	Lat 35°42'54", long 84°52'49", Rhea County, Hydrologic Unit 06010201, 2.0 miles northwest of Spring City, 3.5 miles southwest of Grandview, and 8.9 miles above mouth.	62.3	1958, 1979-81	8-19-81	-0.24	.75
03566292	Sale Creek near Sale Creek, TN	Lat 35°25'35", long 85°05'24", Hamilton County, Hydrologic Unit 06020001, at Coulter- ville Road bridge 0.3 mile southwest of Coulterville Road - U.S. Highway 27 intersection.	57.2	1955-56 1964, 1979-81	2- 9-81 2-10-81 2-10-81 2-10-81 3- 2-81 5- 4-81 8-18-81	17.36 17.83 19.93 22.13 23.03 17.46 17.14 ---	34 77 305 961 1130 46 14 0
03566400	Soddy Creek at Soddy, TN	Lat 35°18'05", long 85°09'56", Hamilton County, Hydrologic Unit 06020001, at county road bridge 0.8 mile north of Soddy and 1.2 miles up- stream from U.S. Highway 27 bridge.	49.0	1932, 1955-56, 1959-68, 1979-81	8-19-81	9.54	.17

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
Tennessee River basin--Continued							
03566530	North Chickamauga Creek near Daisy, TN	Lat 35°13'20", long 85°13'16", Hamilton County, Hydrologic Unit 06020001, between Mile Straight and Daisy at U.S. Highway 27 bridge crossing.	62.6	1925,1932, 1944, 1952-54, 1964, 1979-81	8-18-81	---	0
03569245	Suck Creek near Chattanooga, TN	Lat 35°07'28", long 85°23'26", Hamilton County, Hydrologic Unit 06020001, at State Highway 27 crossing Suck Creek 1,100 ft above mouth.	22.6	1944,1955, 1979-81	8-19-81	---	e .02
03570602	Sequatchie River near Pikeville, TN	Lat 35°35'48", long 85°11'27", Bledsoe County, Hydrologic Unit 06020004, at bridge 200 ft south of intersection of U.S. Highway 127 and State Highways 28, 30 near Pikeville.	106	1932-33, 1944, 1952-54, 1979-81	8-18-81	11.56	15
03570695	Sequatchie River near Mount Airy, TN	Lat 35°24'41", long 85°20'47", Sequatchie County, Hydrologic unit 06020004, at county road bridge 1.9 miles southeast of Mount Airy.	202	1979-81	2- 9-81 2-10-81 3- 3-81 5- 5-81 8-17-81	13.21 13.94 13.60 13.36 12.69	109 260 188 144 30
+03570800	Little Brush Creek near Dunlap, TN	Lat 35°24'15", long 85°23'18", Sequatchie County, Hydrologic Unit 06020004, on left bank at Old State Highway 8 bridge, 0.1 mile downstream from New State Highway 8, 1.5 mile north of Dunlap.	15.4	1958, 1959-67, 1970, 1979-81	8-17-81	---	0
03570810	Big Brush Creek near Dunlap, TN	Lat 35°23'55", long 85°21'50", Sequatchie County, Hydrologic Unit 06020004, on county road, 2.5 miles northeast of Dunlap.	66.1	1944, 1952-55, 1959,1965, 1979-81	8-17-81	---	0
03570855	Woodcock Creek Southwest of Dunlap, TN	Lat 35°19'19", long 85°26'01", Sequatchie County, Hydrologic Unit 06020004, at 0.4 mile northeast of Daus Old West Valley Road bridge and 4.3 miles southwest of Dunlap.	15.3	1953-55, 1979-81	2- 9-81 2-10-81 2-10-81 2-10-81 8-18-81	18.28 18.56 19.08 19.48 ---	4.5 11 51 92 0
03570870	Hicks Creek at Cartwright, TN	Lat 35°16'40", long 85°27'14", Sequatchie County, Hydrologic Unit 06020004, at New West Valley Road bridge 0.9 mile northeast of Marion-Sequatchie County line.	17.9	1953-55, 1979-81	2-11-81 3- 3-81 5- 5-81 8-18-81	14.92 13.57 13.14 ---	191 6.2 .83 0
+03571500	Little Sequatchie River at Sequatchie, TN	Lat 35°07'47", long 85°35'10", Marion County, Hydrologic Unit 06020004, at State Highway 27 bridge, 0.6 mile northeast of Sequatchie.	116	1925, 1929-30, 1944,1951, 1953,1954, 1965, 1979-81	8-18-81	24.67	5.5
03571700	Pryor Cove Branch near Jasper, TN	Lat 35°05'25", long 85°37'22", Marion County, Hydrologic Unit 06020004, at State Highway 27 bridge, 50 ft south of State Highway 27 - 150 junction.	12.9	1955-57, 1979-81	8-18-81	---	0

See footnotes at end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1981--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (feet)	Dis- charge (ft ³ /s)
Tennessee River basin--Continued							
+03571800	Battle Creek near Monteagle, TN	Lat 35°08'03", long 85°46'15", Marion County, Hydrologic Unit 06030001, on left bank at U.S. Highway 41, 64 bridge 9.2 miles south- east of Monteagle.	50.4	1955-75, 1977-81	8-17-81	0.21	4.8
03571827	Kelly Cove Creek at Smithtown, TN	Lat 35°04'48", long 85°44'11", Marion County, Hydrologic Unit 06030001, at bridge crossing on U.S. Highway 41 - 64 at Smithtown.	4.42	1955, 1957-58, 1979-81	8-17-81	---	0
03571835	Sweden Creek near South Pittsburg, TN	Lat 35°03'52", long 85°45'55", Marion County, Hydrologic Unit 06030001, at county road bridge, 0.3 mile below Kelly Cove Creek, 5.0 miles northwest of South Pittsburg.	28.2	1944, 1953-55, 1979-81	2-11-81 3- 2-81 5- 5-81 8-17-81	17.94 13.36 13.05 12.65	282 26 16 2.9
03572092	Crow Creek near Anderson, TN	Lat 35°59'28", long 85°54'07", Franklin County, Hydrologic Unit 06030001, at State High- way 56 bridge, 0.2 mile above Willis Branch, 0.2 mile north of Tennessee-Alabama state line.	78.4	1979-81	8-17-81	13.89	4.2
03577966	Elk River near Mountain View, TN	Lat 35°21'29", long 85°50'10", Grundy County, Hydrologic Unit 06030003, at county road bridge, 4.4 miles north- east of Pelham.	25.7	1953,1962, 1964, 1979-81	2- 9-81 2-10-81 3- 2-81 3- 4-81 3- 4-81 5- 4-81 8-17-81	31.48 31.46 31.30 31.71 32.23 30.72 30.99	33 37 28 60 83 9.5 2.9
03577985	Dry Creek near Mountain View, TN	Lat 35°19'21", long 85°49'29", Grundy County, Hydrologic Unit 06030003, at county road bridge, 3.7 miles east of Pelham, 0.8 mile north- east of Big Spring.	22.4	1953, 1979-81	2-12-81 3- 2-81 5- 4-81 8-17-81	--- --- --- ---	7.8 0 0 0
03578095	Betsy Willis Creek near Pelham, TN	Lat 35°19'48", long 85°55'12", Coffee County, Hydrologic Unit 06030003, at U.S. High- way 41 bridge 2.7 miles northwest of Pelham.	11.5	1979-81	8-17-81	25.54	.57
03578190	Mud Creek at Alto, TN	Lat 35°16'28", long 85°56'14", Franklin County, Hydrologic Unit 06030003, at State Highway 50 bridge, 0.9 mile east of Alto, 4.5 miles west of Pelham.	18.4	1944, 1953-54, 1962-65, 1970 1979-81	8-18-81	25.31	.61
03578290	Beans Creek near Hillsboro, TN	Lat 35°22'43", long 85°56'58", Coffee County, Hydrologic Unit 06030003, at U.S. High- way 41 bridge 2.7 miles south of Hillsboro.	14.8	1979-81	8-17-81	6.31	1.7
03580110	Boiling Fork near Decherd, TN	Lat 35°09'44", long 86°03'37", Franklin County, Hydrologic Unit 06030003, at Goshen Road bridge, 3.4 miles south- east of courthouse in Winchester.	37.7	1979-81	8-18-81	33.11	3.3

* Also low-flow partial-record station.

+ Also crest-stage partial-record station.

e Estimated.

CUMBERLAND RIVER BASIN

South Harpeth River seepage investigation--Fernvale to above Hatcher Hollow

Discharge measurements were made October 21, 1980, on South Harpeth River and tributaries. The reach is 11.0 mi (17.7 km) in length. These streamflow measurements were made during a period of base flow to identify reaches of ground-water discharge to the river as well as river gains and losses. Tributary flow was considered a contribution and not a gain. Temperature and specific conductance were collected at each of the sites. In addition, a water sample was collected at the most downstream site for a laboratory analysis.

South Harpeth River mile	Site number and stream	Location	Drainage Area (mi ²)	Meas. disch. (ft ³ /s)	South Harpeth River gain or loss	Water temp. (°C)	Specific conductance (umhos/cm)
Cumberland River Basin							
14.1	03433660 South Harpeth River	Lat 35°57'15", long 87°04'43", Williamson County, at old State Highway 96 bridge, at of Fernvale.	27.6	13.7	-	18.0	225
13.4	03433665 Allen Branch	Lat 35°57'41", long 87°04'35", Williamson County, at county road ford, 2.7 miles southeast of Fairview, and at mile 0.2.	1.36	0.48	-	12.0	250
13.3	03433675 Hunting Camp Creek	Lat 35°57'49", long 87°04'44", Williamson County, at county road ford, 0.6 mile north of Fernvale, and at mile 0.4.	5.07	1.93	-	11.5	235
11.9	03433677 South Harpeth River	Lat 35°58'30", long 87°03'42", Williamson County, at old Harding Pike bridge, 1.8 miles north of Fernvale.	36.2	18.0	+1.89	17.0	220
11.6	03433681 Bedford Creek	Lat 35°58'19", long 87°03'14", Williamson County, at old county road bridge, 1.9 miles northeast of Fernvale, and at mile 0.5.	3.80	0.61	-	14.0	220
10.7	03433683 Unnamed tributary to South Harpeth River	Lat 35°59'11", long 87°03'18", Williamson County, at county road, 3.5 miles south of Linton and at mile 0.2.	1.74	0.60	-	13.5	190
10.5	03433684 Unnamed tributary to South Harpeth River	Lat 35°59'13", long 87°02'54", Williamson County, at county road, 3.3 miles south of Linton, and at mile 0.2.	0.54	0	-	-	-
10.5	03433685 Unnamed tributary to unnamed tributary to South Harpeth River	Lat 35°59'16", long 87°02'50", Williamson County, 0.2 mile upstream of South Harpeth River, 2.9 miles northeast of Fernvale, and 3.95 miles east of Fairview.	0.23	0	-	-	-
10.2	03433686 South Harpeth River	Lat 35°59'32", long 87°02'56", Williamson County, at old Harding Pike bridge, 3.0 miles south of Linton.	44.4	15.2	-4.01	13.5	240
10.1	03433688 Unnamed tributary to South Harpeth River	Lat 35°59'34", long 87°02'47", Williamson County, at bridge on county road, .07 mile upstream of South Harpeth River, and 0.27 mile west of county line.	0.74	0	-	-	-
8.7	03433698 East Fork Creek	Lat 36°00'08", long 87°01'46", Davidson County, at old Harding Pike bridge, 1.9 miles south of Linton, and at mile 0.3.	13.0	0.02	-	16.5	240
8.5	03433700 South Harpeth River	Lat 36°00'32", long 87°01'43", Davidson County, at new State Highway 96 bridge, 1.5 miles south of Linton.	59.6	19.5	+4.28	16.5	240
7.5	03433707 Pritchard Branch	Lat 36°01'09", long 87°01'34", Davidson County, at bridge on county road, 400 feet upstream of South Harpeth River, and 1.1 miles southwest of Linton.	4.01	0	-	-	-

South Harpeth River seepage investigation--Fernvale to above Hatcher Hollow--Continued

South Harpeth River mile	Site number and stream	Location	Drainage Area (mi ²)	Meas. disch. (ft ³ /s)	South Harpeth River gain or loss	Water temp. (°C)	Specific conductance (umhos/cm)
Cumberland River Basin--Continued							
7.4	03433710 South Harpeth River	Lat 36°01'12", long 87°01'41", Davidson County, at bridge on Highway 100 bridge, 0.5 mile east of Linton.	65.5	18.8	-0.70	15.0	240
7.0	03433711 Unnamed tributary to South Harpeth River	Lat 36°01'34", long 87°01'24", Davidson County, at bridge on South Harpeth Road, 200 feet north of State Highway 100, and 0.75 mile west of Linton.	1.38	0.03	-	13.0	450
6.3	03433712 Unnamed tributary to South Harpeth River	Lat 36°01'46", long 87°01'26", Davidson County, at bridge on South Harpeth Road, 0.3 mile north of intersection with State Highway 100, 0.45 mile upstream of South Harpeth River, and 0.8 mile northwest of Linton.	0.71	0	-	-	-
5.8	03433713 Unnamed tributary to South Harpeth River	Lat 36°02'15", long 87°02'01", Davidson County, at bridge on county road, 0.05 mile upstream from South Harpeth River, and 1.5 miles northwest of Linton.	0.99	0	-	-	-
5.8	03433714 South Harpeth River	Lat 36°02'13", long 87°02'03", Davidson County, at bridge on county road, 1.25 miles upstream of Poplar Creek, and 1.50 miles northwest of Linton.	70.1	17.8	-1.03	14.5	260
4.5	03433715 Poplar Creek	Lat 36°03'00", long 87°02'30", Cheatham County, at bridge on county road, 150 feet west of county line, and 2.35 miles northwest of Linton.	2.94	0	-	-	-
3.0	03433716 South Harpeth River	Lat 36°03'40", long 87°03'17", Cheatham County, at bridge on county road, 0.35 mile upstream of Hatcher Hollow, 2.85 miles south of Pegram, and 0.45 mile southwest of Thornton Cemetery.	78.2	20.1	+2.30		

03433716 - SOUTH HARPETH RIVER BELOW LINTON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
OCT 21...	1400	20	238	7.6	16.0	120	11	38	6.3	1.5	3	.1
DATE OCT 21...		POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
		.9	110	8.8	2.3	.0	6.3	135	130	.18	7.3	.02
DATE OCT 21...		PHOSPHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	ZINC, DIS-SOLVED (UG/L AS ZN)
		.040	1	0	10	2	10	0	8	.5	0	10

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN

03403697 - CLEAR FORK AT HWY 90, AT ANTHRAS, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 17...	1730	17	500	7.3	23.0	8.3	210	130	46	24
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD AS (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 17...	28	22	.8	2.7	84	180	1.2	.2	7.4	354
DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
AUG 17...	329	.48	16.6	190	<10	390	390	.20	<.010	1
DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
AUG 17...	<50	<1	20	1	6	<.1	1	<1	10	<.01

03403710 - TACKETT CREEK AT ANTHRAS, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE FEB 10... AUG 17...	TIME	103	241	7.6	2.5	--	--	--	--	--	--
		20	410	7.4	24.0	8.2	130	76	24	17	36
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE FEB 10... AUG 17...	PERCENT SODIUM	--	--	34	77	--	--	--	148	--	.20
		37	1.4	54	140	1.0	.1	6.7	265	252	.36
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, DIS- SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 10... AUG 17...		41.2	35000	50	1300	400	1990	553	97	--	--
		14.6	400	40	230	230	--	--	--	.19	<.010
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 17...		100	<1	20	3	7	<.1	<1	<1	20	<.01

CUMBERLAND RIVER BASIN--Continued

03403715 - STINKING CREEK NEAR NEWCOMB, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
FEB											
09...	1445	38	152	7.1	1.0	15.6	--	--	--	--	--
10...	1915	285	280	7.1	2.0	14.0	--	--	--	--	--
12...	1200	115	--	--	.5	--	--	--	--	--	--
MAR											
02...	1130	22	153	7.1	7.0	12.1	--	--	--	--	--
MAY											
05...	0930	20	235	7.1	15.0	9.3	--	--	--	--	--
AUG											
17...	1015	12	318	6.3	21.0	8.4	130	110	30	13	10

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB											
09...	--	--	--	14	44	--	--	--	117	--	.16
10...	--	--	--	16	56	--	--	--	141	--	.19
12...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	14	44	--	--	--	88	--	.12
MAY											
05...	--	--	--	26	82	--	--	--	145	--	.20
AUG											
17...	14	.4	1.8	22	120	2.9	.2	7.3	234	198	.32

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
FEB											
09...	12.0	1200	120	--	490	24	2.5	--	--	--	--
10...	108	19000	6000	1200	970	786	605	94	--	--	--
12...	--	--	--	--	--	23	7.1	--	--	--	--
MAR											
02...	5.2	490	140	590	500	58	3.4	--	--	--	--
MAY											
05...	7.8	410	80	810	800	5	.27	--	--	--	--
AUG											
17...	7.6	500	<10	--	1500	--	--	--	.22	<.010	1

DATE	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	CORALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
AUG											
17...	2	<50	<1	<1	10	<10	20	3	10	9000	5

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
AUG										
17...	<10	810	<.1	<.01	<1	<1	<1	40	47	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03403720 - LICK CREEK AT HABERSHAM, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE FEB 10... AUG 17...	TIME	53	270	7.5	1.0	13.0	--	--	--	--	--	
	1200	9.1	385	7.7	22.0	8.9	140	59	31	15	20	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE FEB 10... AUG 17...	PERCENT SODIUM	--	--	64	79	--	--	--	221	--	.30	
	23	.7	2.2	80	110	1.3	.1	6.2	261	224	.35	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 10... AUG 17...	31.6	47000	14000	1900	1000	1900	272	94	--	--	--	
	6.4	380	20	170	140	--	--	--	.33	<.010	1	
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 17...	<50	<1	10	4	8	<.1	1	<1	30	<.01		

03403740 - HICKORY CREEK AT MORLEY, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE FEB 10... AUG 17...	TIME	131	407	7.0	1.0	--	190	150	43	19	11	
		43	435	6.8	24.0	8.6	170	140	37	20	17	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-Ft)	
DATE FEB 10... AUG 17...	PERCENT SODIUM	11	.4	2.0	44	150	4.2	--	--	264	--	.36
		17	.6	2.0	34	180	1.3	.2	7.5	315	281	.43
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 10... AUG 17...		93.4	--	--	--	--	1800	637	95	--	--	--
		36.6	1100	20	1500	1400	--	--	--	.21	<.010	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 17...		100	1	20	3	7	<.1	<1	<1	30	<.01	

CUMBERLAND RIVER BASIN--Continued

03403770 - ELK CREEK AT NEWCOMB, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE FEB 10... AUG 18...	TIME	40	260	7.7	4.0	13.3	--	--	--	--	-
	0830	6.1	280	7.1	23.0	7.3	130	23	32	11	6.1
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE FEB 10... AUG 18...	PERCENT SODIUM	--	--	40	74	--	--	--	160	--	.22
	9	.2	1.9	102	52	1.5	.1	5.8	183	159	.25
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 10... AUG 18...	17.3	7700	40	450	360	325	35	96	--	--	--
	3.0	2400	10	440	360	--	--	--	.16	<.010	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 18...	<50	<1	10	5	11	<.1	<1	<1	50	.02	

03404150 - JELICO CREEK AT KITCHEN, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE FEB 10... AUG 17...	TIME	40	305	7.3	2.5	12.2	--	--	--	--	-	
	1515	.95	350	7.2	24.0	7.1	150	130	31	18	16	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE FEB 10... AUG 17...	PERCENT SODIUM	--	--	12	120	--	--	--	190	--	.26	
	18	.6	2.5	26	140	1.5	.1	11	258	224	.35	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 10... AUG 17...	20.5	2400	120	1800	1700	93	10	84	--	--	--	
	.66	680	<10	910	880	--	--	--	.07	.010	1	
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 17...	100	<1	<10	2	8	<.1	<1	<1	20	<.01		

CUMBERLAND RIVER BASIN--Continued

03407850 - NEW RIVER AT STAINVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 17...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
	1000	23	595	7.8	21.5	250	160	62	22	34
DATE AUG 17...	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
	23	.9	3.0	82	200	1.2	.1	5.1	413	370
DATE AUG 17...		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
		.56	25.6	580	<10	110	.23	<.010	1	100
DATE AUG 17...		CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
		1	20	11	5	<.1	<1	<1	30	.03

03407873 - BEECH FORK AT SHEA, TN

DATE AUG 17...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1145	13	250	7.8	21.5	4.3	120	62	30	11
DATE AUG 17...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.9	5	.1	2.1	58	64	.9	<.1	5.5	165
DATE AUG 17...	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	145	.22	5.7	660	30	40	30	.08	<.010	1
DATE AUG 17...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	7	6	.1	<1	<1	20	<.01

CUMBERLAND RIVER BASIN--Continued

03407890 - MONTGOMERY FORK AT MONTGOMERY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
17...	1630	5.9	350	6.9	23.0	4.1	160	130	36	16

DATE AUG	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM RATIO	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
17...	4.8	6	.2	.2	2.4	26	130	1.1	.1	10	237

DATE AUG	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
17...	214	.32	3.7	730	<10	740	.07	<.010	1	100	

DATE AUG	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
17...	1	10	6	7	.1	<1	<1	50	<.01	

03407920 - BUFFALO CREEK NEAR WINONA, TN

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
18...	1130	3.4	164	7.2	22.5	6.9	67	25	15	7.1	3.6

DATE AUG	TIME	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
18...	10	.2	1.8	42	36	2.3	<.1	7.3	111	94	.15

DATE AUG	TIME	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
18...	1.0	890	90	210	220	24	.22	.18	.030	1	

DATE AUG	TIME	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
18...	100	<1	10	5	4	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03407960 - PAINT ROCK CREEK NEAR HUNTSVILLE, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME											
FEB 13...	1145	44	150	7.3	.0	14.2	--	--	--	--	--	
MAR 12...	0800	17	165	7.4	4.5	13.2	--	--	--	--	--	
MAY 05...	1230	7.7	210	7.4	16.0	9.8	--	--	--	--	--	
AUG 18...	0900	1.5	258	7.8	21.5	7.6	110	21	24	11	12	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE	PERCENT SODIUM											
FEB 13...	--	--	--	23	40	--	--	--	94	--	.13	
MAR 12...	--	--	--	54	45	--	--	--	102	--	.14	
MAY 05...	--	--	--	70	53	--	--	--	115	--	.16	
AUG 18...	19	.5	2.5	84	54	4.1	.1	5.1	177	151	.24	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
DATE												
FEB 13...	11.2	560	20	380	380	18	2.1	--	--	--	--	--
MAR 12...	4.6	440	60	350	340	15	.69	--	--	--	--	--
MAY 05...	2.3	550	110	210	200	7	.15	--	--	--	--	--
AUG 18...	.72	450	60	240	240	--	--	.13	<.010	2	8	
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	
DATE	AUG 18...	100	<1	<1	<10	<10	<10	3	<10	4900	3	
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE	AUG 18...	<10	290	<.1	<.01	<1	<1	<1	20	13	<.01	

