Water Resources Data for Tennessee

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-80-1

WATER YEAR 1980

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

Water Resources Data for Tennessee

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TN-80-1

WATER YEAR 1980

Prepared in cooperation with the Tennessee Department of Conservation, Division of Water Resources; the Tennessee Valley Authority; and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, SECRETARY

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD 81/014	2.	3. Recipient's Accession No.

4. Title and Subtitle

Water Resources Data for Tennessee, Water Year 1980

5. Report Date October 1981

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WRD-TN-80-1

9. Performing Organization Name and Address

U.S. Geological Survey, Water Resources Division
A-413 Federal Building - U.S. Courthouse
Nashville, Tennessee 37203

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.

(C)

(G)

12. Sponsoring Organization Name and Address

U.S. Geological Survey, Water Resources Division
A-413 Federal Building - U.S. Courthouse
Nashville, Tennessee 37203

13. Type of Report & Period Covered Annual - Oct. 1, 1979 to Sept. 30, 1980

14.

15. Supplementary Notes 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.

16. Abstract (Limit: 200 words)

Water resources data for the 1980 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 108 gaging stations; stage only records for one lake gaging station; elevation and contents for 27 lakes and reservoirs; water quality for 82 stations and 21 wells; and water levels for 26 observation wells. Also included are 127 crest-stage partial-record stations, 73 low-flow partial-record stations, and 80 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.

17. Document Analysis a. Descriptors

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

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
No restriction on distribution This report may be purchased from: National Technical Information Service, Springfield, VA 22161	UNCLASSIFIED	513
	20. Security Class (This Page) UNCLASSIFIED	22. Price

CONTENTS

ILLUSTRATIONS

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(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.)

GROUND-WATER LEVELS

QUALITY OF GROUND WATER

WATER RESOURCES DATA FOR TENNESSEE, 1980

INTRODUCTION

Water resources data for the 1980 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 108 gaging stations; stage only at one gaging station; stage and contents at 27 lakes and reservoirs; water quality for 82 stations and 21 wells; and water levels at 26 observation wells. Also included are data for 127 crest-stage partial-record stations, 73 low-flow partial-record stations, and 80 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 analyses. 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 Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

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 80-1." 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 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, W. B. Sansom, Commissioner, through Lewis Evans, Director of Bureau of Highways and Clellon L. Loveall, Engineer of Structures and Richard L. Iddins, Jr., Roadway Design Engineer.

City of Lawrenceburg, Ivan Johnston, Mayor.

City of Memphis, Wyeth Chandler, Mayor.

City of Murfreesboro, James Clark, Superintendent, 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 6 water-quality stations, by the Tennessee Valley Authority for 33 gaging stations, 4 thermograph stations, and water-quality analyses at 25 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 organizations also aided in collecting records for publication in this report:

Bowaters Southern Paper Corporation
Cities Service Company (Copperhill, Tennessee Operations)

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENT

Tennessee district personnel who contributed significantly to the collection and preparation of data in this report were: V. J. May, Chief, Hydrologic Data Section; Robert D. Livesay, Chief, Knoxville Subdistrict; Braxtel L. Neely, Chief, Memphis Subdistrict; and Charles R. Burchett, Chief, Nashville Subdistrict.

SUMMARY OF HYDROLOGIC CONDITIONS

Floods

No record breaking floods are known to have occurred in Tennessee during the 1980 water year owing to the near-normal rainfall throughout most of the State. Rainfall during the water year was 93 percent of normal at Knoxville, 83 percent at McMinnville, 108 percent at Nashville, and 120 percent at Memphis. Statewide the largest rainfall excess was experienced in March. The annual maximum flood having the largest recurrence interval, about 18 years, occurred on the Hatchie River at Bolivar. Twelve gaging stations had annual maximums with recurrence intervals of less than 2 years. The other 37 gaging stations for which flood frequency information has been determined experienced annual maximums with recurrence intervals between about 2 and 15 years.

Annual maximum discharges at 68 of the 92 continuous-record gaging stations in Tennessee occurred in March. Ten annual maximums occurred in November and six in May. Forty-eight of the 65 gaging stations for which peaks above a pre-selected base discharge are determined, experienced less than 5 peaks this year. Three or 4 peaks per year is considered normal.

Mean flow

Mean annual streamflow for the 1980 water year was close to the long-term average at most gaging stations. Flows in the Cumberland, upper Tennessee, and Mississippi River basins were near normal. Above normal rainfall in central Tennessee caused flow in the lower Tennessee River basin to exceed long-term averages although no record flows were observed. Figure 2 compares monthly runoff for the base period 1941-70 to runoff for the 1979 water year at three representative gages.

Flows in the upper reaches of the Cumberland River basin ranged from 119 percent of the long-term average at West Fork Obey River near Alpine to 92 percent at Cumberland River near Stearns, Ky. In the lower reaches of the Cumberland River basin, runoff ranged from 91 percent of average at West Fork Stones River at Manson Pike to 154 percent at the Harpeth River near Kingston Springs. The mean annual flow of 1522 cfs at Kingston Springs does not exceed the record 2000 cfs in 1973 (period of record, 1925-80).

In the Tennessee River basin upstream of Chattanooga, mean annual flow ranged from 82 percent at Little River above Townsend to 124 percent at Hiwasee River near MacFarland. Overall, rainfall was slightly deficient in this part of the State.

Due to above normal rainfall in central Tennessee, mean annual flow was above average at all stations in the Tennessee River basin downstream from Chattanooga, ranging from 103 percent at Elk River near Pelham to 158 percent at Buffalo River near Flatwoods. Other streams in the area with high mean annual flow are Shoal Creek at Iron City with 155 percent of normal flow and Duck River at Columbia with 133 percent of average.

In the Mississippi River basin in Tennessee, mean annual flow was near normal at most stations. Runoff ranged from 137 percent of the long term average at Hatchie River at Bolivar to 97 percent at Obion River at Obion.

Low flow

Base flows were higher than normal during the drier months in most of the State. Near normal or above normal rainfall occurred through the central and western parts of Tennessee from March through the end of the year, causing base flows to be high.

In eastern Tennessee, rainfall was 93 percent of normal for the year causing below normal low flow conditions to exist in some stream basins. Most streams in the eastern part of the State had average recurrence intervals of annual minimum flows of from 2 to 5 years. The record low for the period of record (1964-80), 28 ft^3/s, occurred at Little River above Townsend on Sept. 17, 1980.

Suspended sediment

Suspended-sediment transport data in Tennessee have been collected on a statewide basis for about two years. In general the data show that for discharges less than about 1,000 ft^3/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 ft^3/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 gaging stations on the Tennessee and Cumberland Rivers, observed dissolved-solids concentrations did not exceed 130 mg/L. Both streams contain calcium bicarbonate type water with pH ranging from about 6.0 to 8.0 units and 7.0 to 8.0 units, respectively. Trace constituent concentrations were low in samples collected; none exceeded the public-supply limits 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. A dissolved-oxygen monitor is operated on the Cumberland River at Old Hickory Dam to aid in the evaluation of water quality. The minimum dissolved-oxygen concentration observed during the year was 3.0 mg/L in September. The highest concentration recorded was 12.7 mg/L in April.

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-qaulity criteria. 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 severely by coal-mining activities, pH values less than 4.0 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 (figure 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 1980 water year, ground-water levels throughout the State were slightly above the normal seasonal levels. In November, Tennessee received twice the normal amount of precipitation, causing ground-water levels to rise, setting new monthly records in Dickson and Putnam Counties. Precipitation in January was below normal for all parts of the State except the extreme east. The January deficiency was followed by a 70 percent precipitation deficiency in February resulting in a sharp decrease in water levels statewide (fig. 3). Water levels for March and April were above normal due to extremely heavy rainfall in March and normal rainfall in April. During the peak of the growing season June, July, and August, Tennessee experienced a rainfall deficiency which brought the water levels down to normal seasonal levels. By the end of the water year, water levels in most parts of the State were lower than at the beginning indicating an overall decrease in the relative volume of ground water in storage. In most other network observation wells (fig. 5), the highest water levels occurred in March and April and the lowest water levels occurred in August or September.

Ground-water levels in the network of observation wells in Shelby County are strongly affected by pumping large volumes of water in Memphis and surrounding areas. Hence, the fluctuations throughout the year reflect changes in the rates of pumpage and location of the principal pumping centers. As pumping rates increase and new pumping centers are developed to keep pace with growing water demands, water levels in both confined and unconfined aquifers are prone to decline. Figure 4 shows that the Memphis index well (Sh:Q-1) has been steadily declining since 1969 and reached an all-time low in September 1980. 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 21 wells, 17 of which are in the Memphis area. Seven of the Memphis wells were sampled as part of a continuing program designed to monitor 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 were low; dissolved-solids concentrations ranged from 57 to 108 mg/L. Trace constituents did not exceed public-supply limits in water from any well, but dissolved iron concentrations exceeded the 300 µg/L recommended limit in 6 wells. Dissolved manganese exceeded the 50 µg/L recommended limit in one well. No detectable amounts of pesticides were determined in water from the seven wells.

The other ten wells in the Memphis area are newly 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 dump sites in Memphis. The quality of water from these wells varied widely. Six of the wells contained detectable concentrations of pesticides or PCB's (polychlorinated biphenyls). Concentrations of trace constituents such as arsenic, barium, and nickel exceeded commonly-accepted criteria in water from one or more wells. The maximum total recoverable iron concentration was 37,000 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 are representative of leachate from the dump sites.

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 ± 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 ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

Benthic Invertebrates: 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-µm 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/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (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 anthropogenic matter 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: 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, weighed, 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 aritficial structure, or a uniform cross section over a long reach of the channel.

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

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

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

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

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

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

Dissolved.--That material in a representative water sample which passes through a 0.45 µm 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 ni 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 (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the 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 emersed 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.--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 µm 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.--The total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm 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 hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexageria
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.--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.--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.--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 indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in 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.

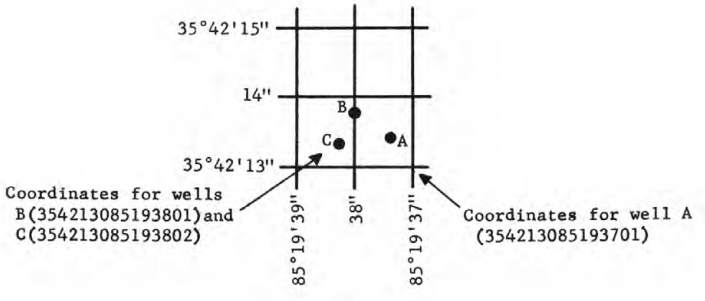

Figure 1.--System for numbering wells (latitude and longitude)

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 time 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 being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

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

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

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

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

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

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

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

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

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

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

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

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

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

Accuracy of field data and computed results

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

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

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

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

Publications

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

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

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

Other data available

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

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

Records of discharge collected by agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected during water year 1978 at 56 sites in Tennessee, 12 by the Tennessee Valley Authority, 14 by the Nashville District, Corps of Engineers, and 30 by the Memphis District, Corps of Engineers, U.S. Army. The Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, National Center, Reston, Va. 22092, maintains an index of such sites. 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 concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

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

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

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

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

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

Thirty-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.

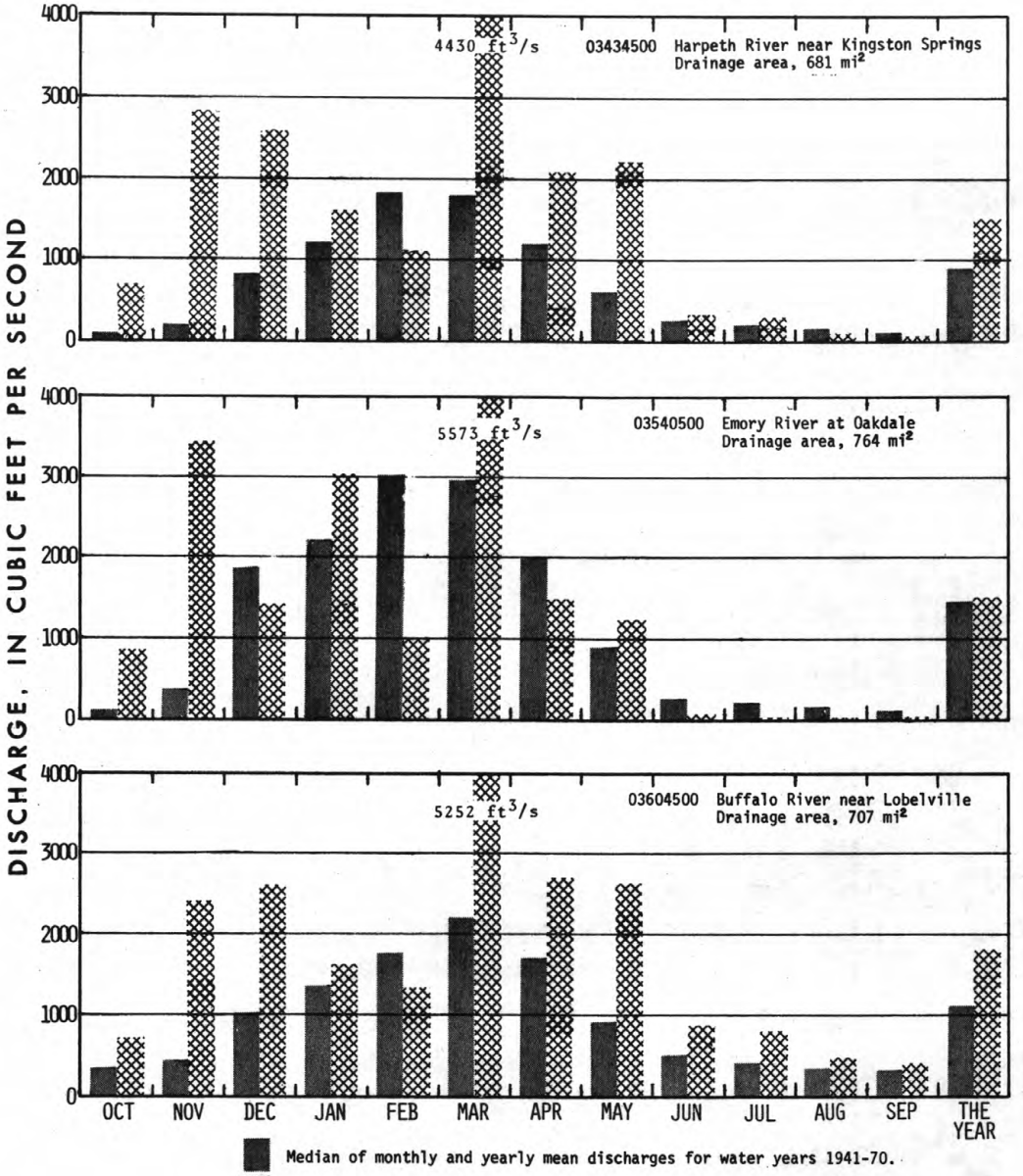

Figure 2.-- Runoff during 1980 water year compared with median runoff for period 1941-70 for three representative gaging stations.

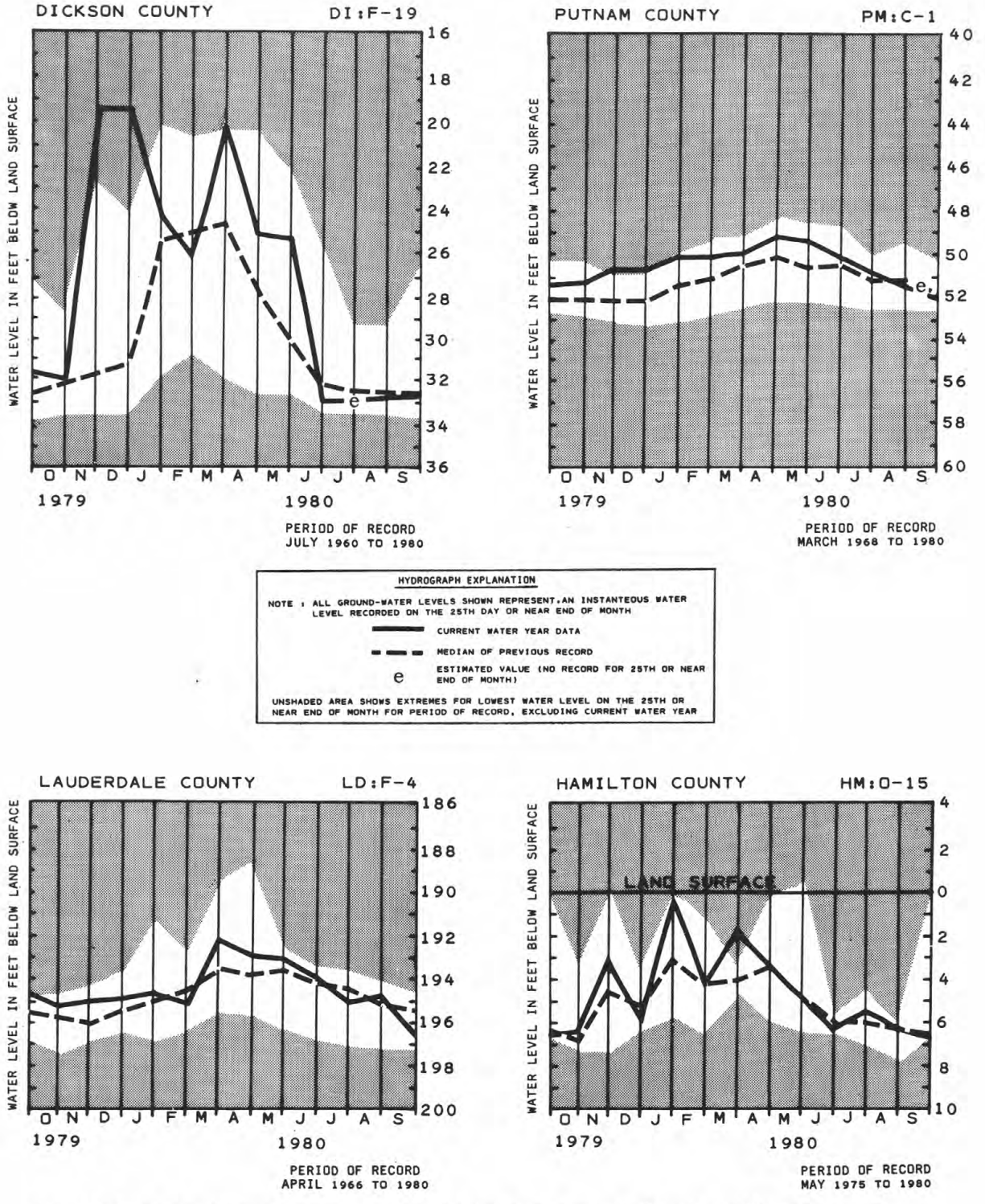

Figure 3.--Ground-water levels on the 25th of each month for the 1980 water year compared to the maximum, minimum, and median water levels on the 25th of each month for the previous years of record.

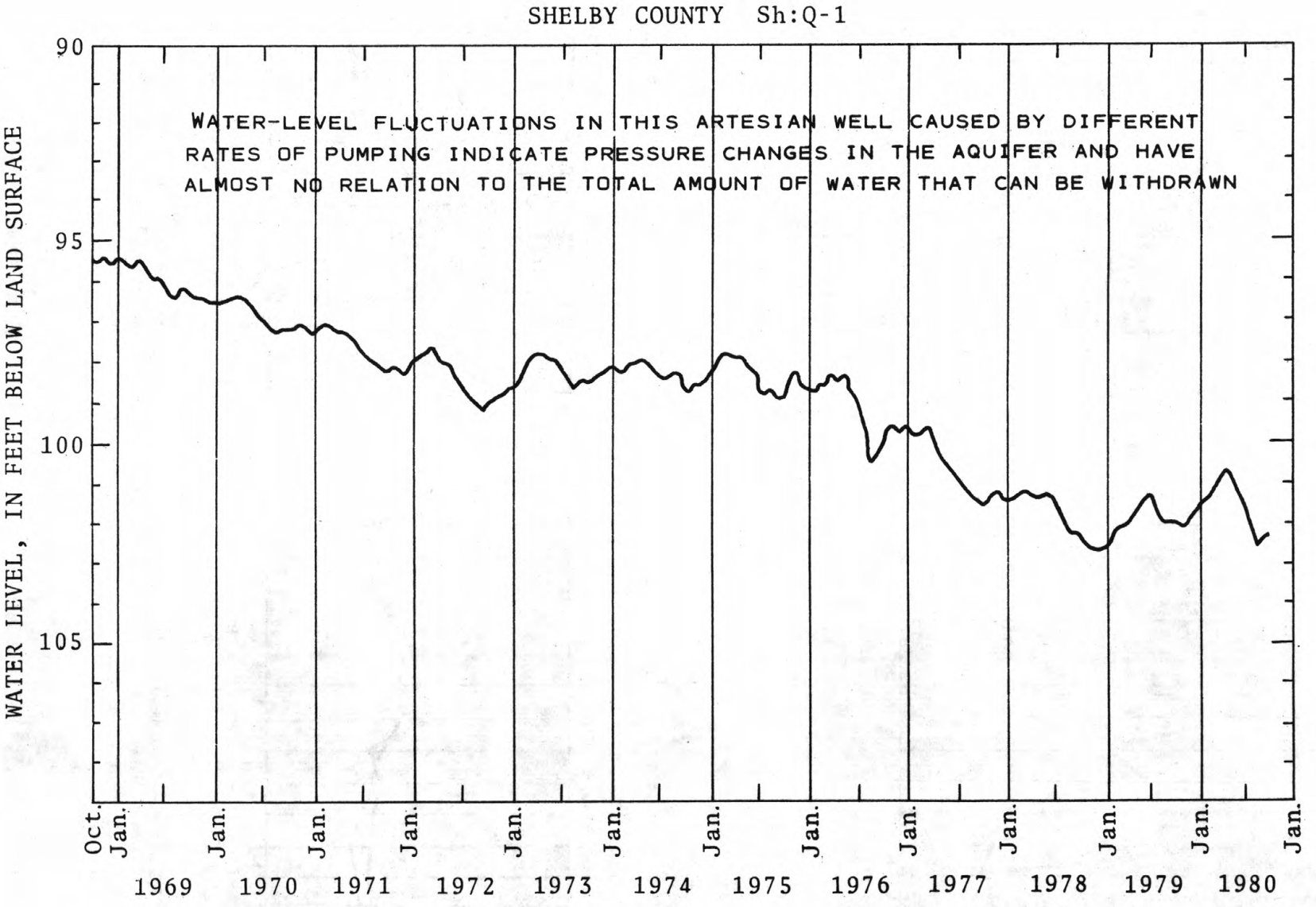

Figure 4.-- Hydrograph of well Sh:Q-1 showing a long term decline in the water level.

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 mi^2 (11.19 km^2).

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 1979 TO SEPTEMBER 1980

DATE	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CACO3)
OCT							
07...	6.8	9.0	22	370	97	32	41
20...	7.2	14.0	7.0	390	96	35	40
NOV							
04...	7.2	5.0	8.0	160	38	16	28
18...	6.4	5.0	5.0	260	67	23	34
DEC							
08...	7.3	--	32	340	85	30	36
JAN							
19...	6.2	5.0	4.0	130	30	13	21
FEB							
19...	6.8	1.0	6.0	190	45	18	27
MAR							
30...	5.8	9.0	7.0	190	46	18	31
APR							
26...	7.3	12.0	26	260	66	24	39
MAY							
27...	7.1	15.0	8.0	220	58	19	34
JUN							
23...	6.7	18.0	35	480	122	43	47
JUL							
12...	7.5	21.0	9.0	550	140	49	37
AUG							
16...	7.4	22.0	16	630	161	56	25
SEP							
23...	6.6	22.0	--	670	170	59	19

03407804 INDIAN FORK ABOVE BRAYTOWN, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	400	16	748	0	0	0	4	4	1	1
20...	400	8	780	0	0	0	4	3	1	<1
NOV										
04...	185	8	356	0	0	<1	4	4	2	<1
18...	225	14	542	0	<1	0	4	3	1	1
DEC										
08...	93	16	700	0	<1	<1	5	4	2	<1
JAN										
19...	160	8	248	0	0	--	5	3	2	1
FEB										
19...	220	12	368	0	0	<1	5	5	0	0
MAR										
30...	210	16	396	1000	0	<1	5	4	--	3
APR										
26...	280	36	604	1400	0	<1	5	4	3	0
MAY										
27...	240	16	520	0	0	<1	4	3	2	2
JUN										
23...	810	28	1160	0	0	0	6	3	0	2
JUL										
12...	870	32	1280	0	<1	<1	7	5	4	2
AUG										
16...	900	32	1540	0	0	<1	6	5	0	2
SEP										
23...	1000	1	1840	0	<1	<1	7	7	3	2

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)
OCT										
07...	6700	0	0	0	700	700	10	10	--	20
20...	3100	100	0	0	800	800	11	10	0	0
NOV										
04...	2500	200	0	0	--	500	11	9	0	0
18...	5200	0	0	0	550	500	11	10	0	0
DEC										
08...	6200	0	0	0	750	750	16	13	0	0
JAN										
19...	1700	200	0	0	300	300	16	10	--	20
FEB										
19...	3600	900	0	0	450	400	11	11	--	20
MAR										
30...	4100	2200	0	0	400	400	11	9	--	50
APR										
26...	8700	300	0	0	550	550	14	9	20	40
MAY										
27...	4300	0	0	0	400	400	8	8	--	280
JUN										
23...	11600	0	0	1	900	900	17	11	30	20
JUL										
12...	8900	0	0	1	1200	1100	19	14	20	30
AUG										
16...	4000	0	1	1	1450	1400	19	20	20	20
SEP										
23...	600	0	1	1	1950	1900	24	24	20	30

Zeros for trace constituents represent values below analytical detection limits.

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 mi^2 (3.57 km^2).

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 1979 TO SEPTEMBER 1980

DATE	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CACO3)
OCT							
07...	7.0	10.0	.00	260	60	27	40
20...	6.9	15.0	.00	270	61	29	42
NOV							
04...	7.4	6.0	6.0	140	31	14	34
18...	6.8	5.0	.00	180	43	18	40
DEC							
08...	7.3	--	1.0	200	45	20	35
JAN							
19...	6.6	4.0	7.0	120	27	13	24
FEB							
19...	7.2	2.0	1.0	130	28	15	12
MAR							
30...	7.1	11.0	1.0	130	27	14	32
APR							
26...	7.5	13.0	.00	180	40	21	41
MAY							
27...	7.3	16.0	24	160	38	16	41
JUN							
23...	6.7	19.0	.00	230	49	26	40
JUL							
12...	7.7	22.0	.00	230	51	26	44
AUG							
16...	7.8	24.0	8.0	260	56	28	49
SEP							
23...	7.6	23.0	6.0	240	51	28	52

03407874 GREEN BRANCH NEAR HEMBREE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	130	4	456	0	0	<1	0	0	--	4
20...	195	4	464	0	0	0	0	0	<1	<1
NOV										
04...	115	10	286	0	0	0	1	1	1	2
18...	155	4	328	0	0	0	0	0	<1	<1
DEC										
08...	130	10	302	0	0	<1	0	0	3	3
JAN										
19...	120	18	226	0	0	--	2	2	1	0
FEB										
19...	65	20	248	0	0	<1	5	4	0	2
MAR										
30...	99	12	268	0	0	<1	4	4	0	0
APR										
26...	170	12	412	0	<1	<1	5	3	0	2
MAY										
27...	120	184	352	5000	<1	1	3	3	4	3
JUN										
23...	220	2	434	0	0	<1	5	3	0	1
JUL										
12...	190	36	448	0	0	<1	6	4	0	0
AUG										
16...	220	36	480	1000	0	<1	5	5	1	6
SEP										
23...	400	26	502	0	0	<1	6	5	0	1

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)
OCT										
07...	400	100	0	0	150	100	2	3	0	0
20...	200	100	0	0	150	150	2	2	0	0
NOV										
04...	600	0	0	0	0	0	4	3	20	20
18...	200	0	0	0	150	100	2	3	0	0
DEC										
08...	100	100	0	0	150	150	2	2	0	0
JAN										
19...	500	0	0	0	200	200	5	6	--	90
FEB										
19...	300	100	0	0	100	100	3	3	--	20
MAR										
30...	500	0	0	0	100	100	2	3	--	20
APR										
26...	100	0	0	0	100	100	1	2	0	0
MAY										
27...	2700	0	1	0	200	150	11	3	--	190
JUN										
23...	100	100	0	0	--	200	2	2	--	20
JUL										
12...	200	0	0	0	250	250	1	1	0	0
AUG										
16...	700	0	0	0	300	250	3	3	--	20
SEP										
23...	400	0	0	0	200	150	2	2	0	0

Zeros for trace constituents represent values below analytical detection limits.

03407875 BILLS BRANCH NEAR HEMBREE, TN

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

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

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 1,530 ft (466 m), from topographic map. Prior to Oct. 18, 1976, control was a 90 V-notch weir 20 ft (6 m) upstream at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--5 years, 1.91 ft^3/s (0.054 m^3/s), 38.71 in/yr (983 mm/yr).

REMARKS.--Records good except those for August and September which are poor.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 147 ft^3/s (4.16 m^3/s) Mar. 21, gage height, 2.76 ft (0.841 m); minimum, no flow Sept. 18.

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	.83	7.6	1.0	1.4	.72	.65	1.6	.49	.29	.03	.01	.02
2	.62	24	.80	1.1	.80	.59	1.2	.45	.22	.03	.01	.03
3	.49	4.9	.67	.97	.75	.70	1.0	.43	.17	.08	.13	.02
4	.51	3.3	.66	4.1	.66	.66	.91	.41	.15	.05	.04	.02
5	.42	1.7	.66	3.5	.70	7.2	.71	.37	.11	.23	.05	.04
6	.34	1.2	.67	2.5	.70	5.0	.63	.37	.10	1.0	.03	.03
7	.29	.96	.59	7.3	.63	5.1	.61	.37	.09	.07	.03	.02
8	.24	.83	.49	5.1	.63	9.4	1.9	.34	.08	.04	.03	.01
9	.37	7.6	.43	3.3	.63	7.0	1.8	.29	.07	.04	.03	.01
10	1.1	22	.43	2.5	.58	3.5	1.5	.29	.07	.04	.03	.18
11	.49	4.9	.43	6.0	.58	2.5	1.2	.29	.06	.03	.03	.10
12	.42	2.8	.43	4.9	.58	1.9	3.1	.29	.06	.03	.03	.05
13	.47	2.0	2.5	3.5	.62	1.6	9.9	.24	.05	.03	.03	.03
14	.34	1.3	1.8	5.4	.68	1.1	7.6	.24	.05	.03	.03	.03
15	.34	1.0	1.4	3.9	1.4	.92	3.5	.24	.05	.03	.10	.02
16	.29	.85	1.2	2.8	11	.80	2.4	.22	.04	.03	.23	.02
17	.29	.72	.90	2.4	6.4	19	1.7	1.6	.04	.02	.14	.01
18	.24	.63	.78	20	6.0	11	1.3	.84	.05	.01	.20	.00
19	.22	.57	.73	6.4	2.0	4.1	1.1	2.3	.04	.01	.24	.02
20	.24	.52	.65	3.5	1.7	21	.92	3.8	.04	.01	.16	.01
21	.24	.49	.58	2.6	1.5	25	.82	2.2	.03	.01	.09	.01
22	.29	.47	.56	7.0	1.5	4.9	.71	1.4	.03	.02	.06	.01
23	1.7	.92	1.4	6.7	1.3	2.9	.64	5.6	.03	.03	.04	.01
24	.65	12	14	3.7	1.1	5.1	.60	8.4	.06	.03	.03	.02
25	.54	13	8.2	2.8	.98	3.7	.55	3.7	.10	.03	.02	.10
26	.49	12	3.7	1.9	.87	2.9	.60	2.1	.04	.03	.01	.19
27	.44	4.1	2.8	1.4	.83	2.3	.74	1.1	.04	.03	.01	.08
28	1.4	2.8	2.0	1.1	.82	4.9	.58	.76	.03	.03	.01	.04
29	11	1.7	1.6	.92	.77	3.5	.56	.60	.03	.03	.01	.14
30	3.7	1.3	1.5	.85	---	2.8	.52	.50	.03	.02	.01	.05
31	2.1	---	1.3	.81	---	2.2	---	.38	---	.01	.01	---
TOTAL	31.10	138.16	54.86	120.35	47.43	163.92	50.90	40.61	2.25	2.11	1.88	1.32
MEAN	1.00	4.61	1.77	3.88	1.64	5.29	1.70	1.31	.075	.068	.061	.044
MAX	11	24	14	20	11	25	9.9	8.4	.29	1.0	.24	.19
MIN	.22	.47	.43	.81	.58	.59	.52	.22	.03	.01	.01	.00
CFSM	1.49	6.88	2.64	5.79	2.45	7.90	2.54	1.96	.11	.10	.09	.07
IN.	1.72	7.66	3.04	6.67	2.63	9.09	2.82	2.25	.12	.12	.10	.07

CAL YR 1979 TOTAL 935.16 MEAN 2.56 MAX 27 MIN .05 CFSM 3.82 IN 51.84
WTR YR 1980 TOTAL 654.89 MEAN 1.79 MAX 25 MIN .00 CFSM 2.67 IN 36.31

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

WATER-QUALITY RECORDS

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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 (MG/L AS CACO3)
OCT								
07...	.29	7.2	10.0	.00	64	12	8.5	22
20...	.24	7.2	15.0	.00	68	13	8.7	20
31...	2.4	--	13.0	--	--	--	--	--
NOV								
04...	2.5	7.2	6.0	2.0	48	8.4	6.6	13
18...	.66	6.0	5.5	.50	57	10	7.5	--
DEC								
08...	.47	6.7	--	1.0	58	11	7.6	17
JAN								
19...	6.4	6.4	4.0	3.0	46	7.9	6.5	4
23...	6.8	--	4.0	--	--	--	--	--
FEB								
19...	2.0	7.2	1.0	2.0	49	7.9	7.0	--
MAR								
30...	2.8	7.0	10.0	2.0	49	8.2	7.0	12
APR								
17...	2.0	--	7.0	--	--	--	--	--
26...	.61	7.3	13.0	.00	62	11	8.6	16
MAY								
27...	1.1	7.2	15.0	3.0	52	9.0	7.2	14
JUN								
23...	.03	6.0	19.0	2.0	67	12	9.0	22
JUL								
12...	.03	8.3	22.0	1.0	73	13	9.9	24
AUG								
16...	.23	7.6	22.0	2.0	84	15	11	22
SEP								
23...	.01	7.6	21.0	.00	70	13	9.2	30

03407875 BILLS BRANCH NEAR HEMBREE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	52	2	202	0	0	0	1	0	<1	1
20...	51	2	178	0	0	0	1	0	<1	<1
NOV										
04...	43	4	168	0	0	0	1	0	<1	<1
18...	52	6	162	0	0	0	0	0	<1	2
DEC										
08...	49	6	106	0	0	<1	0	0	<1	2
JAN										
19...	45	6	166	0	0	--	1	0	2	1
FEB										
19...	45	22	128	0	0	<1	0	0	0	2
MAR										
30...	49	10	178	0	0	<1	0	0	0	1
APR										
26...	48	4	188	0	0	<1	0	0	0	1
MAY										
27...	48	8	208	0	0	<1	0	0	1	4
JUN										
23...	52	18	194	0	0	<1	0	0	0	3
JUL										
12...	60	8	208	0	<1	0	0	0	2	0
AUG										
16...	74	4	272	0	0	<1	0	0	0	2
SEP										
23...	54	0	240	0	0	0	0	0	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)
OCT										
07...	0	0	0	0	0	0	0	1	0	0
20...	100	0	0	0	0	0	0	1	--	40
NOV										
04...	200	100	0	0	0	0	2	2	0	0
18...	100	0	0	0	0	0	0	1	0	0
DEC										
08...	100	0	0	0	0	0	0	1	0	0
JAN										
19...	200	0	0	0	0	0	3	2	0	0
FEB										
19...	200	0	0	0	0	0	1	1	0	0
MAR										
30...	400	0	0	0	0	0	2	2	0	0
APR										
26...	200	0	0	0	0	0	0	0	0	0
MAY										
27...	500	0	0	0	0	0	2	2	--	40
JUN										
23...	100	0	0	0	0	0	0	0	0	0
JUL										
12...	--	100	0	0	0	0	0	0	0	0
AUG										
16...	300	0	0	0	0	0	0	2	0	0
SEP										
23...	100	0	0	0	0	0	0	0	0	0

Zeros for trace constituents represent values below analytical detection limits.

03407876 SMOKY CREEK AT HEMBREE, TN

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

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

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,330 ft^3/s (94.3 m^3/s) Mar. 21, gage height, 9.07 ft (2.765 m); minimum, 0.02 ft^3/s (0.0006 m^3/s) Sept. 6-9, 18, 1980.

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	24	140	37	45	20	16	43	17	18	1.2	.12	.12
2	17	570	29	38	23	15	34	16	14	1.1	.09	.12
3	12	139	24	35	20	18	29	15	12	6.7	3.6	.09
4	13	75	22	81	17	17	28	14	11	7.3	2.1	.16
5	9.1	48	23	88	18	188	22	13	10	5.8	1.5	.25
6	7.3	35	23	69	18	130	20	13	9.4	31	2.4	.15
7	5.8	26	22	119	16	130	18	12	9.2	7.1	.78	.02
8	4.8	22	18	118	16	250	38	11	7.8	3.7	.51	.02
9	5.0	141	16	87	16	152	38	11	6.9	2.9	.32	.02
10	34	473	15	68	15	96	31	9.8	5.9	2.5	.15	1.9
11	12	157	15	131	15	65	27	9.8	4.6	2.2	3.6	.92
12	9.2	104	16	135	15	50	88	9.8	3.9	1.6	4.0	.27
13	11	76	60	101	16	44	215	9.8	3.9	1.2	1.1	.20
14	7.4	58	54	149	18	34	234	9.6	3.8	.85	.43	.19
15	6.2	49	43	111	34	27	104	7.9	2.9	.63	1.5	.12
16	5.6	44	38	85	219	25	66	6.3	2.5	.39	2.8	.05
17	5.0	37	30	80	112	377	50	43	2.4	.39	1.2	.05
18	4.6	33	26	395	78	280	42	36	3.8	.33	7.4	.05
19	4.3	30	25	163	56	124	34	105	3.1	.33	9.5	.05
20	4.3	26	23	103	53	693	29	150	2.1	.23	7.2	.07
21	4.2	24	21	75	49	843	25	74	1.9	.19	3.0	.12
22	4.3	23	19	212	42	153	22	50	1.6	.19	2.4	.12
23	56	27	49	200	34	83	20	160	1.5	.71	1.5	.11
24	22	240	285	117	28	135	19	235	1.9	.54	.87	.85
25	16	385	204	84	25	99	18	122	8.4	.22	.59	3.2
26	12	336	128	61	22	74	19	76	3.5	7.0	.45	1.6
27	10	127	91	47	21	58	33	49	2.3	3.3	.37	.51
28	25	86	69	37	21	123	24	33	1.7	.97	.16	.35
29	272	61	57	31	18	90	21	26	1.6	.51	.15	1.5
30	96	45	53	27	---	74	19	29	1.6	.31	.15	1.5
31	56	---	45	28	---	57	---	21	---	.18	.12	---
TOTAL	775.1	3637	1580	3120	1055	4520	1410	1394.0	163.2	91.57	60.06	14.68
MEAN	25.0	121	51.0	101	36.4	146	47.0	45.0	5.44	2.95	1.94	.49
MAX	272	570	285	395	219	843	234	235	18	31	9.5	3.2
MIN	4.2	22	15	27	15	15	18	6.3	1.5	.18	.09	.02
CFSM	1.45	7.04	2.97	5.87	2.12	8.49	2.73	2.62	.32	.17	.11	.03
IN.	1.68	7.87	3.42	6.75	2.28	9.78	3.05	3.01	.35	.20	.13	.03

CAL YR 1979 TOTAL 24668.18 MEAN 67.6 MAX 845 MIN .52 CFSM 3.93 IN 53.35
WTR YR 1980 TOTAL 17820.61 MEAN 48.7 MAX 843 MIN .02 CFSM 2.83 IN 38.54

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 to September 1980.
pH: May to September 1980.
WATER TEMPERATURE: May to September 1980.
DISSOLVED OXYGEN: May to September 1980.
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.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,800 mg/L Mar. 4, 1979; 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 tonne) Oct. 9-12, 1979, and many days in 1980.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,990 mg/L Mar. 20; minimum daily mean, 1 mg/L June 28, 29.
SEDIMENT LOADS: Maximum daily, 4,870 tons (4,420 tonnes) Mar. 21; minimum daily, 0.00 ton (0.00 tonne) many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV								
05...	1100	46	150	6.8	12.0	30	47	--
MAY								
08...	1115	11	215	7.8	15.5	36	64	138
JUN								
20...	1345	1.9	248	7.7	20.5	36	77	151
JUL								
15...	1400	.58	210	7.4	26.5	34	64	137
SEP								
03...	1030	.10	204	7.4	20.5	34	62	117

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)
NOV							
05...	--	--	650	50	30	30	17
MAY							
08...	.19	4.10	210	50	20	0	4
JUN							
20...	.21	.77	180	30	30	20	4
JUL							
15...	.19	.21	520	30	30	20	12
SEP							
03...	.16	.03	410	70	50	20	16

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	1400	80	45	19	7.9	7.9	17	.4	2.1	2.2

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.1	3.9	128	.05	.000	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	10	10	10	3	10	29000	2	10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	650	<.1	.00	0	0	0	20	55	.00

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

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	---	---	---	252	232	240	203	193	197	216	202	209
2	---	---	---	240	220	230	196	182	190	212	202	206
3	---	---	---	246	194	218	208	144	180	214	200	205
4	---	---	---	278	244	265	237	217	226	207	191	198
5	---	---	---	274	200	253	219	155	201	197	185	190
6	---	---	---	244	150	214	226	152	192	202	184	190
7	---	---	---	248	220	231	236	210	221	203	185	192
8	---	---	---	261	237	246	238	214	224	189	179	184
9	---	---	---	255	233	243	232	214	221	194	174	182
10	---	---	---	247	231	238	230	216	222	190	152	169
11	---	---	---	253	223	237	218	128	193	229	177	202
12	---	---	---	253	237	244	192	152	175	239	213	224
13	---	---	---	241	223	232	210	184	195	243	225	233
14	---	---	---	255	229	238	---	---	---	252	228	235
15	---	---	---	249	229	237	---	---	---	250	226	234
16	---	---	---	243	227	232	---	---	---	228	214	220
17	---	---	---	229	211	219	---	---	---	219	213	216
18	---	---	---	217	203	211	---	---	---	219	207	212
19	---	---	---	219	207	213	---	---	---	210	198	203
20	---	---	---	217	205	211	225	199	212	203	197	199
21	254	238	245	217	205	209	228	210	217	194	190	192
22	256	234	243	203	197	200	224	206	213	199	185	191
23	246	236	240	201	182	190	219	201	208	192	184	189
24	242	210	234	215	181	197	218	202	208	190	144	179
25	282	210	255	221	203	212	221	203	211	294	142	211
26	280	254	265	282	198	221	223	205	213	294	268	279
27	268	246	255	280	258	270	226	206	215	284	268	277
28	260	246	253	267	247	254	230	207	219	270	232	252
29	250	234	244	251	227	235	220	214	216	226	182	202
30	244	228	236	230	212	219	220	208	213	256	220	243
31	---	---	---	215	201	209	218	204	210	---	---	---
MONTH	---	---	---	282	150	228	238	128	208	294	142	211

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					---	---	7.4	6.9	7.2	7.1	7.2	7.0
2					---	---	7.4	7.2	7.2	7.0	7.2	7.0
3					---	---	7.5	7.2	7.8	7.0	7.1	7.0
4					---	---	7.6	7.4	7.4	7.2	7.1	7.0
5					---	---	7.5	7.4	7.6	7.3	7.2	7.0
6					---	---	7.5	7.1	7.3	7.2	7.2	6.9
7					---	---	7.6	7.4	7.4	7.2	7.2	6.9
8					---	---	7.6	7.4	7.3	7.1	7.1	6.9
9					---	---	7.6	7.3	7.2	6.9	7.2	7.0
10					---	---	7.4	7.3	7.3	7.0	7.3	7.0
11					---	---	7.4	7.0	7.4	7.1	7.3	7.1
12					---	---	7.4	7.2	7.2	7.1	7.3	7.1
13					---	---	7.3	7.2	7.4	7.1	7.3	7.1
14					---	---	7.3	7.1	---	---	7.3	7.1
15					---	---	7.3	7.1	---	---	7.2	7.0
16					---	---	7.2	7.1	---	---	7.2	7.0
17					---	---	7.2	7.0	---	---	7.2	6.9
18					---	---	7.2	7.0	---	---	7.2	7.0
19					---	---	7.2	7.0	---	---	7.2	7.0
20					---	---	7.1	7.0	7.7	7.5	7.1	7.0
21					7.5	7.3	7.1	7.0	7.7	7.4	7.1	6.9
22					7.5	7.2	7.1	7.0	7.6	7.4	7.1	6.9
23					7.4	7.3	7.4	7.0	7.6	7.3	7.1	6.9
24					7.4	7.3	7.3	7.1	7.5	7.3	7.3	6.9
25					7.6	7.4	7.2	7.0	7.5	7.2	7.3	7.1
26					7.6	7.4	7.9	7.0	7.4	7.0	7.5	7.3
27					7.5	7.3	7.5	7.3	7.4	7.2	7.6	7.4
28					7.4	7.3	7.5	7.3	7.3	7.1	7.5	7.4
29					7.4	7.2	7.4	7.3	7.2	7.1	7.5	7.3
30					7.5	7.3	7.4	7.2	7.2	7.1	7.5	7.4
31					---	---	7.3	7.1	7.3	7.1	---	---
MONTH					---	---	7.9	6.9	7.8	6.9	7.6	6.9

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

TEMPERATURE, WATER (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	---	---	---	26.0	19.5	22.5	25.5	23.5	24.5	25.0	21.0	23.0
2	---	---	---	27.5	21.0	24.0	27.0	22.0	24.5	23.5	21.5	22.5
3	---	---	---	25.0	22.0	23.0	24.5	23.0	23.5	24.5	21.0	22.5
4	---	---	---	26.0	21.0	23.5	25.0	22.0	23.0	24.0	22.0	23.0
5	---	---	---	28.5	22.5	25.0	25.5	22.0	23.5	25.5	22.0	23.5
6	---	---	---	28.0	22.5	25.0	27.5	22.0	23.5	26.0	22.0	23.5
7	---	---	---	28.5	21.5	24.5	28.0	22.5	25.0	26.0	22.0	23.5
8	---	---	---	28.5	21.0	24.5	28.5	22.5	25.0	24.0	21.0	22.5
9	---	---	---	29.5	24.0	26.5	27.5	22.5	24.5	25.0	20.5	22.5
10	---	---	---	28.0	25.5	26.5	28.0	23.5	25.5	25.5	22.0	23.5
11	---	---	---	29.5	25.0	27.0	25.5	22.0	24.0	25.0	19.5	22.0
12	---	---	---	30.5	24.5	27.0	26.5	21.5	23.0	24.0	20.0	21.5
13	---	---	---	30.0	25.0	27.0	26.5	21.0	23.5	24.0	20.0	22.0
14	---	---	---	30.5	25.5	27.5	---	---	---	25.5	20.5	22.5
15	---	---	---	30.5	25.0	27.5	---	---	---	23.0	20.5	21.5
16	---	---	---	31.0	25.5	28.0	---	---	---	23.5	19.5	21.0
17	---	---	---	30.0	25.0	27.5	---	---	---	22.5	21.0	21.5
18	---	---	---	28.5	23.5	26.0	---	---	---	23.0	20.0	21.0
19	---	---	---	28.0	23.0	25.0	---	---	---	22.5	19.0	20.5
20	---	---	---	28.5	24.0	26.0	28.0	22.5	25.0	22.5	20.0	21.0
21	24.0	18.0	21.0	28.0	24.0	26.0	29.0	24.0	26.0	23.0	21.0	22.0
22	25.0	18.5	21.5	25.5	23.5	24.5	26.5	23.5	25.0	24.5	21.0	22.5
23	23.0	20.0	22.0	25.5	22.5	24.0	26.5	21.5	23.5	23.5	21.5	22.5
24	22.0	20.5	21.5	26.5	22.0	24.0	25.0	21.0	23.0	23.0	21.5	22.0
25	25.5	19.5	22.0	26.0	21.0	23.5	25.0	21.0	22.5	22.0	20.0	21.5
26	26.0	20.5	23.0	25.5	22.5	23.5	25.0	20.5	22.5	22.0	18.5	20.5
27	28.0	21.0	24.0	25.0	21.5	23.0	25.5	20.0	22.5	18.0	16.0	17.0
28	27.0	22.5	24.5	24.5	21.5	23.0	24.5	20.0	22.5	16.5	15.0	16.0
29	25.0	22.5	23.0	27.0	21.5	23.5	23.5	21.0	22.0	17.5	16.0	16.5
30	26.0	21.0	23.0	27.0	21.5	23.5	24.0	20.5	22.0	18.0	16.5	17.0
31	---	---	---	28.0	22.5	25.0	25.0	21.0	22.5	---	---	---
MONTH	---	---	---	31.0	19.5	25.0	29.0	20.0	23.5	26.0	15.0	21.5

OXYGEN, DISSOLVED (DO), MG/L, 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	---	---	---	10.1	9.0	9.5	6.9	6.0	6.5	7.8	6.9	7.5
2	---	---	---	10.0	8.9	9.5	7.0	6.3	6.7	7.8	6.9	7.3
3	---	---	---	10.0	9.4	9.8	7.2	6.3	6.8	8.1	7.0	7.4
4	---	---	---	10.8	10.0	10.4	7.2	6.9	7.0	8.1	7.0	7.4
5	---	---	---	10.9	9.8	10.5	7.4	7.0	7.2	7.7	6.8	7.1
6	---	---	---	9.9	6.7	7.4	7.4	5.6	7.0	7.5	6.7	7.0
7	---	---	---	7.9	6.8	7.5	7.2	6.3	6.8	7.7	6.5	7.0
8	---	---	---	8.3	6.6	7.5	7.1	6.1	6.7	7.6	4.4	6.9
9	---	---	---	7.5	6.1	6.9	6.9	6.2	6.5	8.0	6.6	7.1
10	---	---	---	7.4	6.3	6.8	6.9	6.2	6.5	7.8	7.0	7.5
11	---	---	---	7.4	6.3	6.9	7.7	6.3	6.9	8.1	7.0	7.6
12	---	---	---	7.3	6.1	6.7	7.7	6.8	7.3	8.0	7.0	7.4
13	---	---	---	6.8	5.9	6.3	7.8	6.8	7.2	7.8	6.9	7.3
14	---	---	---	6.7	5.6	6.2	---	---	---	7.7	4.7	7.1
15	---	---	---	6.6	5.4	6.0	---	---	---	7.7	6.6	7.1
16	---	---	---	6.0	5.2	5.7	---	---	---	7.9	6.9	7.5
17	---	---	---	6.1	5.3	5.7	---	---	---	7.7	6.8	7.1
18	---	---	---	6.2	5.4	5.8	---	---	---	7.7	6.8	7.2
19	---	---	---	6.4	5.6	5.9	---	---	---	8.0	6.9	7.3
20	---	---	---	6.4	5.5	5.9	7.5	6.4	7.0	7.5	6.6	7.0
21	8.4	7.1	7.8	6.3	5.7	6.0	7.4	6.3	6.8	7.3	6.4	6.8
22	8.4	7.2	7.8	7.2	6.2	6.7	7.6	6.6	7.0	7.2	6.1	6.5
23	8.3	7.5	7.9	8.1	6.9	7.5	7.8	6.9	7.2	7.3	5.8	6.4
24	8.4	7.8	8.1	8.2	7.5	7.9	8.0	7.1	7.5	7.6	6.4	6.9
25	8.7	7.5	8.2	8.5	7.2	7.9	8.0	7.1	7.5	8.1	7.4	7.8
26	8.6	7.7	8.2	8.0	7.2	7.6	8.0	7.3	7.6	8.7	7.7	8.2
27	8.9	7.9	8.4	7.7	5.5	6.5	8.1	7.3	7.7	9.5	8.5	8.9
28	9.2	8.2	8.7	6.3	4.2	5.9	8.1	7.1	7.7	9.5	8.9	9.2
29	9.4	8.6	9.1	6.3	5.6	6.0	8.0	7.2	7.6	9.7	8.9	9.2
30	9.8	9.0	9.4	6.3	5.7	5.9	7.9	7.3	7.6	9.4	8.5	8.9
31	---	---	---	6.6	5.9	6.2	7.8	7.3	7.5	---	---	---
MONTH	---	---	---	10.9	4.2	7.1	8.1	5.6	7.1	9.7	4.4	7.5

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	24	18	1.2	140	500	763	37	19	1.9
2	17	10	.46	570	773	1960	29	10	.78
3	12	12	.39	139	46	17	24	11	.71
4	13	16	.56	75	27	5.5	22	9	.53
5	9.1	8	.20	48	17	2.2	23	10	.62
6	7.3	6	.12	35	12	1.1	23	10	.62
7	5.8	3	.05	26	10	.70	22	10	.59
8	4.8	4	.05	22	9	.53	18	15	.73
9	5.0	10	.14	141	562	537	16	7	.30
10	34	109	17	473	1030	1810	15	4	.16
11	12	6	.19	157	82	35	15	11	.45
12	9.2	6	.15	104	10	2.8	16	12	.52
13	11	4	.12	76	10	2.1	60	196	37
14	7.4	2	.04	58	10	1.6	54	37	5.4
15	6.2	7	.12	49	8	1.1	43	12	1.4
16	5.6	8	.12	44	6	.71	38	9	.92
17	5.0	7	.09	37	3	.30	30	17	1.4
18	4.6	10	.12	33	10	.89	26	20	1.4
19	4.3	6	.07	30	4	.32	25	14	.95
20	4.3	5	.06	26	7	.49	23	10	.62
21	4.2	5	.06	24	4	.26	21	10	.57
22	4.3	10	.12	23	4	.25	19	10	.51
23	56	276	86	27	13	.95	49	72	15
24	22	30	1.8	240	331	293	285	574	641
25	16	10	.43	385	420	891	204	160	88
26	12	7	.23	336	142	168	128	75	26
27	10	11	.30	127	42	14	91	45	11
28	25	119	8.0	86	36	8.4	69	30	5.6
29	272	807	593	61	30	4.9	57	18	2.8
30	96	40	10	45	34	4.1	53	13	1.9
31	56	13	2.0	---	---	---	45	10	1.2
TOTAL	775.1	---	723.19	3637	---	6527.20	1580	---	850.58
		JANUARY			FEBRUARY			MARCH	
1	45	10	1.2	20	7	.38	16	12	.52
2	38	9	.92	23	9	.56	15	14	.57
3	35	9	.85	20	12	.65	18	15	.73
4	81	15	3.3	17	14	.64	17	10	.46
5	88	9	2.1	18	11	.53	188	438	232
6	69	9	1.7	18	5	.24	130	250	88
7	119	150	58	16	6	.26	130	186	77
8	118	28	8.9	16	8	.35	250	271	183
9	87	13	3.1	16	6	.26	152	125	51
10	68	12	2.2	15	6	.24	96	44	11
11	131	129	67	15	8	.32	65	28	4.9
12	135	45	16	15	5	.20	50	22	3.0
13	101	16	4.4	16	10	.43	44	20	2.4
14	149	85	34	18	7	.34	34	25	2.3
15	111	17	5.1	34	42	3.9	27	11	.80
16	85	11	2.5	219	271	150	25	22	1.5
17	80	18	3.9	112	56	17	377	716	842
18	395	322	399	78	156	39	280	160	157
19	163	95	42	56	55	8.3	124	50	17
20	103	55	15	53	10	1.4	693	1990	7300
21	75	33	6.7	49	8	1.1	843	739	4870
22	212	176	154	42	14	1.6	153	45	19
23	200	139	75	34	8	.73	83	35	7.8
24	117	27	8.5	28	8	.60	135	190	69
25	84	30	6.8	25	8	.54	99	65	17
26	61	22	3.6	22	8	.48	74	62	12
27	47	12	1.5	21	8	.45	58	47	7.4
28	37	10	1.0	21	11	.62	123	304	137
29	31	13	1.1	18	14	.68	90	37	9.0
30	27	6	.44	---	---	---	74	40	8.0
31	28	3	.23	---	---	---	57	40	6.2
TOTAL	3120	---	930.04	1055	---	231.80	4520	---	14137.58

03407876 SMOKY CREEK AT HEMBREE, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	43	23	2.7	17	9	.41	18	40	1.9
2	34	19	1.7	16	8	.35	14	35	1.3
3	29	14	1.1	15	9	.36	12	48	1.6
4	28	28	2.1	14	9	.34	11	42	1.2
5	22	30	1.8	13	9	.32	10	32	.86
6	20	16	.86	13	9	.32	9.4	33	.84
7	18	8	.39	12	9	.29	9.2	34	.84
8	38	64	9.2	11	10	.30	7.8	34	.72
9	38	40	4.1	11	11	.33	6.9	34	.63
10	31	11	.92	9.8	12	.32	5.9	34	.54
11	27	9	.66	9.8	7	.19	4.6	35	.43
12	88	368	177	9.8	6	.16	3.9	42	.44
13	215	492	541	9.8	5	.13	3.9	33	.35
14	234	450	284	9.6	3	.08	3.8	33	.34
15	104	230	65	7.9	5	.11	2.9	29	.23
16	66	53	9.4	6.3	6	.10	2.5	27	.18
17	50	14	1.9	43	366	97	2.4	27	.17
18	42	11	1.2	36	75	7.3	3.8	27	.28
19	34	10	.92	105	420	379	3.1	27	.23
20	29	9	.70	150	217	88	2.1	29	.16
21	25	8	.54	74	38	7.6	1.9	31	.16
22	22	8	.48	50	36	4.9	1.6	31	.13
23	20	8	.43	160	580	344	1.5	28	.11
24	19	8	.41	235	637	431	1.9	29	.15
25	18	8	.39	122	64	21	8.4	39	.88
26	19	10	.51	76	53	11	3.5	5	.05
27	33	101	12	49	30	4.0	2.3	2	.01
28	24	10	.65	33	32	2.9	1.7	1	.00
29	21	9	.51	26	45	3.2	1.6	1	.00
30	19	9	.46	29	158	12	1.6	6	.03
31	---	---	---	21	71	4.0	---	---	---
TOTAL	1410	---	1123.03	1394.0	---	1421.01	163.2	---	14.76
		JULY			AUGUST			SEPTEMBER	
1	1.2	4	.01	.12	15	.00	.12	16	.00
2	1.1	16	.05	.09	10	.00	.12	18	.00
3	6.7	42	.76	3.6	182	4.6	.09	17	.00
4	7.3	31	.61	2.1	175	.99	.16	16	.00
5	5.8	88	4.2	1.5	80	.32	.25	15	.01
6	31	428	58	2.4	63	.41	.15	17	.00
7	7.1	35	.67	.78	28	.06	.02	16	.00
8	3.7	15	.15	.51	19	.03	.02	16	.00
9	2.9	10	.08	.32	11	.00	.02	15	.00
10	2.5	13	.09	.15	10	.00	1.9	16	.08
11	2.2	10	.06	3.6	148	1.4	.92	19	.05
12	1.6	8	.03	4.0	167	1.8	.27	24	.02
13	1.2	7	.02	1.1	65	.19	.20	26	.01
14	.85	6	.01	.43	35	.04	.19	22	.01
15	.63	8	.01	1.5	90	.36	.12	20	.00
16	.39	6	.00	2.8	253	1.9	.05	18	.00
17	.39	6	.00	1.2	50	.16	.05	20	.00
18	.33	6	.00	7.4	155	3.1	.05	20	.00
19	.33	5	.00	9.5	260	6.7	.05	10	.00
20	.23	5	.00	7.2	190	3.7	.07	17	.00
21	.19	7	.00	3.0	25	.20	.12	15	.00
22	.19	9	.00	2.4	20	.13	.12	10	.00
23	.71	8	.02	1.5	20	.08	.11	10	.00
24	.54	11	.02	.87	20	.05	.85	99	.23
25	.22	6	.00	.59	21	.03	3.2	296	2.6
26	7.0	508	46	.45	22	.03	1.6	70	.30
27	3.3	220	2.0	.37	30	.03	.51	32	.04
28	.97	48	.13	.16	30	.01	.35	20	.02
29	.51	33	.05	.15	21	.00	1.5	17	.07
30	.31	30	.03	.15	20	.00	1.5	16	.06
31	.18	27	.01	.12	18	.00	---	---	---
TOTAL	91.57	---	113.01	60.06	---	26.32	14.68	---	3.50

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 mi^2 (5.67 km^2).

WATER-DISCHARGE RECORDS

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

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft^3/s (7.19 m^3/s), Apr. 4, 1977, gage height, 3.96 ft (1.207 m); minimum discharge, 0.01 ft^3/s (0.0003 m^3/s) Aug. 24, 25, 1976, Aug. 5-8, 1977, Oct. 17-26, 1978, Sept. 20, 1980; minimum gage height, 1.60 ft (0.488 m) Aug. 5-8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 135 ft^3/s (3.82 m^3/s) Mar. 21, gage height, 3.46 ft (1.055 m); minimum, 0.01 ft^3/s (0.0003 m^3/s) Sept. 20, gage height, 1.69 ft (0.515 m).

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	3.0	7.1	3.6	3.7	3.5	.91	5.2	2.7	1.3	.09	.07	.02
2	2.2	29	2.8	3.3	3.3	.82	4.1	2.6	1.1	.09	.05	.08
3	1.7	11	2.6	3.1	3.2	.73	3.6	2.4	.87	7.4	.40	.11
4	1.4	5.9	2.1	3.3	3.1	.66	3.3	2.2	.75	17	.15	1.1
5	1.2	3.5	1.8	5.1	3.0	1.1	2.8	1.8	.62	13	.26	.22
6	1.0	2.4	1.8	5.4	2.9	2.1	2.4	1.7	.58	11	.20	.07
7	.59	1.8	1.8	5.4	2.8	5.9	2.2	1.6	.50	8.4	.07	.05
8	.44	1.7	1.7	5.6	2.7	14	2.6	1.4	.34	6.6	.05	.04
9	.89	2.9	1.4	5.6	2.2	13	2.3	1.2	.30	5.0	.05	.04
10	2.1	26	1.3	5.1	2.1	10	2.1	1.1	.25	3.6	.05	2.0
11	1.4	17	1.2	4.8	2.0	7.7	1.8	1.0	.22	2.8	.17	.15
12	1.1	10	1.2	6.8	2.1	5.9	2.7	.82	.21	2.1	.24	.08
13	1.2	6.5	1.4	6.8	2.0	4.4	9.4	.91	.18	1.5	.07	.05
14	.94	4.6	2.6	6.8	2.0	3.3	20	1.0	.18	1.2	.05	.05
15	.82	3.3	2.7	7.1	2.0	1.7	12	.73	.16	.97	.04	.05
16	.75	2.4	2.7	6.5	4.0	.73	6.8	.66	.32	.78	.04	.04
17	.68	2.1	2.7	5.4	6.2	16	4.8	3.5	.37	.61	.04	.03
18	.64	1.8	2.4	16	6.5	26	3.9	3.3	.26	.50	.44	.02
19	.61	1.6	2.2	17	6.5	22	3.3	3.7	.19	.36	1.2	.02
20	.59	1.3	1.8	13	5.6	34	2.9	6.5	.14	.30	.35	.02
21	.61	1.1	1.7	9.3	4.8	45	2.6	5.5	.12	.25	.11	.02
22	.66	1.0	1.4	13	4.0	17	2.4	3.7	.12	.21	.07	.02
23	4.0	.91	1.4	20	3.1	9.8	2.7	6.5	.12	.13	.04	.03
24	2.2	22	11	16	2.6	12	3.0	14	.12	.08	.03	4.4
25	1.8	22	21	12	2.2	9.9	2.9	11	.34	.07	.02	13
26	1.5	26	17	9.0	2.0	8.0	2.4	7.3	.18	.06	.02	8.7
27	1.3	16	12	7.1	1.7	6.1	2.7	4.3	.14	.05	.02	5.6
28	4.0	9.7	8.4	5.6	1.4	11	2.7	3.0	.12	.05	.02	4.0
29	12	6.6	6.3	4.6	1.1	9.7	2.9	2.3	.10	.05	.02	1.2
30	8.0	4.6	4.8	4.0	---	8.2	2.9	2.3	.11	.05	.02	.27
31	4.5	---	4.2	3.7	---	6.6	---	1.6	---	.04	.02	---
TOTAL	63.82	251.81	131.0	240.1	90.6	314.25	125.4	102.32	10.31	84.34	4.38	41.48
MEAN	2.06	8.39	4.23	7.75	3.12	10.1	4.18	3.30	.34	2.72	.14	1.38
MAX	12	29	21	20	6.5	45	20	14	1.3	17	1.2	13
MIN	.44	.91	1.2	3.1	1.1	.66	1.8	.66	.10	.04	.02	.02
CFSM	.94	3.83	1.93	3.54	1.43	4.61	1.91	1.51	.16	1.24	.06	.63
IN.	1.08	4.28	2.22	4.08	1.54	5.34	2.13	1.74	.18	1.43	.07	.70

CAL YR 1979 TOTAL 2042.77 MEAN 5.60 MAX 45 MIN .12 CFSM 2.56 IN 34.69
WTR YR 1980 TOTAL 1459.81 MEAN 3.99 MAX 45 MIN .02 CFSM 1.82 IN 24.79

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 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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 (MG/L AS CACO3)
OCT								
07...	.59	7.1	10.0	5.0	21	3.3	3.0	16
20...	.59	6.8	15.5	6.0	24	4.3	3.1	18
NOV								
04...	6.5	7.1	8.0	14	--	--	--	6
18...	1.8	6.5	6.0	7.0	13	2.1	1.9	11
DEC								
08...	1.7	6.5	--	9.0	13	2.0	1.9	10
JAN								
19...	17	5.8	6.0	45	14	2.4	2.0	3
23...	19	--	5.5	--	--	--	--	--
FEB								
19...	6.8	6.9	2.0	8.0	12	1.8	1.8	8
MAR								
30...	8.0	6.8	10.0	38	13	2.0	1.9	6
APR								
17...	5.3	--	8.5	--	--	--	--	--
26...	2.6	7.0	14.0	12	15	2.2	2.3	9
MAY								
27...	4.4	7.2	16.0	19	15	2.5	2.2	7
JUN								
23...	.12	6.0	20.0	4.0	29	4.1	4.5	15
JUL								
12...	2.1	6.8	24.0	27	26	3.9	3.9	12
AUG								
16...	.04	7.0	25.0	115	38	5.5	5.8	10
SEP								
23...	.04	7.4	24.0	50	40	5.7	6.2	14

03407877 BOWLING BRANCH ABOVE SMOKY JUNCTION, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	10	14	110	0	0	0	0	0	<1	<1
20...	14	4	124	0	<1	<1	0	0	3	3
NOV										
04...	5.0	38	116	0	0	--	2	--	--	--
18...	16	22	74	0	<1	0	1	0	<1	<1
DEC										
08...	13	10	42	0	0	<1	1	0	<1	<1
JAN										
19...	4.0	126	82	6000	0	--	5	2	3	1
FEB										
19...	14	46	38	2500	0	<1	2	1	0	2
MAR										
30...	14	112	120	8500	0	<1	3	2	3	0
APR										
26...	14	36	120	3000	<1	<1	2	1	4	4
MAY										
27...	15	66	146	4000	0	<1	2	0	2	5
JUN										
23...	24	42	122	2000	0	0	0	0	0	0
JUL										
12...	21	60	120	7000	0	0	2	0	4	0
AUG										
16...	44	80	204	10000	0	<1	2	0	4	4
SEP										
23...	36	75	213	7000	0	0	2	0	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)
OCT										
07...	700	200	0	0	0	0	1	0	0	0
20...	700	200	0	0	0	0	--	4	--	160
NOV										
04...	900	--	<1	--	0	--	4	--	0	--
18...	700	200	0	0	0	0	4	2	0	0
DEC										
08...	500	100	0	0	100	0	1	1	0	0
JAN										
19...	1500	100	3	0	250	150	11	4	--	40
FEB										
19...	900	100	0	0	150	100	4	3	0	0
MAR										
30...	2800	200	3	0	150	100	11	4	--	100
APR										
26...	1400	300	1	0	100	100	6	4	0	0
MAY										
27...	1500	100	1	0	100	100	8	4	0	0
JUN										
23...	800	100	0	0	--	100	2	0	0	0
JUL										
12...	2700	200	2	0	100	0	5	0	0	0
AUG										
16...	3100	100	2	0	200	150	6	25	0	20
SEP										
23...	2600	100	1	0	100	0	6	0	0	0

Zeros for trace constituents represent values below analytical detection limits.

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 mi^2 (1.79 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1975 to September 1980 (discontinued).

GAGE.--Water-stage recorder and 170-degree V-notch weir. Altitude of gage is 1,240 ft (378 m), from topographic map.

REMARKS.--Records fair except those for March, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 267 ft^3/s (7.56 m^3/s) Apr. 4, 1977, gage height, 4.53 ft (1.381 m); no flow July 16, 1977, Nov. 1, 2, 1979, Aug. 7-10, Aug. 27 to Sept. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft^3/s (1.13 m^3/s) Nov. 25, gage height, 3.73 ft (1.137 m), but may have been higher during period of no gage-height record Feb. 21 to Mar. 25; no flow Aug. 7-10, Aug. 27 to Sept. 1.

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	.60	2.0	.68	1.1	.69	.55	1.6	.35	.29	.03	.01	.00
2	.52	12	.52	.96	.70	.51	1.4	.32	.25	.03	.01	.23
3	.52	2.2	.40	.81	.64	.60	1.2	.28	.22	1.4	.02	.05
4	.40	1.1	.46	1.4	.58	.58	1.2	.26	.19	.38	.02	.41
5	.34	.75	.40	2.1	.52	5.0	.98	.24	.16	.19	.03	.08
6	.34	.52	.39	1.9	.52	4.2	.80	.22	.15	.67	.01	.02
7	.26	.46	.37	2.2	.52	4.1	.73	.21	.15	.17	.00	.02
8	.22	.46	.35	2.3	.49	5.4	.84	.18	.12	.12	.00	.01
9	.29	.93	.32	2.0	.46	4.7	.77	.17	.11	.09	.00	.01
10	.52	8.4	.30	1.6	.46	3.2	.70	.15	.07	.09	.00	.45
11	.45	3.2	.24	2.9	.46	2.3	.60	.14	.07	.09	.01	.05
12	.40	1.7	.22	3.5	.46	1.9	.73	.12	.07	.08	.01	.02
13	.41	1.1	.36	2.8	.46	1.5	2.4	.17	.05	.05	.01	.02
14	.38	.84	.40	3.3	.46	1.1	4.6	.12	.05	.05	.01	.01
15	.34	.60	.40	2.8	1.0	.94	2.7	.09	.05	.04	.01	.01
16	.30	.52	.40	2.2	6.7	.82	1.8	.09	.16	.02	.01	.01
17	.27	.46	.40	1.8	4.0	10	1.3	.60	.11	.02	.01	.01
18	.22	.46	.42	6.6	2.5	8.5	1.1	.47	.14	.02	.04	.01
19	.18	.40	.38	4.9	1.8	7.5	1.0	.78	.06	.02	.86	.01
20	.16	.35	.35	3.0	1.6	17	.89	1.0	.04	.02	.11	.01
21	.15	.35	.35	2.1	1.4	19	.80	.78	.04	.02	.03	.02
22	.13	.31	.35	7.6	1.2	9.0	.72	.49	.04	.02	.03	.01
23	.36	.38	.57	6.9	1.0	3.9	.68	.67	.03	.02	.02	.01
24	.25	7.5	5.6	4.1	.85	4.3	.69	1.3	.03	.01	.02	.48
25	.22	11	7.2	3.0	.76	3.0	.67	1.6	.11	.03	.02	.08
26	.21	10	4.2	1.9	.73	2.0	.66	1.6	.04	.04	.02	.03
27	.15	3.0	2.6	1.5	.66	1.8	.80	.89	.03	.03	.00	.02
28	.27	1.7	1.8	1.2	.62	3.9	.46	.57	.03	.02	.00	.01
29	1.0	1.1	1.5	.95	.59	3.6	.46	.43	.03	.01	.00	.03
30	1.0	.85	1.3	.84	---	3.0	.38	.37	.03	.01	.00	.03
31	.68	---	1.2	.83	---	2.2	---	.30	---	.01	.00	---
TOTAL	11.54	74.64	34.43	81.09	32.83	136.10	33.66	14.96	2.92	3.80	1.32	2.16
MEAN	.37	2.49	1.11	2.62	1.13	4.39	1.12	.48	.097	.12	.043	.072
MAX	1.0	12	7.2	7.6	6.7	19	4.6	1.6	.29	1.4	.86	.48
MIN	.13	.31	.22	.81	.46	.51	.38	.09	.03	.01	.00	.00
CFSM	.54	3.61	1.61	3.80	1.64	6.36	1.62	.70	.14	.17	.06	.10
IN.	.62	4.02	1.85	4.37	1.77	7.33	1.81	.81	.16	.20	.07	.12

CAL YR 1979 TOTAL 672.62 MEAN 1.84 MAX 39 MIN .04 CFSM 2.67 IN 36.21
WTR YR 1980 TOTAL 429.45 MEAN 1.17 MAX 19 MIN .00 CFSM 1.70 IN 23.12

NOTE.--No gage-height record Feb. 21 to Mar. 25.