CUMBERLAND RIVER BASIN--Continued

03408200 - BRIMSTONE CREEK NEAR ROBBINS, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
18...	1400	5.8	345	7.3	22.0	6.8	130	73	31	13	14
DATE AUG	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
18...	19	.5	2.2	58	100	4.8	.1	5.9	232	201	.32
DATE AUG		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
18...		3.6	1600	20	290	270	27	.43	.22	.020	1
DATE AUG		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
18...		100	<1	<10	3	9	<.1	<1	<1	20	<.01

03408550 - NORTH PRONG CLEAR FORK NEAR GRIMSLEY, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE AUG	TIME										
18...	1430	5.2	75	6.7	20.5	7.8	26	10	7.7	1.6	
DATE AUG		SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
	18...	3.9	23	.3	2.1	16	7.8	5.6	<.1	3.4	44
DATE AUG		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	18...	43	.06	.38	440	110	70	70	.26	.010	1
DATE AUG		BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL RECOVERABLE (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	18...	<50	<1	<10	2	5	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03408700 - CLEAR FORK AT GATEWOOD, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE JUN 07... AUG 19...	TIME	331	56	7.0	17.0	8.9	--	--	--	--	--
		31	59	7.5	20.0	7.6	21	5	6.2	1.3	1.7
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE JUN 07... AUG 19...	PERCENT SODIUM	--	--	10	6.2	--	--	--	40	--	.05
		.2	1.8	16	7.4	3.7	<.1	2.9	46	37	.06
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 07... AUG 19...		35.7	860	110	110	30	47	42	--	--	--
		3.8	820	80	80	70	36	3.0	.27	.030	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 19...		100	<1	<10	3	4	<.1	<1	<1	10	<.01

03408860 - CLEAR FORK NEAR BURRVILLE, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE JUN 06...	TIME 2000	1210	53	7.0	18.0	8.4	--	--	--	--	--
AUG 19...	1745	74	49	6.6	20.0	8.5	22	10	6.6	1.3	2.5
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE JUN 06...	PERCENT SODIUM --	--	--	15	6.9	--	--	--	37	--	.05
AUG 19...	18	.2	1.8	12	7.6	4.0	<.1	3.2	--	34	.08
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 06...	121	4000	110	360	60	342	1120	--	--	--	--
AUG 19...	11.2	560	200	80	50	12	2.4	.16	.020	2	
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 19...	100	<1	<10	2	8	<.1	<1	<1	30	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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CUMBERLAND RIVER BASIN--Continued

03409350 - BONE CAMP CREEK NEAR BURRVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
FEB 13...	1515	34	38	--	- .5	14.1	--	--	--	--	--
MAR 03...	1230	11	48	7.5	4.5	11.9	--	--	--	--	--
MAY 05...	1530	10	28	7.2	15.0	10.6	--	--	--	--	--
JUN 06...	1700	68	28	7.0	17.5	9.2	--	--	--	--	--
AUG 18...	1830	.28	60	6.9	23.0	4.9	23	0	6.4	1.8	3.0

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB 13...	--	--	--	--	6.2	--	--	--	29	--	.04
MAR 03...	--	--	--	--	5.1	--	--	--	--	--	--
MAY 05...	--	--	--	--	4.7	--	--	--	18	--	.02
JUN 06...	--	--	--	18	2.7	--	--	--	18	--	.02
AUG 18...	21	.3	1.3	28	3.3	2.4	<.1	.9	46	34	.06

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
FEB 13...	2.6	250	10	--	20	1	.09	--	--	--	--
MAR 03...	--	140	30	10	10	5	.15	--	--	--	--
MAY 05...	.50	290	60	20	20	2	.06	--	--	--	--
JUN 06...	3.3	360	80	40	10	10	1.8	--	--	--	--
AUG 18...	.03	720	150	200	180	--	--	.02	.020	1	2

DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
AUG 18...	100	<1	<1	10	<10	<10	5	<10	2100	7

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
AUG 18...	20	220	<.1	<.01	<1	<1	<1	10	15	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03409395 - BLACK WOLF CREEK NEAR GLENMARY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE JUN 06... AUG 18...	TIME	77	130	6.8	19.0	7.4	--	--	--	--	--
	2000										
	1600	2.1	282	7.1	21.0	6.0	98	48	21	11	16
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE JUN 06... AUG 18...	PERCENT SODIUM	--	--	16	31	--	--	--	91	--	.12
	26	.7	3.1	50	65	10	.2	5.4	185	158	.25
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 06... AUG 18...		18.9	1900	160	410	230	90	19	--	--	--
		1.0	350	80	130	130	--	--	.40	.020	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 18...		100	<1	<10	1	1	<.1	<1	<1	10	<.01

03414340 - EAST FORK OBEY RIVER AT OBEY CITY, TN

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CgO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 07...	1030	175	130	3.8	17.0	9.4	--	.4	--	--
AUG 18...	1530	2.7	--	3.3	19.0	8.1	45	1.1	12	3.6
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
JUN 07...	--	--	--	--	31	--	--	--	71	.10
AUG 18...	3.4	14	.2	1.4	98	5.1	<.1	7.5	181	.25
DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, DIS- SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (MG/L AS AS)
JUN 07...	33.5	3500	930	260	210	17	8.0	--	--	--
AUG 18...	1.3	--	920	--	1100	--	--	.26	<.010	1
DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
AUG 18...	100	<1	<10	4	29	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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CUMBERLAND RIVER BASIN--Continued

03414346 - HURRICANE CREEK AT CAMP GROUND, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE JUN 07...	0845	110	38	6.4	16.0	8.9	--	--	--	--	--	
AUG 18...	1250	.66	52	6.7	20.0	7.3	20	6	.9	5.9	1.3	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE JUN 07...	--	--	--	--	--	6	4.8	--	--	--	27	--
AUG 18...	1.4	12	.1	1.1	14	4.4	2.5	<.1	2.9	29	29	29
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 07...	.04	8.0	570	90	70	20	30	8.9	--	--	--	--
AUG 18...	.04	.05	470	170	60	20	--	--	.10	.020	1	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 18...	100	<1	<10	1	5	<.1	<1	<1	10	<.01		

03414430 - EAST FORK OBEY RIVER NEAR WILDER, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE JUN 07... AUG 18...	TIME	245	250	3.6	18.0	9.4	--	.9	--	-	
	1425	2.8	1650	2.8	22.0	8.3	370	6.9	86	38	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE JUN 07... AUG 18...	--	--	--	--	78	--	--	--	--	144	.20
	5.2	3	.1	1.8	840	3.4	.3	34	1400	1.9	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 07... AUG 18...	95.3	4800	2700	710	660	36	24	--	--	--	--
	10.6	46000	45000	--	6200	--	--	.17	.030	0	0
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 18...	100	<1	30	45	24	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03414470 - BUFFALO COVE CREEK NEAR BOATLAND, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		DATE JUN 07...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)		
			1630	187	140	7.5	16.0	9.4	50	15	92		
		DATE JUN 07...		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)		
				.13	46.5	680	50	80	20	35	18		
03414680 - WEST FORK OBEY RIVER NEAR ALLRED, TN													
		DATE JUN 07...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
			1200	382	184	7.6	15.0	10.0	--	--	--	--	--
AUG 17...			1150	6.5	340	8.1	22.0	7.2	140	22	45	7.3	10
		DATE JUN 07...	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
			--	--	--	80	13	--	--	--	118	--	.16
AUG 17...			13	.4	1.1	120	37	17	.1	5.1	204	182	.28
		DATE JUN 07...	TIME	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
			122	360	30	60	10	20	21	--	--	--	--
AUG 17...			3.5	210	30	50	30	--	--	.28	.010		1
		DATE JUN 07...	TIME	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
			--	--	--	--	--	--	--	--	--	--	--
AUG 17...			100	<1	10	3	32	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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CUMBERLAND RIVER BASIN--Continued

03415960 - WOLF RIVER AT WOLF RIVER, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DATE JUN 07...	TIME	510	93	7.3	16.0	9.0	--	--	--	--	--
AUG 18...	1110	5.8	205	7.2	17.5	7.9	85	0	27	4.3	2.0
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DATE JUN 07...	PERCENT SODIUM	--	--	44	6.6	--	--	--	58	--	.08
AUG 18...	5	.1	1.1	96	11	2.6	<.1	5.2	108	104	.15
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 07...		79.9	490	30	50	10	30	41	--	--	--
AUG 18...		1.6	170	10	30	<10	--	--	.44	.010	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 18...		100	<1	<10	2	4	<.1	<1	<1	10	<.01

03415975 - ROTTEN FORK WOLF RIVER NEAR PALL MALL, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE JUN 07...	TIME	1345	292	115	7.3	16.0	9.4	--	--	--	--	
AUG 18...		1005	1.4	282	7.5	21.0	8.2	120	0	39	5.2	3.3
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE JUN 07...	PERCENT SODIUM	--	--	--	44	7.1	--	--	71	--	.10	
AUG 18...	6	.1	1.4	130	15	4.8	.1	4.8	160	146	.22	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE JUN 07...		56.0	560	20	70	10	50	39	24	--	--	--
AUG 18...		.60	240	30	70	30	--	--	--	.78	.020	1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 18...		100	<1	10	3	40	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03418500 - CANEY FORK AT CLIFTY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 18...	TIME	2.3	110	7.3	23.5	7.5	44	30	12	3.4
	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DATE AUG 18...	11	34	.7	1.7	14	32	3.0	<.1	2.1	79
	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
DATE AUG 18...	82	.11	.49	180	<10	160	.11	<.010	1	100
	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 18...	<1	10	2	4	<.1	<1	<1	<1	10	<.01

03418925 - BEE CREEK AT LANTANA RD AT WINESAP, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 18...	TIME	.06	75	6.7	20.0	3.7	31	0	9.5	1.7
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	PERCENT SODIUM	8	.1	2.5	40	2.6	2.5	<.1	2.1	58
DATE AUG 18...	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	39	.08	.01	1400	720	360	180	.58	.030	1
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)		CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	20	5	12	<.1	<1	<1	10	<.01

CUMBERLAND RIVER BASIN--Continued

03418935 - BEAVERDAM CREEK AT LANTANA RD NEAR BELLVIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1230	.10	90	6.7	22.0	3.2	40	4	12	2.5
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.1	10	.1	2.2	36	4.3	2.2	<.1	3.9	62
DATE AUG 18...	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	50	.08	.02	1300	720	550	510	.41	.030	1
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	5	9	<.1	<1	<1	20	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03418995 - GLADE CREEK NEAR LONEWOOD, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE FEB 09...	TIME 1215	46	70	7.6	.0	14.0	--	--	--	--	--	
MAR 02...	1515	33	62	6.5	9.0	11.0	--	--	.1	--	--	
MAY 04...	1530	20	57	6.8	15.0	8.0	--	--	--	--	--	
AUG 18...	1130	.56	145	7.1	22.0	6.4	42	18	--	10	4.1	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE FEB 09...	--	--	--	--	--	8	11	--	--	--	50	--
MAR 02...	--	--	--	--	--	18	8.0	--	--	--	44	--
MAY 04...	--	--	--	--	--	12	8.3	--	--	--	30	--
AUG 18...	7.9	28	.5	2.5	24	36	5.1	<.1	1.3	82	77	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 09...	.07	6.2	240	30	50	40	3	.37	--	--	--	
MAR 02...	.06	3.9	150	40	60	50	--	--	--	--	--	
MAY 04...	.04	1.6	350	120	60	40	--	--	--	--	--	
AUG 18...	.11	.12	200	30	70	30	--	--	.09	<.010	1	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	
DATE AUG 18...	<1	100	2	<1	20	<10	<10	3	2	2500		
		LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	
DATE AUG 18...	10	<10	750	.1	<.01	<1	<1	<1	10	17		

CUMBERLAND RIVER BASIN--Continued

03419270 - CALFKILLER RIVER NEAR TAYLORS, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
	1145	11	270	7.7	17.0	7.4	130	19	42	5.8	
DATE AUG 19...		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	4.4	7	.2	.9	110	20	7.0	<.1	5.0	168	
DATE AUG 19...		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	151	.23	4.9	190	20	30	20	.52	.020	1	
DATE AUG 19...		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	<10	1	5	<.1	<1	1	10	<.01	

03420000 - CALFKILLER RIVER BELOW SPARTA, TN

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1330	44	.80	7.5	22.0	7.3	140	26	44	7.7
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	5.2	7	.2	1.3	120	11	6.4	.1	5.8	180
DATE AUG 19...	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	154	.24	21.4	180	<10	100	40	1.2	.090	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	2	5	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420116 - ROCKY RIVER AT ROCKY RIVER ROAD AT RIVERVIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1630	5.2	250	7.2	17.0	9.4	110	62	31	7.9
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.1	4	.1	1.0	48	58	1.5	.1	5.4	149
DATE AUG 19...	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	138	.20	2.0	80	10	40	30	.35	<.010	1
DATE AUG 19...	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	1	<1	<.1	<1	<1	<10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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CUMBERLAND RIVER BASIN--Continued

03420156 - COLLINS RIVER AT BARKERTOWN, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE	TIME											
FEB 11...	1515	389	50	6.3	3.0	11.7	--	--	--	--	--	
MAR 03...	1215	24	42	6.4	6.5	11.5	--	--	--	--	--	
04...	1230	28	37	6.6	6.0	10.9	--	--	--	--	--	
04...	1430	37	42	6.3	6.0	10.6	--	--	--	--	--	
04...	1510	48	58	6.4	6.0	10.6	--	--	--	--	--	
04...	1550	57	48	6.2	6.0	10.8	--	--	--	--	--	
04...	1715	74	54	6.2	6.0	10.8	--	--	--	--	--	
04...	1900	86	50	6.1	6.5	10.7	--	--	--	--	--	
04...	2130	94	52	5.9	6.5	10.6	--	--	--	--	--	
05...	1030	124	37	6.0	7.5	10.5	--	--	--	--	--	
06...	1130	100	31	6.0	6.5	11.2	--	--	.1	--	--	
MAY 05...	1045	11	58	7.1	14.0	9.5	--	--	--	--	--	
AUG 17...	1100	.26	105	7.8	23.0	5.8	45	5	--	13	3.0	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE												
FEB 11...	--	--	--	--	--	10	9.7	--	--	--	45	--
MAR 03...	--	--	--	--	--	8	9.8	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	1512	--	--	--	--	10	8.8	--	--	--	34	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	10	12	--	--	--	34	--
AUG 17...	4.2	16	.3	2.5	40	18	3.7	<.1	2.6	67	63	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE												
FEB 11...	--	.06	47.3	1100	40	150	90	30	32	--	--	--
MAR 03...	--	--	--	150	40	110	90	--	--	--	--	--
04...	--	--	--	--	--	--	--	3	.23	--	--	--
04...	--	--	--	--	--	--	--	5	.50	--	--	--
04...	.05	4.4	320	40	100	--	12	1.6	--	--	--	--
04...	--	--	--	--	--	--	18	2.8	--	--	--	--
04...	--	--	--	--	--	--	22	4.4	--	--	--	--
04...	--	--	--	--	--	--	22	5.1	--	--	--	--
04...	--	--	--	--	--	--	15	3.8	--	--	--	--
05...	--	--	--	--	--	--	5	1.7	--	--	--	--
06...	--	--	--	--	--	--	3	.81	--	--	--	--
MAY 05...	--	.05	1.0	390	100	50	40	--	--	--	--	--
AUG 17...	--	.09	.05	270	60	210	110	--	--	.21	.020	1
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE												
AUG 17...	--	<1	100	<1	<1	10	<10	<10	2	2	1300	6
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 17...	--	<10	850	<.1	<.01	<1	<1	<1	20	16	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420200 - COLLINS RIVER NEAR TARLTON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME											
FEB 11...	1345	1570	85	7.0	5.0	11.8	--	--	--	--	--	
MAR 03...	1015	214	78	6.8	8.0	10.8	--	--	--	--	--	
MAY 05...	0900	116	86	7.5	13.0	8.6	--	--	--	--	--	
AUG 19...	1400	16	175	7.8	18.0	8.9	82	14	25	4.7	1.7	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE	PERCENT SODIUM											
FEB 11...	--	--	--	26	11	--	--	--	64	--	.09	
MAR 03...	--	--	--	24	11	--	--	--	48	--	.07	
MAY 05...	--	--	--	28	9.6	--	--	--	50	--	.07	
AUG 19...	4	.1	.9	68	14	1.8	<.1	4.3	96	93	.13	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE												
FEB 11...	271	820	40	340	10	65	276	64	--	--	--	--
MAR 03...	27.7	110	0	20	10	--	--	--	--	--	--	--
MAY 05...	15.7	130	10	10	10	--	--	--	--	--	--	--
AUG 19...	4.2	180	<10	80	20	--	--	--	.31	.010		1
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE												
AUG 19...	<1	100	<1	<1	10	<10	<10	<10	1	1	2200	4
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 19...	<10	670	<.1	<.01	<1	<1	<1	<1	10	17	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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CUMBERLAND RIVER BASIN--Continued

03420230 - SCOTT CREEK AT IRVING COLLEGE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME											
FEB 11...	1045	171	250	7.7	6.0	10.8	--	--	--	--	--	
MAR 03...	0840	17	260	7.7	8.0	10.3	--	--	--	--	--	
MAY 05...	0730	12	277	8.1	14.0	8.2	--	--	--	--	--	
AUG 19...	0900	5.8	350	7.9	19.0	8.4	180	24	59	7.9	1.8	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE	PERCENT SODIUM											
FEB 11...	--	--	--	110	12	--	--	--	138	--	.19	
MAR 03...	--	--	--	120	11	--	--	--	154	--	.21	
MAY 05...	--	--	--	130	10	--	--	--	158	--	.21	
AUG 19...	2	.1	.9	160	18	1.9	.1	7.1	203	187	.28	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
DATE												
FEB 11...	63.7	1300	30	120	10	58	27	--	--	--	--	--
MAR 03...	7.0	110	0	20	20	--	--	--	--	--	--	--
MAY 05...	5.2	120	10	20	10	--	--	--	--	--	--	--
AUG 19...	3.2	220	20	40	20	--	--	.95	.020	1	<1	<1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	
DATE												
AUG 19...	100	<1	<1	10	20	10	2	2	4800	7		
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 19...	20	890	<.1	<.01	1	<1	<1	<1	10	11	<.01	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420260 - HILLS CREEK NEAR IRVING COLLEGE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 19...	TIME	9.0	265	7.6	19.0	8.5	120	66	35	7.9
	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DATE AUG 19...	1.5	3	.1	1.3	54	67	1.3	<.1	6.1	167
	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE AUG 19...	153	.23	4.0	150	20	140	120	.35	<.010	1
	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 19...	100	<1	10	1	6	<.1	<1	<1	10	<.01

03420720 - HICKORY CREEK NEAR VIOLA, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE AUG 18...	1600	8.1	320	7.9	22.0	6.7	170	47	54	8.7	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE AUG 18...	2.5	3	.1	1.6	120	39	4.3	.1	7.2	190	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
DATE AUG 18...	.50	8.0	380	40	110	80	1.5	.070	1	100	
		CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 18...		<1	10	2	4	<.1	<1	<1	10	<.01	

CUMBERLAND RIVER BASIN--Continued

03422850 - FALLING WATER RIVER AT ST. HWY 42, NEAR COOKEVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)
	1000	7.8	260	7.6	21.0	6.4	140	7	45	6.0
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS Na)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.7	4	.1	1.5	130	8.0	4.9	.1	4.9	156
DATE AUG 19...	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	145	.21	3.2	300	30	70	50	.57	.030	1
DATE AUG 19...	BARIUM, TOTAL RECOVERABLE (UG/L AS Ba)	CADMIUM TOTAL RECOVERABLE (UG/L AS Cd)	CHRO- MIUM, TOTAL RECOVERABLE (UG/L AS Cr)	COPPER, TOTAL RECOVERABLE (UG/L AS Cu)	LEAD, TOTAL RECOVERABLE (UG/L AS Pb)	MERCURY TOTAL RECOVERABLE (UG/L AS Hg)	SELE- NIUM, TOTAL (UG/L AS Se)	SILVER, TOTAL RECOVERABLE (UG/L AS Ag)	ZINC, TOTAL RECOVERABLE (UG/L AS Zn)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	<10	2	3	<.1	<1	<1	<10	<.01

03436700 YELLOW CREEK NEAR SHILOH, TN

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 06...	1400	29	270	14.5	28	2.2
NOV 25...	1215	41	260	10.5	18	2.0

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN

03532070 - OLD TOWN CREEK NEAR RED HILL, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 17...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1300	5.4	259	7.6	19.0	8.6	120	8	44	3.4
DATE AUG 17...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.3	4	.1	1.5	116	10	2.1	<.1	6.3	148
DATE AUG 17...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	142	.20	2.1	640	30	80	60	1.2	.030	2
DATE AUG 17...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	<10	4	9	<.1	1	<1	20	<.01

03532100 - DAVIS CREEK NEAR SPEEDWELL, TN

DATE AUG 17...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1515	32	319	8.0	19.0	9.0	170	15	52	10
DATE AUG 17...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	3.0	4	.1	1.2	160	5.4	2.0	<.1	5.9	195
DATE AUG 17...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	170	.27	17.0	300	<10	30	20	1.5	.030	1
DATE AUG 17...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	3	7	<.1	<1	<1	30	.04

TENNESSEE RIVER BASIN--Continued

03532202 - BIG CREEK AT ASPEN STREET, AT LA FOLLETTE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 17...	1645	8.4	350	7.5	24.5	8.1	150	110	37	13
	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DATE AUG 17...	11	14	.4	1.8	40	110	1.6	.2	9.2	248
	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE AUG 17...	207	.34	5.6	810	10	1300	1300	2.3	<.010	1
	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 17...	100	1	10	3	6	<.1	1	<1	60	.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03532480 - COVE CREEK ABOVE COVE LAKE, NEAR CARYVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE	TIME											
FEB 09...	1145	13	287	7.3	.5	--	--	--	--	--	--	
MAR 02...	1530	18	168	6.6	10.0	10.7	--	--	.3	--	--	
MAY 04...	1545	11	190	7.6	17.0	9.7	--	--	--	--	--	
AUG 18...	0800	4.7	230	7.8	22.0	8.0	83	29	--	22	6.9	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE												
FEB 09...	--	--	--	--	--	36	49	--	--	--	208	--
MAR 02...	--	--	--	--	--	12	36	--	--	--	92	--
MAY 04...	--	--	--	--	--	--	39	--	--	--	100	--
AUG 18...	7.8	17	.4	1.5	54	36	6.9	<.1	4.7	146	116	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE												
FEB 09...	.28	7.3	360	40	--	80	4	.14	--	--	--	
MAR 02...	.13	4.4	490	40	50	40	3	.15	--	--	--	
MAY 04...	.14	2.9	230	40	20	10	4	.12	--	--	--	
AUG 18...	.20	1.8	290	10	20	10	--	--	.03	<.010	2	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECov. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECov. FM BOT- TOM MA- TERIAL (UG/G AS CR)	COBALT, RECov. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECov. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECov. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE												
AUG 18...	1	100	<1	<1	10	<10	10	1	<10	3300	7	
		LEAD, RECov. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECov. FM BOT- TOM MA- TERIAL (UG/G AS HG)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECov. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECov. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 18...	10	260	<.1	<.01	1	<1	<1	20	14	<.01		

TENNESSEE RIVER BASIN--Continued

03534000 - COAL CREEK AT LAKE CITY, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME											
FEB 10...	0845	7.1	385	7.6	2.0	13.4	--	--	--	--	--	
MAR 02...	1400	11	335	7.8	12.0	12.0	--	--	--	--	--	
MAY 04...	1245	14	--	7.7	17.0	10.0	--	--	--	--	--	
AUG 18...	1030	6.2	430	7.8	23.0	7.9	130	16	34	12	36	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE	PERCENT SODIUM											
FEB 10...	--	--	--	100	97	--	--	--	255	--	.35	
MAR 02...	--	--	--	66	84	--	--	--	197	--	.27	
MAY 04...	--	--	--	--	95	--	--	--	260	--	.35	
AUG 18...	36	1.4	2.4	120	88	4.5	.2	5.8	270	249	.37	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
DATE												
FEB 10...	4.8	480	20	--	290	19	.36	--	--	--	--	--
MAR 02...	6.0	440	0	260	250	28	.86	--	--	--	--	--
MAY 04...	9.8	410	10	230	220	6	.23	--	--	--	--	--
AUG 18...	4.5	510	20	80	50	--	--	.16	.050	1	3	
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	
DATE												
AUG 18...	100	<1	<1	10	<10	20	2	10	5800	6		
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 18...	120	1400	<.1	<.01	<1	<1	<1	<1	30	45	.07	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03538160 - POPLAR CREEK AT BATLEY ROAD, NEAR OLIVER SPRINGS, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1500	3.1	325	7.6	23.5	8.0	140	77	35	12
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	7.0	10	.3	2.1	60	88	1.8	.1	5.8	226
DATE AUG 18...	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	187	.31	1.8	430	40	70	40	.11	.020	2
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	2	7	<.1	<1	<1	10	<.01

TENNESSEE RIVER BASIN--Continued

360858084355000 - EMORY RIVER AT GOBEY, TN (035382968)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE	TIME											
FEB 14...	1130	57	116	6.8	.0	13.7	--	--	.0	--	--	
MAR 11...	1400	43	105	7.0	6.5	11.9	--	--	--	--	--	
MAY 06...	1330	15	105	6.8	16.0	8.8	--	--	<.1	--	--	
AUG 18...	0930	1.7	175	6.9	21.5	--	63	39	--	15	6.3	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
DATE												
FEB 14...	--	--	--	--	--	7	38	--	--	--	74	--
MAR 11...	--	--	--	--	--	19	37	--	--	--	59	--
MAY 06...	--	--	--	--	--	25	30	--	--	--	63	--
AUG 18...	3.3	10	.2	1.5	24	40	1.1	<.1	6.5	98	93	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE												
FEB 14...	.10	11.4	260	30	--	30	3	.46	--	--	--	
MAR 11...	.08	6.8	170	80	30	10	10	1.2	--	--	--	
MAY 06...	.09	2.5	300	70	50	50	4	.16	--	--	--	
AUG 18...	.13	.45	1600	170	300	230	--	--	.04	.020	1	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE												
AUG 18...	5	100	1	<1	<10	<10	<10	7	<10	5300	6	
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 18...	10	170	<.1	<.01	<1	<1	<1	<1	30	18	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03538398 - ROCK CREEK NEAR GOBEY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1430	.72	137	7.3	21.5	5.9	49	11	14	3.3
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	7.8	25	.5	1.7	38	12	9.4	<.1	2.3	88
DATE AUG 19...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	75	.12	.17	840	50	230	190	.16	.040	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	4	4	<.1	<1	<1	20	<.01

03539600 - DADDYS CREEK NEAR HEBBERTSBURG, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 18...	TIME	5.9	130	6.7	23.0	7.9	44	0	15	1.5
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	PERCENT SODIUM									
DATE AUG 18...	5.1	20	.3	1.4	46	8.7	9.4	<.1	.5	79
DATE AUG 18...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE AUG 18...	63	.11	1.2	180	40	40	30	.44	<.010	2
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM, TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY, TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 18...	100	<1	<10	1	6	<.1	<1	<1	40	<.01

TENNESSEE RIVER BASIN--Continued

03539719 - WHITE CREEK AT TWIN BRIDGES, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 19...	TIME	.38	67	6.7	21.0	4.9	23	0	6.8	1.5
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	PERCENT SODIUM									
DATE AUG 19...	3.2	22	.3	1.6	23	2.9	3.7	<.1	.8	43
DATE AUG 19...	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	33	.06	.04	510	110	190	130	.06	.020	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	<10	2	9	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03539750 - CLEAR CREEK NEAR LANCING, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE	TIME											
FEB 14...	1500	232	60	6.5	.5	13.8	--	--	.0	--	--	
MAR 03...	1000	105	59	6.8	5.5	11.0	--	--	--	--	--	
MAY 08...	1230	76	42	7.5	17.0	9.1	--	--	--	--	--	
19...	1115	130	47	6.6	16.0	9.6	--	--	--	--	--	
19...	1430	443	51	7.2	16.5	9.7	--	--	--	--	--	
19...	1715	537	46	7.6	16.5	9.2	--	--	--	--	--	
20...	0930	331	51	7.4	15.0	9.3	--	--	--	--	--	
21...	1120	232	48	7.2	14.0	9.8	--	--	--	--	--	
AUG 19...	1100	4.2	64	6.4	23.0	6.3	19	3	--	5.2	1.4	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
DATE												
FEB 14...	--	--	--	--	--	3	9.8	--	--	--	35	--
MAR 03...	--	--	--	--	--	4	9.1	--	--	--	32	--
MAY 08...	--	--	--	--	--	4	7.2	--	--	--	25	--
19...	--	--	--	--	--	9	7.5	--	--	--	32	--
19...	--	--	--	--	--	10	7.1	--	--	--	34	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	4.4	32	.4	1.3	16	7.4	2.8	<.1	.9	46	34	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE												
FEB 14...	.05	21.9	150	<10	--	30	2	1.3	--	--	--	--
MAR 03...	.04	9.0	50	0	10	10	1	.28	--	--	--	--
MAY 08...	.03	5.1	170	60	30	10	6	1.2	--	--	--	--
19...	.04	11.2	220	50	30	20	4	1.4	--	--	--	--
19...	.05	40.7	500	30	70	20	7	8.4	--	--	--	--
19...	--	--	--	--	--	--	39	57	--	--	--	--
20...	--	--	--	--	--	--	7	6.3	--	--	--	--
21...	--	--	--	--	--	--	4	2.5	--	--	--	--
AUG 19...	.06	.52	200	110	50	50	--	--	.04	<.010	1	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE												
AUG 19...	3	100	<1	<1	<10	20	<10	2	<10	1100	6	
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 19...	<10	13	<.1	<.01	<1	<1	<1	<1	20	9	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03539831 - ISLAND CREEK NEAR CATOOSA, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
	1200	.24	40	7.0	22.5	16	12	3.4	1.7	1.2
DATE AUG 18...	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
	14	.1	.7	4	12	.5	<.1	4.9	26	26
DATE AUG 18...	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
	.04	.02	90	30	20	20	.08	<.010	1	100
DATE AUG 18...	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
	<1	<10	4	7	<.1	<1	<1	10	<.01	

03539860 - CROOKED FORK NEAR WARTBURG, TN

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
	1415	5.3	360	7.3	21.0	130	83	35	11	18
DATE AUG 18...	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
	22	.7	2.2	50	110	2.5	.2	6.3	259	213
DATE AUG 18...	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
	.35	3.7	480	30	300	270	1.8	<.010	2	100
DATE AUG 18...	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
	<1	10	6	7	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03540100 - CRAB ORCHARD CREEK NEAR DEERMONT, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1400	.28	430	4.0	23.0	8.1	180	.4	34	22
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
	5.0	6	.2	1.9	190	.6	.2	8.0	337	.46
DATE AUG 18...	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	
	.25	510	150	4800	4700	.08	<.010	2	100	
DATE AUG 18...	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
	<1	10	4	5	<.1	<1	<1	140	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03541485 - WHITES CREEK AT BAKERS BRIDGE, NEAR GLEN ALICE,TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCTANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
DATE FEB 13...	TIME 1300	133	26	7.1	2.0	14.2	--	--	--	--	--	
MAR 03...	1415	31	31	6.8	7.0	11.9	--	--	.0	--	--	
MAY 06...	0900	18	29	6.9	16.5	8.7	--	--	--	--	--	
AUG 19...	0915	.72	54	6.9	22.0	--	22	2	--	6.8	1.3	
		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
DATE FEB 13...	--	--	--	--	--	6	5.5	--	--	--	21	--
MAR 03...	--	--	--	--	--	4	5.4	--	--	--	18	--
MAY 06...	--	--	--	--	--	11	6.1	--	--	--	20	--
AUG 19...	3.1	23	.3	.7	20	6.3	1.0	<.1	1.3	30	30	
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB 13...	.03	7.5	200	10	20	20	20	3	1.1	--	--	--
MAR 03...	.02	1.5	60	10	10	10	10	11	.92	--	--	--
MAY 06...	.03	.97	100	20	20	10	2	.10	--	--	--	--
AUG 19...	.04	.06	310	80	40	30	--	--	.03	<.010	1	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE AUG 19...	4	100	<1	<1	10	10	<10	2	<10	580	4	
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG 19...	<10	48	.3	<.01	<1	<1	<1	<1	20	9	.02	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03541487 - PINEY CREEK NEAR WESTEL, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	0845	.16	120	7.0	21.0	7.6	52	8	17	2.2
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	7.0	22	.4	1.1	44	8.0	3.0	<.1	1.3	64
DATE AUG 19...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	64	.09	.03	190	40	50	30	.12	<.010	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	3	7	<.1	<1	<1	20	.02

03541496 - FALL CREEK NEAR OZONE, TN

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1715	2.2	150	7.2	22.5	7.7	61	11	19	3.3
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	3.9	12	.2	.9	50	12	5.2	<.1	1.9	85
DATE AUG 18...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	75	.12	.50	590	30	40	10	.06	<.010	1
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	1	10	3	5	<.1	<1	<1	30	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03542495 - PINEY RIVER ABOVE SPRING CITY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
	0900	.75	68	6.6	22.0	8.2	23	7	6.2	1.9	
DATE AUG 19...		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	1.7	13	.2	.8	16	12	.8	<.1	1.9	39	
DATE AUG 19...		SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	34	.05	.08	290	50	20	8	.10	<.010	1	
DATE AUG 19...		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	10	2	6	<.1	<1	<1	30	.08	

03542500 - PINEY RIVER AT SPRING CITY, TN

DATE AUG 19...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1045	1.8	95	6.8	22.5	8.4	42	12	12	2.8
DATE AUG 19...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	2.8	13	.2	.6	30	9.9	1.0	<.1	1.8	56
DATE AUG 19...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	47	.08	.27	150	<10	20	20	.23	<.010	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	<1	20	2	7	<.1	<1	<1	30	.05

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03566292 - SALE CREEK NEAR SALE CREEK, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
FEB										
09...	1615	34	90	6.5	5.0	13.0	--	24	15	54
10...	1130	49	100	--	4.0	--	--	--	--	--
10...	1230	80	90	6.3	4.0	13.2	--	--	--	--
10...	1500	390	75	6.6	3.5	13.2	.0	10	15	48
10...	1540	530	75	6.3	3.5	--	--	--	--	--
10...	1615	760	70	6.7	7.0	--	--	--	--	--
10...	1720	1010	60	6.6	7.0	--	--	--	--	--
10...	2020	1150	65	6.7	8.0	--	--	--	--	--
11...	0745	1140	55	6.8	5.5	13.0	--	--	--	--
11...	1545	880	55	6.8	4.0	12.4	--	--	--	--
MAR										
02...	1250	46	90	6.9	9.5	12.0	--	22	13	56
MAY										
04...	1245	14	102	7.2	14.0	9.7	--	29	14	59

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB									
09...	.07	4.9	240	10	100	100	<1	.09	--
10...	--	--	--	--	--	--	5	.66	--
10...	--	--	--	--	--	--	24	5.2	--
10...	.07	50.5	810	10	220	160	66	70	81
10...	--	--	--	--	--	--	234	335	67
10...	--	--	--	--	--	--	495	1020	68
10...	--	--	--	--	--	--	590	1610	58
10...	--	--	--	--	--	--	350	1090	71
11...	--	--	--	--	--	--	108	332	58
11...	--	--	--	--	--	--	52	124	--
MAR									
02...	.08	6.9	300	0	130	120	--	--	--
MAY									
04...	.08	2.3	180	10	80	80	--	--	--

03566400 - SODDY CREEK AT SODDY, TN

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)
DATE AUG 19...	TIME	.17	135	4.9	22.0	10.4	51	41	.1	10
	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
DATE AUG 19...	6.2	2.6	10	.2	2.0	10	41	1.1	<.1	6.3
	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE AUG 19...	96	71	.13	.04	130	40	500	.13	<.010	1
	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 19...	100	1	10	3	14	<.1	<1	<1	60	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03569245 - SUCK CREEK NEAR CHATTANOOGA, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	CALCIUM DIS- SOLVED (MG/L AS CA)
DATE AUG 19...	TIME 1315	.02	148	5.4	22.0	9.4	57	55	<.1	12
DATE AUG 19...	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
	6.5	2.0	7	.1	1.2	2	48	2.6	<.1	6.7
DATE AUG 19...	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	100	75	.14	.01	210	60	490	.10	<.010	1
DATE AUG 19...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	2	20	2	11	<.1	<1	<1	20	<.01

03570602 - SEQUATCHIE RIVER NEAR PIKEVILLE, TN

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
18...	1445	15	218	8.1	23.0	6.8	120	0	41	5.1	
DATE AUG	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
18...	1.4	2	.1	2.3	120	3.2	2.5	<.1	6.0	153	
DATE AUG	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
18...	134	.21	6.2	560	20	150	110	.76	.030	1	
DATE AUG	TIME	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
18...	100	2	20	3	14	<.1	<1	<1	10		

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03570695 - SEQUATCHIE RIVER NEAR MT. AIRY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE FEB	TIME											
09...	1700	109	225	7.6	5.0	12.7	--	--	--	--	--	
10...	1430	260	190	7.4	6.5	11.7	--	--	--	--	--	
10...	1715	745	--	--	--	--	--	--	--	--	--	
10...	2000	990	--	--	--	--	--	--	--	--	--	
10...	2330	1180	138	7.0	7.0	11.9	--	--	--	--	--	
11...	0730	1350	--	--	--	--	--	--	--	--	--	
11...	1715	1480	138	6.9	5.5	12.6	--	--	--	--	--	
MAR												
03...	1200	188	205	7.8	9.5	10.4	--	--	--	--	--	
MAY												
05...	0800	144	230	8.2	15.0	9.2	--	--	--	--	--	
AUG												
17...	1500	30	240	7.9	24.0	6.5	140	15	43	6.8	1.6	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE FEB	PERCENT SODIUM											
09...	--	--	--	92	15	--	--	--	126	--	.17	
10...	--	--	--	78	13	--	--	--	111	--	.15	
10...	--	--	--	--	--	--	--	--	--	--	--	
10...	--	--	--	--	--	--	--	--	--	--	--	
10...	--	--	--	--	--	--	--	--	--	--	--	
11...	--	--	--	--	--	--	--	--	--	--	--	
11...	--	--	--	--	--	--	--	--	--	--	--	
MAR												
03...	--	--	--	88	10	--	--	--	124	--	.17	
MAY												
05...	--	--	--	100	7.8	--	--	--	123	--	.17	
AUG												
17...	2	.1	1.2	120	5.9	3.1	<.1	6.3	161	140	.22	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE FEB												
09...	37.1	320	10	20	10	35	10	--	--	--	--	--
10...	77.9	6900	150	540	30	334	234	79	--	--	--	--
10...	--	--	--	--	--	561	1130	86	--	--	--	--
10...	--	--	--	--	--	1370	3660	91	--	--	--	--
10...	--	--	--	--	--	652	2080	89	--	--	--	--
11...	--	--	--	--	--	956	3490	95	--	--	--	--
11...	--	--	--	--	--	452	1810	90	--	--	--	--
MAR												
03...	62.9	250	0	60	30	--	--	--	--	--	--	--
MAY												
05...	47.8	390	20	40	20	--	--	--	--	--	--	--
AUG												
17...	13.0	340	10	50	30	--	--	--	.74	.030	1	
		ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
DATE AUG												
17...	<1	100	<1	<1	10	<10	<10	<10	3	1	2900	4
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE AUG												
17...	<10	490	<.1	<.01	<1	<1	<1	<1	10	8	<.01	

TENNESSEE RIVER BASIN--Continued

03570855 - WOODCOCK CREEK SOUTHWEST OF DUNLAP, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
FEB									
09...	1500	4.5	60	5.2	3.0	13.4	.2	2	19
10...	1045	11	56	5.9	3.5	13.1	--	3	17
10...	1100	11	56	5.9	3.5	--	--	--	--
10...	1600	51	54	--	5.0	--	--	--	--
10...	1930	92	73	--	4.0	--	--	--	--
12...	1015	--	38	5.0	1.0	13.6	--	--	--
		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (T/DAY)
FEB									
09...	32	.04	.39	200	10	200	200	<1	.01
10...	38	.05	1.1	730	10	200	180	27	.82
10...	--	--	--	--	--	--	--	81	2.4
10...	--	--	--	--	--	--	--	84	12
10...	--	--	--	--	--	--	--	63	16
12...	--	--	--	--	--	--	--	2	--

03570870 - HICKS CREEK AT CARTWRIGHT, TN

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
FEB									
11...	1200	191	30	7.7	3.5	13.0	4	7.7	23
MAR									
03...	0915	6.2	60	7.4	6.0	12.0	11	14	34
MAY									
05...	1000	.83	70	7.2	17.0	9.7	22	14	40
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (T/DAY)	
FEB									
11...		.03	11.9	2200	20	70	20	66	34
MAR									
03...		.05	.57	100	0	20	20	--	--
MAY									
05...		.05	.09	90	10	10	10	--	--

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03571500 - LITTLE SEQUATCHIE RIVER AT SEQUATCHIE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 18...	0845	5.5	210	7.9	22.0	8.8	110	32	32	6.1

03571800 - BATTLE CREEK NEAR MONTEAGLE, TN

DATE AUG 17...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1400	4.8	270	7.5	24.5	9.2	110	20	34	6.1
DATE AUG 17...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	7.4	13	.3	2.2	90	15	13	<.1	4.7	157
DATE AUG 17...	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	139	.21	2.0	190	10	20	20	.45	<.010	1
DATE AUG 17...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	2	10	3	10	.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03571835 - SWEDEN CREEK NEAR SOUTH PITTSBURG, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
DATE	TIME											
FEB 11...	1500	282	128	7.4	9.0	10.8	--	--	--	--	--	
MAR 02...	1430	26	150	7.4	12.5	10.4	--	--	--	--	--	
MAY 04...	1315	16	167	7.8	13.0	10.2	--	--	--	--	--	
AUG 17...	1130	2.9	235	7.6	21.5	6.1	120	15	39	5.7	1.9	
		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
DATE	PERCENT SODIUM											
FEB 11...	--	--	--	50	7.1	--	--	--	67	--	.09	
MAR 02...	--	--	--	64	7.8	--	--	--	84	--	.11	
MAY 04...	--	--	--	74	8.8	--	--	--	98	--	.13	
AUG 17...	3	.1	1.9	110	15	2.3	<.1	5.9	146	138	.20	
		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
DATE												
FEB 11...	51.0	740	30	40	10	51	39	--	--	--	--	--
MAR 02...	5.9	190	20	50	40	--	--	--	--	--	--	--
MAY 04...	4.2	340	60	50	50	--	--	--	--	--	--	--
AUG 17...	1.1	510	80	--	120	--	--	.59	<.010	1	<1	<1
		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	
DATE												
AUG 17...	100	1	<1	20	<10	<10	<10	4	3	6000	11	11
		LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
DATE												
AUG 17...	<10	560	<.1	<.01	<1	<1	<1	<1	<10	13	<.01	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03572092 - CROW CREEK NEAR ANDERSON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE AUG 17...	TIME	4.2	232	8.7	27.5	7.6	110	0	32	7.3
	SODIUM, DIS- SOLVED (MG/L AS NA)		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DATE AUG 17...	2.8	5	.1	1.9	130	15	3.4	.1	5.3	146
	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
DATE AUG 17...	134	.20	1.6	420	30	90	50	.20	.020	1
	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
DATE AUG 17...	100	1	20	3	11	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03577966 - ELK RIVER NEAR MT. VIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
FEB 09...	1145	33	78	8.3	7.0	12.0	--	--	--	--	--
MAR 02...	1000	28	96	7.6	9.0	11.2	--	--	--	--	--
04...	1550	60	158	--	10.0	--	--	--	--	--	--
04...	1625	60	158	7.7	10.0	10.6	--	--	--	--	--
04...	1900	83	125	--	9.5	--	--	--	--	--	--
04...	1925	83	125	7.2	9.5	10.6	--	--	--	--	--
04...	2145	81	115	7.2	9.5	10.5	--	--	--	--	--
05...	0840	102	92	7.1	9.0	10.7	--	--	--	--	--
06...	1015	80	74	7.1	9.0	10.8	--	--	--	--	--
MAY 04...	1000	9.5	120	8.3	12.0	10.4	--	--	--	--	--
AUG 17...	1530	2.9	125	7.2	16.0	9.6	65	11	21	3.0	1.8
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
FEB 09...	--	--	--	32	4.7	--	--	--	43	--	.06
MAR 02...	--	--	--	37	5.3	--	--	--	55	--	.07
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	72	8.1	--	--	--	90	--	.12
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	54	4.3	--	--	--	64	--	.09
AUG 17...	6	.1	.8	54	5.9	1.9	<.1	4.7	75	72	.10
DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)
FEB 09...	3.8	180	10	10	10	2	.18	--	--	--	--
MAR 02...	4.1	90	0	10	10	--	--	--	--	--	--
04...	--	--	--	--	--	10	1.6	--	--	--	--
04...	14.6	250	40	20	10	10	1.6	--	--	--	--
04...	--	--	--	--	--	8	1.8	--	--	--	--
04...	--	--	--	--	--	8	1.8	--	--	--	--
04...	--	--	--	--	--	8	1.7	--	--	--	--
05...	--	--	--	--	--	8	2.2	--	--	--	--
06...	--	--	--	--	--	2	.43	--	--	--	--
MAY 04...	1.6	140	20	10	10	--	--	--	--	--	--
AUG 17...	.59	90	20	10	10	--	--	.38	.020	1	<1
DATE	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	
AUG 17...	100	<1	<1	10	<10	<10	2	2	2400	4	
DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)	
AUG 17...	<10	290	<.1	<.01	<1	<1	<1	10	14	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03577985 - DRY CREEK NEAR MT. VIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FEB 12...	TIME 0900	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)		
		7.8	88	7.1	.5	13.8	10	21	52		
DATE FEB 12...		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)		
		.07	1.1	210	10	120	110	1	.02		
03578095 - BETSY WILLIS CREEK NEAR PELHAM, TN											
DATE AUG 17...	TIME 1300	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
		.57	190	7.4	24.0	6.8	90	0	30	3.7	2.1
DATE AUG 17...	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
	5	.1	2.6	92	8.4	2.2	.1	4.3	109	101	.15
DATE AUG 17...	TIME 1300	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
		.17	1300	60	310	200	50	.08	.66	.120	1
DATE AUG 17...	TIME 100	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
		<1	<10	4	5	<.1	<1	<1	10	<.01	