03407881 ANDERSON BRANCH NEAR MONTGOMERY, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1980 (discontinued).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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 (MG/L AS CACO3)
OCT								
07...	.26	7.4	11.0	33	92	25	7.1	73
20...	.18	7.4	16.0	11	88	24	7.0	71
NOV								
04...	1.1	7.2	9.0	42	51	13	4.6	30
18...	.40	6.9	8.0	5.5	45	11	4.3	32
DEC								
08...	.35	6.8	--	8.0	37	8.9	3.7	34
JAN								
19...	4.8	6.3	7.0	55	29	6.9	2.8	18
FEB								
19...	1.7	7.3	3.0	9.0	25	5.2	3.0	20
MAR								
30...	2.8	6.8	10.0	60	33	7.1	3.6	23
APR								
17...	1.0	--	13.5	--	--	--	--	--
26...	.68	7.5	15.0	4.0	62	16	5.3	47
MAY								
27...	.75	7.3	18.0	18	46	12	4.0	36
JUN								
23...	.03	6.5	19.0	1.0	95	25	7.8	79
JUL								
12...	.07	8.1	25.0	2.0	99	27	7.6	84
SEP								
23...	.01	7.7	22.0	2.0	100	27	8.3	101

03407881 ANDERSON BRANCH NEAR MONTGOMERY, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	19	56	372	4000	0	--	2	0	2	3
20...	27	8	268	1100	<1	0	0	0	2	36
NOV										
04...	24	72	196	4800	<1	<1	3	0	3	<1
18...	20	8	132	0	0	<1	1	0	<1	1
DEC										
08...	19	4	88	0	0	<1	0	0	<1	<1
JAN										
19...	21	96	152	5200	0	<1	4	0	4	<1
FEB										
19...	14	40	60	0	0	0	0	1	2	0
MAR										
30...	20	120	144	10000	0	<1	3	0	4	1
APR										
26...	26	42	222	0	<1	0	0	1	0	2
MAY										
27...	18	54	206	4500	0	0	2	0	2	0
JUN										
23...	25	4	272	0	0	0	0	0	0	0
JUL										
12...	17	12	264	1000	0	0	0	0	0	0
SEP										
23...	15	9	319	1500	0	0	0	0	2	3

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)
OCT										
07...	2100	100	1	0	200	0	0	7	--	30
20...	1000	200	<1	0	100	100	1	<1	--	90
NOV										
04...	2300	100	<1	0	350	200	4	0	0	0
18...	700	100	0	0	250	200	0	0	0	0
DEC										
08...	400	100	0	0	150	150	0	0	0	0
JAN										
19...	2300	100	<1	0	100	100	5	0	--	70
FEB										
19...	--	1100	0	0	100	100	0	3	0	0
MAR										
30...	3500	200	1	0	150	100	9	2	0	0
APR										
26...	--	1500	0	0	--	100	0	3	0	0
MAY										
27...	2200	100	0	0	100	0	4	0	0	0
JUN										
23...	300	100	0	0	0	0	0	0	--	20
JUL										
12...	600	0	0	0	0	0	0	0	0	0
SEP										
23...	600	0	0	0	100	0	0	0	0	0

Zeros for trace constituents represent values below analytical detection limits.

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 mi^2 (2.38 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to September 1980 (discontinued).

GAGE.--Water-stage recorder and 120-degree V-notch weir. Altitude of gage is 1,250 ft (381 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 589 ft^3/s (16.7 m^3/s) May 4, 1979, gage height, 2.95 ft (0.899 m); minimum, no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 486 ft^3/s (13.8 ft m^3/s) Mar. 20, gage height, 2.89 ft (0.881 m); minimum, no flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	1.5	.14	2.8	.48	.26	1.7	.29	.07	.00	.00	.00
2	.15	13	.10	2.6	.39	.27	1.5	.25	.05	.00	.00	.00
3	.08	2.5	.07	3.1	.32	.25	1.4	.22	.03	.00	.00	.00
4	.04	1.0	.31	5.2	.27	.51	1.3	.19	.02	.00	.00	.00
5	.02	.50	.28	4.9	.22	2.8	1.1	.16	.02	.00	.00	.00
6	.02	.25	.27	4.5	.22	2.9	.46	.14	.01	.00	.00	.00
7	.02	.24	.26	4.7	.21	3.4	.40	.12	.01	.00	.00	.00
8	.01	.23	.26	4.9	.17	9.7	.40	.11	.01	.00	.00	.00
9	.04	2.0	.25	4.3	.15	6.8	.40	.09	.01	.00	.00	.00
10	.16	10	.23	3.9	.14	4.0	.35	.08	.00	.00	.00	.00
11	.14	2.5	.22	6.0	.09	2.4	.29	.07	.00	.00	.00	.00
12	.12	1.4	.20	6.0	.04	1.9	.29	.06	.00	.00	.00	.00
13	.12	.70	.23	5.6	.05	1.5	.29	.06	.00	.00	.00	.00
14	.12	.42	.26	5.7	.08	.82	.53	.05	.00	.00	.00	.00
15	.11	.29	.27	5.3	.61	.36	1.8	.04	.00	.00	.00	.00
16	.09	.25	.27	4.6	5.4	.38	1.8	.05	.00	.00	.00	.00
17	.09	.24	.27	4.2	3.7	7.4	1.5	.56	.00	.00	.00	.00
18	.07	.24	.28	10	2.6	6.8	1.2	.50	.00	.00	.00	.00
19	.06	.19	.27	8.2	2.0	4.2	1.1	.58	.00	.00	.00	.00
20	.05	.17	.25	5.9	1.7	68	.92	.68	.00	.00	.00	.00
21	.04	.17	.21	4.8	1.2	12	.80	.58	.00	.00	.00	.00
22	.03	.14	.29	11	.94	4.2	.70	.29	.00	.00	.00	.00
23	.10	1.4	2.8	12	.80	3.3	.60	.34	.00	.00	.00	.00
24	.07	12	14	4.5	.63	2.8	.56	.53	.00	.00	.00	.01
25	.06	15	9.0	2.9	.58	2.6	.52	.54	.00	.00	.00	.01
26	.05	13	6.0	2.0	.44	2.4	.50	.54	.00	.00	.00	.01
27	.04	1.5	4.4	1.4	.32	2.4	.54	.64	.00	.00	.00	.01
28	.06	.65	3.7	.95	.36	2.4	.43	.48	.00	.00	.00	.01
29	.16	.32	3.5	.66	.29	2.4	.41	.26	.00	.00	.00	.01
30	.16	2.1	3.3	.53	---	2.6	.35	.18	.00	.00	.00	.01
31	.12	---	3.0	.58	---	2.0	---	.10	---	.00	.00	---
TOTAL	2.70	83.90	54.89	143.72	24.40	163.75	24.14	8.78	.23	.00	.00	.07
MEAN	.087	2.80	1.77	4.64	.84	5.28	.80	.28	.008	.000	.000	.002
MAX	.30	15	14	12	5.4	68	1.8	.68	.07	.00	.00	.01
MIN	.01	.14	.07	.53	.04	.25	.29	.04	.00	.00	.00	.00
CFSM	.10	3.04	1.92	5.04	.91	5.74	.87	.30	.009	.000	.000	.002
IN.	.11	3.39	2.22	5.80	.99	6.61	.98	.35	.01	.00	.00	.00

CAL YR 1979 TOTAL 839.28 MEAN 2.30 MAX 52 MIN .00 CFSM 2.50 IN 33.90
WTR YR 1980 TOTAL 506.58 MEAN 1.38 MAX 68 MIN .00 CFSM 1.50 IN 20.46

03407882 LOWE BRANCH NEAR MONTGOMERY, TN.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1975 to September 1980 (discontinued).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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 (MG/L AS CACO3)
OCT								
07...	.02	6.9	11.0	.00	13	2.0	2.0	10
20...	.02	6.3	18.0	2.0	14	2.1	2.1	12
NOV								
04...	1.0	7.0	9.0	7.0	10	1.5	1.5	28
18...	.29	6.5	8.0	1.0	10	1.5	1.5	8
DEC								
08...	.15	6.4	--	2.0	10	1.6	1.5	6
JAN								
19...	8.7	6.2	7.0	1.0	9	1.4	1.3	3
23...	7.4	--	6.0	--	--	--	--	--
FEB								
19...	2.0	7.1	4.0	.00	8	1.1	1.2	6
MAR								
30...	2.8	6.5	10.0	1.0	8	1.1	1.2	5
APR								
17...	1.6	--	12.0	--	--	--	--	--
26...	.34	7.1	14.0	.00	10	1.4	1.5	7
MAY								
27...	.68	7.3	16.0	1.0	9	1.3	1.4	6

03407882 LOWE BRANCH NEAR MONTGOMERY, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (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)
OCT										
07...	2.0	2	90	0	0	<1	0	0	<1	1
20...	16	2	94	0	0	<1	0	0	1	1
NOV										
04...	9.0	54	150	0	0	--	0	0	<1	<1
18...	9.0	6	74	0	0	0	0	0	--	2
DEC										
08...	7.0	8	40	0	0	--	0	0	<1	<1
JAN										
19...	7.0	2	72	0	<1	<1	0	0	0	1
FEB										
19...	2.0	12	28	0	0	<1	0	0	0	1
MAR										
30...	15	6	94	0	0	<1	0	0	3	1
APR										
26...	10	18	154	0	0	<1	0	0	0	1
MAY										
27...	13	6	154	0	<1	<1	0	0	0	1

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)
OCT										
07...	0	0	0	0	150	0	0	0	0	0
20...	400	0	0	0	0	0	0	0	0	0
NOV										
04...	200	100	0	0	0	0	0	0	0	0
18...	100	0	0	0	0	0	0	0	0	0
DEC										
08...	0	0	<1	<1	0	0	0	2	0	30
JAN										
19...	100	0	0	0	0	0	9	0	0	40
FEB										
19...	200	100	0	0	0	0	0	0	0	0
MAR										
30...	200	100	0	0	0	0	0	0	0	0
APR										
26...	200	0	0	0	0	0	0	0	0	0
MAY										
27...	200	0	0	0	0	0	0	0	0	0

Zeros for trace constituents represent values below analytical detection limits.

03407908 NEW RIVER AT CORDELL, TN

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

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

WATER-DISCHARGE RECORDS

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

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 ft^3/s (592 m^3/s) Mar. 21, 1980, gage height, 24.58 ft (7.492 m); minimum, 2.3 ft^3/s (0.065 m^3/s) Sept. 21, 1980, gage height, 1.75 ft (0.533 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,900 ft^3/s (592 m^3/s) at 0700 hrs. Mar. 21, gage height, 24.58 ft (7.492 m), no other peak above base of 8,000 ft^3/s (227 m^3/s); minimum, 2.3 ft /s (0.065 m /s) Sept. 21, gage height, 1.75 ft (0.533 m).

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	283	311	322	371	188	161	485	207	153	16	6.1	3.4
2	205	4100	261	319	232	144	361	186	128	15	5.4	3.4
3	161	1610	217	292	253	126	305	171	107	35	5.3	5.2
4	132	785	192	613	195	161	294	156	92	129	18	5.7
5	132	480	188	1150	176	1200	251	142	79	68	34	16
6	105	313	184	828	165	1550	219	140	69	105	20	18
7	91	250	192	877	152	1110	206	127	63	85	17	9.3
8	80	214	158	1210	177	2400	234	119	58	41	11	5.7
9	74	248	138	939	147	2130	338	103	50	29	7.9	4.3
10	240	4950	132	722	141	1280	266	92	45	23	6.0	9.2
11	178	1770	126	1170	165	796	240	86	43	21	5.1	25
12	134	1050	129	1930	140	536	539	80	39	21	4.8	20
13	136	619	179	1290	143	422	1230	76	36	17	8.4	11
14	125	419	333	1590	142	339	3070	81	33	15	8.2	7.1
15	102	294	278	1430	181	253	1530	74	32	12	6.0	5.2
16	93	249	258	1040	1710	224	941	63	31	10	4.9	4.0
17	86	212	239	869	1400	2430	579	78	38	9.1	4.7	3.6
18	80	188	192	3660	791	3650	425	777	36	7.7	9.5	3.1
19	76	167	188	2390	575	1640	320	259	41	6.4	40	2.6
20	72	152	184	1360	473	161	275	1660	33	6.0	77	2.4
21	68	139	165	900	456	12200	242	1010	24	5.4	39	2.6
22	61	134	158	1370	463	2190	215	490	22	5.5	21	3.1
23	190	129	177	2810	367	1310	192	1290	20	8.2	14	2.9
24	169	2100	890	1520	293	1440	176	2210	19	9.3	10	3.2
25	131	1960	2500	1040	255	1390	182	1640	23	12	7.6	13
26	102	3700	1680	669	229	1040	179	979	45	13	5.9	20
27	90	1600	1170	489	206	705	269	483	31	10	5.0	15
28	89	1020	840	343	202	1130	320	286	23	20	4.3	11
29	1020	641	580	280	188	1270	260	220	20	14	4.1	9.7
30	755	436	467	241	---	981	237	282	18	9.4	3.8	8.7
31	429	---	424	251	---	733	---	191	---	7.7	3.4	---
TOTAL	5689	30240	13141	33963	10205	45102	14380	13758	1451	785.7	417.4	253.4
MEAN	184	1008	424	1096	352	1455	479	444	48.4	25.3	13.5	8.45
MAX	1020	4950	2500	3660	1710	12200	3070	2210	153	129	77	25
MIN	61	129	126	241	140	126	176	63	18	5.4	3.4	2.4
CFSM	.93	5.09	2.14	5.54	1.78	7.35	2.42	2.24	.24	.13	.07	.04
IN.	1.07	5.68	2.47	6.38	1.92	8.47	2.70	2.58	.27	.15	.08	.05

CAL YR 1979 TOTAL 256882.0 MEAN 704 MAX 7620 MIN 26 CFSM 3.56 IN 48.26
WTR YR 1980 TOTAL 169385.5 MEAN 463 MAX 12200 MIN 2.4 CFSM 2.34 IN 31.82

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 25...	1300	112	340	7.5	12.0	55	110	244
NOV 06...	1100	304	195	7.4	8.0	30	60	118
JAN 02...	1415	308	219	7.5	5.5	30	71	130
FEB 15...	1300	190	265	6.8	2.5	38	99	194
MAR 12...	1015	507	170	7.2	6.0	28	54	100
APR 17...	1345	576	175	7.5	11.5	24	51	119
JUN 17...	1600	38	370	8.0	25.0	58	130	260
JUL 15...	1710	13	445	8.2	32.0	64	160	307
SEP 17...	1700	3.8	490	8.1	23.0	58	190	334

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 25...	.33	73.8	1300	20	50	10	30	9.1
NOV 06...	.16	96.9	540	30	120	120	6	4.9
JAN 02...	.18	108	470	40	--	140	8	6.7
FEB 15...	.26	99.5	390	20	220	210	6	3.1
MAR 12...	.14	137	660	40	110	100	13	18
APR 17...	.16	185	690	20	90	70	24	37
JUN 17...	.35	26.7	380	10	70	30	12	1.2
JUL 15...	.42	10.8	270	10	60	20	12	.42
SEP 17...	.45	3.43	310	0	80	30	8	.08

03407908 NEW RIVER AT CORDELL, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	1710	160	93	42	13	22	23	.8	3.1	1.7

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.2	2.9	284	.13	.000	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	10	30	20	1	10	43000	0	20

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	820	<.1	.00	0	0	0	0	75	.00

03408500 NEW RIVER AT NEW RIVER, TN

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--46 years, 745 ft^3/s (21.10 m^3/s), 26.48 in/yr (673 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft^3/s (1,800 m^3/s) May 27, 1973, gage height, 37.91 ft (11.555 m), from high water mark in gage well, from rating curve extended above 27,000 ft^3/s (765 m^3/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, no flow part of each day Aug. 12-15, 1944.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,800 ft^3/s (872 m^3/s) at 1100 hours, Mar. 21, gage height, 25.65 ft (7.818 m), no other peak above base of 12,000 ft^3/s (340 m^3/s); minimum, 2.3 ft^3/s (0.065 m^3/s) Sept. 20, 21, gage height, 1.47 ft (0.448 m).

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	425	561	602	661	390	333	887	460	273	23	13	4.8
2	304	6650	501	602	323	302	733	399	219	23	9.7	3.9
3	236	2480	395	533	356	256	653	355	179	114	8.5	5.0
4	193	1180	356	738	323	317	878	320	153	1500	7.9	4.3
5	189	788	339	1430	276	1190	682	287	134	446	9.2	22
6	158	589	332	1150	299	1920	554	267	116	423	33	20
7	134	473	340	1100	291	1340	492	244	104	320	23	25
8	117	387	289	1520	250	2300	505	218	95	137	22	17
9	101	382	239	1250	266	2780	671	197	82	86	17	11
10	227	5740	214	1020	266	1610	554	168	69	62	12	11
11	325	2700	204	1190	241	1130	496	154	62	54	9.9	37
12	199	1390	200	2600	260	853	546	144	57	48	13	37
13	183	956	312	1720	232	745	1120	135	51	39	17	29
14	218	709	681	1740	262	663	3740	134	48	33	10	20
15	161	552	552	1680	363	515	2050	133	44	28	10	14
16	141	471	505	1310	2290	451	1330	117	43	24	11	9.7
17	128	398	451	1090	2070	2130	966	139	42	21	9.3	7.8
18	116	341	372	3700	1230	5120	795	758	50	18	14	7.0
19	106	303	348	3700	966	2300	668	504	48	16	56	4.5
20	96	270	330	1850	885	4210	568	1680	53	14	288	2.6
21	88	242	297	1270	1020	22600	495	1250	40	11	99	2.6
22	86	225	271	1540	879	3590	435	780	33	10	52	2.6
23	289	219	360	4400	762	1910	378	966	30	11	34	5.0
24	368	2860	1550	2150	638	1820	345	2020	28	15	24	6.2
25	229	2860	4790	1420	548	1800	358	1820	30	19	20	6.0
26	183	6110	2530	1040	495	1370	371	1200	34	31	16	7.4
27	156	2340	1560	819	434	1100	666	759	51	29	12	22
28	149	1380	1120	672	414	1410	725	519	36	27	9.3	22
29	1310	980	881	562	379	1680	601	439	30	25	7.8	18
30	1120	742	789	488	---	1350	540	459	27	22	6.4	15
31	719	---	753	490	---	1150	---	383	---	17	5.3	---
TOTAL	8454	45278	22463	45435	17408	70245	23802	17408	2261	3646	879.3	399.4
MEAN	273	1509	725	1466	600	2266	793	562	75.4	118	28.4	13.3
MAX	1310	6650	4790	4400	2290	22600	3740	2020	273	1500	288	37
MIN	86	219	200	488	232	256	345	117	27	10	5.3	2.6
CFSM	.72	3.95	1.90	3.84	1.57	5.93	2.08	1.47	.20	.31	.07	.04
IN.	.82	4.41	2.19	4.42	1.70	6.84	2.32	1.70	.22	.36	.09	.04

CAL YR 1979 TOTAL 377727.0 MEAN 1035 MAX 11800 MIN 46 CFSM 2.71 IN 36.78
WTR YR 1980 TOTAL 257678.7 MEAN 704 MAX 22600 MIN 2.6 CFSM 1.84 IN 25.09

03408500 NEW RIVER AT NEW RIVER, TN--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at flow thru monitor 500 ft (152 m) upstream from discharge station.

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 September 1979.
WATER TEMPERATURE: October 1976 to current year.
DISSOLVED OXYGEN: October 1976 to current year.
TURBIDITY: December 1976 to current year.
OXIDATION-REDUCTION POTENTIAL: December 1976 to September 1977 (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 on many days were due to malfunction of the instruments. Values for pH not available for this report. They will be published in the 1981 Water Year report.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 694 micromhos/cm June 30, 1978; minimum, 44 micromhos/cm 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, 2,790 mg/L Oct. 9, 1977; 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, 0.07 ton (0.06 tonne) Sept. 20, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 574 micromhos/cm Sept. 30; minimum, 108 micromhos/cm Nov. 26.
WATER TEMPERATURE: Maximum, 32.5°C July 16; minimum 0.5°C Mar. 3.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,510 mg/L Mar. 21; minimum daily mean, 2 mg/L Feb. 5.
SEDIMENT LOADS: Maximum daily 132,000 tons (119,750 tonnes) Mar. 21; minimum daily 0.07 ton (0.06 tonne) Sept. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT								
25...	1020	216	315	7.4	11.0	38	97	208
NOV								
07...	0945	507	185	7.2	8.5	22	49	116
DEC								
21...	1030	277	208	7.1	2.5	32	65	124
MAR								
13...	1230	741	145	7.0	6.0	20	47	85
APR								
16...	1100	1330	125	7.3	9.0	16	39	89
JUN								
05...	1300	145	245	7.9	23.0	34	67	143
JUL								
16...	1515	23	325	7.6	30.0	36	100	214
AUG								
05...	1130	7.3	408	--	26.0	--	--	--
SEP								
18...	1300	7.3	510	7.4	23.0	38	190	330

03408500 NEW RIVER AT NEW RIVER, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 25...	.28	121	680	60	180	170	14
NOV 07...	.16	159	630	70	210	210	7
DEC 21...	.17	92.7	350	60	--	300	2
MAR 13...	.12	170	770	40	190	170	11
APR 16...	.12	320	1200	20	140	120	30
JUN 05...	.19	56.0	440	20	180	160	21
JUL 16...	.29	13.5	600	10	220	140	8
AUG 05...	--	--	--	--	--	--	--
SEP 18...	.45	6.50	170	0	120	100	11

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 PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL 16...	1515	110	73	27	10	15	23	.6	2.6	6.8

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)
JUL 16...	.1	4.2	188	.11	.000	1	0	200	0

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)
JUL 16...	<10	10	20	20	1	20	22000	0	20

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 (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)
JUL 16...	670	<.1	.00	0	0	0	10	69	.00

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	188	168	181	176	166	172	---	---	---
2	---	---	---	158	122	135	184	176	181	---	---	---
3	236	232	234	138	126	131	190	184	186	---	---	---
4	246	238	242	154	140	147	---	---	---	---	---	---
5	---	---	---	168	154	161	---	---	---	---	---	---
6	---	---	---	178	166	173	---	---	---	---	---	---
7	---	---	---	188	178	183	---	---	---	---	---	---
8	---	---	---	200	188	192	---	---	---	---	---	---
9	---	---	---	206	194	201	---	---	---	---	---	---
10	---	---	---	212	120	159	---	---	---	---	---	---
11	---	---	---	136	118	127	---	---	---	---	---	---
12	---	---	---	148	134	141	---	---	---	---	---	---
13	---	---	---	162	146	155	---	---	---	---	---	---
14	---	---	---	176	162	168	---	---	---	---	---	---
15	---	---	---	184	176	179	---	---	---	---	---	---
16	---	---	---	198	184	191	---	---	---	---	---	---
17	---	---	---	206	194	201	---	---	---	162	156	158
18	306	300	303	214	204	209	200	198	199	190	132	159
19	312	300	306	220	212	216	204	198	200	130	120	123
20	318	308	312	226	218	223	208	200	203	142	128	135
21	324	314	317	234	224	230	210	202	207	156	142	148
22	328	320	323	238	230	235	218	206	213	158	146	154
23	324	296	315	242	230	240	218	210	214	148	122	135
24	332	314	323	222	154	184	210	170	194	132	122	126
25	326	316	322	150	114	127	186	120	136	146	132	139
26	324	294	306	120	108	114	126	118	122	160	144	153
27	312	298	307	130	116	123	136	124	131	170	160	165
28	312	296	306	144	130	137	148	138	142	182	170	177
29	292	186	239	156	144	150	---	---	---	190	180	185
30	200	176	185	168	156	162	---	---	---	196	188	193
31	178	174	176	---	---	---	---	---	---	204	196	200
MONTH	---	---	---	242	108	173	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	214	204	209	216	206	212	172	160	166	196	190	193
2	---	---	---	218	212	216	180	170	175	198	188	194
3	---	---	---	226	216	220	188	178	183	202	194	198
4	---	---	---	222	214	219	186	182	184	208	198	203
5	---	---	---	222	200	213	---	---	---	212	204	208
6	---	---	---	210	150	176	---	---	---	216	208	212
7	---	---	---	154	140	144	---	---	---	224	212	218
8	---	---	---	164	140	150	---	---	---	226	220	223
9	---	---	---	160	126	134	---	---	---	234	222	229
10	---	---	---	136	126	131	---	---	---	240	230	235
11	---	---	---	150	136	141	---	---	---	246	236	242
12	---	---	---	154	148	152	---	---	---	248	240	245
13	---	---	---	166	156	162	---	---	---	254	236	248
14	---	---	---	176	166	171	---	---	---	266	248	261
15	---	---	---	186	174	179	---	---	---	282	262	269
16	---	---	---	194	184	189	---	---	---	282	274	278
17	---	---	---	200	162	187	156	150	153	284	264	276
18	---	---	---	148	118	124	164	154	159	306	264	283
19	---	---	---	132	116	123	172	162	168	304	270	294
20	---	---	---	---	---	---	182	170	176	262	208	223
21	---	---	---	---	---	---	190	178	184	210	174	185
22	178	168	174	---	---	---	196	186	191	178	170	176
23	190	176	183	---	---	---	204	196	200	188	176	179
24	188	182	185	---	---	---	210	200	206	206	172	190
25	188	182	185	---	---	---	216	206	212	172	156	165
26	196	186	191	162	156	159	220	208	215	158	154	157
27	198	190	195	166	158	161	210	198	205	166	156	160
28	206	198	201	170	160	164	214	190	202	172	162	167
29	210	204	207	174	158	167	214	204	210	182	172	178
30	---	---	---	158	152	154	208	192	201	184	174	180
31	---	---	---	162	154	158	---	---	---	206	186	195
MONTH	---	---	---	226	116	168	---	---	---	306	154	215

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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	220	198	214	422	408	416	412	406	409	494	484	488
2	224	218	221	444	392	427	414	408	411	492	486	490
3	228	220	223	434	266	361	416	406	411	494	488	491
4	236	224	229	316	278	300	414	408	411	496	490	493
5	234	226	228	320	310	315	414	408	410	504	496	500
6	256	224	230	---	---	---	431	405	414	504	500	502
7	260	250	256	---	---	---	430	408	417	502	490	495
8	268	258	264	---	---	---	431	419	423	492	476	482
9	282	268	275	---	---	---	428	420	424	482	472	476
10	290	280	287	324	316	319	425	417	420	474	460	465
11	300	290	295	326	316	320	454	410	426	468	450	458
12	304	298	301	336	320	326	454	446	449	462	448	454
13	310	300	306	352	330	341	450	442	446	478	456	466
14	318	308	314	356	346	352	446	438	441	494	470	479
15	326	316	321	356	346	352	440	430	436	494	484	490
16	330	318	324	354	346	350	432	424	427	504	492	498
17	332	326	329	354	346	349	430	422	425	514	500	507
18	342	326	336	350	342	346	428	374	416	516	506	509
19	354	338	345	350	340	345	468	410	440	514	508	511
20	362	346	354	350	342	345	570	464	533	514	506	509
21	372	354	364	352	342	347	540	348	424	508	502	505
22	378	362	370	354	344	348	382	346	361	508	500	504
23	384	372	378	352	342	347	420	384	402	502	494	499
24	390	380	384	362	348	354	440	420	430	504	496	500
25	394	380	386	366	358	361	452	440	444	504	496	501
26	402	388	395	376	346	363	462	452	454	510	498	502
27	408	396	400	388	374	380	470	456	462	524	508	515
28	418	400	408	394	384	388	482	464	470	542	522	530
29	422	410	415	400	386	392	482	474	477	564	540	548
30	420	412	417	408	392	399	486	476	480	574	564	569
31	---	---	---	414	402	406	492	480	484	---	---	---
MONTH	422	198	319	444	266	357	570	346	435	574	448	498

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

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

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.5	1.0	6.0	3.0	4.5	11.5	10.0	11.0	13.0	12.0	12.5
2	---	---	---	3.0	1.5	2.0	12.0	11.0	11.5	13.5	12.5	13.0
3	---	---	---	2.0	.5	1.5	13.5	12.0	12.5	14.5	13.5	14.0
4	---	---	---	2.0	1.0	1.5	13.5	13.5	13.5	15.5	14.0	14.5
5	---	---	---	4.0	2.0	3.0	---	---	---	16.0	15.0	15.5
6	---	---	---	6.5	4.0	5.5	---	---	---	17.0	16.0	16.5
7	---	---	---	7.5	6.0	6.5	---	---	---	18.0	17.0	17.5
8	---	---	---	10.0	7.5	9.0	---	---	---	18.5	17.5	18.0
9	---	---	---	10.0	9.0	10.0	---	---	---	17.5	17.0	17.5
10	---	---	---	9.5	8.0	8.5	---	---	---	17.5	16.5	17.0
11	---	---	---	9.0	8.0	8.0	---	---	---	18.5	17.0	17.5
12	---	---	---	8.0	6.5	7.0	---	---	---	20.0	18.0	19.0
13	---	---	---	6.5	6.0	6.0	---	---	---	20.5	19.5	20.0
14	---	---	---	6.5	5.5	6.0	---	---	---	20.5	20.0	20.0
15	---	---	---	7.5	5.5	6.5	---	---	---	20.0	19.0	19.5
16	---	---	---	8.0	7.0	7.5	---	---	---	19.5	18.5	19.0
17	---	---	---	9.5	8.0	8.5	11.5	11.0	11.0	19.0	18.5	18.5
18	---	---	---	9.5	8.0	8.5	13.0	11.0	12.0	18.5	18.0	18.0
19	---	---	---	7.5	7.0	7.5	13.5	12.5	13.0	18.5	18.5	18.5
20	---	---	---	9.0	7.0	8.0	15.0	13.5	14.0	18.5	17.5	18.0
21	---	---	---	9.5	7.5	9.0	16.0	14.0	15.0	17.5	16.5	17.0
22	10.0	8.5	9.0	7.5	7.5	7.5	16.5	15.0	16.0	17.0	17.0	17.0
23	11.0	9.5	10.5	8.5	7.5	8.0	18.0	16.0	17.0	17.5	16.5	17.0
24	11.0	10.5	10.5	9.5	8.5	9.0	18.5	17.5	18.0	17.5	16.5	17.0
25	10.5	8.5	9.5	9.5	9.0	9.0	18.0	17.0	17.5	16.5	16.0	16.5
26	8.0	6.0	6.5	10.5	8.0	8.5	17.0	16.0	16.5	17.5	16.5	17.0
27	6.0	5.0	5.5	9.0	7.5	8.5	16.0	14.5	15.5	18.0	17.0	17.5
28	6.5	5.0	6.0	9.5	9.0	9.5	14.5	14.0	14.0	19.0	18.0	18.5
29	6.5	5.5	6.0	11.0	9.5	10.0	14.0	12.5	13.5	20.0	19.0	19.5
30	---	---	---	11.5	11.0	11.0	12.5	12.0	12.5	20.5	20.0	20.0
31	---	---	---	12.0	10.5	11.5	---	---	---	21.0	20.5	20.5
MONTH	---	---	---	12.0	.5	7.5	---	---	---	21.0	12.0	17.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	21.0	21.5	28.5	27.0	27.5	29.0	26.5	27.5	26.5	24.5	25.5
2	22.5	21.5	22.0	28.5	26.0	28.0	29.5	26.5	27.5	26.0	24.5	25.5
3	23.0	22.0	22.5	26.5	25.0	25.5	28.0	26.0	27.0	26.0	24.5	25.0
4	24.0	22.5	23.0	28.5	25.0	26.5	27.0	26.0	26.5	26.0	25.0	25.5
5	24.5	23.0	23.5	27.0	26.5	26.5	27.5	25.0	26.0	27.0	25.0	26.0
6	25.0	23.5	24.0	---	---	---	28.5	26.0	27.0	27.0	25.5	26.0
7	25.5	24.0	25.0	---	---	---	28.5	26.0	27.5	26.5	25.5	26.0
8	25.5	25.0	25.5	---	---	---	29.0	26.5	28.0	26.0	25.0	25.5
9	25.5	24.0	25.0	---	---	---	29.5	26.5	28.0	26.5	24.5	25.5
10	25.0	23.0	24.0	27.5	26.5	27.5	29.5	26.5	28.0	25.5	24.5	25.5
11	24.0	22.5	23.5	30.0	26.5	28.0	28.5	27.0	27.5	26.0	24.0	24.5
12	24.0	22.5	23.5	30.5	27.0	28.5	28.0	26.0	27.0	25.5	23.5	24.5
13	24.0	22.5	23.5	30.5	27.5	29.0	29.0	25.5	27.0	26.0	23.0	24.5
14	25.0	23.0	24.0	31.5	28.0	29.5	28.0	25.5	26.5	26.0	23.5	25.0
15	26.0	23.5	24.5	31.5	28.5	30.0	27.5	26.0	26.5	25.0	23.5	24.5
16	25.5	24.5	25.0	32.5	29.0	30.5	28.5	26.0	27.0	25.5	23.0	24.0
17	25.5	24.5	25.0	30.5	28.5	30.0	28.0	26.0	27.0	25.0	23.5	24.0
18	25.5	25.0	25.0	30.5	28.5	29.5	27.5	25.0	26.0	24.5	23.0	23.5
19	25.5	24.5	25.0	30.5	27.5	29.0	27.5	25.0	26.0	24.0	22.0	23.0
20	25.5	24.5	25.0	31.0	27.5	29.5	27.0	26.0	26.5	24.0	23.0	23.5
21	26.0	25.0	25.5	31.0	27.5	29.0	27.5	25.5	26.5	24.5	23.0	23.5
22	26.0	24.5	25.5	28.5	27.0	27.5	27.0	25.5	26.5	25.0	23.5	24.0
23	26.0	25.0	25.5	28.0	26.5	27.0	27.0	25.5	26.0	25.0	24.0	24.5
24	26.0	25.5	25.5	28.0	25.5	26.5	26.5	25.5	26.0	25.0	23.5	24.0
25	26.5	25.0	26.0	28.0	26.0	27.0	26.5	25.0	26.0	24.5	23.5	24.0
26	27.0	26.0	26.5	28.5	25.5	27.0	26.5	24.5	25.5	24.0	22.5	23.0
27	28.0	26.5	27.0	27.5	26.0	26.5	27.0	24.5	25.5	22.0	20.5	21.5
28	29.0	27.5	28.0	26.5	25.5	26.0	26.0	24.0	25.0	20.5	19.5	20.0
29	28.5	27.5	28.0	28.0	25.5	26.5	25.5	24.0	25.0	20.0	19.5	19.5
30	27.5	27.0	27.5	29.0	25.5	27.0	25.5	24.0	24.5	19.5	19.5	19.5
31	---	---	---	29.5	26.0	27.5	26.5	24.0	25.0	---	---	---
MONTH	29.0	21.0	25.0	32.5	25.0	28.0	29.5	24.0	26.5	27.0	19.5	24.0

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.7	9.3	9.5	12.5	12.1	12.3	---	---	---
2	---	---	---	9.6	8.9	9.3	12.8	12.5	12.7	---	---	---
3	8.3	8.3	8.3	10.3	9.7	10.0	13.1	12.9	13.0	---	---	---
4	8.4	8.3	8.4	10.8	10.4	10.7	---	---	---	---	---	---
5	---	---	---	11.1	10.8	10.9	---	---	---	---	---	---
6	---	---	---	11.1	11.0	11.1	---	---	---	---	---	---
7	---	---	---	11.1	11.0	11.0	---	---	---	---	---	---
8	---	---	---	11.0	10.9	11.0	---	---	---	---	---	---
9	---	---	---	10.9	10.5	10.8	---	---	---	---	---	---
10	---	---	---	10.6	9.7	10.1	---	---	---	---	---	---
11	---	---	---	10.7	10.1	10.4	---	---	---	---	---	---
12	---	---	---	11.0	10.8	10.9	---	---	---	---	---	---
13	---	---	---	10.9	10.9	10.9	---	---	---	---	---	---
14	---	---	---	11.2	10.9	11.1	---	---	---	---	---	---
15	---	---	---	11.6	11.2	11.4	---	---	---	---	---	---
16	---	---	---	11.6	11.4	11.5	---	---	---	---	---	---
17	---	---	---	11.5	11.4	11.4	---	---	---	10.8	10.6	10.7
18	10.2	10.0	10.1	11.5	11.4	11.4	12.6	12.5	12.6	10.6	10.3	10.4
19	10.1	9.8	10.0	11.5	11.4	11.4	12.7	12.6	12.7	11.1	10.4	10.7
20	9.9	9.6	9.7	11.4	11.2	11.3	12.8	12.6	12.7	11.2	11.0	11.1
21	9.7	9.2	9.4	11.2	10.9	11.0	12.8	12.7	12.7	11.1	11.0	11.1
22	9.3	8.9	9.0	10.9	10.6	10.8	12.7	12.4	12.5	11.0	10.7	10.8
23	8.9	7.8	8.5	10.6	10.2	10.4	12.4	11.6	12.0	11.3	10.7	10.9
24	9.2	8.6	8.9	10.2	10.0	10.1	11.6	10.4	10.9	11.5	11.3	11.4
25	9.8	9.3	9.6	10.3	9.9	10.2	11.2	10.3	10.7	11.4	11.0	11.2
26	10.2	9.9	10.1	10.2	9.7	9.9	11.5	11.3	11.4	11.1	10.9	11.0
27	10.5	10.1	10.4	10.7	10.3	10.6	11.7	11.5	11.6	10.9	10.8	10.9
28	10.6	10.5	10.5	10.8	10.7	10.7	11.9	11.7	11.8	11.3	10.9	11.1
29	10.6	9.2	10.1	11.5	10.8	11.1	---	---	---	11.7	11.3	11.4
30	10.1	9.7	9.9	12.1	11.6	11.9	---	---	---	12.1	11.7	11.9
31	9.8	9.6	9.6	---	---	---	---	---	---	12.6	12.1	12.4
MONTH	---	---	---	12.1	8.9	10.8	---	---	---	---	---	---

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

03408500 NEW RIVER AT NEW RIVER, TN--Continued

OXYGEN, DISSOLVED (DO), MG/L, 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				---	---	---	5.9	5.5	5.7	---	---	---
2				---	---	---	5.9	5.5	5.7	---	---	---
3				7.0	6.5	6.7	6.0	5.5	5.7	---	---	---
4				6.9	6.6	6.7	6.0	5.6	5.8	7.3	6.6	7.0
5				6.7	6.5	6.6	6.6	5.6	6.1	7.2	6.9	7.0
6				---	---	---	6.7	6.2	6.5	7.6	7.0	7.2
7				---	---	---	6.9	6.3	6.6	7.2	6.8	7.0
8				---	---	---	6.8	6.3	6.6	7.4	6.9	7.1
9				---	---	---	6.8	6.2	6.6	7.2	6.8	7.0
10				---	---	---	6.7	6.1	6.4	7.3	6.8	7.1
11				7.1	6.5	6.8	7.1	6.2	6.7	8.0	6.6	7.3
12				7.1	6.4	6.8	7.3	6.7	7.0	8.1	7.1	7.5
13				7.2	6.6	6.9	7.1	6.5	6.8	7.5	7.0	7.2
14				7.0	6.7	6.8	7.1	6.6	6.8	7.6	7.2	7.5
15				7.0	6.7	6.8	7.3	6.5	6.9	7.7	7.1	7.4
16				7.0	6.7	6.8	7.1	6.5	6.8	7.5	7.0	7.3
17				7.0	6.5	6.8	7.0	6.3	6.7	7.6	7.0	7.2
18				7.0	6.6	6.8	6.8	6.3	6.6	7.5	6.9	7.2
19				7.0	6.6	6.8	6.8	5.8	6.3	7.4	6.8	7.1
20				7.1	6.7	6.8	---	---	---	7.3	6.8	7.1
21				7.1	6.5	6.8	---	---	---	7.5	7.1	7.3
22				7.2	6.4	6.8	---	---	---	7.6	7.0	7.3
23				7.0	6.3	6.6	---	---	---	7.8	7.0	7.3
24				6.8	6.1	6.7	---	---	---	7.7	7.1	7.4
25				6.6	6.1	6.4	---	---	---	7.6	7.1	7.3
26				6.4	6.0	6.2	---	---	---	7.9	7.1	7.4
27				6.3	6.0	6.1	---	---	---	7.7	6.9	7.4
28				6.3	5.9	6.1	---	---	---	7.7	7.3	7.5
29				6.3	6.0	6.1	---	---	---	7.8	7.2	7.5
30				6.2	5.8	6.0	---	---	---	7.6	7.3	7.5
31				6.0	5.6	5.8	---	---	---	---	---	---
MONTH				---	---	---	---	---	---	8.1	6.6	7.3

TURBIDITY (JTU), 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	---	---	240	110	120	110	---	---	100	70	140	80
2	---	---	1400	270	120	110	---	---	350	80	100	85
3	150	140	390	170	120	110	---	---	---	---	100	90
4	150	130	170	140	---	---	---	---	---	---	1600	85
5	---	---	850	140	---	---	---	---	---	---	1500	120
6	---	---	---	480	---	---	---	---	---	---	500	200
7	---	---	---	120	---	---	---	---	---	---	1200	130
8	---	---	240	110	---	---	---	---	---	---	1600	300
9	---	---	1500	95	---	---	---	---	---	---	1600	170
10	---	---	850	330	---	---	---	---	---	---	170	120
11	---	---	300	170	---	---	---	---	---	---	380	120
12	---	---	170	140	---	---	---	---	---	---	130	90
13	---	---	180	140	---	---	---	---	---	---	100	80
14	---	---	170	140	---	---	---	---	---	---	100	65
15	---	---	170	120	---	---	---	---	---	---	80	65
16	---	---	---	---	---	---	---	---	---	---	75	65
17	---	---	140	110	---	---	160	110	---	---	1100	70
18	140	120	1300	110	390	130	900	110	---	---	1200	230
19	1300	140	1600	110	900	120	700	150	---	---	210	110
20	1400	110	120	95	130	120	160	130	---	---	---	---
21	120	110	440	100	1200	110	180	95	---	---	---	---
22	1100	110	110	90	150	120	1500	130	210	90	---	---
23	800	110	1500	85	210	120	450	180	1400	95	---	---
24	200	150	420	130	550	150	190	100	900	85	---	---
25	170	140	290	170	750	210	130	95	85	70	---	---
26	170	140	700	210	200	140	100	85	95	75	---	---
27	180	140	900	170	500	140	100	75	180	75	---	---
28	140	110	1600	650	150	130	90	75	1600	80	---	---
29	950	120	1600	120	---	---	95	80	110	80	---	---
30	420	170	140	110	---	---	85	75	---	---	---	---
31	180	120	---	---	---	---	100	75	---	---	---	---
MONTH	---	---	1600	85	---	---	---	---	---	---	---	---

03408500 NEW RIVER AT NEW RIVER, TN--Continued

TURBIDITY (JTU), 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							---	---	410	390		
2							---	---	430	400		
3							1300	500	460	430		
4							550	440	500	480		
5							460	440	---	---		
6							---	---	---	---		
7							---	---	---	---		
8							---	---	---	---		
9							---	---	---	---		
10							2000	380	---	---		
11							390	370	---	---		
12							380	320	---	---		
13							700	320	---	---		
14							1900	310	---	---		
15							340	310	---	---		
16							340	310	---	---		
17							360	320	---	---		
18							360	330	---	---		
19							370	320	---	---		
20							360	320	---	---		
21							360	320	---	---		
22							360	340	---	---		
23							380	360	---	---		
24							380	330	---	---		
25							380	360	---	---		
26							430	360	---	---		
27							380	370	---	---		
28							390	380	---	---		
29							390	370	---	---		
30							400	370	---	---		
31							400	380	---	---		
MONTH							2000	310	---	---		

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	425	36	41	561	60	93	602	13	21
2	304	34	28	6650	823	15200	501	10	14
3	236	28	18	2480	160	1220	395	10	11
4	193	20	10	1180	36	115	356	10	9.6
5	189	22	11	788	17	36	339	9	8.2
6	158	20	8.5	589	12	19	332	10	9.0
7	134	16	5.8	473	9	11	340	13	12
8	117	10	3.2	387	10	10	289	10	7.8
9	101	10	2.7	382	13	13	239	8	5.2
10	227	30	18	5740	386	7560	214	8	4.6
11	325	22	19	2700	46	335	204	8	4.4
12	199	10	5.4	1390	38	143	200	8	4.3
13	183	9	4.4	956	30	77	312	19	16
14	218	11	6.5	709	20	38	681	51	94
15	161	8	3.5	552	11	16	552	15	22
16	141	5	1.9	471	26	33	505	15	20
17	128	4	1.4	398	21	23	451	15	18
18	116	15	4.7	341	18	17	372	12	12
19	106	14	4.0	303	13	11	348	15	14
20	96	11	2.9	270	13	9.5	330	12	11
21	88	8	1.9	242	10	6.5	297	8	6.4
22	86	4	.93	225	10	6.1	271	6	4.4
23	289	26	20	219	12	7.1	360	10	9.7
24	368	35	35	2860	274	2200	1550	116	789
25	229	10	6.2	2860	174	1360	4790	314	4430
26	183	11	5.4	6110	410	7480	2530	60	410
27	156	22	9.3	2340	78	493	1560	30	126
28	149	10	4.0	1380	44	164	1120	18	54
29	1310	221	890	980	33	87	881	12	29
30	1120	105	318	742	19	38	789	10	21
31	719	65	126	---	---	---	753	20	41
TOTAL	8454	---	1616.63	45278	---	36821.2	22463	---	6238.6

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	661	18	32	390	12	13	333	10	9.0
2	602	10	16	323	8	7.0	302	11	9.0
3	533	10	14	356	5	4.8	256	10	6.9
4	738	63	126	323	3	2.6	317	10	8.6
5	1430	108	417	276	2	1.5	1190	122	590
6	1150	30	93	299	3	2.4	1920	196	1070
7	1100	36	107	291	3	2.4	1340	47	170
8	1520	130	534	250	3	2.0	2300	203	1500
9	1250	42	142	266	3	2.2	2780	498	4250
10	1020	20	55	266	4	2.9	1610	52	226
11	1190	74	311	241	3	2.0	1130	34	104
12	2600	130	992	260	5	3.5	853	25	58
13	1720	41	190	232	5	3.1	745	16	32
14	1740	62	313	262	4	2.8	663	20	36
15	1680	38	172	363	7	6.9	515	10	14
16	1310	20	71	2290	149	972	451	10	12
17	1090	34	100	2070	80	447	2130	259	3830
18	3700	294	4920	1230	30	100	5120	512	7500
19	3700	206	2460	966	18	47	2300	95	590
20	1850	40	200	885	18	43	4210	442	10800
21	1270	24	82	1020	85	234	22600	2510	132000
22	1540	38	224	879	38	90	3590	1840	27100
23	4400	236	3080	762	30	62	1910	20	103
24	2150	58	337	638	26	45	1820	54	265
25	1420	29	111	548	19	28	1800	54	262
26	1040	24	67	495	13	17	1370	28	104
27	819	20	44	434	15	18	1100	18	53
28	672	23	42	414	12	13	1410	102	471
29	562	30	46	379	9	9.2	1680	50	227
30	488	20	26	---	---	---	1350	28	102
31	490	18	24	---	---	---	1150	22	68
TOTAL	45435	---	15348	17408	---	2184.3	70245	---	191570.5
		APRIL			MAY			JUNE	
1	887	16	38	460	10	12	273	30	22
2	733	11	22	399	10	11	219	20	12
3	653	20	35	355	10	9.6	179	32	15
4	878	83	197	320	30	26	153	30	12
5	682	60	110	287	11	8.5	134	18	6.5
6	554	24	36	267	10	7.2	116	8	2.5
7	492	16	21	244	11	7.2	104	17	4.8
8	505	19	26	218	12	7.1	95	10	2.6
9	671	25	45	197	13	6.9	82	26	5.8
10	554	25	37	168	11	5.0	69	24	4.5
11	496	28	37	154	8	3.3	62	20	3.3
12	546	36	53	144	7	2.7	57	15	2.3
13	1120	92	278	135	8	2.9	51	12	1.7
14	3740	345	3580	134	15	5.4	48	10	1.3
15	2050	85	470	133	33	12	44	12	1.4
16	1330	28	101	117	9	2.8	43	15	1.7
17	966	12	31	139	10	3.8	42	15	1.7
18	795	10	21	758	82	195	50	12	1.6
19	668	14	25	504	31	46	48	12	1.6
20	568	15	23	1680	212	1030	53	12	1.7
21	495	15	20	1250	76	271	40	11	1.2
22	435	14	16	780	22	46	33	13	1.2
23	378	13	13	966	66	172	30	17	1.4
24	345	11	10	2020	231	1260	28	16	1.2
25	358	10	9.7	1820	129	634	30	14	1.1
26	371	18	18	1200	37	120	34	13	1.2
27	666	13	23	759	22	45	51	13	1.8
28	725	12	23	519	35	49	36	12	1.2
29	601	11	18	439	20	24	30	11	.89
30	540	14	20	459	10	12	27	11	.80
31	---	---	---	383	21	22	---	---	---
TOTAL	23802	---	5356.7	17408	---	4059.4	2261	---	117.99

03408500 NEW RIVER AT NEW RIVER, TN--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	23	11	.68	13	17	.60	4.8	12	.16
2	23	21	1.3	9.7	19	.50	3.9	9	.09
3	114	95	32	8.5	20	.46	5.0	6	.08
4	1500	421	2100	7.9	16	.34	4.3	23	.27
5	446	231	304	9.2	12	.30	22	15	.89
6	423	223	264	33	11	.98	20	17	.92
7	320	214	192	23	8	.50	25	10	.68
8	137	127	47	22	11	.65	17	16	.73
9	86	75	17	17	23	1.1	11	35	1.0
10	62	57	9.5	12	10	.32	11	11	.33
11	54	40	5.8	9.9	10	.27	37	23	2.3
12	48	23	3.0	13	8	.28	37	22	2.2
13	39	20	2.1	17	8	.37	29	15	1.2
14	33	16	1.4	10	11	.30	20	8	.43
15	28	21	1.6	10	10	.27	14	10	.38
16	24	23	1.5	11	9	.27	9.7	10	.26
17	21	20	1.1	9.3	7	.18	7.8	11	.23
18	18	23	1.1	14	20	.76	7.0	10	.19
19	16	20	.86	56	23	3.5	4.5	10	.12
20	14	18	.68	288	76	59	2.6	10	.07
21	11	30	.89	99	38	10	2.6	11	.08
22	10	28	.76	52	34	4.8	2.6	18	.13
23	11	25	.74	34	42	3.9	5.0	10	.14
24	15	26	1.1	24	78	5.1	6.2	12	.20
25	19	21	1.1	20	67	3.6	6.0	16	.26
26	31	20	1.7	16	24	1.0	7.4	18	.36
27	29	16	1.3	12	10	.32	22	20	1.2
28	27	19	1.4	9.3	22	.55	22	12	.71
29	25	18	1.2	7.8	12	.25	18	9	.44
30	22	15	.89	6.4	10	.17	15	9	.36
31	17	14	.64	5.3	10	.14	---	---	---
TOTAL	3646	---	2998.34	879.3	---	100.78	399.4	---	16.41

03408600 LONG BRANCH NEAR GRIMSLEY, TN

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

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

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.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107 ft^3/s (3.03 m^3/s) Mar. 21, gage height, 2.89 ft (0.881 m); no flow all or part of each day Aug. 25 to Sept. 30.

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	1.1	4.9	3.4	2.9	2.0	2.4	4.1	1.4	.55	.06	.02	.00
2	1.0	8.1	2.9	2.7	1.8	2.2	3.4	1.3	.43	.03	.02	.00
3	.93	6.1	2.3	2.3	1.7	2.2	3.0	1.2	.35	.03	.02	.00
4	1.2	4.8	2.1	4.4	1.5	2.5	2.8	1.2	.31	.04	.54	.05
5	1.1	3.7	2.1	4.2	1.5	3.4	2.4	1.2	.25	.03	.08	.00
6	.89	3.2	2.0	3.5	1.6	3.8	2.3	.97	.21	.03	.04	.00
7	.76	2.8	1.8	5.6	1.5	3.6	2.4	.90	.18	.03	.04	.00
8	.66	2.4	1.7	6.0	1.6	5.2	4.1	.89	.15	.02	.03	.00
9	.68	3.5	1.7	4.9	1.7	6.0	3.5	.79	.12	.02	.01	.00
10	1.5	7.7	1.5	3.7	1.6	3.7	3.0	.70	.10	.02	.01	.00
11	1.1	6.0	1.4	5.0	1.7	2.7	2.5	.59	.08	.02	.02	.00
12	.92	4.9	1.4	5.3	1.6	2.2	2.4	.56	.06	.01	.02	.00
13	.87	4.0	1.8	4.8	1.5	2.2	3.9	.52	.04	.01	.05	.00
14	.90	2.9	1.8	4.7	1.6	2.2	6.0	.52	.04	.01	.01	.00
15	.90	2.8	1.7	4.2	3.5	2.0	4.9	.50	.04	.01	.01	.00
16	.86	2.5	1.5	3.7	8.0	1.9	4.1	.46	.04	.01	.01	.00
17	.79	2.2	1.4	3.3	4.0	9.6	3.5	1.7	.06	.01	.01	.00
18	.73	2.0	1.4	9.0	3.0	8.3	3.3	1.5	.07	.01	.12	.00
19	.66	1.7	1.3	7.4	2.6	6.1	2.5	.92	.05	.01	.03	.00
20	.66	1.7	1.2	5.8	4.8	34	2.3	.88	.04	.01	.02	.01
21	.66	1.5	1.2	4.9	4.8	38	2.0	.86	.04	.01	.02	.02
22	.97	1.4	1.1	7.8	3.7	13	1.8	.73	.04	.01	.02	.00
23	2.2	3.7	2.3	8.4	3.0	8.5	1.6	.73	.04	.04	.02	.03
24	1.3	10	5.0	6.3	2.7	8.9	1.4	1.2	.04	.04	.01	.00
25	1.2	9.0	6.3	5.3	2.5	7.3	1.4	2.1	.04	.04	.00	.00
26	1.1	10	6.0	4.3	2.3	5.9	1.5	1.5	.04	.47	.00	.00
27	1.0	7.0	4.9	3.6	2.6	5.0	2.1	1.2	.04	.12	.00	.00
28	2.0	5.6	4.0	3.2	2.7	8.5	1.7	1.0	.04	.06	.00	.00
29	9.9	4.8	3.4	2.8	2.6	7.0	1.5	.86	.06	.04	.00	.00
30	6.9	4.0	3.3	2.6	---	5.9	1.5	.72	.08	.04	.00	.00
31	4.9	---	3.0	2.2	---	4.9	---	.63	---	.03	.00	---
TOTAL	50.34	134.9	76.9	144.8	75.7	219.1	82.9	30.23	3.63	1.32	1.18	.11
MEAN	1.62	4.50	2.48	4.67	2.61	7.07	2.76	.98	.12	.043	.038	.004
MAX	9.9	10	6.3	9.0	8.0	38	6.0	2.1	.55	.47	.54	.05
MIN	.66	1.4	1.1	2.2	1.5	1.9	1.4	.46	.04	.01	.00	.00
CFSM	1.46	4.05	2.23	4.21	2.35	6.37	2.49	.88	.11	.04	.03	.004
IN.	1.69	4.52	2.57	4.85	2.53	7.34	2.78	1.01	.12	.04	.04	.00

CAL YR 1979 TOTAL 958.11 MEAN 2.62 MAX 30 MIN .03 CFSM 2.36 IN 32.08
WTR YR 1980 TOTAL 821.11 MEAN 2.24 MAX 38 MIN .00 CFSM 2.02 IN 27.49

NOTE.--No gage-height record Feb. 6 to Mar. 11.

03408600 LONG BRANCH NEAR GRIMSLEY, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 21...	1230	1.7	16	5.6	14.0	2	4.6	12
JUN 04...	1300	.20	20	5.5	17.5	2	5.5	22

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)
APR 21...	.02	.06	210	140	--	70	2	.01
JUN 04...	.03	.01	960	30	170	160	12	.01

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 15...	1305	0	<10	<10	<10	<10	4100	<10	43	.0	0	14

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 CURRENT YEAR.--Maximum discharge, 285 ft³/s (8.07 m³/s) Mar. 21, gage height, 3.26 ft (0.994 m); minimum discharge, 0.09 ft³/s (0.003 m³/s) Aug. 9, estimated; minimum gage height observed, 0.58 ft (0.177 m) July 15.

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	5.6	11	7.8	10	4.1	7.4	8.6	3.1	2.7	.54	.25	.11
2	4.4	22	7.2	8.4	3.6	6.6	7.4	3.0	2.0	.41	.19	.18
3	3.6	10	6.0	8.1	3.2	6.0	6.6	3.2	1.8	1.1	.14	.20
4	4.5	7.9	5.9	20	3.2	6.2	7.6	2.6	1.5	.92	.15	.19
5	3.9	6.1	6.1	15	3.2	9.0	5.8	2.4	1.2	.67	.15	.18
6	3.0	5.5	5.8	10	3.4	12	5.2	2.4	.99	.59	.12	.13
7	2.6	4.9	4.9	21	3.3	11	4.5	2.4	1.1	.44	.10	.13
8	2.4	4.4	3.7	16	3.6	16	7.1	2.1	.83	.34	.10	.13
9	2.6	8.2	3.4	12	3.9	20	5.8	1.9	.73	.32	.09	.12
10	7.0	22	3.2	11	3.6	15	5.4	1.7	.73	.31	.30	.38
11	3.9	12	3.2	20	3.8	10	4.7	1.8	.75	.33	1.0	.20
12	3.0	8.5	3.3	17	3.5	7.4	7.6	1.6	.74	.24	.83	.16
13	4.1	7.2	12	15	3.4	7.7	13	1.7	1.1	.18	.43	.15
14	3.3	5.7	8.8	17	3.7	7.7	20	1.8	.94	.14	.25	.10
15	2.8	4.8	6.9	13	5.9	5.7	11	1.6	.87	.13	.31	.11
16	2.5	4.5	5.6	12	38	5.4	8.2	1.6	.79	.13	.35	.13
17	2.3	4.1	4.5	16	15	39	6.4	4.9	.78	.12	.36	.27
18	2.1	3.7	4.5	62	11	33	6.1	5.8	.81	.12	.36	.28
19	2.0	3.6	3.9	24	9.1	20	5.7	2.8	.71	.11	.68	.28
20	2.0	3.2	3.6	16	17	70	4.8	3.3	.64	.11	.63	.32
21	2.0	3.0	3.6	13	17	112	3.9	2.7	.58	.10	.49	.74
22	2.3	3.0	3.6	42	13	24	3.9	2.3	.59	.36	.38	.66
23	14	11	11	33	11	15	3.9	2.8	.58	.56	.30	.30
24	5.8	44	29	13	9.1	21	3.7	3.0	.64	.39	.25	.30
25	3.8	27	32	12	8.1	15	3.6	2.4	.74	.28	.20	.22
26	3.1	29	20	9.3	6.9	11	3.7	2.0	.61	.84	.16	.19
27	3.0	16	12	7.9	7.8	9.6	6.4	1.8	.52	2.1	.13	.19
28	5.7	14	8.9	7.1	8.4	23	4.1	1.5	.45	.94	.10	.22
29	25	11	9.3	6.4	8.2	15	4.3	4.6	.57	.66	.13	.19
30	13	8.4	10	5.9	---	13	3.8	10	.68	.48	.16	.19
31	8.6	---	8.8	5.3	---	12	---	4.4	---	.30	.15	---
TOTAL	153.9	325.7	258.5	498.4	235.0	585.7	192.8	89.2	27.67	14.26	9.24	6.95
MEAN	4.96	10.9	8.34	16.1	8.10	18.9	6.43	2.88	.92	.46	.30	.23
MAX	25	44	32	62	38	112	20	10	2.7	2.1	1.0	.74
MIN	2.0	3.0	3.2	5.3	3.2	5.4	3.6	1.5	.45	.10	.09	.10
CFSM	1.37	3.01	2.30	4.45	2.24	5.22	1.78	.80	.25	.13	.08	.06
IN.	1.58	3.35	2.66	5.12	2.41	6.02	1.98	.92	.28	.15	.09	.07

CAL YR 1979 TOTAL 3242.43 MEAN 8.88 MAX 81 MIN .19 CFSM 2.45 IN 33.31
WTR YR 1980 TOTAL 2397.32 MEAN 6.55 MAX 112 MIN .09 CFSM 1.81 IN 24.63

03408815 CROOKED CREEK NEAR ALLARDT, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 21...	1030	4.1	85	7.0	14.0	24	16	50
JUN 04...	1100	1.2	95	7.9	21.0	16	18	64
JUL 15...	1015	.13	96	6.9	24.5	17	20	72
SEP 12...	1100	2.0	385	5.8	21.0	8	170	273

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)
APR 21...	.07	.55	840	260	--	510	9	.10
JUN 04...	.09	.21	1100	90	630	550	14	.05
JUL 15...	.10	.03	1100	10	500	500	15	.01
SEP 12...	.37	1.47	1300	750	6500	6500	3	.02

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 PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL 15...	1015	39	22	13	1.5	1.8	9	.1	1.6	5.0

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)
JUL 15...	.6	4.1	58	.16	.280	1	0	100	0

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)
JUL 15...	<10	10	<10	<10	1	<10	2500	2	<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 (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)
JUL 15...	21	.1	.00	0	0	0	10	13	.01

03409400 WHITE OAK CREEK AT RUGBY, TN

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

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

WATER-DISCHARGE RECORDS

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

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 CURRENT YEAR.--Maximum discharge during period January to September, 23,600 ft^3/s (668 m^3/s) Mar. 21, gage height, 24.70 ft (7.529 m) from floodmarks, from rating curve extended above 700 ft^3/s (19.8 m^3/s), on basis of slope-area study of peak flow; minimum, 0.24 ft^3/s (0.007 m^3/s) Aug. 11, gage height, 4.80 ft (1.463 m).

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				---	97	74	251	130	46	2.7	1.1	1.7
2				---	86	68	208	108	36	2.4	.77	1.7
3				---	79	66	179	91	28	2.8	.67	1.8
4				---	74	70	150	78	23	5.5	.61	2.0
5				---	68	225	110	67	20	8.8	.57	2.1
6				---	70	328	92	60	17	22	.48	2.0
7				---	69	293	81	53	14	21	.42	1.9
8				---	62	450	88	47	12	11	.34	2.1
9				---	63	596	108	40	9.6	7.1	.34	2.5
10				---	63	413	86	35	8.0	5.3	.33	3.0
11				---	59	290	80	32	7.1	4.5	1.3	4.3
12				---	62	219	102	29	6.4	3.6	16	3.0
13				---	55	190	211	27	5.7	2.9	6.9	2.3
14				---	61	158	708	26	5.2	2.3	3.8	1.6
15				---	82	123	476	26	4.9	1.7	2.4	1.2
16				---	375	109	309	23	4.7	1.6	1.7	1.0
17				---	423	1020	222	35	4.5	1.0	4.6	.89
18				---	293	1310	175	262	5.0	.79	7.0	.81
19				---	238	551	142	128	4.3	.68	9.8	.74
20				---	204	3470	118	326	3.8	.61	8.1	.67
21				---	181	5700	100	256	3.5	.56	6.4	.63
22				---	156	1100	86	154	3.3	.52	6.6	.67
23				---	139	500	76	150	3.1	.70	7.4	.67
24				537	125	450	67	139	3.0	.73	8.3	.56
25				372	111	450	73	165	2.9	.57	5.4	.48
26				268	102	350	84	135	2.7	1.3	4.0	.47
27				209	92	280	483	92	3.1	2.7	2.8	.45
28				168	90	450	289	65	3.1	3.2	2.4	.42
29				139	84	574	212	52	3.2	2.5	2.0	.42
30				121	---	414	164	85	3.1	2.0	1.9	.40
31				118	---	330	---	69	---	1.8	1.8	---
TOTAL				---	3663	20621	5530	2985	296.2	124.86	116.23	42.48
MEAN				---	126	665	184	96.3	9.87	4.03	3.75	1.42
MAX				---	423	5700	708	326	46	22	16	4.3
MIN				---	55	66	67	23	2.7	.52	.33	.40

03409400 WHITE OAK CREEK AT RUGBY, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV								
05...	1515	243	45	6.3	8.0	12	12	34
JAN								
03...	0930	99	58	6.8	4.0	14	13	40
FEB								
15...	0945	71	80	6.5	1.0	12	22	60
MAR								
12...	1400	191	44	7.1	5.5	10	11	34
28...	1400	659	50	7.1	9.0	8	14	38
APR								
13...	1940	359	59	7.1	9.5	14	15	48
JUN								
17...	1230	4.2	150	7.7	20.5	34	26	95
JUL								
15...	1650	1.6	250	7.3	28.0	68	31	162
SEP								
19...	0830	.68	270	7.4	18.0	72	14	138

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)
NOV								
05...	.05	22.3	490	40	140	70	6	3.9
JAN								
03...	.05	10.7	230	70	70	70	1	.27
FEB								
15...	.08	11.5	180	60	130	130	1	.19
MAR								
12...	.05	17.5	250	70	70	60	3	1.5
28...	.05	67.6	1100	10	90	70	182	324
APR								
13...	.07	46.5	830	80	90	60	19	18
JUN								
17...	.13	1.08	240	60	70	60	12	.14
JUL								
15...	.22	.72	190	40	100	70	3	.01
SEP								
19...	.19	.25	290	40	110	90	10	.02

03409400 WHITE OAK CREEK AT RUGBY, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	1650	48	0	12	4.4	33	58	2.1	2.5	24

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.2	.4	149	.08	.000	1	0	<50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	<10	20	10	0	<10	21000	1	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	490	.1	.00	0	0	0	0	36	.00

03409500 CLEAR FORK NEAR ROBBINS, TN

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good.

AVERAGE DISCHARGE.--46 years (water years 1931-71, 1976-80), 473 ft^3/s (13.40 m^3/s), 23.62 in/yr (600 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft^3/s (963 m^3/s) Feb. 3, 1939, gage height, 18.5 ft (5.64 m) from floodmarks, site and datum then in use, from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 0.2 ft^3/s (0.006 m^3/s) Sept. 19-21, 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 ft^3/s (1,010 m^3/s), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement at gage height 18.5 ft (5.64 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,300 ft^3/s (773 m^3/s) 0400 hours, Mar. 21, gage height 16.68 ft (5.084 m), no other peak above base of 6,500 ft^3/s (184 m^3/s); minimum, 3.2 ft^3/s (0.091 m^3/s) July 22, gage height, 1.01 ft (0.308 m).

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	279	622	505	500	292	219	660	414	135	13	13	4.7
2	197	3400	412	450	290	195	540	344	109	12	11	4.7
3	152	2190	328	410	324	156	440	298	91	16	8.5	5.2
4	132	1020	291	680	275	212	600	262	77	22	7.1	5.7
5	140	666	277	1050	248	616	500	231	65	17	6.2	5.8
6	138	493	268	830	189	982	420	207	57	55	5.4	5.8
7	112	387	268	800	181	778	360	188	51	51	4.8	5.3
8	94	320	239	1100	212	1280	350	168	44	36	4.2	7.3
9	81	309	200	950	189	1930	480	148	39	22	4.0	8.2
10	97	1890	180	800	205	1270	410	133	33	16	6.8	12
11	198	1750	173	850	228	875	360	124	29	13	9.4	11
12	161	1070	168	1700	227	643	400	115	26	11	17	9.2
13	138	747	210	1250	208	560	900	108	24	9.5	18	9.2
14	136	552	381	1300	203	490	2500	105	22	8.4	15	8.4
15	127	427	314	1200	230	385	1600	107	20	7.1	12	7.2
16	112	360	278	1000	1030	333	1000	99	19	6.1	9.6	6.1
17	103	306	255	810	1250	1690	756	119	19	5.6	9.5	5.5
18	94	266	223	2600	778	3020	605	537	18	4.8	12	5.0
19	86	238	211	2600	661	1680	499	399	18	4.4	18	4.5
20	78	213	206	1200	553	4230	415	488	19	4.0	14	4.1
21	71	193	191	1000	544	17000	354	497	17	3.6	13	4.6
22	67	178	178	1100	479	3300	309	334	15	3.4	11	5.5
23	155	185	227	2700	419	1300	271	313	14	3.9	11	5.5
24	346	3290	1260	1800	372	1270	248	312	14	4.9	14	5.5
25	234	2390	2710	1150	327	1250	240	332	14	8.5	11	7.3
26	184	3240	2020	845	299	1020	264	358	16	11	8.7	7.5
27	155	1980	1290	656	264	840	1070	260	17	11	7.0	6.5
28	143	1210	894	534	257	1070	844	189	15	12	6.0	5.9
29	2070	846	674	444	247	1170	614	151	14	26	5.4	6.2
30	1780	627	586	381	---	1000	517	167	14	24	5.0	6.2
31	925	---	550	369	---	860	---	172	---	17	5.0	---
TOTAL	8785	31365	15967	33059	10981	51624	18526	7679	1065	459.2	302.6	195.6
MEAN	283	1046	515	1066	379	1665	618	248	35.5	14.8	9.76	6.52
MAX	2070	3400	2710	2700	1250	17000	2500	537	135	55	18	12
MIN	67	178	168	369	181	156	240	99	14	3.4	4.0	4.1
CFSM	1.04	3.85	1.89	3.92	1.39	6.12	2.27	.91	.13	.05	.04	.02
IN.	1.20	4.29	2.18	4.52	1.50	7.06	2.53	1.05	.15	.06	.04	.03

CAL YR 1979 TOTAL 263119.0 MEAN 721 MAX 7480 MIN 14 CFSM 2.65 IN 35.98
WTR YR 1980 TOTAL 180008.4 MEAN 492 MAX 17000 MIN 3.4 CFSM 1.81 IN 24.61

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Miscellaneous samples prior to 1979

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 24...	1200	313	83	7.2	13.0	18	13	66
NOV 06...	1130	470	52	6.8	7.5	8	8.9	32
DEC 28...	1145	943	33	6.8	5.0	8	7.5	28
JAN 25...	1245	1200	33	6.7	5.0	8	7.9	27
MAR 13...	1000	567	37	6.7	5.5	6	8.2	25
APR 16...	1500	926	40	7.2	9.5	8	7.4	35
JUN 03...	1200	92	56	7.5	23.0	14	9.1	--
JUL 16...	1635	6.3	130	7.6	34.0	24	24	77
SEP 18...	1630	4.5	75	7.6	22.5	18	8.4	55

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 24...	.09	55.8	330	150	20	0	7	5.9
NOV 06...	.04	40.6	300	90	20	20	4	5.1
DEC 28...	.04	71.3	2300	40	40	20	2	5.1
JAN 25...	.04	87.5	180	30	30	30	4	13
MAR 13...	.03	38.3	2000	40	40	20	6	9.2
APR 16...	.05	87.5	340	40	30	10	16	40
JUN 03...	--	--	320	90	50	30	6	1.5
JUL 16...	.10	1.31	160	50	60	40	292	5.0
SEP 18...	.07	.67	160	20	50	40	4	.05

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 16...	1635	35	11	8.7	3.2	9.4	35	.7	2.0	6.0

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 16...	.1	1.0	69	.04	.010	1	0	200	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 16...	<10	<10	<10	<10	2	<10	1900	3	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 16...	44	.1	.00	0	0	0	10	0	.00

03410500 SOUTH FORK CUMBERLAND NEAR STEARNS, KY

LOCATION.--Lat 36°37'37", long 84°32'00", McCreary County, Hydrologic Unit 05130104, on right bank at mouth of Bear Creek, 1,400 ft (427 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 764.81 ft (233.114 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--38 years, 1,802 ft³/s (51.03 m³/s), 25.65 in/yr (652 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,200 ft³/s (2,640 m³/s) May 28, 1973, gage height, 45.31 ft (13.81 m), from floodmarks; minimum, 11 ft³/s (0.31 m³/s) Oct. 4, 1948, Sept. 17, 18, 19, 20, 1954, gage height, 1.44 ft (0.439 m) Aug. 8, 9, 1980.