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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TENNESSEE RIVER BASIN--Continued

03578190 - MUD CREEK NEAR ALTO, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
18...	0830	.61	195	7.6	25.0	4.6	91	13	27	5.8	
DATE AUG	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
18...	2.4	5	.1	1.7	78	11	4.3	.1	4.8	109	
DATE AUG	TIME	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
18...	103	.15	.18	950	20	200	60	.26	.050	1	
DATE AUG	TIME	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
18...	100	<1	<10	3	9	<.1	<1	<1	10	<.01	

03578290 - BEANS CREEK AT US HWY 41, NEAR HILLSBORO, TN

DATE AUG	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
17...	1100	1.7	300	8.3	20.0	6.8	150	19	50	5.3	1.6
DATE AUG	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
17...	2	.1	2.0	130	7.6	4.3	.1	6.0	169	155	.23
DATE AUG		SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- SUS- PENDE (T/DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
17...		.79	70	10	70	70	13	.06	1.9	.080	1
DATE AUG		BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
17...		100	<1	<10	4	7	<.1	<1	<1	10	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

TENNESSEE RIVER BASIN--Continued

03580110 - BOILING FORK CREEK NEAR DECHERD, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE AUG 18...	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
	1030	3.3	370	7.8	16.0	7.9	170	5	57	7.5
DATE AUG 18...	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	3.2	4	.1	1.7	170	7.7	5.1	.1	7.3	213
DATE AUG 18...	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
	186	.29	1.9	130	50	20	20	1.9	.030	1
DATE AUG 18...	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)
	100	2	20	2	11	.1	<1	<1	<10	<.01

OBION RIVER BASIN

07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 05...	1415	161	48	13.0	27	12
DEC 17...	1330	221	85	8.5	10	6.0
JAN 28...	1415	196	47	10.0	19	10
MAR 04...	1625	3210	60	7.0	2230	19300
APR 15...	0755	201	60	15.0	48	26
MAY 28...	1300	310	80	21.5	212	177
JUL 08...	1515	199	62	27.0	128	69
AUG 19...	1245	138	40	21.0	44	16
SEP 30...	1135	155	54	19.0	40	17

DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...	1330	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 04...	1625	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAY 28...	1300	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 08...	1515	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	<.1

DATE	DDF TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRI- N, TOTAL (UG/L)	ENDRI- N, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 04...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY 28...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 08...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
DEC 17...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 04...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAY 28...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 08...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01

DATE	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 17...	--	<.01	--	.00	--	.00	.00	.00	.00
MAR 04...	--	<.01	--	<.10	--	.15	<.01	<.01	<.01
MAY 28...	--	<.01	--	<.10	--	<.01	<.01	<.01	<.01
JUL 08...	<.1	<.01	<.10	<.10	<1.0	.26	.01	<.01	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

OBION RIVER BASIN--Continued

07026370 NORTH REELFOOT CREEK AT HIGHWAY 22, NEAR CLAYTON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	1110	1.4	240	10.5	50	.19	--
DEC 17...	1130	5.3	180	4.5	78	1.1	--
JAN 27...	1330	1.2	275	6.5	34	.11	--
MAR 04...	1020	235	130	7.0	4280	2720	99
APR 14...	1410	9.1	--	19.0	201	4.9	--
MAY 27...	1615	30	265	22.0	368	30	--
JUL 09...	0925	16	200	28.5	173	7.5	--
AUG 19...	1315	.13	180	23.5	51	.02	--

DATE	TIME	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...	1130	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 04...	1020	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAY 27...	1615	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 09...	0925	<.10	<1	<.10	<.01	<.1	<.10	<1.0	<.01	.6

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 17...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 04...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY 27...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 09...	<.01	.1	<.01	<.1	<.01	.2	<.01	<.01	<.1

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC 17...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 04...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAY 27...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 09...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01

DATE	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 17...	--	<.01	--	.00	--	.01	.00	.00	.02
MAR 04...	--	<.01	--	.00	--	<.01	<.01	<.01	<.01
MAY 27...	--	<.01	--	<.10	--	.35	.50	<.01	<.01
JUL 09...	<.1	<.01	<.10	<.10	<1.0	.05	.01	<.01	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

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OBION RIVER BASIN--Continued

07029100 NORTH FORK FORKED DEER RIVER AT DYERSBURG, TN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 04...	1420	244	140	13.5	114	75
DEC 16...	1100	619	80	7.0	83	139
JAN 27...	1000	309	91	9.0	99	83
MAR 03...	1050	383	100	10.5	103	107
APR 14...	0945	425	98	22.0	160	184
MAY 27...	1100	896	140	20.0	2410	5830
JUN 07...	1415	6390	62	24.0	597	10300
JUL 10...	1055	439	100	30.0	186	220
AUG 19...	0900	218	70	23.5	121	71
SEP 29...	1000	126	105	20.5	81	28

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 16...	1100	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAR 03...	1050	<.10	--	<.10	<.01	--	<.10	--	<.01	--
MAY 27...	1100	<.10	--	<.10	<.01	--	<.10	--	<.01	--
JUL 10...	1055	<.10	10	<.10	<.01	<.1	<.10	11	<.01	4.4

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 16...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 03...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY 27...	<.01	--	<.01	--	<.01	--	<.01	<.01	--
JUL 10...	<.01	<.1	<.01	4.6	<.01	.8	<.01	<.01	<.1

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC 16...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAR 03...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
MAY 27...	<.01	--	<.01	--	<.01	--	<.01	--	<.01
JUL 10...	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.1	<.01

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

OBION RIVER BASIN--Continued

07029100 NORTH FORK FORKED DEER RIVER AT DYERSBURG, TN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DEC 16...	--	<.01	--	.00	--	.00	.00	.00	.00
MAR 03...	--	<.01	--	.00	--	.01	<.01	<.01	<.01
MAY 27...	--	<.01	--	<.10	--	<.01	<.01	<.01	<.01
JUL 10...	<.1	<.01	<.10	<.10	<1.0	2.4	.02	<.01	<.01

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
MOBILE RIVER BASIN									
02384900 - COAHULLA CREEK NR CLEVELAND, TN (LAT 35 07 00 LONG 084 50 18)									
SEP , 1981									
21...	1445	.51	400	17.0					
GREEN RIVER BASIN									
03312287 - LONG FORK NEAR GALEN, TN (LAT 36 34 37 LONG 085 56 23)									
SEP , 1981									
21...	1550	5.5	220	21.0					
03312295 - WHITE OAK CREEK AT WHITE OAK, TN (LAT 36 35 35 LONG 085 58 40)									
SEP , 1981									
21...	1435	11	220	19.0					
03312413 - PUNCHEON CREEK NEAR GREEN VALLEY, TN (LAT 36 35 42 LONG 086 01 15)									
SEP , 1981									
21...	1355	5.7	160	27.0					
03312457 - LONG CREEK AT LONG CREEK, TN (LAT 36 33 48 LONG 086 05 30)									
SEP , 1981									
21...	1110	8.9	230	16.0					
CUMBERLAND RIVER BASIN									
03407877 - BOWLING BRANCH ABOVE SMOKY JUNCTION, TN (LAT 36 16 14 LONG 084 24 17)									
NOV , 1980					MAY , 1981				
26...	1040	.32	125	3.5	27...	1010	1.4	--	15.0
JAN , 1981					JUN				
29...	1325	.23	82	.5	10...	1320	2.0	47	20.5
MAR					SEP				
31...	1550	12	56	13.0	09...	1800	.31	111	19.0
APR									
02...	1245	5.4	65	13.0					
30...	1200	1.5	76	15.0					
03407879 - SMOKY CREEK AT SMOKY JUNCTION, TN (LAT 36 16 38 LONG 084 22 27)									
NOV , 1980					SEP , 1981				
13...	1130	.40	220	6.5	24...	1500	5.8	210	16.5
03417500 - CUMBERLAND RIVER AT CELINA, TN (LAT 36 33 15 LONG 085 30 52)									
MAR , 1981					JUN , 1981				
28...	1315	18000	200	17.0	16...	1355	22500	200	14.0
03417695 - ROARING RIVER AT OKALONA, TN (LAT 36 19 08 LONG 085 20 30)									
AUG , 1981					SEP , 1981				
04...	1605	3.2	340	21.5	21...	1035	4.5	320	14.0
03418030 - SPRING CREEK NEAR ALGOOD, TN (LAT 36 14 46 LONG 085 23 14)									
AUG , 1981					SEP , 1981				
04...	1655	3.8	340	23.0	21...	1000	6.8	300	14.0
03418180 - BLACKBURN FORK NEAR DODSON BRANCH, TN (LAT 36 20 53 LONG 085 34 00)									
AUG , 1981					SEP , 1981				
03...	1530	15	210	25.0	21...	1400	25	260	18.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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CUMBERLAND RIVER BASIN--Continued

03422500 - CANEY FORK NEAR ROCK ISLAND, TN (LAT 35 48 26 LONG 085 37 44)

OCT , 1980					APR , 1981				
07...	1530	57	260	17.5	01...	1500	6940	130	13.0
MAR , 1981					MAY				
05...	1455	3390	150	9.0	08...	0900	62	160	15.5

03425275 - GOOSE CREEK AT HILLSDALE, TN (LAT 36 26 46 LONG 086 03 50)

SEP , 1981				
21...	0940	6.9	725	15.0

03426800 - EAST FORK STONES RIVER AT WOODBURY, TN (LAT 35 49 41 LONG 086 04 36)

OCT , 1980					MAY , 1981				
08...	1205	6.6	280	16.5	12...	0955	12	290	13.0
NOV					JUN				
18...	1050	19	340	10.5	25...	0925	9.9	300	23.0
JAN , 1981					AUG				
06...	1030	7.1	260	5.0	03...	1140	8.5	320	22.0
FEB					SEP				
24...	1100	24	290	11.0	08...	1010	7.0	420	21.0
APR									
03...	0905	43	285	11.5					

03428200 - WEST FORK STONES RIVER AT MURFREESBORO, TN (LAT 35 54 10 LONG 086 25 48)

OCT , 1980					MAY , 1981				
06...	1500	6.1	575	19.5	12...	1240	20	440	16.0
NOV					JUN				
20...	1500	14	560	11.5	15...	1305	41	450	26.0
DEC					AUG				
31...	1137	17	530	8.5	03...	1515	18	425	26.0
FEB , 1981					SEP				
17...	1500	116	480	11.0	10...	1100	28	425	21.5
APR									
03...	1150	272	400	17.0					

03430120 - MCCRARY CREEK AT DONELSON, TN (LAT 36 09 27 LONG 086 38 10)

SEP , 1981				
21...	0835	.62	520	15.5

03430140 - STONERS CREEK NEAR GREEN HILL, TN (LAT 36 12 00 LONG 086 34 56)

SEP , 1981				
21...	1035	1.4	440	17.0

03431517 - CUMMINGS BRANCH AT LICKTON, TN (LAT 36 18 25 LONG 086 48 00)

OCT , 1980					MAY , 1981				
01...	0915	.03	480	17.5	07...	0945	.34	360	13.0
NOV					JUN				
10...	1340	.05	480	16.0	11...	1020	7.7	260	16.0
DEC					JUL				
04...	0950	.10	410	4.5	14...	0925	3.6	400	20.5
29...	1345	.15	380	7.0	AUG				
FEB , 1981					04...	0950	.66	390	19.5
06...	1050	.86	320	8.0	SEP				
MAR					09...	1025	.17	320	18.0
11...	0940	1.1	300	8.5					
APR									
01...	0915	3.7	280	12.5					

03431570 - WHITES CREEK NEAR JORDONIA, TN (LAT 36 13 34 LONG 086 49 21)

SEP , 1981				
21...	1405	6.2	550	22.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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CUMBERLAND RIVER BASIN--Continued

03431578 - EWING CREEK AT GWYNWOOD DRIVE, NEAR JORDONIA, TN (LAT 36 13 58 LONG 086 47 32)

SEP , 1981

21...	1225	1.8	740	18.0
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03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TN (LAT 36 19 12 LONG 087 03 04)

OCT , 1980

09...	1405	19	290	14.5
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NOV

24...	1130	26	280	8.5
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FEB , 1981

05...	1615	62	255	1.5
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MAR

03...	1035	56	255	8.5
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APR , 1981

06...	1145	155	170	17.5
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MAY

29...	1010	44	290	18.5
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JUL

06...	1250	85	240	24.0
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AUG

03...	1200	40	240	24.5
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03432350 - HARPETH RIVER AT FRANKLIN, TN (LAT 35 55 14 LONG 086 51 56)

OCT , 1980

01...	0945	3.2	400	17.5
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17...	1400	.34	450	18.0
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20...	1150	.27	460	14.5
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NOV

26...	1315	1.9	460	8.0
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JAN , 1981

15...	1550	3.6	440	3.0
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FEB

26...	1600	95	380	10.0
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MAY , 1981

21...	1440	27	390	17.0
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JUN

25...	1425	8.6	380	24.0
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AUG

10...	1135	3.7	400	24.0
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SEP

14...	1415	4.1	400	22.0
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03432925 - L HARPETH R AT GRANNY WHITE PIKE AT BRENTWOOD, TN (LAT 36 01 30 LONG 086 49 09)

SEP , 1981

14...	1525	2.7	520	22.0
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03433500 - HARPETH RIVER AT BELLEVUE, TN (LAT 36 03 16 LONG 086 55 42)

OCT , 1980

02...	0910	21	440	19.0
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NOV

25...	0905	30	420	7.0
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JAN , 1981

16...	1145	32	420	1.0
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FEB

27...	1400	210	410	13.0
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APR

10...	1000	755	360	16.0
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MAY , 1981

22...	0955	85	420	16.0
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JUN

26...	1055	79	420	24.0
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AUG

11...	1020	35	440	24.0
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20...	0900	29	--	26.0
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SEP

15...	0930	56	420	22.0
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03433660 - SOUTH HARPETH RIVER AT FERNVALE, TN (LAT 35 57 15 LONG 087 04 43)

OCT , 1980

21...	1325	14	225	18.0
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JUL , 1981

10...	0950	13	420	24.0
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AUG , 1981

10...	1330	13	310	26.0
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SEP

14...	0930	12	220	22.0
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03433700 - SOUTH HARPETH RIVER AT LINTON, TN (LAT 36 00 32 LONG 087 01 43)

OCT , 1980

21...	1210	20	240	16.5
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JUL , 1981

01...	0855	27	260	23.0
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AUG , 1981

10...	1440	19	290	26.0
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SEP

14...	1015	20	280	23.0
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03433902 - BIG TURNBULL CREEK NEAR LIBERTY HILL, TN (LAT 35 57 59 LONG 087 11 56)

SEP , 1981

22...	1045	6.7	195	19.0
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MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
CUMBERLAND RIVER BASIN--Continued									
03433910 - TURNBULL CREEK NEAR NEW HOPE, TN (LAT 36 01 55 LONG 087 12 48)									
SEP , 1981	21...	0930	30	250					
03434560 - TRACE CREEK NEAR WHITE BLUFF, TN (LAT 36 07 06 LONG 087 11 49)									
SEP , 1981	24...	1400	1.4	235					
03434590 - JONES CREEK NEAR BURNS, TN (LAT 36 06 15 LONG 087 19 05)									
SEP , 1981	21...	1030	3.0	350					
03434620 - TOWN BRANCH NEAR CHARLOTTE, TN (LAT 36 10 44 LONG 087 18 15)									
SEP , 1981	22...	1430	1.8	360					
03435000 - CUMBERLAND RIVER BELOW CHEATHAM DAM, TN (LAT 36 19 26 LONG 087 13 32)									
MAY , 1981	27...	1320	8130	230					
03435007 - HURRICANE CREEK NEAR SALEM, TN (LAT 36 25 34 LONG 087 19 02)									
SEP , 1981	22...	1235	6.2	400					
03435110 - SOUTH FORK RED RIVER AT CROSS PLAINS, TN (LAT 36 33 30 LONG 086 41 32)									
SEP , 1981	21...	1105	3.4	405					
03435120 - SOUTH FORK RED RIVER NEAR ORLINDA, TN (LAT 36 35 34 LONG 086 45 53)									
SEP , 1981	21...	1205	17	380					
03436130 - PASSENGER CREEK NEAR SANGO, TN (LAT 36 32 07 LONG 087 11 50)									
SEP , 1981	21...	1400	14	440					
03436460 - LITTLE WEST FORK RED RIVER NR NEW PROVIDENCE, TN (LAT 36 35 31 LONG 087 23 23)									
SEP , 1981	21...	1500	67	350					
03436655 - YELLOW CREEK NEAR RUSKIN, TN (LAT 36 12 30 LONG 087 31 46)									
SEP , 1981	22...	1300	18	228					
TENNESSEE RIVER BASIN									
03454790 - TRAIL FORK BIG CREEK AT DEL RIO, TN (LAT 35 54 27 LONG 083 01 26)									
NOV , 1980	12...	1205	6.6	112	SEP , 1981	24...	1020	11	82 11.5
03454850 - LONG CREEK NEAR DEL RIO, TN (LAT 35 56 53 LONG 083 03 13)									
NOV , 1980	12...	1100	1.8	388	7.0	SEP , 1981	24...	1205	1.5 335 15.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03455000 - FRENCH BROAD RIVER NEAR NEWPORT, TN (LAT 35 58 54 LONG 083 09 40)									
OCT , 1980					JUN , 1981				
14...	1200	916	150	14.0	10...	1230	2710	100	24.0
FEB , 1981					AUG				
26...	0945	2710	92	8.0	27...	1545	525	172	26.0
MAR									
30...	1540	1980	115	12.0					
03461200 - COSBY CREEK ABOVE COSBY, TN (LAT 35 46 58 LONG 083 13 03)									
OCT , 1980					MAY , 1981				
14...	0945	3.6	19	8.0	06...	1215	19	17	13.0
NOV					JUN				
24...	1200	29	21	9.0	10...	1600	52	17	16.0
JAN , 1981					JUL				
20...	1645	5.5	16	3.0	16...	1545	27	23	18.5
FEB					AUG				
26...	1145	29	18	8.0	27...	1100	5.2	20	18.0
03461266 - GREENBRIER CREEK AT HWY 32 AT COSBY, TN (LAT 35 48 11 LONG 083 14 51)									
NOV , 1980					SEP , 1981				
12...	1400	1.6	29	7.5	24...	1330	3.6	26	14.0
03461500 - PIGEON RIVER AT NEWPORT, TN (LAT 35 57 38 LONG 083 10 28)									
OCT , 1980					MAR , 1981				
13...	0830	356	790	13.5	30...	1300	4230	--	12.0
30...	0815	97	260	12.5	JUN				
NOV					10...	1030	723	240	19.0
24...	1055	164	262	7.5	JUL				
DEC					16...	1315	176	550	25.5
03...	1730	1060	420	7.0	AUG				
JAN , 1981					28...	1005	233	650	26.0
26...	1600	84	450	7.0					
03464650 - NOLICHUCKY RIVER NEAR ERWIN, TN (LAT 36 07 24 LONG 082 26 37)									
NOV , 1980									
12...	1000	344	62	6.5					
03464815 - SOUTH INDIAN CREEK NEAR ERWIN, TN (LAT 36 07 38 LONG 082 26 45)									
NOV , 1980					SEP , 1981				
11...	1240	22	85	10.0	24...	1455	24	89	19.5
03465220 - NORTH INDIAN CREEK AT ERWIN, TN (LAT 36 09 02 LONG 082 25 06)									
NOV , 1980									
11...	1310	16	115	10.0					
03466099 - JOCKEY CREEK AT LIMESTONE, TN (LAT 36 13 31 LONG 082 38 06)									
NOV , 1980					SEP , 1981				
11...	1040	4.0	400	9.0	24...	1450	6.6	390	17.5
03466228 - SINKING CREEK AT AFTON, TN (LAT 36 11 55 LONG 082 44 31)									
OCT , 1980					MAY , 1981				
14...	1420	2.6	390	12.5	05...	1310	6.8	430	17.0
NOV					JUL				
24...	1430	5.8	415	9.5	16...	1205	7.6	360	21.5
JAN , 1981					AUG				
13...	1300	2.7	350	2.0	11...	1130	4.6	380	21.0
MAR					SEP				
25...	1030	4.3	365	9.0	18...	0825	9.7	440	15.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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TENNESSEE RIVER BASIN--Continued