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, 58,800 ft³/s (1,665 m³/s) Mar. 21 at 1200, gage height 35.48 ft (10.814 m), no other peak above base of 22,000 ft³/s (623 m³/s); minimum, 26 ft³/s (0.736 m³/s) Sept. 28, 29, gage height, 1.44 ft (0.439 m), Aug. 8, 9.

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	885	1700	1720	1810	1180	920	2450	1330	720	83	75	44
2	775	9200	1450	1650	897	832	1960	1160	553	75	64	38
3	456	8350	1210	1470	893	708	1690	1040	422	101	54	53
4	569	3590	1050	1660	931	747	1960	945	349	701	47	54
5	527	2260	997	3180	835	1760	1990	860	293	1650	42	51
6	495	1680	966	3050	856	4300	1550	804	260	656	40	40
7	429	1360	963	2750	851	3280	1350	722	234	628	35	34
8	362	1140	905	3980	772	4020	1330	656	211	368	31	30
9	322	1060	765	3610	773	6630	1730	583	190	220	40	38
10	386	3330	677	2830	780	4450	1560	518	168	163	44	52
11	632	6990	638	2620	700	3010	1320	469	153	134	42	72
12	660	3970	621	5340	720	2280	1270	438	136	106	60	69
13	588	2690	839	4470	685	1910	1840	408	126	97	85	60
14	612	1980	1510	3730	675	1720	5760	397	120	88	68	68
15	605	1550	1550	3970	805	1450	5250	376	111	80	53	63
16	482	1310	1330	3250	2360	1230	3540	363	107	73	51	49
17	428	1150	1190	2760	3100	2330	2570	402	104	67	54	47
18	384	1000	1030	6110	3020	11000	2050	978	101	59	94	47
19	345	895	928	11100	2460	6200	1740	1750	99	52	156	39
20	318	807	897	5470	2290	6580	1500	2310	98	47	143	36
21	294	730	843	3700	2580	49600	1320	2700	96	41	288	40
22	277	672	775	3310	2300	15200	1180	1760	95	42	171	58
23	411	636	811	9010	1970	5630	1060	1370	90	69	124	56
24	969	5690	2260	6210	1680	4150	969	2350	84	69	93	51
25	850	8040	9150	4090	1450	4630	945	3160	82	60	76	42
26	654	11600	7300	2990	1290	3600	957	2290	83	51	67	36
27	541	7330	4500	2310	1160	2890	1770	1590	81	46	60	31
28	486	4120	3150	1890	1080	2830	2190	1100	80	109	53	27
29	2050	2890	2390	1590	1030	4720	1750	853	89	94	47	31
30	4430	2140	2110	1390	---	3780	1530	776	90	81	42	44
31	2460	---	2040	1310	---	3140	---	853	---	79	44	---
TOTAL	23682	99860	56565	112610	40123	165527	58081	35311	5425	6189	2343	1400
MEAN	764	3329	1825	3633	1384	5340	1936	1139	181	200	75.6	46.7
MAX	4430	11600	9150	11100	3100	49600	5760	3160	720	1650	288	72
MIN	277	636	621	1310	675	708	945	363	80	41	31	27
CFSM	.80	3.49	1.91	3.81	1.45	5.60	2.03	1.19	.19	.21	.08	.05
IN.	.92	3.89	2.21	4.39	1.56	6.45	2.26	1.38	.21	.24	.09	.05

CAL YR 1979 TOTAL 876709 MEAN 2402 MAX 25700 MIN 120 CFSM 2.52 IN 34.19
WTR YR 1980 TOTAL 607116 MEAN 1659 MAX 49600 MIN 27 CFSM 1.74 IN 23.67

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

WATER QUALITY RECORDS

LOCATION.--Samples collected at discharge station.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT								
16...	1400	518	130	7.7	10.5	35	41	101
22...	1130	262	160	7.4	14.0	24	41	104
NOV								
05...	1145	2200	88	7.6	9.5	14	24	55
DEC								
20...	1130	900	112	6.7	3.0	14	32	67
FEB								
12...	1130	776	125	6.9	1.0	14	37	81
MAR								
11...	1500	3040	75	7.5	8.0	18	23	50
APR								
17...	0840	2560	80	7.4	9.0	12	22	58
JUN								
05...	1130	315	125	7.6	23.0	18	33	83
JUL								
16...	0915	76	160	7.3	29.0	20	45	107
SEP								
04...	1130	55	172	7.4	27.0	20	42	105

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								
16...	.14	141	620	50	110	100	4	5.6
22...	.14	73.6	240	100	80	80	5	3.5
NOV								
05...	.07	327	1100	80	130	100	25	148
DEC								
20...	.09	163	360	40	--	130	4	9.7
FEB								
12...	.11	170	240	20	190	190	2	4.2
MAR								
11...	.07	410	890	50	110	70	49	402
APR								
17...	.08	401	970	50	100	80	25	173
JUN								
05...	.11	70.6	300	70	90	70	9	7.7
JUL								
16...	.15	22.0	1800	50	140	100	36	7.4
SEP								
04...	.14	15.6	140	10	140	120	5	.74

CUMBERLAND RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 16...	0915	53	34	13	5.1	5.8	18	.3	2.0	2.7

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 16...	.1	3.7	89	.32	.020	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 16...	<10	<10	10	<10	4	10	18000	1	20

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 16...	670	.1	.00	0	0	0	10	47	.00

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

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
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										108	108	108
3										108	102	105
4										102	102	102
5										102	102	102
6										104	104	104
7										106	104	106
8										108	106	108
9										112	108	109
10										114	112	112
11										116	114	115
12										118	116	117
13										120	118	118
14										122	120	121
15										122	122	122
16										124	122	123
17										126	124	124
18										126	120	123
19										134	106	127
20										174	132	153
21										192	150	169
22										160	138	153
23										136	122	127
24										126	118	121
25										170	130	156
26										144	128	135
27										128	120	124
28										120	118	118
29										118	116	117
30										118	116	118
31										120	118	119
MONTH										192	102	122

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	130	120	125	164	164	164	---	---	---	168	166	168
2	132	130	130	164	162	163	---	---	---	---	---	---
3	136	132	134	240	160	174	---	---	---	---	---	---
4	136	130	133	218	144	171	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	176	172	174
6	---	---	---	---	---	---	---	---	---	180	176	179
7	---	---	---	---	---	---	---	---	---	188	180	185
8	---	---	---	---	---	---	---	---	---	194	188	191
9	---	---	---	---	---	---	---	---	---	200	194	197
10	---	---	---	---	---	---	---	---	---	210	200	206
11	---	---	---	---	---	---	---	---	---	226	210	218
12	---	---	---	132	124	128	162	158	161	234	226	231
13	---	---	---	142	132	137	158	152	155	240	234	238
14	---	---	---	156	142	150	152	148	149	244	240	243
15	---	---	---	168	156	162	148	146	147	246	244	245
16	---	---	---	178	168	172	146	144	145	250	246	248
17	---	---	---	184	178	181	146	144	145	252	250	251
18	---	---	---	188	184	186	168	140	148	256	252	255
19	---	---	---	190	188	190	176	154	156	260	258	259
20	---	---	---	192	190	191	182	158	168	262	260	261
21	---	---	---	192	192	192	158	138	142	262	260	262
22	---	---	---	192	188	190	138	136	136	262	262	262
23	---	---	---	188	182	184	140	136	137	262	260	261
24	---	---	---	182	180	181	142	140	140	260	258	259
25	---	---	---	180	176	177	144	142	143	258	254	256
26	140	116	121	176	172	173	148	144	146	254	248	251
27	160	142	153	172	168	169	154	148	152	248	242	246
28	160	158	159	168	162	164	160	154	158	242	238	240
29	162	160	162	---	---	---	164	160	162	236	232	234
30	164	162	163	---	---	---	166	164	164	230	222	226
31	---	---	---	---	---	---	168	166	166	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	262	166	231

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--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			---	---	7.3	7.2	7.5	7.2			---	---
2			---	---	7.4	7.2	7.5	7.2			---	---
3			---	---	7.4	7.2	7.3	5.5			---	---
4			---	---	7.4	7.2	7.1	5.5			---	---
5			---	---	---	---	---	---			7.2	6.9
6			---	---	---	---	---	---			7.2	7.0
7			---	---	---	---	---	---			7.2	7.0
8			---	---	---	---	---	---			7.2	7.0
9			---	---	---	---	---	---			7.3	7.0
10			---	---	---	---	---	---			7.3	6.9
11			---	---	---	---	---	---			7.2	7.1
12			---	---	---	---	---	---			7.3	7.1
13			7.7	7.5	---	---	---	---			7.4	7.1
14			7.7	7.5	---	---	---	---			7.4	7.2
15			7.7	7.5	---	---	---	---			7.4	7.2
16			7.7	7.5	---	---	---	---			7.4	7.3
17			7.5	7.3	---	---	---	---			7.5	7.1
18			7.4	7.3	---	---	---	---			7.5	7.3
19			7.5	5.2	---	---	---	---			7.5	7.3
20			7.4	7.0	---	---	---	---			7.5	7.3
21			7.6	7.4	---	---	---	---			7.4	7.3
22			7.6	7.5	---	---	---	---			7.4	7.2
23			7.5	7.4	---	---	---	---			7.4	7.2
24			7.4	7.4	---	---	---	---			7.4	7.2
25			7.6	7.4	---	---	---	---			7.4	7.2
26			7.5	7.4	7.5	7.2	---	---			7.4	7.2
27			7.4	7.1	7.5	7.2	---	---			7.5	7.3
28			7.3	7.2	7.5	7.2	---	---			7.4	7.3
29			7.3	7.2	7.3	7.2	---	---			7.4	7.3
30			7.3	7.2	7.4	7.2	---	---			7.3	7.2
31			7.3	7.2	---	---	---	---			---	---
MONTH			---	---	---	---	---	---			7.5	6.9

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1										---	---	---
2										13.5	12.5	13.0
3										14.0	13.0	13.5
4										15.0	13.0	14.0
5										16.0	14.5	15.0
6										17.0	15.0	16.0
7										17.5	16.0	16.5
8										18.0	16.5	17.5
9										18.0	16.0	17.0
10										18.5	16.0	17.0
11										19.0	17.5	18.0
12										19.5	18.0	19.0
13										20.0	19.0	19.0
14										19.5	19.0	19.0
15										20.5	18.0	19.0
16										19.0	18.5	19.0
17										19.0	18.5	18.5
18										20.0	18.0	19.0
19										19.5	18.0	19.0
20										19.0	18.5	18.5
21										19.0	18.0	18.5
22										18.5	18.0	18.5
23										18.5	18.0	18.5
24										19.0	18.0	18.5
25										18.5	18.0	18.0
26										18.5	17.0	18.0
27										19.0	17.5	18.5
28										20.0	18.5	19.0
29										21.0	19.5	20.0
30										21.5	20.5	21.0
31										21.5	20.5	21.0
MONTH										21.5	12.5	18.0

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

TEMPERATURE, WATER (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	22.5	21.0	21.5	28.5	25.0	27.0	---	---	---	28.5	26.0	27.0
2	24.0	21.5	22.5	29.5	26.0	27.5	---	---	---	---	---	---
3	23.5	22.5	23.0	28.5	24.0	27.0	---	---	---	---	---	---
4	25.0	23.0	23.5	27.0	23.0	25.5	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	29.5	27.0	28.0
6	---	---	---	---	---	---	---	---	---	29.0	26.5	28.0
7	---	---	---	---	---	---	---	---	---	29.5	26.5	28.0
8	---	---	---	---	---	---	---	---	---	28.0	26.5	27.0
9	---	---	---	---	---	---	---	---	---	28.5	25.5	27.0
10	---	---	---	---	---	---	---	---	---	28.0	26.5	27.0
11	---	---	---	---	---	---	---	---	---	27.5	24.5	26.0
12	---	---	---	30.0	27.0	28.5	29.5	27.5	28.5	27.5	25.0	26.0
13	---	---	---	30.5	28.0	29.0	30.0	26.5	28.0	27.5	25.0	26.5
14	---	---	---	31.0	28.0	29.5	29.5	27.0	28.0	27.5	25.5	26.5
15	---	---	---	30.0	26.5	28.5	28.5	27.0	28.0	26.5	25.0	26.0
16	---	---	---	32.5	29.0	30.5	29.0	27.0	28.0	26.0	24.0	25.0
17	---	---	---	33.0	29.5	31.0	29.0	27.0	28.0	25.5	24.5	25.0
18	---	---	---	32.5	28.5	30.5	28.5	26.5	27.5	26.0	23.5	25.0
19	---	---	---	32.5	28.5	30.5	27.5	26.5	27.0	26.0	23.5	24.5
20	---	---	---	32.5	29.0	31.0	28.0	26.0	27.0	25.5	24.0	25.0
21	---	---	---	32.0	29.0	30.5	28.5	27.0	27.5	25.5	24.5	25.0
22	---	---	---	30.5	28.0	29.0	28.5	27.0	27.5	26.5	24.5	25.5
23	---	---	---	29.5	27.5	28.0	28.5	26.5	27.5	26.0	25.0	25.5
24	---	---	---	30.0	26.5	28.0	29.0	26.5	27.5	25.5	24.5	25.0
25	---	---	---	30.0	26.5	28.5	29.0	26.0	27.5	24.5	24.0	24.5
26	27.5	24.5	26.0	30.5	27.5	29.0	29.0	26.0	27.5	24.5	23.0	23.5
27	29.0	25.0	27.0	29.0	27.5	28.0	29.0	26.0	27.5	23.0	21.5	22.0
28	29.5	26.5	28.0	28.5	27.0	27.5	29.0	26.5	27.5	21.5	20.5	21.0
29	28.0	26.5	27.0	---	---	---	27.5	26.5	27.0	21.5	20.5	21.0
30	28.0	25.5	26.5	---	---	---	27.5	26.0	26.5	21.0	20.5	20.5
31	---	---	---	---	---	---	28.5	25.5	27.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	29.5	20.5	25.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										10.3	10.1	10.2
3										10.3	10.1	10.2
4										10.3	10.0	10.1
5										10.0	9.8	10.0
6										10.0	9.7	9.9
7										9.9	9.6	9.8
8										9.8	9.6	9.7
9										10.0	9.7	9.9
10										10.1	9.8	9.9
11										10.1	9.7	9.9
12										10.3	9.7	9.9
13										9.9	9.5	9.7
14										9.9	9.4	9.6
15										9.8	9.4	9.6
16										9.7	9.3	9.5
17										9.5	9.2	9.3
18										9.4	9.1	9.2
19										9.4	8.7	9.0
20										8.5	5.4	7.2
21										6.0	4.9	5.7
22										6.2	4.5	5.7
23										6.1	5.6	5.8
24										8.9	5.5	7.9
25										9.0	8.8	8.9
26										9.1	8.8	9.0
27										8.9	8.8	8.9
28										8.9	8.8	8.9
29										9.0	8.8	8.9
30										9.0	8.9	9.0
31										9.2	9.0	9.1
MONTH										10.3	4.5	9.0

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

OXYGEN, DISSOLVED (DO), MG/L, 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	9.4	9.1	9.3	7.7	6.8	7.2	---	---	---	7.2	6.5	6.9
2	9.6	9.2	9.4	7.5	6.6	7.0	---	---	---	---	---	---
3	9.4	9.0	9.3	6.7	5.8	6.3	---	---	---	---	---	---
4	9.7	9.1	9.5	7.5	6.0	6.7	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	8.3	7.5	7.9
6	---	---	---	---	---	---	---	---	---	8.4	7.6	8.0
7	---	---	---	---	---	---	---	---	---	8.5	7.6	8.0
8	---	---	---	---	---	---	---	---	---	8.3	7.7	7.9
9	---	---	---	---	---	---	---	---	---	8.0	7.3	7.7
10	---	---	---	---	---	---	---	---	---	7.9	7.0	7.4
11	---	---	---	---	---	---	---	---	---	8.1	7.4	7.7
12	---	---	---	7.1	6.6	6.8	7.7	7.0	7.3	8.3	7.5	7.9
13	---	---	---	7.0	6.6	6.8	8.0	7.0	7.4	8.2	7.6	7.9
14	---	---	---	7.0	6.4	6.7	8.3	7.3	7.7	7.9	7.3	7.6
15	---	---	---	7.0	6.4	6.8	8.3	7.3	7.8	7.7	7.2	7.4
16	---	---	---	7.1	6.2	6.6	8.5	7.5	8.0	7.7	7.2	7.4
17	---	---	---	7.0	6.0	6.4	8.6	7.7	8.1	8.1	7.2	7.6
18	---	---	---	6.8	6.1	6.3	8.4	7.7	8.0	8.4	7.6	8.0
19	---	---	---	6.8	5.9	6.3	8.4	7.9	8.2	8.7	7.8	8.3
20	---	---	---	6.8	5.8	6.2	8.3	7.5	7.9	8.7	8.1	8.4
21	---	---	---	6.7	5.8	6.2	7.6	7.3	7.5	8.6	8.1	8.4
22	---	---	---	6.6	5.9	6.2	7.4	7.0	7.2	8.4	7.8	8.1
23	---	---	---	7.7	6.4	7.1	7.6	6.9	7.2	8.1	7.6	7.9
24	---	---	---	7.8	6.8	7.4	7.8	6.8	7.2	8.1	7.1	7.9
25	---	---	---	7.9	6.5	7.1	7.8	7.0	7.4	8.4	7.7	8.0
26	8.9	7.9	8.4	7.7	6.4	7.0	7.7	7.0	7.3	9.0	8.0	8.5
27	8.8	7.6	8.1	7.3	6.2	6.7	7.7	6.9	7.3	9.6	8.6	9.0
28	8.6	7.3	8.0	6.9	5.6	6.2	7.6	6.8	7.2	9.9	9.1	9.3
29	8.1	7.3	7.6	---	---	---	7.4	6.7	7.0	9.9	9.1	9.5
30	7.8	6.7	7.3	---	---	---	7.2	6.5	6.9	9.9	8.9	9.5
31	---	---	---	---	---	---	7.2	6.6	6.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	9.9	6.5	8.1

TURBIDITY (JTU), 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			---	---	10	8	30	10	---	---	140	3
2			---	---	8	7	35	15	---	---	---	---
3			---	---	8	7	95	25	---	---	---	---
4			---	---	7	6	750	90	---	---	---	---
5			---	---	---	---	---	---	---	---	10	6
6			---	---	---	---	---	---	---	---	9	6
7			---	---	---	---	---	---	---	---	10	7
8			---	---	---	---	---	---	---	---	10	7
9			---	---	---	---	---	---	---	---	15	7
10			---	---	---	---	---	---	---	---	15	7
11			---	---	---	---	---	---	---	---	10	7
12			---	---	---	---	280	200	---	---	10	6
13			1	1	---	---	210	160	20	5	10	6
14			1	1	---	---	160	110	20	5	9	7
15			1	1	---	---	150	80	10	5	10	7
16			3	0	---	---	80	50	8	5	8	5
17			9	2	---	---	40	30	7	5	15	4
18			9	4	---	---	35	35	30	5	9	7
19			750	5	---	---	35	20	30	7	9	7
20			95	20	---	---	20	15	7	6	10	8
21			260	60	---	---	15	10	10	6	15	8
22			290	140	---	---	35	10	10	8	7	6
23			210	40	---	---	10	10	10	6	9	5
24			50	30	---	---	10	8	95	5	9	5
25			240	40	---	---	10	7	130	50	10	7
26			150	70	15	3	10	6	170	90	15	7
27			85	55	30	7	10	7	170	85	10	7
28			85	85	25	5	9	7	190	90	10	5
29			90	20	35	15	---	---	170	85	10	5
30			15	10	35	10	---	---	170	70	7	5
31			15	10	---	---	---	---	120	30	---	---
MONTH			---	---	---	---	---	---	---	---	140	3

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.--38 years, 424 ft³/s (12.01 m³/s), 28.51 in/yr (724 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, 28,100 ft³/s (796 m³/s) at 0100 hours Mar. 21, gage height 24.54 ft (7.480 m), no other peak above base of 8,000 ft³/s; minimum, 7.5 ft³/s (.212 m³/s) Sept. 2, 7-9.

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	403	779	437	433	255	177	708	275	140	18	14	7.8
2	279	1530	363	403	207	161	593	252	116	17	13	7.8
3	218	1100	300	363	210	134	514	230	94	18	12	8.4
4	177	708	268	571	195	164	713	210	77	22	11	9.3
5	207	514	249	810	175	598	566	189	65	17	10	8.7
6	174	406	239	668	183	795	461	172	57	17	11	8.1
7	137	335	236	1000	172	698	403	161	51	17	11	7.8
8	109	282	210	1700	156	1460	406	142	44	15	11	7.5
9	90	307	175	1200	158	1670	477	124	39	15	11	8.4
10	134	1570	158	800	158	1110	433	109	35	14	10	11
11	210	1300	151	790	134	738	377	98	32	14	9.3	10
12	166	831	145	1190	151	531	384	90	29	13	9.6	9.3
13	156	593	282	930	121	461	612	84	27	13	10	9.6
14	156	449	449	1010	137	399	1750	88	25	12	11	9.6
15	129	373	421	853	175	338	1200	86	24	12	11	9.9
16	112	317	370	759	924	296	842	74	23	11	10	9.9
17	100	272	314	673	1020	1270	640	90	23	11	9.3	11
18	88	236	265	1970	664	2200	523	293	24	10	9.0	11
19	81	210	243	2040	560	1370	449	293	23	9.9	76	11
20	73	189	221	1260	470	7280	384	252	21	9.6	57	12
21	68	169	198	869	421	12300	342	233	20	9.3	23	16
22	67	156	180	1330	377	2530	303	189	19	9.6	15	14
23	314	189	296	2180	335	1440	268	177	18	9.9	13	12
24	425	2450	1330	1400	296	1370	243	201	18	9.9	12	11
25	328	2730	2400	964	265	1220	252	469	19	9.6	11	11
26	252	2470	1930	683	239	941	255	465	20	12	11	11
27	207	1470	1220	527	218	738	293	352	20	34	9.9	10
28	195	993	831	429	213	1420	324	262	18	35	9.0	9.9
29	3730	703	621	363	198	1480	303	221	18	24	8.7	9.3
30	2090	531	531	314	---	1120	303	218	18	17	8.4	9.0
31	1160	---	469	296	---	941	---	175	---	15	8.1	---
TOTAL	12035	24162	15502	28778	8787	47350	15321	6274	1157	470.8	455.3	301.3
MEAN	388	805	500	928	303	1527	511	202	38.6	15.2	14.7	10.0
MAX	3730	2730	2400	2180	1020	12300	1750	469	140	35	76	16
MIN	67	156	145	296	121	134	243	74	18	9.3	8.1	7.5
CFSM	1.92	3.99	2.48	4.59	1.50	7.56	2.53	1.00	.19	.08	.07	.05
IN.	2.22	4.45	2.85	5.30	1.62	8.72	2.82	1.16	.21	.09	.08	.06

CAL YR 1979 TOTAL 237055.0 MEAN 649 MAX 6880 MIN 21 CFSM 3.21 IN 43.66
WTR YR 1980 TOTAL 160593.4 MEAN 439 MAX 12300 MIN 7.5 CFSM 2.17 IN 29.57

CUMBERLAND RIVER BASIN

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 03...	1045	218	162	7.5	15.5	27	41	97	.13
NOV 07...	0850	342	121	7.2	10.0	22	32	78	.11
DEC 06...	1100	241	148	7.2	7.5	22	39	93	.13
JAN 09...	1300	1230	100	7.4	7.0	18	26	58	.08
FEB 20...	1115	443	100	7.6	6.0	24	28	75	.10
MAR 21...	1200	7640	79	7.2	7.0	10	20	38	.05
MAY 14...	1230	90	225	7.6	15.5	20	71	--	--
JUN 25...	1215	18	360	8.3	22.0	46	110	--	--
JUL 15...	0830	12	400	7.7	25.0	44	140	305	.41

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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	57.1	730	10	260	250	9	5.3	--
NOV 07...	72.0	840	50	200	200	9	8.3	--
DEC 06...	60.5	1100	100	260	260	8	5.2	--
JAN 09...	193	1200	90	180	180	11	37	--
FEB 20...	89.7	950	140	180	170	7	8.4	--
MAR 21...	784	8000	130	320	190	175	3610	66
MAY 14...	--	360	0	420	420	6	1.5	--
JUN 25...	--	190	10	340	340	<1	--	--
JUL 15...	9.88	300	10	410	370	3	.1	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	0830	180	140	54	12	6.2	7	.2	1.5	7.0

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.2	5.7	253	.18	.010	1	0	<50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	10	40	100	1	60	58000	0	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	420	.3	.00	0	0	0	20	610	.00

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 September 1980. Prior to December 1942 monthly discharges only, published in WSP 1306.

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

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

REMARKS.-- Records good.

AVERAGE DISCHARGE.--30 years (Water years 1942-71, 1980), 160 ft³/s (4.531 m³/s), 18.89 in/yr (480 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, 11,100 ft³/s (314 m³/s) at 0030 hours Mar. 21, gage height, 14.74 ft (4.493 m), no other peak above base of 3,400 ft³/s (96.3 m³/s); minimum, 3.4 ft³/s (0.10 m³/s) Sept. 16, gage height 0.73 ft (0.223 m).

DISCHARGE MEASUREMENTS.--Discharge measurements made in 1979 water year prior to being reactivated as a continuous record station.

Date	Gage height (ft)	Gage height (m)	Discharge (ft³/s)	Discharge (m³/s)	Date	Gage height (ft)	Gage height (m)	Discharge (ft³/s)	Discharge (m³/s)
May 24	4.37	1.332	802	22.7	Aug. 15	1.37	0.418	23	0.65
June 13	1.83	0.558	55	1.56	Sept. 6	1.42	0.433	25	0.71
July 12	2.29	0.698	112	3.17					

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	100	223	174	172	107	81	245	86	39	13	6.5	4.4
2	70	509	143	157	97	77	213	80	35	12	6.2	4.1
3	60	323	122	143	93	71	194	76	31	14	5.8	4.0
4	55	218	113	307	86	76	338	71	28	13	7.5	4.4
5	70	164	107	347	81	466	233	67	25	12	20	4.3
6	65	133	103	271	81	356	198	64	24	10	10	4.1
7	60	111	94	746	76	329	177	59	22	8.9	7.2	4.0
8	55	97	79	810	69	853	298	54	21	8.3	5.8	3.8
9	50	116	69	485	70	746	301	51	19	8.0	5.4	3.8
10	60	660	65	338	69	466	230	48	18	7.5	5.1	4.0
11	60	405	64	553	65	317	196	47	17	7.0	5.8	3.9
12	50	274	62	632	65	246	211	43	16	6.7	8.9	3.8
13	50	203	249	455	65	213	430	44	16	6.2	8.0	3.7
14	60	157	298	470	71	172	878	45	15	6.0	5.8	3.6
15	50	129	213	409	101	144	509	41	15	5.6	5.1	3.5
16	40	114	179	335	570	133	344	38	15	5.6	4.7	3.5
17	35	100	144	301	402	810	263	44	15	5.4	4.7	4.0
18	33	89	125	1440	277	878	222	80	15	5.2	4.7	4.6
19	31	78	117	928	223	541	188	57	15	5.1	12	4.3
20	31	71	105	525	192	3160	164	62	14	5.2	12	4.3
21	30	64	94	369	168	4880	146	55	12	5.1	8.6	4.9
22	32	61	87	918	150	1150	130	47	12	5.1	6.5	6.7
23	151	104	409	1090	133	570	119	47	15	6.7	5.4	5.2
24	111	1390	1090	592	120	505	108	53	16	6.2	5.1	4.6
25	81	1770	1300	402	113	430	97	90	15	6.0	4.7	4.3
26	63	990	824	289	103	332	93	86	14	18	4.7	4.3
27	54	533	481	225	97	266	104	57	12	24	4.6	4.0
28	54	369	329	181	97	501	94	46	12	19	4.4	4.0
29	1280	274	254	153	90	459	90	43	13	13	4.3	4.3
30	549	213	220	136	---	372	93	61	14	9.2	4.6	4.4
31	295	---	187	126	---	314	---	47	---	7.2	4.7	---
TOTAL	3785	9942	7900	14305	3931	19914	6906	1789	550	284.2	208.8	126.8
MEAN	122	331	255	461	136	642	230	57.7	18.3	9.17	6.74	4.23
MAX	1280	1770	1300	1440	570	4880	878	90	39	24	20	6.7
MIN	30	61	62	126	65	71	90	38	12	5.1	4.3	3.5
CFSM	1.06	2.88	2.22	4.01	1.18	5.58	2.00	.50	.16	.08	.06	.04
IN.	1.22	3.22	2.56	4.63	1.27	6.44	2.23	.58	.18	.09	.07	.04

WTR YR 1980 TOTAL 69641.8 MEAN 190 MAX 4880 MIN 3.5 CFSM 1.65 IN 22.53

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 03...	0830	65	250	8.3	14.5	98	30	151	.21
NOV 08...	1015	101	230	7.5	11.0	94	26	136	.19
DEC 06...	0900	108	235	8.1	10.0	85	26	137	.19
JAN 09...	0935	460	185	8.1	10.0	79	18	106	.14
FEB 20...	0830	202	190	8.2	9.5	80	20	109	.15
MAR 21...	0830	4760	130	7.4	9.0	44	16	84	.11
MAY 13...	1300	44	245	8.2	18.5	80	45	--	--
JUN 25...	0900	15	330	8.1	21.5	100	48	--	--
JUL 15...	1010	5.5	360	8.1	27.0	102	56	243	.33

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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	26.5	280	10	50	40	4	.70	--
NOV 08...	37.1	440	10	60	60	3	.82	--
DEC 06...	40.0	330	0	--	80	2	.58	--
JAN 09...	132	1000	10	80	50	7	8.7	--
FEB 20...	59.4	420	10	60	50	5	2.7	--
MAR 21...	1080	5600	50	340	140	189	2430	74
MAY 13...	--	130	10	--	70	7	.82	--
JUN 25...	--	160	10	20	10	1	.04	--
JUL 15...	3.61	100	10	20	10	3	.04	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	1010	160	57	47	9.4	7.4	9	.3	1.1	12

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.2	3.5	196	.24	.000	1	0	<50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	20	30	<10	0	<10	26000	0	20

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	1200	.3	.00	0	0	0	10	74	.00

03416000 WOLF RIVER NEAR BYRDSTOWN, TN

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

DRAINAGE AREA.--106 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.

AVERAGE DISCHARGE.--38 years, 192 ft³/s (5.437 m³/s), 24.60 in/yr (625 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 21	0445	*8110	230	7.75	2.362	Apr. 8	1900	4180	118	6.14	1.871

Minimum discharge, 11 ft³/s (0.32 m³/s) Sept. 3-9, 15-17, 29-30, gage height 1.06 ft (0.323 m), Sept. 8-9.

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	209	205	205	259	126	112	306	112	49	18	15	12
2	161	529	171	228	116	103	262	103	43	17	14	12
3	125	366	145	202	109	94	234	98	39	24	14	11
4	111	255	134	317	101	96	262	93	37	37	14	11
5	101	197	126	358	96	463	219	86	34	33	14	11
6	88	164	124	299	98	419	197	82	32	32	14	11
7	76	137	118	472	91	386	181	77	31	30	13	11
8	65	122	103	564	85	775	1790	72	29	23	12	11
9	60	147	91	415	83	711	953	68	27	20	12	11
10	75	570	86	320	83	450	450	63	26	18	12	12
11	78	411	83	827	78	328	320	60	25	18	12	12
12	68	292	82	805	77	259	299	56	24	17	59	13
13	72	231	331	505	72	228	459	60	23	16	28	13
14	91	186	362	419	74	200	873	59	23	16	23	12
15	82	157	268	354	96	171	564	52	22	15	18	11
16	72	137	222	302	805	157	402	49	21	14	17	11
17	64	122	179	366	450	324	317	64	21	14	16	11
18	56	109	152	1530	306	535	268	103	21	14	22	12
19	51	98	141	945	249	411	228	109	20	13	29	12
20	48	90	128	529	237	2350	200	200	20	13	23	12
21	45	83	114	390	246	4310	176	124	19	12	20	13
22	48	78	107	768	246	986	159	94	18	14	17	14
23	265	157	335	1010	246	558	145	90	18	15	16	15
24	189	1460	873	558	213	468	134	166	18	15	14	14
25	143	1280	1130	407	197	436	124	128	19	14	14	14
26	116	1000	843	306	161	354	126	105	18	20	13	13
27	90	535	491	252	143	299	143	83	18	21	12	12
28	96	390	354	211	137	382	130	68	17	26	12	12
29	189	302	278	181	124	382	126	59	18	24	12	11
30	234	243	288	161	---	354	118	54	19	19	12	11
31	200	---	288	150	---	378	---	54	---	17	12	---
TOTAL	3368	10053	8352	14410	5145	17479	10165	2691	749	599	535	361
MEAN	109	335	269	465	177	564	339	86.8	25.0	19.3	17.3	12.0
MAX	265	1460	1130	1530	805	4310	1790	200	49	37	59	15
MIN	45	78	82	150	72	94	118	49	17	12	12	11
CFSM	1.03	3.16	2.54	4.39	1.67	5.32	3.20	.82	.24	.18	.16	.11
IN.	1.18	3.53	2.93	5.06	1.81	6.13	3.57	.94	.26	.21	.19	.13

CAL YR 1979 TOTAL 102019 MEAN 280 MAX 3010 MIN 19 CFSM 2.64 IN 35.80
WTR YR 1980 TOTAL 73907 MEAN 202 MAX 4310 MIN 11 CFSM 1.91 IN 25.94

03416000 WOLF RIVER NEAR BYRDSTOWN, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT								
03...	1400	127	218	8.1	16.5	93	19	132
NOV								
08...	1245	130	215	8.0	11.0	92	17	127
DEC								
06...	1400	128	225	8.2	8.5	94	20	135
JAN								
09...	1600	452	182	8.3	8.5	79	14	99
FEB								
20...	1415	240	145	8.1	8.5	80	19	115
MAR								
22...	1030	1010	142	8.4	7.5	56	11	89
MAY								
14...	1700	58	250	8.3	18.5	94	27	--
JUN								
25...	1530	18	325	8.1	26.0	113	39	--
JUL								
15...	1340	14	310	8.4	31.0	120	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)
OCT								
03...	.18	45.3	270	20	40	0	11	3.8
NOV								
08...	.17	44.6	190	20	10	10	<1	--
DEC								
06...	.18	46.7	140	10	--	20	1	.35
JAN								
09...	.13	121	270	10	40	20	4	4.9
FEB								
20...	.16	74.5	390	20	80	70	5	3.2
MAR								
22...	.12	243	730	30	60	30	25	68
MAY								
14...	--	--	120	10	--	10	4	.63
JUN								
25...	--	--	200	20	30	10	3	.15
JUL								
15...	.30	8.35	250	10	50	20	9	.34

03416000 WOLF RIVER NEAR BYRDSTOWN, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	1340	140	43	42	8.8	6.0	8	.2	1.3	11

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.1	5.2	173	.23	.010	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	10	20	<10	2	<10	11000	0	10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	510	.3	.00	0	0	0	10	24	.00

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 145). Records of periodic water temperature and specific conductance are published in this report as miscellaneous Water Quality data.

AVERAGE DISCHARGE.--58 years, 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,200 ft³/s (1,050 m³/s) Mar. 28, gage height, 25.18 ft (7.675 m); minimum daily, 1,950 ft³/s (55.2 m³/s) Feb. 23; minimum recorded gage height, 10.66 ft (3.249 m) Feb. 25.

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	9260	15100	19500	16200	18500	10500	33200	13600	4210	9960	17200	5060
2	16100	19300	17400	18300	20700	19100	24000	14800	4900	14500	16400	7480
3	18900	15800	15500	18800	15600	16500	22000	14400	14100	17800	12500	9100
4	20800	12500	16200	19800	5750	18700	21100	9610	14900	9650	6480	10300
5	20300	9340	17600	19600	15200	21000	20100	6320	11500	5460	8390	11000
6	20100	11800	16800	15700	16700	10200	15100	10100	12200	7920	9660	10700
7	10600	15300	17300	14200	19900	9620	7030	12200	11900	7910	13900	7750
8	5910	16700	17000	19400	17200	4770	13000	13100	12200	15900	16600	4630
9	18400	18000	15200	16500	17500	2700	18000	13200	7780	22700	15400	4880
10	16800	17000	14800	16800	14600	2030	16500	12400	6940	22300	14200	5160
11	7980	11200	16900	16500	18100	1970	16400	6840	9700	20200	9010	5150
12	15000	6650	16400	15600	22600	6440	16100	5030	6620	20800	11800	5500
13	14200	9370	31500	16300	19700	13000	12700	7350	6410	18900	12500	4910
14	10500	11800	29400	4650	15500	10000	14900	8920	5470	17100	9150	3440
15	7900	12800	21300	13900	8360	7510	16500	8770	5690	19100	7730	4410
16	13600	12700	14400	15200	7710	5720	19100	10200	6330	18800	5890	5980
17	16700	11500	6970	14300	3600	4000	19900	9200	10100	20200	3780	7040
18	18200	8010	16100	14300	5450	5780	18400	8420	8480	20400	4920	8090
19	19300	7500	18500	11900	5260	5060	16500	9520	8350	19500	8960	8130
20	18300	12600	16800	4240	4230	7040	17600	13500	7790	14200	12900	8350
21	10200	13500	15200	9730	5840	10300	18800	10800	7050	8730	13900	6270
22	7740	13500	10900	17000	3430	19900	17100	10900	4470	9380	12500	8200
23	14900	13100	5160	18000	1950	33500	19400	9510	5810	7680	7560	12500
24	17100	23800	11000	18500	2020	33400	19200	9560	13500	10300	3580	9850
25	17300	17500	15700	18300	2950	34700	19400	7000	13300	10700	3380	8560
26	16800	15600	22100	16500	8480	34100	18100	3620	14000	12400	7490	6620
27	14600	17800	22300	10000	9090	33600	16800	5100	17000	8650	9380	5110
28	6560	16600	18900	6560	5420	35200	9680	7800	19300	7340	8200	4300
29	4500	18500	16700	17700	3110	36400	11600	9880	17700	11700	6890	5400
30	11700	20300	13000	18400	---	35000	13100	14300	8040	14200	6040	7710
31	14700	---	11400	18000	---	33900	---	10700	---	17000	4930	---
TOTAL	434950	425170	517930	470880	314450	521640	521310	306650	295740	441380	301220	211580
MEAN	14030	14170	16710	15190	10840	16830	17380	9892	9858	14240	9717	7053
MAX	20800	23800	31500	19800	22600	36400	33200	14800	19300	22700	17200	12500
MIN	4500	6650	5160	4240	1950	1970	7030	3620	4210	5460	3380	3440

CAL YR 1979 TOTAL 6494330 MEAN 17790 MAX 41500 MIN 3320 MEAN‡ 17700 CFSM‡ 2.42 IN.‡ 32.89
WTR YR 1980 TOTAL 4762900 MEAN 13010 MAX 36400 MIN 1950 MEAN‡ 11190 CFSM‡ 1.53 IN.‡ 20.84

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

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.--6 years, 315 ft³/s (8.921 m³/s), 20.37 in/yr (517 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.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 21	0230	*14700	416	17.90	5.456	Apr. 8	1600	8920	253	14.34	4.371

Minimum discharge, no flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	462	301	331	220	129	448	70	5.0	.00	.00	.00
2	249	824	251	298	202	126	370	58	3.9	.00	.00	.00
3	194	545	218	268	194	124	316	51	3.6	1.9	.00	.00
4	182	388	200	509	183	126	440	43	3.1	1.8	.00	.00
5	182	294	189	585	174	628	309	39	2.8	.00	189	.00
6	149	238	180	476	174	545	249	35	3.1	.00	33	.00
7	116	197	168	987	165	526	211	31	2.4	.00	.98	.00
8	89	179	146	1320	155	1370	3580	27	2.2	.00	.00	.00
9	71	251	125	792	155	1220	1670	23	1.8	.00	.00	.00
10	89	852	116	550	153	744	816	20	1.7	.00	.00	.00
11	86	635	108	1710	144	523	528	17	1.4	.00	.00	.00
12	68	446	102	1520	141	408	553	15	.98	.00	.00	.00
13	68	340	526	908	135	350	804	27	.80	.00	.00	.00
14	68	268	567	880	135	272	1700	27	.92	.00	.00	.00
15	56	224	375	736	152	229	1010	13	.74	.00	.00	.00
16	47	194	294	599	570	207	675	7.7	.00	.00	.00	.00
17	41	174	235	624	506	725	493	65	.62	.00	.00	.00
18	36	155	202	2130	367	1110	377	79	1.4	.00	.00	.00
19	31	137	189	1640	303	725	298	42	1.0	.00	67	.00
20	28	119	173	916	272	5740	253	70	.00	.00	1.9	.00
21	25	102	155	678	251	9790	215	44	.00	.00	.00	.00
22	27	89	141	1450	235	2420	186	27	.00	.00	.00	.00
23	171	752	283	1920	209	1210	164	50	.00	.00	.00	.00
24	163	2760	1430	1030	191	1080	144	122	.00	.00	.00	.00
25	102	1780	1660	744	177	880	128	73	.00	.00	.00	.00
26	69	1500	1100	539	165	650	116	67	.00	65	.00	.00
27	54	836	707	440	156	509	124	36	.00	3.3	.00	.00
28	65	599	509	367	153	1010	106	25	.00	1.9	.00	.00
29	1120	465	410	307	140	876	96	7.2	.56	.00	.00	.00
30	924	365	408	266	---	693	83	36	2.1	.00	.00	.00
31	515	---	375	253	---	574	---	7.2	---	.00	.00	---
TOTAL	5418	16170	11843	25773	6177	35519	16462	1254.1	40.12	73.90	291.88	.00
MEAN	175	539	382	831	213	1146	549	40.5	1.34	2.38	9.42	.000
MAX	1120	2760	1660	2130	570	9790	3580	122	5.0	65	189	.00
MIN	25	89	102	253	135	124	83	7.2	.00	.00	.00	.00
CFSM	.83	2.57	1.82	3.96	1.01	5.46	2.61	.19	.006	.01	.05	.000
IN.	.96	2.86	2.10	4.57	1.09	6.29	2.92	.22	.01	.01	.05	.00

CAL YR 1979 TOTAL 165351.51 MEAN 453 MAX 5550 MIN .00 CFSM 2.16 IN 29.29
WTR YR 1980 TOTAL 119022.00 MEAN 325 MAX 9790 MIN .00 CFSM 1.55 IN 21.08

03418070 ROARING RIVER ABOVE GAINESBORO, TN.

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
02...	0945	260	200	18.0	8	5.6	--
NOV							
14...	1500	253	180	10.0	<1	--	--
JAN							
07...	1600	1380	180	8.0	116	432	--
FEB							
19...	1200	306	190	7.0	6	5.0	--
MAY							
13...	1745	26	200	19.5	7	.49	--
AUG							
05...	1130	152	185	21.0	210	86	96
07...	1000	1.2	254	21.0	19	.06	--

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

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

DRAINAGE AREA.--640 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.-- 56 years, 1,178 ft³/s (33.36 m³/s), 25.00 in/yr (635 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.--Peak discharges above base of 11,000 ft³/s (311 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8	2230	14700	416	17.03	5.191	Mar. 21	1200	*42200	1200	30.76	9.376

Minimum discharge, 92 ft³/s (2.61 m³/s) Sept. 24.

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	2210	773	1510	1410	1170	778	2360	908	574	197	123	150
2	1530	2880	1300	1300	1030	734	1950	821	498	182	120	127
3	1210	2790	1120	1180	952	686	1700	747	443	260	131	153
4	1010	2020	1000	1390	910	670	1550	692	403	241	157	136
5	979	1500	928	2070	858	895	1540	646	372	189	899	145
6	879	1220	889	1830	843	1730	1400	603	349	174	390	145
7	746	1030	853	1940	804	2180	1260	571	325	162	241	129
8	597	900	784	2770	770	11000	1260	562	308	157	192	120
9	653	928	707	2070	765	9060	1490	535	287	153	164	114
10	583	3410	657	1720	799	4380	1180	493	273	150	153	112
11	658	3810	620	1650	818	2940	1040	456	262	145	145	110
12	680	2710	596	2180	799	2210	1200	429	251	141	157	108
13	606	1960	604	1790	770	1910	2240	407	243	134	136	106
14	534	1540	697	1640	741	1650	5180	403	236	131	127	103
15	479	1280	700	1500	808	1400	4010	379	227	127	125	101
16	436	1110	655	1330	2260	1240	2800	358	220	125	120	99
17	407	976	612	1250	2970	4090	2070	729	216	123	120	103
18	382	872	573	2660	2240	5530	1680	1960	216	118	118	103
19	359	792	547	4840	1790	3840	1440	1770	211	118	125	101
20	338	726	535	3520	1600	10200	1250	2000	204	114	127	99
21	327	672	515	2490	1650	36700	1120	1400	197	114	116	101
22	323	624	493	2960	1550	17100	1010	1060	192	112	110	103
23	514	964	713	5850	1400	6640	916	1360	195	118	106	97
24	785	6420	2420	3890	1250	4530	846	2240	197	127	104	95
25	753	5670	3820	2910	1120	3990	792	1860	261	129	106	103
26	649	6220	3180	2200	1020	3100	838	1410	225	136	104	112
27	582	4560	2440	1790	929	2510	992	1090	194	153	103	103
28	529	3130	1890	1540	882	5760	1030	886	184	174	101	104
29	525	2350	1560	1330	835	5710	1020	748	202	157	141	112
30	676	1810	1440	1220	---	3840	993	864	234	138	211	114
31	736	---	1540	1230	---	3080	---	691	---	129	192	---
TOTAL	21675	65647	35898	67450	34333	160083	48157	29078	8199	4628	5264	3408
MEAN	699	2188	1158	2176	1184	5164	1605	938	273	149	170	114
MAX	2210	6420	3820	5850	2970	36700	5180	2240	574	260	899	153
MIN	323	624	493	1180	741	670	792	358	184	112	101	95
CFSM	1.09	3.42	1.81	3.40	1.85	8.07	2.51	1.47	.43	.23	.27	.18
IN.	1.26	3.82	2.09	3.92	2.00	9.30	2.80	1.69	.48	.27	.31	.20

CAL YR 1979 TOTAL 573101 MEAN 1570 MAX 13100 MIN 152 CFSM 2.45 IN 33.31
WTR YR 1980 TOTAL 483820 MEAN 1322 MAX 36700 MIN 95 CFSM 2.07 IN 28.12

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT									
02...	1320	1530	135	7.7	17.0	53	9.5	84	.11
NOV									
06...	1500	1180	145	7.6	12.0	54	9.0	76	.10
DEC									
05...	1330	875	165	7.8	7.0	73	8.4	102	.14
JAN									
08...	1415	2900	138	7.5	7.5	56	9.2	76	.10
FEB									
21...	1045	1750	130	8.1	9.5	58	9.1	80	.11
MAR									
21...	0915	40800	62	7.7	11.5	30	5.1	42	.06
MAY									
15...	1200	367	200	8.2	18.5	88	11	--	--
JUN									
26...	1200	227	230	8.2	23.5	108	11	--	--
JUL									
16...	1145	122	243	8.0	29.0	109	12	151	.21

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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
02...	347	340	40	60	40	10	41	--
NOV								
06...	242	170	60	40	20	5	16	--
DEC								
05...	241	90	30	30	30	2	4.7	--
JAN								
08...	595	540	130	60	20	24	188	--
FEB								
21...	378	200	30	50	40	4	19	--
MAR								
21...	4630	5200	100	440	40	670	73800	80
MAY								
15...	--	130	0	10	10	4	4.0	--
JUN								
26...	--	200	20	40	20	5	3.1	--
JUL								
16...	49.7	130	10	40	30	5	1.6	--

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 16...	1145	110	1	33	6.5	2.6	5	.1	1.0	3.9

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 16...	.1	5.5	131	.73	.110	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 16...	<10	10	20	20	0	<10	7200	2	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 16...	520	.3	.02	0	0	0	10	42	.00

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.--66 years (1915-80), 3,218 ft³/s (91.13 m³/s), 26.04 in/yr (661 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, 105,000 ft³/s (2,970 m³/s) Mar. 21, gage height, 30.14 ft (9.187 m); minimum, 36 ft³/s (1.02 m³/s) Sept. 13, gage height, 2.10 ft (0.640 m); minimum daily, 37 ft³/s (1.05 m³/s) Sept. 11.

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	2990	3030	3520	3600	3130	3070	10800	3550	3520	60	58	62
2	1890	3040	3240	3410	3130	3050	8010	3520	3070	1260	58	58
3	2150	3080	3180	3230	3110	3010	5850	3490	2710	505	58	356
4	3610	3080	3140	3200	3100	2960	4660	3470	2660	60	62	165
5	1440	3110	3110	4760	3080	2930	4030	3430	2680	60	58	62
6	1440	3110	3110	4950	3080	2950	3730	2850	2480	60	59	197
7	1440	3090	3100	5460	3060	2980	3620	2860	804	60	1200	58
8	1430	3070	3100	8230	3000	15200	3600	2920	60	1500	865	1200
9	1430	3060	3070	5840	1940	19900	3590	2940	1610	1090	182	1170
10	1430	3110	2810	4750	1290	10200	3580	60	621	1200	59	47
11	1990	5170	2470	4320	2210	6470	3570	60	645	314	921	37
12	3130	5690	2460	5020	2170	5030	3560	1850	662	60	50	62
13	3090	4080	2710	4390	2160	4140	3560	1850	630	60	58	468
14	978	3520	2570	4000	2160	3790	10400	1520	60	189	61	61
15	2040	3220	89	4050	2150	3460	9620	1540	60	612	59	58
16	2020	3160	47	3730	1810	3210	6720	1490	538	563	59	59
17	1920	3150	1750	3380	3120	11400	4950	60	467	567	59	58
18	1910	3140	2020	9080	3160	15600	4310	60	439	586	60	58
19	1920	3120	2180	13200	3270	9500	3920	2440	470	60	582	58
20	701	3100	2160	8260	3690	27000	3640	3540	462	60	1260	58
21	703	3080	2220	5670	3680	91600	2910	3590	60	60	623	58
22	796	3040	63	8460	3500	42400	2700	3600	60	60	57	826
23	801	3020	508	15000	3230	31600	2100	3590	391	60	58	56
24	1120	3090	2090	9820	3150	28200	3180	3980	1190	60	58	57
25	2240	15700	3110	7050	3070	25200	3610	7590	434	69	58	56
26	2220	13300	8640	5200	3100	21100	2780	4770	424	60	58	56
27	46	10200	6560	4150	3090	17100	2510	3760	430	89	58	56
28	47	6660	4770	3620	3060	19300	3600	3600	727	60	58	57
29	1770	4790	3910	3350	3080	20100	3190	3580	60	604	62	57
30	2470	3910	3500	3180	---	17400	3580	3560	60	1560	62	57
31	3050	---	3630	3170	---	14200	---	3540	---	984	62	---
TOTAL	54212	134920	88837	175530	82780	484050	135880	88660	28484	12592	7042	5688
MEAN	1749	4497	2866	5662	2854	15610	4529	2860	949	406	227	190
MAX	3610	15700	8640	15000	3690	91600	10800	7590	3520	1560	1260	1200
MIN	46	3020	47	3170	1290	2930	2100	60	60	60	50	37
(†)	-9800	+11600	0	-1400	-4600	+6300	-5000	-700	-8100	-1800	+900	-1000
MEAN‡	1433	4884	2866	5617	2696	15820	4363	2837	679	348	256	156
CFSM‡	.85	2.91	1.71	3.35	1.61	9.43	2.60	1.69	.40	.21	.15	.09
INS.‡	.98	3.25	1.97	3.86	1.73	10.87	2.90	1.95	.45	.24	.18	.10

CAL YR 1979 TOTAL 1406490 MEAN 3853 MAX 32100 MIN 44 MEAN‡ 3862 CFSM‡ 2.30 IN.‡ 31.24
WTR YR 1980 TOTAL 1298675 MEAN 3548 MAX 91600 MIN 37 MEAN‡ 3511 CFSM‡ 2.09 IN.‡ 28.48

† Change in contents, in cfs-days, in Great Falls Lake.
‡ Adjusted for change in contents.

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.145).

AVERAGE DISCHARGE.--58 years, 17,690 ft³/s (501 m³/s), 22.46 in/yr (570 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 daily discharge, 85,700 ft³/s (2,430 m³/s) Mar. 21; maximum gage height, 35.13 ft (10.708 m) Mar. 21; minimum daily, 3,280 ft³/s (92.9 m³/s), Aug. 17.

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	15200	26900	33300	24500	29300	13500	60900	14900	4350	8480	17600	3780
2	21700	39400	31400	24300	33700	20900	57600	14200	8110	18400	14000	12100
3	26300	30400	26600	31100	21900	26400	49000	16100	18800	18200	10100	8090
4	24400	22800	28800	35800	16400	28600	47400	10400	22200	11700	12200	8580
5	27300	17900	30000	33600	18300	31800	46400	9240	17900	4160	9340	11000
6	24900	20700	29100	22900	22700	28400	40200	14700	15200	8490	7970	10100
7	18600	22900	32400	22600	26000	21600	32200	13400	18000	10100	13100	8590
8	12500	27900	27700	34700	26600	21200	34400	14700	15300	17700	17700	5540
9	22100	28300	22100	35700	25400	15700	47700	13800	10200	25400	15000	4530
10	22400	28100	22300	28100	19800	15900	31700	12400	6750	26300	15500	3590
11	24300	18800	31000	27700	26600	9270	30800	7450	11100	24700	10700	4920
12	23400	15600	29400	35000	35900	10100	30000	7200	8870	21600	13900	6090
13	19500	16500	36100	34500	24500	16400	28100	8200	6790	20700	11500	4490
14	14600	21100	49300	22700	21700	20900	30800	11300	7340	18700	10700	5050
15	12500	21800	42700	25600	14400	16500	29700	11200	5270	23700	9690	5410
16	17700	20300	21300	25300	19300	9350	36200	11700	6980	23100	4150	5810
17	23300	20300	14500	25100	14300	14200	33000	14200	10700	22800	3280	6650
18	23300	12700	23400	33800	11000	20700	27600	6000	8500	23100	6770	7210
19	22700	13600	21100	31700	10300	22400	24400	6250	9150	20400	6610	8070
20	20500	22000	28700	19700	8280	43200	21400	19200	9540	13000	10800	7960
21	11600	23600	26200	22600	8230	85700	28800	14100	8320	15300	17300	5810
22	13600	21100	16500	32800	8700	59000	22000	11200	3490	5550	15100	12200
23	19800	22400	10700	34500	5590	55100	28300	11300	4930	6680	10600	12900
24	22200	50400	21100	37800	5760	55900	21500	15100	14200	10200	4560	11500
25	23100	39600	29100	35800	7490	61000	22900	10900	15400	11400	3320	9950
26	23300	23600	35100	30300	10800	61600	22600	11300	16100	13900	5630	7140
27	19500	33700	39600	19900	11600	61200	20700	13800	17500	11400	5500	5360
28	9730	31500	34000	18300	10300	64800	13900	12900	24100	8770	7410	4530
29	7700	31500	28000	30100	6520	62400	14900	15800	23400	9120	6910	6230
30	20000	35100	23600	28900	---	57300	14200	20400	13300	11400	5530	5610
31	21400	---	17000	26000	---	60600	---	16100	---	25500	3920	---
TOTAL	609130	760500	862100	891400	501370	1091620	949300	389440	361790	489950	306390	218790
MEAN	19650	25350	27810	28750	17290	35210	31640	12560	12060	15800	9884	7293
MAX	27300	50400	49300	37800	35900	85700	60900	20400	24100	26300	17700	12900
MIN	7700	12700	10700	18300	5590	9270	13900	6000	3490	4160	3280	3590

CAL YR 1979 TOTAL 9741330 MEAN 26690 MAX 74100 MIN 4370 MEAN‡ 26500 CFSM‡ 2.48 IN.‡ 33.66
WTR YR 1980 TOTAL 7431780 MEAN 20310 MAX 85700 MIN 3280 MEAN‡ 18060 CFSM‡ 1.69 IN.‡ 22.99

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

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER-QUALITY RECORDS

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

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

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

REMARKS.--Interruptions in the record were due to water levels falling below the instrument probes and recorder failure.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 311 micromhos/cm Sept. 30, 1979; minimum, 89 micromhos/cm July 2, 1980.
WATER TEMPERATURES: Maximum daily, 29.5°C Oct. 10, 1977; minimum, 3.5°C Feb. 24, 1978, Feb. 11, 12, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily 309 micromhos/cm Oct. 29; minimum 89 micromhos/cm July 2.
WATER TEMPERATURES: Maximum daily 25.0°C Sept. 4; minimum 5.5°C Mar. 1, 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
26...	1100	15000	165	7.4	17.0	6.0	7.3	--	--	69	20	20
NOV												
29...	1015	32200	180	7.2	12.5	9.0	--	K300	320	83	18	26
DEC												
28...	1045	38100	180	7.8	9.5	8.0	9.8	160	260	81	13	25
JAN												
28...	1030	25400	175	7.6	9.5	1.5	10.6	29	K14	78	14	24
FEB												
14...	1030	22700	175	7.5	6.0	1.5	10.8	K3	K2	76	21	23
APR												
16...	1130	39800	175	8.3	9.5	1.8	9.9	100	24	76	22	23
MAY												
15...	1030	14500	170	7.8	15.0	4.2	9.6	160	--	71	27	20
JUN												
18...	1300	11800	174	6.8	17.5	1.3	8.4	K7	K6	70	23	20
JUL												
29...	1030	3560	195	8.2	21.5	2.2	7.8	--	110	88	6	29
SEP												
16...	0930	3070	161	6.8	20.0	.80	--	--	--	80	18	26

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
26...	4.6	3.9	14	.2	1.3	49	24	3.0	.1	4.3	93	92
NOV												
29...	4.5	2.2	7	.1	1.2	65	14	2.8	.1	4.6	115	96
DEC												
28...	4.4	2.5	8	.1	1.3	68	16	2.5	.1	4.2	106	98
JAN												
28...	4.4	2.5	8	.1	1.2	64	18	3.8	.1	4.2	105	98
FEB												
14...	4.5	3.4	9	.2	1.3	55	22	2.9	.1	4.2	116	96
APR												
16...	4.6	3.3	8	.2	1.2	54	21	2.2	.1	4.6	105	94
MAY												
15...	5.1	3.7	10	.2	1.0	44	25	2.7	.1	4.0	96	90
JUN												
18...	4.9	4.1	11	.2	1.2	47	26	2.7	.3	3.9	91	93
JUL												
29...	3.8	2.2	5	.1	1.1	82	9.8	3.0	.1	3.3	128	103
SEP												
16...	3.7	2.0	5	.1	1.5	62	12	2.8	.1	3.6	92	91

K--Results based on colony count outside acceptable range (non-ideal colony count).