03466695 - LITTLE CHUCKY CREEK BL MCNEW BRANCH NR RADER, TN (LAT 36 09 27 LONG 082 57 34)

NOV , 1980					SEP , 1981				
11...	0930	2.6	670	9.5	24...	1045	4.2	580	14.0

03466870 - ROARING FORK NEAR GREENEVILLE, TN (LAT 36 13 18 LONG 082 52 05)

NOV , 1980					SEP , 1981				
11...	1330	2.0	440	9.5	24...	1230	5.3	400	14.0

03466880 - ROARING FORK NEAR MOSHEIM, TN (LAT 36 14 38 LONG 082 53 57)

NOV , 1980					SEP , 1981				
11...	1455	5.8	500	10.5	24...	0930	9.3	425	14.0

03467000 - LICK CREEK AT MOHAWK, TN (LAT 36 12 05 LONG 083 02 52)

NOV , 1980				
11...	0830	2.3	490	11.0

03467490 - BENT CREEK NEAR SPRINGVALE, TN (LAT 36 11 14 LONG 083 09 53)

NOV , 1980					SEP , 1981				
11...	1200	4.7	442	9.5	24...	1635	8.0	428	15.5

03468140 - MUDDY CREEK NEAR CHESTNUT HILL, TN (LAT 35 56 57 LONG 083 20 51)

NOV , 1980					SEP , 1981				
12...	0915	.05	410	3.5	24...	1445	.04	380	14.0

03470330 - TUCKAHOE CREEK AT PETERS MILL, TN (LAT 35 58 02 LONG 083 42 07)

NOV , 1980					SEP , 1981				
11...	1450	4.4	400	11.0	25...	1020	6.2	340	13.0

03476515 - BEIDLEMAN CREEK NEAR CAYWOOD FORD, TN (LAT 36 31 28 LONG 082 07 53)

NOV , 1980					SEP , 1981				
11...	1530	7.5	380	10.0	25...	1100	15	360	14.5

03484000 - WATAUGA RIVER BELOW WILBUR DAM, TN (LAT 36 20 39 LONG 082 07 46)

OCT , 1980					JUN , 1981				
15...	1255	1970	70	10.5	10...	1215	1880	80	7.5
JAN , 1981					AUG				
14...	1200	1880	75	7.0	13...	1255	2940	82	10.5
MAR					SEP				
26...	1200	41	80	9.5	17...	1045	1900	87	11.0

03486000 - WATAUGA RIVER AT ELIZABETHTON, TN (LAT 36 21 21 LONG 082 13 26)

OCT , 1980					JUN , 1981				
15...	1015	106	105	10.0	10...	0900	617	74	17.5
NOV					JUL				
25...	0945	240	74	8.0	15...	0845	294	73	18.0
MAR , 1981					AUG				
26...	0900	256	82	6.0	13...	0925	175	105	16.0
MAY					SEP				
06...	0915	263	95	14.5	17...	0815	361	95	16.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03490500 - HOLSTON RIVER AT SURGOINSVILLE, TN (LAT 36 28 19 LONG 082 50 50)									
OCT , 1980					MAY , 1981				
16...	1030	2310	330	17.5	07...	1130	2000	410	19.0
NOV					JUN				
26...	1130	2520	400	8.5	11...	0930	3800	215	19.5
JAN , 1981					JUL				
14...	1535	909	310	8.0	15...	1615	1450	282	24.0
FEB					AUG				
19...	1400	2000	340	12.0	06...	0800	3760	290	24.0
MAR					06...	1645	1420	245	23.5
27...	1030	1280	340	13.5	12...	1230	1800	250	22.5
APR					SEP				
23...	1200	3050	280	16.5	15...	1530	1520	355	20.5
03491000 - BIG CREEK NEAR ROGERSVILLE, TN (LAT 36 25 34 LONG 082 57 07)									
OCT , 1980					MAY , 1981				
16...	1215	5.1	360	12.5	07...	0945	25	340	15.5
NOV					JUN				
26...	1330	18	333	6.0	11...	1300	61	280	20.5
JAN , 1981					JUL				
15...	1015	6.0	325	.5	16...	1200	10	340	24.5
FEB					AUG				
19...	1600	54	260	11.0	12...	0940	8.3	290	22.5
MAR					SEP				
27...	1230	17	285	12.5	15...	1125	8.0	340	20.0
03491300 - BEECH CREEK AT KEPLER, TN (LAT 36 24 06 LONG 082 53 09)									
OCT , 1980					MAY , 1981				
16...	1130	3.9	275	13.0	07...	1100	14	280	15.5
NOV					JUN				
26...	1200	23	260	5.5	11...	1110	35	218	21.0
JAN , 1981					JUL				
15...	1145	8.1	255	.5	16...	1320	5.7	280	25.0
FEB					AUG				
19...	1510	64	215	9.0	12...	1040	2.8	250	23.0
MAR					SEP				
27...	1330	12	248	12.0	15...	0955	2.7	270	20.0
03498850 - LITTLE RIVER NEAR ALCOA, TN (LAT 35 48 32 LONG 083 55 36)									
SEP , 1981									
25...	1300	182	155	16.5					
03499053 - CULTON CREEK AT ALCOA, TN (LAT 35 46 41 LONG 083 59 46)									
NOV , 1980					SEP , 1981				
11...	1320	3.2	310	11.5	25...	1250	4.1	300	15.0
03518470 - BALD RIVER NEAR TELlico PLAINS, TN (LAT 35 19 20 LONG 084 10 40)									
NOV , 1980					SEP , 1981				
11...	1050	10	15	7.5	24...	1320	15	15	13.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03518700 - CANE CREEK AT BELLTOWN MILL, TN (LAT 35 25 31 LONG 084 15 16)									
NOV , 1980					SEP , 1981				
11...	0930	2.4	96	9.5	24...	1110	4.9	82	14.0
03520170 - POND CREEK NEAR ADOLPHUS, TN (LAT 35 42 20 LONG 084 27 35)									
NOV , 1980					SEP , 1981				
11...	1435	8.6	280	13.0	24...	0900	14	310	14.5
03528000 - CLINCH RIVER ABOVE TAZEWEEL, TN (LAT 36 25 30 LONG 083 23 54)									
OCT , 1980					JUL , 1981				
02...	1030	291	345	20.0	10...	1230	793	285	27.5
NOV					AUG				
13...	1330	206	345	10.0	13...	1600	534	290	27.5
FEB , 1981									
24...	1100	2750	250	8.0					
03531700 - MULBERRY CREEK AT ALANTHUS HILL, TN (LAT 36 33 18 LONG 083 22 51)									
NOV , 1980					SEP , 1981				
11...	0930	4.6	304	7.5	24...	1055	12	322	13.0
03534920 - LAY SPRING NEAR MAYNARDVILLE, TN (LAT 36 16 28 LONG 083 44 36)									
AUG , 1981					SEP , 1981				
28...	1055	.37	288	13.0	30...	1430	.32	350	13.5
03535000 - BULLRUN CREEK NEAR HALLS CROSSROADS, TN (LAT 36 06 52 LONG 083 59 16)									
OCT , 1980					APR , 1981				
03...	1200	9.0	340	16.0	06...	1220	155	250	11.5
NOV					MAY				
12...	1500	8.0	355	8.5	22...	1120	32	340	14.5
JAN , 1981					AUG				
19...	1430	8.4	325	1.0	03...	1240	19	310	22.5
FEB					SEP				
27...	1115	43	308	7.0	08...	1255	24	275	21.5
MAR									
10...	1040	42	300	5.0					
03538250 - EAST FORK POPLAR CREEK NEAR OAK RIDGE, TN (LAT 35 57 58 LONG 084 21 30)									
OCT , 1980					MAY , 1981				
10...	1510	20	380	18.5	22...	1430	22	425	16.0
NOV					AUG				
14...	1200	19	370	11.5	06...	1430	20	375	23.5
FEB , 1981					SEP				
17...	1410	36	360	11.0	14...	1245	15	410	21.0
APR									
14...	1220	34	360	19.0					
03539800 - OBED RIVER NEAR LANCING, TN (LAT 36 04 53 LONG 084 40 15)									
OCT , 1980					MAY , 1981				
06...	1200	1.3	80	13.0	13...	1200	238	48	16.5
NOV					JUL				
10...	1310	3.8	96	11.5	08...	1220	24	68	28.0
FEB , 1981					AUG				
26...	1140	833	60	7.0	14...	1215	35	87	26.5
APR					SEP				
08...	1300	1730	46	11.5	14...	1245	19	90	24.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03543300 - LITTLE SEWEE CREEK NEAR CENTER POINT, TN (LAT 35 35 54 LONG 084 42 13)									
NOV , 1980					SEP , 1981				
11...	1210	7.9	295	12.0	25...	0850	7.2	310	14.0
03543500 - SEWEE CREEK NEAR DECATUR, TN (LAT 35 34 53 LONG 084 44 53)									
DEC , 1980					MAY , 1981				
05...	1045	27	285	5.5	14...	1345	39	280	15.0
JAN , 1981					JUN				
15...	1145	25	275	2.5	18...	1345	66	280	20.5
FEB					JUL				
27...	1415	115	230	11.0	31...	1000	22	270	22.5
APR					SEP				
02...	0945	156	200	13.5	04...	1200	19	300	22.5
03556500 - HIWASSEE RIVER NEAR MCFARLAND, TN (LAT 35 10 48 LONG 084 26 36)									
OCT , 1980					MAY , 1981				
21...	1530	75	40	19.0	12...	1600	1400	30	10.5
27...	1630	74	32	14.5	SEP				
FEB , 1981					02...	1700	2680	32	19.0
25...	1600	2700	27	7.0					
03563000 - OCOEE RIVER AT EMF, TN (LAT 35 05 48 LONG 084 32 07)									
OCT , 1980					JUN , 1981				
22...	1130	1300	115	16.5	18...	1000	35	168	20.5
FEB , 1981					JUL				
26...	1330	52	100	10.5	29...	1610	1450	95	24.5
APR									
01...	1115	1540	110	14.5					
03564500 - OCOEE RIVER AT PARKSVILLE, TN (LAT 35 05 48 LONG 084 39 15)									
DEC , 1980					JUL , 1981				
04...	0945	2580	150	10.0	30...	1630	2230	122	26.5
MAY , 1981									
13...	1010	2100	160	17.0					
03565300 - SOUTH CHESTUEE CREEK NEAR BENTON, TN (LAT 35 10 02 LONG 084 42 59)									
OCT , 1980					MAY , 1981				
22...	0850	3.2	280	12.5	13...	1410	13	280	13.0
DEC					JUN				
03...	1630	6.2	300	6.5	17...	1345	17	280	21.5
JAN , 1981					JUL				
14...	1215	4.0	315	1.0	30...	1105	16	175	22.5
FEB					SEP				
26...	1555	21	245	10.5	03...	1250	4.1	300	23.0
MAR									
31...	1510	71	165	14.5					
03566117 - EAST FORK NORTH MOUSE CREEK NEAR NIOTA, TN (LAT 35 32 54 LONG 084 33 45)									
NOV , 1980					SEP , 1981				
11...	1335	.19	325	15.0	25...	1230	.15	330	18.5
03566253 - GREASY CREEK AT HOPEWELL, TN (LAT 35 14 17 LONG 084 53 11)									
NOV , 1980					SEP , 1981				
11...	0910	.06	280	10.5	25...	1100	.01	500	13.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03566420 - WOLFTEVER CREEK NEAR OOLTEWAH, TN (LAT 35 03 43 LONG 085 03 59)									
OCT , 1980					MAY , 1981				
08...	1020	4.3	480	14.5	12...	1245	8.6	335	14.0
NOV					JUN				
20...	1310	8.2	340	9.0	24...	1110	5.6	400	22.0
JAN , 1981					JUL				
07...	1040	6.1	380	4.0	30...	1145	2.7	400	22.0
FEB					SEP				
25...	1000	23	220	8.5	01...	1530	3.4	360	23.0
APR									
03...	1045	24	230	13.0					
03567500 - SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TN (LAT 35 00 50 LONG 085 12 27)									
NOV , 1980				2"	APR , 1981				
20...	1545	234	238	9.5	02...	1515	1650	160	16.0
JAN , 1981					10...	1400	820	210	17.0
07...	1800	168	--	4.0	MAY				
FEB					12...	1120	256	265	15.0
12...	1610	2800	110	4.0	JUN				
12...	1810	2880	110	4.0	24...	0855	166	290	23.0
13...	1030	1870	160	3.5	JUL				
24...	1815	673	--	11.0	30...	1015	126	280	24.0
03579100 - ELK RIVER NEAR ESTILL SPRINGS, TN (LAT 35 17 08 LONG 086 06 20)									
OCT , 1980					FEB , 1981				
10...	1300	31	160	20.0	25...	1700	303	128	8.5
NOV					JUN				
17...	1430	89	170	12.5	25...	1115	64	160	25.0
JAN , 1981					AUG				
19...	1040	65	165	3.5	06...	1315	45	--	26.0
03582000 - ELK RIVER ABOVE FAYETTEVILLE, TN (LAT 35 08 04 LONG 086 32 23)									
DEC , 1980					MAY , 1981				
01...	1530	159	140	10.0	18...	1340	228	195	14.0
JAN , 1981					JUN				
12...	1625	376	180	2.0	22...	1400	209	270	26.0
FEB					AUG				
23...	1435	272	290	11.0	04...	1520	418	200	21.0
APR					SEP				
07...	0920	724	260	13.0	09...	0900	692	205	17.0
03582205 - NORRIS CREEK BELOW HOWELL, TN (LAT 35 13 33 LONG 086 33 56)									
SEP , 1981									
08...	1450	.11	360	24.0					
03582591 - CANE CREEK NEAR EGAM, TN (LAT 35 11 13 LONG 086 37 38)									
SEP , 1981									
08...	1600	1.4	280	23.0					
03583320 - RICHLAND CREEK AT MILKY WAY, TN (LAT 35 18 46 LONG 087 01 48)									
SEP , 1981									
09...	1750	7.8	350	21.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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TENNESSEE RIVER BASIN--Continued

03584500 - ELK RIVER NEAR PROSPECT, TN (LAT 35 01 39 LONG 086 56 52)

OCT , 1980					MAY , 1981				
07...	1545	507	200	16.0	19...	1030	677	230	16.0
DEC					JUN				
02...	0945	407	230	11.0	23...	1125	324	240	26.0
JAN , 1981					AUG				
13...	1020	554	190	.0	05...	0920	266	230	25.0
FEB					SEP				
24...	1020	1110	210	11.0	09...	1445	531	220	22.0
APR									
07...	1610	2310	250	15.0					

03588000 - SHOAL CREEK AT LAWRENCEBURG, TN (LAT 35 14 40 LONG 087 21 02)

OCT , 1980					MAY , 1981				
08...	1600	31	170	17.0	20...	1350	29	180	15.0
DEC					AUG				
02...	1530	24	180	9.0	06...	1430	21	180	24.0
FEB , 1981					13...	1710	41	150	24.0
24...	1530	38	170	12.0					
APR									
08...	1215	47	160	14.0					

03588400 - CHISHOLM CREEK AT WESTPOINT, TN (LAT 35 08 04 LONG 087 31 45)

OCT , 1980					MAY , 1981				
08...	1050	22	75	14.0	20...	0830	28	75	15.0
DEC					JUN				
03...	0840	26	80	5.0	24...	0840	19	80	21.0
JAN , 1981					AUG				
14...	0840	23	70	1.0	06...	0800	16	80	23.0
FEB					SEP				
25...	0850	44	70	7.0	10...	1050	15	120	18.0
APR									
08...	0815	77	60	13.0					

03598000 - DUCK RIVER NEAR SHELBYVILLE, TN (LAT 35 28 49 LONG 086 29 57)

OCT , 1980					APR , 1981				
06...	1200	173	160	14.0	06...	1115	707	240	15.0
NOV					MAY				
07...	1015	190	140	12.5	18...	0955	179	180	15.0
DEC					JUN				
01...	1130	529	140	10.0	22...	0940	157	210	24.0
JAN , 1981					AUG				
12...	1115	168	120	1.0	04...	1005	166	200	23.0
FEB					SEP				
23...	0950	288	300	10.0	08...	1315	159	240	22.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
TENNESSEE RIVER BASIN--Continued									
03599500 - DUCK RIVER AT COLUMBIA, TN (LAT 35 37 05 LONG 087 01 56)									
OCT , 1980					MAY , 1981				
03...	1010	213	145	20.0	21...	0930	373	280	17.0
DEC					JUN				
04...	1200	551	260	5.0	25...	0930	157	280	27.0
JAN , 1981					AUG				
15...	1010	211	220	1.0	07...	1130	184	190	26.0
FEB					SEP				
26...	0940	641	260	10.0	11...	1400	185	280	25.0
APR									
09...	1045	1610	320	16.0					
03600500 - BIG BIGBY CREEK AT SANDY HOOK, TN (LAT 35 29 19 LONG 087 13 59)									
OCT , 1980					MAY , 1981				
09...	0855	5.9	150	16.0	20...	1050	7.1	180	15.0
DEC					JUN				
03...	1415	7.2	160	7.0	24...	1430	6.3	180	31.0
JAN , 1981					AUG				
14...	1420	5.5	150	2.0	07...	0825	4.2	190	24.0
FEB					SEP				
25...	1555	11	160	14.0	11...	0805	5.1	300	18.0
APR									
08...	1350	24	150	14.0					
03601100 - BIG BIGBY CREEK AT NEEDMORE, TN (LAT 35 32 43 LONG 087 14 05)									
SEP , 1981									
21...	0930	13	360	16.0					
03602192 - WEST PINEY RIVER NEAR DICKSON, TN (LAT 36 01 40 LONG 087 27 03)									
SEP , 1981									
21...	1225	13	245	15.5					
03602207 - EAST PINEY RIVER BELOW DICKSON, TN (LAT 36 00 38 LONG 087 26 19)									
SEP , 1981									
21...	1115	9.0	320	15.0					
03602220 - PINEY RIVER BELOW DICKSON, TN (LAT 35 59 30 LONG 087 26 19)									
SEP , 1981									
21...	1345	26	292	19.0					
03602500 - PINEY RIVER AT VERNON, TN (LAT 35 52 16 LONG 087 30 05)									
OCT , 1980					MAY , 1981				
09...	1130	102	240	16.0	28...	1425	179	115	19.0
NOV					JUN				
24...	1540	103	190	10.0	29...	1715	144	230	21.5
FEB , 1981					AUG				
23...	1635	184	220	11.0	13...	1225	122	255	22.0
APR					SEP				
08...	1310	233	210	15.0	08...	1735	126	170	22.0
03603000 - DUCK RIVER ABOVE HURRICANE MILLS, TN (LAT 35 55 48 LONG 087 44 35)									
OCT , 1980					MAY , 1981				
08...	1105	801	195	17.0	20...	1745	1990	190	17.5
NOV					AUG				
26...	0845	909	190	7.5	21...	1350	1320	240	23.5
JAN , 1981					SEP				
14...	1120	850	120	3.0	10...	1650	1190	210	21.0
FEB									
25...	1400	2340	290	11.0					

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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TENNESSEE RIVER BASIN--Continued

03604500 - BUFFALO RIVER NEAR LOBELVILLE, TN (LAT 35 48 46 LONG 087 47 51)

OCT , 1980					JUN , 1981				
08...	1430	402	115	18.0	30...	1215	393	130	24.5
NOV					AUG				
26...	1000	550	105	8.5	13...	1615	304	225	25.5
FEB , 1981					SEP				
25...	1100	877	110	10.5	10...	1055	504	190	21.5
APR									
08...	1030	1760	75	16.5					

03604750 - BIRDSONG CREEK AT HOLLADAY, TN (LAT 35 52 53 LONG 088 08 39)

SEP , 1981				
10...	1640	4.8	240	21.0

03606350 - BIG SANDY RIVER AT WESTPORT, TN (LAT 35 53 34 LONG 088 18 32)

SEP , 1981				
10...	1455	45	42	19.0

OBION RIVER BASIN

07024760 - SPRING CREEK NEAR GREENFIELD, TN (LAT 36 11 24 LONG 088 45 53)

SEP , 1981				
11...	1355	26	53	20.5

07025190 - MUD CREEK NEAR SHARON, TN (LAT 36 15 59 LONG 088 50 05)

SEP , 1981				
11...	1250	.27	156	23.0

07025300 - NORTH FORK OBION RIVER AT JONES MILL, TN (LAT 36 26 46 LONG 088 27 57)

SEP , 1981				
11...	1020	42	65	17.5

07026100 - REEDS CREEK NEAR TRIMBLE, TN (LAT 36 10 48 LONG 089 15 15)

OCT , 1980					SEP , 1981				
24...	1010	3.7	50	15.5	11...	0915	1.5	178	18.0

07027280 - JACKS CREEK AT JACKS CREEK, TN (LAT 35 28 16 LONG 088 31 21)

SEP , 1981				
10...	1215	3.8	58	18.0

07027750 - NIXON CREEK NEAR NUT BUSH, TN (LAT 35 41 59 LONG 089 16 36)

SEP , 1981				
11...	1115	.54	200	20.0

07029070 - POND CREEK NEAR BONICORD, TN (LAT 35 55 16 LONG 089 19 31)

SEP , 1981				
10...	1500	.09	150	28.0

HATCHIE RIVER BASIN

07029450 - CUB CREEK NEAR HEBRON, TN (LAT 35 10 28 LONG 088 54 50)

SEP , 1981				
10...	1020	1.6	65	20.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
HATCHIE RIVER BASIN--Continued									
07030140 - CANE CREEK NEAR CHERRY, TN (LAT 35 40 30 LONG 089 41 21)									
OCT , 1980					SEP , 1981				
23...	1405	5.5	50	17.0	11...	1255	3.1	240	22.0
07030160 - INDIAN CREEK AT GILT EDGE, TN (LAT 35 33 09 LONG 089 49 20)									
OCT , 1980									
23...	1200	5.0	55	16.5					
LOOSAHATCHIE RIVER BASIN									
07030244 - EAST BEAVER CREEK NEAR BRADEN, TN (LAT 35 23 12 LONG 089 37 01)									
SEP , 1981									
10...	1030	1.4	120	18.5					
07030295 - LOOSAHATCHIE R TR AT NEW ALLEN RD AT MEMPHIS, TN (LAT 35 14 17 LONG 089 57 04)									
OCT , 1980					MAR , 1981				
01...	0905	.01	250	16.0	11...	1010	.14	320	12.0
DEC					APR				
23...	1345	.10	320	4.5	22...	0910	.10	330	18.0
JAN , 1981					JUN				
19...	1000	.05	--	1.0	03...	1050	.45	--	24.0
FEB									
05...	1020	.10	350	.5					
WOLF RIVER BASIN									
07031680 - FLETCHER CREEK NEAR CORDOVA, TN (LAT 35 11 21 LONG 089 45 42)									
FEB , 1981					APR , 1981				
06...	0840	.11	185	1.0	22...	1500	.74	110	16.0
MAR					JUN				
12...	0935	.05	86	6.0	04...	1240	.27	89	22.0
APR									
22...	0835	.02	83	16.0					
07031683 - FLETCHER CR AT WHITTEN RD AT MEMPHIS, TN (LAT 35 11 16 LONG 089 50 09)									
NOV , 1980					JUN , 1981				
13...	1010	.18	118	12.5	05...	1200	10	94	26.0
DEC					JUL				
23...	1250	.32	250	4.5	09...	1430	.30	82	--
FEB , 1981					21...	1100	30	60	24.5
04...	1510	3.5	120	3.0	AUG				
MAR					31...	1335	39	84	24.0
13...	1415	.82	200	15.0					
07031777 - LICK CREEK AT DICKINSON STREET, AT MEMPHIS, TN (LAT 35 09 24 LONG 090 00 12)									
OCT , 1980					MAR , 1981				
02...	1200	2.5	160	21.5	11...	0825	2.7	140	13.0
NOV					APR				
13...	1200	1.1	50	16.0	12...	1510	.96	200	22.0
FEB , 1981					JUN				
05...	1245	1.7	190	9.5	03...	0900	2.0	180	21.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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NONCONNAH CREEK BASIN

07032222 - JOHNS CREEK TRIB AT HOLMES RD, NR MEMPHIS, TN (LAT 35 00 20 LONG 089 52 16)

OCT , 1980					APR , 1981				
03...	1445	.14	220	19.5	21...	1455	.54	135	22.0
NOV					JUL				
13...	1155	.21	190	14.5	14...	1345	.27	130	31.5
DEC					AUG				
22...	1130	.13	220	4.5	12...	0930	.19	139	24.0
FEB , 1981					SEP				
03...	1050	1.2	80	1.5	23...	0930	.04	460	18.0
MAR									
10...	1015	.65	140	7.0					

07032224 - JOHNS CREEK AT RAINES RD, AT MEMPHIS, TN (LAT 35 02 05 LONG 089 53 10)

OCT , 1980					APR , 1981				
03...	0930	.79	700	15.0	22...	1120	2.2	295	19.0
DEC					JUL				
22...	1425	.38	275	4.5	15...	1110	.45	310	31.0
FEB , 1981					AUG				
03...	1430	3.6	195	5.5	12...	1100	2.2	220	22.0
MAR					SEP				
05...	1135	65	100	9.5	23...	1210	.34	300	22.0
10...	1215	2.2	260	11.5					

07032241 - BLACK BAYOU AT SOUTHERN AVENUE, AT MEMPHIS, TN (LAT 35 06 55 LONG 089 56 00)

OCT , 1980					JUN , 1981				
03...	1030	.45	115	17.5	03...	1335	4.3	69	25.5
DEC					JUL				
30...	1355	.04	140	13.0	07...	1435	.20	130	26.0
FEB , 1981					AUG				
04...	1040	.09	--	11.0	20...	1230	.22	145	21.0
MAR					SEP				
11...	0955	.18	120	15.0	30...	1515	.15	140	21.0
APR									
22...	1105	93	73	18.0					

07032248 - CANE CREEK AT EAST PERSON AVENUE, AT MEMPHIS, TN (LAT 35 06 02 LONG 090 00 43)

NOV , 1980					JUN , 1981				
13...	1230	3.0	185	17.5	03...	1005	3.2	625	26.0
FEB , 1981					JUL				
03...	1420	2.6	--	11.5	07...	1300	2.8	210	28.5
MAR					AUG				
10...	1140	3.4	--	16.0	19...	1635	4.1	250	26.0
APR					SEP				
22...	1440	13	150	21.5	30...	1115	3.3	180	24.0

MISSISSIPPI RIVER BASIN

07032260 - CYPRESS CREEK AT NEELY RD, AT MEMPHIS, TN (LAT 35 01 36 LONG 090 03 23)

OCT , 1980					APR , 1981				
02...	0930	2.6	300	18.5	22...	0830	.04	315	18.0
DEC					JUN				
30...	1020	.02	400	3.5	03...	0830	.18	290	23.5
FEB , 1981					JUL				
03...	1015	.13	--	2.0	06...	1200	.02	250	30.5
MAR					AUG				
10...	0945	.12	--	10.5	19...	1240	1.2	200	25.0

GROUND-WATER LEVELS

BRADLEY COUNTY

350503084505000. Local number, Br:E-1.

LOCATION.--Lat 35°05'03", long 84°50'50", Hydrologic Unit 03150101, on Trewhitt Road, 0.5 mi (0.8 km) north of Goodwill Road, Cleveland.
Owner: F. G. Trewhitt.

AQUIFER.--Conasauga shale of middle and late Cambrian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (910 mm), depth 25 ft (8 m), casing information not available.

DATUM.--Land-surface datum is 850 ft (259 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of front shelter panel, 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--February 1950 to November 1955, April 1964 to current year. Analog record February 1950 to November 1955, April 1964 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.38 ft (2.25 m) below land-surface datum, Dec. 19, 1967; lowest recorded, 24.97 ft (7.61 m) below land-surface datum, Dec. 7, 8, 1954; highest water level measured, 8.22 ft (2.51 m) below land-surface datum, Apr. 5, 1977; lowest measured, 23.20 ft (7.07 m) below land-surface datum, Dec. 12, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	21.16	JAN 7	21.25	APR 3	15.98	JUN 23	14.69

CANNON COUNTY

354823086104400. Local number, Cn:D-1.

LOCATION.--Lat 35°48'23", long 86°10'44", Hydrologic Unit 05130203, on county road on Cannon County and Rutherford County lines, 1.5 mi (2.4 km) south of Readyville.
Owner: Ray Barker.

AQUIFER.--Lebanon Limestone of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter, 6 in (150 mm), depth 30 ft (9 m), cased with steel to unknown depth, open end.

DATUM.--Land-surface datum is 715 ft (218 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--April 1967 to current year. Analog record April 1967 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.91 (0.28 m) below land-surface datum, Mar. 11, 1968; lowest recorded, 19.38 ft (5.91 m) below land-surface datum, Dec. 9, 10, 1968; highest water level measured, 12.14 ft (3.70 m) below land-surface datum, Jan. 8, 1974; lowest measured, 18.07 ft (5.51 m) below land-surface datum, June 27, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	16.72	JAN 6	16.69	APR 2	15.18	JUN 29	17.40

GROUND-WATER LEVELS

445

CARTER COUNTY

361738082132900. Local number, Ct:H-1.

LOCATION.--Lat 36°17'38", long 82°13'29", Hydrologic Unit 06010103, 3.5 mi (5.6 km) south of Elizabethton, 0.8 mi (1.3 km) north of Gap Creek.
 Owner: Gap Creek Community.

AQUIFER: Honaker dolomite of middle Cambrian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 24 in (610 mm), depth 31 ft (9 m), casing information not available.

INSTRUMENTATION.--Water level recorder since April 1964.

DATUM.--Altitude of land-surface datum is 1,820 ft (555 m). Measuring point: Top of concrete tile, 2.50 ft (0.76 m) above land-surface datum.

REMARKS.--Highest water level readings may be influenced for short periods by surface seepage. Missing record Feb. 8-18.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.17 ft (0.66 m) below land-surface datum, July 16, 1981; lowest, 26.01 ft (7.93 m) below land-surface datum Dec. 22, 23, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
 LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.25	14.99	15.70	14.99	16.50	14.60	15.73	14.80	5.74	14.76	14.74	12.72
10	15.60	15.35	16.09	15.08	---	14.91	14.97	14.88	6.20	9.95	14.76	14.84
15	15.83	15.95	15.58	15.57	---	14.98	14.97	14.92	10.50	13.83	14.90	14.93
20	14.92	15.00	16.17	16.32	14.94	15.05	14.83	14.57	12.69	8.04	14.94	10.38
25	14.99	15.02	16.58	15.56	14.86	15.45	7.01	14.67	14.56	13.90	14.99	14.78
EOM	14.97	15.10	15.04	16.13	14.97	15.74	13.80	13.55	14.80	10.24	15.39	14.62

WTR YR 1981 MAX 2.17 JUL 16, 1981 MIN 19.45 FEB 7, 1981

DEKALB COUNTY

355807085511800. Local number, Dk:F-1.

LOCATION.--Lat 35°58'07", long 85°51'18", Hydrologic Unit 05130108, at U.S. Highway 70 and Allens Ferry Road, 0.8 mi (1.3 km) northwest of Smithville.
 Owner: Tennessee Department of Highways.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled water-table test well, diameter 6 in (150 mm), depth 186 ft (57 m), cased to 55 ft (17 m), open end.

DATUM.--Land-surface datum is 1,128 ft (344 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter, 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--March 1968 to June 1981 (discontinued). Analog record March 1968 to December 1973, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 18.32 ft (5.58 m) below land-surface datum, Mar. 24, 1973; lowest recorded 35.18 ft (10.72 m) below land-surface datum, Dec. 17, 1968; highest water level measured, 18.76 ft (5.72 m) below land-surface datum, Feb. 19, 1974; lowest measured, 32.79 ft (9.99 m) below land-surface datum, Jan. 7, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	30.06	JAN 7	32.79	MAR 30	30.18		

GROUND-WATER LEVELS

DICKSON COUNTY

360429087233602. Local number, Di:F-19.

LOCATION.--Lat 36°04'29", long 87°23'36", Hydrologic Unit 06040003, on north side of State Highway 48, 0.4 mi (0.6 km) northeast of State Highway 48 bridge over East Piney River at Dickson.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (150 mm), depth 387 ft (118 m), cased to 22 ft (6.7 m), open end.

INSTRUMENTATION.--Water-level recorder since July 1960.

DATUM.--Altitude of land-surface datum is 755 ft (230 m). Measuring point: Top of instrument shelf, 1.26 ft above land-surface datum.

REMARKS.--No record Jan. 12 to Feb. 2 due to clock malfunction.

PERIOD OF RECORD.--July 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.52 ft (2.29 m) below land-surface datum, Mar. 12, 13, 1975; lowest 33.80 ft (10.3 m) below land-surface datum, Sept. 26, 27, 1976, and Sept. 7, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.46	32.16	29.60	30.05	25.42	24.24	24.39	30.34	25.21	32.97	29.91	33.28
10	32.39	32.30	27.89	30.31	28.21	26.36	24.96	32.12	22.87	31.43	31.52	33.63
15	32.46	31.95	28.94	---	25.49	29.25	28.58	32.18	24.64	29.03	33.37	33.70
20	32.35	28.80	29.90	---	25.13	31.38	25.09	22.34	28.37	29.63	33.44	33.35
25	32.32	29.64	29.47	---	28.52	31.85	24.76	26.51	29.02	26.83	33.33	33.65
EOM	32.00	28.94	30.20	---	29.94	25.39	26.85	29.13	31.76	25.33	33.56	33.74
WTR YR 1981	MAX 16.46 JUN 7, 1981			MIN 33.74 SEP 30, 1981								

DYER COUNTY

360200089280100. Local number, Dy:H-1.

LOCATION.--Lat 36°02'00", long 89°28'01", Hydrologic Unit 08010206, 4.0 mi (6.4 km) west of Dyersburg on State Highway 20 at Finley.
Owner: U.S. Geological Survey.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (100 mm), depth 70 ft (21 m), cased to 60 ft (18 m), screened 60 to 70 ft (18 to 21 m).

DATUM.--Altitude of land-surface datum is 278 ft (85 m). Measuring point: Top of casing, 1.00 ft (.30 m) above land-surface datum.

PERIOD OF RECORD.--April 1955 to current year. Analog record April 1955 to February 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.69 ft (1.12 m) below land-surface datum, Feb. 28, 1962; lowest recorded, 18.93 ft (5.77 m) below land-surface datum, Jan. 18-21, 1957; highest water level measured, 4.18 ft (1.27 m) below land-surface datum, Apr. 13, 1979; lowest measured, 17.24 ft (5.25 m) below land-surface datum, Jan. 27, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	17.12	JAN 27	17.24	APR 14	14.13	JUL 10	11.04	SEP 29	14.36
DEC 16	16.44	MAR 3	15.98	MAY 27	13.50	AUG 19	12.63		

447

360147089230700. Local number, Dy:H-7.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

DATUM.--Land-surface datum is 270.07 ft (82.32 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.10 ft (0.94 m) above land-surface datum.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.69 ft (0.82 m) above land-surface datum, Mar. 1, 2, Apr. 19, 1962; lowest recorded, 17.1 ft (5.2 m) below land-surface datum, Aug. 10, 1956; highest water level measured, 0.20 ft (0.06 m) above land-surface datum, Mar. 20, 1975, lowest measured, 10.22 ft (3.12 m) below land-surface datum, September 1972.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	8.71	JAN 27	8.95	APR 14	6.64	JUL 10	4.48	SEP 29	4.72
DEC 16	8.11	MAR 3	6.09	MAY 27	4.35	AUG 19	6.45		

352226089330101. Local number, Fa:R-1.

AQUIFER.--Sand of Wilcox Group of early Eocene age.

PERIOD OF RECORD.--August 1949 to current year. Analog record August 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 64.89 ft (19.78 m) below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft (23.24 m) below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft (22.44 m) below land-surface datum, Apr. 28, 1976; lowest measured, 79.71 ft (24.30 m) below land-surface datum, Sept. 30, 1981.

[illegible]

GROUND-WATER LEVELS

FAYETTE COUNTY--Continued

352226089330102. Local number, Fa:R-2.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft (24 m) south of State Highway 59, 1.1 mi (1.8 km) southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 365 ft (111 m), cased to 345 ft (105 m), screened 345 to 365 ft (105 to 111 m).

DATUM.--Land-surface datum is 317.20 ft (96.68 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.20 ft (1.28 m) above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year. Analog record October 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 37.25 ft (11.35 m) below land-surface datum, Mar. 10, 1952; lowest recorded, 42.12 ft (12.84 m) below land-surface datum, Nov. 30, 1967; highest water level measured, 39.38 ft (12.00 m) below land-surface datum, May 2, 1980; lowest measured, 41.67 ft (12.70 m) below land-surface datum, December 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	40.44	DEC 31	40.34	FEB 24	40.46	APR 30	40.36	JUL 1	40.31	AUG 28	40.64
NOV 26	40.31	JAN 30	40.61	MAR 27	40.50	MAY 29	40.38	JUL 31	40.51	SEP 30	40.77

HAMILTON COUNTY

350234085181200. Local number, Hm:G-36.

LOCATION.--Lat 35°02'34", long 85°18'12", Hydrologic Unit 06020001, in Tennessee Valley Authority parking lot, Douglas Street in Chattanooga.
Owner: Tennessee Valley Authority.

AQUIFER.--Knox Dolomite of Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 16 in (410 mm) to 120 ft (36.6 m), 6 in (150 mm) to 250 ft (76.2 m), cased to 27 ft (8.2 m), open end.

INSTRUMENTATION.--Water-level recorder since April 1981.

DATUM.--Altitude of land-surface datum 670.3 ft (204.3 m). Measuring point: Top of instrument shelf, 1.5 ft (.46 m) above land-surface datum.

REMARKS.--The well has been pumped at rates up to 1,200 gal/min (76 L/s) over a 68 hour period indicating a specific capacity of 20.4 [(gal/min)/ft], [(4.2 L/S)/m]. Faulty record July 15 to Aug. 26.

PERIOD OF RECORD.--April to September 1981.

EXTREMES FOR PERIOD OF RECORD.--April to September, highest water level, 8.32 ft (2.54 m) below land-surface datum June 8, 1981; lowest, 11.46 ft (3.49 m) below land-surface datum, Sept. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, APRIL TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								10.29	8.92	10.86	11.43	9.56
10								10.54	8.91	11.02	10.50	10.32
15								10.70	9.69	11.14	10.92	10.70
20								9.94	10.18	10.77	11.16	10.91
25								10.34	10.50	11.08	10.56	11.24
EOM							9.88	10.52	10.69	11.34	9.87	11.46

GROUND-WATER LEVELS

449

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 the Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 10 in (250 mm), depth 262 ft (80 m), cased to 50 ft (15 m), open end.

INSTRUMENTATION.--Water-level recorder since May 1975.

DATUM.--Altitude of land-surface datum is 735 ft (224 m). Measuring point: Top of back shelter panel, 8.00 ft (2.44 m) above land-surface datum.

REMARKS.--Well previously published as "at Savannah Valley". Water level affected intermittently by pumping from municipal supply well 300 ft (91 m) south. No record May 9-11.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.40 ft (1.34 m) above land-surface datum, May 31, 1979;
 lowest, 7.73 ft (2.36 m) below land-surface datum, Aug. 31, Sept. 1, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
 LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.92	7.05	6.62	7.16	5.63	5.96	3.74	6.16	4.50	6.68	7.00	7.32
10	6.89	7.07	6.80	7.14	6.34	6.21	1.87	--	3.07	6.80	7.06	7.35
15	7.00	6.77	6.84	7.18	3.72	6.54	3.93	6.44	5.00	6.80	7.08	7.30
20	7.02	6.77	6.98	7.22	1.54	6.79	5.09	6.50	5.98	6.82	7.09	7.31
25	6.93	6.28	7.04	7.25	4.07	6.65	4.52	6.64	6.39	6.91	7.16	7.36
EOM	7.02	6.18	7.05	7.02	5.21	4.08	5.55	6.61	6.57	6.96	7.24	7.41

WTR YR 1981 MAX 0.17 APR 6, 1981 MIN 7.41 SEP 30, 1981

HUMPHREYS COUNTY

360020087573300. Local number, Hs:H-1.

LOCATION.--Lat 36°00'20", long 87°57'33", Hydrologic Unit 06040005, 100 ft (30 m) north of Woodland Drive at New Johnsonville.
 Owner: A. M. Powers.

AQUIFER.--Camden Chert of early Devonian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (200 mm), depth 187 ft (57 m), cased to 72 ft (22 m), open end.

INSTRUMENTATION.--Water-level recorder since February 1962.

DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--February 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.02 ft (25.91 m) below land-surface datum, Mar. 25, 1973;
 lowest, 90.20 ft (27.49 m) below land-surface datum, Nov. 25, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
 LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.40	87.35	87.25	---	87.13	86.80	86.76	86.80	86.46	86.63	86.96	87.03
10	87.36	87.43	87.21	---	86.96	86.81	86.68	86.77	86.21	86.62	87.01	87.11
15	87.41	87.34	87.13	87.33	87.01	86.80	86.82	86.84	86.31	86.71	87.01	87.15
20	87.39	87.23	---	87.26	86.87	86.89	86.70	86.71	86.41	86.77	86.90	87.15
25	87.37	87.28	---	87.26	86.96	86.97	86.70	86.71	86.54	86.87	87.03	87.28
EOM	87.35	87.22	---	87.37	86.95	86.75	86.74	86.56	86.64	86.90	87.02	87.30

WTR YR 1981 MAX 86.09 JUN 8, 1981 MIN 87.45 OCT 13, 1980

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 (1.8 km) north of State Highway 87, at Fort Pillow State Park.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 to 6 to 3 in (200 to 150 to 80mm), depth 879 ft (268 m), cased to 869 ft (265 m), screened 869 to 879 ft (265 to 268 m).

INSTRUMENTATION.--Water-level recorder since April 1966.

DATUM.--Land-surface datum is 437.05 ft (133.21 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--April 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 187.76 ft (57.23 m) below land-surface datum, Apr. 7, 1975; lowest, 197.82 ft (60.29 m) below land-surface datum, Jan. 17, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	196.86	197.37	197.29	197.72	197.65	196.36	197.05			---	195.83	196.91
10	196.91	197.48	197.29	197.70	197.06	196.50	196.97			---	196.18	196.88
15	197.13	197.52	197.23	197.68	197.28	196.56	196.99			195.90	196.34	196.95
20	197.28	197.49	197.35	197.65	197.12	196.87	196.61			196.16	196.53	197.14
25	197.36	197.47	197.47	197.60	196.97	197.17	---			196.18	196.74	197.40
EOM	197.42	197.32	197.46	197.76	196.77	197.13	---			196.03	196.89	197.56

WTR YEAR 1981 MAX 195.74 AUG 3, 4, 1981 MIN 197.82 JAN 17, 1981

354158089384300. Local number, Ld: G-12.

LOCATION.--Lat 35°41'58", long 89°38'43", Hydrologic Unit 08010208, 150 ft (40m) west of Glimp-Ripley Road, 0.1 mi (0.16 km) northeast of State Highway 87 at Glimp.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 440 ft (134 m), cased to 420 ft (128 m), screened 420 to 440 ft (128 to 134 m).

INSTRUMENTATION.--Water level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 360 ft (110 m). Measuring point: Inside top of shelter base plate, 2.70 ft (0.82 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.25 ft (31.77 m) below land-surface datum, June 9, 10, 1981; lowest, 106.06 ft (32.32 m) below land-surface datum, Sept. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	105.68	105.52	105.65	105.10	105.15	105.16	104.99	104.63	104.71		---
10	---	105.74	105.48	105.29	104.75	105.19	105.11	104.89	104.31	104.86		105.84
15	---	105.72	105.39	105.20	104.86	105.05	105.18	104.99	104.47	---		105.80
20	---	105.70	105.62	105.14	104.44	105.02	104.98	105.07	104.51	---		105.86
25	105.62	105.69	105.58	105.01	104.38	105.16	104.94	105.09	104.70	---		105.98
EOM	105.69	105.52	105.41	105.14	105.27	105.06	104.97	104.81	104.82	---		106.02

WTR YEAR 1981 MAX 104.25 JUNE 9, 10, 1981 MIN 106.06 SEPT 28, 1981

GROUND-WATER LEVELS

451

LAUDERDALE COUNTY--Continued

354552089455900. Local number, Ld:L-2.

LOCATION.--Lat 35°45'52", long 89°45'59", Hydrologic Unit 08010100, 70 ft (21 m) south of State Highway 19, 1.2 mi (1.9 km) east of Ashport.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 245 ft (75 m), cased to 225 ft (69 m), screened 225 to 245 ft (69 to 75 m).