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
26...	.13	3770	.27	.29	--	.030	--	.26	.030	.010	--
NOV											
29...	.16	10000	.52	.41	--	.010	--	.33	.070	.020	2.1
DEC											
28...	.14	10900	.37	.35	.000	.000	.20	.20	.040	.020	2.0
JAN											
28...	.14	7200	.30	.32	.140	.010	--	.16	.030	.020	7.2
FEB											
14...	.16	7110	.26	.26	--	.010	--	.10	.010	.010	--
APR											
16...	.14	11300	.42	.42	.030	.020	--	.22	.050	.020	4.5
MAY											
15...	.13	3760	--	.38	--	.120	--	1.1	--	.060	--
JUN											
18...	.12	2900	.34	.30	--	.120	--	.06	.030	.010	2.2
JUL											
29...	.17	1230	.37	.37	--	.040	--	.31	.060	.060	.5
SEP											
16...	.13	793	--	.45	--	.050	--	.19	.045	.000	--

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
26...	2.5	.1	--	--	--	--	--	--	15	607	82
NOV											
29...	--	--	1300	54.1	.550	.790	4.44	.430	13	1130	99
DEC											
28...	--	--	--	--	--	--	--	--	10	1030	64
JAN											
28...	--	--	--	--	--	--	--	--	12	823	60
FEB											
14...	--	.4	3700	--	.080	.080	.000	.000	8	490	73
APR											
16...	--	--	--	--	--	--	--	--	19	2040	70
MAY											
15...	3.5	.3	1100	191	.315	.472	.820	.090	--	--	60
JUN											
18...	--	--	2400	--	--	--	--	--	15	478	63
JUL											
29...	--	--	5900	--	--	--	--	--	13	125	61
SEP											
16...	3.4	--	--	--	--	--	5.60	.000	61	506	78

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 26...	1	0	--	20	0	2	<10	10	0
FEB 14...	1	0	100	30	0	0	20	10	0
MAY 15...	4	2	<50	30	1	0	20	10	0
SEP 16...	2	2	100	100	17	17	20	20	1

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)
OCT 26...	1	8	5	480	20	14	1	70	10
FEB 14...	0	3	1	190	10	5	0	30	10
MAY 15...	0	6	4	310	10	24	2	40	7
SEP 16...	0	2	5	7	6	7	6	130	10

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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 26...	--	.6	2	4	0	0	10	8
FEB 14...	.1	.1	0	0	0	0	130	80
MAY 15...	<.1	<.1	3	1	0	0	30	8
SEP 16...	.3	.3	3	3	0	0	--	30

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 29,79	FEB 14,80	MAY 15,80	JUN 18,80	JUL 29,80	SEP 16,80
TIME	1015	1030	1030	1300	1030	0930
TOTAL CELLS/ML	1300	3700	1100	2400	5900	1900
DIVERSITY: DIVISION	1.2	0.5	1.4	1.4	1.2	1.6
.CLASS	1.2	0.5	1.4	1.4	1.2	1.6
..ORDER	1.6	0.6	1.7	1.7	1.8	2.4
...FAMILY	1.8	0.6	1.7	2.1	1.9	3.2
....GENUS	2.5	1.1	2.3	2.6	2.2	3.5

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												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	13	1	--	-	--	-
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	*	0	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	10	1	32	1	--	-	26	1	82	1	--	-
....CHLORELLA	15	1	64	2	--	-	26	1	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	26	1	--	-	--	-
....KIRCHNERIELLA	--	-	32	1	--	-	--	-	--	-	26	1
....OOCYSTIS	--	-	--	-	--	-	52	2	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-	26	1
....TREUBARIA	--	-	--	-	--	-	--	-	41	1	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	100	4	--	-	280	15
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	*	0	32	1	--	-	65	3	160	3	65	3
...VOLVOCACEAE												
....GONIUM	--	-	--	-	410#	39	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....STAURASTRUM	*	0	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	170	13	3100#	82	220#	20	260	11	3200#	54	160	8
....MELOSIRA	300#	23	350	9	260#	24	650#	27	330	6	250	13
....STEPHANODISCUS	--	-	--	-	26	2	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	*	0	--	-	--	-	--	-	--	-	140	7
....COCCONEIS	*	0	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	40	3	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	35	3	--	-	--	-	--	-	82	1	--	-
....SYNEDRA	--	-	--	-	--	-	39	2	41	1	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	41	1	26	1
...NAVICULACEAE												
....NAVICULA	15	1	--	-	--	-	--	-	--	-	180	9
...NITZSCHIACEAE												
....NITZSCHIA	*	0	32	1	78	7	26	1	240	4	250	13
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	13	1	--	-	41	1	26	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

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	NOV 29,79 1015		FEB 14,80 1030		MAY 15,80 1030		JUN 18,80 1300		JUL 29,80 1030		SEP 16,80 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	--	-	130	3	--	-	--	-	980#	17	--	-
....ANACYSTIS	10	1	--	-	52	5	13	1	41	1	140	7
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	180	7	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-	650	11	180	9
...OSCILLATORIACEAE												
....OSCILLATORIA	160	12	--	-	--	-	960#	39	--	-	180	9
....SCHIZOTHRIX	540#	40	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	*	0	--	-	--	-	--	-	--	-	--	-
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 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	221	174	188	186	176	180	191	174	183
2	---	---	---	222	198	210	190	173	180	194	177	185
3	---	---	---	228	190	206	203	169	180	191	171	181
4	---	---	---	237	185	201	179	170	174	229	177	192
5	---	---	---	249	171	198	176	170	173	226	184	197
6	---	---	---	212	166	182	180	167	172	250	183	204
7	---	---	---	205	166	181	173	166	170	270	190	208
8	---	---	---	179	169	173	188	166	175	207	192	199
9	---	---	---	185	166	177	187	167	178	209	189	199
10	---	---	---	255	185	215	196	166	178	243	181	199
11	---	---	---	235	207	219	174	163	168	227	179	200
12	---	---	---	268	180	220	175	167	171	219	196	204
13	---	---	---	223	179	191	192	165	179	209	190	199
14	---	---	---	199	170	182	193	181	184	264	186	215
15	---	---	---	189	174	182	184	173	178	219	187	197
16	---	---	---	198	183	189	207	170	186	223	179	197
17	---	---	---	200	182	191	250	171	192	226	186	200
18	---	---	---	206	196	202	182	164	172	222	195	207
19	---	---	---	266	167	199	221	173	186	219	199	207
20	---	---	---	196	167	184	191	176	184	272	183	220
21	---	---	---	192	167	180	196	175	185	224	174	190
22	---	---	---	182	167	175	204	179	189	214	176	191
23	---	---	---	190	165	178	220	170	186	214	194	202
24	---	---	---	223	192	207	263	187	223	205	188	196
25	---	---	---	270	191	210	255	202	224	207	178	188
26	---	---	---	245	200	219	202	183	191	203	176	185
27	182	158	168	195	186	190	200	190	195	212	170	186
28	197	162	177	195	178	187	206	181	189	178	166	172
29	309	200	254	189	176	182	206	178	187	202	163	177
30	275	187	225	187	173	181	248	188	203	192	163	172
31	245	169	192	---	---	---	270	180	195	189	161	170
MONTH	---	---	---	270	165	193	270	163	185	272	161	194
		FEBRUARY			MARCH			APRIL			MAY	
1	176	162	168	187	161	170	153	152	153	164	136	149
2	181	163	170	196	161	169	154	147	151	168	137	153
3	186	160	171	186	159	174	149	144	147	162	141	152
4	185	167	175	193	160	169	147	143	144	165	147	159
5	187	162	170	211	160	183	148	146	147	174	141	158
6	178	161	169	186	174	179	146	141	144	162	137	150
7	191	160	174	253	174	192	147	140	142	167	138	152
8	173	162	167	268	203	223	162	145	152	161	140	150
9	187	161	171	227	215	221	168	157	164	164	138	151
10	174	162	168	291	193	219	178	154	162	165	153	160
11	174	160	165	268	184	220	175	150	160	163	157	160
12	178	160	169	217	165	185	175	157	166	166	150	158
13	180	161	169	204	164	181	202	163	180	163	133	158
14	187	166	174	193	160	174	226	186	209	166	134	158
15	229	174	188	189	160	171	206	177	188	168	133	149
16	241	196	212	210	169	186	176	166	170	169	136	156
17	257	191	226	224	193	190	186	165	171	167	140	157
18	275	176	210	229	190	202	187	154	169	---	---	164
19	265	177	204	194	180	186	181	150	162	---	---	171
20	214	184	197	187	150	167	182	141	158	202	159	178
21	235	175	194	201	145	168	177	150	165	230	163	173
22	232	208	217	204	167	190	171	150	158	179	145	163
23	---	---	---	166	160	162	171	147	158	243	175	185
24	---	---	---	166	160	163	166	145	154	226	160	179
25	---	---	---	165	162	164	167	144	155	183	173	175
26	---	---	---	162	159	160	173	142	160	278	157	195
27	199	183	193	162	157	159	171	147	160	186	144	165
28	204	187	191	167	156	161	178	141	161	182	134	160
29	---	---	---	168	158	166	166	142	153	180	134	156
30	---	---	---	167	155	164	171	139	155	198	142	172
31	---	---	---	154	152	153	---	---	---	189	169	184
MONTH	275	160	184	291	145	180	226	139	161	278	133	163

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

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	---	---	177	---	---	150	172	148	161	199	161	179
2	---	---	170	166	89	141	174	161	167	190	159	169
3	186	132	163	165	133	154	171	165	168	200	158	173
4	193	132	172	166	151	158	169	168	168	207	154	176
5	191	133	167	---	---	158	174	167	169	163	146	156
6	188	133	160	202	133	159	187	166	174	171	155	159
7	185	133	161	172	108	156	212	149	183	192	154	172
8	182	134	166	165	131	147	168	144	158	160	152	156
9	189	182	185	159	130	151	167	150	159	169	156	158
10	---	---	172	161	154	158	166	156	163	174	156	163
11	185	93	159	162	151	157	179	148	164	194	156	166
12	185	136	166	168	135	153	169	143	157	177	156	165
13	186	141	160	163	155	159	167	157	164	189	160	166
14	186	135	160	162	154	160	173	164	166	195	158	176
15	180	157	172	172	132	152	173	163	168	186	157	167
16	182	157	170	160	134	150	179	163	169	190	144	162
17	182	94	164	161	134	150	200	162	175	163	134	152
18	---	---	---	160	135	150	198	162	174	164	149	156
19	177	134	164	161	135	153	198	161	172	164	151	156
20	176	94	158	162	151	159	165	139	153	162	141	154
21	---	---	---	161	159	160	163	138	158	165	140	153
22	---	---	---	186	157	164	164	146	157	162	134	154
23	---	---	---	164	152	159	163	155	160	163	134	151
24	178	129	159	---	---	159	168	160	163	160	135	152
25	176	138	165	176	118	160	177	162	168	161	139	155
26	167	154	167	171	158	160	162	162	170	164	152	160
27	182	131	155	160	158	159	190	131	168	165	161	162
28	172	134	163	165	109	158	184	162	170	166	162	163
29	171	153	163	190	159	174	188	163	172	170	162	163
30	185	131	163	181	147	163	191	163	175	174	162	164
31	---	---	---	170	163	167	197	163	182	---	---	---
MONTH	---	---	---	202	89	157	212	131	167	207	134	162

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	18.0	16.0	16.5	13.5	12.0	13.0	10.5	10.0	10.5
2	---	---	---	16.0	15.5	16.0	13.0	11.0	12.5	10.0	9.5	10.0
3	---	---	---	16.5	16.0	16.0	13.0	11.0	12.0	10.5	9.5	10.0
4	---	---	---	16.5	15.0	15.5	13.0	11.5	12.5	10.0	9.5	9.5
5	---	---	---	16.5	14.5	15.5	12.5	12.0	12.5	10.0	8.5	9.0
6	---	---	---	16.5	15.0	16.0	12.5	12.0	12.5	9.5	8.5	9.0
7	---	---	---	16.5	15.0	16.0	13.0	12.0	12.5	9.5	8.5	9.0
8	---	---	---	16.0	15.5	16.0	12.5	11.5	12.0	9.0	8.5	9.0
9	---	---	---	16.0	15.0	15.5	12.0	11.0	11.5	9.5	8.5	9.0
10	---	---	---	16.0	14.0	15.0	12.5	11.0	11.5	10.0	8.0	9.0
11	---	---	---	15.0	13.5	14.0	12.5	12.0	12.5	10.0	9.0	9.5
12	---	---	---	15.0	12.5	13.5	13.0	12.0	12.5	10.0	9.0	9.5
13	---	---	---	15.5	14.5	15.0	13.0	11.5	12.0	9.5	8.5	9.0
14	---	---	---	15.5	14.0	14.5	12.0	11.5	11.5	10.0	9.0	9.5
15	---	---	---	15.0	13.5	14.5	12.0	11.5	11.5	10.0	9.5	9.5
16	---	---	---	14.5	13.5	14.0	11.5	10.0	10.5	10.0	9.0	9.5
17	---	---	---	14.5	13.5	13.5	11.0	9.5	10.0	10.5	9.5	10.0
18	---	---	---	13.5	12.5	13.0	11.5	9.5	10.5	11.0	9.5	10.5
19	---	---	---	15.5	12.5	13.5	10.5	9.0	10.0	10.5	9.5	10.0
20	---	---	---	16.0	13.0	14.5	10.5	9.5	10.0	10.5	9.5	10.0
21	---	---	---	15.5	14.0	15.0	11.0	9.5	10.5	9.5	9.5	9.5
22	---	---	---	16.0	15.0	15.5	11.5	9.5	10.5	9.5	9.5	9.5
23	---	---	---	16.0	14.5	15.0	12.0	9.5	11.0	9.5	9.0	9.0
24	---	---	---	15.0	14.0	14.0	12.0	11.0	12.0	9.5	8.5	9.0
25	---	---	---	15.0	14.5	14.5	11.5	10.5	11.0	9.5	8.5	9.0
26	---	---	---	15.0	14.5	14.5	11.0	10.5	11.0	9.0	9.0	9.01
27	17.0	16.5	17.0	14.5	14.0	14.5	10.5	10.0	10.5	9.0	8.5	9.0
28	17.0	16.5	16.5	14.5	14.0	14.0	11.0	10.0	11.0	8.5	7.5	8.0
29	16.5	15.0	15.5	14.0	13.5	13.5	10.5	9.5	10.0	8.0	7.0	7.5
30	17.5	15.5	16.5	13.5	13.0	13.0	10.5	9.0	10.0	7.5	7.0	7.5
31	17.5	16.5	17.0	---	---	---	10.5	9.5	9.5	7.5	7.0	7.5
MONTH	---	---	---	18.0	12.5	14.5	13.5	9.0	11.5	11.0	7.0	9.0

03425000 CUMBERLAND RIVER AT CARTHAGE, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	6.5	7.0	7.0	5.5	6.0	10.0	9.0	9.5	12.5	11.0	12.0
2	7.5	6.0	7.0	7.0	6.0	6.5	10.5	9.5	10.0	13.0	11.5	12.0
3	7.5	6.5	7.0	7.0	5.5	6.5	10.5	9.5	10.0	13.0	11.5	12.0
4	7.5	6.5	7.0	7.0	6.5	6.5	10.5	10.0	10.0	13.5	12.0	12.5
5	7.5	6.5	7.5	8.0	6.0	7.0	10.0	9.0	9.5	15.0	12.0	13.5
6	8.0	7.0	7.5	7.5	6.0	7.0	10.5	9.5	10.0	14.0	11.5	12.5
7	1.0	6.5	7.0	9.0	6.5	7.0	11.0	10.0	10.5	14.5	11.5	13.0
8	8.0	7.5	7.5	10.5	9.0	10.0	13.0	10.0	11.5	14.0	11.5	13.0
9	8.0	6.5	7.5	10.0	9.0	9.5	12.5	11.0	11.0	14.5	12.0	13.0
10	8.5	7.5	8.0	11.0	8.5	9.5	11.0	10.5	11.0	15.0	13.0	14.0
11	8.5	8.0	8.0	10.5	9.0	8.5	11.0	10.0	10.5	15.5	14.5	15.0
12	9.0	7.5	8.0	9.0	7.5	7.5	11.5	11.0	11.0	15.5	13.5	15.0
13	9.0	7.5	8.5	8.0	7.5	7.5	11.0	11.0	11.0	15.5	13.0	15.0
14	8.5	7.0	8.0	8.5	7.5	8.0	11.5	11.0	11.0	15.5	12.0	14.5
15	8.0	6.5	7.5	8.5	7.5	8.0	11.0	10.5	10.5	14.5	11.0	12.0
16	8.5	7.0	7.5	9.0	8.0	8.5	11.0	10.0	10.5	16.0	11.5	14.5
17	7.5	6.5	7.0	11.5	9.0	10.5	11.5	10.0	11.0	16.5	12.0	15.0
18	7.5	6.0	6.5	10.0	9.0	9.5	12.0	10.5	11.0	---	---	15.0
19	7.5	6.0	7.0	9.0	8.5	8.5	12.5	10.5	11.5	---	---	15.5
20	8.0	7.0	7.5	11.0	8.5	9.5	13.0	10.5	11.5	16.5	12.5	15.5
21	8.0	6.5	7.0	11.5	11.0	11.0	12.5	11.0	12.0	16.5	12.0	15.0
22	8.5	7.5	8.0	11.0	9.0	10.0	13.0	11.0	12.0	16.5	11.5	15.0
23	---	---	---	9.0	8.5	8.5	13.0	11.5	12.0	17.0	15.0	16.0
24	---	---	---	9.5	8.5	9.0	13.0	11.5	12.5	16.5	12.5	15.5
25	---	---	---	9.5	8.5	9.0	13.0	11.0	12.0	17.0	15.5	16.0
26	---	---	---	8.5	8.5	8.5	12.5	11.5	12.0	17.5	15.0	16.5
27	9.5	7.0	7.5	9.0	8.5	9.0	12.5	11.5	12.0	17.5	11.5	15.5
28	8.5	7.0	7.5	9.5	9.0	9.0	12.5	11.5	12.0	17.5	11.5	14.5
29	---	---	---	9.5	9.5	9.5	12.0	11.0	11.5	17.5	11.5	14.5
30	---	---	---	9.5	9.5	9.5	12.0	11.0	11.5	18.0	12.0	15.5
31	---	---	---	9.5	9.5	9.5	---	---	---	18.5	16.5	17.5
MONTH	9.5	6.0	7.5	11.5	5.5	8.5	13.0	9.0	11.0	18.5	11.0	14.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	17.0	---	---	18.0	20.0	13.5	17.0	22.5	19.0	20.5
2	---	---	16.5	22.5	13.0	17.5	20.0	16.0	18.5	21.5	19.5	20.5
3	19.0	12.0	16.0	19.5	13.5	17.0	20.0	18.5	19.0	23.0	20.5	21.5
4	20.0	12.0	17.0	21.0	16.0	19.0	19.0	18.0	18.5	25.0	19.0	22.0
5	19.5	12.0	16.5	---	---	18.5	19.0	18.0	18.5	21.5	17.0	20.0
6	19.0	11.5	15.5	23.5	14.0	18.5	19.5	18.0	18.5	22.0	19.5	21.0
7	19.0	11.5	16.0	21.5	16.5	19.0	23.0	15.5	20.0	23.5	20.5	22.0
8	19.0	12.0	16.5	19.5	13.0	16.5	19.5	13.5	17.0	21.5	20.0	20.5
9	19.5	18.0	18.5	19.5	13.0	17.5	20.0	15.0	17.5	21.0	20.0	20.5
10	---	---	17.0	20.5	18.0	19.5	20.0	17.0	19.0	21.5	20.5	21.0
11	19.0	11.5	15.5	21.0	18.0	19.5	21.0	15.5	19.0	23.5	20.5	21.0
12	19.0	12.0	16.5	20.5	14.0	18.0	20.0	13.0	17.0	23.5	20.5	21.5
13	19.0	13.0	16.0	19.5	18.0	19.0	20.0	17.0	19.0	22.0	20.5	21.5
14	19.0	12.0	15.5	20.0	18.5	19.0	20.0	19.0	19.5	24.0	20.5	21.5
15	18.5	15.5	17.0	21.5	13.0	17.5	20.5	19.0	20.0	22.0	19.5	21.0
16	17.5	15.0	17.0	19.0	14.0	17.0	21.0	19.5	20.0	22.5	16.5	20.0
17	18.5	12.5	16.5	19.0	14.0	17.0	23.0	19.0	20.5	20.0	14.0	18.0
18	18.5	16.0	17.5	19.0	14.0	17.0	23.0	19.0	20.5	20.5	16.5	19.0
19	19.5	13.0	17.5	19.0	14.0	17.5	24.0	19.0	20.5	21.5	17.5	19.5
20	20.0	13.5	18.5	19.5	17.0	19.5	20.0	13.5	17.5	21.5	16.5	19.5
21	---	---	---	19.5	18.5	19.0	20.5	13.0	18.0	21.5	16.0	18.5
22	---	---	---	21.5	18.0	21.5	20.5	15.5	19.0	22.0	15.0	20.0
23	---	---	---	19.0	18.0	18.5	21.0	18.0	19.5	21.5	14.5	19.0
24	21.5	12.5	17.5	---	---	19.0	22.5	20.0	20.5	21.5	14.5	19.0
25	21.0	14.0	18.5	21.5	18.5	19.0	22.5	20.0	20.5	21.5	15.5	19.5
26	21.5	15.5	19.5	21.0	19.0	21.0	21.5	20.0	20.5	21.5	16.5	20.5
27	21.5	13.0	17.5	20.0	18.0	19.0	22.0	19.0	21.0	21.0	19.0	20.5
28	21.5	13.5	19.5	20.5	18.5	19.5	22.5	19.5	21.0	20.5	19.0	20.5
29	21.0	18.0	19.5	20.0	18.0	19.0	22.5	19.5	21.0	20.5	19.5	20.5
30	20.5	16.5	19.0	19.0	13.5	17.0	22.0	19.5	21.0	20.5	19.0	20.0
31	---	---	---	20.0	17.5	18.5	24.0	19.5	21.5	---	---	---
MONTH	21.5	11.5	17.5	23.5	13.0	18.5	24.0	13.0	19.5	25.0	14.0	20.5

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 Feb. 4-15 due to monitor malfunction all other missing record was due to pump intake failures.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 216 micromhos Nov. 3; minimum, 161 micromhos Aug. 9.
pH: Maximum, 8.8 units May 9; minimum, 6.8 units Sept. 15.
WATER TEMPERATURE: Maximum, 27.5°C July 5-6, Sept. 7; minimum, 3.5°C Feb. 1-3.
DISSOLVED OXYGEN: Maximum, 12.7 mg/L Apr. 9; minimum 3.0 mg/L Sept. 15.

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	181	175	178	174	171	172	---	---	---	---	---	---
2	181	180	181	191	174	182	---	---	---	---	---	---
3	191	181	185	216	193	208	---	---	---	---	---	---
4	198	192	195	211	198	203	---	---	---	---	---	---
5	197	195	196	197	191	194	---	---	---	---	---	---
6	201	195	198	197	191	194	---	---	---	---	---	---
7	199	191	195	203	197	200	---	---	---	---	---	---
8	191	187	190	204	202	204	---	---	---	---	---	---
9	188	180	183	204	203	204	---	---	---	---	---	---
10	182	180	181	203	201	202	---	---	---	---	---	---
11	184	181	183	200	194	197	---	---	---	197	194	196
12	185	183	184	195	192	194	177	174	176	197	194	196
13	184	182	183	193	188	191	174	172	173	195	194	195
14	183	180	182	187	185	186	176	173	174	197	193	195
15	180	176	179	193	185	189	177	175	176	199	197	198
16	176	172	174	199	193	196	178	176	177	202	200	201
17	174	172	172	207	198	203	178	176	177	204	202	203
18	---	---	---	208	202	205	178	177	177	202	200	201
19	---	---	---	209	203	206	179	177	178	203	198	201
20	---	---	---	205	198	203	181	179	180	199	198	198
21	---	---	---	197	194	196	182	179	181	200	199	199
22	---	---	---	199	192	195	183	182	182	202	199	201
23	---	---	---	193	189	191	183	179	181	206	200	203
24	173	171	172	193	186	190	180	175	177	208	205	206
25	173	170	171	186	177	180	181	177	179	207	199	203
26	173	171	172	182	177	180	189	181	184	199	196	198
27	174	171	172	187	180	184	193	189	191	198	196	197
28	173	171	172	191	186	189	200	193	197	197	196	196
29	175	172	173	194	191	192	199	193	197	198	196	197
30	175	174	174	---	---	---	---	---	---	197	195	196
31	175	173	174	---	---	---	---	---	---	194	192	193
MONTH	201	170	181	216	171	194	---	---	---	---	---	---

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

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

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), 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
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.3	7.2	7.6	7.5	---	---	---	---	8.0	8.0	8.2	8.2
2	7.3	7.3	7.5	7.4	---	---	---	---	8.0	8.0	8.3	8.2
3	7.3	7.3	7.4	7.4	---	---	---	---	8.0	7.9	8.3	8.2
4	7.3	7.3	7.4	7.4	---	---	---	---	---	---	8.2	8.2
5	7.4	7.3	7.4	7.3	---	---	---	---	---	---	8.2	8.1
6	7.4	7.4	7.5	7.3	---	---	---	---	---	---	8.1	8.1
7	7.4	7.4	7.5	7.4	---	---	---	---	---	---	8.1	8.0
8	7.5	7.4	7.5	7.4	---	---	---	---	---	---	8.1	8.0
9	7.5	7.4	7.5	7.4	---	---	---	---	---	---	8.1	8.0
10	7.4	7.4	7.5	7.5	---	---	---	---	---	---	8.1	8.1
11	7.5	7.4	7.5	7.5	---	---	8.0	8.0	---	---	8.2	8.1
12	7.4	7.4	7.6	7.5	7.8	7.8	8.0	8.0	---	---	8.2	8.1
13	7.5	7.4	7.6	7.5	7.8	7.8	8.0	8.0	---	---	8.1	8.1
14	7.5	7.5	7.6	7.5	7.8	7.8	8.0	7.9	---	---	8.1	8.0
15	7.5	7.4	7.6	7.5	7.8	7.7	7.9	7.9	---	---	8.0	8.0
16	7.5	7.4	7.7	7.6	7.8	7.7	7.9	7.9	8.0	8.0	8.0	7.9
17	7.5	7.4	7.7	7.6	7.8	7.8	7.9	7.9	8.0	8.0	7.9	7.9
18	---	---	7.7	7.6	7.8	7.8	7.9	7.9	8.1	8.0	8.0	7.9
19	---	---	7.9	7.7	7.8	7.8	7.9	7.9	8.1	8.0	8.0	8.0
20	---	---	7.8	7.7	7.8	7.8	7.9	7.9	8.1	8.0	8.0	7.9
21	---	---	7.7	7.6	7.8	7.7	7.9	7.9	8.1	8.0	7.9	7.8
22	---	---	8.1	7.7	7.7	7.7	7.9	7.8	8.3	8.1	7.8	7.7
23	---	---	7.8	7.7	7.7	7.7	7.9	7.7	8.2	8.1	7.7	7.7
24	7.6	7.5	7.8	7.7	7.8	7.7	7.9	7.9	8.2	8.1	7.7	7.7
25	7.6	7.6	7.7	7.6	7.8	7.7	7.9	7.9	8.2	8.1	7.7	7.7
26	7.6	7.5	7.7	7.6	7.8	7.8	7.9	7.9	8.1	8.0	7.7	7.7
27	7.6	7.5	7.8	7.7	7.8	7.8	7.9	7.9	8.1	8.1	7.7	7.7
28	7.6	7.5	7.8	7.7	7.8	7.8	7.9	7.9	8.1	8.0	7.8	7.7
29	7.5	7.4	7.8	7.7	7.8	7.8	8.0	7.9	8.2	7.9	7.8	7.7
30	7.5	7.4	---	---	---	---	8.0	7.9	---	---	7.7	7.7
31	7.6	7.4	---	---	---	---	8.0	8.0	---	---	7.7	7.7
MONTH	7.6	7.2	8.1	7.3	---	---	---	---	---	---	8.3	7.7
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.7	8.2	7.9	---	---	8.1	7.6	8.0	7.4	7.2	7.1
2	7.7	7.7	8.2	7.9	---	---	8.0	7.5	7.9	7.5	7.3	7.1
3	7.7	7.7	8.3	8.0	7.9	7.6	7.8	7.4	7.7	7.6	7.4	7.3
4	7.8	7.7	8.4	8.0	8.2	7.7	7.6	7.3	8.1	7.4	7.5	7.3
5	7.8	7.7	8.3	8.1	8.4	7.8	7.5	7.2	7.6	7.4	7.5	7.4
6	7.8	7.7	8.4	8.0	8.0	7.7	7.4	7.1	7.6	7.4	7.5	7.3
7	7.8	7.7	8.3	7.9	8.1	7.5	7.6	7.3	7.9	7.5	7.8	7.2
8	7.8	7.8	8.4	8.0	7.8	7.5	7.5	7.3	8.1	7.8	7.4	7.2
9	7.8	7.8	8.8	8.2	7.8	7.7	7.6	7.3	7.9	7.5	7.2	7.1
10	7.8	7.8	8.7	8.4	7.7	7.5	7.8	7.5	---	---	7.1	7.1
11	7.8	7.7	8.6	8.2	---	---	8.0	7.6	---	---	7.2	7.1
12	7.7	7.7	8.2	8.0	---	---	7.8	7.6	---	---	7.1	7.1
13	7.8	7.7	8.1	7.9	---	---	7.6	7.5	---	---	7.2	7.0
14	7.8	7.8	8.0	7.7	---	---	8.0	7.5	---	---	7.1	6.9
15	7.8	7.8	8.3	7.8	---	---	7.9	7.5	---	---	7.0	6.8
16	7.8	7.7	8.6	7.9	---	---	7.9	7.6	---	---	7.3	7.0
17	7.8	7.7	8.3	8.0	7.7	7.4	---	---	---	---	7.2	7.1
18	7.8	7.8	8.1	7.9	7.7	7.5	---	---	---	---	7.2	7.1
19	7.9	7.8	8.2	7.8	7.8	7.5	---	---	---	---	7.4	7.0
20	8.0	7.9	8.1	7.7	8.2	7.4	---	---	---	---	7.3	7.1
21	8.1	7.9	8.4	7.6	7.8	7.6	---	---	---	---	7.3	7.1
22	8.2	8.0	8.4	7.8	7.6	7.4	---	---	---	---	7.3	7.0
23	8.2	8.0	8.4	7.7	7.8	7.4	---	---	---	---	7.2	7.0
24	8.2	8.1	8.0	7.6	8.0	7.5	---	---	---	---	7.4	7.1
25	8.4	8.0	7.8	7.6	7.7	7.6	---	---	---	---	7.3	7.1
26	8.2	8.1	8.1	7.4	7.8	7.5	---	---	---	---	7.3	7.1
27	8.1	8.0	8.2	7.6	7.7	7.5	---	---	---	---	7.4	7.2
28	8.0	7.9	8.2	7.6	8.1	7.5	---	---	7.3	7.2	7.4	7.3
29	8.0	7.9	8.2	7.7	7.8	7.6	7.7	7.4	7.4	7.2	7.4	7.3
30	8.0	7.9	8.3	7.8	7.7	7.6	7.6	7.4	7.4	7.2	7.3	7.2
31	---	---	8.4	7.7	---	---	7.7	7.4	7.4	7.1	---	---
MONTH	8.4	7.7	8.8	7.4	---	---	---	---	---	---	7.8	6.8

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

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

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

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

TEMPERATURE, WATER (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	---	---	---	24.5	23.5	24.0	25.5	23.5	24.5	25.0	23.5	24.5
2	---	---	---	25.0	23.5	24.5	25.5	24.0	24.5	25.5	23.5	24.5
3	25.0	21.5	22.5	24.0	23.0	23.5	25.0	24.0	24.5	25.5	24.5	25.0
4	22.5	21.5	22.0	26.5	23.5	24.5	25.5	24.0	24.5	25.5	24.5	25.0
5	23.5	21.5	22.5	27.5	23.0	24.5	24.5	23.5	24.0	26.0	25.0	25.5
6	23.0	21.5	22.0	27.5	23.5	24.0	25.0	23.0	24.0	26.5	25.5	26.0
7	24.0	22.0	23.0	25.5	24.0	24.5	25.5	24.0	24.5	27.5	25.5	26.5
8	23.0	22.5	22.5	27.0	24.5	25.5	25.5	23.5	24.5	26.5	25.5	26.0
9	24.0	22.5	23.0	25.5	24.5	25.0	---	---	---	26.0	25.5	25.5
10	23.0	21.0	22.0	25.5	24.5	25.0	---	---	---	25.5	25.5	25.5
11	---	---	---	26.5	24.5	25.5	---	---	---	26.5	26.0	26.0
12	---	---	---	26.0	23.5	25.5	---	---	---	26.5	25.5	26.0
13	---	---	---	24.5	23.0	24.0	---	---	---	26.5	25.5	26.0
14	---	---	---	25.5	23.0	24.0	---	---	---	26.5	25.5	26.0
15	---	---	---	25.5	23.5	24.5	---	---	---	25.5	25.0	25.5
16	---	---	---	25.5	24.0	24.5	---	---	---	26.5	25.5	26.0
17	23.0	21.5	22.5	---	---	---	---	---	---	26.0	25.0	25.5
18	23.0	22.0	22.5	---	---	---	---	---	---	26.0	25.0	25.5
19	24.5	21.5	23.0	---	---	---	---	---	---	26.5	25.0	26.0
20	24.5	22.0	23.5	---	---	---	25.5	23.5	24.5	26.5	26.0	26.0
21	25.0	21.0	24.0	---	---	---	25.5	24.5	25.0	26.5	25.5	26.0
22	26.0	23.5	24.5	---	---	---	25.5	24.5	25.0	26.5	25.5	26.0
23	25.0	23.5	24.0	---	---	---	26.5	24.5	25.5	26.0	25.5	25.5
24	26.5	23.0	24.0	---	---	---	26.0	25.0	25.5	26.0	25.5	26.0
25	24.0	23.0	23.5	---	---	---	26.5	24.5	25.5	26.0	25.5	25.5
26	24.0	22.5	23.0	---	---	---	26.5	25.0	25.5	25.5	25.0	25.0
27	24.5	22.5	23.5	---	---	---	26.0	25.0	25.5	25.0	24.0	24.5
28	25.5	22.5	24.0	---	---	---	25.5	24.5	25.5	24.5	24.0	24.0
29	24.5	23.5	24.0	24.5	23.0	23.5	25.5	24.5	25.0	24.0	23.5	24.0
30	24.0	23.5	24.0	24.5	22.5	23.5	25.5	24.5	25.0	23.5	23.0	23.5
31	---	---	---	25.0	23.0	24.5	25.5	24.0	25.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	27.5	23.0	25.5

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	6.8	6.9				---	---	---	---	---	---
2	7.0	6.8	6.9				---	---	---	---	---	---
3	9.9	6.9	7.2				---	---	---	---	---	---
4	7.6	7.3	7.4				---	---	---	---	---	---
5	9.7	7.5	7.7				---	---	---	---	---	---
6	7.9	7.6	7.7				---	---	---	---	---	---
7	8.0	7.7	7.8				---	---	---	---	---	---
8	8.1	7.7	8.0				---	---	---	---	---	---
9	8.0	7.4	7.7				---	---	---	---	---	---
10	7.8	7.6	7.7				---	---	---	---	---	---
11	7.9	7.5	7.7				---	---	---	10.3	10.2	10.3
12	7.7	7.5	7.6				10.0	9.9	10.0	10.3	10.2	10.3
13	8.1	7.7	7.9				12.5	10.0	11.6	10.3	10.3	10.3
14	8.3	8.0	8.2				12.5	10.4	11.8	10.3	10.2	10.3
15	8.3	8.1	8.2				12.4	9.6	10.8	10.2	10.1	10.2
16	8.4	8.0	8.2				9.8	9.6	9.7	10.1	10.0	10.0
17	8.4	8.1	8.3				10.1	9.8	10.0	10.0	10.0	10.0
18	---	---	---				10.2	10.0	10.1	10.1	10.0	10.0
19	---	---	---				10.2	10.1	10.1	10.1	9.9	10.0
20	---	---	---				10.1	9.9	10.0	10.0	9.9	9.9
21	---	---	---				9.9	9.7	9.8	10.0	9.9	9.9
22	---	---	---				9.8	9.7	9.7	9.9	9.8	9.8
23	---	---	---				10.1	9.7	9.8	9.9	9.8	9.9
24	8.9	8.4	8.6				9.9	9.8	9.9	10.2	9.9	10.0
25	8.9	8.5	8.7				10.2	9.9	10.1	10.2	10.1	10.1
26	8.8	8.5	8.6				10.2	10.2	10.2	10.1	9.9	10.0
27	---	---	---				10.2	9.9	10.1	10.1	9.9	10.0
28	---	---	---				10.0	9.9	10.0	10.5	10.1	10.1
29	---	---	---				10.1	10.0	10.0	10.4	10.2	10.3
30	---	---	---				---	---	---	10.5	10.3	10.4
31	---	---	---				---	---	---	10.6	10.4	10.5
MONTH	---	---	---				---	---	---	---	---	---

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.9	10.6	10.7	11.5	11.4	11.4	12.5	11.5	12.0	10.1	9.3	9.7
2	10.9	10.8	10.8	11.8	11.4	11.6	11.5	10.9	11.2	10.3	9.6	9.9
3	---	---	---	11.9	11.6	11.8	11.5	10.3	10.8	10.5	9.7	10.1
4	---	---	---	11.8	11.6	11.7	11.1	10.5	10.7	10.6	9.9	10.3
5	---	---	---	11.7	11.5	11.6	11.1	10.8	10.9	10.4	9.9	10.2
6	---	---	---	11.7	11.5	11.6	11.1	10.4	10.9	10.6	9.8	10.2
7	---	---	---	11.6	11.5	11.5	10.3	10.2	10.3	10.3	9.7	9.9
8	---	---	---	11.6	11.4	11.5	10.2	10.2	10.2	10.2	9.7	9.9
9	---	---	---	11.5	11.3	11.4	12.7	10.2	11.8	10.6	9.8	10.1
10	---	---	---	11.6	11.4	11.5	12.6	9.9	10.9	10.5	9.9	10.3
11	---	---	---	11.7	11.4	11.5	9.9	9.5	9.7	10.0	9.5	9.7
12	---	---	---	11.6	11.4	11.5	9.5	9.3	9.4	9.6	9.2	9.4
13	---	---	---	11.4	11.1	11.3	9.6	9.4	9.5	9.5	9.1	9.2
14	---	---	---	11.1	10.9	11.0	9.7	9.6	9.6	9.2	8.8	8.9
15	---	---	---	10.9	10.7	10.8	9.7	9.5	9.6	10.2	8.8	9.6
16	10.9	10.7	10.7	10.7	10.4	10.5	9.6	9.5	9.5	10.2	9.4	9.8
17	10.9	10.7	10.8	10.4	10.1	10.3	9.5	9.3	9.4	9.5	9.1	9.3
18	11.2	10.9	11.0	10.5	10.1	10.3	9.6	9.4	9.5	9.2	8.8	9.1
19	11.6	11.1	11.3	10.6	10.4	10.5	10.1	9.6	9.9	---	---	---
20	11.4	11.2	11.3	12.6	10.4	11.2	10.3	10.0	10.2	---	---	---
21	11.5	11.3	11.4	11.9	11.4	11.5	10.6	10.3	10.4	---	---	---
22	11.8	11.5	11.7	11.6	11.0	11.3	10.9	10.5	10.7	---	---	---
23	11.9	11.6	11.8	11.2	10.7	10.9	10.7	10.3	10.4	---	---	---
24	11.9	11.6	11.7	11.2	9.5	10.3	10.8	10.2	10.5	---	---	---
25	11.8	11.5	11.7	10.9	10.6	10.8	10.7	10.1	10.3	---	---	---
26	11.7	11.5	11.6	11.4	10.9	11.1	10.3	9.9	10.1	---	---	---
27	11.8	11.6	11.7	11.8	10.9	11.2	9.9	9.6	9.7	---	---	---
28	11.8	11.4	11.6	11.9	11.1	11.6	9.6	9.4	9.5	---	---	---
29	11.7	11.5	11.5	11.8	11.5	11.6	9.5	9.4	9.5	---	---	---
30	---	---	---	11.6	11.0	11.3	9.6	9.3	9.4	---	---	---
31	---	---	---	12.0	10.7	11.2	---	---	---	---	---	---
MONTH	---	---	---	12.6	9.5	11.2	12.7	9.3	10.2	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.3	8.3	7.6	7.4	5.9	7.1	5.2	4.3	4.6
2	---	---	---	---	---	---	7.5	6.9	7.1	5.2	4.3	4.8
3	---	---	---	---	---	---	7.1	6.8	7.0	5.2	4.7	5.0
4	8.6	7.6	8.0	---	---	---	7.6	6.6	7.0	5.4	4.7	5.0
5	8.9	7.5	8.1	---	---	---	6.9	6.4	6.7	5.5	4.4	4.9
6	---	---	---	---	---	---	---	---	---	5.2	4.1	4.7
7	---	---	---	---	---	---	---	---	---	6.2	4.3	5.1
8	---	---	---	---	---	---	---	---	---	5.0	4.1	4.6
9	---	---	---	---	---	---	---	---	---	4.2	3.8	4.0
10	---	---	---	7.2	6.4	6.6	---	---	---	4.4	4.0	4.1
11	---	---	---	7.8	7.0	7.3	---	---	---	4.7	4.1	4.4
12	---	---	---	7.9	7.2	7.5	---	---	---	4.6	4.1	4.3
13	---	---	---	7.8	7.0	7.4	---	---	---	5.2	4.1	4.4
14	---	---	---	8.0	7.2	7.5	---	---	---	4.6	3.4	4.1
15	---	---	---	7.9	7.0	7.5	---	---	---	3.5	3.0	3.3
16	---	---	---	8.2	7.3	7.8	---	---	---	4.7	3.4	4.1
17	---	---	---	---	---	---	---	---	---	4.6	4.0	4.2
18	---	---	---	---	---	---	---	---	---	4.9	4.1	4.5
19	---	---	---	---	---	---	---	---	---	5.9	4.0	4.9
20	---	---	---	---	---	---	6.3	5.3	5.7	5.7	4.8	5.2
21	---	---	---	---	---	---	5.9	5.4	5.7	5.7	4.6	5.0
22	---	---	---	---	---	---	5.5	5.0	5.2	6.2	4.4	5.2
23	---	---	---	---	---	---	6.4	5.1	5.8	5.5	4.4	4.6
24	---	---	---	---	---	---	6.0	5.4	5.7	6.4	4.7	5.7
25	6.5	5.7	6.2	---	---	---	6.1	5.2	5.7	5.7	4.9	5.4
26	6.9	5.9	6.3	---	---	---	6.3	5.2	5.8	6.1	5.0	5.6
27	6.7	6.0	6.3	---	---	---	5.6	4.8	5.2	6.9	5.8	6.4
28	7.6	6.2	6.8	---	---	---	5.2	4.4	4.8	7.1	6.3	6.7
29	6.9	6.3	6.6	8.8	7.8	8.3	5.0	4.5	4.7	7.0	6.6	6.9
30	7.1	6.6	6.8	---	---	---	5.8	4.4	5.0	6.8	6.0	6.5
31	---	---	---	---	---	---	5.4	5.0	4.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	7.1	3.0	4.9

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.145).

AVERAGE DISCHARGE.--44 years (water years 1932-42, 1948-80), 19,270 ft³/s (545.7 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 daily discharge, 83,400 ft³/s (2,360 m³/s) Mar. 21; maximum recorded gage height, 32.35 ft (9.860 m) Mar. 28; minimum daily discharge, 2,290 ft³/s (64.85 m³/s) Sept. 9; minimum gage height, 4.26 ft (1.298 m) July 5.

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	20600	35200	33300	22800	29400	13500	61100	15900	7500	10400	22500	3020
2	22200	53800	33200	24800	31300	19000	64600	14300	5470	15500	18600	15400
3	30800	39000	32700	29000	29100	27700	54800	15600	17900	14700	11900	11300
4	22900	28200	32100	30100	17300	24800	49100	11600	22400	8790	11900	6280
5	21900	24400	31900	34800	18800	24800	48400	9610	18300	6550	9440	7980
6	29300	26200	32000	30700	21900	37500	48200	16000	16100	8010	9410	7480
7	22300	29100	32600	24300	25600	33800	38100	18600	17400	11200	11000	14500
8	13100	28900	25800	30200	30700	21300	31500	15200	17100	17700	15600	4940
9	20600	23900	20000	35900	20000	23100	53300	15000	12700	23700	16200	2290
10	24000	27900	26100	30600	26100	20800	48700	15600	6510	25000	14900	4410
11	25800	28500	30200	24900	23400	14300	38100	8810	4600	26000	10900	4600
12	21600	17600	31300	34700	33700	9220	29900	9320	7000	23900	15100	4540
13	16500	21200	63800	41400	31800	14500	33500	7570	8760	19300	11300	4470
14	18200	24800	58300	32900	27200	19800	43400	9340	8730	20100	10700	4720
15	13800	25400	49900	26100	18200	16200	36100	10700	7710	25700	10500	4010
16	21300	22100	31000	28500	24600	11700	41000	13300	11600	24300	4040	5380
17	24300	20500	21700	26700	24600	22000	40500	23700	13200	22200	3060	7650
18	21100	14200	27100	31300	12300	25300	35500	23600	8450	22400	5860	7130
19	20600	13600	27900	40600	16700	25600	27500	10900	10100	22400	6850	7670
20	19600	24100	22600	28200	13500	46200	22500	9170	10400	13600	11800	7480
21	12500	25400	21400	24700	10000	83400	24800	21400	11200	14400	16100	5530
22	12100	22100	17600	31300	7100	82600	27500	17800	4220	8210	18000	10400
23	21100	22700	22000	37200	8580	74100	27700	16200	4930	9480	11600	14500
24	25100	51500	32200	41100	9170	60000	22000	16100	10600	8820	4410	14600
25	25600	52700	33500	38900	8390	49700	24500	14200	23000	14300	9460	9820
26	24800	40500	38100	38500	10200	66400	29300	13800	15400	14000	5280	8990
27	20700	37800	40600	29000	15100	64900	20500	13500	15000	9670	4770	6240
28	12300	39300	42000	20300	11700	76400	16000	17300	22500	13500	5080	4910
29	11500	32800	33000	29200	11000	77200	16500	19600	29600	7980	4630	7010
30	20700	32500	25300	31900	---	68100	16100	17500	29300	9530	3580	5310
31	25400	---	23800	29300	---	58000	---	19200	---	13400	3000	---
TOTAL	642300	885900	993000	959900	567440	1211920	1070700	460420	397680	484740	317470	222560
MEAN	20720	29530	32030	30960	19570	39090	35690	14850	13260	15640	10240	7419
MAX	30800	53800	63800	41400	33700	83400	64600	23700	29600	26000	22500	15400
MIN	11500	13600	17600	20300	7100	9220	16000	7570	4220	6550	3000	2290

CAL YR 1979 TOTAL 11008050 MEAN 30160 MAX 85600 MIN 4600
WTR YR 1980 TOTAL 8214030 MEAN 22440 MAX 83400 MIN 2290

03426800 EAST FORK STONES RIVER AT WOODBURY, TN

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

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

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

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

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

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

AVERAGE DISCHARGE.--18 years, 71.2 ft^3/s (2.016 m^3/s), 24.73 in/yr (628 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft^3/s (374 m^3/s) Mar. 15, 1973, gage height, 16.75 ft (5.105 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of velocity-area study and contracted-opening measurement at gage height 16.52 ft (5.035 m) at bridge 4.6 mi (7.4 km) downstream; minimum, 2.7 ft^3/s (0.076 m^3/s) Oct. 30, 1963.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,680 ft^3/s (133 m^3/s) at 2230 hours Mar. 20, gage height, 12.89 ft (3.929 m), no other peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 6.2 ft^3/s (0.176 m^3/s) Sept. 15, 16.

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	69	401	58	70	49	39	90	38	46	20	24	12
2	56	342	51	64	47	37	87	36	38	17	23	9.4
3	44	133	45	58	46	35	86	34	35	25	23	9.7
4	46	83	44	109	43	37	83	32	31	20	48	9.7
5	40	65	44	95	43	63	77	31	29	16	52	10
6	34	54	43	80	44	56	69	31	26	15	27	9.1
7	29	47	39	176	40	184	65	30	25	14	22	8.5
8	26	43	34	162	39	282	225	29	24	25	20	7.7
9	26	142	31	115	43	157	120	26	23	46	18	7.5
10	44	256	31	89	45	111	89	25	21	47	18	7.5
11	36	128	30	316	47	84	84	25	20	38	19	7.2
12	31	89	30	225	48	75	126	25	19	25	19	7.0
13	27	71	47	147	46	71	327	25	19	25	17	7.0
14	23	58	43	118	46	61	401	25	19	24	17	7.0
15	23	52	39	95	191	54	194	23	18	23	22	7.0
16	22	47	37	84	488	73	109	23	17	23	16	7.2
17	20	42	33	81	202	780	90	150	17	23	13	9.1
18	20	39	31	333	122	411	86	120	17	21	20	8.3
19	20	36	32	199	95	208	83	244	16	20	16	7.7
20	20	33	30	131	84	2500	80	256	16	20	12	7.5
21	19	31	29	98	73	1270	71	92	15	20	10	8.5
22	29	30	29	361	66	357	63	84	15	23	9.1	8.3
23	63	406	211	316	61	205	58	92	16	26	8.8	8.8
24	37	474	375	171	54	181	54	83	29	26	8.0	8.5
25	29	234	250	120	52	126	52	70	45	24	8.0	8.5
26	25	179	145	89	46	100	51	56	21	31	7.7	8.5
27	24	115	98	77	45	90	45	46	16	35	7.5	8.0
28	90	90	78	68	45	433	45	40	16	36	7.5	8.3
29	285	75	69	61	41	219	44	84	49	29	14	8.8
30	138	65	80	58	---	157	40	87	36	26	20	8.8
31	80	---	77	54	---	111	---	60	---	25	16	---
TOTAL	1475	3860	2213	4220	2291	8567	3094	2022	734	788	562.6	251.1
MEAN	47.6	129	71.4	136	79.0	276	103	65.2	24.5	25.4	18.1	8.37
MAX	285	474	375	361	488	2500	401	256	49	47	52	12
MIN	19	30	29	54	39	35	40	23	15	14	7.5	7.0
CFSM	1.22	3.30	1.83	3.48	2.02	7.06	2.63	1.67	.63	.65	.46	.21
IN.	1.40	3.67	2.11	4.01	2.18	8.15	2.94	1.92	.70	.75	.54	.24

CAL YR 1979 TOTAL 35740.0 MEAN 97.9 MAX 1030 MIN 12 CFSM 2.50 IN 34.00
WTR YR 1980 TOTAL 30077.7 MEAN 82.2 MAX 2500 MIN 7.0 CFSM 2.10 IN 28.62

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.--25 years (1950-57, 1964-80), 472 ft³/s (13.37 m³/s), 24.46 in/yr (621 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.--Peak discharges above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	2100	12200	345	22.69	6.916	Mar. 21	0200	*23800	674	33.20	10.119
Nov. 24	0030	7960	225	18.13	5.526	Mar. 28	1115	7150	202	17.15	5.227

Minimum discharge, 4.7 ft³/s (.133 m³/s) Aug. 29, 30, 31.

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	254	4830	296	380	214	140	648	117	172	81	38	27
2	307	4090	249	339	188	133	541	107	133	57	33	22
3	232	1250	207	296	178	125	465	100	111	50	28	18
4	256	692	186	877	171	122	412	93	97	57	50	113
5	279	458	172	782	159	521	353	88	86	52	1240	276
6	204	342	163	538	157	468	316	84	79	43	150	54
7	157	267	152	999	154	1460	291	81	73	38	76	34
8	120	220	131	1180	141	2940	2610	79	67	36	51	26
9	97	528	114	735	154	1310	1190	73	64	35	40	21
10	218	2540	107	531	223	742	595	71	60	32	36	17
11	232	1040	102	2430	258	497	415	68	56	30	34	13
12	162	621	101	1750	269	383	1420	66	53	27	33	13
13	119	437	655	945	247	342	2220	70	50	26	33	11
14	90	334	538	720	234	293	3440	67	49	24	31	10
15	73	265	331	580	640	244	1370	67	45	24	30	9.8
16	64	225	258	471	3840	227	775	67	41	22	42	9.2
17	56	190	207	591	1340	5720	538	1070	42	22	43	14
18	49	165	174	3330	738	2950	424	1010	42	21	39	10
19	44	145	161	1640	520	1300	347	1420	39	18	51	9.2
20	40	131	147	909	470	11600	293	1310	39	17	47	10
21	38	119	133	632	450	15500	256	577	38	15	41	10
22	44	110	123	2450	410	2460	225	372	36	17	34	10
23	365	1520	831	2430	340	1290	199	591	33	22	24	9.2
24	226	4180	2660	1110	290	1310	180	452	42	22	18	9.2
25	135	1360	1760	731	240	957	167	342	47	24	17	9.8
26	97	1330	945	521	210	742	161	247	73	29	14	12
27	74	735	621	407	180	617	148	186	56	165	14	12
28	66	559	455	337	165	3650	136	150	47	269	13	11
29	2160	443	361	284	156	1620	141	159	47	79	6.2	11
30	1310	353	369	253	---	1040	130	685	119	50	5.0	11
31	617	---	428	247	---	835	---	256	---	41	5.4	---
TOTAL	8185	29479	13137	29425	12736	61538	20406	10125	1936	1445	2316.6	822.4
MEAN	264	983	424	949	439	1985	680	327	64.5	46.6	74.7	27.4
MAX	2160	4830	2660	3330	3840	15500	3440	1420	172	269	1240	276
MIN	38	110	101	247	141	122	130	66	33	15	5.0	9.2
CFSM	1.01	3.75	1.62	3.62	1.68	7.58	2.60	1.25	.25	.18	.29	.11
IN.	1.16	4.19	1.87	4.18	1.81	8.74	2.90	1.44	.27	.21	.33	.12

CAL YR 1979 TOTAL 272209.0 MEAN 746 MAX 9420 MIN 17 CFSM 2.85 IN 38.65
WTR YR 1980 TOTAL 191551.0 MEAN 523 MAX 15500 MIN 5.0 CFSM 2.00 IN 27.20

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.

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

REMARKS.--No record temperature Mar. 1 to Apr. 2, May 22-29. Specific conductance Mar. 3 to Apr. 2, May 22-29 due to instrument malfunction.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 697 micromhos Dec. 6, 1979, minimum, 72 micromhos Aug. 16, 1978.
WATER TEMPERATURES: Maximum, 31.5°C July 8, 14-16, 1977, July 16, 1980: minimum, 0.0° C Jan. 21, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 697 micromhos Dec. 6; minimum, 86 micromhos Aug. 4.
WATER TEMPERATURE: Maximum, 31.5°C July 16; minimum 2.0°C Feb. 2-4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
04...	1100	229	380	18.0	10	6.2
NOV						
27...	1030	760	365	12.5	4	8.2
JAN						
09...	1100	730	380	9.0	12	24
FEB						
28...	1130	174	350	8.5	1	.47
APR						
02...	1420	544	348	14.5	7	10
JUL						
25...	1415	21	297	26.5	9	.51

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

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	379	365	373	413	133	284	597	561	577	400	397	398
2	383	378	380	343	147	286	636	600	616	399	391	396
3	388	374	381	387	349	370	671	638	654	395	390	393
4	385	372	378	398	387	393	695	673	682	393	391	391
5	388	375	381	406	399	402	694	676	686	390	386	388
6	386	377	383	406	401	404	697	686	689	384	373	380
7	395	382	389	408	403	406	696	689	693	383	376	379
8	391	379	388	408	406	407	695	688	690	382	379	381
9	388	367	382	404	342	396	691	673	680	385	367	372
10	379	368	375	326	252	293	675	654	664	413	380	402
11	377	367	373	377	327	357	657	639	647	433	153	320
12	377	365	374	396	378	388	638	627	631	301	183	256
13	386	372	379	408	396	401	630	612	623	349	302	324
14	391	380	387	411	404	408	615	611	612	408	350	378
15	389	379	386	413	404	409	614	596	608	444	410	428
16	389	365	379	408	399	404	617	610	614	445	401	418
17	379	365	373	404	396	400	619	612	615	429	415	422
18	375	365	371	399	392	396	611	594	600	423	138	252
19	377	363	368	396	387	390	593	578	584	305	230	274
20	372	361	367	387	378	383	578	560	569	347	305	321
21	366	355	361	382	369	377	566	552	558	393	349	375
22	361	328	353	369	364	367	551	551	551	400	156	326
23	361	317	347	375	170	349	554	537	551	257	156	212
24	363	351	357	310	144	241	534	468	509	290	259	273
25	377	367	367	350	309	335	467	364	422	333	182	311
26	394	377	385	356	340	346	362	351	354	351	333	341
27	398	391	395	367	359	364	373	357	365	364	350	355
28	398	389	394	475	401	436	379	372	375	375	364	371
29	389	265	323	528	479	504	385	377	380	375	348	364
30	392	275	346	558	529	545	395	385	390	345	334	338
31	412	394	405	---	---	---	398	394	396	338	335	337
MONTH	412	265	374	558	133	381	697	351	567	445	138	351
		FEBRUARY			MARCH			APRIL			MAY	
1	336	332	335	367	354	358	---	---	---	482	347	392
2	343	335	341	357	356	357	---	---	---	524	436	475
3	340	337	339	---	---	---	439	404	423	507	431	467
4	343	338	340	---	---	---	486	436	455	494	409	451
5	349	342	345	---	---	---	493	437	469	474	387	430
6	349	348	348	---	---	---	500	433	466	457	367	413
7	352	348	350	---	---	---	478	430	458	432	356	398
8	351	346	349	---	---	---	480	399	442	420	362	394
9	351	348	349	---	---	---	400	341	374	432	362	396
10	354	345	350	---	---	---	406	333	373	417	334	369
11	358	349	354	---	---	---	416	341	386	354	328	342
12	362	355	359	---	---	---	408	394	401	336	299	314
13	361	342	355	---	---	---	400	355	393	465	286	351
14	339	330	334	---	---	---	350	296	312	528	465	498
15	334	249	324	---	---	---	303	269	288	529	431	473
16	232	154	178	---	---	---	320	272	296	465	428	443
17	226	189	207	---	---	---	325	271	303	450	435	442
18	276	226	249	---	---	---	343	283	316	449	353	400
19	308	276	292	---	---	---	376	307	342	422	350	389
20	324	306	315	---	---	---	390	326	365	391	338	367
21	331	323	326	---	---	---	433	339	386	388	310	349
22	351	332	340	---	---	---	443	364	409	---	---	---
23	350	345	348	---	---	---	448	372	415	---	---	---
24	347	342	344	---	---	---	457	378	427	---	---	---
25	345	341	343	---	---	---	462	447	456	---	---	---
26	349	342	345	---	---	---	454	415	435	---	---	---
27	351	346	349	---	---	---	442	408	428	---	---	---
28	360	348	352	---	---	---	444	391	421	---	---	---
29	368	363	364	---	---	---	429	400	414	---	---	303
30	---	---	---	---	---	---	412	362	389	303	220	263
31	---	---	---	---	---	---	---	---	---	307	287	297
MONTH	368	154	328	---	---	---	500	269	394	529	220	392

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

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	327	308	321	306	289	293	323	315	318	303	284	293
2	333	327	330	293	290	292	304	292	297	310	304	307
3	333	329	331	291	287	289	281	274	278	311	306	308
4	332	326	330	299	289	294	265	86	227	315	136	281
5	328	318	323	303	299	302	178	88	138	255	207	234
6	324	316	320	306	302	304	236	168	202	283	257	268
7	319	313	317	304	301	303	290	226	258	279	272	276
8	318	314	316	304	300	302	352	280	317	294	280	286
9	314	309	311	302	297	300	394	348	368	306	294	302
10	312	307	310	303	297	299	342	297	318	314	306	309
11	310	304	307	300	297	298	343	329	339	317	314	315
12	306	303	305	300	298	299	337	258	290	316	312	314
13	305	302	304	301	297	299	252	236	242	315	311	313
14	305	301	303	300	295	298	248	228	239	310	305	309
15	303	299	301	299	294	297	259	245	252	305	300	303
16	303	299	301	300	294	297	271	255	265	300	287	296
17	302	297	299	298	291	295	283	268	277	286	278	282
18	299	294	297	295	290	293	292	279	287	291	284	288
19	298	294	296	294	291	293	303	288	297	296	291	294
20	300	292	295	294	290	292	309	298	305	299	295	296
21	295	290	293	295	290	293	314	304	310	301	296	298
22	294	291	293	291	285	289	310	306	308	305	299	302
23	296	292	294	286	267	275	305	300	303	304	302	303
24	294	267	285	280	272	277	300	284	297	303	301	302
25	282	273	278	281	279	283	299	296	298	304	302	303
26	292	279	286	293	272	284	288	284	286	303	301	302
27	293	284	288	285	201	268	280	276	278	304	302	302
28	284	281	283	285	201	259	274	269	271	305	302	304
29	282	260	270	317	280	296	275	270	273	305	301	304
30	305	269	279	337	318	331	280	274	278	307	303	305
31	---	---	---	341	336	339	284	279	282	---	---	---
MONTH	333	260	302	341	201	295	394	86	281	317	136	297

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

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

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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	2.5	3.0				---	---	---	16.5	14.5	15.5
2	4.0	2.0	3.0				---	---	---	18.0	15.0	16.5
3	4.5	2.0	3.5				15.5	15.0	15.0	18.5	16.0	17.5
4	4.5	2.0	3.5				15.5	13.5	15.0	20.0	17.0	18.5
5	3.5	3.0	3.0				15.5	12.5	14.0	20.5	18.0	19.5
6	4.5	3.0	4.0				15.5	12.5	14.0	21.5	18.5	20.0
7	5.0	3.5	4.0				17.0	13.0	15.0	22.5	19.0	20.5
8	5.0	3.5	4.0				16.5	15.0	15.5	21.5	19.0	20.5
9	5.0	4.0	4.5				15.5	14.0	15.0	21.0	17.5	19.5
10	5.5	4.0	5.0				16.0	13.0	14.5	20.5	17.0	19.0
11	6.5	4.0	5.0				15.0	14.0	14.5	20.5	19.0	19.5
12	7.0	4.5	5.5				15.0	13.5	14.0	22.0	19.5	20.5
13	7.0	4.5	5.5				13.5	11.0	12.5	22.5	20.5	21.5
14	8.0	5.0	6.5				12.5	11.0	12.0	22.0	20.5	21.0
15	9.5	7.0	8.0				12.5	10.0	11.5	21.5	19.0	20.5
16	9.0	7.5	8.5				14.5	10.5	12.5	21.0	20.0	20.5
17	7.5	6.5	7.0				15.5	12.0	14.0	20.0	17.5	19.0
18	8.5	6.0	7.5				16.0	14.0	15.0	19.0	17.0	18.0
19	9.0	7.5	8.5				17.5	15.5	16.0	19.5	18.0	18.5
20	10.0	9.0	9.5				18.5	15.5	17.0	18.5	17.5	18.0
21	11.5	10.0	10.5				20.0	16.0	18.0	19.5	17.0	18.5
22	14.5	11.5	13.0				20.5	16.0	18.5	---	---	---
23	15.0	13.5	14.0				21.5	17.0	19.5	---	---	---
24	14.0	12.5	13.5				21.5	18.0	20.0	---	---	---
25	12.5	9.5	11.5				20.0	17.5	18.0	---	---	---
26	9.5	7.5	8.5				17.0	16.5	17.0	---	---	---
27	9.5	6.5	8.0				16.5	15.5	16.0	---	---	---
28	11.5	8.0	9.5				16.0	14.5	15.5	---	---	---
29	11.0	8.5	10.0				15.0	14.0	14.5	---	---	---
30	---	---	---				16.0	14.0	15.0	22.0	20.5	21.5
31	---	---	---				---	---	---	21.5	21.0	21.5
MONTH	15.0	2.0	7.0				21.5	10.0	15.5	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	20.5	21.5	26.5	23.5	25.0	29.0	26.5	27.5	26.5	25.0	26.0
2	24.5	22.0	23.0	28.5	25.0	27.0	29.0	26.5	28.0	26.5	25.0	26.0
3	24.5	23.0	24.0	27.5	26.0	27.0	27.5	26.5	27.0	26.5	24.0	25.5
4	25.5	23.5	24.5	28.5	26.0	27.0	27.0	21.5	25.5	27.0	23.0	25.5
5	25.5	23.5	24.5	29.5	27.0	28.0	23.0	21.5	22.5	23.5	21.5	22.5
6	26.5	24.5	25.5	29.5	27.5	28.5	26.5	23.0	25.0	25.0	23.0	24.0
7	27.0	25.0	26.0	29.5	27.0	28.0	27.0	24.5	26.0	25.0	23.0	24.0
8	26.5	25.0	25.5	30.0	27.5	29.0	28.5	25.5	27.0	25.5	23.0	24.5
9	24.5	22.5	23.5	30.5	28.0	29.5	29.5	26.5	28.0	25.5	24.0	25.0
10	24.5	22.0	23.5	30.0	28.5	29.5	30.0	27.0	28.5	25.5	23.5	24.5
11	24.0	22.0	23.0	31.0	28.5	29.5	28.5	27.5	28.0	24.0	22.0	23.0
12	24.0	21.0	22.5	31.0	29.0	30.0	28.5	26.5	27.5	24.5	22.5	23.5
13	25.0	22.0	23.5	31.0	29.0	30.0	29.0	26.5	27.5	25.5	23.5	24.5
14	25.5	22.5	24.5	31.0	28.5	30.0	28.0	26.0	27.0	26.0	24.0	25.0
15	26.5	23.5	25.0	31.0	28.5	30.0	28.0	26.5	27.5	25.0	23.5	24.5
16	25.5	24.5	25.0	31.5	29.0	30.5	29.0	26.5	28.0	24.5	22.5	23.5
17	24.5	23.5	24.0	31.0	29.0	30.0	28.5	27.0	28.0	23.5	22.0	23.0
18	25.0	23.0	24.0	30.0	27.5	29.0	28.5	27.0	28.0	23.5	22.0	22.5
19	26.0	23.0	24.5	29.5	27.5	29.0	29.0	26.5	28.0	23.5	21.5	22.5
20	25.5	23.5	24.5	30.0	28.0	29.0	29.5	27.0	28.5	24.0	23.0	23.5
21	25.5	23.0	24.5	29.5	28.0	28.5	29.5	27.5	28.5	24.5	23.5	24.0
22	25.5	23.5	24.5	28.0	26.0	27.0	28.5	26.5	27.5	25.5	24.0	24.5
23	25.0	24.5	24.5	26.5	25.0	26.0	27.5	26.0	27.0	25.5	24.5	25.0
24	24.5	23.0	23.5	27.5	25.0	26.0	27.5	25.5	26.5	24.5	23.5	24.0
25	25.5	22.5	24.0	27.5	25.5	26.5	27.0	25.0	26.0	23.5	23.0	23.5
26	26.5	24.0	25.0	27.0	25.5	26.5	27.0	25.5	26.5	22.5	21.0	22.0
27	28.0	24.5	26.0	26.0	22.0	25.0	27.5	25.0	26.5	21.0	19.0	20.0
28	28.0	25.5	27.0	24.0	22.0	23.0	26.5	25.0	25.5	19.0	18.5	18.5
29	27.5	25.0	26.0	25.5	23.0	24.0	26.0	24.5	25.5	19.0	18.5	18.5
30	26.5	24.5	25.5	27.0	23.5	25.5	26.0	24.0	24.5	19.5	18.5	19.0
31	---	---	---	28.5	25.0	27.0	26.5	24.0	25.0	---	---	---
MONTH	28.0	20.5	24.5	31.5	22.0	28.0	30.0	21.5	27.0	27.0	18.5	23.5

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 mi^2 (427 km^2), includes 15 mi^2 (39 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1973 to current year.

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 ft^3/s (0.57 m^3/s), which are fair.

AVERAGE DISCHARGE.--7 years, 304 ft^3/s (8.61 m^3/s), 25.02 in/yr (636 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft^3/s (742 m^3/s) Mar. 13, 1975, gage height, 23.22 ft (7.077 m); minimum, 0.42 ft^3/s (0.012 m^3/s) Sept. 9, 1973, gage height, 1.18 ft (0.360 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 1	2315	9180	260	12.85	3.917	Mar. 17	1230	6620	187	10.35	3.155
Jan. 18	1245	4020	114	7.58	2.310	Mar. 20	1815	*9820	278	13.40	4.084
Jan. 22	2130	3510	99.4	7.10	2.164	Mar. 28	1130	6160	174	9.85	3.002

Minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Sept. 16, gage height, 1.28 ft (0.390 m).

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	460	3220	213	200	203	111	358	67	62	13	6.5	1.7
2	388	2980	187	187	187	102	298	60	53	12	5.2	1.7
3	316	818	161	170	180	95	257	53	43	13	3.9	1.9
4	307	543	145	393	170	97	235	50	40	12	5.8	13
5	290	419	134	373	157	261	208	44	33	11	68	20
6	246	334	126	273	157	269	188	39	28	9.7	33	6.8
7	213	281	113	409	148	882	171	37	24	8.7	18	5.3
8	190	246	102	520	143	1550	957	34	21	7.9	12	4.4
9	173	373	93	344	161	661	477	30	20	7.2	8.7	3.7
10	253	1230	83	277	206	434	296	30	18	6.2	6.7	3.1
11	238	603	77	1050	213	325	232	27	16	5.7	5.7	3.1
12	200	419	74	803	224	273	420	25	14	5.1	5.9	3.0
13	167	325	269	486	210	250	1000	30	15	4.6	4.5	2.5
14	143	265	298	378	203	217	1440	23	12	4.4	3.5	1.8
15	126	227	210	311	307	193	596	22	9.8	3.7	3.1	1.4
16	109	203	180	269	1510	187	398	25	9.6	3.3	3.1	1.3
17	97	180	151	265	572	3820	306	366	10	2.9	10	4.8
18	85	161	131	1730	388	1590	258	477	12	2.5	58	3.8
19	77	145	121	766	316	695	222	732	11	2.1	23	2.5
20	71	129	113	492	320	4970	195	500	9.5	1.7	14	2.0
21	65	116	102	378	281	5340	172	271	7.9	1.5	11	1.8
22	76	104	93	1480	250	1110	150	204	7.6	2.1	8.0	2.1
23	167	537	307	1210	217	695	132	424	7.7	5.2	5.8	2.1
24	151	1510	1040	641	190	737	117	286	13	4.6	5.3	1.9
25	118	560	661	481	173	520	112	213	22	6.4	5.5	1.7
26	99	723	424	388	154	414	111	151	12	7.8	4.4	1.6
27	87	414	316	329	140	344	100	131	8.9	7.3	3.3	1.4
28	87	339	265	286	131	2560	91	111	8.0	14	2.5	1.4
29	661	281	227	253	118	847	81	99	25	14	2.3	1.8
30	695	242	213	238	---	578	74	87	20	11	2.2	1.9
31	388	---	206	227	---	454	---	74	---	8.1	1.8	---
TOTAL	6743	17927	6835	15607	7629	30581	9652	4722	593.0	218.7	350.7	105.5
MEAN	218	598	220	503	263	986	322	152	19.8	7.05	11.3	3.52
MAX	695	3220	1040	1730	1510	5340	1440	732	62	14	68	20
MIN	65	104	74	170	118	95	74	22	7.6	1.5	1.8	1.3
CFSM	1.32	3.62	1.33	3.05	1.59	5.98	1.95	.92	.12	.04	.07	.02
IN.	1.52	4.04	1.54	3.52	1.72	6.89	2.18	1.06	.13	.05	.08	.02

CAL YR 1979 TOTAL 149400.4 MEAN 409 MAX 6370 MIN 3.7 CFSM 2.48 IN 33.68
WTR YR 1980 TOTAL 100963.9 MEAN 276 MAX 5340 MIN 1.3 CFSM 1.67 IN 22.76

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to current year.
pH: July 1973 to current year.
WATER TEMPERATURES: July 1973 to current year.
DISSOLVED OXYGEN: July 1973 to current year.

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

REMARKS.--Interruption in the record Oct. 12-18, Dec. 27 to Jan. 24, Apr. 8-11, May 8 to June 9 due to pump failure. Dissolved oxygen Dec. 11-27 was due to probe failure. pH Sept. 4-8 due to probe failure. Specific conductance Jan. 27 to Feb. 22, was due to probe failure.