INSTRUMENTATION.--Water-level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 239 ft (73 m). Measuring point: Inside top of shelter base plate, 2.00 ft (.61 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.54 ft (3.52 m) below land-surface datum, July 5, 1981; lowest, 15.82 ft (4.82 m) below land-surface datum, Jan. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	14.08	14.30	15.01	15.78	14.47	14.91	14.01	12.57	11.59	11.70	12.86
10	---	14.18	14.31	15.18	15.42	14.35	14.87	13.84	12.22	11.63	11.83	12.87
15	---	14.26	14.28	15.35	15.41	14.26	14.90	13.82	12.07	11.65	11.98	12.96
20	---	14.27	14.39	15.47	15.27	14.47	14.57	13.74	11.84	11.83	12.14	13.17
25	14.37	14.33	14.52	15.62	15.12	14.74	14.21	13.39	11.75	11.89	12.41	13.43
EOM	14.06	14.26	14.74	15.81	14.95	14.89	14.01	12.72	11.73	11.78	12.71	13.71
WTR YEAR 1981	MAX	11.54	JULY 5, 1981	MIN	15.82	JAN 30, 1981						

355251089350500. Local number, Ld: S-2.

LOCATION.--Lat 35°52'51", long 89°35'05", Hydrologic Unit 08010100, about 0.7 mi (1.1 km) east of Old Bed Forked Deer River, 3 mi (4.8 km) west of Knob Creek.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (150 mm), depth 100 ft (30 m), cased to 80 ft (24 m), screened 80 to 100 ft (24 to 30 m).

INSTRUMENTATION.--Water level recorder since October 1980.

DATUM.--Altitude of land-surface datum is 254 ft (77 m). Measuring point: Inside top of shelter base plate, 3.20 ft (0.97 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.09 ft (0.33 m) below land-surface datum, June 14, 1981; lowest, 9.09 ft (2.77 m) below land-surface datum, Oct. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	8.85	7.68	7.38	6.41	4.81	---	5.71	2.80	---	---	---
10	---	8.85	6.95	7.51	6.31	5.22	---	4.17	2.28	---	---	7.12
15	---	8.79	---	7.47	6.19	5.53	5.15	4.10	1.22	---	---	7.32
20	---	8.21	---	7.37	6.15	---	4.79	4.75	3.16	5.35	---	7.46
25	9.08	8.16	---	7.38	6.46	---	4.38	3.76	4.03	5.45	---	7.65
EOM	8.88	7.67	---	7.31	6.46	---	5.02	1.95	---	5.44	---	7.82
WTR YEAR 1981	MAX	1.09	JUNE 14, 1981	MIN	9.09	OCT 26, 1980						

GROUND-WATER LEVELS

LINCOLN COUNTY

350033086422900. Local number, Li:G-4

LOCATION.--Lat 35°00'33", long 86°42'29", Hydrologic Unit 06030002, on west side of Pepper Road at Taft well field, 0.8 mi (1.3 km) south of State Highway 110, Taft.
 Owner: Lincoln County Board of Public Utilities.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 85 ft (25.9 m), cased to 40 ft (12.2 m), open end.

INSTRUMENTATION.--Water-level recorder since May 1980.

DATUM.--Altitude of land-surface datum is 910 ft (277 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage from Taft well field for municipal water supply. No record Feb. 28 to Mar. 11, Mar. 22 to Apr. 7, Aug. 11 to Sept. 9, Sept. 13-30.

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

EXTREMES FOR PERIOD OF RECORD.--May 1980 to September 1981: highest water level, 10.05 ft (3.1 m) below land-surface datum, June 1, 1980; lowest recorded 34.72 ft (10.6 m) below land-surface datum, Sept. 12, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 1979 TO SEPTEMBER 1980
 LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5								---	22.33	21.97	29.73	32.10
10								---	24.10	27.01	30.60	32.60
15								---	21.47	26.90	24.94	33.31
20								---	27.60	28.34	29.92	31.71
25								---	22.55	29.14	29.53	28.91
EOM								12.17	24.44	29.67	31.33	31.10

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
 LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.15	30.89	33.00	29.03	26.59	---	---	19.17	20.39	24.71	31.35	---
10	32.65	29.23	33.61	26.87	22.21	---	15.02	23.58	18.41	21.81	32.57	34.59
15	30.66	33.08	33.28	26.31	19.52	17.60	13.86	25.69	18.14	23.80	---	---
20	28.08	31.13	32.12	25.65	21.20	19.26	13.51	27.58	19.83	28.89	---	---
25	33.45	33.68	31.46	23.13	22.66	---	17.18	26.60	20.02	24.66	---	---
EOM	32.54	34.28	32.28	26.06	---	---	17.22	22.74	21.49	28.26	---	---

WTR YR 1981 MAX 11.50 APR 15, 1981 MIN 34.72 SEP 12, 1981

Minimum may have been less during period of missing record.

MADISON COUNTY

354223088380200. Local number, Md:N-1.

LOCATION.--Lat 35°42'23", long 88°38'02", Hydrologic Unit 08010205, 90 ft (27 m) south of State Highway 20, about 0.4 mi (0.6 km) east of Claybrook.
 Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--McNairy Sand of late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 659 ft (201 m), cased to 639 ft (195 m), screened 639 to 659 ft (195 to 201 m).

DATUM.--Land-surface datum is 562.70 ft (171.51 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--June 1949 to current year. Analog record June 1949 to February 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 124.50 ft (37.95 m) below land-surface datum, Mar. 10, 1952; lowest recorded, 129.13 ft (39.36 m) below land-surface datum, Nov. 15, 1963; highest water level measured, 124.98 ft (38.09 m) below land-surface datum, Apr. 8, 1980; lowest measured, 131.17 ft (39.98 m) below land-surface datum, June 20, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	126.03	JAN 27	125.97	APR 15	126.13	JUL 7	126.29	SEP 8	126.81
DEC 16	125.46	MAR 3	125.96	MAY 27	126.11	AUG 18	126.55		

PUTNAM COUNTY

360521085432600. Local number, Pm:C-1.

LOCATION.--Lat 36°05'21", long 85°43'26", Hydrologic Unit 05130108, at Interstate 40 and State Highway 56, Silver Point.

Owner: Tennessee Department of Highways.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in (150 mm), depth 175 ft (53 m), cased to 60 ft (18 m), open end.

INSTRUMENTATION.--Water-level recorder since March 1968.

DATUM.--Altitude of land-surface datum is 1,030 ft (314 m). Measuring point: Top of casing at land-surface datum (corrected).

REMARKS.--Missing record Oct. 1-6.

PERIOD OF RECORD.--March 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.30 ft (14.72 m) below land-surface datum, May 2, 1974; lowest, 53.54 ft (16.32 m) below land-surface datum, Feb. 11, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	52.47	52.82	53.11	53.33	53.49	53.45	53.26	52.89	52.15	52.52	52.76
10	52.07	52.55	52.88	53.19	53.30	53.42	53.40	53.25	52.70	52.24	52.57	52.74
15	52.18	52.62	52.85	53.22	53.37	53.40	53.42	53.30	52.46	52.36	52.61	52.68
20	52.25	52.66	52.99	53.22	53.40	53.47	53.37	53.23	52.31	52.42	52.68	52.65
25	52.31	52.74	53.05	53.28	53.41	53.48	53.32	53.17	52.17	52.47	52.74	52.65
EOM	52.40	52.76	53.07	53.32	53.40	53.43	53.29	53.08	52.10	52.50	52.81	52.66

WTR YR 1981 MAX 51.95 OCT 7, 1981 MIN 53.54 FEB 11, 1981

Maximum may have been higher during period of missing record.

SEVIER COUNTY

353922083345600. Local number, Sv:E-2.

LOCATION.--Lat 35°39'22", long 83°34'56", Hydrologic Unit 06010201, 3.3 mi (5.3 km) southwest of Great Smoky Mountains National Park Headquarters, near Gatlinburg.

AQUIFER.--Elkmont Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well in phyllite, sandstone, diameter 6 @ in (160 mm); depth 220 ft (67 m), cased to 27 ft (8 m).

INSTRUMENTATION.--Water level recorder since May 1979.

DATUM.--Altitude of land-surface datum is 2,150 ft (655 m). Measuring point: Floor of recorder shelter 1.50 ft (0.46 m) above land surface datum.

REMARKS.--Missing record Sept. 20-30.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.82 ft (2.08 m) below land surface datum, Feb. 11, 1981; lowest, 9.68 ft (2.95 m) below land surface datum, Aug. 10, Sept. 16, 17, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.46	9.41	9.28	9.41	9.06	8.93	8.84	9.11	8.67	9.35	9.29	9.30
10	9.54	9.46	9.13	9.42	9.23	8.96	8.86	9.20	8.82	9.32	9.16	9.26
15	9.60	9.50	9.25	9.41	8.88	9.15	9.04	9.23	9.03	9.41	9.37	9.36
20	9.25	9.13	9.34	9.47	8.57	9.20	8.74	9.15	9.23	9.26	9.38	---
25	9.43	8.90	9.27	9.48	8.87	9.15	8.08	9.18	9.25	9.38	9.35	---
EOM	9.32	9.08	9.34	9.35	9.02	8.49	8.95	8.80	9.37	9.29	9.41	---

WTR YR 1981 MAX 6.82 FEB 11, 1981 MIN 9.62 OCT 17, 18, 1981

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 Ave. and Getwell Road, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Fluvial sand and gravel of Pleistocene age and possibly sand of Eocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (150 mm), depth 91 ft (28 m), cased to 81 ft (25 m), screened 81 to 91 ft (25 to 28 m).

INSTRUMENTATION.--Water-level recorder since August 1948.

DATUM.--Altitude of land-surface datum is 260 ft (79 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--August 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.28 ft (6.49 m) below land-surface datum, Apr. 2, 1950;
lowest, 49.62 ft (15.12 m) below land-surface datum, Aug. 9, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.40	46.34	46.76	47.11	47.29	47.86	48.14	47.98	48.02	48.13	48.38	48.57
10	46.30	46.46	46.82	47.21	47.63	47.64	47.96	48.08	48.09	48.15	48.33	48.59
15	46.37	46.56	46.66	47.28	47.33	47.62	48.19	47.96	48.18	48.18	48.32	48.59
20	46.36	46.50	47.09	47.08	47.54	47.80	48.16	48.00	48.13	48.21	48.41	48.58
25	46.48	46.64	--	47.20	47.59	47.89	48.17	48.06	48.21	48.23	48.53	48.59
EOM	46.38	46.69	47.02	47.25	47.52	47.94	48.12	48.05	48.23	48.30	48.51	48.65
WTR YEAR	1981	MAX 45.99	NOV 7, 1980			MIN 48.73	SEP 17, 1981					

351435090005200. Local number, Sh:O-1.

LOCATION.--Lat 35°14'35", long 90°00'52", Hydrologic Unit 08010209, west side of O.K. Robertson Road 0.4 mi north of U.S. Highway 51, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 434 ft (132 m), cased to 424 ft (129 m), screened 424 to 434 ft (129 to 132 m).

INSTRUMENTATION.--Water-level recorder since September 1940.

DATUM.--Land-surface datum is 228.70 ft (69.71 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.30 ft (1.31 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--September 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.65 ft (3.86 m) below land-surface datum, Sept. 3, 1940;
lowest, 58.54 (17.84 m) below land-surface datum, Aug. 14, Sept. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.95	53.74	52.68	53.72	53.97	52.55	52.48	52.35	50.88	52.68	54.17	56.54
10	54.19	53.83	53.08	53.94	53.43	52.51	51.88	52.78	50.64	53.07	54.68	56.14
15	54.20	53.65	53.21	54.03	53.38	52.41	51.94	53.01	50.67	53.56	55.18	55.64
20	54.20	52.93	53.29	54.09	53.30	52.61	51.89	52.95	50.85	53.97	55.43	55.34
25	54.03	52.29	53.46	53.91	53.24	52.55	51.12	52.26	51.61	54.26	55.63	55.29
EOM	53.67	52.43	53.44	54.12	53.19	52.10	51.42	50.69	52.38	54.02	56.26	55.49
WTR YEAR	1981	MAX 50.36	JUN 6, 1981			MIN 56.56	SEP 3, 4, 1981					

GROUND-WATER LEVEL
SHELBY COUNTY--Continued

455

350923090023500. Local number, Sh:0-124.

LOCATION.--Lat 35°09'23", long 90°02'35", Hydrologic Unit 08010100, at Fifth Street and Sycamore Avenue, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Unused work shaft to tunnel connected to an unknown number of drilled artesian wells, diameter of shaft 30 in (760 mm), depth 98 ft (30 m), cased to 80 ft (24 m).

INSTRUMENTATION.--Water-level recorder since September 1938.

DATUM.--Land-surface datum is 229.70 ft (70.01 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--May 1927 to 1933, 1936 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.09 ft (5.82 m) below land-surface datum, Apr. 1, 1933;
lowest, 73.4 ft (22.4 m) below land-surface datum, July 30 to Aug. 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	67.85	66.13	66.02	66.60	64.56	65.92	65.97	64.91	67.57	69.60	70.58
10	---	67.44	66.83	66.48	65.92	64.14	65.43	66.20	64.75	68.05	70.09	69.79
15	---	67.63	66.90	65.94	65.88	64.10	65.05	66.46	65.21	69.00	70.43	69.75
20	---	67.07	66.92	65.92	66.66	63.99	64.66	65.51	66.35	69.73	70.48	70.19
25	---	66.52	66.71	66.56	66.03	64.85	63.79	64.69	67.05	70.08	70.27	70.30
EOM	68.41	65.94	65.89	66.94	65.60	65.42	64.31	64.40	67.15	70.12	70.69	70.44
WTR YEAR	1981	MAX	63.15	MAR 15, 1981	MIN	70.74	AUG 30, 1981					

351320089535800. Local number, Sh:P-1.

LOCATION.--Lat 35°13'20", long 89°53'58", Hydrologic Unit 08010210, at Scheibler Road, 0.2 mi (0.3 km) east of Yale Road, Memphis.
Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 344 ft (105 m), cased to 334 ft (102 m), screened 334 to 344 ft (102 to 105 m).

INSTRUMENTATION.--Water-level recorder since July 1941.

DATUM.--Land-surface datum is 299.80 ft (91.38 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--September 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 63.33 ft (19.30 m) below land-surface datum, Sept. 27, 1940;
lowest, 116.86 ft (35.62 m) below land-surface datum, Aug. 11-15, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.49	112.88	111.55	111.91	112.11	112.20	111.86	112.36	111.92	114.38	115.92	116.08
10	113.53	112.66	111.58	111.91	111.98	112.20	111.72	112.48	111.92	114.72	116.10	116.02
15	113.59	112.43	111.53	111.93	112.26	111.86	111.87	112.46	112.60	115.54	116.22	115.95
20	113.42	112.42	111.95	111.99	112.08	111.86	111.91	112.48	112.79	115.99	116.29	115.64
25	113.19	111.97	112.06	111.97	111.98	111.95	111.80	112.62	113.76	115.86	116.39	115.59
EOM	112.62	111.65	111.78	112.17	112.24	111.62	112.09	112.17	114.46	115.64	116.39	115.63
WTR YEAR	1981	MAX	111.46	DEC 15, 16, 1980	MIN	116.47	AUG 27, 1981					

GROUND-WATER LEVELS
SHELBY COUNTY--Continued

350735089593300. Local number, Sh:P-76.

LOCATION.--Lat 35°07'35", long 89°59'33", Hydrologic Unit 08010210, at Central Avenue and Tanglewood Street, Memphis.

Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian unused well, diameter 12 in (300 mm), depth 488 ft (149 m), cased to 428 ft (130 m), screened 428 to 488 ft (130 to 149 m).

INSTRUMENTATION.--Water-level recorder since October 1932.

DATUM.--Land-surface datum is 286.70 ft (87.39 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--October 1928 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.65 ft (17.88 m) below land-surface datum, Apr. 3, 1933; lowest, 144.77 ft (44.13 m) below land-surface datum, July 20-25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.08	135.13	133.09	131.76	133.08	133.66	132.31	133.16	132.20	135.39	138.22	138.07
10	137.67	135.68	132.86	133.07	132.38	132.93	132.70	132.89	132.55	135.99	138.60	137.41
15	136.72	135.73	132.94	133.36	133.29	133.12	132.35	132.77	132.96	136.46	139.44	137.41
20	136.56	134.57	133.32	132.79	133.47	133.29	132.30	132.65	134.56	138.03	138.67	137.41
25	136.00	133.65	133.34	133.01	133.37	132.43	132.75	---	135.77	137.77	138.10	137.93
EOM	135.65	132.53	132.21	133.27	133.51	131.91	133.05	132.02	136.28	137.10	137.35	138.17
WTR YEAR	1981	MAX	131.00	MAY 27, 1981	MIN	139.44	AUG 15, 1981					

350900089482300. Local number, Sh:Q-1.

LOCATION.--Lat 35°09'00", long 89°48'23", Hydrologic Unit 08010210, south of Macon Road, 0.6 mi (1.0 km) west of Germantown Road, near Memphis.

Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (150 mm), depth 384 ft (117 m), cased to 375 ft (114 m), screened 375 to 384 ft (114 to 117 m).

INSTRUMENTATION.--Water-level recorder since October 1940.

DATUM.--Land-surface datum is 330.40 ft (100.71 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.40 ft (0.73 m), above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--October 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft (22.58 m) below land-surface datum, Dec. 27, 1940; lowest 103.67 ft (31.60 m) below land-surface datum, Sept. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.62	102.35	102.33	102.51	102.60	102.10	102.47	102.51	102.61	102.90	103.36	103.48
10	102.40	102.51	102.39	102.53	102.27	102.38	102.36	102.45	---	103.05	103.45	103.48
15	102.46	102.41	102.26	102.40	102.60	102.27	102.62	102.60	---	103.11	103.41	103.48
20	102.51	102.51	102.60	102.25	102.40	102.38	102.36	102.61	---	103.28	103.45	103.58
25	102.46	102.47	102.48	102.27	102.53	102.56	102.44	102.59	---	103.38	103.47	103.62
EOM	102.49	102.35	102.21	102.64	102.51	102.33	102.48	---	103.06	103.37	103.41	103.65
WTR YEAR	1981	MAX	101.90	MAR 5, 1981	MIN	103.67	SEP 28, 1981					

GROUND-WATER LEVELS

457

SHELBY COUNTY--Continued

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi (4.8 km) west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: T. D. Ervin

AQUIFER.--Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 16 in (610 to 410 mm), depth 1,558 ft (475 m), cased to 1,497 ft (456 m), screened 1,497 to 1,558 ft (456 to 475 m).

DATUM.--Land-surface datum is 264.20 ft (80.53 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.60 ft (0.18 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage at Memphis.

PERIOD OF RECORD.--August 1946 to current year. Analog record March 1948 to January 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.5 ft (10.82 m) below land-surface datum, Apr. 11, 1948; lowest recorded, 60.42 ft (18.42 m) below land-surface datum, Dec. 20, 1970; highest water level measured 33.20 ft (10.12 m), Apr. 21, 1947; lowest measured 65.24 ft (19.88 m) below land-surface datum, Oct. 31, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	65.24	DEC 30	64.98	MAR 2	64.62	APR 29	64.44	JUL 1	64.56	AUG 28	64.90
NOV 24	65.12	JAN 29	65.03	MAR 31	64.82	JUN 1	64.25	JUL 30	64.70	SEP 29	65.14

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi (4.8 km) west of Millington at Shelby Road and Shake Rag Road, Sloanville.
Owner: T. D. Ervin.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in (460 to 300 mm), depth 440 ft (134 m), cased to 360 ft (110 m), screened 360 to 440 ft (110 to 134 m).

DATUM.--Land-surface datum is 268.76 ft (81.92 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.60 ft (0.49 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--June 1953 to current year. Analog record June 1953 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.59 (12.07 m) below land-surface datum, June 29, 1953; lowest recorded, 59.12 ft (18.02 m) below land-surface datum during period August through September 1977, from maximum-minimum recorder.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	56.48	DEC 30	56.34	MAR 2	56.37	APR 29	55.70	JUL 1	55.63	AUG 28	57.56
NOV 24	56.15	JAN 29	56.68	MAR 31	56.17	JUN 1	55.46	JUL 30	56.75	SEP 29	57.82

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 (1.3 km) west of Carter's Creek Road, near Franklin.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Knox Dolomite of late Cambrian and early Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 6 in (150 mm), depth 1,160 ft (354 m), cased to 473 ft (144m), open end.

DATUM.--Land-surface datum is 712 ft (217 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

REMARKS.--Period of record low resulted from water-level measurements on the well during a 72 hour aquifer test.

PERIOD OF RECORD.--January 1950 to current year. Water-level recorder December 1951 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 84.21 ft (25.67 m) below land-surface datum, Mar. 10, 1952; lowest recorded 87.11 ft (26.55 m) below land-surface datum, Sept. 10, 1970; highest water level measured, 85.43 ft (26.04 m) below land-surface datum, Feb. 19, 1974; lowest measured, 114.81 ft (34.99 m) below land-surface datum, Jan. 31, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27	88.14	SEP 14	88.00

355749086533300. Local number, Wm:M-8.

LOCATION.--Lat 35°57'49", long 86°53'33", Hydrologic Unit 05130204, 3.9 mi (6.3 km) north of Franklin.

Owner: City of Franklin.

AQUIFER.--Carters Limestone of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (250 mm) to 54 ft (16.5 m), 9 in (230 mm) to 170 ft (51.8 m), 6 in (150 mm) to 192 ft (58.5 m) below land surface, cased to 54 ft (16.5 m), open end.

INSTRUMENTATION.--Water-level recorder since August 1976.

DATUM.--Altitude of land-surface datum is 630 ft (192 m). Measuring point: Instrument shelf, 2.2 ft (0.67 m) (corrected) above land-surface datum.

REMARKS.--Period of record low resulted from water levels being affected by 68 hour aquifer test run in well field. Three wells were pumped at a combined rate of 925 gal/min. Missing recorder record Oct. 28 to Dec. 4, pump test.