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, 429 micromhos Mar. 4; minimum, 100 micromhos Mar. 20.
pH: Maximum, 8.2 units Feb. 12-15, 27, June 12, July 24, Sept. 9; minimum, 7.0 units Nov. 2.
WATER TEMPERATURES: Maximum, 38.0°C Sept. 6; minimum 2.5°C Feb. 2.
DISSOLVED OXYGEN: Maximum, 12.8 mg/L Feb. 10, 11; minimum 2.9 mg/L Sept. 26, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	0900	294	369	17.0	33	26
DEC						
07...	1100	118	401	7.5	35	11
JAN						
24...	1400	621	370	8.5	11	18
29...	1045	190	365	7.0	10	5.1
FEB						
22...	1000	252	384	12.0	25	17
APR						
02...	1100	303	345	14.0	28	23
24...	1015	113	333	21.0	22	6.7
JUN						
19...	0930	11	339	25.0	41	1.2
JUL						
21...	1030	1.4	298	30.0	12	.05

DATE	PCB 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									
05...	.00	.00	.0	.00	.00	.00	.00	.00	.00
JAN									
29...	.00	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, 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)
OCT								
05...	.00	.00	.00	.00	0	.00	.00	.00
JAN								
29...	.00	.00	.00	.00	0	.00	.00	.00

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

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	364	356	360	379	128	280	395	392	393			
2	365	356	362	295	135	227	399	394	396			
3	371	364	366	344	300	325	398	395	396			
4	370	350	362	362	346	355	404	397	399			
5	371	366	369	371	361	365	404	394	399			
6	377	371	373	373	368	370	401	394	398			
7	379	372	375	376	371	373	402	397	399			
8	380	372	376	376	371	374	399	394	397			
9	383	363	378	377	352	367	396	389	392			
10	383	363	375	358	249	282	395	385	390			
11	382	378	380	347	291	320	393	382	387			
12	---	---	---	372	347	361	387	379	383			
13	---	---	---	382	373	378	378	321	357			
14	---	---	---	390	381	382	369	347	356			
15	---	---	---	391	388	389	350	343	347			
16	---	---	---	395	389	392	362	346	353			
17	---	---	---	394	388	391	380	362	373			
18	---	---	---	394	388	391	388	378	385			
19	393	388	390	394	385	390	395	388	392			
20	392	388	390	393	384	388	398	391	395			
21	391	388	389	391	382	387	402	392	396			
22	390	305	376	390	382	387	400	390	395			
23	380	327	366	389	295	363	400	368	389			
24	366	374	382	279	196	229	377	251	284			
25	396	383	390	348	282	323	323	260	286			
26	401	389	394	361	321	341	371	327	354			
27	403	396	399	355	321	338	---	---	---			
28	404	390	400	379	358	368	---	---	---			
29	390	294	353	388	380	384	---	---	---			
30	322	279	294	393	388	391	---	---	---			
31	373	324	351	---	---	---	---	---	---			
MONTH	---	---	---	395	128	354	404	251	377			
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	373	352	363	345	336	340	---	---	---
2	---	---	---	397	360	367	346	337	342	---	---	---
3	---	---	---	411	387	398	349	341	346	---	---	---
4	---	---	---	429	367	375	348	341	346	342	328	335
5	---	---	---	408	356	366	351	335	345	338	321	328
6	---	---	---	369	360	365	348	333	342	339	323	329
7	---	---	---	374	219	346	---	---	---	333	319	326
8	---	---	---	259	199	231	---	---	---	---	---	---
9	---	---	---	332	250	299	---	---	---	---	---	---
10	---	---	---	359	334	349	---	---	---	---	---	---
11	---	---	---	368	359	364	---	---	---	---	---	---
12	---	---	---	372	368	370	351	330	344	---	---	---
13	---	---	---	377	372	375	346	253	322	---	---	---
14	---	---	---	383	370	378	277	219	245	---	---	---
15	---	---	---	383	370	377	335	281	313	---	---	---
16	---	---	---	382	320	375	352	338	346	---	---	---
17	---	---	---	331	136	206	---	---	---	---	---	---
18	---	---	---	287	223	247	---	---	---	---	---	---
19	---	---	---	336	291	316	---	---	---	---	---	---
20	---	---	---	342	100	213	---	---	---	---	---	---
21	---	---	---	232	103	159	---	---	---	---	---	---
22	---	---	---	285	237	264	---	---	---	---	---	---
23	384	366	377	308	287	298	341	317	331	---	---	---
24	381	368	376	324	303	312	344	314	327	---	---	---
25	380	370	375	321	310	316	---	---	---	---	---	---
26	377	366	372	329	311	319	339	329	334	---	---	---
27	375	361	369	338	328	333	340	330	336	---	---	---
28	375	360	368	339	136	214	341	333	337	---	---	---
29	374	358	366	301	204	261	344	333	338	---	---	---
30	---	---	---	325	303	317	345	341	343	---	---	---
31	---	---	---	341	324	333	---	---	---	---	---	---
MONTH	---	---	---	429	100	316	---	---	---	---	---	---

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

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	---	---	---	298	285	292	307	300	304	311	293	304
2	---	---	---	298	281	289	307	298	303	312	302	306
3	---	---	---	300	285	293	307	301	304	319	302	309
4	---	---	---	300	286	294	307	285	300	---	---	---
5	---	---	---	308	288	297	290	266	282	---	---	---
6	---	---	---	300	290	295	290	286	288	---	---	---
7	---	---	---	299	287	294	289	284	287	---	---	---
8	---	---	---	299	288	293	288	282	285	---	---	---
9	---	---	---	297	291	294	284	276	280	278	265	274
10	356	345	351	299	293	296	282	273	278	283	272	278
11	357	345	349	300	291	297	286	273	280	284	273	280
12	351	338	342	300	290	296	299	289	295	283	272	279
13	343	332	335	300	288	296	292	285	289	284	271	279
14	335	326	331	301	290	297	290	281	286	288	277	284
15	332	326	329	300	288	296	286	276	281	292	275	285
16	330	325	328	301	287	296	280	271	277	294	274	287
17	332	329	330	300	284	295	279	202	263	321	286	303
18	335	330	334	299	285	294	251	210	240	326	320	323
19	340	329	337	300	285	295	234	210	223	327	318	323
20	339	330	334	301	283	294	234	207	220	324	315	321
21	337	327	333	300	283	292	238	209	227	321	311	317
22	334	323	332	295	285	293	264	240	255	315	305	309
23	334	320	329	301	285	296	272	257	264	310	298	304
24	328	314	324	303	291	298	271	250	262	310	301	306
25	326	314	320	298	284	293	268	254	263	313	303	309
26	321	305	313	288	285	287	288	265	274	313	296	305
27	307	288	297	288	282	285	284	267	275	314	299	308
28	292	275	282	283	279	282	287	277	283	315	300	310
29	299	262	275	294	283	287	291	277	285	319	304	312
30	292	275	282	301	292	295	306	285	291	324	309	317
31	---	---	---	306	297	302	310	302	307	---	---	---
MONTH	---	---	---	308	279	294	310	202	276	327	265	301

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

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, 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	7.9	7.7	7.9	7.8	---	---	7.9	7.5	7.8	7.5	7.5	7.2
2	8.0	7.7	7.9	7.8	---	---	7.9	7.6	7.8	7.6	7.4	7.2
3	7.9	7.8	7.8	7.8	---	---	7.8	7.5	7.7	7.5	7.6	7.2
4	8.0	7.8	7.8	7.8	---	---	7.8	7.5	7.7	7.4	---	---
5	8.1	7.9	7.8	7.7	---	---	7.8	7.5	7.6	7.4	---	---
6	8.1	7.9	7.8	7.7	---	---	7.7	7.5	7.9	7.6	---	---
7	8.1	7.8	7.9	7.7	---	---	7.8	7.5	8.0	7.6	---	---
8	---	---	---	---	---	---	7.8	7.6	8.1	7.7	---	---
9	---	---	---	---	---	---	7.8	7.6	7.9	7.7	8.2	7.4
10	---	---	---	---	8.1	7.9	7.8	7.5	7.8	7.6	7.9	7.4
11	---	---	---	---	8.1	7.9	7.7	7.5	7.8	7.5	7.8	7.4
12	7.9	7.8	---	---	8.2	7.9	7.8	7.5	7.6	7.4	7.7	7.3
13	7.9	7.8	---	---	8.1	8.0	7.7	7.5	7.6	7.3	7.7	7.3
14	7.8	7.7	---	---	8.0	7.8	7.7	7.5	7.6	7.3	7.6	7.2
15	8.0	7.8	---	---	8.0	7.8	7.7	7.4	7.6	7.3	7.6	7.2
16	8.1	7.9	---	---	7.9	7.8	7.7	7.4	7.6	7.3	7.5	7.2
17	8.1	7.9	---	---	7.9	7.7	7.7	7.4	7.6	7.3	7.5	7.2
18	8.1	7.9	---	---	7.8	7.6	7.7	7.4	7.5	7.4	7.4	7.2
19	8.1	7.9	---	---	7.8	7.5	7.6	7.3	7.3	7.3	7.3	7.1
20	8.1	7.8	---	---	7.9	7.6	7.6	7.3	7.4	7.3	7.3	7.1
21	8.1	7.8	---	---	7.8	7.7	7.8	7.3	7.7	7.3	7.3	7.1
22	8.0	7.8	---	---	7.8	7.7	7.5	7.4	8.0	7.4	7.4	7.2
23	8.0	7.7	---	---	7.8	7.6	7.6	7.3	8.0	7.4	7.4	7.2
24	7.9	7.7	---	---	7.7	7.6	8.2	7.4	7.9	7.4	7.6	7.2
25	7.9	7.7	---	---	7.8	7.6	7.8	7.5	7.8	7.4	7.4	7.3
26	7.8	7.8	---	---	8.1	7.7	7.7	7.5	7.6	7.3	7.6	7.2
27	7.9	7.8	---	---	8.1	7.7	7.7	7.5	7.6	7.3	7.5	7.3
28	7.9	7.8	---	---	7.9	7.6	7.6	7.5	7.6	7.3	7.4	7.2
29	7.9	7.8	---	---	7.7	7.4	7.6	7.4	7.4	7.2	7.3	7.2
30	7.9	7.8	---	---	7.9	7.5	7.7	7.5	7.5	7.2	7.4	7.2
31	---	---	---	---	---	---	7.8	7.5	7.4	7.2	---	---
MONTH	8.1	7.7	---	---	---	---	8.2	7.3	8.1	7.2	8.2	7.1

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

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

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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	3.0	3.5	9.5	5.0	7.5	16.0	12.5	14.0	18.0	15.5	17.0
2	3.5	2.5	3.0	5.0	3.5	4.0	17.0	14.0	15.0	19.5	17.0	18.0
3	4.0	3.0	3.5	3.5	3.0	3.5	16.5	15.5	16.0	20.0	18.0	19.0
4	4.0	3.5	4.0	6.0	3.5	4.5	16.5	15.0	15.5	22.0	19.0	20.0
5	4.5	4.0	4.0	7.5	5.5	7.0	16.0	13.5	1.5	21.5	19.5	20.5
6	4.0	4.0	4.0	10.0	7.0	8.5	16.0	13.5	15.0	23.0	19.5	21.0
7	4.5	4.0	4.5	12.0	9.5	10.0	17.5	15.0	16.0	23.0	20.0	21.5
8	4.5	4.5	4.5	14.5	12.0	13.0	---	---	---	---	---	---
9	5.0	4.5	4.5	14.5	12.5	13.5	---	---	---	---	---	---
10	5.0	4.0	4.5	14.0	12.0	13.0	---	---	---	---	---	---
11	5.5	3.5	4.5	13.0	11.5	12.0	---	---	---	---	---	---
12	5.5	4.5	5.0	11.5	10.0	10.5	16.0	14.0	15.5	---	---	---
13	6.0	4.5	5.0	10.5	9.5	10.0	14.0	11.5	13.0	---	---	---
14	7.5	5.5	6.0	11.0	9.0	10.0	12.0	11.0	11.5	---	---	---
15	8.5	7.0	7.5	12.5	9.5	11.0	13.0	10.5	11.5	---	---	---
16	8.5	6.0	7.5	12.5	11.5	12.0	15.5	12.0	13.5	---	---	---
17	6.0	4.5	5.5	13.0	11.5	12.0	10.5	13.0	15.0	---	---	---
18	7.0	5.0	6.0	12.5	10.5	11.5	10.5	14.5	16.0	---	---	---
19	8.0	7.0	7.5	11.0	10.5	11.0	10.0	16.0	17.5	---	---	---
20	9.5	8.0	8.5	13.0	11.0	11.5	19.5	17.0	18.0	---	---	---
21	11.5	9.0	10.0	13.0	12.0	12.5	20.0	17.5	19.0	---	---	---
22	14.5	12.0	13.0	13.0	10.5	12.0	21.0	18.5	19.5	---	---	---
23	14.5	13.0	14.0	13.0	11.5	12.5	22.0	19.5	21.0	---	---	---
24	14.0	13.0	13.0	14.0	12.5	13.0	22.0	21.0	21.5	---	---	---
25	12.5	9.5	11.5	13.5	12.0	13.0	21.5	18.0	20.0	---	---	---
26	9.5	7.5	8.5	12.5	11.5	12.0	18.0	17.0	17.5	---	---	---
27	9.0	7.0	8.0	13.0	11.0	12.0	17.0	16.5	17.0	---	---	---
28	11.0	8.5	9.5	13.0	11.5	12.5	16.5	16.0	16.0	---	---	---
29	11.0	9.5	10.0	14.5	12.5	13.5	16.0	15.5	16.0	---	---	---
30	---	---	---	16.0	14.5	15.0	16.5	15.0	15.5	---	---	---
31	---	---	---	15.0	13.0	14.0	---	---	---	---	---	---
MONTH	14.5	2.5	7.0	16.0	3.0	11.0	22.0	10.5	15.5	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	29.0	25.0	27.0	32.0	28.5	30.0	30.5	26.5	28.0
2	---	---	---	31.0	26.5	28.5	32.5	28.5	30.0	28.5	26.5	27.5
3	---	---	---	29.0	27.5	28.5	30.5	28.5	29.5	30.5	25.5	28.0
4	---	---	---	31.5	27.0	29.0	30.0	27.0	28.0	32.5	26.5	29.5
5	---	---	---	32.0	28.0	30.0	27.5	26.5	27.0	37.5	30.5	33.5
6	---	---	---	32.0	29.0	30.0	30.5	27.0	28.5	38.0	31.5	34.5
7	---	---	---	32.0	28.0	30.0	31.0	27.5	29.0	36.5	31.5	34.0
8	---	---	---	33.0	29.0	31.0	31.5	28.0	30.0	32.5	26.5	29.0
9	---	---	---	33.5	30.0	31.5	32.5	28.5	30.5	30.0	26.0	28.0
10	27.0	24.0	25.5	33.0	30.0	31.5	33.0	29.0	30.5	28.5	25.5	27.0
11	25.5	23.5	24.5	34.0	30.0	31.5	31.0	29.0	30.0	29.0	24.0	26.5
12	25.5	22.5	24.0	34.0	30.5	32.0	31.0	28.5	29.5	29.0	25.0	27.0
13	27.0	23.0	25.0	34.0	30.5	32.0	32.0	28.0	29.5	29.5	25.5	27.5
14	28.5	24.0	26.0	34.5	30.0	32.0	31.5	27.5	29.0	30.0	26.0	27.5
15	28.5	25.0	26.5	34.5	30.0	32.0	31.5	27.5	29.5	29.5	25.0	27.0
16	27.0	25.5	26.5	35.0	30.5	32.5	32.5	28.0	30.0	29.0	24.0	26.0
17	26.5	24.5	25.5	35.0	30.5	32.0	32.0	27.0	29.5	27.0	24.5	26.0
18	27.0	24.5	25.5	34.0	29.0	31.0	30.0	27.0	28.0	27.5	24.0	25.5
19	27.5	24.0	26.0	33.5	28.5	31.0	30.0	27.0	28.0	28.0	23.5	25.5
20	26.5	24.5	25.5	34.0	29.5	31.5	30.5	27.0	28.5	27.5	24.5	26.0
21	27.5	24.0	25.5	33.0	29.0	30.5	31.5	27.5	29.5	27.5	25.0	26.0
22	28.5	24.5	26.0	29.5	28.0	28.5	29.5	27.5	28.5	29.0	25.0	27.0
23	27.0	25.5	26.0	29.0	27.0	28.0	30.0	26.5	28.0	28.5	25.5	26.5
24	25.5	24.5	25.0	30.0	26.0	28.0	29.5	26.0	27.5	27.0	24.5	26.0
25	26.5	24.0	25.0	31.5	27.0	29.0	30.0	26.0	28.0	25.5	24.5	25.0
26	27.5	25.0	26.0	31.0	27.5	29.0	30.5	26.0	28.0	26.5	22.5	24.0
27	30.5	25.5	28.0	29.5	27.0	28.0	30.5	26.5	28.0	22.5	21.0	22.0
28	31.0	27.0	29.0	29.5	27.0	28.0	30.0	26.0	28.0	22.0	20.5	21.5
29	29.0	25.5	27.0	30.0	26.5	28.0	28.5	26.5	27.0	21.5	21.0	21.0
30	28.0	25.5	26.5	31.5	27.0	29.0	29.0	25.5	27.0	22.0	20.5	21.0
31	---	---	---	32.0	27.5	29.5	29.5	25.5	27.5	---	---	---
MONTH	31.0	22.5	26.0	35.0	25.0	30.0	33.0	25.5	29.0	38.0	20.5	27.0

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

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

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

OXYGEN, DISSOLVED (DO), MG/L, 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	---	---	---	7.6	6.2	6.8	7.3	5.5	6.3	8.1	4.5	6.0
2	---	---	---	7.5	6.4	6.9	7.4	5.4	6.2	7.2	4.8	5.9
3	---	---	---	7.7	6.7	7.1	7.1	5.3	6.0	8.3	5.2	6.5
4	---	---	---	7.8	6.9	7.3	7.0	5.0	5.7	8.7	5.2	6.6
5	---	---	---	7.9	7.0	7.4	7.1	5.3	6.4	7.2	6.6	6.9
6	---	---	---	8.3	7.1	7.6	7.6	6.8	7.2	7.2	6.4	6.8
7	---	---	---	8.3	7.0	7.7	7.8	6.7	7.2	7.4	6.5	6.8
8	---	---	---	8.2	6.8	7.4	7.8	6.6	7.1	11.5	6.5	8.7
9	---	---	---	7.9	6.4	7.1	7.7	6.3	7.0	11.3	6.6	8.3
10	8.3	7.5	7.9	7.8	6.3	7.0	7.5	6.1	6.8	9.7	6.1	7.4
11	8.7	7.7	8.2	8.0	6.0	6.8	7.4	6.1	6.6	9.2	5.6	7.0
12	9.0	7.9	8.4	7.9	6.0	6.8	7.3	5.6	6.3	9.1	5.1	6.7
13	9.0	8.3	8.6	7.9	5.7	6.6	7.7	5.4	6.3	9.0	4.8	6.5
14	8.8	7.8	8.3	7.7	5.7	6.5	7.5	5.3	6.1	8.8	4.5	6.5
15	8.5	7.4	7.9	7.8	5.6	6.4	7.6	5.4	6.2	9.5	4.4	6.6
16	8.1	7.1	7.6	7.7	5.3	6.2	7.8	5.5	6.4	8.9	4.4	6.1
17	7.7	7.0	7.3	7.9	5.2	6.3	7.6	5.6	6.5	8.2	5.0	6.6
18	7.4	6.6	7.0	7.7	5.1	6.1	7.1	6.6	6.8	8.3	5.0	6.3
19	7.0	6.4	6.7	7.7	4.8	5.9	6.8	6.4	6.7	8.6	4.6	6.0
20	7.8	6.4	7.0	7.8	4.4	5.8	7.0	6.3	6.7	8.3	4.3	5.7
21	7.7	6.6	7.1	7.1	4.3	5.5	7.5	6.4	6.8	7.8	4.1	5.6
22	7.7	6.6	7.1	4.5	3.2	4.0	8.3	6.6	7.2	8.2	4.6	6.0
23	7.6	6.6	7.1	6.3	4.0	5.1	8.9	6.2	7.3	8.4	4.5	5.9
24	7.2	6.5	6.9	8.3	4.8	6.1	8.7	6.4	7.2	7.4	4.0	5.3
25	7.6	6.9	7.1	6.7	5.0	5.8	8.4	5.9	7.0	4.7	3.2	3.9
26	8.2	6.9	7.5	6.5	5.2	5.8	8.2	5.4	6.6	8.0	2.9	5.0
27	8.3	7.1	7.6	6.5	5.0	5.7	8.3	5.3	6.4	6.5	3.0	4.5
28	8.0	6.7	7.4	6.3	5.6	5.8	8.1	5.3	6.4	5.6	2.9	4.1
29	7.3	6.5	6.9	6.3	5.5	5.9	7.4	5.1	5.9	5.5	3.6	4.4
30	7.3	6.5	6.8	6.4	5.5	5.9	7.7	5.1	6.2	6.3	3.8	4.8
31	---	---	---	7.2	5.6	6.2	7.7	4.9	6.0	---	---	---
MONTH	---	---	---	8.3	3.2	6.4	8.9	4.9	6.6	11.5	2.9	6.1

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN

LOCATION.--Lat 35°54'10", long 86°25'48", Rutherford County, Hydrologic Unit 05130203, on left bank at Murfreesboro waste treatment plant outfall, 3,000 ft (914 m) downstream from Sinking Creek, 4.5 mi (7.2 km) northwest of the courthouse in Murfreesboro, and at mile 10.7 (17.2 km).

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

PERIOD OF RECORD.--July 1972 to 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--8 years, 361 ft^3/s (10.22 m^3/s), 27.70 in/yr (704 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft^3/s (878 m^3/s) Mar. 13. 1975, gage height, 23.80 ft (7.254 m); minimum, 3.8 ft^3/s (0.108 m^3/s) July 20, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft^3/s (105 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 2	0115	9720	275	17.01	5.185	Mar. 21	0615	*15400	436	19.85	6.050
Mar. 17	1430	6160	174	13.77	4.197	Mar. 28	1300	5400	153	12.71	3.874

Minimum discharge, 3.8 ft^3/s (0.108 m^3/s) July 20, gage height, 1.46 ft (0.463 m).

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	602	2960	268	242	190	126	472	85	79	26	14	7.3
2	521	3720	224	219	169	118	398	74	70	21	11	7.5
3	442	992	192	195	160	111	340	67	60	22	9.3	7.8
4	436	657	174	427	151	110	279	61	55	20	12	8.7
5	419	513	160	469	141	317	236	58	48	17	70	46
6	360	433	147	363	139	370	197	51	39	17	51	19
7	310	370	135	447	131	789	178	48	37	15	28	14
8	267	318	121	637	122	1840	1040	42	32	15	20	12
9	227	415	110	440	136	813	677	37	31	13	16	11
10	331	1480	101	367	182	553	448	34	28	13	13	11
11	338	713	95	1080	197	439	360	34	26	12	11	8.7
12	272	504	91	979	206	372	550	31	24	11	13	8.7
13	220	419	317	593	189	335	1030	46	23	9.0	11	7.3
14	186	350	425	486	181	283	1730	36	21	9.9	9.9	7.8
15	160	292	286	417	256	236	770	30	17	9.3	9.9	7.5
16	141	245	225	367	1710	216	539	32	17	8.7	8.4	7.8
17	125	211	183	373	707	3520	443	420	17	8.4	8.1	19
18	111	185	159	1740	503	1900	376	670	18	8.7	69	17
19	100	165	148	924	429	859	324	916	17	8.1	61	13
20	93	148	137	595	422	5030	266	652	17	6.0	29	12
21	84	132	123	475	381	9020	224	420	15	5.7	22	9.9
22	93	119	114	1360	345	1440	187	316	13	9.3	17	9.0
23	220	365	267	1480	266	914	169	561	13	44	14	9.3
24	200	1840	1220	706	236	936	143	425	14	23	12	9.9
25	153	680	842	534	208	715	132	316	33	15	12	9.0
26	125	859	542	442	178	578	128	230	21	17	9.9	8.7
27	108	525	424	378	160	504	118	173	17	14	8.4	7.8
28	103	441	355	321	152	2520	105	143	14	19	8.7	7.0
29	743	382	298	266	137	1060	100	121	34	20	8.4	7.3
30	888	317	268	236	---	734	92	111	43	19	8.4	8.4
31	517	---	253	223	---	589	---	94	---	15	8.1	---
TOTAL	8895	20750	8404	17781	8384	37347	12051	6334	893	471.1	603.5	339.4
MEAN	287	692	271	574	289	1205	402	204	29.8	15.2	19.5	11.3
MAX	888	3720	1220	1740	1710	9020	1730	916	79	44	70	46
MIN	84	119	91	195	122	110	92	30	13	5.7	8.1	7.0
CFSM	1.62	3.91	1.53	3.24	1.63	6.81	2.27	1.15	.17	.09	.11	.06
IN.	1.87	4.36	1.77	3.74	1.76	7.85	2.53	1.33	.19	.10	.13	.07

CAL YR 1979 TOTAL 180632.7 MEAN 495 MAX 6500 MIN 7.5 CFSM 2.80 IN 37.96
WTR YR 1980 TOTAL 122253.0 MEAN 334 MAX 9020 MIN 5.7 CFSM 1.89 IN 25.69

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.--15 years, 461 ft³/s (13.06 m³/s), 26.42 in/yr (671 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.--Peak discharge above base of 10,000 ft³/s (283 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 2	0215	10700	303	11.07	3.374	Mar. 21	0545	*20500	581	15.12	4.609

Minimum discharge, 12 ft³/s (0.34 m³/s) Sept. 29.

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	870	3310	401	346	268	197	870	173	170	53	32	15
2	725	5370	336	313	240	185	739	163	146	47	27	15
3	594	1570	288	280	223	176	641	156	130	49	22	17
4	553	1060	255	560	210	173	583	143	117	47	23	17
5	552	831	235	700	201	583	504	139	103	40	67	62
6	443	668	217	511	194	597	453	130	85	37	74	59
7	365	548	201	579	185	1030	404	127	80	34	44	41
8	305	459	185	946	175	2760	1690	117	72	32	35	33
9	265	515	169	655	184	1260	1300	114	67	30	29	28
10	338	2090	156	525	216	853	808	108	64	27	23	24
11	381	1140	147	1290	231	654	641	105	59	26	19	20
12	297	823	144	1420	241	529	861	105	56	24	20	19
13	244	642	617	875	238	459	1500	120	53	22	19	18
14	212	506	761	704	229	391	2760	117	51	19	17	17
15	192	415	496	582	326	330	1310	100	47	21	17	16
16	173	345	388	489	2460	299	956	103	44	19	17	16
17	157	294	309	590	1100	4870	756	1140	44	18	16	23
18	144	257	265	2360	768	2760	633	1400	44	17	41	31
19	132	231	238	1440	618	1340	527	1720	42	17	90	21
20	120	209	218	965	580	6390	446	1190	42	17	45	20
21	111	190	199	752	522	12700	390	799	39	15	36	19
22	113	175	184	1700	446	2500	343	599	35	22	29	15
23	271	406	267	2180	384	1590	306	1090	34	125	23	16
24	257	2640	1750	1070	328	1550	271	799	36	85	19	16
25	193	1070	1340	827	291	1230	256	608	53	54	18	16
26	165	1380	881	657	265	1020	247	460	45	50	17	16
27	146	890	670	534	243	870	234	363	38	52	16	15
28	136	710	535	442	227	3660	216	300	34	48	16	14
29	861	592	444	377	210	1760	204	256	49	49	18	13
30	1340	476	398	334	---	1230	188	229	76	44	19	14
31	737	---	368	308	---	1060	---	196	---	36	17	---
TOTAL	11392	29812	13062	25311	11803	55006	21037	13169	1955	1176	905	666
MEAN	367	994	421	816	407	1774	701	425	65.2	37.9	29.2	22.2
MAX	1340	5370	1750	2360	2460	12700	2760	1720	170	125	90	62
MIN	111	175	144	280	175	173	188	100	34	15	16	13
CFSM	1.55	4.19	1.78	3.44	1.72	7.49	2.96	1.79	.28	.16	.12	.09
IN.	1.79	4.68	2.05	3.97	1.85	8.63	3.30	2.07	.31	.18	.14	.10

CAL YR 1979 TOTAL 254394 MEAN 697 MAX 7870 MIN 16 CFSM 2.94 IN 39.93
WTR YR 1980 TOTAL 185294 MEAN 506 MAX 12700 MIN 13 CFSM 2.14 IN 29.08

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.--Interruptions in the record Dec. 9 to Jan. 8, were due to battery failure.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 610 micromhos Oct. 22, 1978; 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, 522 micromhos Sept. 19; minimum, 155 micromhos Nov. 2.
WATER TEMPERATURES: Maximum, 29.5°C July 14, 19, Aug. 7, 8; minimum, 5.5°C Feb. 1,2, Mar. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	0930	574	380	19.0	9	14
NOV						
16...	1330	362	400	12.0	4	3.9
JAN						
09...	0845	673	380	9.0	16	29
APR						
03...	0930	676	350	14.5	15	27
MAY						
23...	1400	1100	336	18.0	35	104
AUG						
25...	1600	17	416	24.0	6	.28

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

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	383	375	379	393	159	322	401	394	398	---	---	---
2	385	379	382	309	155	238	399	396	398	---	---	---
3	384	379	381	357	312	338	403	396	399	---	---	---
4	383	367	379	375	358	367	406	397	401	---	---	---
5	388	375	384	385	372	380	413	401	406	---	---	---
6	393	386	391	391	380	387	413	409	411	---	---	---
7	395	389	392	395	386	392	413	407	410	---	---	---
8	394	389	392	397	387	394	409	406	408	---	---	---
9	397	391	394	399	371	387	---	---	---	372	358	362
10	398	388	395	380	294	330	---	---	---	393	368	381
11	400	388	394	362	313	338	---	---	---	398	287	381
12	402	399	401	391	363	379	---	---	---	314	258	279
13	407	402	405	401	390	397	---	---	---	366	317	343
14	408	400	404	408	401	405	---	---	---	388	367	379
15	406	400	403	411	399	407	---	---	---	397	389	395
16	408	401	404	413	401	406	---	---	---	405	398	403
17	413	404	409	407	404	405	---	---	---	407	397	401
18	418	409	414	406	402	404	---	---	---	407	228	332
19	426	411	419	405	400	402	---	---	---	327	240	283
20	423	416	418	409	400	404	---	---	---	370	331	354
21	421	417	418	409	398	403	---	---	---	385	370	378
22	420	391	415	409	402	404	---	---	---	388	257	366
23	400	387	394	409	330	390	---	---	---	291	223	253
24	411	391	403	354	228	266	---	---	---	351	296	330
25	418	409	415	350	279	319	---	---	---	372	353	364
26	425	419	421	363	350	358	---	---	---	382	373	379
27	428	419	425	358	344	349	---	---	---	390	382	386
28	428	422	425	379	358	370	---	---	---	392	390	391
29	424	362	403	389	380	386	---	---	---	396	392	395
30	359	319	333	394	389	392	---	---	---	398	395	397
31	389	342	368	---	---	---	---	---	---	418	395	406
MONTH	428	319	399	413	155	371	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	420	406	413	417	408	411	414	318	388	366	354	361
2	412	405	408	419	412	415	416	324	366	363	355	360
3	405	401	404	423	417	420	399	348	361	363	352	357
4	406	400	404	447	425	439	353	344	349	361	353	357
5	408	401	405	451	420	437	348	343	345	360	353	356
6	412	405	407	421	413	415	347	340	344	363	357	361
7	431	414	422	424	384	411	341	335	338	361	358	359
8	433	412	422	368	283	306	335	226	302	366	359	362
9	413	404	407	379	312	343	276	217	245	361	358	361
10	457	409	433	421	384	402	320	277	300	366	360	364
11	433	403	414	433	420	429	346	321	333	367	360	365
12	410	402	406	444	360	431	349	335	341	369	365	368
13	407	403	405	450	355	429	354	312	341	370	365	368
14	413	403	407	459	306	405	317	243	264	369	351	361
15	411	393	403	462	263	410	327	279	304	364	351	357
16	393	261	305	462	445	458	347	329	340	373	369	370
17	337	282	311	440	215	300	350	348	352	375	222	310
18	372	339	359	342	272	317	357	352	355	382	251	267
19	387	374	383	390	341	368	360	347	353	278	253	264
20	398	388	394	396	158	290	358	345	350	323	264	293
21	402	398	401	295	158	213	350	342	346	344	325	337
22	407	401	404	352	303	332	347	342	345	349	341	345
23	409	404	406	368	350	360	350	342	345	352	336	344
24	412	403	408	380	362	370	348	338	343	360	349	354
25	412	404	408	377	369	373	350	338	343	361	358	360
26	413	406	410	387	376	382	357	349	352	366	360	363
27	414	408	412	405	390	399	361	354	358	369	360	364
28	419	411	416	399	233	316	365	352	359	372	365	368
29	417	410	413	372	281	335	362	354	357	375	366	371
30	---	---	---	404	377	392	369	351	362	377	363	371
31	---	---	---	405	394	399	---	---	---	380	369	375
MONTH	457	261	400	462	158	378	416	217	339	382	222	351

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

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	380	367	374	353	345	349	398	388	391	446	422	432
2	373	364	369	364	349	354	400	391	395	465	440	450
3	374	367	371	380	361	369	403	391	398	466	407	451
4	376	373	375	386	376	379	409	391	404	471	451	461
5	379	375	377	388	379	384	418	395	410	450	435	440
6	382	375	379	395	386	390	389	331	354	437	391	402
7	383	374	378	398	391	396	347	330	340	465	399	438
8	385	377	382	397	386	393	371	349	360	466	448	456
9	385	381	383	397	388	393	387	368	378	459	448	453
10	381	377	380	396	384	390	403	390	395	454	441	450
11	382	377	380	401	394	397	414	398	408	453	444	448
12	387	376	381	408	398	402	423	414	417	453	440	447
13	399	389	396	417	407	411	428	421	426	468	443	458
14	408	393	398	422	412	419	432	426	429	477	469	474
15	409	405	406	427	416	421	439	433	437	487	477	482
16	405	400	402	431	423	426	443	437	440	499	481	492
17	412	405	409	431	421	425	449	439	446	513	498	504
18	414	409	412	429	423	426	500	451	463	521	508	514
19	413	404	408	429	423	426	493	314	371	522	506	514
20	404	399	402	434	424	429	335	313	325	506	467	491
21	408	401	403	438	417	432	366	338	345	488	441	464
22	406	403	404	428	412	423	383	364	371	474	426	455
23	406	398	401	424	234	329	404	386	393	462	425	442
24	405	400	403	344	273	298	418	406	411	480	450	461
25	403	396	399	352	329	338	436	415	425	481	450	465
26	409	400	406	374	348	355	433	418	424	466	451	456
27	402	379	386	381	372	375	448	419	429	461	451	457
28	395	382	389	387	357	373	441	419	423	472	448	459
29	399	385	393	402	386	393	429	419	425	473	452	462
30	401	352	386	404	396	402	418	406	411	471	458	463
31	---	---	---	399	385	392	424	409	415	---	---	---
MONTH	414	352	391	438	234	390	500	313	402	522	391	461

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

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

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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.5	6.0	11.0	7.0	9.0	16.0	13.5	14.5	17.0	15.0	16.0
2	7.0	5.5	6.0	7.5	6.0	7.0	17.5	13.5	15.5	18.0	16.0	17.0
3	7.0	6.0	6.5	8.5	5.5	7.0	16.5	14.5	15.5	18.5	16.5	17.5
4	7.0	6.0	6.5	9.5	7.5	8.5	16.0	14.5	15.5	19.5	17.0	18.0
5	7.0	6.0	6.5	11.5	9.5	10.5	16.0	13.0	14.5	19.5	17.5	18.5
6	7.0	6.5	7.0	12.0	9.0	10.5	16.0	13.5	15.0	20.5	17.5	18.5
7	7.5	7.0	7.0	13.5	11.0	12.0	17.5	14.5	16.0	20.5	18.0	19.0
8	7.5	7.0	7.5	15.5	13.5	14.5	18.0	16.0	16.5	19.5	18.0	19.0
9	7.5	7.0	7.0	16.0	14.5	15.0	17.0	15.0	16.0	19.0	17.0	18.0
10	7.5	6.5	7.0	16.0	14.0	15.0	17.0	14.5	16.0	18.0	16.5	17.5
11	7.5	6.0	6.5	14.0	12.5	13.0	16.5	14.5	15.5	19.0	17.5	18.0
12	7.5	6.5	7.0	12.5	11.5	12.0	15.5	14.5	15.0	20.0	18.5	19.5
13	8.0	6.0	7.0	12.0	11.0	11.5	14.5	12.5	13.5	21.0	19.0	20.0
14	9.0	7.5	8.0	13.0	10.5	11.5	12.0	11.5	11.5	20.5	19.0	20.0
15	10.5	9.0	9.5	14.5	10.5	12.5	13.0	11.0	12.0	20.5	18.0	19.0
16	11.0	8.0	9.5	13.5	12.5	13.0	15.0	12.0	13.5	19.0	18.0	18.0
17	8.0	6.5	7.5	13.5	12.5	13.0	16.0	13.0	14.5	18.0	16.0	17.5
18	9.0	6.5	8.0	13.0	11.5	12.5	17.0	14.5	16.0	19.0	17.0	18.0
19	10.0	8.5	9.0	12.0	11.5	11.5	18.0	14.5	16.5	19.0	17.5	18.5
20	11.0	10.0	10.5	13.5	11.5	12.5	18.5	15.5	17.0	19.0	17.5	18.0
21	13.0	10.5	12.0	13.5	12.0	13.0	19.0	16.5	17.5	19.0	17.0	18.0
22	15.5	13.5	14.0	13.5	11.0	12.5	19.5	17.0	18.0	18.5	17.5	17.5
23	16.0	14.0	15.0	13.5	12.0	13.0	20.5	17.5	19.0	18.5	16.5	18.0
24	15.0	14.0	14.5	14.5	13.0	14.0	20.5	18.5	19.5	19.0	17.5	18.0
25	14.0	11.0	13.0	14.0	13.0	13.5	19.0	16.5	17.5	19.5	17.5	18.5
26	11.0	9.5	10.0	13.5	12.5	13.0	16.5	16.0	16.0	20.5	18.0	19.0
27	11.5	9.5	10.5	14.0	12.0	13.0	16.5	15.5	16.0	20.5	18.0	19.0
28	14.0	11.0	12.5	14.0	12.5	13.0	16.0	15.0	15.5	21.5	19.0	20.0
29	13.0	11.0	12.0	15.0	13.5	14.0	15.5	15.0	15.0	22.0	19.5	20.5
30	---	---	---	16.0	14.5	15.0	16.0	14.5	15.0	21.5	20.0	20.5
31	---	---	---	15.0	14.0	14.5	---	---	---	21.0	20.0	20.5
MONTH	16.0	5.5	9.0	16.0	5.5	12.5	20.5	11.0	15.5	22.0	15.0	18.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	20.0	21.0	25.0	23.0	24.0	27.0	25.0	26.0	26.5	26.0	26.0
2	23.5	21.0	22.0	26.5	23.5	24.5	26.5	24.5	25.5	27.5	26.5	26.5
3	23.0	21.5	22.5	25.5	24.5	25.0	26.0	24.5	25.0	27.0	26.5	27.0
4	24.5	21.5	23.0	26.5	23.5	25.0	25.5	24.0	24.5	28.0	27.5	27.5
5	24.0	21.5	22.5	27.0	24.5	25.5	26.0	23.0	24.0	28.5	27.0	27.5
6	24.5	22.0	23.0	27.0	25.0	26.0	29.0	25.5	27.0	28.5	26.5	27.5
7	25.0	22.5	24.0	27.5	25.0	26.5	29.5	26.0	27.5	27.0	26.5	26.5
8	24.5	23.0	24.0	28.0	25.5	26.5	29.5	26.0	27.5	26.5	25.5	26.0
9	23.0	21.0	22.0	28.5	26.0	27.0	29.0	26.0	27.5	25.5	25.0	25.5
10	22.5	20.0	21.0	28.0	26.0	26.5	28.5	26.5	27.5	25.5	24.5	25.0
11	22.5	20.0	21.5	28.5	26.0	27.0	28.5	26.5	27.0	25.0	24.0	24.5
12	23.5	19.5	21.5	29.0	26.5	27.5	26.5	25.5	26.0	24.5	24.0	24.0
13	23.0	20.0	21.5	29.0	26.5	27.5	27.0	25.0	26.0	24.5	24.0	24.0
14	24.0	21.0	22.0	29.5	26.5	27.5	26.0	25.0	25.5	25.0	24.0	24.0
15	24.0	21.5	23.0	28.5	26.0	27.0	26.0	25.0	25.5	25.0	24.5	24.5
16	23.5	22.0	22.5	28.5	26.5	27.5	26.5	25.0	25.5	24.5	24.0	24.5
17	22.5	21.5	22.0	28.0	26.5	27.0	27.5	25.0	26.5	24.5	24.0	24.0
18	23.0	21.0	22.0	28.0	25.5	27.0	27.5	25.5	26.5	24.0	23.5	23.5
19	24.0	21.0	22.5	29.5	25.5	27.0	28.5	25.5	27.0	23.5	23.0	23.5
20	24.5	21.0	23.0	28.5	25.5	27.0	28.0	26.0	27.0	23.5	23.5	23.5
21	23.5	21.0	22.5	28.0	25.5	26.5	27.0	25.5	26.5	23.5	23.0	23.5
22	23.5	21.5	22.5	26.0	24.0	25.0	26.5	25.0	25.5	24.0	23.0	23.5
23	23.0	22.0	22.5	24.5	22.5	23.5	25.5	24.0	25.0	24.0	23.5	23.5
24	22.0	21.0	21.5	25.5	22.5	23.5	25.5	23.5	24.5	24.0	23.5	23.5
25	24.5	20.5	22.5	24.5	22.0	23.5	24.5	23.5	24.0	23.5	22.5	23.0
26	26.5	22.5	24.0	25.5	22.5	24.0	24.0	24.0	24.0	22.5	22.0	22.0
27	26.5	23.5	25.0	24.0	22.5	23.0	24.5	24.0	24.5	21.5	20.5	21.0
28	26.5	23.5	25.0	24.0	22.5	23.0	25.0	24.5	24.5	20.5	19.5	20.0
29	25.5	23.0	24.0	25.5	22.5	23.5	25.0	25.0	25.0	19.5	19.0	19.5
30	26.0	22.5	24.0	27.0	23.0	24.5	25.5	25.0	25.0	19.0	18.5	18.5
31	---	---	---	27.0	24.0	25.5	26.0	25.5	25.5	---	---	---
MONTH	26.5	19.5	22.5	29.5	22.0	25.5	29.5	23.0	26.0	28.5	18.5	24.0

03431517 CUMMINGS BRANCH AT LICKTON, TN

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

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

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

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

REMARKS.--Records fair, except July 12 to Sept. 17 poor. Periodic observations of water temperatures and specific conductance are published in this report as miscellaneous water quality data.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (3.06 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 13	0310	116	3.29	3.16	.963	May 17	1520	*636	18.0	4.78	1.457

Minimum daily discharge, 0.00 ft^3/s (0.000 m^3/s) Sept. 17-24.

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	3.1	43	5.5	4.0	1.8	1.8	8.1	1.8	2.3	1.5	.17	.10
2	2.7	18	4.2	3.5	1.6	1.5	6.4	1.5	1.9	.78	.16	.07
3	2.3	9.7	3.5	3.2	1.5	1.5	5.5	1.4	1.9	.78	.14	.06
4	1.4	5.9	3.2	5.9	1.5	2.1	4.8	1.2	1.0	.58	.15	.07
5	1.2	4.6	2.9	5.5	1.5	5.5	4.0	1.1	.72	.41	.14	.05
6	.97	3.7	2.8	4.8	1.5	5.0	3.5	1.0	.61	.32	.13	.04
7	.72	3.2	2.4	5.7	1.4	8.4	3.2	.90	.57	.38	.13	.03
8	.57	2.8	2.1	5.2	1.3	9.7	9.7	.78	.48	.98	.12	.03
9	.44	2.9	1.8	4.8	1.2	7.2	7.5	.72	.40	.72	.10	.03
10	.52	3.7	1.5	4.6	1.2	5.9	5.9	.61	.36	.40	.06	.03
11	.48	3.2	1.5	5.5	1.1	4.8	5.2	.57	.30	.34	.06	.03
12	.40	2.9	4.8	5.5	1.1	4.4	7.2	.57	.27	.27	.10	.03
13	.36	2.7	52	5.2	1.1	4.0	17	.52	.25	.24	.10	.03
14	.33	2.3	18	4.8	1.2	3.5	30	.72	.25	.22	.11	.03
15	.30	2.0	11	4.2	3.4	3.1	16	.52	.22	.20	.10	.03
16	.25	1.8	7.5	3.9	9.0	2.8	11	1.0	.22	.18	.12	.03
17	.20	1.6	5.7	4.6	6.4	14	7.8	74	.25	.17	.12	.00
18	.22	1.5	4.8	4.2	5.2	11	6.4	25	.25	.16	.23	.00
19	.20	1.3	4.2	4.0	4.4	8.1	5.5	17	.25	.15	.12	.00
20	.18	1.1	3.7	3.7	4.0	40	4.6	16	.22	.16	.10	.00
21	.18	.97	3.2	3.5	3.7	32	4.0	11	.25	.18	.10	.00
22	1.5	1.0	2.9	4.0	3.4	16	3.5	10	.22	.22	.06	.00
23	3.1	18	9.0	4.0	3.1	11	3.4	12	.22	.59	.04	.00
24	2.2	20	23	3.7	2.8	18	2.9	9.4	.48	.61	.03	.00
25	1.5	22	16	3.7	2.7	11	2.7	7.6	.57	.30	.02	.01
26	1.0	20	11	3.4	2.4	8.7	2.4	6.0	.36	.25	.02	.01
27	.78	12	7.8	2.9	2.2	6.9	2.3	4.9	.27	.24	.02	.01
28	1.2	13	6.4	2.7	2.2	28	2.1	3.9	.25	.23	.04	.01
29	2.0	9.3	5.5	2.4	1.8	18	2.0	3.4	6.2	.22	.07	.01
30	2.1	6.7	5.0	2.2	---	14	1.8	2.9	3.1	.21	.62	.01
31	2.0	---	4.4	2.1	---	10	---	2.6	---	.19	.23	---
TOTAL	34.40	240.87	237.3	127.4	75.7	317.9	196.4	220.61	24.64	12.18	3.71	.75
MEAN	1.11	8.03	7.65	4.11	2.61	10.3	6.55	7.12	.82	.39	.12	.025
MAX	3.1	43	52	5.9	9.0	40	30	74	6.2	1.5	.62	.10
MIN	.18	.97	1.5	2.1	1.1	1.5	1.8	.52	.22	.15	.02	.00
CFSM	.46	3.35	3.19	1.71	1.09	4.29	2.73	2.97	.34	.16	.05	.01
IN.	.53	3.73	3.68	1.97	1.17	4.93	3.04	3.42	.38	.19	.06	.01

CAL YR 1979 TOTAL 2050.99 MEAN 5.62 MAX 73 MIN .11 CFSM 2.34 IN 31.78
WTR YR 1980 TOTAL 1491.86 MEAN 4.08 MAX 74 MIN .00 CFSM 1.70 IN 23.11

NOTE.--No gage-height record July 12 to Sept. 17.

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.--16 years, 36.6 ft³/s (1.037 m³/s), 20.45 in/yr (519 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 daily, 0.14 ft³/s (0.004 m³/s) Sept. 16, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 12	1945	1850	52.4	6.87	2.094	Apr. 14	0040	2520	71.4	7.96	2.426
Dec. 13	0425	1960	55.5	7.05	2.149	May 17	1745	*6120	173	12.23	3.727
Mar. 20	1030	1680	47.6	6.56	1.999	June 29	0935	2580	73.1	8.04	2.450
Mar. 28	0450	2160	61.2	7.40	2.256						

Minimum daily discharge, 0.16 ft³/s (0.005 m³/s) Sept. 16.

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	18	460	49	26	14	13	63	9.7	12	11	1.5	.75
2	19	170	39	23	14	13	50	9.2	10	18	1.4	.64
3	18	78	32	22	14	12	45	8.9	8.4	19	1.5	.75
4	17	52	27	70	13	15	39	8.4	7.5	7.8	1.5	.55
5	19	41	23	38	13	37	31	7.6	6.2	5.5	1.4	.32
6	18	35	21	30	13	21	26	7.7	6.2	4.4	1.4	.32
7	17	31	17	68	12	73	16	6.9	5.5	3.7	1.4	.32
8	16	33	15	46	12	66	184	6.5	4.8	3.7	1.0	.32
9	16	35	14	38	13	42	71	5.7	4.4	3.1	.75	.32
10	17	62	13	32	13	34	50	5.5	4.2	2.7	.64	.32
11	16	48	12	53	12	27	42	5.5	4.2	2.3	.64	.25
12	15	38	283	40	12	29	87	5.3	5.5	1.9	.75	.38
13	15	30	572	34	12	25	278	4.8	4.2	1.7	.75	.25
14	14	25	178	30	13	21	423	5.4	3.5	1.5	.85	.21
15	14	21	110	26	77	18	139	4.5	3.5	1.2	.75	.21
16	14	19	79	24	93	27	91	22	3.3	1.0	1.2	.16
17	14	16	58	34	48	229	69	1160	3.1	.85	1.0	.38
18	13	15	46	26	36	86	52	207	3.4	.75	2.9	.55
19	14	14	38	23	31	61	43	223	3.3	.64	1.2	.55
20	14	13	31	21	28	758	35	215	3.1	.55	.75	.75
21	14	12	26	20	24	283	28	108	2.9	.85	.75	1.5
22	19	11	23	61	22	150	24	140	2.7	42	.64	1.2
23	39	298	148	39	19	104	20	182	2.7	8.7	.64	2.7
24	22	163	217	31	17	225	18	98	2.5	4.8	.45	2.3
25	18	305	110	27	17	104	18	64	2.7	3.3	.45	4.0
26	16	182	77	24	16	77	16	46	2.8	3.5	.45	2.3
27	15	112	59	21	15	63	14	32	2.2	10	.45	1.5
28	17	150	48	18	14	399	13	24	2.0	4.6	.55	1.3
29	26	83	40	17	14	138	12	20	294	3.0	.75	1.3
30	24	61	35	17	---	113	11	26	23	2.2	6.2	1.3
31	22	---	30	16	---	80	---	16	---	1.9	1.9	---
TOTAL	550	2613	2470	995	651	3343	2008	2684.6	443.8	176.14	36.51	27.70
MEAN	17.7	87.1	79.7	32.1	22.4	108	66.9	86.6	14.8	5.68	1.18	.92
MAX	39	460	572	70	93	758	423	1160	294	42	6.2	4.0
MIN	13	11	12	16	12	12	11	4.5	2.0	.55	.45	.16
CFSM	.73	3.58	3.28	1.32	.92	4.44	2.75	3.56	.61	.23	.05	.04
IN.	.84	4.00	3.78	1.52	1.00	5.12	3.07	4.11	.68	.27	.06	.04

CAL YR 1979 TOTAL 25336.80 MEAN 69.4 MAX 1800 MIN 1.6 CFSM 2.86 IN 38.79
WTR YR 1980 TOTAL 15998.75 MEAN 43.7 MAX 1160 MIN .16 CFSM 1.80 IN 24.49

NOTE.--No gage-height record Oct. 1 to Nov. 21.

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	1030	18	550	15.0	17	.84
DEC						
11...	1200	11	520	11.5	3	.09
JAN						
09...	1400	34	300	9.0	2	.18
FEB						
14...	1330	13	480	8.0	29	1.0
MAR						
14...	1330	19	500	12.0	5	.26
APR						
07...	1345	22	470	19.0	5	.30
MAY						
07...	1055	6.2	460	19.0	3	.05
17...	1900	1810	220	16.5	191	933
JUN						
09...	1300	4.6	460	22.5	4	.05
JUL						
03...	1330	12	320	25.0	17	.55
AUG						
04...	0930	1.4	450	24.0	4	.02

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.--19 years, 146 ft³/s (4.134 m³/s), 20.40 in/yr (518 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	1900	4320	122	9.20	2.804	Dec. 24		Unknown		Unknown	
Nov. 23	2245	3410	96.6	8.43	2.569	Mar. 20	2015	3730	106	8.71	2.655
Nov. 25		Unknown		Unknown		May 18	2400	*5480	155	10.04	3.060
Dec. 13		Unknown		Unknown							

Minimum daily discharge, 11 ft³/s (0.31 m³/s) Sept. 11, 16.

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	71	1870	232	177	87	92	236	80	70	72	24	16
2	74	691	205	158	84	90	199	76	65	55	23	17
3	69	310	189	146	85	91	179	74	61	49	22	17
4	78	211	177	224	81	102	164	71	56	47	24	16
5	76	166	172	200	82	295	140	69	55	41	37	17
6	68	140	168	170	85	249	127	68	55	36	29	16
7	65	120	151	198	82	466	120	67	52	34	25	19
8	62	111	130	188	81	496	332	64	49	33	23	22
9	62	141	122	173	83	283	268	63	47	30	22	18
10	65	249	118	162	82	222	199	62	47	29	21	13
11	63	188	115	225	79	177	164	61	46	28	20	11
12	60	154	260	210	81	158	183	61	45	28	22	13
13	60	134	2500	189	77	155	335	63	45	28	21	13
14	57	117	522	180	82	133	1750	74	45	25	19	13
15	55	105	360	162	129	116	453	63	45	24	20	13
16	55	100	279	150	561	114	278	80	44	24	25	11
17	55	94	250	250	274	460	214	1440	45	23	22	23
18	54	89	215	210	197	340	181	1740	43	21	20	21
19	53	86	193	182	169	238	156	349	42	21	20	18
20	55	83	184	173	156	1910	139	229	44	21	30	18
21	56	80	168	160	147	1380	127	164	42	21	21	22
22	74	86	151	194	163	460	116	133	42	117	18	29
23	155	1450	445	188	145	311	107	231	41	85	17	45
24	86	1280	1500	169	128	690	102	201	42	41	17	40
25	70	1500	490	152	122	440	98	151	44	32	17	28
26	64	1400	389	132	111	298	94	119	42	28	16	27
27	61	530	280	120	105	231	95	102	39	28	16	23
28	67	660	230	110	105	1160	89	91	36	33	16	21
29	102	360	211	102	98	599	85	84	431	28	16	21
30	95	290	204	99	---	409	83	80	173	25	17	21
31	87	---	189	96	---	311	---	75	---	24	19	---
TOTAL	2174	12795	10799	5249	3761	12476	6813	6285	1933	1131	659	602
MEAN	70.1	427	348	169	130	402	227	203	64.4	36.5	21.3	20.1
MAX	155	1870	2500	250	561	1910	1750	1740	431	117	37	45
MIN	53	80	115	96	77	90	83	61	36	21	16	11
CFSM	.72	4.39	3.58	1.74	1.34	4.14	2.34	2.09	.66	.38	.22	.21
IN.	.83	4.90	4.13	2.01	1.44	4.77	2.61	2.41	.74	.43	.25	.23

CAL YR 1979 TOTAL 91370 MEAN 250 MAX 5060 MIN 24 CFSM 2.57 IN 34.97
WTR YR 1980 TOTAL 64677 MEAN 177 MAX 2500 MIN 11 CFSM 1.82 IN 24.75

NOTE.--No gage-height record Nov. 25 to Jan. 24.

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 temperatures and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--6 years, 368 ft³/s (10.42 m³/s), 26.16 in/yr (664 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 discharge, .85 ft³/s (0.024 m³/s) Sept. 29, 30, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft³/s (82.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 2	1215	5620	159	20.15	6.142	Mar. 21	0600	*14500	411	30.64	9.339
Mar. 17	1830	5710	162	20.29	6.184	May 18	0400	6790	192	22.03	6.715

Minimum daily discharge, .85 ft³/s (0.024 m³/s) Sept. 29, 30.

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	445	936	346	256	176	143	566	90	128	26	22	2.0
2	386	4740	267	224	160	132	469	84	110	14	16	2.0
3	322	1600	222	204	154	135	395	79	96	12	13	1.7
4	301	827	199	470	147	135	346	73	87	8.5	11	1.3
5	306	582	183	386	138	806	292	70	79	7.8	10	1.2
6	250	442	169	306	135	577	262	67	70	6.4	10	1.2
7	217	355	152	530	126	480	239	64	64	46	8.5	1.0
8	194	296	135	537	120	1300	650	61	59	20	6.9	1.0
9	175	404	122	414	124	1100	1200	57	54	9.2	5.8	1.2
10	200	1190	116	346	130	700	488	55	46	6.1	5.4	1.1
11	211	663	110	540	136	560	376	52	44	4.5	5.1	1.1
12	174	479	319	725	150	408	548	50	36	3.8	4.0	1.1
13	155	389	2050	516	149	365	900	64	31	3.3	3.3	1.0
14	141	321	1030	438	155	290	2700	76	29	3.0	4.7	1.0
15	131	278	657	363	349	231	1600	54	24	2.6	5.1	1.0
16	116	249	483	310	1920	214	688	57	20	2.5	3.3	1.0
17	102	217	361	569	782	4160	493	2350	35	1.9	2.9	1.3
18	94	180	294	1270	545	2200	422	4070	25	1.7	3.0	1.0
19	83	156	256	930	452	994	352	2500	20	1.6	2.8	1.0
20	72	150	222	637	470	2600	298	1690	19	1.4	2.5	1.6
21	68	145	194	505	405	6200	259	826	19	1.6	7.2	1.3
22	66	135	175	1020	339	3400	225	622	16	454	5.6	1.0
23	226	720	619	1170	277	1800	193	1270	15	611	4.6	.94
24	211	2000	2150	699	234	1210	164	882	14	150	3.0	1.3
25	139	1300	1230	547	209	822	154	606	15	82	2.5	1.3
26	111	2100	802	436	187	636	150	429	15	104	1.7	.94
27	96	887	600	351	174	529	129	303	12	70	1.3	.94
28	87	674	477	282	164	1900	112	236	14	68	1.6	.94
29	176	520	393	239	153	2300	105	193	48	60	1.4	.85
30	1220	414	333	217	---	987	97	185	59	46	1.6	.85
31	561	---	289	203	---	748	---	151	---	31	1.3	---
TOTAL	7036	23349	14955	15640	8660	38062	14872	17366	1303	1859.9	177.1	35.16
MEAN	227	778	482	505	299	1228	496	560	43.4	60.0	5.71	1.17
MAX	1220	4740	2150	1270	1920	6200	2700	4070	128	611	22	2.0
MIN	66	135	110	203	120	132	97	50	12	1.4	1.3	.85
CFSM	1.19	4.07	2.52	2.64	1.57	6.43	2.60	2.93	.23	.31	.03	.006
IN.	1.37	4.55	2.91	3.05	1.69	7.41	2.90	3.38	.25	.36	.03	.01

CAL YR 1979 TOTAL 210034.20 MEAN 575 MAX 8310 MIN 8.1 CFSM 3.01 IN 40.91
WTR YR 1980 TOTAL 143315.16 MEAN 392 MAX 6200 MIN .85 CFSM 2.05 IN 27.91

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.--60 years, 584 ft³/s (16.54 m³/s), 19.44 in/yr (494 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.--Peak discharge above base of 7,500 ft³/s (212 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 2	0315	8130	230	13.64	4.157	Mar. 21	1130	*22300	632	20.59	6.276
Dec. 13	0815	8320	236	13.82	4.212	Mar. 28	2045	8240	233	13.74	4.188
Mar. 18	0030	8360	237	13.86	4.225	May 17	2215	11900	337	16.67	5.081

Minimum discharge 13 ft³/s (0.36 m³/s) Sept. 17, 18.

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	785	3860	808	644	426	349	1070	277	429	305	116	17
2	679	6750	680	570	386	328	886	255	379	169	100	21
3	554	2310	578	516	362	309	782	236	345	132	88	31
4	517	1360	520	760	343	321	707	220	309	100	81	41
5	522	1040	474	849	326	1070	598	206	279	70	107	26
6	450	846	442	704	321	1050	526	196	251	60	97	21
7	395	716	404	837	303	1160	477	183	228	91	74	20
8	350	627	353	1110	294	3180	1450	170	204	130	66	18
9	319	639	316	896	294	1920	2040	157	184	92	56	17
10	326	1620	293	773	294	1240	903	145	169	73	52	16
11	355	1240	281	902	294	968	702	137	155	62	46	15
12	305	917	1240	1270	302	828	848	130	141	55	41	14
13	274	768	7240	1000	302	768	1570	125	132	51	38	14
14	242	658	3140	891	302	662	6230	177	127	46	34	14
15	222	577	1610	775	524	557	2370	166	120	41	34	14
16	205	517	1180	696	3010	504	1530	141	110	39	52	14
17	185	466	928	823	1660	5010	1170	4760	104	36	41	13
18	168	429	776	1330	1090	5210	983	10600	98	34	54	13
19	156	395	684	1550	907	1850	848	2890	93	32	48	15
20	138	331	596	1050	908	6660	746	5430	87	29	31	16
21	125	310	526	883	847	19100	664	2170	82	28	29	19
22	130	288	473	1160	745	9610	589	1450	76	678	28	20
23	295	1510	1250	2040	654	2090	521	2270	73	1920	27	21
24	363	4360	5170	1230	579	2250	462	2010	67	711	24	21
25	253	2780	3560	1010	518	1630	434	1380	64	346	21	21
26	204	4440	1860	850	469	1220	417	1070	63	255	20	22
27	178	1970	1340	733	433	997	387	854	62	260	18	21
28	402	1500	1070	629	410	5590	343	711	61	274	18	20
29	558	1160	911	562	380	4090	318	601	150	203	17	19
30	1460	946	805	502	---	1790	299	542	336	166	22	19
31	833	---	721	480	---	1440	---	488	---	138	21	---
TOTAL	11948	45330	40229	28025	17683	83751	30870	40147	4978	6626	1501	573
MEAN	385	1511	1298	904	610	2702	1029	1295	166	214	48.4	19.1
MAX	1460	6750	7240	2040	3010	19100	6230	10600	429	1920	116	41
MIN	125	288	281	480	294	309	299	125	61	28	17	13
CFSM	.94	3.70	3.18	2.22	1.50	6.62	2.52	3.17	.41	.53	.12	.05
IN.	1.09	4.13	3.67	2.56	1.61	7.64	2.81	3.66	.45	.60	.14	.05

CAL YR 1979 TOTAL 435387 MEAN 1193 MAX 20600 MIN 27 CFSM 2.92 IN 39.70
WTR YR 1980 TOTAL 311661 MEAN 852 MAX 19100 MIN 13 CFSM 2.09 IN 28.42

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.--56 years, 990 ft³/s (28.04 m³/s), 19.75 in/yr (502 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.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	2000	11400	323	14.27	4.349	Mar. 28	1415	10300	292	13.18	4.017
Dec. 13	1345	18700	530	19.84	6.047	Apr. 14	1000	10900	309	13.77	4.197
Dec. 24	1500	11200	317	14.01	4.270	May 18	0515	19900	564	20.51	6.251
Mar. 21	0215	*26000	736	23.34	7.114						

Minimum discharge, 64 ft³/s (1.81 m³/s) Sept. 16, 20, 21.

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	1190	6150	1640	1220	748	642	2470	515	664	423	197	78
2	1000	9470	1340	1080	669	613	2030	484	587	310	174	122
3	884	4910	1110	973	642	587	1730	453	522	302	162	118
4	804	2710	979	1380	620	605	1620	430	477	283	182	102
5	768	1970	884	1680	598	1540	1360	407	443	232	275	106
6	693	1540	820	1390	598	2180	1190	391	407	210	182	95
7	609	1230	743	1590	576	1810	1080	375	375	230	168	87
8	551	1050	655	2210	551	4780	2760	353	343	200	144	82
9	508	1030	591	1850	551	4030	4510	334	319	220	135	76
10	537	2130	554	1540	551	2440	2360	319	302	190	130	73
11	526	2320	533	1570	544	1860	1710	307	285	170	129	71
12	512	1620	1110	2140	562	1530	1880	302	269	162	129	71
13	464	1320	14500	1890	572	1410	3290	296	259	151	120	71
14	423	1100	7480	1640	587	1220	9830	299	248	139	108	71
15	394	951	3650	1440	815	1040	5680	331	238	134	122	69
16	378	847	2500	1270	4550	928	3340	337	230	127	130	65
17	359	758	1910	1360	3770	5090	2390	4140	225	122	118	68
18	334	684	1520	1750	2180	8580	1920	15100	235	118	116	69
19	316	613	1320	2570	1710	4050	1600	7260	235	112	112	68
20	302	565	1150	1850	1570	9510	1360	8270	215	110	129	64
21	283	529	1000	1530	1530	21000	1190	4580	202	106	104	71
22	299	522	901	1560	1340	19600	1050	2710	190	158	92	94
23	624	3610	2110	3040	1180	5390	939	4260	187	2040	88	92
24	620	8260	9110	2250	1040	4880	831	3900	185	1240	85	94
25	508	6130	7420	1790	962	4150	768	2670	182	491	85	120
26	427	8290	4030	1500	873	2900	748	1970	182	347	83	114
27	375	4480	2740	1280	789	2310	688	1470	176	310	80	91
28	901	3470	2130	1110	743	6830	628	1160	170	319	78	85
29	1810	2570	1760	973	693	8340	580	973	1530	304	74	90
30	2420	2000	1540	884	---	4160	551	901	831	251	76	91
31	1790	---	1370	831	---	3340	---	773	---	220	78	---
TOTAL	21609	82829	79100	49141	32114	137345	62083	66070	10713	9731	3885	2568
MEAN	697	2761	2552	1585	1107	4430	2069	2131	357	314	125	85.6
MAX	2420	9470	14500	3040	4550	21000	9830	15100	1530	2040	275	122
MIN	283	522	533	831	544	587	551	296	170	106	74	64
CFSM	1.02	4.05	3.75	2.33	1.63	6.51	3.04	3.13	.52	.46	.18	.13
IN.	1.18	4.52	4.32	2.68	1.75	7.50	3.39	3.61	.59	.53	.21	.14

CAL YR 1979 TOTAL 738034 MEAN 2022 MAX 25500 MIN 128 CFSM 2.97 IN 40.32
WTR YR 1980 TOTAL 557188 MEAN 1522 MAX 21000 MIN 64 CFSM 2.24 IN 30.44

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JAN						
29...	1445	951	280	6.5	2	5.1
MAR						
04...	0900	570	300	3.0	4	6.2
MAY						
27...	1215	1340	280	19.5	27	98

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 good. Flow regulated by eight lakes or reservoirs above station (see p.145). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--26 years, 24,080 ft³/s (681.9 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204,000 ft³/s (5,780 m³/s) Mar. 15, 1975; maximum gage height, 48.39 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 discharge, 115,000 ft³/s (3,260 m³/s) Mar. 21; maximum gage height, 34.13 ft (10.403 m) Mar. 22 (from Corps of Engineers records); minimum daily, 1,710 ft³/s (35.40 m³/s) Sept. 1; minimum gage height, 4.50 ft (1.372 m) Sept. 26, 30.

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	29100	44200	39200	24700	32400	12300	68400	14300	12500	12700	17100	1710
2	28300	71300	34400	27700	33600	16300	72000	15400	5140	11700	19300	12500
3	33700	57500	31000	32000	34400	22400	72100	15100	11900	18400	16100	9480
4	31800	40600	35700	37800	24200	27100	62000	9450	17900	9340	9590	6640
5	25600	30700	35200	39800	22600	26100	57200	11700	20700	3680	7720	6910
6	28700	29700	34200	42000	22300	34000	54000	10000	16600	3310	7880	6680
7	29900	34200	36300	32800	24800	46500	49000	15600	15000	11000	9330	11200
8	14500	34600	33600	32400	29500	39400	41800	14500	12200	12400	12700	6540
9	22300	34400	24700	45000	29800	38100	47500	14100	13500	21300	20100	2900
10	25400	32000	24400	42900	25500	24600	58000	10500	5710	22200	12600	2590
11	27900	38400	28800	37300	25500	28000	48600	10900	3160	22700	11400	3390
12	26900	26100	33300	35900	30500	18200	36900	8710	5370	25400	9810	3740
13	18600	23700	82100	48200	37200	14900	36200	6500	8060	18400	15000	1810
14	14900	28000	90000	46400	33500	17000	68300	9590	8030	16700	7900	4650
15	17300	33000	62900	30000	21000	17500	60000	9080	6290	22100	8480	2440
16	22900	30000	38900	31200	26800	13900	49400	11400	9650	22000	4870	3250
17	23200	26200	38800	32500	42000	28000	48500	39200	9710	21700	1910	5500
18	23000	19900	27000	32700	21500	44500	44000	60800	7270	20100	4500	6450
19	22600	19800	30800	44900	23400	40800	36500	19600	7530	22100	6760	6410
20	22900	24100	28600	39800	24000	54000	24700	25600	7990	18100	11000	6260
21	14900	30500	25700	29500	15800	95800	27400	27800	8210	8310	14000	5000
22	13300	33200	21000	36100	14200	104000	27800	27000	4330	7770	14300	10500
23	20400	32200	25500	41200	9600	98600	27500	26400	4030	8140	12600	14100
24	23800	56500	49000	46400	6500	87000	26500	25300	6490	12400	3780	13900
25	26000	69100	53500	49700	8830	79200	23300	20500	18900	10700	8470	8650
26	28200	65900	44600	48700	11700	75600	26700	16600	15100	15200	3960	5270
27	24000	43600	48000	36500	15900	75400	25100	14600	12400	10200	3600	4000
28	16300	47600	50000	26500	12800	87000	16900	18800	13700	8660	4390	5000
29	13100	40800	42100	28500	10100	98000	15800	18000	30600	12700	2900	5100
30	24400	39200	29000	34700	---	84000	14800	22000	35500	8410	1890	7000
31	25800	---	25800	32600	---	71300	---	17700	---	10600	1890	---
TOTAL	719700	1137000	1204100	1146400	669930	1519500	1266900	566730	353470	448420	285830	189570
MEAN	23220	37900	38840	36980	23100	49020	42230	18280	11780	14470	9220	6319
MAX	33700	71300	90000	49700	42000	104000	72100	60800	35500	25400	20100	14100
MIN	13100	19800	21000	24700	6500	12300	14800	6500	3160	3310	1890	1710

CAL YR 1979 TOTAL 13053970 MEAN 35760 MAX 118000 MIN 3100
WTR YR 1980 TOTAL 9507550 MEAN 25980 MAX 104000 MIN 1710

NOTE.--No gage-height record Dec. 6 to Jan. 22, Feb. 20 to Apr. 19.

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,380 ft³/s (181 m³/s) 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	1530	2110	59.8	9.03	2.752	May 17	2215	*3890	110	11.87	3.618
Dec. 13	1000	2800	79.3	10.35	3.155						

Minimum discharge not determined, occurred during period of missing record.

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	72	1020	206	133	59	70	230	48	42	39	9.5	5.5
2	64	553	172	123	55	67	190	47	39	31	8.6	5.8
3	57	311	153	111	55	63	160	45	36	43	8.0	5.6
4	63	228	144	160	51	69	138	44	34	40	7.7	5.2
5	57	185	138	150	50	200	119	43	32	34	22	15
6	48	160	133	133	51	158	110	43	32	27	19	12
7	45	144	123	153	48	294	103	42	30	22	17	9.6
8	44	136	111	144	47	314	216	41	29	20	15	7.8
9	42	170	101	133	47	206	163	40	27	18	13	7.0
10	41	252	97	123	47	172	133	39	26	16	11	6.3
11	41	191	96	163	46	140	115	39	26	15	9.5	5.4
12	40	169	176	150	46	123	115	38	24	15	11	4.7
13	37	153	1600	140	44	121	172	39	24	14	14	4.1
14	35	136	524	135	45	99	571	40	24	13	13	3.8
15	33	130	327	119	70	87	265	37	24	12	13	3.6
16	33	123	250	111	327	82	189	41	23	11	15	3.4
17	32	113	194	192	167	230	155	1020	24	11	14	3.7
18	31	107	170	167	133	187	138	599	23	10	13	4.4
19	30	101	158	141	119	153	121	242	22	9.6	12	5.5
20	29	97	144	127	125	913	107	180	23	8.5	15	5.2
21	29	94	133	115	150	818	99	143	21	20	13	7.8
22	40	94	127	140	172	388	88	119	21	69	12	11
23	109	708	374	136	143	272	83	143	21	36	10	23
24	51	755	787	121	123	465	77	127	22	24	8.2	20
25	44	812	467	115	111	317	70	103	24	20	7.0	17
26	41	785	304	99	96	238	57	82	22	18	6.0	15
27	39	396	234	90	92	198	66	64	20	16	5.4	12
28	41	511	192	82	90	809	61	55	19	15	5.2	11
29	57	330	170	75	78	518	55	48	291	15	5.0	9.4
30	47	248	162	70	---	367	51	45	67	13	5.0	8.0
31	45	---	148	67	---	299	---	43	---	11	5.1	---
TOTAL	1417	9212	8115	3918	2687	8437	4227	3679	1092	666.1	342.2	257.8
MEAN	45.7	307	262	126	92.7	272	141	119	36.4	21.5	11.0	8.59
MAX	109	1020	1600	192	327	913	571	1020	291	69	22	23
MIN	29	94	96	67	44	63	51	37	19	8.5	5.0	3.4
CFSM	.70	4.68	3.99	1.92	1.41	4.15	2.15	1.81	.56	.33	.17	.13
IN.	.80	5.22	4.60	2.22	1.52	4.78	2.40	2.09	.62	.38	.19	.15

CAL YR 1979 TOTAL 71713.0 MEAN 196 MAX 3700 MIN 7.1 CFSM 2.99 IN 40.67
WTR YR 1980 TOTAL 44050.1 MEAN 120 MAX 1600 MIN 3.4 CFSM 1.83 IN 24.98

NOTE.--No gage-height record July 3 to Sept. 30.

03435770 SULPHUR FORK RED RIVER ABOVE SPRINGFIELD, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 02...	1015	67	295	16.5	6	1.1
NOV 30...	1115	245	335	7.0	20	13
JAN 21...	1130	114	285	8.0	6	1.8
FEB 25...	1025	113	260	8.5	10	3.1
APR 07...	1200	105	245	14.0	8	2.3
MAY 19...	1130	242	245	15.5	52	34
JUN 30...	0945	71	240	22.0	118	23
AUG 12...	1130	11	345	26.0	58	1.7

03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TN

LOCATION.--Lat 36°30'55", long 85°03'32", Robertson County, Hydrologic Unit 05130206, on left bank 600 ft (183 m) downstream from county highway bridge, 2.8 mi (4.5 km) downstream from Millers Creek, 4.1 mi (6.6 km) southwest of Cedar Hill, 4.6 mi (7.4 km) south of Adams, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--186 mi^2 (482 km^2) includes 21 mi^2 (54 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 1910: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 424.36 ft (129.345 m) Sandy Hook datum. Jan. 20, 1939, to Nov. 25, 1940, nonrecording gage at site 600 ft (183 m) upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--42 years, 251 ft^3/s (7.108 m^3/s), 18.33 in/yr (466 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,400 ft^3/s (1,000 m^3/s) Mar. 12, 1975, gage height, 30.86 ft (9.406 m), from floodmarks; minimum, 1.8 ft^3/s (0.051 m^3/s) Sept. 27, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1934 reached a stage of 25.1 ft (7.65 m), from floodmarks, discharge not determined. Flood in January 1937 reached a stage of about 22.6 ft (6.89 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 1	1945	4250	120	11.88	3.621	Mar. 20	2400	4130	117	11.70	3.566
Nov. 25	1915	4020	114	11.53	3.514	Mar. 28	1430	3420	96.9	10.60	3.231
Dec. 13	1200	*6600	187	15.18	4.627	May 17	2330	4570	130	12.36	3.767

Minimum discharge, 7.7 ft^3/s (0.22 m^3/s) Sept. 16, 17.

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	180	1940	540	322	150	195	637	132	110	134	24	15
2	168	1590	425	279	140	182	527	122	100	98	22	15
3	152	777	340	250	136	165	452	117	91	83	20	15
4	161	550	305	346	132	190	394	110	84	110	20	14
5	161	403	302	372	128	488	322	107	80	75	38	18
6	140	326	286	314	132	478	283	103	77	62	51	34
7	126	268	250	346	126	646	268	102	71	55	36	25
8	115	236	208	363	119	1010	560	93	69	51	31	19
9	108	372	182	318	119	664	545	88	64	47	25	16
10	110	664	170	314	119	544	405	83	61	43	21	14
11	107	494	166	462	115	417	320	80	58	41	18	12
12	102	381	279	472	113	346	306	78	56	40	24	11
13	96	322	4610	403	108	330	375	80	53	37	33	10
14	86	268	1660	390	108	275	1970	80	53	34	35	9.6
15	80	230	1030	334	142	230	941	75	51	33	32	8.7
16	78	211	751	302	860	211	655	78	49	31	35	8.0
17	75	187	567	510	550	504	504	1060	51	30	35	8.0
18	72	173	442	510	381	573	413	2130	51	29	32	11
19	68	159	385	399	318	432	346	623	49	26	28	13
20	68	148	330	342	314	1820	298	399	51	24	28	14
21	67	140	279	306	295	2680	264	286	48	22	38	13
22	80	144	250	363	370	1200	236	236	44	52	27	15
23	298	1610	610	417	330	837	217	342	43	159	22	42
24	168	2530	2290	338	310	1130	200	302	43	61	19	54
25	132	2100	1350	318	265	929	182	243	50	44	17	38
26	115	2660	882	264	240	695	170	200	50	38	15	30
27	103	1230	682	230	225	585	166	168	44	35	14	25
28	103	1380	555	205	210	2050	155	146	40	35	14	21
29	148	953	457	187	197	1470	146	134	659	34	14	19
30	148	746	417	175	---	1050	140	126	290	31	14	18
31	136	---	372	168	---	810	---	117	---	27	14	---
TOTAL	3751	23192	21372	10319	6752	23136	12397	8040	2640	1621	796	565.3
MEAN	121	773	689	333	233	746	413	259	88.0	52.3	25.7	18.8
MAX	298	2660	4610	510	860	2680	1970	2130	659	159	51	54
MIN	67	140	166	168	108	165	140	75	40	22	14	8.0
CFSM	.65	4.16	3.70	1.79	1.25	4.01	2.22	1.39	.47	.28	.14	.10
IN.	.75	4.64	4.27	2.06	1.35	4.63	2.48	1.61	.53	.32	.16	.11

CAL YR 1979 TOTAL 204235.0 MEAN 560 MAX 10100 MIN 35 CFSM 3.01 IN 40.85
WTR YR 1980 TOTAL 114581.3 MEAN 313 MAX 4610 MIN 8.0 CFSM 1.68 IN 22.92

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
02...	1400	171	325	17.5	6	2.8	--
DEC							
04...	1250	311	305	6.5	9	7.6	--
JAN							
21...	1430	294	290	9.0	5	4.0	--
FEB							
25...	1410	290	295	9.0	10	7.8	--
APR							
07...	1445	262	280	15.5	8	5.7	--
MAY							
19...	1435	610	250	17.5	40	66	--
JUN							
30...	1230	251	220	23.0	315	213	96
AUG							
13...	1350	33	390	28.5	21	1.9	--

03436100 RED RIVER AT PORT ROYAL, TN

LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft (76 m) downstream from Sulphur Fork, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--935 mi^2 (2,422 km^2), includes 437 mi^2 (1,132 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 376.25 ft (114.681 m) National Geodetic Vertical Datum of 1929. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--19 years, 1,353 ft^3/s (38.32 m^3/s), 19.65 in/yr (499 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft^3/s (1,710 m^3/s) Mar. 13, 1975, gage height, 48.26 ft (14.710 m); minimum, 54 ft^3/s (1.53 m^3/s) Sept. 17, 18, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft (13.53 m), from flood profile of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 11,000 ft^3/s (312 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 25	0400	12500	354	25.51	7.797	Dec. 14	0230	*15600	443	28.44	8.669

Minimum discharge, 83 ft^3/s (2.36 m^3/s) Sept. 16.

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	1560	2370	3620	2040	841	875	3650	789	863	1320	192	119
2	1380	6870	3030	1820	797	806	3040	750	771	806	179	119
3	1240	4010	2560	1640	771	763	2680	716	687	603	174	115
4	1320	2770	2290	1650	750	754	2590	687	643	607	174	132
5	1350	2110	2060	1890	729	1110	2230	663	615	564	187	128
6	1220	1750	1910	1690	729	1810	1970	643	587	436	272	124
7	1100	1500	1730	1640	712	1800	1800	623	568	464	235	128
8	1010	1350	1520	1780	683	3780	2210	587	556	396	200	115
9	944	1790	1360	1600	675	3040	2860	576	572	347	179	111
10	892	3620	1260	1460	667	2360	2170	564	541	316	167	101
11	854	3390	1190	1540	651	1990	1860	553	526	298	160	97
12	815	2510	1270	2110	639	1680	1710	545	504	286	179	97
13	767	2080	9600	1840	623	1580	1680	538	489	272	238	97
14	716	1800	12600	1740	607	1430	4770	530	482	257	205	91
15	679	1580	5780	1610	631	1250	4270	515	479	249	195	89
16	651	1490	4140	1490	2050	1140	2950	515	468	238	344	89
17	627	1340	3290	1640	2640	1420	2320	1030	464	232	286	93
18	607	1200	2670	1970	1720	2430	2000	6830	457	224	216	99
19	583	1110	2370	1720	1460	1910	1760	3330	450	213	192	99
20	564	1030	2110	1540	1370	3080	1580	2390	447	205	185	97
21	545	930	1840	1450	1370	7960	1440	1630	440	195	179	97
22	549	896	1670	1450	1670	5630	1330	1320	433	205	162	101
23	875	3450	1820	1620	1560	3920	1230	1480	426	396	146	144
24	1050	11100	7010	1470	1330	3850	1150	1950	423	373	135	177
25	767	12300	7680	1380	1190	4110	1070	1570	423	263	130	157
26	679	10400	4880	1270	1090	3130	1000	1250	426	229	126	144
27	623	7630	3850	1150	1000	2620	957	1050	419	216	124	119
28	607	6170	3190	1060	978	4750	909	926	406	232	117	113
29	627	5500	2740	978	944	8400	867	819	2060	252	117	105
30	675	4280	2460	935	---	5480	832	784	3740	218	117	101
31	647	---	2270	901	---	4630	---	754	---	197	117	---
TOTAL	26523	108326	105770	48074	30877	89488	60885	36907	20365	11109	5629	3398
MEAN	856	3611	3412	1551	1065	2887	2030	1191	679	358	182	113
MAX	1560	12300	12600	2110	2640	8400	4770	6830	3740	1320	344	177
MIN	545	896	1190	901	607	754	832	515	406	195	117	89
CFSM	.92	3.86	3.65	1.66	1.14	3.09	2.17	1.27	.73	.38	.20	.12
IN.	1.06	4.31	4.21	1.91	1.23	3.56	2.42	1.47	.81	.44	.22	.14

CAL YR 1979 TOTAL 1029285 MEAN 2820 MAX 27600 MIN 425 CFSM 3.02 IN 40.95
WTR YR 1980 TOTAL 547351 MEAN 1495 MAX 12600 MIN 89 CFSM 1.60 IN 21.78

03436100 RED RIVER AT PORT ROYAL, TN -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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...	1215	1420	325	15.5	26	100	--
DEC							
04...	1045	2230	325	7.0	31	187	--
JAN							
24...	1145	1510	295	8.0	8	33	--
FEB							
25...	1535	1180	--	--	62	198	--
APR							
08...	1100	2060	320	16.0	100	556	--
MAY							
19...	1605	2780	270	18.0	173	1300	--
JUN							
30...	1530	3160	200	23.5	1690	14400	99
AUG							
13...	1215	416	395	26.5	61	69	--

DATE	PCB 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									
03...	.00	.00	.0	.00	.00	.00	.00	.00	.00
MAY									
19...	.00	.00	.0	.00	.00	.00	.00	.00	.00
AUG									
13...	.00	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, 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)
OCT								
03...	.00	.00	.00	.00	0	.00	.00	.00
MAY								
19...	.00	.00	.00	.00	0	.05	.00	.00
AUG								
13...	.00	.00	.00	.00	0	.00	.00	.00

03436700 YELLOW CREEK NEAR SHILOH, TN

LOCATION.--Lat 36°20'55", long 87°32'20", Montgomery County, Hydrologic Unit 05130205, on left bank on downstream end of pier of bridge on State Highway 13, 2.6 mi (4.2 km) west of Shiloh, 3.0 mi (4.8 km) downstream from Leatherwood Creek, 9.0 mi (14.5 km) east of Erin, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--124 mi² (321 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to September 1980 (discontinued).

REVISED RECORDS.--WSP 1706: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 390.13 ft (118.912 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1957, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--23 years, 190 ft³/s (5.381 m³/s), 20.81 in/yr (529 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s (416 m³/s) Apr. 2, 1979, gage height, 17.15 ft (5.227 m); minimum, 16 ft³/s (0.45 m³/s) Aug. 21, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 23	2245	3280	92.9	9.98	3.042	Dec. 13	0930	4190	119	10.96	3.341
Nov. 25	1700	*4680	133	11.44	3.487	Mar. 20	2215	4580	130	11.34	3.456

Minimum daily discharge, 29 ft³/s (0.82 m³/s) Sept. 12-16, 20.

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	158	120	473	242	169	174	524	170	136	113	44	32
2	148	172	381	220	166	172	449	170	132	101	42	33
3	144	160	334	198	165	169	407	165	129	96	43	33
4	139	143	280	279	163	169	384	165	125	91	47	32
5	131	132	261	259	161	273	373	160	121	85	62	33
6	122	125	249	211	161	346	368	160	117	83	55	32
7	117	118	220	250	160	429	366	155	113	83	46	33
8	112	114	190	238	158	554	615	155	109	78	44	38
9	111	141	180	224	155	413	692	150	108	74	42	33
10	114	273	173	211	154	337	551	150	107	69	40	31
11	110	285	168	288	152	281	446	145	104	68	42	30
12	108	249	321	260	151	251	413	145	102	64	52	29
13	107	218	2490	242	149	237	530	145	100	62	43	29
14	104	191	1090	230	148	216	1390	140	98	62	40	29
15	101	172	646	209	158	202	732	140	96	61	56	29
16	100	163	479	193	384	197	500	140	93	61	55	29
17	98	154	418	320	358	288	400	500	93	60	42	31
18	99	146	386	272	294	386	300	350	92	60	40	30
19	97	141	351	235	257	334	270	225	92	60	38	30
20	99	133	315	220	239	1720	240	165	90	60	41	29
21	100	129	274	217	222	1950	230	158	89	60	38	31
22	110	132	238	215	229	1120	220	156	89	81	36	31
23	170	1440	373	225	216	766	210	220	92	89	35	40
24	120	2020	1440	218	204	1080	200	449	89	67	33	37
25	110	3100	946	218	197	859	195	307	91	62	34	36
26	105	1540	596	204	187	670	190	220	89	61	33	35
27	105	990	455	195	182	551	180	176	85	61	33	33
28	105	1110	390	187	180	1190	180	160	83	60	32	32
29	180	811	327	180	177	1160	175	151	275	52	32	31
30	110	602	294	175	---	825	170	145	135	46	33	31
31	105	---	263	172	---	646	---	141	---	46	33	---
TOTAL	3639	15224	15001	7007	5696	17965	11900	5978	3274	2176	1286	962
MEAN	117	507	484	226	196	580	397	193	109	70.2	41.5	32.1
MAX	180	3100	2490	320	384	1950	1390	500	275	113	62	40
MIN	97	114	168	172	148	169	170	140	83	46	32	29
CFSM	.94	4.09	3.90	1.82	1.58	4.68	3.20	1.56	.88	.57	.34	.26
IN.	1.09	4.57	4.50	2.10	1.71	5.39	3.57	1.79	.98	.65	.39	.29

CAL YR 1979 TOTAL 135866 MEAN 372 MAX 10900 MIN 43 CFSM 3.00 IN 40.76
WTR YR 1980 TOTAL 90108 MEAN 246 MAX 3100 MIN 29 CFSM 1.98 IN 27.03

03436700 YELLOW CREEK NEAR SHILOH, TN -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
03...	1520	139	265	18.0	8	3.0
NOV						
29...	1445	831	185	8.5	63	141
JAN						
22...	1020	215	230	1.0	8	4.6
FEB						
26...	1140	188	225	7.0	3	1.5
APR						
08...	1615	825	185	15.5	545	1210
MAY						
20...	1030	198	235	17.0	8	4.3
JUL						
01...	1245	111	225	23.0	55	16
AUG						
13...	1215	42	260	26.0	27	3.1

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 mi^2 (14,994 km^2). PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft (166.12 m) higher.

Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 tainter gates 37 ft (11 m) high by 50 ft (15 m) wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft (231.648 m) top of gates, is 3,070,000 cfs-days (7,512 hm^3), of which 1,056,000 cfs-days (2,584 hm^2) above elevation 723.00 ft (220.370 m), crest of spillway, are reserved for flood control and 1,080,000 cfs-days (2,643 hm^3) between elevation 673.00 ft (205.130 m), minimum power pool, and 723.00 ft (220.370 m) are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days (2,285 hm^3) below elevation 673.00 ft (205.130 m) is dead storage. Reservoir is used for flood control, power, navigation, and recreation. Records furnished by Corps of Engineers. Revisions.--WSP 1556: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 2,673,800 cfs-days (6,543 hm^3) Apr. 15, 1962, elevation, 747.12 ft (227.722 m); minimum, after first filling, 934,400 cfs-days (2,286 hm^3) Jan. 1, 1956, elevation, 673.01 ft (205.133 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 2,073,800 cfs-days (5,075 hm^3) April 18, elevation, 725.35 ft (221.087 m); minimum, 1,119,600 cfs-days (2,740 hm^3) Sept. 30, elevation, 682.90 ft (208.148 m).

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3 mi (5 km) east of Celina, and 7.3 mi (11.7 km) upstream from mouth. DRAINAGE AREA, 936 mi^2 (2,424 km^2). PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft (4 m) high by 60 ft (18 m) wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft (202.08 m), top of gates, is 859,800 cfs-days (2,104 hm^3) of which 177,500 cfs-days (434.3 hm^3) between elevations 663.00 ft (202.082 m) and 651.00 ft (198.425 m), crest of spillway, are reserved for flood control, and 250,200 cfs-days (612.2 hm^3) between elevations 651.00 ft (198.425 m) and 631.00 ft (192.329 m), ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days (1,057 hm^3) below elevation 631.00 ft (192.329 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1306: 1944. WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 828,600 cfs-days (2,028 hm^3) Mar. 15, 1975, elevation, 660.98 ft (201.467 m); minimum, after first filling, 428,000 cfs-days (1,047 hm^3) Sept. 11, 1944, elevation, 630.63 ft (192.216 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 691,800 cfs-days (1,693 hm^3) Apr. 15, elevation, 651.68 ft (198.632 m); minimum, 486,400 cfs-days (1,190 hm^3) Sept. 30, elevation, 635.76 ft (193.780 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 mi^2 (20,966 km^2). PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five taintor gates, each 41 ft (12 m) high and 45 ft (14 m) wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft (154.84 m), maximum surcharge pool, is 156,700 cfs-days (383.4 hm^3), of which 53,400 cfs-days (130.7 hm^3) is controlled storage between elevations 508.0 ft (154.84 m) and 499.0 ft (152.10 m), ordinary minimum pool. Contents of 5,000 cfs-days (12.24 hm^3) between elevation of 499.0 ft (152.10 m) and 500.0 ft (152.40 m) full winter pool, is available for power production. Contents of 48,400 cfs-days (118.4 hm^3) above 500.0 ft (152.40 m) is available for flood control during the winter, and 26,100 cfs-days (63.87 hm^3) above 504.0 ft (153.62 m), full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days (252.8 hm^3) below elevation 499.0 ft (152.10 m) is dead storage. Reservoir is used for navigation, power, and flood control. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 156,700 cfs-days (383.4 hm^3) Mar. 13, 1975, elevation, 508.00 ft (154.838 m); minimum, after first filling to ordinary minimum pool, 96,700 cfs-days (236.6 hm^3) Apr. 18, 1974, elevation, 497.65 ft (151.684 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 134,900 cfs-days (330.1 hm^3) July 20, elevation, 504.70 ft (153.833 m); minimum, 103,300 cfs-days (252.8 hm^3) Dec. 12, 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 mi^2 (4,343 km^2). PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft (4 m) high by 25 ft (8 m) wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft (11 m) in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 804.9 ft (245.33 m) top of gates, is 25,400 cfs-days (62.15 hm^3), of which 23,900 cfs-days (58.48 hm^3) are controlled storage above elevation 762.0 ft (232.26 m), minimum pool. Contents of 1,500 cfs-days (3.671 hm^3) below elevation 762.0 ft (232.26 m) is dead storage. Reservoir is used primarily for power. Records furnished by Tennessee Valley Authority. Revisions.--WSP 2110: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight elevation, 817.48 ft (249.168 m) Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days (4.160 hm^3) Aug. 19, 1918, elevation, 756.3 ft (230.52 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 26,800 cfs-days (65.58 hm^3) May 24, elevation, 806.14 ft (245.711 m); minimum, 9,600 cfs-days (23.49 hm^3) Dec. 21, elevation, 784.64 ft (239.158 m).

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi (16 km) north of Smithville, 14 mi (23 km) southeast of Carthage, and at mile 26.6 (42.8 km). DRAINAGE AREA, 2,174 mi^2 (5,631 km^2). PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft (402 m) upstream at same datum.

Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft (11 m) high by 50 ft (15 m) wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft (208.79 m), top of gates, is 1,054,800 cfs-days (2,581 hm^3), of which 384,500 cfs-days (940.9 hm^3) between 685.0 ft (208.79 m) and 648.0 ft (197.51 m), crest of spillway, are reserved for flood control, and 248,000 cfs-days (606.9 hm^3) between elevations 648.0 ft (197.51 m) and 618.0 ft (188.37 m), ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days (1,033 hm^3) below 618.0 ft (188.37 m) is dead storage. Reservoir is used for flood control, navigation, and power. Records furnished by Corps of Engineers. Revisions.--WSP 1910: Drainage area.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,004,400 cfs-days (2,458 hm^3) Feb. 10, 1950, elevation, 680.6 ft (207.45 m); minimum, after first filling, 171,000 cfs-days (418.4 hm^3) Dec. 1, 2, 1949, elevation 576.1 ft (175.60 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 848,400 cfs-days (2,076 hm^3), Mar. 23, elevation, 666.20 ft (203.058 m); minimum, 495,000 cfs-days (1,211 hm^3) Sept. 25, elevation, 627.50 ft (191.262 m).

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi (3.2 km) west of Hendersonville, 10 mi (16 km) northeast of the State capitol in Nashville, and at mile 216.2 (347.9 km). DRAINAGE AREA, 11,673 mi^2 (30,233 km^2). PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is 408.5 ft (124.51 m) National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft (12 m) high and 45 ft (14 m) wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft (137.16 m), maximum surcharge pool, 274,600 cfs-days (671.9 hm^3) of which 63,000 cfs-days (154.2 hm^3) between elevations 450.0 ft (137.16 m) and 445.0 ft (135.64 m), normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days (77.82 hm^3) between elevations 445.0 ft (135.64 m) and 442.0 ft (134.72 m), ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days (440.0 hm^3) below elevation 442.0 ft (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 hm^3) Mar. 13, 1975, elevation, 450.11 ft (137.194 m); minimum, after first filling to ordinary minimum pool, 179,400 cfs-days (439.0 hm^3) Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft (134.709 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 239,200 cfs-days (585.3 hm^3), Mar. 22, elevation, 447.31 ft (136.340 m); minimum, 192,300 cfs-days (470.6 hm^3) Oct. 4, elevation, 443.23 ft (135.096 m).

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi (4.2 km) east of Donelson, and 6.8 mi (10.9 km) above mouth. DRAINAGE AREA, 892 mi^2 (2,310 km^2). PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft (12 m) high by 45 ft (14 m) wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft (153.77 m), maximum controlled pool, is 328,700 cfs-days (804.3 hm^3) of which 193,600 cfs-days (473.7 hm^3) is controlled storage between elevations 504.5 ft (153.77 m) and 480.0 ft (146.30 m), ordinary minimum pool. Contents of 17,200 cfs-days (42.09 hm^3) between elevations 480.0 ft (146.30 m) and 483.0 ft (147.22 m), full winter pool, is available for power production. Contents of 176,400 cfs-days (431.7 hm^3) above 483.0 ft (147.22 m) is available for flood control during the winter, and 131,100 cfs-days (320.8 hm^3) above 490.0 ft (149.35 m), full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days (330.6 hm^3) below elevation 480.0 ft (146.30 m) is dead storage. Reservoir is used for flood control, power, recreation, and wildlife. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 316,400 cfs-days (774.2 hm^3) Mar. 15, 1975, elevation, 503.41 ft (153.439 m); minimum, after first filling to ordinary minimum pool, 109,500 cfs-days (267.9 hm^3) Dec. 5, 1968, elevation, 474.75 ft (144.704 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 250,000 cfs-days (611.8 hm^3) Mar. 24, elevation, 496.68 ft (151.388 m); minimum, 142,100 cfs-days (347.7 hm^3) Dec. 11, elevation, 481.26 ft (146.688 m).

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi (15 km) west of Ashland City, 16 mi (26 km) southeast of the courthouse in Clarksville, and at mile 148.7 (239.3 km). DRAINAGE AREA, 14,159 mi^2 (36,672 km^2).

Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft (8 m) high by 60 ft (18 m) wide. Total capacity at elevation 385.0 ft (117.35 m), normal pool, is 52,200 cfs-days (127.7 hm^3), of which 9,800 cfs-days (23.98 hm^3) are controlled storage. Records of contents not published herein.

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi (2.3 km) northeast of Grand Rivers, Ky., and at mile 30.6 (49.2 km). DRAINAGE AREA, 17,598 mi^2 (45,579 km^2). PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft (370 m) upstream from Barkley Dam at same datum.

Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates each 50 ft (15 m) high by 55 ft (17 m) wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft (107.90 m) Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft (114.30 m), top of gates, is 1,049,600 cfs-days (2,568 hm^3), of which 742,000 cfs-days (1,816 hm^3) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Contents of 130,500 cfs-days (319.3 hm^3) between ordinary minimum pool elevation, 354.0 ft (107.90 m), and full pool elevation, 359.0 ft (109.42 m), is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft (105.46 m), contents 171,000 cfs-days (418.4 hm^3). Reservoir is used for navigation, flood control, power, and recreation. Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, level pool storage, 790,700 cfs-days (1,935 hm^3) Mar. 28, 1973, elevation, 369.10 ft (112.502 m); minimum since reaching permanent pool elevation of 354.0 ft (107.90 m), level pool storage, 290,000 cfs-days (709.6 hm^3) Dec. 20, 1976, elevation, 353.20 ft (107.655 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 524,000 cfs-days (1,282 hm^3) Nov. 26; maximum elevation, 359.99 ft (109.725 m) Apr. 20; minimum contents, 309,000 cfs-days (756.1 hm^3) Feb. 25; minimum elevation, 353.43 ft (107.725 m) Feb. 25.

RESERVOIRS IN CUMBERLAND RIVER BASIN, TN--CONTINUED

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

	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.....	708.75	1668700	-	645.27	604700	-	504.00	130600	-
Oct. 31.....	699.55	1462000	-206700	641.22	552700	-52000	502.80	123600	-7000
Nov. 30.....	706.10	1607900	+145900	641.79	559800	+7100	500.00	108300	-15300
Dec. 31.....	704.10	1562700	-45200	642.14	564300	+4500	499.80	107300	-1000
CAL YR 1979			-13500			-19400			-5200
Jan. 31.....	710.40	1707000	+144300	645.64	609500	+45200	499.90	107800	+500
Feb. 29.....	709.10	1676800	-30200	645.78	611400	+1900	500.20	109400	+1600
Mar. 31.....	723.30	2021500	+344700	650.33	673000	+61600	501.00	113600	+4200
Apr. 30.....	722.45	2000000	-21500	650.03	668800	-4200	503.40	127100	+13500
May 31.....	721.00	1963500	-36500	649.55	662200	-6600	503.70	128800	+1700
June 30.....	712.90	1766000	-197500	647.07	628500	-33700	503.30	126500	-2300
July 31.....	699.15	1453300	-312700	642.37	567200	-61300	503.20	125900	-600
Aug. 31.....	689.40	1248600	-204700	639.45	530700	-36500	504.30	132500	+6600
Sept. 30.....	682.90	1119600	-129000	635.76	486400	-44300	504.10	131100	-1400
WTR YR 1980			-549100			-118300			+500
	03422000 GREAT FALLS LAKE			03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30.....	804.10	24600	-	644.40	637600	-	444.16	202300	-
Oct. 31.....	792.60	14800	-9800	638.30	584100	-53500	444.74	208700	+6400
Nov. 30.....	805.81	26400	+11600	641.60	612800	+28700	444.36	204400	-4300
Dec. 31.....	805.82	26400	0	634.60	552700	-60100	444.41	205000	+600
CAL YR 1979			+3100			-32300			-8500
Jan. 31.....	804.50	25000	-1400	638.70	587500	+34800	443.58	196000	-9000
Feb. 29.....	799.60	20400	-4600	638.30	584100	-3400	444.08	201400	+5400
Mar. 31.....	806.01	26700	+6300	660.80	793300	+209200	444.78	209100	+7700
Apr. 30.....	801.05	21700	-5000	646.60	657500	-135800	444.31	203900	-5200
May 31.....	800.20	21000	-700	647.60	666600	+9100	444.35	204300	+400
June 30.....	789.85	12900	-8100	640.10	599700	-66900	443.83	198700	-5600
July 31.....	787.13	11100	-1800	631.40	526300	-73400	445.25	214500	+15800
Aug. 31.....	788.61	12000	+900	629.50	510900	-15400	444.64	207600	-6900
Sept. 30.....	786.93	11000	-1000	627.50	495000	-15900	444.47	205700	-1900
WTR YR 1980			-13600			-142600			+3400
	03430050 J. PERCY PRIEST LAKE			03438210 LAKE BARKLEY‡					
Sept. 30.....	494.40	231000	-	359.15	467800	-			
Oct. 31.....	489.21	192000	-39000	354.88	339400	-128400			
Nov. 30.....	484.00	158200	-33800	358.62	453400	+114000			
Dec. 31.....	481.71	144700	-13500	354.93	341400	-112000			
CAL YR 1979			-9200			-6600			
Jan. 31.....	482.46	149100	+4400	353.80	318200	-23200			
Feb. 29.....	482.55	149600	+500	354.24	318900	+700			
Mar. 31.....	494.07	228400	+78800	357.82	468100	+149200			
Apr. 30.....	490.08	198200	-30200	359.14	446200	-21900			
May 31.....	490.16	198800	+600	359.28	449400	+3200			
June 30.....	490.19	199000	+200	359.66	470000	+20600			
July 31.....	490.09	198300	-700	357.90	425100	-44900			
Aug. 31.....	489.73	195700	-2600	356.43	364800	-60300			
Sept. 30.....	489.51	194100	-1600	354.99	332100	-32700			
WTR YR 1980			-36900			-135700			

‡ Contents based on backwater profile.

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft (60 m) upstream from bridge on U. S. Highway 411, 1.0 mi (1.6 km) northeast of Newport city limits, 3.7 mi (6.0 km) upstream from Pigeon River, and at mile 77.5 (124.7 km).

DRAINAGE AREA.--1,858 mi² (4,812 km²).

WATER-DISCHARGE RECORDS

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.

AVERAGE DISCHARGE.--62 years (water years 1904-05, 1921-80), 3,009 ft³/s (85.21 m³/s), 21.99 in/yr (559 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.--Peak discharges above base of 16,000 ft³/s (453 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Nov. 2	2130	20,800	589	9.51	2.899	Mar. 21	1330	28,900	818	11.74	3.578
Nov. 26	0930	*39,000	1100	13.85	4.221	Apr. 14	2130	17,900	507	8.66	2.640

Minimum discharge, 575 ft³/s (16.3 m³/s) Sept. 19, gage height, 1.18 ft (0.360 m); minimum daily, 733 ft³/s (20.8 m³/s) Sept. 19.

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	9080	2370	6000	3210	2960	2280	6730	3980	3450	2120	1310	997
2	8540	8470	5130	3240	2690	2260	5700	3630	3180	1960	1260	1040
3	6990	14700	4590	3070	2570	2120	5140	3490	2970	2510	1200	1090
4	5440	9400	4310	2930	2720	2220	4950	3340	2820	3180	1220	1340
5	5210	8710	4150	2950	2480	2470	4520	3200	2710	3030	1270	1350
6	4750	6820	3990	2840	2660	2840	4190	3130	2620	2660	1160	1130
7	4300	4540	3870	2740	2610	2940	3940	2990	2530	2220	1080	1070
8	4080	3920	3670	3080	2500	2980	3980	2920	2440	1900	1070	930
9	3670	3640	3450	3210	2470	3780	8090	2860	2300	1770	1030	887
10	3670	6660	3300	3260	2490	3930	8270	2730	2180	1830	952	1080
11	3470	9500	3210	3120	2450	3370	7480	2620	2140	2370	1020	1190
12	3280	9420	3170	4350	2470	3020	6080	2620	2100	2170	1070	1090
13	3090	6840	3170	5130	2400	3000	6700	2530	1940	1800	1020	919
14	2860	5530	3260	4640	2410	3340	12800	2420	1970	1630	974	865
15	2560	4650	3100	5640	2480	3360	15400	2340	1960	1540	1030	772
16	2440	4210	2960	4820	3600	3080	14300	2490	1960	1460	1050	762
17	2380	3870	2880	4210	4650	3120	11500	2320	4120	1420	1290	793
18	2310	3610	2770	4420	3580	7930	8590	4880	2920	1380	1220	803
19	2250	3410	2710	7090	3100	8510	6850	6350	2970	1340	1220	733
20	2200	3250	2660	6120	2870	7240	5820	6150	2640	1360	1340	793
21	2160	3120	2580	4980	2800	19900	5320	5960	2440	1290	1460	803
22	2130	3010	2580	4460	2910	16700	4910	5070	2100	1250	1390	865
23	2190	2930	2530	4850	2980	12000	4630	4480	1940	1240	1550	823
24	2460	3100	2560	4730	2840	10700	4320	6180	1990	1260	1380	908
25	2350	5950	3270	4200	2690	9760	4170	8170	4680	1570	1190	1390
26	2150	25800	3670	3800	2630	8040	4110	6870	4630	1700	1100	1400
27	2090	16800	3220	3530	2500	6530	4430	5160	3590	1640	1040	1260
28	2010	14200	2980	3340	2410	6220	4320	4390	2820	1480	986	1070
29	1930	11000	2860	3180	2400	9920	4150	3730	2460	2040	1010	1210
30	2040	8050	2850	3050	---	9270	4280	3670	2290	1760	897	2900
31	2320	---	3120	3130	---	8170	---	3900	---	1460	897	---
TOTAL	106400	217480	104570	123320	80320	191000	195670	124570	80860	56340	35686	32263
MEAN	3432	7249	3373	3978	2770	6161	6522	4018	2695	1817	1151	1075
MAX	9080	25800	6000	7090	4650	19900	15400	8170	4680	3180	1550	2900
MIN	1930	2370	2530	2740	2400	2120	3940	2320	1940	1240	897	733
CFSM	1.85	3.90	1.82	2.14	1.49	3.32	3.51	2.16	1.45	.98	.62	.58
IN.	2.13	4.35	2.09	2.47	1.61	3.82	3.92	2.49	1.62	1.13	.71	.65

CAL YR 1979 TOTAL 1759720 MEAN 4821 MAX 25800 MIN 1200 CFSM 2.60 IN 35.23
WTR YR 1980 TOTAL 1348479 MEAN 3684 MAX 25800 MIN 733 CFSM 1.98 IN 27.00

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1960-61, 1969-70, 1974-75, 1979 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
10...	1040	3500	63	6.0	14.5	6	3	9.3	2.0	--	17
DEC											
12...	1300	3150	270	8.2	6.5	4	1	11.3	<1.0	--	130
19...	1005	2730	67	6.9	3.0	9	2	12.7	1.0	--	18
JAN											
23...	1310	4980	77	6.7	6.0	13	6	11.3	2.6	570	24
MAR											
12...	1030	3030	75	7.0	8.0	10	8	11.8	2.1	90	25

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
10...	14	9.0	3.0	30	.04	283	12	.41	.040	.12
DEC										
12...	120	28	3.0	180	.24	1530	6	.63	.020	.07
19...	--	18	4.0	50	.07	369	3	.41	.140	.14
JAN										
23...	13	10	3.0	60	.08	807	12	.53	.050	.11
MAR										
12...	17	12	3.0	70	.10	573	10	.44	.070	.12

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
10...	.060	--	1	10	110	<10	80	<.2	60	3.9
DEC										
12...	<.010	<.010	<1	<10	<50	250	10	<.2	<10	1.5
19...	.040	.020	3	20	60	<10	40	.4	10	2.9
JAN										
23...	.050	.030	4	<10	80	<10	20	<.2	20	2.8
MAR										
12...	.080	--	<1	20	70	<10	10	<.2	40	5.0

03461200 COSBY CREEK ABOVE COSBY, TN

LOCATION.--Lat 35°46'58", long 83°13'03", Cocke County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park on left retaining wall of creek, 400 ft (120 m) downstream from Crying Creek, 600 ft (180 m) upstream from bridge on State Highway 32, 3,600 ft (1,100 m) upstream from Stillhouse Branch, 2.4 mi (3.9 km) southeast of Cosby, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--10.1 mi^2 (26.2 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1959-66 (1959-65 published as "near Cosby"); October 1966 to current year.

GAGE.--Water-stage recorder. 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.--14 years, 28.5 ft^3/s (0.807 m^3/s), 38.32 in/yr (973 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft^3/s (48.7 m^3/s) Mar. 16, 1973, gage height, 4.11 ft (1.253 m) former site; about 17.1 ft (5.21 m) present site; minimum, 1.4 ft^3/s (0.040 m^3/s), Sept. 30, Oct. 1, 2, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 252 ft^3/s (7.14 m^3/s) at 0415 hours Mar. 21, gage height 14.71 ft, (4.484 m), no other peak above base of 250 ft^3/s (7.08 m^3/s); minimum discharge 2.3 ft^3/s (0.065 m^3/s) Sept 9, 10.

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	20	9.0	28	24	22	21	35	28	18	7.0	5.3	3.7
2	19	25	25	22	22	19	30	26	16	6.7	4.7	3.2
3	16	20	22	21	20	20	27	23	15	23	4.2	3.5
4	16	18	20	21	19	18	28	21	13	14	6.0	3.2
5	16	17	19	21	18	27	24	20	12	14	7.9	3.0
6	14	15	18	18	17	29	21	19	12	11	4.7	2.8
7	13	14	17	25	16	29	20	18	11	9.7	4.1	2.7
8	12	13	15	37	15	40	24	17	10	8.6	3.8	2.5
9	11	13	14	43	15	38	31	15	9.6	9.6	3.4	2.4
10	30	107	14	48	14	32	26	15	9.1	23	3.3	7.1
11	27	100	13	71	13	28	24	14	8.7	20	3.3	4.1
12	23	85	13	99	13	25	25	13	8.3	13	4.7	3.3
13	20	59	18	67	12	28	41	12	8.0	11	3.8	2.9
14	17	45	22	59	12	28	80	12	7.7	9.5	3.2	2.7
15	15	36	19	52	12	25	55	11	7.3	8.4	3.1	2.5
16	14	31	18	44	54	24	45	11	15	7.6	3.2	2.3
17	13	27	16	39	47	64	37	12	21	6.9	3.5	2.6
18	12	24	15	56	36	85	33	16	35	6.6	4.0	2.9
19	12	21	15	57	31	61	30	15	20	6.3	3.5	2.6
20	11	19	14	49	28	67	27	55	15	6.0	4.5	2.6
21	11	18	14	42	30	176	24	46	12	5.8	3.5	2.6
22	10	16	13	45	53	101	21	31	11	5.6	30	2.5
23	15	15	13	53	47	73	19	25	10	5.6	7.0	2.5
24	12	37	24	48	39	82	18	27	10	5.5	5.0	3.0
25	11	49	34	43	35	75	17	118	11	5.1	4.0	10
26	10	116	28	37	29	61	17	68	9.8	5.0	3.4	20
27	10	65	26	33	27	50	19	45	8.9	4.9	3.0	9.2
28	10	49	24	30	25	57	17	33	8.2	5.3	2.9	8.0
29	9.8	39	22	27	23	54	26	27	7.8	5.2	2.9	11
30	9.7	32	24	25	---	47	29	23	7.5	4.5	4.6	9.2
31	9.3	---	25	26	---	40	---	20	---	4.1	4.7	---
TOTAL	448.8	1134.0	602	1282	744	1524	870	836	367.9	278.5	155.2	140.6
MEAN	14.5	37.8	19.4	41.4	25.7	49.2	29.0	27.0	12.3	8.98	5.01	4.69
MAX	30	116	34	99	54	176	80	118	35	23	30	20
MIN	9.3	9.0	13	18	12	18	17	11	7.3	4.1	2.9	2.3
CFSM	1.44	3.74	1.92	4.10	2.55	4.87	2.87	2.67	1.22	.89	.50	.46
IN.	1.65	4.18	2.22	4.72	2.74	5.61	3.20	3.08	1.35	1.03	.57	.52

CAL YR 1979 TOTAL 12467.6 MEAN 34.2 MAX 403 MIN 7.0 CFSM 3.39 IN 45.92
WTR YR 1980 TOTAL 8383.0 MEAN 22.9 MAX 176 MIN 2.3 CFSM 2.27 IN 30.87

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).

WATER-DISCHARGE RECORDS

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.

AVERAGE DISCHARGE.--63 years, 1,258 ft³/s (35.63 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.--Peak discharges above base of 7,500 ft³/s (212 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	1030	16,600	470	11.29	3.441	Mar. 21	1415	*18,700	530	12.04	3.670

Minimum discharge, 71 ft³/s (2.01 m³/s) July 20; minimum daily, 86 ft³/s (2.44 m³/s), July 21.

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	2300	374	2450	524	1600	1250	2800	1360	1520	782	876	588
2	2100	1450	2400	966	1120	1090	2600	877	1550	774	432	599
3	1730	2650	2330	1060	1180	1040	2540	1120	1160	1220	154	547
4	1230	2020	2270	1340	1130	995	2580	645	1230	980	230	630
5	1670	1740	2070	1550	870	1210	2490	846	1030	946	582	810
6	820	1540	1410	676	1010	798	2450	1120	230	837	597	679
7	488	1460	1180	732	1190	1280	2410	797	175	912	435	430
8	1370	1420	1090	1280	885	1500	2360	1190	164	1580	363	419
9	1400	1420	635	1480	1050	1640	2610	1260	153	1740	164	369
10	1590	2850	1440	1690	518	1870	2350	569	359	1820	259	340
11	1240	3900	1490	1880	950	2000	2070	198	1500	1890	355	456
12	1190	3550	1350	2290	982	2100	2400	955	2540	544	266	434
13	486	2650	1310	1810	877	1880	2570	1320	2390	168	170	396
14	646	2140	1210	1750	546	1080	3230	1140	790	921	278	365
15	983	1900	829	1690	555	870	2890	1190	437	640	335	340
16	1210	1830	378	1770	1510	1200	2760	1110	278	684	217	315
17	1500	1770	844	1870	2190	2550	2650	975	603	230	278	266
18	988	1570	1110	2280	1630	3310	2590	1000	473	100	550	260
19	1260	1450	1130	2700	1010	3010	2540	1220	350	95	923	261
20	820	1680	1110	1610	930	3080	2490	2320	300	90	794	258
21	485	1670	1270	1560	645	10500	2450	1710	700	86	361	279
22	805	1530	778	1880	1360	6870	1670	1130	800	641	507	279
23	1320	1290	523	2680	1120	4450	1740	1140	800	365	380	316
24	1300	1550	873	1650	1040	4710	1860	1150	900	388	94	372
25	931	1890	1400	1820	1460	4590	1740	3430	1200	455	539	450
26	895	7510	900	1790	1920	3790	2160	3220	1100	272	449	537
27	352	4560	1290	1430	1290	3310	1700	1990	1020	398	476	410
28	131	3370	1320	1300	938	4040	1830	1700	862	378	481	377
29	359	2710	1410	1440	963	4810	1480	1670	798	447	411	511
30	257	2510	804	1220	---	3740	1470	1510	790	474	270	486
31	280	---	778	1430	---	3250	---	1490	---	644	211	---
TOTAL	32136	67954	39382	49148	32469	87813	69480	41352	26202	21501	12437	12779
MEAN	1037	2265	1270	1585	1120	2833	2316	1334	873	694	401	426
MAX	2300	7510	2450	2700	2190	10500	3230	3430	2540	1890	923	810
MIN	131	374	378	524	518	798	1470	198	153	86	94	258

CAL YR 1979 TOTAL 621201 MEAN 1702 MAX 12100 MIN 131
WTR YR 1980 TOTAL 492653 MEAN 1346 MAX 10500 MIN 86

03461500 PIGEON RIVER AT NEWPORT, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
10...	1120	707	220	6.7	14.0	30	2	9.7	1.4	--	57
DEC											
19...	1050	262	260	6.9	5.0	36	1	12.4	1.4	--	57
JAN											
23...	1240	2680	160	--	7.0	25	7	11.3	1.8	640	36
MAR											
12...	1005	1210	260	5.8	7.0	40	7	11.5	1.8	360	48
SEP											
18...	0845	256	1050	--	21.0	--	--	--	--	--	230

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT											
10...	--	26	13	45	140	.19	267	4	.72	.040	.14
DEC											
19...	--	37	17	53	160	.22	113	2	.51	.140	.20
JAN											
23...	--	--	13	29	110	.15	796	13	.53	.050	.12
MAR											
12...	--	15	15	42	180	.24	588	8	.58	.070	.15
SEP											
18...	81	31	40	230	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
10...	.030	.010	<1	<10	80	<10	340	<.2	<10	6.5
DEC										
19...	--	--	22	<10	210	<10	90	<.2	<10	7.1
JAN										
23...	.060	.040	1	<10	120	12	30	<.2	20	5.5
MAR										
12...	.080	.020	<1	20	210	<10	60	<.2	20	7.0
SEP										
18...	--	--	--	--	5900	--	680	--	--	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)	LITHIUM DIS-SOLVED (UG/L AS LI)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
SEP												
18...	200	0	4	0	7	6.2	0	13	97	2.9	250	15

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft (300 m) upstream from bridge on State Highway 81, 3 mi (5 km) northwest of Erwin, 5.2 mi (8.4 km) downstream from North Indian Creek, and at mile 89.0 (143.2 km).

DRAINAGE AREA.--805 mi^2 (2,085 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

GAGE.--Water-stage recorder. Datum of gage is 1,519.30 ft (463.083 m) National Geodetic Vertical Datum of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi (5 km) downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft (600 m) downstream at datum 6.33 ft (1.929 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--61 years (water years 1920-80), 1,374 ft^3/s (38.91 m^3/s), 23.18 in/yr (589 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft^3/s (3,120 m^3/s) Nov. 6, 1977, gage height, 21.52 ft (6.559 m), from rating curve extended above 48,000 ft^3/s (1,360 m^3/s) on basis of contracted-opening and slope-area measurements of peak flow; minimum, 85 ft^3/s (2.41 m^3/s) Sept. 8, 9, 1925; minimum gage height, 1.06 ft (0.323 m) Sept. 16, 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft (7.3 m), discharge, 120,000 ft^3/s (3,400 m^3/s), present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,500 ft^3/s (269 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 2	1730	17600	498	6.92	2.109	Mar. 21	1300	16600	470	6.71	2.045
Nov. 26	0800	*26700	756	8.88	2.707	Apr. 14	1800	14900	422	6.32	1.926

Minimum discharge, 301 ft^3/s (8.52 m^3/s) Sept. 16, 17, gage height, 1.06 ft (0.323 m).

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	4590	1150	2390	1240	1200	1130	2860	1660	1180	839	466	507
2	3360	7310	2120	1200	1030	1100	2480	1540	1080	773	507	442
3	2560	6430	1860	1130	1060	1050	2250	1460	1010	1240	466	450
4	2090	3290	1760	1110	1160	1050	2290	1390	943	2540	450	532
5	2070	2430	1680	1130	992	1350	2110	1310	885	1630	920	458
6	1800	2020	1620	1040	1110	1650	1880	1270	839	1210	567	389
7	1590	1780	1560	1030	1040	1440	1770	1220	828	956	442	361
8	1400	1600	1440	1180	948	1800	2010	1180	806	817	411	340
9	1300	1500	1340	1250	1030	2700	6140	1130	752	763	382	320
10	1550	3720	1300	1280	1010	2220	3860	1070	721	773	361	690
11	1510	5300	1260	1280	911	1830	2950	1050	710	1160	382	839
12	1360	5100	1230	2360	977	1570	2850	1020	680	920	404	524
13	1270	3620	1250	2050	890	1530	3670	979	670	721	382	404
14	1160	2810	1340	2340	926	1750	9140	954	670	670	347	361
15	1090	2330	1200	2630	1030	1540	7510	931	641	622	333	340
16	1060	2060	1150	2190	1820	1400	4760	910	795	603	327	320
17	1020	1850	1120	1950	2390	1820	3690	901	1780	576	347	307
18	980	1700	1040	2420	1630	5340	3140	1930	1190	567	375	327
19	956	1580	1030	3530	1450	3620	2770	1520	1060	558	375	333
20	932	1470	1030	2710	1350	3020	2490	1630	828	541	450	320
21	920	1400	996	2260	1360	11600	2230	2440	710	524	474	333
22	897	1330	980	2060	1730	7270	1980	1690	660	507	1070	361
23	992	1280	980	2630	1820	4480	1830	1860	651	567	885	354
24	1070	1720	1020	2310	1610	5250	1720	2740	700	541	515	361
25	932	3650	1990	2020	1450	5930	1640	2450	3870	515	474	806
26	873	16300	1720	1800	1340	4240	1620	2310	3340	490	419	897
27	851	6990	1450	1640	1240	3400	1820	1800	1800	558	368	567
28	828	4380	1370	1530	1220	3460	1800	1520	1300	795	347	458
29	839	3350	1300	1410	1200	5830	1700	1360	1090	920	333	549
30	885	2740	1280	1340	---	4100	1830	1490	980	613	320	622
31	980	---	1280	1380	---	3440	---	1270	---	498	498	---
TOTAL	43715	102190	43086	55430	36924	97910	88790	45985	33169	25007	14397	13872
MEAN	1410	3406	1390	1788	1273	3158	2960	1483	1106	807	464	462
MAX	4590	16300	2390	3530	2390	11600	9140	2740	3870	2540	1070	897
MIN	828	1150	980	1030	890	1050	1620	901	641	490	320	307
CFSM	1.75	4.23	1.73	2.22	1.58	3.92	3.68	1.84	1.37	1.00	.58	.57
IN.	2.02	4.72	1.99	2.56	1.71	4.52	4.10	2.13	1.53	1.16	.67	.64

CAL YR 1979 TOTAL 827527 MEAN 2267 MAX 16300 MIN 539 CFSM 2.82 IN 38.24
WTR YR 1980 TOTAL 600475 MEAN 1641 MAX 16300 MIN 307 CFSM 2.04 IN 27.75

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
10...	1200	1580	49	13.5	23	98	--
NOV							
26...	1600	16900	35	12.5	497	22700	40
JAN							
14...	1520	2490	44	6.0	45	303	--
FEB							
25...	1545	1420	50	8.5	14	54	--
APR							
21...	1550	2100	44	15.5	35	198	--
JUN							
04...	1500	916	50	25.5	25	62	--
JUL							
21...	1400	524	42	28.0	7	9.9	--
SEP							
10...	1430	750	79	22.5	143	290	--

03466228 SINKING CREEK AT AFTON, TN

LOCATION.--Lat 36°11'55", long 82°44'31", Greene County, Hydrologic Unit 06010108, on left bank 300 ft (90 m) upstream from bridge on county road, 0.4 mi (0.6 km) northwest of Afton, and at mile 3.1 (5.0 km).

DRAINAGE AREA.--13.7 mi^2 (35.5 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1,459.36 ft (444.813 m) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft^3/s (42.8 m^3/s) July 21, 1979, gage height, 7.79 ft (2.374 m), from rating curve extended above 100 ft^3/s (2.83 m^3/s) on basis of area-velocity study; minimum, 1.7 ft^3/s (0.048 m^3/s) several days in December 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 347 ft^3/s (9.83 m^3/s), at 0615 hours, Mar. 21, gage height, 4.17 ft (1.271 m), no other peak above base of 180 ft^3/s (5.10 m^3/s); minimum, 2.4 ft^3/s (0.068 m^3/s) Sept. 19, gage height, 1.21 ft (0.369 m).

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	11	7.2	11	12	18	16	31	16	7.3	6.2	5.0	4.0
2	7.9	17	11	12	17	15	29	14	7.0	6.3	5.4	4.0
3	7.6	11	10	11	17	15	28	13	7.0	11	5.2	3.9
4	7.5	9.1	9.9	11	17	15	28	12	8.0	12	5.0	3.9
5	8.3	8.5	9.9	12	16	18	25	12	9.3	9.5	4.8	3.9
6	7.6	7.6	9.9	11	16	18	23	10	9.0	8.0	4.7	4.2
7	9.1	7.6	9.4	36	16	16	23	10	8.8	6.8	4.6	4.1
8	8.0	7.1	9.2	22	15	69	23	10	8.2	6.4	4.5	4.1
9	7.5	6.9	8.9	18	15	42	22	9.3	8.0	6.4	4.5	4.1
10	13	33	8.6	16	16	26	21	8.9	8.2	6.7	4.5	7.0
11	9.7	25	8.3	16	16	23	20	8.6	8.1	7.0	4.5	3.7
12	8.6	21	8.1	22	15	21	20	7.9	7.9	7.0	4.5	3.3
13	9.1	16	14	18	15	23	20	7.6	7.9	7.0	4.5	3.1
14	9.3	14	15	20	16	22	21	7.3	7.6	6.7	4.4	3.1
15	8.4	12	11	19	23	20	19	7.3	7.6	6.7	4.4	3.1
16	7.9	11	10	18	54	19	19	7.0	9.6	6.7	4.4	2.7
17	7.9	11	9.7	17	30	27	18	7.6	9.4	6.7	4.4	2.8
18	7.6	10	9.3	44	23	43	17	14	7.9	6.4	4.3	3.0
19	7.2	9.7	8.9	32	22	27	17	9.3	7.7	6.1	4.3	2.7
20	7.2	9.5	8.7	23	21	64	17	12	7.2	5.8	4.3	2.7
21	7.2	9.2	8.2	21	22	199	16	11	7.0	5.8	5.0	2.7
22	7.2	8.9	8.2	59	20	48	16	8.9	7.0	5.3	4.8	2.7
23	8.3	8.9	8.2	77	20	38	16	13	7.0	5.0	4.5	2.6
24	8.5	9.9	14	32	19	81	16	13	7.3	4.7	4.4	4.2
25	7.3	11	33	28	19	44	16	12	7.3	4.6	4.4	4.2
26	7.2	53	24	25	18	36	17	10	7.2	4.5	4.3	3.6
27	7.2	18	17	23	17	33	17	8.2	6.5	4.7	4.2	3.1
28	7.2	15	15	22	17	75	16	7.9	6.6	5.0	4.1	2.9
29	7.2	13	14	20	16	50	34	7.6	6.5	5.0	4.0	3.4
30	7.2	12	13	19	---	39	21	7.3	6.4	5.0	4.0	3.4
31	7.2	---	13	19	---	34	---	7.3	---	5.0	4.0	---
TOTAL	252.1	413.1	368.4	735	566	1216	626	310.0	230.5	200.0	139.9	106.2
MEAN	8.13	13.8	11.9	23.7	19.5	39.2	20.9	10.0	7.68	6.45	4.51	3.54
MAX	13	53	33	77	54	199	34	16	9.6	12	5.4	7.0
MIN	7.2	6.9	8.1	11	15	15	16	7.0	6.4	4.5	4.0	2.6
CFSM	.59	1.01	.87	1.73	1.42	2.86	1.53	.73	.56	.47	.33	.26
IN.	.68	1.12	1.00	2.00	1.54	3.30	1.70	.84	.63	.54	.38	.29

CAL YR 1979 TOTAL 6069.1 MEAN 16.6 MAX 270 MIN 6.1 CFSM 1.21 IN. 16.48
WTR YR 1980 TOTAL 5163.2 MEAN 14.1 MAX 199 MIN 2.6 CFSM 1.03 IN. 14.02

03406510 FRENCH BROAD RIVER AT DOUGLAS DAM (TAILWATER), TN

LOCATION.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at downstream side of dam, 0.5 mi (0.8 km) downstream from Douglas Creek, 1.2 mi (1.9 km) north of Union Grove, and at mile 32.3 (52.0 km).

DRAINAGE AREA.--4,541 mi^2 (11,761 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
07...	1105	15000	130	6.9	17.0	11	5	8.0	2.4	--	46
JAN											
21...	1050	--	180	6.2	8.0	5	16	11.0	2.0	80	51
FEB											
13...	1050	15600	180	5.7	5.0	11	13	11.5	3.3	<10	60
APR											
09...	1005	13600	160	6.9	9.5	29	--	9.8	1.8	<10	48

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
07...	38	16	11	100	.14	4050	4	.31	.040	.37
JAN										
21...	32	20	9.0	160	.22	--	16	.59	.180	.12
FEB										
13...	20	18	10	110	.15	4630	11	.70	.180	.25
APR										
09...	46	14	7.0	150	.20	5510	10	.58	.070	.13

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
07...	.020	.040	2	20	110	20	30	<.2	100	4.3
JAN										
21...	.050	<.010	<1	<10	100	<10	150	<.2	60	4.0
FEB										
13...	.050	.020	<1	40	150	20	160	.2	260	4.0
APR										
09...	.030	.030	<1	30	<50	<10	20	<.2	70	4.8

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TN

LOCATION.--Lat 35°52'42", long 83°34'40", Sevier County, Hydrologic Unit 06010107, on left bank, 0.2 mi (0.3 km) downstream from West Prong Little Pigeon River, 0.6 mi (1.0 km) north of intersection of U. S. Highway 441 and State Highway 66 in Sevierville, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--353 mi^2 (914 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to 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.--60 years, 573 ft^3/s (16.23 m^3/s), 22.04 in/yr (560 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft^3/s (1,160 m^3/s) Mar. 26, 1965, gage height, 16.09 ft (4.904 m), site and datum then in use; minimum, 2.8 ft^3/s (0.079 m^3/s) Sept. 21, 1925; minimum gage height, 0.08 ft (0.024 m) Dec. 23, 1965, site and datum then in use; minimum daily discharge, 8.4 ft^3/s (0.24 m^3/s) Sept. 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 18 ft (5.5 m), discharge, 55,000 ft^3/s (1,560 m^3/s); that of Apr. 1, 1896, 16.8 ft (5.12 m), discharge, 46,000 ft^3/s (1,300 m^3/s); and that of Mar. 7, 1867, 16.5 ft (5.03 m), discharge, 43,000 ft^3/s (1,220 m^3/s) all at site 0.1 mi (0.2 km) upstream, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft^3/s (462 m^3/s) at 0800 hours Mar. 21, gage height, 8.97 ft (2.734 m), no other peak above base of 7,000 ft^3/s (198 m^3/s); minimum discharge recorded, 59 ft^3/s (1.67 m^3/s) Aug. 16, gage height, 1.06 ft (0.323 m).

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	440	138	424	399	408	346	813	662	381	133	157	121
2	376	744	367	387	354	340	674	548	339	123	199	109
3	333	531	313	343	377	283	592	475	307	945	100	135
4	276	332	296	358	340	326	874	415	282	423	88	182
5	323	271	277	417	297	675	707	371	258	237	209	129
6	272	240	268	385	318	696	571	342	241	199	119	104
7	238	220	265	614	308	558	507	311	227	174	89	91
8	211	205	236	1310	287	1120	512	304	212	148	78	81
9	200	205	214	986	309	1300	931	275	198	145	71	75
10	512	2410	201	801	341	942	611	254	187	167	65	102
11	418	1700	194	906	315	719	500	240	179	618	63	170
12	311	1500	189	1820	331	575	540	228	168	272	126	104
13	272	1010	250	1110	309	712	1060	214	160	203	100	86
14	243	729	419	968	321	747	2460	203	154	168	74	77
15	221	548	299	849	403	586	1280	201	146	148	66	71
16	207	453	262	694	1830	525	938	189	155	133	87	64
17	193	387	241	605	1550	1750	733	205	328	121	240	80
18	183	344	210	2110	958	2450	615	576	564	113	286	150
19	172	311	205	1900	740	1630	537	324	348	106	266	130
20	163	284	199	1200	637	2440	477	1240	211	101	435	100
21	160	265	189	915	594	9490	431	1040	175	127	169	82
22	153	248	178	1270	827	2630	390	580	157	122	336	80
23	200	232	176	2300	783	1610	359	516	167	134	253	68
24	229	732	211	1380	649	1720	337	838	180	110	149	80
25	180	1020	735	1040	558	1600	321	2270	399	97	122	140
26	167	2880	539	814	486	1270	360	1390	265	147	104	330
27	154	1290	422	663	423	1050	553	877	204	150	91	290
28	149	899	359	561	391	1770	507	681	171	135	84	130
29	148	658	319	480	376	1620	673	572	154	121	83	240
30	148	512	325	440	---	1210	843	550	148	95	110	210
31	142	---	381	522	---	1010	---	437	---	85	146	---
TOTAL	7394	21298	9163	28547	15820	43700	20706	17328	7065	6000	4565	3811
MEAN	239	710	296	921	546	1410	690	559	236	194	147	127
MAX	512	2880	735	2300	1830	9490	2460	2270	564	945	435	330
MIN	142	138	176	343	287	283	321	189	146	85	63	64
CFSM	.68	2.01	.84	2.61	1.55	3.99	1.96	1.58	.67	.55	.42	.36
IN.	.78	2.24	.97	3.01	1.67	4.61	2.18	1.83	.74	.63	.48	.40

CAL YR 1979 TOTAL 254234 MEAN 697 MAX 11500 MIN 131 CFSM 1.98 IN 26.79
WTR YR 1980 TOTAL 185397 MEAN 507 MAX 9490 MIN 63 CFSM 1.44 IN 19.54

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
02...	0950	349	68	18.0	8	7.5
NOV						
20...	1015	276	95	11.0	2	1.5
JAN						
10...	1045	819	70	6.5	6	13
FEB						
21...	1115	588	110	7.5	5	7.9
APR						
16...	1000	984	65	11.5	14	37
MAY						
28...	1030	627	71	19.0	39	66
JUL						
08...	1400	137	115	30.0	28	10
AUG						
26...	1200	109	140	28.0	26	7.7

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.--35 years, 7,966 ft³/s (225.6 m³/s), 21.21 in/yr (539 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, 21,200 ft³/s (600 m³/s) Mar. 26, elevation, 822.74 ft (250.771 m); minimum, 717 ft³/s (20.3 m³/s) Aug. 29; elevation, 814.99 ft (248.409 m); minimum daily, 1,730 ft³/s (49.0 m³/s) Sept. 28.

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	8470	13900	20000	5600	7130	10500	15300	9710	6200	10000	6850	6170
2	9940	14900	19800	8000	5080	12300	15100	8170	7960	12500	8430	7630
3	13800	15800	19700	8900	6240	12800	15000	2080	10200	11400	5690	7000
4	11700	15700	19600	8300	6720	9480	15000	6580	9720	10900	5250	7720
5	11600	15300	19400	8300	6780	10000	15100	6940	9950	10500	5940	6920
6	11900	15000	19300	8400	6300	7450	13600	6770	10300	9640	5000	5380
7	10600	15300	19200	7800	5200	2880	13600	6890	7680	9860	6350	3710
8	11600	15400	19000	7900	5570	5100	11400	4980	6600	12500	6650	5990
9	10600	15400	18800	8100	4030	3610	12000	6690	7640	14000	7210	7500
10	8420	15600	18700	6100	5720	3740	11700	6570	8040	12200	4380	7410
11	10000	16600	18600	10100	6480	1990	11700	5920	8290	13000	7180	6940
12	9860	17100	18400	9900	6370	2360	8080	7490	8240	12800	6280	7150
13	9810	16300	18400	12400	6200	5530	3640	7540	8520	9930	7520	6870
14	9880	16000	18500	9700	5560	4560	4880	8830	8450	11800	6540	5750
15	9850	16000	18200	11600	5060	6200	7340	9260	8670	12400	7770	8050
16	9830	16000	18000	15300	5640	4000	8260	9360	9640	13100	3990	6890
17	9340	15900	17800	13600	7980	3300	13300	6500	8910	13600	6130	5150
18	9780	15800	17600	15500	4520	5470	13800	3730	8780	14000	7620	7400
19	9760	15600	17400	12500	4940	5400	12800	4570	8890	12200	8140	6580
20	9290	15600	17200	10800	3550	4460	11800	6320	8920	10700	9010	5180
21	9690	15500	17000	11500	3900	16500	11700	7330	5800	8720	8870	5400
22	9810	15400	14200	12900	5300	6030	11500	5510	6910	9680	5590	6940
23	13300	15300	12500	11800	4290	5290	11800	6200	8900	8250	7340	7840
24	12700	15600	12100	16700	4360	11800	10500	5240	9520	6190	6690	6490
25	13200	16100	12500	17400	4550	12200	9600	5410	10100	7830	6170	4440
26	13100	17100	11600	16800	6770	17400	8370	7390	10800	4010	6930	5730
27	12900	15100	13000	12700	4360	19300	5880	7240	11000	2390	7390	3550
28	14400	13700	13600	14000	5210	18800	4080	7000	11200	5480	7170	1730
29	13900	16000	12800	10000	4360	18300	7510	6980	9320	6060	3970	3310
30	13700	17100	8700	10500	---	18700	7300	8130	9990	6290	6240	3670
31	14600	---	8500	9900	---	17600	---	7340	---	6470	6710	---
TOTAL	347330	470100	510100	343000	158170	283050	321640	208670	265140	308400	205000	180490
MEAN	11200	15670	16450	11060	5454	9131	10720	6731	8838	9948	6613	6016
MAX	14600	17100	20000	17400	7980	19300	15300	9710	11200	14000	9010	8050
MIN	8420	13700	8500	5600	3550	1990	3640	2080	5800	2390	3970	1730
(†)	-115800	-12600	-261900	+1700	+58500	+284700	+115800	+71100	-89100	-158900	-106700	-88800
MEAN‡	7469	15250	8006	11120	7471	18310	14580	9025	5868	4823	3171	3056
CFSM‡	1.46	2.99	1.57	2.18	1.46	3.59	2.86	1.77	1.15	.95	.62	.60
IN.‡	1.69	3.34	1.81	2.51	1.58	4.14	3.19	2.04	1.28	1.09	.72	.67

CAL YR 1979 TOTAL 4134280 MEAN 11330 MAX 30500 MIN 2120 MEAN‡ 11320 CFSM‡ 2.22 IN.‡ 30.14
WTR YR 1980 TOTAL 3601090 MEAN 9839 MAX 20000 MIN 1730 MEAN‡ 9014 CFSM‡ 1.77 IN.‡ 24.05

† Change in contents, in cfs-days, in Douglas Lake, furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in lakes or reservoirs listed above.

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.
WATER TEMPERATURE: June 1975 to current year.

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

REMARKS.--No conductance record for several periods during the year due to instrument malfunction. No temperature record for several periods during the year 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/cm June 25, 1978; minimum, 34 micromhos/cm 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, 240 micromhos/cm Dec. 5; minimum, 58 micromhos/cm Feb. 17.
WATER TEMPERATURE: Maximum, 29.5°C Sept. 6; minimum, 3.0°C Feb. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
10...	1415	9900	125	7.5	19.5	9.0	8.0	K36	K20	38	9	12
NOV												
28...	1210	16200	118	7.4	12.5	--	9.1	K51	K34	--	--	--
JAN												
29...	1030	9920	140	7.4	7.0	5.0	11.0	K120	K220	52	12	16
MAR												
04...	1130	2300	165	7.6	4.5	1.5	--	K4	K4	68	13	21
APR												
25...	1000	8390	125	7.8	13.0	3.0	11.8	K16	K4	49	12	15
MAY												
19...	1430	7260	140	7.6	17.0	3.5	9.6	K320	K52	57	8	17
JUN												
30...	1030	2620	135	7.4	18.0	2.0	9.5	K160	K70	45	12	14
AUG												
06...	1200	1260	148	7.8	26.5	1.9	7.0	K8	K17	49	7	15
SEP												
03...	1000	3400	215	7.0	26.0	2.0	7.5	68	K55	61	12	19

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
10...	2.0	8.0	35	.6	1.4	29	14	9.2	.1	7.2	82	74
NOV												
28...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
29...	3.0	7.4	28	.4	1.4	40	15	7.8	.1	8.6	77	85
MAR												
04...	3.7	11	26	.6	1.3	55	19	11	.1	8.5	--	112
APR												
25...	2.7	5.2	18	.3	1.4	37	9.9	5.9	.1	6.5	82	71
MAY												
19...	3.5	5.6	17	.3	1.1	49	9.6	5.6	.1	5.7	102	90
JUN												
30...	2.5	7.6	26	.5	1.3	33	12	7.7	.1	7.2	88	74
AUG												
06...	2.8	9.2	28	.6	1.5	42	12	9.7	.1	5.7	78	82
SEP												
03...	3.3	13	31	.7	1.8	49	17	16	.1	7.6	124	108

K--Results based on colony count outside acceptable range (non-ideal colony count).

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
10...	.11	2190	.61	.43	.120	.010	.12	.10	.040	.020	--
NOV											
28...	--	--	--	--	--	--	--	--	--	--	--
JAN											
29...	.10	2060	.47	.46	.140	.130	.20	.04	.060	.020	3.7
MAR											
04...	.10	466	.81	.81	.040	.020	.25	.29	.040	.020	--
APR											
25...	.11	1860	.56	.57	.020	.030	.21	.13	.040	.020	1.6
MAY											
19...	.14	2000	--	2.8	.020	.020	--	.41	.020	.010	2.1
JUN											
30...	.12	623	.40	.41	.010	.020	.16	.19	.010	.010	.3
AUG											
06...	.11	265	.24	.27	.010	.000	.11	.09	.020	.010	1.9
SEP											
03...	.17	1140	.16	.16	.130	.130	--	.24	.020	.010	2.7
08...	--	--	--	--	--	--	--	--	--	--	--

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
10...	1.8	.6	--	--	--	--	--	--	13	347	90
NOV											
28...	--	--	3100	--	--	--	--	--	11	481	67
JAN											
29...	--	--	--	--	--	--	--	--	19	509	98
MAR											
04...	8.3	.5	960	--	--	--	--	--	8	50	86
APR											
25...	--	--	--	--	--	--	--	--	13	294	62
MAY											
19...	--	--	490	79.2	34.1	37.9	48.0	3.33	22	431	62
JUN											
30...	--	--	440	--	--	--	--	--	7	50	79
AUG											
06...	--	--	930	--	--	--	--	--	3	10	61
SEP											
03...	8.6	.4	130	--	--	--	--	--	67	615	92
08...	--	--	260	--	--	--	--	--	--	--	--

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
10...	1	1	--	300	0	1	--	10	0
MAR									
04...	1	0	<50	40	--	9	20	10	0
MAY									
19...	--	--	--	--	--	--	--	--	--
JUN									
30...	--	--	--	--	--	--	--	--	--
SEP									
03...	1	1	200	0	0	0	30	10	0

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)
OCT									
10...	1	2	0	800	10	1	0	60	10
MAR									
04...	0	1	1	310	80	1	0	40	20
MAY									
19...	--	--	--	--	--	--	--	--	--
JUN									
30...	--	--	--	--	--	--	--	--	--
SEP									
03...	0	2	1	350	70	2	1	80	60

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
10...	<.5	<.5	0	0	0	0	20	20
MAR								
04...	.1	.1	2	0	0	0	30	40
MAY								
19...	--	--	--	--	0	--	--	--
JUN								
30...	--	--	--	--	0	--	--	--
SEP								
03...	.2	.2	6	3	0	0	20	10

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 28,79	MAR 4,80	MAY 19,80	JUN 30,80
TIME	1210	1130	1430	1030
TOTAL CELLS/ML	3100	960	490	440
DIVERSITY: DIVISION	0.0	1.0	0.3	1.4
.CLASS	0.0	1.0	0.3	1.4
..ORDER	0.3	1.8	0.8	1.8
...FAMILY	0.3	2.3	2.6	2.0
....GENUS	1.2	3.1	2.6	2.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	110	11	26	5	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	22	2	--	-	51	12
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	22	2	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	2300#	74	150#	16	--	-	--	-
....MELOSIRA	560#	18	220#	23	64	13	90#	21
....SKELETONEMA	97	3	--	-	--	-	--	-
....THALASSIOSIRA	--	-	110	12	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	11	1	--	-	--	-
....COCCONEIS	--	-	--	-	13	3	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	6	1	51	11	13	3
...DIATOMACEAE								
....DIATOMA	--	-	--	-	64	13	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	200#	21	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-
....SYNEDRA	120	4	6	1	13	3	26	6
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	11	1	26	5	--	-
...NAVICULACEAE								
....NAVICULA	24	1	17	2	210#	42	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	11	1	26	5	39	9
...SURIRELLACEAE								
....SURIRELLA	--	-	11	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	220#	50
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	39	4	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	17	2	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	AUG 6,80		SEP 3,80		SEP 8,80	
TIME	1200		1000		1400	
TOTAL CELLS/ML	930		130		310	
DIVERSITY: DIVISION	0.8		1.0		0.5	
.CLASS	0.8		1.0		0.5	
..ORDER	0.9		1.3		0.9	
...FAMILY	1.0		2.2		0.9	
....GENUS	1.0		2.4		0.9	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	--	-
....OOCYSTIS	51	6	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	26	3	39#	30	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	13	10	13	4
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	--	-	13	4
....MELOSIRA	--	-	--	-	--	-
....SKELETONEMA	--	-	--	-	--	-
....THALASSIOSIRA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	13	10	--	-
....COCCONEIS	39	4	26#	20	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	13	10	--	-
....SYNEDRA	13	1	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	--	-	26#	20	--	-
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	13	1	--	-	26	8
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	770#	83	--	-	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	--	-	260#	83
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	13	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	229	150	195	---	---	---
2	---	---	---	---	---	---	153	144	149	---	---	---
3	---	---	---	---	---	---	200	156	181	---	---	---
4	---	---	---	212	158	179	190	180	184	---	---	---
5	---	---	---	162	153	158	240	196	226	---	---	---
6	---	---	---	164	138	151	221	215	218	---	---	---
7	---	---	---	141	130	139	222	212	217	---	---	---
8	---	---	---	132	118	125	236	169	211	---	---	---
9	---	---	---	141	122	131	177	99	128	---	---	---
10	---	---	---	144	129	140	102	93	98	---	---	---
11	---	---	---	144	102	121	94	84	89	---	---	---
12	---	---	---	137	122	130	91	87	89	---	---	---
13	157	143	154	138	128	134	97	90	93	---	---	---
14	162	156	159	146	139	143	93	88	90	---	---	---
15	171	154	162	155	144	149	96	86	92	---	---	---
16	155	134	142	143	129	135	95	88	92	119	116	117
17	134	119	126	149	137	142	93	89	92	127	114	122
18	135	121	129	152	141	147	99	92	95	125	102	118
19	136	128	132	147	129	140	100	95	97	157	99	129
20	138	127	132	141	125	134	108	101	105	170	158	168
21	142	130	137	138	131	135	---	---	---	167	159	164
22	147	135	143	147	138	141	---	---	---	163	149	158
23	148	125	135	148	139	143	---	---	---	158	127	144
24	205	151	174	169	151	161	---	---	---	141	125	130
25	---	---	---	194	170	183	---	---	---	151	137	143
26	---	---	---	199	123	163	---	---	---	137	123	130
27	---	---	---	143	127	138	---	---	---	126	115	121
28	---	---	---	149	137	140	---	---	---	123	108	115
29	---	---	---	199	150	173	---	---	---	128	103	113
30	---	---	---	226	204	218	---	---	---	129	113	120
31	---	---	---	---	---	---	---	---	---	123	115	120
MONTH	---	---	---	226	102	148	---	---	---	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	120	103	112	---	---	---	191	184	188			
2	113	99	108	---	---	---	191	183	185			
3	114	92	106	---	---	---	186	180	183			
4	109	104	106	---	---	---	182	178	180			
5	106	102	103	169	160	168	189	179	185			
6	103	99	102	169	157	165	180	178	179			
7	103	83	99	175	155	164	180	178	178			
8	102	84	97	181	157	169	179	170	177			
9	105	88	95	186	164	176	179	176	178			
10	103	87	100	197	155	176	180	176	178			
11	106	83	101	195	173	188	179	176	177			
12	101	86	96	198	165	185	185	169	179			
13	98	82	93	208	187	196	186	172	178			
14	103	80	93	209	183	196	226	173	204			
15	105	84	95	203	181	194	206	180	194			
16	110	85	99	203	178	192	213	197	205			
17	99	58	83	196	177	186	---	---	---			
18	93	68	81	199	143	174	---	---	---			
19	94	66	83	175	142	160	---	---	---			
20	119	79	94	183	144	162	---	---	---			
21	160	95	120	166	135	147	---	---	---			
22	157	110	149	149	139	144	---	---	---			
23	165	152	159	156	143	150	---	---	---			
24	---	---	---	195	165	187	---	---	---			
25	---	---	---	195	186	191	---	---	---			
26	---	---	---	---	---	---	---	---	---			
27	---	---	---	196	192	194	---	---	---			
28	---	---	---	193	185	190	---	---	---			
29	---	---	---	184	178	181	---	---	---			
30	---	---	---	184	181	183	---	---	---			
31	---	---	---	188	182	185	---	---	---			
MONTH	165	58	103	209	135	177	---	---	---			

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

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	---	---	---	139	131	135	154	149	151	188	181	184
2	---	---	---	137	131	133	156	147	152	189	183	186
3	---	---	---	141	130	135	157	148	151	194	184	188
4	---	---	---	141	133	136	156	149	151	194	186	190
5	---	---	---	139	132	136	153	149	151	200	188	192
6	---	---	---	140	132	136	158	149	152	202	194	197
7	---	---	---	139	133	135	158	149	153	202	196	199
8	---	---	---	138	133	135	159	149	153	209	199	202
9	---	---	---	139	132	135	159	149	153	211	198	205
10	---	---	---	140	134	137	159	150	154	210	201	205
11	---	---	---	141	134	137	158	152	155	---	---	---
12	---	---	---	143	133	138	160	154	156	---	---	---
13	---	---	---	143	135	139	161	153	157	---	---	---
14	---	---	---	141	137	139	163	154	158	---	---	---
15	---	---	---	142	137	140	161	154	158	---	---	---
16	---	---	---	144	139	141	160	131	152	---	---	---
17	---	---	---	144	140	142	164	149	156	---	---	---
18	---	---	---	145	141	143	166	159	161	---	---	---
19	132	124	128	148	141	145	166	159	163	---	---	---
20	134	124	129	147	143	145	167	159	163	---	---	---
21	138	125	131	149	144	146	168	163	165	---	---	---
22	135	127	131	149	144	147	171	163	166	---	---	---
23	136	128	131	151	145	148	175	165	169	---	---	---
24	137	128	131	153	147	150	175	168	172	---	---	---
25	139	128	133	153	146	148	176	168	171	---	---	---
26	139	129	133	152	145	148	178	169	174	---	---	---
27	140	129	133	156	147	151	180	173	176	---	---	---
28	138	130	133	157	149	154	182	173	176	---	---	---
29	139	130	134	158	147	152	180	173	177	---	---	---
30	139	131	135	157	146	150	184	176	179	---	---	---
31	---	---	---	156	148	151	186	180	183	---	---	---
MONTH	---	---	---	158	130	142	186	131	162	---	---	---

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

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

03470500 FRENCH BROAD RIVER NEAR KNOXVILLE, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	5.0	6.0									
2	7.0	5.0	6.0									
3	7.0	5.0	6.5									
4	7.0	5.5	6.5									
5	7.0	5.5	6.0									
6	7.0	5.5	6.5									
7	7.5	5.5	5.5									
8	7.5	6.0	7.0									
9	8.0	7.0	7.5									
10	7.5	6.5	7.5									
11	8.0	6.5	7.0									
12	8.0	7.0	7.5									
13	8.0	7.0	7.5									
14	9.5	7.0	8.0									
15	9.5	7.0	8.5									
16	8.5	8.0	8.5									
17	8.0	7.0	8.0									
18	8.5	6.0	7.5									
19	8.5	6.5	8.0									
20	9.0	3.0	6.0									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									
MONTH	---	---	---									
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	21.5	17.5	19.0	25.0	23.5	24.0	28.5	26.0	27.0
2	---	---	---	21.0	18.0	19.0	27.0	23.5	24.5	28.5	26.0	27.0
3	---	---	---	20.5	18.5	19.5	27.0	24.0	25.0	29.0	26.0	27.0
4	---	---	---	21.5	18.5	19.5	27.0	24.5	25.5	28.5	26.0	27.0
5	---	---	---	23.0	19.0	20.0	27.5	24.0	25.0	28.0	26.5	27.0
6	---	---	---	23.5	19.0	20.5	28.5	24.5	26.0	29.5	26.5	27.5
7	---	---	---	23.5	19.0	20.5	28.0	24.0	25.5	29.0	26.5	27.5
8	---	---	---	21.5	19.0	20.5	28.0	24.5	25.5	28.0	26.5	27.0
9	---	---	---	21.5	19.5	20.5	28.5	24.5	25.5	28.5	26.0	27.0
10	---	---	---	22.5	20.0	21.0	28.5	25.0	26.5	27.5	26.0	27.0
11	---	---	---	22.5	20.0	21.0	27.0	25.0	25.5	---	---	---
12	---	---	---	23.0	20.5	21.5	27.0	24.5	25.5	---	---	---
13	---	---	---	24.5	20.5	22.0	28.0	24.5	26.0	---	---	---
14	---	---	---	24.0	21.0	22.0	28.5	25.0	26.0	---	---	---
15	---	---	---	23.5	21.0	22.0	27.5	25.0	26.0	---	---	---
16	---	---	---	23.5	21.5	22.5	26.5	25.0	25.5	---	---	---
17	---	---	---	24.0	21.5	22.5	28.0	24.5	26.0	---	---	---
18	---	---	---	23.5	21.5	22.5	27.0	25.0	26.0	---	---	---
19	19.5	16.5	17.5	25.0	22.0	23.0	27.0	25.5	26.0	---	---	---
20	20.0	16.5	17.5	25.0	22.5	23.5	28.5	25.5	26.0	---	---	---
21	21.0	16.5	18.0	25.0	22.0	23.5	28.5	25.5	26.5	---	---	---
22	20.5	16.5	18.5	23.5	22.5	23.0	28.5	26.0	27.0	---	---	---
23	19.0	17.5	18.0	24.0	22.5	23.0	28.0	25.5	26.5	---	---	---
24	18.5	17.0	17.5	26.0	22.5	24.0	28.5	25.5	26.5	---	---	---
25	18.5	17.0	17.5	26.5	23.0	24.0	29.0	25.5	26.5	---	---	---
26	20.0	17.0	18.0	25.0	23.0	24.0	28.5	25.5	26.5	---	---	---
27	20.5	17.5	18.5	25.5	23.0	24.0	28.5	25.5	26.5	---	---	---
28	20.5	17.5	18.5	26.0	23.5	24.5	28.5	26.0	26.5	---	---	---
29	20.0	18.0	18.5	27.5	23.0	24.5	27.0	26.0	26.5	---	---	---
30	21.5	18.0	19.0	27.0	23.0	24.5	27.5	25.5	26.5	---	---	---
31	---	---	---	27.0	23.5	25.0	28.0	26.0	26.5	---	---	---
MONTH	---	---	---	27.5	17.5	22.0	29.0	23.5	26.0	---	---	---

03476010 SOUTH FORK HOLSTON RIVER AT SOUTH HOLSTON DAM (TAILWATER), TN

LOCATION.--Lat 36°31'26", long 82°05'26", Sullivan County, Hydrologic Unit 06010102, at downstream side of dam, 1.4 mi (2.2 km) southeast of Emmett, 3.0 mi (4.8 km) southwest of Holston Valley, and at mile 49.8 (80.1 km).