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

REVISED RECORD.--Records published in WRD TN 1976-80 are in error. A correction of 2.2 ft (0.67 m) should be subtracted from all published data to obtain the correct water level below land surface datum.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.46 ft (3.8 m) (revised) below land-surface datum, Mar. 21, 1980; lowest measured, 68.29 ft (20.8 m) below land-surface datum, Nov. 1, 1980; lowest recorded, 40.51 ft (12.35 m) (revised) below land-surface datum, Dec. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.49		32.08	32.23	31.14	30.97	29.35	31.29	31.79	31.44	31.25	31.35
10	32.50		31.70	32.24	30.44	30.89	30.00	31.43	31.10	31.14	31.49	31.56
15	32.51		31.91	32.07	30.84	31.02	30.53	31.58	30.14	31.43	31.62	31.67
20	32.51		32.06	32.12	30.50	31.30	30.75	31.53	30.64	31.56	31.66	31.77
25	32.52		32.09	30.94	30.87	31.20	30.92	31.66	30.97	31.12	31.80	31.91
EOM	a67.10		32.13	31.35	31.01	28.78	31.13	31.71	31.25	31.01	31.69	31.99

WTR YEAR 1981 MAX 26.21 MAR 30, 1981 MIN 68.29 NOV 1, 1980

a Measured water level, not necessarily lowest value for the day.

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DICKSON COUNTY

360348087244700 - DI:F-74 BK-17

		SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
DATE NOV 22...	TIME 0755	290	8.5	14.0	0	K40	<1	<1	140	0	48
	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
DATE NOV 22...	4.4	3.6	.5	140	4.5	2.5	.1	9.4	170	162	.87
	NITRO- GEN NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DATE NOV 22...	.87	.040	30	2	2	10	3	21	50	2	8
	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)		
DATE NOV 22...		<.1	2	0	0	120	10	2.9	.00	0	

LAUDERDALE COUNTY

354158089384300 - LD:G-12

DATE OCT 23...	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE	HARD- NESS	HARD- NESS, NONCAR-	CALCIUM	MAGNE- SIUM,	SODIUM,	POTAS- SIUM,
		(UMHOS)	(UNITS)	(DEG C)	(MG/L AS CACO3)	BONATE (MG/L CACO3)	DIS- SOLVED (MG/L AS CA)	DIS- SOLVED (MG/L AS MG)	DIS- SOLVED (MG/L AS NA)	DIS- SOLVED (MG/L AS K)
	1100	260	6.6	18.0	100	0	23	11	6.3	2.3
DATE OCT 23...	ALKA- LINITY	SULFATE	CHLO- RIDE,	FLUO- RIDE,	SILICA,	SOLIDS, RESIDUE	SOLIDS, SUM OF	NITRO- GEN,	PHOS-	CADMIUM
	LAB (MG/L AS CACO3)	DIS- SOLVED (MG/L AS SO4)	DIS- SOLVED (MG/L AS CL)	DIS- SOLVED (MG/L AS F)	DIS- SOLVED (MG/L AS SI02)	AT 180 DEG. C DIS- SOLVED (MG/L)	CONSTI- TUENTS, DIS- SOLVED (MG/L)	NO2+NO3 DIS- SOLVED (MG/L AS N)	PHORUS, DIS- SOLVED (MG/L AS P)	DIS- SOLVED (UG/L AS CD)
	120	1.7	1.7	.2	11	146	137	.02	.010	1
DATE OCT 23...	CHRO- MIUM, DIS- SOLVED	COPPER, DIS- SOLVED	IRON, DIS- SOLVED	LEAD, DIS- SOLVED	MANGA- NESE, DIS- SOLVED	MERCURY	SELE- NIUM, DIS- SOLVED	ZINC, DIS- SOLVED	CARBON, ORGANIC	
	(UG/L AS CR)	(UG/L AS CU)	(UG/L AS FE)	(UG/L AS PB)	(UG/L AS MN)	DIS- SOLVED (UG/L AS HG)	(UG/L AS SE)	(UG/L AS ZN)	TOTAL (MG/L AS C)	
	0	0	6900	1	170	<.1	0	240	1.1	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LAUDERDALE COUNTY--Continued

354225089461700 - LD:F-8

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)
OCT 21...	1530	700	6.8	16.5	340	94	25	7.8	3.0	380
NOV 17...	1345	--	--	--	310	84	24	7.8	3.3	407
DEC 16...	1100	660	6.7	15.5	--	--	--	--	--	--
JAN 13...	1100	680	6.6	15.5	320	88	25	7.9	2.9	390
FEB 10...	1115	675	6.7	16.0	280	73	24	8.2	2.8	390
MAR 17...	1000	670	6.8	16.0	280	76	23	7.6	2.7	310
APR 14...	1045	680	6.8	15.5	350	97	27	8.5	2.9	390
MAY 13...	1145	680	6.8	16.0	350	96	26	7.6	3.0	390
JUN 16...	1045	690	6.8	16.0	360	100	27	8.1	3.0	390
JUL 14...	1200	690	6.7	16.0	360	99	27	8.8	2.9	390
AUG 11...	1145	680	6.8	16.0	340	93	27	7.9	2.8	390
SEP 15...	1100	680	6.7	16.0	390	110	29	7.4	2.7	390

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 21...	.0	3.5	.5	34	438	409	.01	.210	2
NOV 17...	2.7	3.5	.2	30	421	411	.06	.010	1
DEC 16...	--	--	--	--	439	--	--	--	1
JAN 15...	1.8	3.5	.3	34	--	410	.02	.600	2
FEB 10...	1.8	3.5	.2	29	439	388	.01	.660	1
MAR 17...	1.3	3.8	.2	29	469	341	.02	.890	0
APR 14...	5.2	4.2	.2	33	421	433	.04	.470	0
MAY 13...	5.7	4.0	.2	36	--	427	.07	.350	2
JUN 16...	5.2	3.6	.2	38	--	434	.18	.220	1
JUL 14...	1.8	4.1	.2	37	--	429	.05	.750	2
AUG 11...	5.7	4.9	.2	34	421	412	.04	.400	<1
SEP 15...	3.4	3.6	.2	28	--	443	2.2	.040	2

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LAUDERDALE COUNTY--Continued

354225089461700 - LD:F-8--Continued

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 21...	10	1	12000	0	1000	<.1	0	40	2.6
NOV 17...	<10	1	9100	1	1100	<.1	0	20	4.2
DEC 16...	<10	0	--	0	--	<.1	0	20	4.7
JAN 13...	10	--	11000	2	1000	.2	0	10	--
FEB 10...	10	2	10000	2	880	.1	1	20	4.5
MAR 17...	10	5	10000	4	830	.1	0	20	2.2
APR 14...	<10	3	13000	3	1100	.2	0	10	--
MAY 13...	10	2	13000	4	1000	<.1	0	10	--
JUN 16...	10	2	13000	0	1000	.4	0	20	1.9
JUL 14...	10	1	13000	11	980	.3	0	20	2.2
AUG 11...	10	<1	1100	9	1000	.1	<1	20	2.6
SEP 15...	10	1	13000	4	1000	<.1	<1	20	1.9

354552089455900 - LD:L-2

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 24...	1030	255	6.1	16.5	85	0	21	8.0	4.4	7.1
DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 24...	98	5.2	1.6	.1	19	142	143	.02	.090	2
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	
OCT 24...	10	1	17000	5	400	<.1	0	80	4.1	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LAUDERDALE COUNTY--Continued

355251089350500 - LD:S-2

DATE OCT 25...	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE	HARD- NESS	HARD- NESS, NONCAR-	CALCIUM	MAGNE-	SODIUM,	POTAS-
		(UMHOS)	(UNITS)	(DEG C)	(MG/L AS CACO3)	BONATE	DIS- SOLVED	SIUM, DIS- SOLVED	DIS- SOLVED	SIUM, DIS- SOLVED
		(MG/L AS CA)	(MG/L AS MG)	(MG/L AS NA)	(MG/L AS K)					

SHELBY COUNTY

350059089575300 - SH:K-124

DATE NOV 06...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
	1430	43	130	6.5	20.0	2	<1	<1	33	0	8.1	
DATE NOV 06...	TIME	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
	3.1	9.1	1.1	36	2.6	6.6	.0	22	76	.14	.53	
DATE NOV 06...	TIME	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	PHENOLS (UG/L)	
		.010	2	0	1400	0	380	.1	19	0	10	
DATE NOV 06...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
	1430	<.10	<.10	<.01	.10	<.01	<.01	.01	<.01	<.01	<.01	
DATE NOV 06...	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
		<.01	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350107089574700 - SH:K-123

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 06...	1030	37	1900	6.8	19.0	10	K1	K1	530	0	120
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
NOV 06...	55	180	55	970	19	130	1.1	13	1190	.01	73
DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	PHENOLS (UG/L)	TANNIN AND LIGNIN (MG/L)
NOV 06...	.010	6	0	23000	0	7900	.2	11	0	6	.90
DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
NOV 06...	1030	<.10	<.10	<.01	.30	<.01	<.01	<.01	<.01	<.01	<.01
DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 06...	.02	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00	.00

350114090071701 - SH:J-146 MLGW #404

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
SEP 23...	1140	170	6.1	17.5	1	63	14	6.7	7.8	.7
DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
SEP 23...	71	2.3	3.4	.1	13	95	91	<.01	.01	
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
SEP 23...	<.010	<.010	100	1	<1	1	340	2	<10	
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	
SEP 23...	.1	1	<1	<1	20	.0	<1	.00	<10	

K--Results based on colony count outside acceptable range (non-ideal colony count).

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350218089511701 - SH:L-36

DATE	TIME	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)
SEP 24...	0930	6.3	18.5	<1	30	8.3	2.3	3.5	.2	36
DATE SEP 24...		SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
		3.5	1.6	<.1	9.1	44	50	<.01	<.01	.15
DATE SEP 24...		PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
		<.010	<.010	<50	1	2	1	170	1	<10
DATE SEP 24...		MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
		.3	1	<1	<1	10	.4	<1	.00	<.10

QUALITY OF GROUND WATER

465

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350410090023600 - SH:J-153

DATE NOV 05...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)		
	1330	33	1500	6.4	22.0	6	<1	<1	330	0		
DATE NOV 05...	78	33	170	4.8	390	6.5	250	.1	22	928		
DATE NOV 05...		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)		
		863	.00	3.6	.020	800	14	7	0	60000		
DATE NOV 05...		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)		
	1330	<.10	<.10	<.01	.50	<.01	<.01	<.01	<.01	<.01		
DATE NOV 05...	<.01	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00		
		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350412090030200 - SH:J-152

DATE NOV 05...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)		
	1530	29	1700	6.7	26.0	15	<1	<1	560	0		
DATE NOV 05...		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
	110	70	160	17	590	8.3	270	.2	26	1110		
DATE NOV 05...		SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)		
	1040	.03	19	.010	900	5	3	0	20000			
DATE NOV 05...		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)		
	3	4300	.1	20	1	0	50	27	3			
DATE NOV 05...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
	1530	<.10	<.10	<.01	7.2	<.01	<.01	<.01	.01	<.01	.01	
DATE NOV 05...		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
	.01	.01	<.01	<.01	<.01	<.01	<.01	.00	.00	.00	.00	

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350446090013500 - SH:J-154 MLGW #157

DATE SEP	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
23...	1415	160	6.1	17.5	1	53	12	5.5	8.1	.9
DATE SEP		ALKA- LINITY LAB (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
23...	63		2.4	3.3	<.1	12	83	83	<.01	<.01
DATE SEP		PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
23...	<.010	<.010		100	1	<1	1	670	3	20
DATE SEP		MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
23...	<.1	2	<1	<1	10	.1	<1	.00	<.10	

350518089554400 - SH:K-73 MLGW #85

DATE SEP	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
24...	1330	205	6.3	17.5	<1	65	15	6.7	13	.7
DATE SEP		ALKA- LINITY LAB (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)
24...	65	17	8.1	<.1	11	117	112	<.01	<.01	.17
DATE SEP		PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
24...	<.010	<.010		100	1	2	1	930	1	180
DATE SEP		MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
24...	.1	3	<1	<1	10	.0	<1	.00	.50	

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350540090061700 - SH:J-84 CARGILL, INC., MEMPHIS, TENN

		SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DATE SEP 22...	1230	200	6.0	18.5	1	75	18	7.2	7.7	.7
	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
DATE SEP 22...	87	2.8	3.1	.1	9.3	103	102	.03	.15	.11
	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DATE SEP 22...	.14	.010	<.010	100	2	<1	1	780	3	<10
	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	
DATE SEP 22...	.6	2	<1	<1	30	.0	<1	.00	.40	

350807090010201 - SH:O-234 MEMPHIS

DATE MAR 06...	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
	1130	550	6.1	20.5	<5	220	0	46	26	33
DATE MAR 06...	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
	.6	180	99	15	.2	26	384	354	0	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

350917090012000 - SH:O-231 MLGW #10B

DATE SEP 22...	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
	1345	150	6.0	18.0	<1	52	12	5.4	7.8	.6
		ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
DATE SEP 22...	64		1.6	2.6	<.1	14	93	83	<.01	<.01
		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DATE SEP 22...		<.010	<.010	100	1	<1	1	760	8	20
		MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)
DATE SEP 22...		.1	2	<1	<1	10	.0	<1	.00	<.10

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351058090005000 - SH:O-230

DATE NOV 05...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
	1100	30	5000	6.8	24.0	180	<1	<1	650	0	
		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	
DATE NOV 05...	120	84	400	220	1900	11	540	.4	37		
		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (UG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
DATE NOV 05...	2580	.07	290	.250	3000	0	19	0	12000		
		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	
DATE NOV 05...	3	380	<.1	10	0	0	20	140	2		
		NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
DATE NOV 05...	1100	<.10	<.10	<.01	1.1	<.01	<.01	<.01	.02	<.01	.06
		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOX IDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX - APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
DATE NOV 05...	<.01	.05	<.01	<.01	<.01	<.01	<.10	.00	.00	.00	

QUALITY OF GROUND WATER

471

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351103089585300 - SH:P-122

DATE NOV 04...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER AS CAC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
DATE NOV 04...	1400	19	850	6.8	20.0	3	<1	K9	270	0
DATE NOV 04...	62	28	66	4.9	303	100	45	.2	30	540
DATE NOV 04...	528	.00	4.0	.250	80	3	8	0	5600	
DATE NOV 04...	3	4000	.2	1	0	0	0	13	1	
DATE NOV 04...	1400	<.10	<.10	<.01	.50	<.01	<.01	<.01	<.01	<.01
DATE NOV 04...	<.01	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351106089581500 - SH:P-127

DATE NOV 03...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
	1600	25	1000	6.8	19.5	10	<1	<1	270	0	
DATE NOV 03...		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	70		24	53	49	410	29	73	.3	26	609
DATE NOV 03...		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
		581	.01	9.5	.020	400	5	3	4	7900	
DATE NOV 03...		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHENOLS (UG/L)	TANNIN AND LIGNIN (MG/L)	
		5	2600	<.1	4	1	0	0	7	2.0	
DATE NOV 03...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
	1600	<.10	<.10	<.01	1.7	<.01	<.01	<.01	<.01	<.01	.15
DATE NOV 03...		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- EPOXIDE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
		<.01	.11	<.01	.16	<.01	<.10	.00	.14	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351107089581900 - SH:P-126

DATE NOV	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	
03...	1400	29	1900	6.8	20.0	70	>100000	37	360	0	
DATE NOV	TIME	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
03...	100	27	96	110	890	3.1	120	.1	33	1080	
DATE NOV	TIME	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
03...	1040	.16	61	.020	300	11	10	4	18000		
DATE NOV	TIME	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHENOLS (UG/L)	TANNIN AND LIGNIN (MG/L)	
03...	3	660	.3	190	1	0	30	8	2.0		
DATE NOV	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
03...	1400	<.10	<.10	<.01	5.6	<.01	<.01	<.01	<.01	<.01	<.01
DATE NOV	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX - APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
03...	<.01	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351109089512901 - SH:Q-40

DATE SEP	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
24...	1115	140	6.1	17.0	<1	41	10	3.9	7.6	.6	
DATE SEP	TIME	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
24...	42		5.5	5.1	<.1	10	71	69	<.01	<.01	<.10
DATE SEP	TIME	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
24...		.010	<.010	100	1	2	2	1400	3	20	
DATE SEP	TIME	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	
24...		.1	1	<1	<1	10	.2	<1	.00	.30	

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351112089585100 - SH:P-121

DATE NOV 05...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)		
	0900	24	2500	6.2	25.0	35	<1	<1	480	0		
DATE NOV 05...		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUAL AT 180 DEG. C DIS- SOLVED (MG/L)	
	98	56	250	41	670	2.7	390	.1	37	1440		
DATE NOV 05...		SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (UG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)		
	1370		.05	45	.030	2000	0	6	0	80000		
DATE NOV 05...		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)		
		0	14000	<.1	9	0	0	30	64	6		
DATE NOV 05...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
	0900	<.10	<.10	<.01	.30	<.01	<.01	<.01	<.01	<.01	<.01	
DATE NOV 05...		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
		<.01	<.01	<.01	<.01	<.01	<.01	<.10	.00	.00	.00	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351115089583300 - SH:P-123

DATE NOV 04...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
	1030	29	510	6.3	20.0	2	<1	<1	150	0	
DATE NOV 04...	TIME	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
	30	17	39	2.3	208	42	24	.3	31	323	
DATE NOV 04...	TIME	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
		.15	.16	.84	.020	90	4	30	0	15000	
DATE NOV 04...	TIME	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	
		3	2300	<.1	3	0	0	3	22	2	
DATE NOV 04...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
	1030	<.10	<.10	<.01	1.5	<.01	<.01	.27	.09	<.01	.25
DATE NOV 04...	TIME	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
	.12	.04	<.01	<.01	.24	<.01	<.10	.00	.00	.00	.00

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

351703089575301 - SH:U-20, W.R. GRACE

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
SEP 22...	1000	290	6.3	18.0	2	130	27	14	8.5	2.0
DATE SEP 22...	140	ALKA- LINITY LAB (MG/L AS CACO3) SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- TOTAL (MG/L AS N)	
DATE SEP 22...	<.010	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DATE SEP 22...	.1	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SHELBY COUNTY--Continued

352006089570701 - SH:U-40

DATE	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)
JUL 24...	1100	60	375	6.7	21.0	0	200	45	22	10	2.4	200
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (MG/L AS BA)	CADMIUM, DIS- SOLVED (MG/L AS CD)	CHRO- MIUM, DIS- SOLVED (MG/L AS CR)	COPPER, DIS- SOLVED (MG/L AS CU)
JUL 24...	12	23	.2	12	236	.06	.86	.020	300	6	10	15
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	
JUL 24...	20	2	180	<.1	23	0	0	1300	0	.00	.00	
DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
JUL 24...	1100	.20	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01	
DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
JUL 24...	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.01	<.01	<.01	
DATE	RDX TOTAL (UG/L)	TNT, TOTAL (WATER UG/L)	2-AMINO 4,6-DNT, TOTAL (UG/L)	4-AMINO 2,6-DNT, TOTAL (UG/L)								
JUL 24...	.00	0.00	0.0	0.0								

352018089565401 - SH:U-39

DATE JUL 09...	TIME	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)		
	1200	53	550	6.5	17.0	3	<1	K2	270	59		
DATE JUL 09...		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	
	30	13	2.0	290	13	9.1	.2	16	316	317		
DATE JUL 09...		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)		
		.01	.57	<.010	200	<1	3	3	160	3		
DATE JUL 09...		MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)		
		80	<.1	6	2	0	4	0	.00	.00		
DATE JUL 09...	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	
	1200	<.10	<.10	<.01	.10	<.01	<.01	<.01	<.01	<.01	1.0	
DATE JUL 09...		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOX IDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
		<.01	<.01	<.01	<.01	1.0	<.01	1.0	<.01	<.01	<.01	<.10
DATE JUL 09...		RDX TOTAL (UG/L)	TNT, TOTAL (WATER UG/L)	2-AMINO 4,6-DNT, TOTAL (UG/L)	4-AMINO 2,6-DNT, TOTAL (UG/L)							
		.00	0.00	0.0	0.0							

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

WILLIAMSON COUNTY

355642087085801 - WM:K-5 FAIRVIEW, TN (FV-13)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAR 19...	0930	1100	7.5	14.5	<5	550	130	53	33	2.0
DATE	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)
MAR 19...	180	490	6.5	.7	8.8	946	836	100	30	130
DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
MAR 19...	2	10	0	<10	310	120	2	30	20	
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
MAR 19...	.4	4	0	0	2900	<4	<.01	0	.50	

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CaCO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
350018090011901	SH:J-73	81-09-30	0930	124MMPS	95	6.1	17.5	44	52
350021089505201	SH:L-66	81-09-25	1330	112TRRC	305	6.2	17.5	76	202
350024089571501	SH:K-129	81-09-25	1130	112TRRC	215	6.2	18.0	78	128
350222090013401	SH:J-156	81-09-17	1230	112TRRC	260	6.4	20.0	100	170
350241089414301	SH:M-31	81-09-29	0900	124MMPS	60	5.9	17.0	22	42
350243089464101	SH:L-82	81-09-29	1110	124MMPS	120	6.1	17.0	62	69
350422089432901	SH:M-32	81-09-29	1015	124MMPS	108	5.9	17.0	24	60
350509089555301	SH:K-72	81-09-30	1130	124MMPS	122	6.2	17.0	51	76
350513090071001	SH:J-149	81-09-16	1430	111ALVM	640	7.1	18.0	380	399
350615089592401	SH:K-21	81-09-30	1335	124MMPS	112	6.1	18.5	52	73
350742089460701	SH:Q-77	81-09-30	1030	124MMPS	75	6.2	17.5	28	44
350757089502701	SH:Q-55	81-09-28	1430	112TRRC	280	6.3	20.5	260	163
350834090031601	SH:O-58	81-09-29	1535	124MMPS	158	6.1	18.0	82	97
350921089434701	SH:R-16	81-09-30	0835	124MMPS	52	6.4	16.5	18	36
350937089375701	SH:P-24	81-09-30	1535	124FRPL	178	7.2	23.0	100	120
351224089521501	SH:Q-60	81-09-29	1315	124MMPS	105	6.3	17.5	48	67
351400089482801	SH:Q-78	81-09-30	1315	124MMPS	120	5.9	17.0	100	73
352036089534501	SH:U-41	81-09-29	1030	124MMPS	340	6.5	17.0	190	194

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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