DRAINAGE AREA.--703 mi^2 (1,821 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
06...	1240	2540	160	7.4	15.0	4	<1	4.3	<1.0	--	80
JAN											
29...	1310	2490	200	7.9	7.2	3		10.5	1.4	<10	100
FEB											
12...	1320	2490	--	7.8	6.1	4	<1	10.5	2.6	<10	81
APR											
08...	1300	2100	200	7.3	6.7	3	2	11.1	<1.0	<10	82

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
06...	75	8.0	4.0	110	.15	754	<1	.44	.020	.06
JAN										
29...	80	7.0	4.0	110	.15	740	<1	--	.020	.12
FEB										
12...	78	8.0	4.0	120	.16	807	<1	.48	.020	.05
APR										
08...	76	6.0	4.0	--	--	--	<1	.53	<.010	.06

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
06...	.010	--	1	10	<50	29	20	<.2	60	2.7
JAN										
29...	.010	<.010	<1	<10	<50	<10	20	<.2	<10	3.2
FEB										
12...	<.010	<.010	<1	20	<50	<10	80	--	20	1.7
APR										
08...	<.010	<.010	<1	<10	<50	<10	20	<.2	140	1.2

03483950 WATAUGA RIVER BELOW WATAUGA DAM, TN

LOCATION.--Lat 36°19'48", long 82°07'34", Carter County, Hydrologic Unit 06010103, at Watauga Dam powerhouse, 3.5 mi (5.6 km) northeast of Braemar, 4.0 mi (6.4 km) northeast of Valley Forge, 4.2 mi (6.8 km) southeast of Elizabethton, and at mile 35.8 (57.6 km).

DRAINAGE AREA.--468 mi^2 (1,212 km^2).

PERIOD OF RECORD.--Water years 1973, 1976 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
06...	1205	2430	65	7.1	14.4	5	2	4.2	<1.0	--	27
JAN											
29...	1020	2530	82	7.0	7.2	4	3	10.9	2.3	40	38
FEB											
12...	1040	1300	81	8.0	6.1	5	1	11.9	2.4	<10	26
APR											
08...	1015	1300	84	7.0	6.7	4	3	12.9	<1.0	<10	32

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
06...	24	6.0	2.0	60	.08	394	2	.49	.010	.04
JAN										
29...	27	4.0	2.0	50	.07	342	<1	.54	.020	.04
FEB										
12...	23	6.0	3.0	60	.08	211	1	.48	.040	.02
APR										
08...	23	6.0	3.0	50	.07	175	1	.42	<.010	.06

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
06...	.010	.010	1	<10	<50	17	20	<.2	40	3.0
JAN										
29...	.010	.010	<1	<10	<50	<10	<10	<.2	40	3.0
FEB										
12...	<.010	<.010	<1	<10	<50	<10	20	<.2	20	1.9
APR										
08...	<.010	<.010	<1	<10	<50	<10	<10	<.2	80	1.1

03484000 WATAUGA RIVER BELOW WILBUR DAM, TN

LOCATION.--Lat 36°20'39", long 82°07'46", Carter County, Hydrologic Unit 06010103, 1,800 ft (500 m) downstream from Wilbur Dam, 0.7 mi (1.1 km) downstream from Big Laurel Branch, 2.7 mi (4.3 km) downstream from Watauga Dam, 5 mi (8 km) east of Elizabethton, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--471 mi^2 (1,220 km^2).

PERIOD OF RECORD.--October 1902 to December 1908 (published as "near Elizabethton"), January 1948 to 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.--38 years, 754 ft^3/s (21.35 m^3/s), 21.74 in/yr (552 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft^3/s (609 m^3/s) Jan. 22, 1906, gage height, 13.6 ft (4.15 m), site and datum then in use, from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); minimum, 2.3 ft^3/s (0.065 m^3/s) July 11, 1953; minimum daily, 2.4 ft^3/s (0.068 m^3/s) Aug. 14, 1949; minimum gage height, at present site, 30.73 ft (9.367 m) July 11, 1953. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 6,750 ft^3/s (191 m^3/s) Jan. 19, 1960, gage height, 38.10 ft (11.613 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Aug. 14, 1940, and May 21, 1901, reached stages of about 61 ft (18.6 m) and 58 ft (17.7 m), respectively, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,390 ft^3/s (124 m^3/s) Feb. 1, gage height, 36.53 ft (11.134 m); minimum, 34 ft^3/s (0.96 m^3/s), Aug. 2, gage height, 31.40 ft (9.571 m); minimum daily, 38 ft^3/s (1.08 m^3/s) Nov. 18.

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	1910	801	1140	357	1410	1490	1320	1020	813	1630	1520	718
2	1780	885	990	1210	1150	2170	1440	959	1350	2740	754	647
3	2130	729	1500	1420	56	2140	1480	604	1330	1960	133	1320
4	1920	574	1410	1430	500	1020	1630	277	1370	88	844	680
5	2050	802	1540	1670	660	724	1600	959	1360	1150	807	674
6	1700	1050	1490	1230	1050	710	1480	989	1540	378	1330	801
7	741	1810	1340	1250	750	292	1150	852	1580	1510	1540	632
8	1900	2210	960	977	950	55	927	963	163	2640	1600	1260
9	1960	897	510	982	500	245	1100	1020	1120	2850	1470	1130
10	1720	457	1410	1090	550	177	1130	816	1070	2860	1370	557
11	2100	337	1580	963	1150	834	1170	836	1070	2000	1720	492
12	1950	988	1560	1030	1050	1600	770	983	1240	1880	1480	587
13	855	848	1450	43	1750	1440	785	947	1130	1420	598	1190
14	409	780	1640	863	450	746	691	996	58	1750	671	814
15	1800	832	1230	623	300	167	1200	993	55	2150	606	873
16	2010	874	529	944	1150	48	1200	979	1100	2040	184	638
17	1800	99	879	752	1400	47	1340	890	1100	2040	144	50
18	752	38	1260	884	800	295	1350	583	1180	2270	385	242
19	585	1260	1190	812	850	206	920	1000	1150	1600	824	973
20	232	1440	1130	44	56	341	918	972	983	1060	1290	224
21	101	1220	1220	1390	56	1150	1300	908	57	1390	638	217
22	635	674	699	1250	56	1060	1370	754	53	1220	676	1060
23	478	551	49	1420	56	75	1340	930	1480	1280	89	598
24	710	1050	484	1350	56	125	1380	839	1540	1450	143	55
25	738	599	254	1430	650	159	1240	216	1810	1450	765	47
26	642	1190	956	1030	1550	169	1010	274	1970	1040	561	46
27	416	1200	1350	247	272	499	566	892	2740	705	743	46
28	44	1240	1210	1550	52	541	838	1010	2000	1300	580	46
29	799	2110	55	1590	366	321	859	814	992	1370	243	46
30	985	2190	51	1550	---	47	993	961	1590	1690	55	309
31	867	---	448	1270	---	1450	---	774	---	1360	275	---
TOTAL	36719	29735	31514	32651	19646	20343	34497	26010	34994	50271	24038	16972
MEAN	1184	991	1017	1053	677	656	1150	839	1166	1622	775	566
MAX	2130	2210	1640	1670	1750	2170	1630	1020	2740	2860	1720	1320
MIN	44	38	49	43	52	47	566	216	53	88	55	46
(†)	-17700	+13100	-12100	-700	+3400	+39200	+9900	-3800	-23000	-34200	-16000	-10400
MEAN‡	614	1428	626	1031	795	1921	1480	716	400	518	259	219
CFSM‡	1.30	3.03	1.33	2.19	1.69	4.08	3.14	1.52	.85	1.10	.55	.46
IN‡	1.50	3.38	1.53	2.52	1.82	4.70	3.51	1.75	.95	1.27	.63	.52

CAL YR 1979 TOTAL 385892 MEAN 1057 MAX 2850 MIN 26 MEAN‡ 1152 CFSM‡ 2.45 IN‡ 33.21
WTR YR 1980 TOTAL 357390 MEAN 976 MAX 2860 MIN 38 MEAN‡ 834 CFSM‡ 1.77 IN‡ 24.09

† 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.

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.--65 years (water years 1912-16, 1921-80), 225 ft³/s (6.372 m³/s), 22.30 in/yr (566 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 (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Nov. 26	0715	*2490	70.5	4.17	1.271	Mar. 21	0830	2220	62.8	3.92	1.195

Minimum discharge, 45 ft³/s (1.27 m³/s) Sept. 20, gage height, 0.39 ft (0.119 m).

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	187	110	293	218	189	208	422	333	146	86	64	60
2	173	575	260	204	253	192	368	298	136	82	77	54
3	154	490	218	191	171	179	334	270	130	180	65	58
4	140	327	214	187	180	195	381	247	125	354	78	89
5	177	254	207	188	160	275	322	229	118	168	96	62
6	142	214	203	170	188	301	289	215	114	134	70	57
7	137	190	197	181	174	270	276	205	112	113	62	62
8	123	173	176	235	160	543	295	195	108	99	58	55
9	116	164	163	233	166	763	602	184	101	101	56	52
10	227	683	158	245	180	536	443	175	99	168	53	156
11	192	765	155	265	146	415	375	168	97	217	53	96
12	167	728	153	509	155	338	430	162	96	128	57	68
13	167	496	172	402	139	331	477	165	96	120	53	59
14	151	378	201	494	149	340	828	161	94	120	51	55
15	140	308	165	474	168	275	698	148	90	99	49	52
16	133	267	158	411	521	261	550	140	109	91	58	48
17	126	234	153	358	512	416	448	139	169	85	92	46
18	122	212	137	498	335	699	397	213	112	79	60	48
19	116	193	146	583	286	607	357	170	105	77	58	48
20	112	182	143	470	269	649	328	330	92	74	64	46
21	110	171	137	374	332	1710	303	313	85	74	65	48
22	107	164	136	387	500	1050	279	220	83	78	142	63
23	162	158	137	564	455	688	259	207	81	87	82	63
24	147	315	164	447	372	960	245	306	87	82	64	66
25	125	371	420	392	316	919	234	312	348	71	74	125
26	118	1570	313	335	280	678	247	299	243	71	59	196
27	112	819	271	299	249	538	339	228	140	71	55	102
28	110	527	254	268	241	660	289	209	112	103	51	75
29	112	415	237	244	236	750	322	191	101	93	50	118
30	122	339	232	228	---	600	388	161	93	72	51	98
31	114	---	224	236	---	502	---	166	---	66	62	---
TOTAL	4341	11792	6197	10290	7482	16848	11525	6759	3622	3443	2029	2225
MEAN	140	393	200	332	258	543	384	218	121	111	65.5	74.2
MAX	227	1570	420	583	521	1710	828	333	348	354	142	196
MIN	107	110	136	170	139	179	234	139	81	66	49	46
CFSM	1.02	2.87	1.46	2.42	1.88	3.96	2.80	1.59	.88	.81	.48	.54
IN.	1.18	3.20	1.68	2.79	2.03	4.57	3.13	1.84	.98	.93	.55	.60

CAL YR 1979 TOTAL 111320 MEAN 305 MAX 1990 MIN 85 CFSM 2.23 IN 30.23
WTR YR 1980 TOTAL 86553 MEAN 236 MAX 1710 MIN 46 CFSM 1.72 IN 23.50

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
09...	1530	107	75	14.0	3	.87
NOV						
27...	1025	826	46	9.5	27	60
JAN						
15...	1110	466	48	7.0	7	8.8
FEB						
26...	0950	268	56	.5	5	3.6
APR						
22...	1000	280	75	12.0	24	18
JUN						
05...	1130	121	92	18.5	22	7.2
JUL						
29...	1415	92	100	22.0	8	2.0
SEP						
11...	1105	96	100	17.0	32	8.3

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 except those for periods of no gage-height record, Feb. 1-8, June 14 to July 30 and Aug. 22 to Sept. 11, which are fair. 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.--50 years (WY 1926-48, 1954-80), 1,100 ft³/s (31.15 m³/s), 21.59 in/yr (548 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, 5,910 ft³/s (167 m³/s) Mar. 21, gage height, 7.67 ft (2.238 m); minimum, 112 ft³/s (3.17 m³/s) Sept. 18, gage height, 1.96 ft (0.597 m) but may have been less during periods of missing gage height record; minimum daily, 135 ft³/s (3.82 m³/s) Sept. 28.

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	2150	811	1510	660	1900	1630	1920	1590	1190	1750	1740	820
2	1960	1690	1420	1330	1500	2530	2000	1420	1470	2850	931	730
3	2310	1250	1730	1860	900	2870	2030	1070	1570	2250	308	1400
4	2070	1160	1560	1730	1200	1540	2150	696	1640	660	918	820
5	2240	1050	1840	1880	1400	938	2080	1290	1490	1400	924	770
6	1870	1210	1720	1490	1600	1340	1890	1300	1730	600	1300	890
7	1040	1910	1630	1610	1300	703	1720	1150	1750	1700	1540	730
8	1910	2510	1220	1240	1400	978	1310	1330	543	2800	1660	1350
9	2080	1300	708	1280	812	1710	1800	1330	1110	3000	1520	1210
10	2040	1300	1380	1480	656	1160	1700	1130	1210	3100	1420	810
11	2290	1350	1920	1350	1460	1350	1650	1110	1230	2350	1790	716
12	2160	1960	1600	2050	1100	2150	1320	1200	1380	2090	1590	638
13	1260	1520	1690	717	2220	2030	1490	1260	1390	1600	782	1210
14	753	1330	1910	1420	751	1640	1650	1280	210	1950	652	727
15	1840	1410	1480	1670	624	721	1900	1240	200	2300	709	1110
16	2200	1140	881	1550	1670	540	2040	1240	1300	2200	375	689
17	2070	616	1280	1300	2640	761	1840	1090	1350	2200	266	137
18	1020	337	1640	1530	1330	1550	1910	883	1350	2400	448	255
19	735	1280	1180	1890	1300	1390	1420	1210	1300	1700	882	953
20	429	1730	1330	838	563	1380	1380	1390	1150	1200	1230	294
21	273	1390	1380	1800	772	4240	1630	1350	200	1500	815	265
22	748	938	1010	1900	1050	2900	1670	1040	190	1350	900	1110
23	559	770	328	2400	891	1270	1710	1280	1600	1400	220	703
24	964	1290	705	2160	694	1550	1750	1280	1700	1600	250	179
25	934	1230	861	2090	887	1530	1600	740	2350	1550	880	195
26	834	2760	1630	1580	2050	1210	1380	730	2350	1150	660	244
27	640	2180	1780	925	899	1330	1070	1150	2950	820	830	158
28	214	1810	1660	1780	447	1650	1280	1330	2200	1450	660	135
29	792	2680	587	1950	617	1790	1390	1120	1150	1500	320	174
30	1250	2610	414	1920	---	1120	1610	1220	1750	1800	140	230
31	969	---	774	1650	---	2140	---	1360	---	1360	380	---
TOTAL	42604	44522	40758	49030	34633	49641	50290	36809	41003	55580	27040	19652
MEAN	1374	1484	1315	1582	1194	1601	1676	1187	1367	1793	872	655
MAX	2310	2760	1920	2400	2640	4240	2150	1590	2950	3100	1790	1400
MIN	214	337	328	660	447	540	1070	696	190	600	140	135
(†)	-17700	+13100	-12100	-700	+3400	+39200	+9900	-3800	-23000	-34200	-16000	-10400
MEAN‡	803	1921	924	1559	1311	2866	2006	1065	600	690	356	308
CFSM‡	1.16	2.78	1.34	2.25	1.89	4.14	2.90	1.54	0.87	1.00	.51	.45
IN.‡	1.34	3.10	1.54	2.60	2.04	4.77	3.23	1.77	0.97	1.15	.59	.50

CAL YR 1979 TOTAL 535661 MEAN 1468 MAX 3940 MIN 194 MEAN‡ 1563 CFSM‡ 2.26 IN.‡ 30.65
WTR YR 1980 TOTAL 491562 MEAN 1343 MAX 4240 MIN 135 MEAN‡ 1200 CFSM‡ 1.73 IN.‡ 23.61

† 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.

03487010 SOUTH FORK HOLSTON RIVER AT FORT PATRICK HENRY DAM (TAILWATER), TN

LOCATION.--Lat 36°29'53", long 82°30'33", Sullivan County, Hydrologic Unit 06010102, on downstream side of Ft. Patrick Henry Dam, 3.1 mi (5.0 km) northeast of Vernon Heights, 3.1 mi (5.0 km) northwest of Fordtown, 4.9 mi (7.9 km) northeast of Sullivan Gardens, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--1,903 mi^2 (4,929 km^2), at Fort Patrick Henry Dam.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Flow regulated by four reservoirs above site (see p. 305).

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
09...	1435	6500	150	7.6	16.7	6	5	6.5	1.8	--	77
DEC											
11...	1330	3400	170	8.1	8.9	6	3	10.2	1.2	--	82
JAN											
22...	1243	3450	240	8.0	5.8	3	2	11.5	<1.0	<10	83
MAR											
11...	1400	3280	230	7.9	7.2	8	11	11.8	2.1	220	92

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
09...	65	10	4.0	90	.12	1580	5	.85	.100	.16
DEC										
11...	78	8.0	4.0	110	.15	1010	4	.80	.070	.14
JAN										
22...	74	14	4.0	120	.16	1120	3	.80	.070	.11
MAR										
11...	84	12	5.0	130	.18	1150	11	.73	.060	.11

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
09...	.040	.010	1	<10	<50	<10	20	<.2	30	2.7
DEC										
11...	.040	.030	<1	<10	<50	<10	<10	<.2	80	2.7
JAN										
22...	.040	.020	<1	<10	<50	<10	<10	<.2	20	2.2
MAR										
11...	.030	.020	<1	10	<50	<10	<10	<.2	120	3.1

03487550 REEDY CREEK AT OREBANK, TN

LOCATION.--Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, on left bank, 50 ft (15 m) upstream from Anderson Bridge, 0.1 mi (0.2 km) south of U. S. Highway 11W, 0.3 mi (0.5 km) north of Orebank, 1.0 mi (1.6 km) upstream from Gaines Branch, and at mile 9.8 (15.8 km).

DRAINAGE AREA.--36.3 mi^2 (94.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD TN 1973: 1971(P), 1972(M), 1979(M).

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 1,232.61 ft (375.700 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 4, 1975, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records good. The Bloomingdale Utility District diverts an average of about 0.6 ft^3/s (0.017 m^3/s) for water supply, 0.8 mi (1.3 km) upstream from the gage.

AVERAGE DISCHARGE.--17 years, 46.8 ft^3/s (1.325 m^3/s), 17.51 in/yr (445 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,940 ft^3/s (140 m^3/s) Oct. 2, 1977, gage height, 11.61 ft (3.539 m) from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.9 ft^3/s (0.082 m^3/s) Sept. 14, 1978, gage height, 1.00 ft (0.305 m), result of upstream 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 ft^3/s (312 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 26	Unknown	805	22.8	6.97	2.124	Mar. 21	Unknown	*1010	28.6	7.59	2.313

Minimum daily, 6.1 ft^3/s (0.173 m^3/s) Sept. 20; minimum, 5.5 ft^3/s (0.156 m^3/s) Aug. 29, 31, Sept. 20; gage height, 1.14 ft (0.347 m).

REVISIONS.--The maximum discharge for the water year 1979 has been revised to 857 ft^3/s (24.3 m^3/s) Jan. 21, 1979 (gage height, 7.14 ft (2.176 m), superseding figure published in WRD TN-79-1.

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	14	12	38	39	45	38	79	62	20	11	132	7.8
2	15	107	34	35	43	37	70	53	19	11	70	7.4
3	15	61	30	32	41	35	65	47	18	25	29	7.1
4	13	36	28	34	39	35	104	43	18	100	24	7.8
5	16	28	27	33	37	64	79	39	17	29	22	15
6	13	24	27	30	38	73	69	36	16	20	18	9.4
7	13	22	26	37	37	60	63	36	16	16	16	10
8	12	20	24	55	35	72	64	32	16	14	14	9.0
9	11	19	22	62	35	75	73	32	15	20	13	7.8
10	24	117	21	59	36	65	62	30	14	60	12	12
11	18	85	21	55	35	57	56	25	15	58	12	8.2
12	16	74	21	80	36	50	58	26	14	30	13	7.4
13	58	56	36	66	36	53	61	23	14	23	12	7.1
14	43	44	40	80	40	57	81	23	13	20	10	7.1
15	30	37	32	75	49	50	68	21	13	17	10	6.7
16	23	33	29	65	124	47	62	22	14	15	10	6.4
17	20	29	26	62	95	114	55	26	14	14	11	6.7
18	17	27	23	134	68	165	51	65	13	13	10	7.4
19	16	25	22	136	59	113	48	32	12	12	10	6.4
20	16	23	21	95	64	191	45	42	12	12	9.8	6.1
21	16	22	21	76	82	547	43	47	11	15	9.8	7.1
22	15	21	20	115	73	191	41	35	11	24	22	6.7
23	18	21	21	162	64	129	38	32	11	32	11	6.4
24	15	35	39	120	61	156	34	34	12	18	9.8	6.4
25	15	40	107	95	58	140	35	32	22	14	9.4	13
26	13	252	101	78	51	112	51	29	18	13	8.6	18
27	13	92	72	68	47	95	98	24	14	13	8.6	9.8
28	13	320	56	61	45	132	77	23	12	13	7.4	8.2
29	14	51	48	56	41	133	82	22	12	12	7.8	9.8
30	13	43	45	52	---	108	80	21	12	11	8.2	9.0
31	13	---	43	52	---	92	---	20	---	10	7.8	---
TOTAL	561	1776	1121	2199	1514	3286	1892	1034	438	695	568.2	257.2
MEAN	18.1	59.2	36.2	70.9	52.2	106	63.1	33.4	14.6	22.4	18.3	8.57
MAX	58	320	107	162	124	547	104	65	22	100	132	18
MIN	11	12	20	30	35	35	34	20	11	10	7.4	6.1
CFSM	.50	1.63	1.00	1.95	1.44	2.92	1.74	.92	.40	.62	.50	.24
IN.	.57	1.82	1.15	2.25	1.55	3.37	1.94	1.06	.45	.71	.58	.26

CAL YR 1979 TOTAL 18833.0 MEAN 51.6 MAX 580 MIN 11 CFSM 1.42 IN 19.30
WTR YR 1980 TOTAL 15341.4 MEAN 41.9 MAX 547 MIN 6.1 CFSM 1.15 IN 15.72

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
09...	1245	10	410	13.5	10	.27
NOV						
28...	1150	66	380	10.5	37	6.6
JAN						
16...	0910	66	350	8.0	19	3.4
FEB						
26...	1530	48	350	5.5	7	.91
APR						
23...	0925	38	380	14.0	30	3.1
JUN						
06...	0845	16	370	19.5	82	3.5
JUL						
30...	1055	11	375	21.5	43	1.3
SEP						
12...	0915	7.5	400	18.5	34	.69

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN

LOCATION.--Lat 36°28'19", long 82°50'50", Hawkins County, Hydrologic Unit 06010104, on right bank 1,500 ft (500 m) upstream from Surgoinsville Creek and county bridge at Surgoinsville, 9.8 mi (15.8 km) upstream from Big Creek, and at mile 118.7 (191.0 km). Records include flow of Surgoinsville Creek.

DRAINAGE AREA.--2,874 mi^2 (7,444 km^2), includes that of Surgoinsville Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to April 1941 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,088.46 ft (331.763 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for growing season, which are fair. Flow partly regulated by four reservoirs (see p. 305).

AVERAGE DISCHARGE.--40 years, 3,820 ft^3/s (108.2 m^3/s), 18.05 in/yr (458 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,600 ft^3/s (1,690 m^3/s) Feb. 18, 1944, gage height, 17.48 ft (5.328 m); minimum, 470 ft^3/s (13.3 m^3/s), Oct. 21, 1941; minimum daily, 528 ft^3/s (15.0 m^3/s) Oct. 21, 1941. Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 59,300 ft^3/s (1,680 m^3/s) Mar. 13, 1963, gage height, 17.13 ft (5.221 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,800 ft^3/s (674 m^3/s) Mar. 21, gage height, 9.27 ft (2.825 m); minimum daily, 531 ft^3/s (15.0 m^3/s) Aug. 30; minimum, 491 ft^3/s (13.9 m^3/s) Aug. 31.

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	6730	2940	7130	2700	6290	2350	7070	7670	1740	4480	4010	2200
2	7470	4040	4440	3140	4020	3080	6700	8180	2810	4630	2050	2270
3	7890	5690	3860	4590	2300	3530	6640	5950	3940	4870	1420	3870
4	6930	5140	3710	5190	2500	6180	6510	4210	5040	3020	4290	3280
5	6670	3570	4530	4270	4130	2050	6310	3130	4660	2360	3240	3310
6	6340	5180	3940	2960	3610	6080	5300	3730	5080	1020	3500	2780
7	6020	3780	4740	3120	3880	4010	5460	3640	3860	2970	3270	4080
8	4950	6550	3710	6050	2920	5640	4140	3650	3010	6890	4140	3660
9	5510	3400	3060	5750	2140	4590	4590	3460	2700	6240	2540	3390
10	7570	4220	2860	4720	2800	4640	4540	2850	3200	4680	2730	2800
11	6040	6130	4180	3510	4690	5070	3400	3130	3680	8660	3240	1280
12	7830	5760	4160	6200	4680	5190	3020	2910	4130	8300	3990	2470
13	6130	7600	5050	6790	7260	6670	2810	4280	3250	6410	3990	1790
14	5820	6920	4630	6070	3370	5340	4140	4080	2530	5090	3110	2630
15	5360	6320	4980	5470	1980	3870	6910	3650	975	7200	1790	5520
16	6140	3740	3290	5650	2710	2560	6890	3810	986	6590	1320	2320
17	4360	3020	3590	5300	5860	3710	6280	3770	2150	7390	1960	2120
18	3750	2080	4340	6420	7880	10300	4840	3460	3610	5890	3910	1220
19	2940	2400	3900	9750	5420	11000	4190	3060	4220	4130	3750	1750
20	2620	2770	3980	8080	4070	6900	3700	3920	3610	3290	2980	3180
21	3100	3140	3990	6650	4700	17000	3520	4170	3240	2590	1440	2510
22	1750	3060	2760	5740	3690	21400	4240	4940	957	3340	796	1280
23	2550	1670	2510	11200	4250	13600	3940	5300	1570	3490	758	4120
24	3850	2140	1640	12200	4030	9490	5150	3780	3480	4170	1410	2780
25	2850	2400	3440	8930	3620	8610	4510	3130	4130	4940	3220	748
26	3130	8430	7400	7520	4270	7590	2610	3500	5220	4200	3280	1070
27	3100	9120	6980	6340	3690	6540	2910	2960	5370	2140	2660	723
28	1470	6090	7430	6560	2820	7500	5180	4310	6430	3720	1190	913
29	1770	8440	7620	5850	2810	7790	6050	4380	5420	2450	689	1360
30	2510	8250	4130	7070	---	9150	6950	4070	1530	2240	531	2110
31	3120	---	2630	4400	---	6760	---	3190	---	3890	1100	---
TOTAL	146270	143990	134610	188190	116390	218190	148500	126270	102528	141280	78304	73534
MEAN	4718	4800	4342	6071	4013	7038	4950	4073	3418	4557	2526	2451
MAX	7890	9120	7620	12200	7880	21400	7070	8180	6430	8660	4290	5520
MIN	1470	1670	1640	2700	1980	2050	2610	2850	957	1020	531	723

CAL YR 1979 TOTAL 1958020 MEAN 5364 MAX 24500 MIN 1400 MEAN‡ 5546 CFSM‡ 1.93 IN‡ 26.20
WTR YR 1980 TOTAL 1618056 MEAN 4421 MAX 21400 MIN 531 MEAN‡ 4155 CFSM‡ 1.45 IN‡ 19.68

‡ Adjusted change in contents in South Holston, Watauga, Boone and Fort Patrick Henry Lakes.

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1974 to current year.

INSTRUMENTATION.--Temperature recorder since November 1974.

REMARKS.--Flow partly regulated by four reservoirs (see p. 305).

COOPERATION.--Samples collected and analyzed by Tennessee Valley Authority. Temperature records also 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, 29.5°C Aug. 25, 26 and Sep.1; minimum, .5°C Mar. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
09...	1240	3440	220	7.7	16.7	6	2	8.3	1.5	--	81
DEC											
11...	1120	2310	250	8.3	8.3	12	3	9.9	1.3	--	110
JAN											
22...	1015	3520	--	8.1	5.3	3	4	12.0	1.0	80	100
MAR											
11...	1145	2970	330	8.2	10.0	8	5	13.5	2.3	10	110

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
09...	68	24	9.0	120	.16	1120	2	1.0	.060	.16
DEC										
11...	88	24	18	160	.22	998	5	.73	.050	.19
JAN										
22...	85	18	11	150	.20	1430	5	.91	.050	.13
MAR										
11...	94	21	20	180	.24	1440	5	.68	.060	.20

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
09...	.050	.020	<1	<10	<50	<10	<10	<.2	<10	3.2
DEC										
11...	.100	.040	<1	<10	<50	<10	<10	<.2	<10	3.5
JAN										
22...	.050	.030	<1	<10	<50	<10	<10	<.2	20	3.7
MAR										
11...	.060	.020	<1	30	<50	<10	20	<.2	230	4.1

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

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

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

03490500 HOLSTON RIVER AT SURGOINSVILLE, TN--Continued

TEMPERATURE, WATER (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	26.5	21.0	24.0	23.5	18.5	20.5	24.5	19.0	21.0	29.5	24.5	26.5
2	25.0	23.5	24.5	22.0	18.0	20.0	22.0	17.0	19.5	29.0	26.0	28.0
3	24.0	20.0	21.5	23.0	18.0	19.0	24.0	21.0	23.0	26.0	23.5	24.5
4	23.5	18.0	20.0	21.0	18.5	20.0	26.0	21.0	24.5	24.5	19.0	21.0
5	23.0	18.5	20.5	26.5	20.0	23.5	25.5	21.0	23.5	23.5	19.5	21.5
6	22.0	16.5	19.5	26.5	22.0	24.5	24.5	20.5	22.0	24.0	20.5	22.0
7	22.0	18.0	20.0	26.0	21.5	24.5	24.5	20.0	22.0	24.0	21.0	23.0
8	24.0	21.0	23.0	24.0	19.5	21.0	24.5	20.5	22.0	24.0	19.0	20.5
9	23.5	20.5	21.5	23.0	18.0	20.5	24.5	20.5	22.0	23.0	20.0	21.5
10	21.5	19.5	20.5	23.5	19.0	21.0	24.0	18.5	20.5	23.0	20.0	21.0
11	21.5	18.5	20.0	24.0	17.0	20.0	26.5	21.0	24.0	23.5	20.5	21.5
12	21.5	17.0	19.5	24.5	18.5	20.5	26.5	20.0	21.5	24.0	20.5	22.0
13	22.0	20.0	21.0	24.0	18.0	20.5	24.0	20.5	22.0	26.0	20.0	23.5
14	24.5	19.5	22.0	25.5	20.0	22.0	25.0	19.0	21.5	25.5	21.5	23.5
15	25.0	20.0	22.0	25.5	19.0	21.5	25.0	20.0	21.5	23.5	19.0	20.5
16	25.0	23.5	24.5	25.5	18.5	21.0	24.0	21.0	22.0	23.5	20.0	22.0
17	25.5	23.0	24.0	24.0	18.5	20.5	25.5	21.5	24.0	23.5	21.0	22.0
18	23.5	21.0	22.0	24.0	18.0	20.5	25.0	23.0	23.5	24.0	20.0	22.0
19	22.0	18.0	20.0	23.5	19.0	21.0	25.5	19.0	20.5	25.5	22.0	24.0
20	22.0	19.0	20.5	25.0	22.0	23.5	24.5	19.5	22.0	24.0	20.5	22.0
21	21.5	20.0	21.0	26.0	22.0	25.0	23.0	19.5	21.0	24.0	20.5	23.0
22	24.5	19.0	21.5	25.5	21.0	23.0	26.0	21.5	24.0	25.5	21.5	23.5
23	26.5	23.5	25.0	23.5	21.0	22.0	26.5	22.0	24.5	24.5	19.5	21.0
24	24.5	18.5	20.5	24.0	20.5	22.0	28.5	24.5	26.0	23.0	20.5	21.5
25	20.5	18.0	19.5	24.5	19.0	21.0	29.5	25.5	27.0	21.5	21.0	21.5
26	21.5	16.5	19.5	24.5	19.0	21.0	29.5	20.5	27.0	24.0	21.5	23.0
27	23.0	17.0	20.0	24.0	19.5	21.0	24.5	21.5	23.0	22.0	20.0	20.5
28	23.5	16.5	19.5	27.0	21.0	24.5	24.5	21.0	23.0	20.0	18.5	19.0
29	22.0	18.0	19.0	23.5	19.5	21.0	24.5	22.0	23.5	19.5	18.5	19.0
30	24.0	19.0	22.0	24.5	22.0	24.0	26.0	21.5	24.0	20.5	19.0	19.5
31	---	---	---	25.5	22.0	24.5	27.0	24.5	25.5	---	---	---
MONTH	26.5	16.5	21.5	27.0	17.0	22.0	29.5	17.0	23.0	29.5	18.5	22.0

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 mi^2 (122.5 km^2).

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

REVISED RECORDS.--WSP 1436: 1945.

GAGE.--Water-stage recorder. Datum of gage is 1,128.9 ft (344.09 m) National Geodetic Vertical Datum of 1929 (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

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

AVERAGE DISCHARGE.--30 years (water years 1942-48, 1958-80), 60.9 ft^3/s (1.725 m^3/s), 17.48 in/yr (444 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,760 ft^3/s (163 m^3/s) Mar. 12, 1963, gage height, 9.40 ft (2.865 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of contracted-opening measurement of peak flow; maximum gage height, 10.68 ft (3.255 m) Dec. 30, 1969, backwater from log jam; minimum discharge observed, 1.3 ft^3/s (0.037 m^3/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 12, Oct. 2, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,030 ft^3/s (85.8 m^3/s) at 0730 hours, Mar. 21, gage height, 6.67 ft (2.033 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum, 4.3 ft^3/s (0.12 m^3/s) several days in September, gage height, 1.42 ft (0.433 m).

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	12	11	35	37	47	51	114	53	16	6.7	7.0	5.9
2	12	135	31	33	41	49	98	47	15	6.4	8.0	5.4
3	13	88	26	29	41	45	87	42	14	40	6.9	4.9
4	12	41	25	31	38	45	151	38	13	43	6.3	4.7
5	11	29	25	37	35	135	120	34	12	25	127	4.9
6	11	24	24	32	37	184	95	33	12	17	30	5.0
7	10	21	24	69	34	116	82	31	11	12	18	4.7
8	9.6	19	22	131	31	306	74	30	11	10	12	4.6
9	9.5	20	20	127	32	337	69	27	9.9	9.9	9.7	4.3
10	21	655	19	94	33	167	59	25	9.3	98	8.4	14
11	28	184	18	106	30	121	53	24	9.1	83	7.7	15
12	18	104	17	111	32	94	54	23	9.2	28	7.9	7.4
13	28	77	22	106	31	84	69	22	8.7	18	8.4	5.7
14	50	59	38	155	35	78	208	22	8.4	14	6.9	5.1
15	27	49	28	122	50	64	117	21	8.1	12	6.2	4.7
16	21	42	25	104	332	58	93	19	8.7	11	6.0	4.4
17	18	37	23	87	186	369	74	21	11	9.6	8.4	6.9
18	16	33	21	421	111	377	67	46	10	9.0	6.6	16
19	14	30	19	275	87	198	60	27	8.6	8.3	7.8	8.7
20	13	27	19	156	105	408	54	37	8.1	7.7	9.4	6.8
21	12	25	18	116	258	1600	50	50	7.3	7.1	23	8.0
22	12	24	17	230	161	318	46	32	6.8	7.0	18	6.2
23	13	23	18	491	119	207	42	27	6.7	7.2	18	5.6
24	14	30	37	192	96	247	40	26	7.8	7.3	9.9	5.4
25	14	37	194	140	84	238	39	27	13	6.8	7.7	9.1
26	12	174	165	106	74	177	46	23	13	5.4	6.8	20
27	12	94	101	89	65	142	103	19	10	5.7	6.1	12
28	11	62	70	74	61	229	110	17	8.4	9.3	5.6	8.3
29	12	48	54	63	56	224	78	17	7.5	10	5.5	9.0
30	12	40	48	57	---	167	63	19	7.1	7.3	6.0	9.7
31	12	---	42	56	---	143	---	18	---	6.2	6.7	---
TOTAL	490.1	2242	1245	3877	2342	6978	2415	897	300.7	547.9	421.9	232.4
MEAN	15.8	74.7	40.2	125	80.8	225	80.5	28.9	10.0	17.7	13.6	7.75
MAX	50	655	194	491	332	1600	208	53	16	98	127	20
MIN	9.5	11	17	29	30	45	39	17	6.7	5.4	5.5	4.3
CFSM	.33	1.58	.85	2.64	1.71	4.76	1.70	.61	.21	.37	.29	.16
IN.	.39	1.76	.98	3.05	1.84	5.49	1.90	.71	.24	.43	.33	.18

CAL YR 1979 TOTAL 31658.5 MEAN 86.7 MAX 2480 MIN 7.9 CFSM 1.83 IN 24.90
WTR YR 1980 TOTAL 21989.0 MEAN 60.1 MAX 1600 MIN 4.3 CFSM 1.27 IN 17.29

03491300 BEECH CREEK AT KEPLER, TN

LOCATION.--Lat 36°24'06", long 82°53'09", Hawkins County, Hydrologic Unit 06010104, on upstream right wingwall of county road bridge, at Kepler, 5.9 mi (9.5 km) east of intersection of U. S. Highway 11W and Burem Road, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--47.0 mi^2 (121.7 km^2).

PERIOD OF RECORD.--October 1965 to current year. Occasional low-flow measurements, water years 1961-62, 1964-65.

GAGE.--Water-stage recorder. Datum of gage is 1,107.83 ft (337.667 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--15 years, 52.9 ft^3/s (1.498 m^3/s), 15.28 in/yr (388 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,480 ft^3/s (98.6 m^3/s); Mar. 30, 1975, gage height, 13.38 ft (4.078 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s); minimum observed, 0.97 ft^3/s (0.027 m^3/s) Sept. 17, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 12, 1963, reached a stage of 14.6 ft (4.45 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,970 ft^3/s (55.8 m^3/s) at 1215 hours, Mar. 26, gage height, 10.50 ft (3.200 m), no other peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum discharge, 2.3 ft^3/s (0.065 m^3/s) Sept. 5.

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	9.8	15	25	30	33	36	101	65	12	5.2	15	3.2
2	19	109	22	27	32	36	257	54	11	5.2	15	2.8
3	18	44	20	25	30	37	292	47	10	132	6.8	2.6
4	12	25	20	37	28	37	146	41	9.7	65	5.3	2.5
5	12	21	19	39	27	33	109	36	8.6	33	5.0	4.1
6	10	19	19	30	29	8.2	84	34	8.2	19	4.5	4.3
7	12	18	19	206	23	32	70	31	8.1	11	4.1	3.4
8	11	17	17	199	21	35	61	28	7.7	8.5	3.8	2.8
9	10	18	16	88	22	36	74	25	6.9	11	3.6	2.6
10	47	300	15	63	23	101	61	23	6.7	73	3.2	3.4
11	26	110	15	64	20	106	53	22	6.6	63	3.2	9.0
12	17	70	15	83	21	65	50	20	6.2	18	3.8	4.5
13	80	52	35	61	21	126	47	19	6.1	11	3.6	3.5
14	47	45	46	127	26	386	117	18	6.0	9.1	3.4	3.2
15	25	42	27	99	48	126	71	17	5.8	7.7	3.0	3.0
16	19	37	23	74	254	87	58	16	8.6	7.1	3.0	2.8
17	16	31	21	68	183	66	55	17	9.9	6.5	3.2	3.3
18	14	28	19	297	84	61	58	52	7.1	5.9	3.4	5.5
19	14	25	19	183	65	59	54	22	6.1	5.3	4.5	3.9
20	14	23	18	103	57	47	50	41	5.6	5.1	6.4	3.4
21	14	22	17	79	123	43	46	41	5.0	4.8	10	3.9
22	15	21	17	299	89	141	42	23	4.8	4.8	12	3.8
23	21	20	18	454	69	323	39	21	4.6	6.5	5.0	3.4
24	21	24	69	143	59	149	36	20	6.8	6.5	3.8	3.2
25	17	30	219	98	51	160	36	20	15	5.3	3.4	26
26	15	70	118	70	45	1380	44	17	11	4.8	3.0	49
27	15	120	70	52	38	326	109	14	7.2	4.9	2.8	10
28	14	45	51	42	37	154	87	13	6.1	15	2.6	6.1
29	15	33	42	42	36	317	80	13	5.7	7.7	2.6	8.6
30	16	28	38	37	---	260	93	12	5.7	5.3	4.8	8.7
31	15	---	34	35	---	136	---	12	---	4.6	4.3	---
TOTAL	610.8	1462	1123	3254	1594	4909.2	2480	834	228.8	571.8	158.1	196.5
MEAN	19.7	48.7	36.2	105	55.0	158	82.7	26.9	7.63	18.4	5.10	6.55
MAX	80	300	219	454	254	1380	292	65	15	132	15	49
MIN	9.8	15	15	25	20	8.2	36	12	4.6	4.6	2.6	2.5
CFSM	.42	1.04	.77	2.23	1.17	3.36	1.76	.57	.16	.39	.11	.14
IN.	.48	1.16	.89	2.58	1.26	3.89	1.96	.66	.18	.45	.13	.16

CAL YR 1979 TOTAL 22436.6 MEAN 61.5 MAX 1480 MIN 3.8 CFSM 1.31 IN 17.76
WTR YR 1980 TOTAL 17422.2 MEAN 47.6 MAX 1380 MIN 2.5 CFSM 1.01 IN 13.79

03493510 HOLSTON RIVER AT CHEROKEE DAM (TAILWATER), TN

LOCATION.--Lat 36°09'58", long 83°29'58", Jefferson County, Hydrologic Unit 06010104, on downstream, left bank side of Cherokee Dam, 2.4 mi (3.9 km) north of the city limit of Jefferson City, 4.8 (7.7 km) northwest of Talbott, and at mile 52.3 (84.2 km).

DRAINAGE AREA.--3,428 mi^2 (8,878 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Flow regulated by five reservoirs above site (see p. 305).

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
07...	0935	16000	180	7.4	17.0	10	4	7.5	1.6	--	93
JAN											
21...	0920	12300	300	6.9	8.0	2	2	9.5	2.1	<10	100
FEB											
13...	0910	17300	260	6.1	5.0	7	3	11.0	3.1	<10	120
APR											
09...	0840	15400	310	7.1	10.0	12	5	10.9	1.2	<10	110

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
07...	81	20	13	140	.19	6050	3	.46	.060	.14
JAN										
21...	80	22	12	150	.20	4980	2	.75	.040	.16
FEB										
13...	61	21	12	170	.23	7940	4	.82	.080	.11
APR										
09...	76	19	13	190	.26	7900	6	.71	.070	.13

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
07...	.020	.030	1	20	<50	35	10	<.2	50	5.2
JAN										
21...	.050	.020	<1	<10	<50	<10	80	1.0	20	2.9
FEB										
13...	.050	.040	<1	<10	<50	<10	30	.4	20	3.3
APR										
09...	.030	.010	<1	<10	<50	<10	20	.4	30	2.7

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 poor. Flow regulated by five reservoirs (see p. 305).

AVERAGE DISCHARGE.--47 years (water years 1931-75, 1979-80), 4,766 ft³/s (135.0 m³/s), 17.27 in/yr (439 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, 18,400 ft³/s (521 m³/s) Aug. 21, gage height, 8.22 ft (2.505 m); minimum, recorded, 348 ft³/s (9.86 m³/s) Oct. 1, minimum daily, 650 ft³/s (18.4 m³/s) June 15.

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	1600	5700	8610	5700	11900	6600	16000	7930	2200	6000	8410	5390
2	4780	6200	8790	6450	11100	8500	12400	8320	3600	4100	8110	6140
3	6270	6000	11200	6020	7930	7690	10800	13800	5000	5400	7840	5790
4	5390	6100	9540	6670	5500	5810	8720	6800	3400	5500	7520	7600
5	7140	6300	11200	7580	7490	6080	6300	4780	4400	5200	7580	5890
6	7490	8100	11300	6360	7140	5680	7750	4180	6100	4300	4060	5570
7	9120	11100	11300	6540	5950	2400	7340	4930	5400	2100	3940	5210
8	10800	11000	11400	7270	5790	2970	6330	4390	1500	5600	4930	2500
9	7460	9700	11600	4030	4710	2480	5970	4150	2100	6500	6000	7900
10	7630	8200	11600	3740	5890	2070	5710	4220	4400	4000	4630	7720
11	7420	10100	10700	4100	6110	1520	5760	3900	4700	4700	4630	6690
12	7630	10200	10800	4700	4680	1000	5680	4540	4700	6500	6630	7170
13	8900	7200	9560	3470	6770	3710	5010	3540	4100	7300	7000	6800
14	10500	6600	9070	7830	5370	2440	5160	4880	2300	6700	5600	6240
15	8780	5600	9670	6790	3220	2460	6830	5030	650	6000	6580	4660
16	8140	6900	8550	7080	2790	1020	10100	3390	2000	9400	6720	5630
17	10000	6600	8190	6830	3130	1360	9250	4460	3900	5100	4680	6000
18	11700	7100	7740	7810	3010	1550	8110	2180	4100	6400	5390	4130
19	11600	10400	7980	8620	2930	1250	6970	2610	4200	7700	8290	4200
20	11300	9150	7790	7340	1870	1960	5190	5650	4100	7700	8900	5870
21	10900	12200	7680	7050	1770	5920	4930	6940	3800	9700	8900	3450
22	12000	15100	4690	7810	892	3010	6220	6110	1800	10200	7170	3320
23	7960	8690	4980	8960	920	1930	4830	6350	1700	6700	7050	7140
24	8440	12100	6070	9000	1060	2010	5290	6410	3300	4400	6970	6460
25	8050	11900	6860	10400	786	1840	5210	4680	3800	3200	5290	5870
26	8350	12500	6640	12200	2480	4200	4810	961	4700	3200	6140	2460
27	7400	9240	6520	14500	3280	7720	5840	4700	5000	2200	5950	4180
28	7100	6800	6560	14200	2610	9880	2340	6900	4100	4800	6110	1080
29	7500	13100	5130	12300	2500	13000	3830	7500	2800	8600	5390	1650
30	5500	13100	5240	14100	---	12800	2870	7500	4900	8500	4440	3430
31	5800	---	4930	11700	---	14500	---	4900	---	8900	5390	---
TOTAL	252650	272980	261890	247150	129578	145360	201550	166631	108750	186600	196240	156140
MEAN	8150	9099	8448	7973	4468	4689	6718	5375	3625	6019	6330	5205
MAX	12000	15100	11600	14500	11900	14500	16000	13800	6100	10200	8900	7900
MIN	1600	5600	4690	3470	786	1000	2340	961	650	2100	3940	1080

CAL YR 1979 TOTAL 2510479 MEAN 6878 MAX 17000 MIN 485 MEAN‡ 7060 CFSM‡ 1.88 IN‡ 25.58
WTR YR 1980 TOTAL 2325519 MEAN 6354 MAX 16000 MIN 650 MEAN‡ 5379 CFSM‡ 1.44 IN‡ 19.54

‡ Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

NOTE.--No gage-height or faulty record Oct. 27 to Nov. 19, Nov. 23 to Jan. 14, May 27 to July 31.

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 to September, 1980.
WATER TEMPERATURE: February to September, 1980.

INSTRUMENTATION.--Water quality monitor since Feb. 23, 1980.

REMARKS.--Flow regulated by five reservoirs (see p. 305). Interruptions in the record on many days due to malfunction of the instruments.

EXTREMES FOR DAILY RECORD FEBRUARY TO SEPTEMBER, 1980.--
SPECIFIC CONDUCTANCE: Maximum, 336 micromhos/cm May 27; minimum, 192 micromhos/cm Mar. 14.
WATER TEMPERATURE: Maximum, 26.5°C many days in August and September; minimum, 4.5°C Mar. 12, 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
09...	1415	4200	235	7.7	21.0	4.0	7.8	K110	50	98	20	28
NOV												
28...	0920	3110	250	7.6	14.5	4.0	9.0	E38	K12	98	11	28
DEC												
20...	1300	6650	255	7.7	9.0	3.0	11.0	--	--	100	21	30
FEB												
25...	1100	464	275	8.7	11.0	.50	12.7	51	K14	140	15	40
APR												
24...	1000	7000	244	8.4	14.0	6.0	12.2	K38	K21	120	19	34
MAY												
21...	1245	5870	259	7.1	13.5	2.4	6.9	K130	K160	110	17	33
JUL												
01...	1000	8820	275	7.7	17.0	2.8	9.2	K95	K110	120	19	34
AUG												
08...	1000	8380	265	7.1	24.5	2.5	4.5	K140	K130	110	21	32
SEP												
02...	1230	8230	260	7.4	26.0	1.4	7.1	K80	--	100	21	29

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
09...	6.8	9.1	17	.4	1.7	78	20	11	.1	3.0	145	130
NOV												
28...	6.9	9.8	23	.4	1.8	87	19	12	.1	3.1	154	136
DEC												
20...	7.1	10	22	.4	1.8	83	20	12	.1	2.9	148	137
FEB												
25...	8.6	4.9	7	.2	1.3	120	17	7.5	.1	.7	158	154
APR												
24...	8.1	8.4	13	.3	1.6	99	16	11	.1	2.0	161	143
MAY												
21...	7.8	9.1	15	.4	1.3	98	17	11	.1	3.9	146	149
JUL												
01...	7.6	9.2	14	.4	1.7	97	19	11	.1	4.2	184	148
AUG												
08...	8.2	11	17	.5	1.8	93	19	14	.1	3.0	150	146
SEP												
02...	7.5	10	17	.4	1.9	82	20	12	.1	4.4	135	136

K--Results based on colony count outside acceptable range (non-ideal colony count).

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 09...	.20	1640	.63	.65	--	.040	.38	.21	.030	.020	--
NOV 28...	.21	1290	.59	.59	.010	.000	--	.40	.030	.020	--
DEC 20...	.20	2660	.61	.62	.450	.090	--	.28	.030	.010	2.2
FEB 25...	.21	198	.31	.31	.010	.020	.26	.24	.030	.010	2.0
APR 24...	.22	3040	.61	.58	.120	.000	--	.32	.020	.020	1.8
MAY 21...	.20	2310	--	1.5	--	.070	.32	.14	--	.010	5.5
JUL 01...	.25	4380	.70	.71	.010	.010	.34	.23	.030	.010	2.9
AUG 08...	.20	3390	.34	.33	.040	.050	.06	.02	.050	.040	4.7
SEP 02...	.18	3000	.32	.33	.080	.070	.09	.07	.050	.020	2.3
08...	--	--	--	--	--	--	--	--	--	--	--

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 09...	4.0	.4	--	--	--	--	--	--	10	113	88
NOV 28...	4.2	--	2700	--	--	--	--	--	10	84	62
DEC 20...	--	--	--	--	--	--	--	--	5	90	88
FEB 25...	--	--	--	--	--	--	--	--	6	7.5	62
APR 24...	--	--	--	--	--	--	--	--	12	227	70
MAY 21...	--	--	440	--	--	--	--	--	18	285	84
JUL 01...	--	--	260	184	15.0	18.8	20.7	3.43	9	214	68
AUG 08...	--	--	480	--	--	--	--	--	41	928	53
SEP 02...	4.1	.4	11000	--	--	--	--	--	26	578	26
08...	--	--	310	--	--	--	--	--	--	--	--

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
09...	2	1	100	30	0	3	--	10	0
NOV									
28...	4	4	100	40	--	5	10	<10	--
DEC									
20...	--	--	--	--	--	--	--	--	--
MAY									
21...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
SEP									
02...	1	1	100	0	1	0	10	10	0

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)
OCT									
09...	0	2	2	260	0	3	1	70	4
NOV									
28...	3	3	1	240	10	0	0	30	10
DEC									
20...	--	--	--	--	--	--	--	--	--
MAY									
21...	--	--	--	--	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
SEP									
02...	0	3	0	160	30	2	0	50	10

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
09...	<.5	<.5	1	3	0	0	--	5
NOV								
28...	<.1	<.1	4	0	0	0	10	0
DEC								
20...	--	--	--	--	0	--	--	--
MAY								
21...	--	--	--	--	0	--	--	--
JUL								
01...	--	--	--	--	0	--	--	--
SEP								
02...	.1	<.1	2	0	0	0	20	0

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 28,79	MAY 21,80	JUL 1,80	AUG 8,80	SEP 2,80	SEP 8,80
TIME	0920	1245	1000	1000	1230	1300
TOTAL CELLS/ML	2700	440	260	480	11000	260
DIVERSITY: DIVISION	1.5	1.4	0.8	1.3	0.2	1.3
.CLASS	1.5	1.4	0.8	1.3	0.2	1.3
..ORDER	1.5	2.1	1.7	1.3	0.3	1.3
...FAMILY	1.8	3.0	2.9	1.6	0.3	1.4
....GENUS	2.1	3.0	3.3	1.6	1.2	1.4

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	86	3	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	43	2	--	-	--	-	--	-	*	0	--	-
....CHLORELLA	410	15	--	-	--	-	--	-	--	-	--	-
....CHODATELLA	54	2	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	210	2	13	5
....KIRCHNERIELLA	43	2	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	13	5	13	3	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	97	4	130#	29	26	10	77#	16	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	26	6	26	10	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	460#	17	--	-	39	15	--	-	*	0	--	-
....MELOSIRA	--	-	51	12	26	10	--	-	--	-	--	-
....SKELETONEMA	65	2	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	26	10	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	13	3	*	0	39	15
....RHOICOSPHENIA	--	-	13	3	13	5	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	26	6	13	5	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	13	3	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	--	-	--	-	--	-	13	3	*	0	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	26	6	13	5	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	64	15	52#	20	--	-	*	0	13	5
...NITZSCHIACEAE												
....NITZSCHIA	*	0	26	6	13	5	51	11	*	0	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	13	5
...CRYPTOMONADACEAE												
....CRYPTOMONAS	*	0	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	64	15	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	3900#	35	--	-
....OSCILLATORIA	--	-	--	-	--	-	310#	65	6800#	61	180#	70
....SCHIZOTHRIX	1500#	53	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

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
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	254	233	243	235	225	230	261	248	250
2	---	---	---	236	232	234	242	226	233	250	250	250
3	---	---	---	237	229	233	246	227	234	253	250	251
4	---	---	---	243	232	236	246	231	237	282	251	254
5	---	---	---	243	236	239	243	229	236	255	251	252
6	---	---	---	249	236	241	238	227	231	285	250	255
7	---	---	---	241	237	239	235	229	231	279	253	255
8	---	---	---	261	242	251	239	226	231	285	253	256
9	---	---	---	266	261	263	244	226	234	273	254	258
10	---	---	---	267	261	264	249	229	237	261	254	255
11	---	---	---	268	261	265	248	227	236	282	255	257
12	---	---	---	260	251	257	241	214	234	257	256	256
13	---	---	---	250	240	245	237	226	230	259	256	257
14	---	---	---	242	192	236	238	234	236	266	257	258
15	---	---	---	246	239	243	233	220	226	259	258	259
16	---	---	---	249	244	246	234	218	225	259	258	258
17	---	---	---	254	245	249	240	225	231	259	258	258
18	---	---	---	258	250	254	246	228	234	260	256	259
19	---	---	---	259	253	255	247	231	237	257	257	257
20	---	---	---	256	250	253	253	234	242	258	258	258
21	---	---	---	250	247	249	256	237	245	265	234	249
22	---	---	---	252	242	247	251	231	241	257	231	243
23	289	210	275	255	249	252	258	236	245	254	219	240
24	297	281	289	259	252	255	264	241	257	267	221	248
25	289	279	283	260	239	256	265	246	248	264	213	244
26	274	259	264	262	254	257	247	245	246	287	229	265
27	257	242	247	246	230	236	248	246	246	336	207	291
28	257	247	251	234	229	232	248	245	247	285	236	266
29	259	252	256	237	231	234	246	241	241	313	253	278
30	---	---	---	235	231	233	257	240	245	321	246	280
31	---	---	---	233	228	231	---	---	---	307	240	263
MONTH	---	---	---	268	192	246	265	214	238	336	207	257
		JUNE			JULY			AUGUST			SEPTEMBER	
1	282	244	255	283	279	281	283	277	281	261	257	259
2	282	249	263	283	278	281	283	278	280	261	256	258
3	279	269	275	290	275	281	283	272	280	260	254	258
4	282	270	276	282	275	279	282	277	280	263	255	259
5	281	269	276	286	277	282	280	272	277	261	254	258
6	282	269	276	285	280	282	283	277	280	261	254	259
7	282	271	277	287	283	285	282	278	281	261	257	259
8	282	273	276	289	279	285	282	276	278	263	254	260
9	285	272	276	283	275	280	279	272	276	262	254	258
10	284	269	277	294	279	283	278	272	275	261	255	257
11	281	272	277	287	279	284	278	272	275	261	255	258
12	281	268	276	285	279	283	274	267	271	260	254	257
13	279	269	275	284	279	282	275	271	273	260	254	257
14	280	269	276	283	272	280	274	269	272	259	254	257
15	280	272	278	285	278	282	273	269	272	261	256	259
16	285	277	281	287	281	284	274	269	271	261	255	259
17	285	269	280	287	278	285	274	270	272	263	257	259
18	283	272	279	284	280	282	273	268	271	258	253	256
19	282	272	278	284	277	281	271	266	268	262	256	259
20	282	272	279	283	277	281	270	261	266	261	257	259
21	283	272	279	282	276	280	268	264	266	264	257	260
22	282	274	279	284	278	280	267	263	265	270	262	266
23	289	281	283	284	279	281	265	261	263	270	265	268
24	287	274	282	284	279	282	264	260	262	271	266	268
25	287	282	284	286	279	283	264	259	262	271	266	269
26	287	279	282	287	282	285	265	258	261	270	266	268
27	285	278	282	288	282	285	262	258	259	274	269	271
28	285	279	283	286	272	280	260	256	259	274	271	273
29	288	280	284	284	275	281	262	255	259	274	270	272
30	289	284	287	283	278	280	262	257	260	268	260	263
31	---	---	---	283	276	280	261	256	259	---	---	---
MONTH	289	244	278	294	272	282	283	255	270	274	253	261

03495500 HOLSTON RIVER NEAR KNOXVILLE, TN--Continued

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

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

03497000 TENNESSEE RIVER AT KNOXVILLE, TN

LOCATION.--Lat 35°57'17", long 83°51'42", Knox County, Hydrologic Unit 06010201, on left bank 0.7 mi (1.1 km) downstream from confluence of French Broad and Holston Rivers, 3.5 mi (5.6 km) upstream from First Creek, 3.6 mi (5.8 km) upstream from Gay Street Bridge at Knoxville, and at mile 651.4 (1,048.1 km). Records include flow of First Creek.

DRAINAGE AREA.--8,934 mi^2 (23,139 km^2), includes that of First Creek.

PERIOD OF RECORD.--October 1899 to 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 ft^3/s (141.6 m^3/s), which are fair. Flow regulated by six reservoirs (see p. 305).

AVERAGE DISCHARGE.--81 years, 13,150 ft^3/s (372.4 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 195,000 ft^3/s (5,520 m^3/s) Mar. 1, 1902, gage height, 36.4 ft (11.09 m) site and datum then in use, from rating curve extended above 130,000 ft^3/s (3,680 m^3/s); minimum daily, 1,010 ft^3/s (28.6 m^3/s) Mar. 28, 1954; minimum gage height, -1.7 ft (-0.52 m) Sept. 11, 1925, site and datum then in use. Maximum discharge since completion of several upstream dams in Dec. 1941, 89,200 ft^3/s (2,530 m^3/s) Mar. 12, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 45.0 ft (13.72 m) Mar. 8, 1967, site and datum of gage at old city pumping plant, 3.2 mi (5.1 km) downstream from base gage, discharge, 290,000 ft^3/s (8,210 m^3/s), from rating curve extended above 130,000 ft^3/s (3,680 m^3/s), from high-water profile by Corps of Engineers and Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,500 ft^3/s (1,060 m^3/s) Dec. 1; maximum gage height, 17.70 ft (5.395 m) July 9; minimum daily discharge, 1,670 ft^3/s (47.3 m^3/s) Sept. 28; minimum gage height, 9.88 ft (3.011 m) Feb. 27.

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	9570	20400	32100	13500	20800	15900	31900	19200	8270	16600	15000	11100
2	15100	22000	29200	14600	19800	21400	28200	16900	10100	17300	16500	14000
3	19700	23500	29800	14700	15100	20300	26600	16900	15900	14800	13400	12100
4	18100	21700	30100	14000	13100	15100	25100	12400	15000	17000	12500	14700
5	19400	22700	29600	17500	14900	16700	22000	11400	14700	14600	13500	12500
6	20400	22200	30600	16200	13900	13800	21800	10700	14900	15700	8390	10300
7	20500	24100	31000	13600	11900	4890	21600	11800	12200	11200	10100	7920
8	22900	26800	30300	16000	11400	8570	18700	6050	9270	15000	10700	7360
9	19300	26800	30400	13700	9440	5560	18800	9640	8240	22700	13000	14500
10	17000	27600	30700	10600	12400	5310	18500	9710	12000	16600	8250	15400
11	18200	23900	30800	12300	12500	2760	18200	9490	13100	17300	12000	13100
12	18200	27000	28100	15500	11600	2160	14300	11900	12200	18000	13000	13900
13	19400	25800	28000	15500	13500	8870	9660	10300	12800	16800	14400	13100
14	20600	23700	26900	14300	12000	6790	11900	13700	11600	19500	11600	11400
15	19000	23400	27200	20400	8210	8270	14600	14900	9560	19200	14700	12600
16	18300	22000	27200	22000	9110	3860	19200	12800	10000	22500	10400	12300
17	19300	23500	26800	20400	12300	4270	23800	9500	12200	18500	10800	10500
18	21300	21600	26900	24100	7650	6740	23200	3940	12000	20500	12500	11000
19	21300	25400	25000	22100	8290	6140	20700	5860	12400	20000	16200	10200
20	20500	24400	24400	17900	5940	6120	17400	10200	12400	18500	17400	10200
21	20300	27500	24800	18400	4960	23400	17600	12500	9120	18500	17600	8240
22	21300	30000	20200	21000	6810	7520	19200	9910	10100	20400	13200	9330
23	21700	23400	17800	21900	5170	4820	18300	12700	8510	14900	14000	14500
24	21100	27400	17500	26400	5050	14200	16200	11200	11800	10800	13400	12800
25	21300	27800	19600	28300	5490	14200	14800	9430	12800	10500	10900	9530
26	21500	29300	18400	28500	9280	20600	12700	8030	14700	6380	12700	6840
27	21400	25100	19700	27600	8460	27100	11300	7250	15500	4620	13200	6880
28	21500	19200	20600	29400	8250	29900	6210	13100	16200	6400	13400	1670
29	21600	24600	18800	22700	6770	32000	11200	14200	12700	13400	8830	3890
30	21700	27900	12100	24800	---	32400	8170	15300	11800	14200	10100	5770
31	21500	---	12300	21700	---	32900	---	14000	---	14300	11900	---
TOTAL	612970	740700	776900	599600	304080	422550	541840	354910	362070	486700	393570	317630
MEAN	19770	24690	25060	19340	10490	13630	18060	11450	12070	15700	12700	10590
MAX	22900	30000	32100	29400	20800	32900	31900	19200	16200	22700	17600	15400
MIN	9570	19200	12100	10600	4960	2160	6210	3940	8240	4620	8250	1670

CAL YR 1979 TOTAL 6548470 MEAN 17940 MAX 46100 MIN 3780
WTR YR 1980 TOTAL 5913520 MEAN 16160 MAX 32900 MIN 1670

03497100 TENNESSEE RIVER BELOW KNOXVILLE, TENN

LOCATION.--Lat 35°56'46", long 83°56'48", Knox County, Hydrologic Unit 06010201, on left bank under bridge on State Highway 73, 7.0 mi (11.3 km) downstream from confluence of French Broad and Holston Rivers, near auxiliary gage for station 03497000, and at mile 645.1 (1,038.0 km).

DRAINAGE AREA.--8,963 mi² (23, 214 km²).

PERIOD OF RECORD.--Water years 1967, 1968, 1970 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1969 to current year.

INSTRUMENTATION.--Temperature recorder since December 1969.

REMARKS.--Prior to 1970 water year, data published as Tennessee River at Knoxville, Tn, station 03497000. Flow regulated by six reservoirs (see p. 305). Missing record Oct. 1-3.

COOPERATION.--Temperature records furnished Tennessee Valley Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.5°C Aug. 29, 1977; minimum, 1.0°C Jan. 21, 1970, Jan. 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C Aug. 22 and Sept. 7; minimum, 4.5°C several days during winter months.

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

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

03497100 TENNESSEE RIVER BELOW KNOXVILLE, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	8.5	6.5	8.0	10.5	9.5	10.0	14.0	13.5	14.0
2	5.5	5.0	5.5	7.0	5.5	5.5	11.0	10.5	11.0	14.5	14.0	14.0
3	5.5	5.0	5.5	5.5	4.5	5.0	11.5	10.5	11.0	14.5	14.0	14.5
4	5.5	5.0	5.0	5.5	4.5	5.0	12.0	11.5	11.5	15.5	13.5	14.0
5	5.0	5.0	5.0	6.5	5.5	6.0	11.5	10.5	11.0	16.0	15.5	15.5
6	5.0	5.0	5.0	7.0	6.0	6.5	11.0	10.5	11.0	16.5	15.0	15.5
7	5.5	5.0	5.0	8.0	7.0	7.0	11.5	11.0	11.0	16.5	16.0	16.0
8	5.5	5.0	5.0	9.0	7.0	8.0	11.5	11.0	11.5	16.0	15.5	16.0
9	5.5	5.0	5.0	10.0	9.0	9.5	12.0	11.5	11.5	16.5	15.0	15.5
10	5.0	5.0	5.0	11.0	10.0	10.5	13.0	11.5	12.0	15.5	15.0	15.5
11	5.5	4.5	5.0	13.0	10.5	11.0	13.0	11.5	12.0	16.5	15.0	15.5
12	5.5	5.0	5.0	11.0	10.5	10.5	13.0	12.0	12.0	17.0	15.5	16.0
13	5.0	4.5	5.0	10.5	8.5	9.0	13.0	12.0	12.0	17.0	16.5	16.5
14	5.5	4.5	5.0	8.5	7.0	8.0	13.0	11.5	12.0	16.5	16.0	16.5
15	6.0	5.0	5.5	9.0	7.0	8.0	13.0	12.0	12.0	16.0	15.5	15.5
16	6.0	5.0	5.5	9.5	8.5	9.0	12.0	10.0	11.0	16.0	15.5	15.5
17	5.5	4.5	5.0	9.5	8.5	9.0	13.0	11.0	11.5	16.0	15.0	15.5
18	5.0	4.5	4.5	10.0	9.0	9.5	13.5	12.0	13.0	16.0	15.0	15.5
19	5.5	4.5	5.0	11.5	9.5	10.5	14.0	13.0	13.5	16.5	15.5	16.0
20	6.0	5.0	5.5	10.5	10.0	10.0	14.5	13.5	14.0	19.5	16.5	18.5
21	6.0	5.5	6.0	10.0	9.5	10.5	15.0	14.0	14.0	18.0	15.5	16.0
22	8.5	6.0	7.0	10.5	9.5	10.0	15.0	14.0	14.5	17.0	15.5	16.5
23	9.5	7.0	8.5	11.0	10.0	10.0	15.0	14.0	14.5	16.5	15.5	16.0
24	11.0	8.0	9.5	10.5	10.0	10.5	16.0	14.5	15.0	16.0	15.5	15.5
25	11.0	9.5	10.0	11.0	10.0	10.5	15.5	15.0	15.0	16.5	15.5	16.0
26	10.0	7.0	8.5	10.5	10.0	10.0	15.5	14.5	15.0	18.0	16.5	17.0
27	8.5	6.5	7.0	10.5	9.5	10.0	15.0	14.5	15.0	18.5	17.0	18.0
28	8.0	7.0	7.0	10.5	10.0	10.0	14.5	14.0	14.0	20.0	17.0	18.5
29	9.0	7.0	8.5	11.0	10.5	10.5	14.5	13.5	14.0	18.0	16.5	17.0
30	---	---	---	10.5	10.5	10.5	14.0	13.5	13.5	18.5	16.5	17.0
31	---	---	---	10.5	9.5	10.0	---	---	---	18.0	16.5	17.0
MONTH	11.0	4.5	6.0	13.0	4.5	9.0	16.0	9.5	12.5	20.0	13.5	16.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.0	16.5	17.0	21.0	19.5	20.5	26.0	25.0	25.5	28.5	27.0	28.0
2	19.5	18.0	18.5	21.5	19.5	20.5	25.0	24.5	24.5	28.0	28.0	28.0
3	20.0	18.0	19.0	21.5	21.0	21.0	26.5	25.0	25.5	28.5	28.0	28.0
4	19.0	16.5	18.0	21.5	20.0	21.0	26.0	25.0	25.5	28.5	28.0	28.0
5	19.0	17.0	18.0	21.5	20.0	21.0	26.0	25.0	25.5	28.5	28.0	28.0
6	18.5	17.0	18.0	23.0	21.0	22.0	26.5	25.0	26.0	28.5	28.0	28.5
7	19.5	18.0	18.5	23.5	21.0	22.0	28.0	26.0	27.0	29.0	28.0	28.5
8	21.0	18.5	19.5	23.5	22.0	23.0	27.0	26.5	27.0	28.5	28.0	28.0
9	20.5	18.5	19.5	23.5	21.0	22.0	27.0	26.5	27.0	28.5	27.0	28.0
10	20.0	17.0	18.5	23.5	22.0	23.0	28.0	26.0	27.0	28.5	28.0	28.0
11	19.0	18.0	18.5	23.5	22.0	23.0	28.5	26.5	28.0	28.0	26.5	27.0
12	19.0	18.0	18.5	24.0	23.0	23.5	27.0	25.5	26.0	28.0	27.0	28.0
13	19.0	18.0	18.5	24.0	23.0	23.5	26.5	25.5	26.0	28.5	28.0	28.0
14	19.5	18.5	19.0	24.5	23.0	24.0	28.0	26.0	27.0	28.5	28.0	28.0
15	20.5	19.0	19.5	24.5	23.5	24.0	28.0	26.5	27.0	28.5	28.0	28.5
16	20.5	18.5	20.0	25.0	24.0	24.0	27.0	26.5	26.5	28.5	27.0	28.0
17	21.5	18.5	19.5	25.0	24.5	24.5	27.0	26.0	26.5	28.5	27.0	27.0
18	20.0	19.5	19.5	25.0	24.0	24.5	28.0	26.5	27.0	27.0	26.5	26.5
19	21.0	19.5	20.0	25.5	24.0	24.5	27.0	26.5	26.5	28.0	26.5	27.0
20	20.5	19.5	20.0	25.5	24.0	24.5	28.0	26.5	27.0	28.0	27.0	28.0
21	20.5	19.5	20.0	25.5	24.5	25.0	28.5	27.0	28.0	28.5	28.0	28.0
22	21.0	20.0	20.5	24.5	23.0	24.0	29.0	28.0	28.5	28.5	28.0	28.0
23	21.5	20.0	20.5	24.5	23.5	24.0	28.5	27.0	28.0	28.5	28.0	28.0
24	21.5	19.5	20.0	25.0	24.0	24.5	28.0	27.0	27.0	28.0	28.0	28.0
25	20.5	19.5	20.0	26.5	24.5	25.5	28.0	27.0	27.0	28.5	27.0	28.0
26	20.5	19.5	20.0	26.5	25.5	26.0	28.5	27.0	28.0	28.0	26.5	27.0
27	21.5	20.0	20.5	26.0	25.5	26.0	28.5	27.0	28.0	26.5	25.0	25.5
28	21.5	20.5	21.0	26.5	25.5	25.5	28.5	27.0	28.0	25.0	24.0	24.5
29	21.0	20.0	20.5	26.5	24.5	25.5	28.5	27.0	28.0	24.0	24.0	24.0
30	21.0	20.0	20.5	26.0	24.5	25.5	28.0	26.5	27.0	24.0	21.5	23.0
31	---	---	---	26.0	25.0	25.5	28.0	26.5	27.0	---	---	---
MONTH	21.5	16.5	19.5	26.5	19.5	23.5	29.0	24.5	27.0	29.0	21.5	27.5

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.--17 years, 294 ft³/s (8.326 m³/s), 37.66 in/yr (957 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, 28 ft³/s (0.79 m³/s) Sept. 17, 1980; minimum gage height, 1.18 ft (0.360 m) Sept. 17, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,560 ft³/s (157 m³/s) at 0415 hours, Mar. 21, gage height, 7.38 ft (2.249 m), no other peak above base of 3,100 ft³/s (87.8 m³/s); minimum discharge, 28 ft³/s (0.797 m³/s) Sept. 17.

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	163	81	268	262	227	207	393	323	194	82	55	59
2	116	343	236	247	217	192	347	295	174	75	53	69
3	141	224	208	231	220	184	317	273	158	202	46	106
4	124	178	198	237	201	193	330	252	142	96	46	110
5	151	156	189	236	202	435	280	234	131	79	60	64
6	121	139	183	212	191	449	259	219	119	194	41	52
7	110	126	174	253	182	439	244	213	110	110	38	45
8	102	118	156	407	172	886	280	206	103	85	35	40
9	93	114	144	390	174	703	382	186	95	80	33	37
10	182	1000	138	380	175	522	298	175	90	91	32	64
11	135	600	133	518	158	416	278	166	84	152	50	59
12	117	520	129	802	153	359	349	158	79	102	66	43
13	110	420	187	566	141	392	687	148	76	88	44	38
14	105	360	215	491	142	361	1290	141	75	77	37	35
15	100	320	173	411	152	323	766	137	71	73	33	33
16	97	280	164	360	473	302	552	128	82	68	32	30
17	92	260	152	338	390	1080	435	144	168	63	60	65
18	88	230	141	702	296	1300	371	314	199	60	47	60
19	84	200	139	641	270	843	330	193	122	57	44	40
20	81	170	135	493	258	1110	298	279	88	54	56	36
21	79	157	109	409	269	3350	273	263	79	50	39	37
22	77	145	124	484	364	1340	251	221	75	47	185	35
23	137	138	122	718	340	816	233	248	115	51	80	32
24	98	441	170	549	308	896	220	366	114	74	59	37
25	85	593	285	457	282	801	211	444	258	76	50	111
26	80	1420	232	382	253	642	235	399	151	101	43	139
27	78	669	219	337	233	515	307	319	130	68	39	69
28	77	469	211	301	225	686	273	274	110	75	36	61
29	76	366	205	271	219	636	334	250	100	61	34	125
30	76	305	245	255	---	554	357	270	90	52	52	104
31	74	---	265	282	---	467	---	211	---	47	64	---
TOTAL	3249	10542	5649	12622	6887	21399	11180	7449	3582	2590	1589	1835
MEAN	105	351	182	407	237	690	373	240	119	83.5	51.3	61.2
MAX	182	1420	285	802	473	3350	1290	444	258	202	185	139
MIN	74	81	109	212	141	184	211	128	71	47	32	30
CFSM	.99	3.31	1.72	3.84	2.24	6.51	3.52	2.26	1.12	.79	.48	.58
IN.	1.14	3.70	1.98	4.43	2.42	7.51	3.92	2.61	1.26	.91	.56	.64

CAL YR 1979 TOTAL 122377 MEAN 335 MAX 5400 MIN 66 CFSM 3.16 IN 42.95
WTR YR 1980 TOTAL 88573 MEAN 242 MAX 3350 MIN 30 CFSM 2.28 IN 31.08

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 for May 13 - Sept. 30 due to recorder malfunction.

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, 0.5°C several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
02...	1455	200	21	17.0	5	2.7
NOV						
20...	1530	163	19	9.5	2	.88
JAN						
10...	1515	401	16	6.0	1	1.1
FEB						
21...	1600	250	16	7.0	2	1.3
APR						
17...	1015	444	14	7.0	8	9.6
MAY						
28...	1430	271	15	17.0	8	5.9
JUL						
10...	1400	87	--	23.5	7	1.6
AUG						
26...	0945	43	24	20.0	3	.35

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

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

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

03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on right bank on downstream side of bridge on U. S. highway 411, 0.8 mi (1.3 km) downstream from Crooked Creek, 5.0 mi (8.0 km) east of Maryville, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--269 mi^2 (697 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft (259.080 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverted an average of about 2.5 ft^3/s (0.071 m^3/s) for municipal supply 300 ft (90 m) upstream from gage.

AVERAGE DISCHARGE.--29 years, 539 ft^3/s (15.26 m^3/s), 27.21 in/yr (691 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft^3/s (912 m^3/s) Mar. 12, 1963, gage height, 24.20 ft (7.376 m), from rating curve extended above 20,000 ft^3/s (566 m^3/s) on basis of area-velocity study and road overflow computations; minimum, 32 ft^3/s (0.91 m^3/s) Aug. 27, 1956; minimum gage height, 6.16 ft (1.878 m) Aug. 11, 1980; minimum daily, 44 ft^3/s (1.25 m^3/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft (9.4 m), discharge, 50,000 ft^3/s (1,420 m^3/s), and flood of April 1, 1896, reached a stage of 26 ft (7.9 m), discharge, 36,000 ft^3/s (1,020 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,200 ft^3/s (374 m^3/s), at 0830 hours Mar. 21, gage height, 17.92 ft (5.462 m), no other peak above base of 6,000 ft^3/s (170 m^3/s); minimum, 57 ft^3/s (1.61 m^3/s) Sept. 16, 17, gage height, 6.18 ft (1.884 m).

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	228	116	406	484	531	444	844	613	315	141	88	92
2	214	392	363	467	496	439	745	546	283	131	104	96
3	218	368	320	433	479	411	674	502	261	367	86	114
4	184	258	305	450	467	400	828	464	245	249	86	183
5	216	219	295	513	444	843	697	432	226	164	112	118
6	188	197	285	456	450	944	619	410	211	309	90	92
7	170	182	280	622	428	801	570	393	203	238	78	81
8	157	170	250	1200	411	1530	574	395	191	167	71	74
9	149	177	241	871	422	1480	816	356	180	147	66	70
10	278	1870	226	753	444	1060	651	336	171	152	63	83
11	243	1130	222	822	411	857	587	316	165	212	60	120
12	187	874	213	1500	417	726	629	300	157	184	115	84
13	173	651	305	1060	389	767	1120	286	152	163	99	74
14	162	511	456	936	400	733	2860	276	147	141	75	67
15	153	422	325	794	456	647	1450	270	142	131	67	62
16	149	369	305	699	1670	616	1030	257	138	123	63	59
17	143	326	285	647	1300	1520	827	271	258	115	85	175
18	138	296	260	1730	829	2830	717	506	280	112	152	175
19	135	271	255	1540	706	1760	639	349	260	106	86	94
20	130	249	250	980	647	2480	585	521	174	101	86	78
21	128	236	241	787	622	9130	539	516	153	95	83	74
22	124	217	231	1160	699	2970	495	392	142	93	146	70
23	165	213	226	2490	680	1730	464	383	171	105	169	68
24	187	622	285	1380	622	1790	441	502	187	112	95	68
25	137	760	573	1040	579	1590	428	625	465	116	89	144
26	129	1660	479	857	531	1270	467	609	272	187	77	237
27	124	951	422	746	496	1050	584	493	211	128	69	137
28	123	686	395	667	479	1680	569	419	181	133	65	108
29	124	549	373	598	467	1560	612	379	163	125	62	187
30	126	461	400	567	---	1200	699	416	155	101	81	190
31	122	---	479	641	---	1000	---	343	---	92	114	---
TOTAL	5104	15403	9951	27890	16972	46258	22760	12876	6259	4740	2782	3274
MEAN	165	513	321	900	585	1492	759	415	209	153	89.7	109
MAX	278	1870	573	2490	1670	9130	2860	625	465	367	169	237
MIN	122	116	213	433	389	400	428	257	138	92	60	59
CFSM	.61	1.91	1.19	3.35	2.18	5.55	2.82	1.54	.78	.57	.33	.41
IN.	.71	2.13	1.38	3.86	2.35	6.40	3.15	1.78	.87	.66	.38	.45

CAL YR 1979 TOTAL 221187 MEAN 606 MAX 9360 MIN 116 CFSM 2.25 IN 30.59
WTR YR 1980 TOTAL 174269 MEAN 476 MAX 9130 MIN 59 CFSM 1.77 IN 24.10

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
03...	1030	221	85	18.0	6	3.6
NOV						
21...	1000	234	98	10.0	4	2.5
JAN						
25...	1130	105	84	8.0	46	13
MAR						
27...	1215	105	95	10.5	6	1.7
APR						
17...	1315	832	85	12.5	14	31
JUN						
03...	1400	246	88	22.0	21	14
JUL						
23...	1130	107	155	24.0	18	5.2
SEP						
04...	1345	181	94	24.5	26	13

03499510 TENNESSEE RIVER AT FORT LOUDOUN DAM (TAILWATER), TN

LOCATION.--Lat 35°47'30", long 84°14'36", Loudon County, Hydrologic Unit 06010201, at downstream side of Fort Loudon Dam, 1.1 mi (1.8 km) northwest of Busselltown, 2.4 mi (3.9 km) southwest of Martel, and at mile 602.3 (969.1 km).

DRAINAGE AREA.--9,550 mi^2 (24,734 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Flow regulated by many reservoirs above site (see p. 305).

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
10...	1025	12000	180	7.3	20.0	4	6	6.8	1.8	--	64
DEC											
12...	1300	150000	160	7.4	11.0	7	8	9.3	<1.0	--	63
JAN											
23...	1330	29000	210	7.3	8.0	17	12	10.2	1.5	340	--
MAR											
18...	1245	--	180	7.6	9.0	6	4	11.3	1.2	<10	62

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
10...	52	18	12	100	.14	3240	6	.72	.110	.14
DEC										
12...	56	15	11	110	.15	44600	3	.50	.070	.14
JAN										
23...	58	17	10	110	.15	8610	10	.60	.130	.11
MAR										
18...	55	12	7.0	90	.12	--	2	.46	.060	.09

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
10...	.040	.010	<1	<10	70	<10	10	<.2	20	4.0
DEC										
12...	.040	<.010	<1	<10	90	<10	20	<.2	30	3.2
JAN										
23...	.060	.020	<1	<10	190	<10	50	<.2	50	3.6
MAR										
18...	.040	.010	<1	30	60	<10	20	<.2	<10	2.9

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 mi^2 (306 km^2).

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.--55 years, 287 ft^3/s (8.128 m^3/s), 33.03 in/yr (839 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s (564 m^3/s) Mar. 16, 1973, gage height, 14.18 ft (4.322 m) from dross line in well, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement of peak flow; minimum, 13 ft^3/s (0.37 m^3/s) Sept. 7, 1925, gage height, 0.25 ft (0.076 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1840 reached a stage of 15 ft (4.6 m), discharge, about 21,500 ft^3/s (609 m^3/s), from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 21	0330	*9630	273	11.01	3.356	Apr. 13	2115	3950	112	7.85	2.393

Minimum discharge, 33 ft^3/s (0.93 m^3/s) Sept. 16, 17, gage height, 0.75 ft (0.229 m).

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	163	112	320	272	380	234	491	344	188	100	61	51
2	160	418	294	265	340	227	446	322	176	94	63	55
3	152	258	265	251	325	215	414	307	168	100	55	78
4	155	193	251	279	305	221	422	290	163	96	55	66
5	191	165	241	294	301	513	369	275	152	90	63	64
6	150	152	234	265	283	454	344	268	150	92	55	50
7	140	145	224	279	261	571	327	261	147	90	49	44
8	130	137	209	475	244	1810	410	272	142	81	46	40
9	126	142	196	430	268	774	500	237	135	78	44	38
10	176	1470	191	373	261	548	395	227	130	76	42	41
11	145	628	185	407	237	446	358	221	128	112	47	58
12	130	482	182	576	234	407	509	215	123	86	46	44
13	123	379	279	458	224	475	1240	205	121	78	45	39
14	119	311	283	399	224	422	1910	202	119	72	41	36
15	114	270	224	340	244	380	941	199	117	71	39	35
16	112	246	212	315	647	355	667	191	117	68	39	34
17	108	226	202	317	526	1330	548	254	218	64	40	66
18	108	214	191	627	388	1660	483	388	265	71	57	76
19	106	202	185	608	337	932	438	244	171	66	42	47
20	104	191	182	458	322	2740	403	301	133	60	76	42
21	104	182	176	388	325	4690	380	265	121	57	47	50
22	102	174	171	576	351	1550	351	231	117	57	53	45
23	209	172	168	979	340	993	330	294	135	66	51	42
24	135	1340	227	608	312	979	320	301	123	64	42	49
25	119	932	315	483	294	801	327	307	157	74	49	68
26	112	1440	265	407	268	667	369	261	160	160	44	80
27	110	683	247	365	251	576	580	231	123	117	40	53
28	108	539	237	333	247	895	466	215	114	140	38	50
29	108	410	227	310	237	836	418	209	110	78	41	103
30	133	355	258	307	---	682	380	227	108	68	76	110
31	117	---	261	491	---	571	---	196	---	61	55	---
TOTAL	4069	12568	7102	12935	8976	27954	15536	7960	4331	2587	1541	1654
MEAN	131	419	229	417	310	902	518	257	144	83.5	49.7	55.1
MAX	209	1470	320	979	647	4690	1910	388	265	160	76	110
MIN	102	112	168	251	224	215	320	191	108	57	38	34
CFSM	1.11	3.55	1.94	3.53	2.63	7.64	4.39	2.18	1.22	.71	.42	.47
IN.	1.28	3.96	2.24	4.08	2.83	8.81	4.90	2.51	1.37	.82	.49	.52

CAL YR 1979 TOTAL 139419 MEAN 382 MAX 6410 MIN 96 CFSM 3.24 IN. 43.95
WTR YR 1980 TOTAL 107213 MEAN 293 MAX 4690 MIN 34 CFSM 2.48 IN. 33.80

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
03...	1015	150	22	15.0	3	1.2
JAN						
17...	1015	308	19	9.5	2	1.7
MAR						
04...	1225	237	18	1.5	1	.64
APR						
24...	0900	322	20	14.5	8	7.0
JUN						
11...	1330	124	13	20.0	4	1.3
AUG						
05...	1215	68	30	23.5	6	1.1
SEP						
17...	1045	40	32	22.0	6	.65

03528000 CLINCH RIVER ABOVE TAZEWELL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi (0.6 km) upstream from Grissom Island, 4.6 mi (7.4 km) downstream from Big War Creek, 10 mi (16 km) east of Tazewell, and at mile 159.8 (257.1 km).

DRAINAGE AREA.--1,474 mi² (3,818 km²).

WATER-DISCHARGE RECORDS

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

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

GAGE.--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.

AVERAGE DISCHARGE.--62 years, 2,116 ft³/s (59.93 m³/s), 19.49 in/yr (495 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, 19,600 ft³/s (555 m³/s), at 0330 hours Mar. 22, gage height, 11.92 ft (3.633 m), no other peak above base of 14,000 ft³/s (398 m³/s); minimum discharge, 237 ft³/s (6.71 m³/s) Sept. 4, 17; gage height, 0.73 ft (0.223 m).

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	668	519	2350	2020	1980	1880	3580	4090	1210	400	468	272
2	655	979	1970	1820	1760	1790	3130	5020	1060	364	462	262
3	660	4150	1680	1650	1570	1610	2770	3940	1020	1020	400	247
4	676	4890	1450	1560	1430	1430	2810	2990	951	992	374	240
5	639	2990	1300	1600	1370	2170	2930	2500	864	765	692	243
6	608	2040	1230	1530	1320	3080	2980	2160	791	582	544	284
7	605	1590	1180	1600	1350	3790	2740	1930	733	598	481	275
8	605	1320	1130	2270	1300	4080	2480	1780	688	568	474	289
9	605	1180	1060	3040	1220	4400	2280	1630	640	588	497	258
10	601	4070	964	3160	1180	4040	2190	1460	600	837	433	368
11	637	7080	886	2910	1150	3540	2310	1320	581	2680	412	297
12	1220	5440	837	3660	1130	3050	2120	1230	560	3080	406	263
13	1620	4450	885	4710	1120	2680	2180	1150	536	2270	402	277
14	2090	3920	1180	4920	1140	2460	3600	1120	518	1590	376	265
15	3250	3050	1270	4880	1230	2370	4220	1120	502	1720	387	260
16	2510	2430	1260	4350	3060	2390	4600	1120	499	1480	338	249
17	1770	2020	1170	3730	4660	3460	3980	1050	516	1020	322	259
18	1370	1720	1060	5260	4830	8600	3320	1380	492	797	321	319
19	1120	1490	982	10000	3590	8520	2870	1580	483	663	345	280
20	945	1320	923	10700	2990	7470	2530	1850	449	573	338	278
21	833	1190	877	6970	3450	15400	2260	2710	419	514	357	267
22	752	1090	854	5390	3200	17700	2030	3340	397	461	468	256
23	700	1010	838	9220	3020	11100	1840	2920	384	435	538	261
24	663	1230	939	12500	2880	7240	1690	2270	384	417	581	262
25	623	1460	2460	8710	2700	6150	1610	2110	429	464	571	321
26	601	3720	5130	5490	2520	5600	1630	2440	452	531	510	363
27	576	9180	5110	4070	2300	4810	1950	2320	499	458	410	321
28	549	6520	3920	3270	2130	4410	3860	1920	484	461	346	294
29	539	4000	3070	2750	2000	4590	4700	1650	471	740	310	291
30	532	2950	2550	2400	---	4430	4010	1470	449	736	295	280
31	519	---	2240	2190	---	4000	---	1540	---	550	282	---
TOTAL	29741	88998	52755	138330	63580	158240	85200	65110	18061	28354	13140	8401
MEAN	959	2967	1702	4462	2192	5105	2840	2100	602	915	424	280
MAX	3250	9180	5130	12500	4830	17700	4700	5020	1210	3080	692	368
MIN	519	519	837	1530	1120	1430	1610	1050	384	364	282	240
CFSM	.65	2.01	1.16	3.03	1.49	3.46	1.93	1.43	.41	.62	.29	.19
IN.	.75	2.25	1.33	3.49	1.60	3.99	2.15	1.64	.46	.72	.33	.21

CAL YR 1979 TOTAL 1108031 MEAN 3036 MAX 30000 MIN 392 CFSM 2.06 IN 27.96
WTR YR 1980 TOTAL 749910 MEAN 2049 MAX 17700 MIN 240 CFSM 1.39 IN 18.93

03528000 CLINCH RIVER ABOVE TAZEWELL, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-65, 1971 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1045	1770	250	7.5	12.0	11	18	10.5	<1.0	--	130
DEC 12...	1430	811	270	7.9	6.2	4	1	12.1	<1.0	--	140
JAN 29...	1405	2710	290	7.5	7.0	2	5	11.6	1.5	10	120
MAR 11...	1240	3490	280	6.0	8.0	4	7	12.5	1.6	20	100

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 17...	110	19	4.0	150	.20	717	27	.91	.030	.11
DEC 12...	100	24	4.0	190	.26	416	4	.61	<.100	.08
JAN 29...	100	19	3.0	160	.22	1170	6	--	.010	.05
MAR 11...	60	20	4.0	160	.22	1510	6	.55	.010	.06

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	.030	.010	1	20	<50	30	<10	<.2	70	4.1
DEC 12...	<.010	<.010	<1	<10	<50	<10	<10	<.2	<10	2.6
JAN 29...	.020	--	<1	<10	<50	<10	10	<.2	<10	1.4
MAR 11...	.020	<.010	<1	20	60	<10	20	<.2	<10	3.1

03532000 POWELL RIVER NEAR ARTHUR, TN

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, Hydrologic Unit 06010206, on left bank 500 ft (150 m) upstream from bridge on U. S. Highway 25E, 2.3 mi (3.7 km) east of Arthur, 2.4 mi (3.9 km) downstream from Indian Creek, and at mile 65.4 (105.2 km).

DRAINAGE AREA.--685 mi^2 (1,774 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1919 to 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.--61 years, 1,154 ft^3/s (32.68 m^3/s), 22.88 in/yr (581 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,500 ft^3/s (1,690 m^3/s) Apr. 6, 1977, gage height, 38.96 ft (11.875 m), from floodmark; minimum, 47 ft^3/s (1.33 m^3/s) Jan. 6, 1940, result of freezeup; minimum daily, 60 ft^3/s (1.70 m^3/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 6, 1975, result of dredging.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1826 reached a stage of 29.5 ft (8.99 m) present datum, discharge, 34,000 ft^3/s (963 m^3/s), and flood of Jan. 29, 1918, reached a stage of 29.2 ft (8.90 m) present datum, discharge, 33,000 ft^3/s (935 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) at 1130 hours, Mar. 22, gage height, 16.99 ft (5.179 m), no other peak above base of 9,000 ft^3/s (255 m^3/s); minimum, 116 ft^3/s (3.29 m^3/s) Sept. 17, 18, gage height, 1.63 ft (0.497 m).

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	355	244	998	988	941	909	1710	1360	543	184	210	125
2	309	612	850	882	859	864	1470	1140	496	178	165	123
3	280	1150	747	802	785	802	1310	998	468	325	148	123
4	265	2010	662	802	682	760	1260	913	452	578	146	125
5	271	1080	604	882	694	1180	1320	846	415	619	192	218
6	265	764	582	904	678	1840	1380	789	449	396	181	271
7	238	619	560	923	650	2360	1240	743	396	303	213	190
8	221	530	534	1310	635	2260	1160	702	361	293	235	150
9	215	476	500	1520	612	2690	1190	662	338	253	241	148
10	274	1750	456	1390	589	2220	1160	623	316	250	190	189
11	319	3210	422	1360	578	1860	1090	589	300	616	163	181
12	586	2770	407	1800	571	1540	1100	564	290	694	229	152
13	551	1870	437	3030	547	1340	1220	538	284	623	221	139
14	567	1600	575	2680	556	1220	2230	526	274	393	235	142
15	819	1220	743	2560	571	1120	2580	538	262	297	250	135
16	702	979	710	2280	1740	998	2190	526	268	247	215	123
17	564	833	642	1940	2880	1610	1880	505	293	218	173	117
18	460	730	597	2840	2410	4320	1590	811	271	195	165	117
19	396	646	556	4650	1700	5830	1430	824	256	176	165	119
20	348	589	505	4730	1420	4430	1280	1240	250	163	250	128
21	316	538	480	3030	1610	10200	1160	1620	224	153	280	170
22	290	492	460	2810	1590	12300	1050	1810	215	213	224	175
23	284	456	452	5240	1480	6820	969	1340	207	192	195	146
24	268	616	654	5960	1420	3980	900	1050	204	168	221	143
25	253	1100	1440	3730	1270	3530	855	932	210	153	187	148
26	256	2050	2880	2590	1150	3070	846	1010	218	153	170	216
27	247	3690	2780	1950	1080	2530	1040	913	229	153	148	191
28	232	2630	2010	1540	1010	2250	1760	772	241	153	136	163
29	238	1660	1520	1290	960	2230	2330	674	218	207	127	155
30	238	1240	1260	1130	---	2180	1720	702	198	215	125	155
31	238	---	1110	1040	---	1960	---	586	---	265	123	---
TOTAL	10865	38154	27133	68583	31668	91203	42420	26846	9146	9026	5923	4677
MEAN	350	1272	875	2212	1092	2942	1414	866	305	291	191	156
MAX	819	3690	2880	5960	2880	12300	2580	1810	543	694	280	271
MIN	215	244	407	802	547	760	846	505	198	153	123	117
CFSM	.51	1.86	1.28	3.23	1.59	4.30	2.06	1.26	.45	.43	.28	.23
IN.	.59	2.07	1.47	3.72	1.72	4.95	2.30	1.46	.50	.49	.32	.25

CAL YR 1979 TOTAL 534132 MEAN 1463 MAX 13200 MIN 195 CFSM 2.14 IN 29.01
WTR YR 1980 TOTAL 365644 MEAN 999 MAX 12300 MIN 117 CFSM 1.46 IN 19.86

03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-65, 1971 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority except sediment.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 05...	1230	275	300	17.0	10	7.4
NOV 15...	1330	1340	--	--	30	109
FEB 12...	1200	541	300	4.0	4	5.8
APR 15...	1215	2750	260	11.5	137	1020
JUN 05...	1430	413	325	18.0	40	45
JUL 22...	1045	250	310	26.5	25	17
SEP 08...	1430	146	335	25.5	13	5.1

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1225	662	270	7.8	13.0	6	10	10.6	<1.0	--	130
DEC 12...	1300	519	270	8.2	6.5	4	1	11.3	<1.0	--	130
JAN 29...	1255	--	270	7.9	7.0	3	8	11.5	1.8	100	120
MAR 11...	1105	--	280	6.9	10.0	3	8	12.8	1.3	90	110

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 17...	100	35	3.0	170	.23	304	13	.69	.020	.09
DEC 12...	120	28	3.0	180	.24	252	6	.63	.020	.07
JAN 29...	97	24	2.0	150	.20	--	25	--	.010	.06
MAR 11...	89	20	3.0	150	.20	--	8	.81	.020	.08

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	.030	.010	1	30	<50	<10	<10	<.2	20	2.8
DEC 12...	<.010	<.010	<1	<10	<50	250	10	<.2	<10	1.5
JAN 29...	.030	.010	<1	<10	<50	<10	10	<.2	<10	2.3
MAR 11...	.020	.010	<1	20	50	<10	30	<.2	40	2.3

03533000 CLINCH RIVER BELOW NORRIS DAM, TN

LOCATION.--Lat 36°12'56", long 84°04'56", Anderson County, Hydrologic Unit 06010207, 0.5 mi (0.8 km) upstream from Clear Creek, 0.8 mi (1.3 km) below Norris Dam, 1.5 mi (2.4 km) north of Norris, and at mile 78.8 (126.8 km).

DRAINAGE AREA.--2,913 mi^2 (7,545 km^2).

PERIOD OF RECORD.--Water years 1972-73, 1976 to current year.

REMARKS.--Flow regulated by Norris Lake (station 03532500) above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
07...	1410	8000	210	7.5	18.0	5	3	6.5	1.4	--	110
JAN											
21...	1355	7950	--	7.5	8.0	2	2	10.6	<1.0	<10	120
FEB											
13...	1350	7900	--	6.5	7.0	3	1	11.5	2.6	<10	120
APR											
09...	1310	8000	440	--	8.0	3	4	11.4	<1.0	<10	110

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
07...	100	20	3.0	160	.22	3460	<1	.28	.020	.12
JAN										
21...	100	20	3.0	100	.14	2150	<1	.39	.040	.20
FEB										
13...	65	20	3.0	140	.19	2990	2	.38	.030	.23
APR										
09...	--	22	4.0	250	.34	5400	<1	.56	.030	.14

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
07...	.010	.010	<1	<10	<50	12	20	<.2	130	3.0
JAN										
21...	.020	<.010	<1	<10	<50	<10	100	2.2	20	3.3
FEB										
13...	.010	<.010	<1	10	<50	15	40	<.2	30	2.9
APR										
09...	.010	--	2	10	<50	<10	320	<.2	30	1.9

03535000 BULLRUN CREEK NEAR HALLS CROSSROADS, TN

LOCATION.--Lat 36°06'52", long 83°59'16", Knox County, Hydrologic Unit 06010207, on left bank on downstream side of bridge on U. S. Highway 441, 2.1 mi (3.4 km) downstream from Smith Branch, 4 mi (6 km) northwest of Halls Crossroads, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--68.5 mi^2 (177.4 km^2).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 854.91 ft (260.577 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--23 years, 103 ft^3/s (2.917 m^3/s), 20.42 in/yr (519 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft^3/s (518 m^3/s) Apr. 4, 1977, gage height, 13.28 ft (4.048 m), from rating curve extended above 5,000 ft^3/s (142 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.5 ft^3/s (0.071 m^3/s) Aug. 12, 1974, caused by regulation upstream of unknown origin.

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

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 18	1700	2230	63.2	8.47	2.582	Mar. 21	1030	*3230	91.5	9.07	2.765
Jan. 23	0330	1580	44.7	7.94	2.420						

Minimum discharge, 5.8 ft^3/s (0.16 m^3/s) Sept. 16, 17.

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	20	22	53	59	71	49	141	76	54	17	14	7.5
2	19	175	47	52	67	48	119	70	47	16	20	7.1
3	18	85	41	47	67	48	107	65	42	23	15	7.1
4	17	48	38	88	65	49	116	61	39	51	13	8.8
5	17	36	37	111	61	221	94	57	36	36	12	13
6	17	31	36	86	56	177	85	54	34	23	12	9.5
7	17	28	35	107	52	144	80	52	33	19	11	8.0
8	16	26	32	131	48	443	81	52	30	17	10	6.8
9	16	40	29	109	49	408	84	48	28	17	9.6	6.4
10	48	871	28	92	49	228	71	45	27	18	9.0	7.7
11	34	192	28	114	47	160	65	44	26	19	10	9.5
12	24	113	27	142	48	125	101	42	25	16	10	7.3
13	25	84	31	115	47	111	319	41	24	15	11	6.8
14	32	65	34	240	52	96	698	42	24	14	9.6	6.4
15	24	53	29	201	66	80	274	39	23	13	9.1	6.2
16	21	47	27	149	221	72	195	37	22	13	11	5.9
17	20	42	26	147	169	466	149	76	30	12	10	7.2
18	19	38	25	1310	118	457	127	208	26	12	10	7.8
19	18	35	24	563	100	264	110	82	24	11	20	7.6
20	17	32	24	258	94	615	98	107	21	11	22	7.5
21	17	30	23	181	91	2520	90	85	21	11	14	17
22	17	29	23	486	86	583	83	65	20	13	11	13
23	20	28	25	956	78	308	76	85	20	19	9.6	9.3
24	22	170	120	322	70	391	72	83	20	16	8.8	8.2
25	19	135	179	221	65	313	70	102	22	13	8.2	11
26	18	263	123	161	60	234	82	83	21	12	7.9	10
27	17	133	94	129	56	184	154	65	20	14	7.7	9.0
28	17	97	76	107	55	353	109	55	19	21	7.3	8.5
29	23	76	64	91	52	278	97	58	18	20	7.2	13
30	27	62	60	83	---	221	87	215	18	14	7.7	14
31	22	---	57	83	---	177	---	67	---	12	8.1	---
TOTAL	658	3086	1495	6941	2160	9823	4034	2261	814	538	345.8	267.1
MEAN	21.2	103	48.2	224	74.5	317	134	72.9	27.1	17.4	11.2	8.90
MAX	48	871	179	1310	221	2520	698	215	54	51	22	17
MIN	16	22	23	47	47	48	65	37	18	11	7.2	5.9
CFSM	.31	1.50	.70	3.27	1.09	4.63	1.96	1.06	.40	.25	.16	.13
IN.	.36	1.68	.81	3.77	1.17	5.33	2.19	1.23	.44	.29	.19	.15

CAL YR 1979 TOTAL 53984.0 MEAN 148 MAX 2330 MIN 16 CFSM 2.16 IN 29.32
WTR YR 1980 TOTAL 32422.9 MEAN 88.6 MAX 2520 MIN 5.9 CFSM 1.29 IN 17.61

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN
(National stream-quality accounting network station)

LOCATION.--Lat 35°53'07", long 84°18'03", Loudon County, Hydrologic Unit 06010201, at downstream side of Melton Hill Dam, 1.4 mi (2.2 km) downstream from Hope Creek, and at mile 23.1 (37.2 km).

DRAINAGE AREA.--3,343 mi^2 (8,658 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1936 to January 1941 (published as "near Wheat"), February 1941 to September 1960 (published as "near Scarboro"), October 1960 to September 1964 (published as "at Melton Hill Dam"), October 1967 to September 1968 (published as "near Oak Ridge"), October 1978 to current year. Equivalent record for the period October 1964 to December 1978 published in annual reports of Tennessee Valley Authority entitled "Operation of TVA Reservoirs".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 1941, at site 8.7 miles (14.0 km) downstream at datum 717.36 ft (218.651 m) higher. February 1941 to September 1962 at site 15.9 miles (25.6 km) upstream at datum 753.35 ft (229.621 m) higher. October 1962 to September 1964, headwater gage at upstream side of dam at present datum. October 1967 to September 1968, at site 8.6 miles (13.8 km) downstream at datum 731.62 ft (222.998 m) higher.

REMARKS.--Records good. Flow regulated by Melton Hill Lake (station 03535900) and Norris Lake (station 03532500) above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--31 years, (1936-64, 1967-68, 1978-80), 4,690 ft^3/s (133 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 39,600 ft^3/s (1,120 m^3/s) Feb. 18, 1937; minimum daily, no flow, many days in 1963, 1964, Dec. 2, 1978, Mar. 16, May 13, and June 1, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 16,200 ft^3/s (459 m^3/s) Jan. 23; minimum daily, no flow Mar. 16, May 13, and June 1.

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	7350	3900	7600	4560	9960	5220	7610	4100	0	6030	6460	6710
2	6240	4890	6930	5790	9740	1320	8520	4630	4620	5570	5250	7060
3	5400	3170	8820	4690	9080	4380	10200	3540	6400	3160	3720	8980
4	5660	986	10400	6200	9620	4900	8780	2240	5980	1330	4630	7000
5	6160	5410	8340	5900	12800	4400	5540	3810	6880	1280	3910	6660
6	6260	10100	9590	6470	13300	5660	5500	4020	7040	1760	3180	5030
7	6000	8540	10300	6070	11900	3560	6120	5130	7160	2420	2350	3970
8	6520	6350	7920	5380	9480	3620	6900	3920	5870	9780	2870	5800
9	7630	5540	4950	6500	7440	4640	7050	3910	8310	6650	2880	5870
10	9990	5140	4420	8610	4450	2120	6200	5460	7450	6280	2330	4900
11	12600	3970	3450	7150	8360	2490	6270	5250	7060	5620	5630	4030
12	8860	5710	6560	7580	8370	5760	5410	3680	5260	6190	5800	5510
13	6920	4050	5270	7040	6250	2320	3950	0	5230	5980	5880	4510
14	3630	6220	4940	7100	5290	1670	5770	3010	4560	6360	7350	4860
15	8650	5060	4220	6320	5680	40	5250	2670	3420	7820	5300	4750
16	7940	4990	2940	6090	3640	0	4300	3790	4420	7700	4520	4240
17	6270	6850	4360	6690	5470	4220	4600	2650	6320	7040	4330	4490
18	6650	9820	3650	7100	4220	1100	2460	3260	5870	7600	7980	5060
19	7300	7110	6000	13300	4900	2350	4410	3550	4650	8770	5430	5080
20	7170	6980	5940	11300	6230	7380	4220	3160	6380	8810	5760	4970
21	7190	6720	7470	12700	4630	16000	4630	3350	5810	8110	6340	4860
22	7250	7950	5580	13000	3100	7250	4450	3520	4370	7860	6210	3730
23	8420	8050	1020	16200	3070	4700	5200	3520	5840	6100	5990	2850
24	9470	7870	588	12100	2330	3470	9660	2740	5420	3560	5730	3940
25	8740	10400	895	10900	5450	3300	5340	2630	6140	4690	6160	3170
26	8060	8040	3520	7010	6780	3990	1440	2500	6230	4630	7530	1850
27	5450	7250	3910	8420	5130	5140	988	5050	6690	3150	6560	1220
28	2640	7650	4030	9310	3820	6260	4380	5860	6760	4870	7070	1490
29	4910	8970	5010	9280	4120	8240	3560	5920	5420	6670	6480	3400
30	6190	9230	3700	9960	---	7790	4370	6450	6710	7650	7010	3280
31	2920	---	4920	9760	---	7000	---	20	---	6620	6490	---
TOTAL	214440	196916	167243	258480	194610	140290	163078	113340	172270	180060	167130	139270
MEAN	6917	6564	5395	8338	6711	4525	5436	3656	5742	5808	5391	4642
MAX	12600	10400	10400	16200	13300	16000	10200	6450	8310	9780	7980	8980
MIN	2640	986	588	4560	2330	0	988	0	0	1280	2330	1220

CAL YR 1979 TOTAL 2805229 MEAN 7686 MAX 24900 MIN 588
WTR YR 1980 TOTAL 2107127 MEAN 5757 MAX 16200 MIN 0

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

REMARKS.--Site located in Watts Bar Lake. Flow regulated by Melton Hill Lake (station 03535900) and Norris Lake (station 03532500) above site.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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 26...	1145	11200	235	7.9	14.5	3.0	8.0	K2	K0	100	10	28
DEC 19...	1315	50	235	8.0	11.0	3.0	10.8	--	--	110	14	31
JAN 21...	1130	20700	156	8.1	10.0	2.0	12.0	K4	<1	71	17	22
MAR 05...	0945	9600	245	8.0	8.0	.55	13.0	K1	K2	120	0	32
APR 28...	1150	10500	220	8.2	14.0	2.2	11.0	K9	K4	110	9	30
MAY 22...	1430	10200	230	7.3	16.5	.25	8.5	K4	K57	110	11	30
JUL 02...	1215	9700	250	8.1	18.0	.80	9.0	K40	K19	120	18	32
AUG 07...	1230	21000	234	7.2	18.5	2.4	6.6	K8	K230	110	12	31
SEP 04...	1100	100	250	7.6	21.0	.50	7.4	K100	K30	120	19	32

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV 26...	8.4	3.4	9	.1	1.4	95	19	2.7	.1	3.1	140	125
DEC 19...	8.7	3.5	9	.1	1.5	99	18	2.9	.1	3.0	142	130
JAN 21...	3.8	6.0	19	.3	1.3	54	12	6.8	.1	5.2	--	92
MAR 05...	8.9	3.4	6	.1	1.3	120	18	3.0	.1	2.3	141	142
APR 28...	7.9	3.0	6	.1	1.5	98	17	2.9	.1	3.7	120	127
MAY 22...	8.7	3.3	6	.1	1.0	100	19	3.0	.1	2.9	136	130
JUL 02...	8.6	3.1	5	.1	1.2	97	17	2.9	.1	3.8	153	129
AUG 07...	8.4	3.0	5	.1	1.2	100	13	2.9	.1	4.3	145	126
SEP 04...	9.4	2.3	4	.1	1.2	100	16	2.8	.1	5.3	136	132

K--Results based on colony count outside acceptable range (non-ideal colony count).

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV											
26...	.19	4230	.35	.36	.000	.000	.24	.19	.020	.010	3.6
DEC											
19...	.19	19.2	.45	.45	.030	.030	.22	.25	.010	.010	3.6
JAN											
21...	.12	4750	.47	.52	.040	.020	.24	.09	.050	.030	2.4
MAR											
05...	.19	3660	.27	.25	.000	.000	.13	.13	.020	.000	--
APR											
28...	.16	3400	.41	.41	.020	.010	.20	.07	.020	.010	4.1
MAY											
22...	.19	3750	.42	.40	.120	.130	.00	.00	.020	.020	.8
JUL											
02...	.21	4010	.47	.48	.010	.010	.14	.12	.040	.010	.3
AUG											
07...	.20	8220	.49	.48	.020	.000	.07	.03	.030	.000	5.4
SEP											
04...	.19	36.7	.51	.60	.020	.010	.10	.14	.060	.030	--

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
26...	--	--	--	--	--	--	--	--	8	242	62
DEC											
19...	--	--	--	--	--	--	--	--	6	.81	91
JAN											
21...	--	--	--	--	--	--	--	--	8	447	97
MAR											
05...	3.5	.3	3200	--	--	--	--	--	8	207	54
APR											
28...	--	--	--	113	3.07	3.23	1.42	.130	14	397	26
MAY											
22...	--	--	370	--	--	--	--	--	--	--	37
JUL											
02...	--	--	900	--	--	--	--	--	15	393	95
AUG											
07...	--	--	790	--	--	--	--	--	6	340	79
SEP											
04...	11	.3	1300	--	--	--	--	--	5	1.3	42

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
DEC 19...	--	--	--	--	--	--	--	--	--
MAR 05...	0	0	<50	40	--	5	10	10	0
MAY 22...	--	--	--	--	--	--	--	--	--
JUL 02...	--	--	--	--	--	--	--	--	--
SEP 04...	1	0	100	0	0	0	20	10	0

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)
DEC 19...	--	--	--	--	--	--	--	--	--
MAR 05...	0	1	0	130	0	0	0	20	1
MAY 22...	--	--	--	--	--	--	--	--	--
JUL 02...	--	--	--	--	--	--	--	--	--
SEP 04...	0	3	8	80	20	3	0	20	0

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 19...	--	--	--	--	0	--	--	--
MAR 05...	.1	.1	2	0	0	0	10	30
MAY 22...	--	--	--	--	0	--	--	--
JUL 02...	--	--	--	--	0	--	--	--
SEP 04...	.1	.1	2	0	0	0	10	0

03535912 CLINCH RIVER AT MELTON HILL DAM (TAILWATER), TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	MAR 5,80 0945		MAY 22,80 1430		JUL 2,80 1215		AUG 7,80 1230		SEP 4,80 1100	
TOTAL CELLS/ML	3200		370		900		790		1300	
DIVERSITY: DIVISION	1.2		1.0		1.8		1.2		1.6	
.CLASS	1.2		1.0		1.8		1.2		1.6	
..ORDER	1.3		1.8		2.3		1.9		2.0	
...FAMILY	1.4		1.8		2.8		2.6		2.5	
....GENUS	2.5		2.4		3.3		3.0		3.0	
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	--	-	--	-	--	-	77	10	210#	16
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	90	10	64	8	39	3
....CHLORELLA	20	1	13	3	--	-	--	-	--	-
....CHODATELLA	*	0	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	51	4
....KIRCHNERIELLA	*	0	--	-	100	11	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	13	1
....TETRAEDRON	--	-	--	-	13	1	--	-	13	1
....TREUBARIA	--	-	--	-	13	1	13	2	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	40	1	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	150#	17	52	7	39	3
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	13	3	13	1	--	-	13	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	280	9	13	3	--	-	140#	18	180	14
....MELOSIRA	1200#	36	170#	45	51	6	140#	18	270#	21
....STEPHANODISCUS	220	7	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	13	1
...DIATOMACEAE										
....DIATOMA	*	0	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	51	14	--	-	--	-	--	-
....FRAGILARIA	60	2	--	-	64	7	--	-	13	1
....SYNEDRA	--	-	51	14	39	4	140#	18	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	13	2	--	-
...NITZSCHIACEAE										
....NITZSCHIA	*	0	--	-	--	-	64	8	13	1
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	90	10	--	-	13	1
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	13	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	51	14	77	9	77	10	51	4
....COCCOCHLORIS	--	-	13	3	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	640#	20	--	-	180#	20	--	-	330#	27
....SCHIZOTHRIX	690#	22	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	20	1	--	-	--	-	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	*	0	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03538225 POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°59'55", long 84°20'23", Roane County, Hydrologic Unit 06010207, on right bank, 1,000 ft (300 m) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Indian Creek, 8.2 mi (13.2 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 13.8 (22.2 km).

DRAINAGE AREA.--82.5 mi^2 (213.7 km^2).

WATER-DISHCARGE 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.--20 years, 181 ft^3/s (5.126 m^3/s), 29.79 in/yr (757 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) Apr. 5, 1977, gage height, 27.93 ft (8.513 m) from floodmarks, from rating curve extended above 8,000 ft^3/s (227 m^3/s); minimum, 5.0 ft^3/s (0.14 m^3/s) Oct. 27, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1928, at site about 5.0 mi (8.0 km) upstream, drainage area, 55.9 mi^2 (144.8 km^2), discharge, about 14,000 ft^3/s (396 m^3/s) was the greatest known since at least 1900, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 10	1400	2720	77.0	16.27	4.959	Mar. 18	0730	1960	55.5	14.18	4.322
Jan. 18	2100	2680	75.9	16.18	4.932	Mar. 21	1730	*5120	145	20.56	6.267

Minimum discharge, 5.3 ft^3/s (0.150 m^3/s) Aug. 31.

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	91	45	174	211	118	82	233	67	60	14	9.1	9.1
2	72	521	151	202	99	80	198	63	52	13	37	8.6
3	60	287	129	189	96	77	179	60	46	14	15	6.7
4	55	163	121	323	92	77	211	55	42	26	15	6.7
5	53	112	116	388	83	302	165	52	39	19	15	7.7
6	46	88	116	308	92	400	149	48	37	41	12	8.0
7	41	74	114	321	85	332	140	46	34	26	10	8.0
8	37	64	99	358	77	1150	151	44	32	16	9.4	7.7
9	35	178	90	306	82	866	162	42	30	14	8.8	7.2
10	112	2220	86	253	82	420	132	41	28	12	8.9	15
11	66	843	82	301	78	285	121	39	26	12	8.5	11
12	49	343	80	322	80	218	240	38	25	12	8.2	8.0
13	46	238	100	273	80	191	523	37	24	12	8.7	7.2
14	41	180	110	361	90	165	1190	36	23	11	7.9	6.9
15	36	144	91	327	118	130	500	35	22	11	7.9	6.7
16	34	124	87	281	644	115	321	35	25	11	8.7	6.2
17	32	107	81	317	441	886	236	106	30	9.6	19	6.4
18	31	96	75	1780	273	1470	197	249	24	9.4	11	6.7
19	31	86	74	1460	215	544	170	117	21	8.7	10	6.7
20	30	78	74	500	196	1010	147	329	19	9.3	13	6.7
21	30	72	72	339	183	4690	130	218	18	13	17	9.4
22	32	68	70	548	169	1810	115	132	17	13	10	9.4
23	52	66	88	981	149	532	103	325	16	11	9.1	8.6
24	43	423	322	515	131	551	94	697	17	11	8.5	11
25	34	436	589	356	118	452	90	465	27	9.8	8.0	23
26	32	818	369	264	109	353	97	251	21	9.4	7.0	12
27	31	452	270	213	99	284	116	154	18	10	6.6	8.6
28	30	322	213	179	96	534	94	110	16	16	6.4	8.6
29	45	243	181	152	89	481	79	87	15	12	5.7	13
30	51	198	178	136	---	370	72	76	16	10	5.5	11
31	41	---	170	152	---	296	---	67	---	9.6	6.2	---
TOTAL	1419	9089	4572	12616	4264	19153	6355	4121	820	425.8	333.1	271.8
MEAN	45.8	303	147	407	147	618	212	133	27.3	13.7	10.7	9.06
MAX	112	2220	589	1780	644	4690	1190	697	60	41	37	23
MIN	30	45	70	136	77	77	72	35	15	8.7	5.5	6.2
CFSM	.56	3.67	1.78	4.93	1.78	7.49	2.57	1.61	.33	.17	.13	.11
IN.	.64	4.10	2.06	5.69	1.92	8.64	2.87	1.86	.37	.19	.15	.12

CAL YR 1979 TOTAL 99600.0 MEAN 273 MAX 3870 MIN 30 CFSM 3.31 IN 44.91
WTR YR 1980 TOTAL 63439.7 MEAN 173 MAX 4690 MIN 5.5 CFSM 2.10 IN 28.61

03538225 POPLAR CREEK NEAR OAK RIDGE, TN--Continued

WATER QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV									
06...	1230	87	195	7.6	9.5	62	41	135	.18
DEC									
27...	1115	282	135	7.4	4.5	38	37	91	.12
FEB									
14...	1030	83	212	7.3	2.0	60	38	140	.19
MAR									
17...	1645	1450	118	6.7	10.0	32	27	77	.10
18...	0810	1950	105	6.8	8.5	20	24	69	.09
APR									
15...	1430	478	135	7.5	9.0	34	28	91	.12
MAY									
27...	1500	153	175	7.6	17.0	46	40	112	.15
JUL									
16...	0900	11	360	7.8	19.5	142	24	176	.24
AUG									
28...	1020	6.0	280	7.6	22.5	134	21	184	.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, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV								
06...	31.7	410	60	300	300	7	1.6	--
DEC								
27...	69.3	450	50	250	250	27	21	--
FEB								
14...	31.5	490	30	--	330	2	.45	--
MAR								
17...	301	12000	70	660	120	491	1920	90
18...	363	12000	90	900	110	504	2650	84
APR								
15...	117	2800	40	500	160	41	53	--
MAY								
27...	46.3	870	30	230	190	29	12	--
JUL								
16...	5.08	560	0	300	280	35	1.0	--
AUG								
28...	2.98	260	10	--	190	35	.57	--

03538225 POPLAR CREEK NEAR OAK RIDGE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JUL 16...	0900	140	14	38	12	4.9	7	.2	2.0	3.6	.1	7.5

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUL 16...	171	.58	.330	1	0	100	0	<10	20	20	40	2

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 16...	10	23000	0	80	1100	.1	.00	0	0	0	10	82

03538250 EAST FORK POPLAR CREEK NEAR OAK RIDGE, TN

LOCATION.--Lat 35°57'58", long 84°21'30", Roane County, Hydrologic Unit 06010207, near left bank, on upstream side of county road bridge, 0.3 mi (0.5 km) north of State Highway 95, 1.7 mi (2.7 km) upstream from Bear Creek, 5.8 mi (9.3 km) southwest of intersection of State Highways 95 and 62 in Oak Ridge, and at mile 3.3 (5.3 km).

DRAINAGE AREA.--19.5 mi^2 (50.5 km^2).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 754.16 ft (229.868 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow includes effect of operations of the Department of Energy's Y-12 Plant, which may add up to 20 ft^3/s (0.57 m^3/s), and the west end sewage treatment plant of the City of Oak Ridge, which may add up to 10 ft^3/s (0.28 m^3/s). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--20 years, 52.8 ft^3/s (1.495 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s (116 m^3/s) Nov. 28, 1973, gage height, 16.0 ft (4.88 m) from floodmarks, backwater from low steel on bridge, on basis of runoff comparison with nearby stations; minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 8, 1978, Aug. 7, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1944, the greatest known since 1900, reached a discharge of about 4,600 ft^3/s (130 m^3/s) at site 5.1 mi (8.2 km) upstream, from report of the Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Nov. 10	0845	772	21.9	6.68	2.036	Mar. 21	0330	*1670	47.3	10.29	3.136
Jan. 18	1315	935	26.5	7.44	2.268						

Minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Aug. 7.

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	33	24	39	49	38	28	48	26	20	19	19	19
2	31	140	34	41	34	28	44	25	20	18	19	18
3	29	55	31	38	33	28	41	24	22	24	18	18
4	30	41	31	95	32	33	82	22	25	27	19	26
5	28	35	34	75	31	77	47	22	24	18	21	24
6	26	32	31	56	35	45	43	22	24	43	19	16
7	24	30	31	66	32	90	40	22	23	20	14	16
8	24	28	29	58	31	304	43	22	22	19	19	17
9	23	58	27	48	31	102	43	17	21	20	18	19
10	56	472	26	44	34	73	36	24	20	21	16	38
11	31	107	26	62	34	57	34	19	18	20	19	20
12	28	69	24	54	33	51	69	19	20	19	25	19
13	29	55	34	47	33	47	158	19	22	18	19	18
14	26	45	28	60	35	41	185	20	24	18	19	16
15	25	40	25	48	50	37	85	19	18	18	19	18
16	24	35	24	45	140	44	62	18	19	19	19	18
17	24	32	24	68	71	252	51	36	20	19	25	21
18	24	30	24	509	55	152	44	42	22	19	30	20
19	24	29	24	154	48	90	40	30	21	18	23	18
20	20	27	24	93	47	364	36	44	20	17	25	17
21	20	26	23	71	44	853	34	32	18	20	28	21
22	21	25	22	181	41	151	32	26	17	22	22	19
23	34	24	31	194	38	96	31	49	18	21	21	19
24	23	150	97	96	35	124	30	78	20	19	21	20
25	22	106	81	72	33	83	29	49	38	19	21	30
26	22	156	55	58	32	68	41	37	22	19	20	21
27	19	78	46	50	31	57	48	30	20	21	20	19
28	20	60	40	45	30	147	32	27	19	53	19	20
29	26	50	36	41	29	87	29	26	19	26	19	30
30	25	43	40	40	---	69	28	24	19	20	18	22
31	22	---	37	47	---	58	---	22	---	18	17	---
TOTAL	813	2102	1078	2605	1190	3736	1565	892	635	672	631	617
MEAN	26.2	70.1	34.8	84.0	41.0	121	52.2	28.8	21.2	21.7	20.4	20.6
MAX	56	472	97	509	140	853	185	78	38	53	30	38
MIN	19	24	22	38	29	28	28	17	17	17	14	16

CAL YR 1979 TOTAL 24751 MEAN 67.8 MAX 840 MIN 19
WTR YR 1980 TOTAL 16536 MEAN 45.2 MAX 853 MIN 14

03539800 OBED RIVER NEAR LANCING, TN

LOCATION.--Lat 36°04'53", long 84°40'15", Morgan County, Hydrologic Unit 06010208, on left bank at Alley Ford, 2.9 mi (4.7 km) southwest of Lancing, 3.0 mi (4.8 km) downstream from Clear Creek, and at mile 1.5 (2.4 km).

DRAINAGE AREA.--518 mi^2 (1,342 km^2).

PERIOD OF RECORD.--October 1956 to September 1968, March 1973 to current year. Prior to May 1957, monthly discharge only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 891.91 ft (271.854 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--19 years (water years 1957-68, 1974-80), 1,089 ft^3/s (30.84 m^3/s), 28.55 in/yr (725 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s (2,970 m^3/s), May 27, 1973, gage height, 29.51 ft (8.995 m), dross line in gage well, 30.5 ft (9.30 m), from floodmarks, from rating curve extended above 33,000 ft^3/s (935 m^3/s) on basis of slope conveyance study at gage height 22.40 ft (6.828 m), and slope-area measurement of peak flow; minimum, 0.4 ft^3/s (0.011 m^3/s) Oct. 31, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929, reached a stage of 33.9 ft (10.33 m), 35 ft (11 m) downstream from gage, from high water marks by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 50,800 ft^3/s (1,440 m^3/s) at 0400 hours, Mar. 21, gage height, 21.68 ft (6.608 m), no other peaks recorded above base of 13,000 ft^3/s (368 m^3/s); minimum discharge, 3.3 ft^3/s (0.935 m^3/s) several days in August.

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	927	1340	1370	1170	850	550	1860	892	447	22	4.0	6.5
2	608	6650	1170	1120	700	500	1540	748	338	19	3.8	6.7
3	436	3910	970	988	650	450	1320	640	255	19	3.3	5.5
4	346	2440	834	1260	600	500	1170	566	195	22	4.0	4.6
5	351	1780	708	2100	550	800	1020	496	160	24	3.8	4.3
6	329	1420	655	1800	500	1700	867	454	138	22	3.3	3.9
7	264	1190	611	1710	450	1600	748	401	124	22	3.5	3.8
8	215	970	550	2660	400	4600	708	358	112	19	3.8	5.9
9	182	842	461	2250	400	4800	802	306	90	19	3.5	6.7
10	214	3280	401	1770	400	3000	708	267	80	18	3.3	5.6
11	438	3530	372	1590	400	2200	611	232	70	16	3.5	5.2
12	372	2380	351	2030	450	1700	604	210	60	14	3.8	4.7
13	298	1800	365	1750	400	1300	997	205	52	12	4.0	4.5
14	244	1450	511	2170	450	1100	3140	176	45	10	9.1	4.2
15	209	1200	489	2340	500	1000	2840	176	40	9.6	16	16
16	188	1020	432	1940	1500	900	2080	164	35	9.1	13	16
17	181	875	401	1700	2300	4500	1570	210	33	7.8	11	12
18	164	794	365	4620	1900	7800	1310	2000	31	6.6	9.1	8.9
19	144	677	338	5400	1600	4500	1120	1570	28	5.5	9.1	6.9
20	131	582	331	3230	1400	10000	943	1650	25	4.9	8.6	5.7
21	120	511	306	2370	1200	31700	810	1530	22	4.3	11	4.9
22	114	461	287	2410	1100	7890	701	1130	19	4.0	10	4.3
23	190	424	345	5070	1000	4000	611	1070	17	4.6	11	3.9
24	593	4600	2400	3360	900	3470	534	1210	21	4.3	12	8.0
25	451	4610	4990	2470	800	3350	511	2370	50	4.3	10	25
26	373	5800	3840	1950	750	2580	519	2090	40	4.6	8.8	20
27	299	3800	2650	1620	700	2030	2000	1400	30	4.0	7.3	15
28	291	2610	1980	1390	650	3450	1650	970	28	4.9	6.6	10
29	4860	1990	1590	1160	600	4330	1260	786	25	5.5	6.4	7.0
30	2950	1610	1380	961	---	2970	1070	961	22	4.9	7.3	5.0
31	1770	---	1280	900	---	2330	---	597	---	4.6	7.0	---
TOTAL	18252	64546	32733	67259	24100	121600	35624	25835	2632	351.5	220.9	240.7
MEAN	589	2152	1056	2170	831	3923	1187	833	87.7	11.3	7.13	8.02
MAX	4860	6650	4990	5400	2300	31700	3140	2370	447	24	16	25
MIN	114	424	287	900	400	450	511	164	17	4.0	3.3	3.8
CFSM	1.14	4.15	2.04	4.19	1.60	7.57	2.29	1.61	.17	.02	.01	.02
IN.	1.31	4.64	2.35	4.83	1.73	8.73	2.56	1.86	.19	.03	.02	.02

CAL YR 1979 TOTAL 586033.0 MEAN 1606 MAX 23000 MIN 27 CFSM 3.10 IN 42.09
WTR YR 1980 TOTAL 393394.1 MEAN 1075 MAX 31700 MIN 3.3 CFSM 2.08 IN 28.25

03540500 EMORY RIVER AT OAKDALE, TN

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, Hydrologic Unit 06010208, on left bank, at Oakdale, 1,000 ft (300 m) downstream from highway bridge, 1,100 ft (340 m) downstream from Mud Lick Creek, and at mile 18.3 (29.4 km).

DRAINAGE AREA.--764 mi² (1,979 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emery River at Harriman and October 1929 to September 1934 as Emery River at Oakdale.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

GAGE.--Water-stage recorder. Datum of gage is 761.38 ft (232.069 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi (9.3 km) downstream at datum 43.60 ft (13.289 m) lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--53 years, 1,476 ft³/s (41.80 m³/s), 26.23 in/yr (666 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 time in 1944, 1952-53.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 19,000 ft³/s (538 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 2	0730	19400	549	16.55	5.044	Mar. 21	Unknown	*85100	2410	a30.20	9.205

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Aug. 2, 3.

a From dross line in well.

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	1440	1800	1650	1430	1010	666	2180	978	770	33	3.8	42
2	1040	13300	1400	1360	739	623	1750	850	593	27	3.8	28
3	790	5920	1180	1230	721	532	1470	746	470	25	4.2	73
4	645	3370	1040	1570	702	560	1290	666	370	33	7.8	54
5	600	2320	908	2920	615	977	1110	610	300	38	19	29
6	579	1760	848	2490	584	2100	937	563	242	43	29	21
7	478	1450	802	2200	551	2000	821	508	208	37	19	15
8	400	1220	721	3140	466	6770	785	470	177	37	14	10
9	340	1260	628	2780	442	7230	920	405	151	37	8.2	7.3
10	435	8540	559	2190	442	4130	832	357	122	27	6.0	6.0
11	674	5790	528	2140	431	2750	730	323	102	23	5.1	7.6
12	655	3410	502	3110	511	2050	823	297	88	20	4.2	8.4
13	552	2440	505	2620	477	1770	1780	273	78	22	5.7	6.8
14	459	1860	624	3530	506	1530	5780	259	68	16	6.7	5.5
15	400	1500	660	3600	605	1290	4250	246	57	12	7.8	4.6
16	353	1280	593	2780	1910	1140	2850	237	47	15	8.9	4.2
17	333	1140	563	2400	3190	5910	2050	353	45	13	25	7.8
18	310	1000	733	8140	2260	10200	1650	2690	44	11	33	18
19	274	872	488	8270	1800	5200	1380	1960	41	8.6	24	15
20	249	762	481	4580	1570	17100	1230	3260	38	7.9	18	12
21	223	685	462	3160	1470	50000	1030	2240	33	6.1	18	10
22	208	631	436	3290	1390	11100	898	1510	30	4.9	25	8.4
23	416	584	472	7690	1270	5480	788	1720	25	5.4	23	7.5
24	898	6330	3310	4830	1130	4460	720	2920	31	6.1	23	20
25	807	7610	7800	3330	1010	4370	654	4010	93	5.3	19	60
26	696	10800	5350	2510	915	3330	650	3170	72	7.1	17	47
27	575	5580	3530	2010	821	2600	1660	1930	50	7.1	14	26
28	515	3570	2550	1670	777	4280	1720	1310	43	9.9	11	18
29	5720	2580	1990	1410	733	5890	1300	1030	35	8.8	8.0	17
30	3750	2000	1710	1190	---	3870	1120	1520	34	6.9	6.8	13
31	2290	---	1540	1120	---	2870	---	1010	---	5.4	21	---
TOTAL	27104	101364	44563	94690	29048	172778	45158	38421	4457	558.5	439.0	602.1
MEAN	874	3379	1438	3055	1002	5573	1505	1239	149	18.0	14.2	20.1
MAX	5720	13300	7800	8270	3190	50000	5780	4010	770	43	33	73
MIN	208	584	436	1120	431	532	650	237	25	4.9	3.8	4.2
CFSM	1.14	4.42	1.88	4.00	1.31	7.30	1.97	1.62	.20	.02	.02	.03
IN.	1.32	4.94	2.17	4.61	1.41	8.41	2.20	1.87	.22	.03	.02	.03

CAL YR 1979 TOTAL 840351.0 MEAN 2302 MAX 24200 MIN 62 CFSM 3.01 IN 40.92
WTR YR 1980 TOTAL 559182.6 MEAN 1528 MAX 50000 MIN 3.8 CFSM 2.00 IN 27.23

03540500 EMORY RIVER AT OAKDALE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-67, 1974 to current year.

REMARKS.--Miscellaneous samples prior to 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT									
29...	1100	8650	43	7.3	12.5	8	7.5	40	.05
NOV									
07...	1100	1400	46	7.2	10.5	8	8.5	38	.05
DEC									
26...	1200	5640	47	6.7	7.0	10	9.4	28	.04
FEB									
11...	1320	390	60	6.6	1.0	10	15	40	.05
MAR									
17...	1300	5300	37	6.4	9.5	10	14	32	.04
APR									
15...	1050	4170	38	7.2	9.5	6	9.2	34	.05
MAY									
27...	1100	1940	44	7.1	17.0	10	9.5	40	.05
JUL									
16...	1415	14	160	7.8	27.0	28	30	74	.10
AUG									
28...	1400	9.8	150	7.3	29.0	26	42	106	.14

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL (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								
29...	934	3700	100	370	40	194	4530	83
NOV								
07...	144	200	60	60	50	2	7.6	--
DEC								
26...	426	390	50	40	30	23	350	--
FEB								
11...	42.1	200	20	90	90	1	1.1	--
MAR								
17...	458	1600	50	210	140	62	887	--
APR								
15...	383	480	30	60	30	20	225	--
MAY								
27...	210	420	50	60	40	14	73	--
JUL								
16...	2.88	240	20	110	50	4	.16	--
AUG								
28...	2.80	160	10	40	20	4	.11	--

03540500 EMORY RIVER AT OAKDALE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JUL 16...	1415	49	25	13	4.0	5.3	18	.3	1.7	3.9	.1	1.4

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUL 16...	74	.20	.010	1	0	<50	0	<10	20	20	20	6

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 16...	20	34000	5	20	880	.1	.00	0	0	0	10	69

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. 305 and Water Resources Data for North Carolina, 1980).

COOPERATION.--Records furnished by Tennessee Valley Authority.

AVERAGE DISCHARGE.--11 years (water years 1935-39, 1975-80), 29,940 ft³/s (847.9 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, 79,200 ft³/s (2,240 m³/s) Mar. 21; minimum daily, 4,400 ft³/s (125 m³/s) Sept. 28.

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	32100	38800	46300	26100	42100	27700	63900	28700	19300	27800	26800	19000
2	31600	39300	44300	33600	36800	22900	59900	31700	24600	22200	28600	20000
3	34400	46700	44900	37400	33900	28900	53100	28200	25100	22300	32800	25200
4	33100	46600	45900	39600	30200	30800	46000	23100	26700	23800	23700	24800
5	34500	43500	46100	34200	35200	29200	42900	25600	26700	28300	16500	28400
6	34300	41700	46200	34500	31900	35400	29800	23000	27600	24700	17200	20500
7	34200	43600	46300	36100	34900	23400	32400	23800	25200	21700	14800	19600
8	34100	45000	46600	33200	31900	28300	24700	23200	20000	29400	19300	23000
9	34400	45600	46700	38100	24900	17200	27000	24600	21100	27500	25000	29600
10	34800	47000	43700	40400	23000	28600	22100	23300	23400	28000	24500	22500
11	34900	52600	33900	36300	28800	41600	25200	19000	24600	28700	17500	22700
12	34700	54700	41500	38700	31400	36900	32700	23100	22400	33800	18800	20000
13	29100	54600	46200	37000	28200	26100	36700	18200	23500	33000	22000	20400
14	29600	50700	38100	39400	24400	22500	37200	19800	25500	30400	24800	13700
15	34400	47000	31900	41500	28200	15900	37200	22000	23400	30300	27600	21800
16	33500	46500	32900	42500	22000	17700	28200	25900	21100	29500	26800	23500
17	34400	45900	37600	42600	32500	29600	30900	23000	21400	29800	30300	23100
18	34200	46000	39500	42900	27000	15300	31100	14400	20400	32400	24900	20700
19	34100	46300	38400	52500	27400	23800	34500	24200	21700	31400	25400	17400
20	34100	45800	35100	59200	25300	38700	34600	26700	24200	28500	19800	14100
21	34200	46000	32300	56700	26400	79200	32700	24400	24400	36000	21300	15700
22	34000	45800	23800	54300	17300	77400	33300	26600	24500	33200	26800	19100
23	35500	45900	25000	58900	15700	69900	28200	25000	17600	27000	28200	20500
24	35800	48900	25200	62300	13800	65500	30400	22400	21500	20800	27000	23400
25	34900	52700	35400	61400	22500	64500	33600	26100	25200	21500	18400	19800
26	35100	56800	31500	63100	21800	67300	32400	26100	28700	20100	20500	19000
27	34200	61100	38300	60200	21600	66900	28400	29800	28400	20800	22900	6900
28	35800	56100	38600	52500	12800	66900	22000	27200	29400	21300	20000	4400
29	34300	51600	35100	47100	17200	66900	22900	26200	31200	23500	22800	10800
30	36800	48900	31300	45400	---	67000	27700	29000	25700	20900	20000	15800
31	38000	---	32900	42300	---	66600	---	20700	---	23200	18800	---
TOTAL	1059100	1441700	1181500	1390000	769100	1298600	1021700	755000	724500	831800	713800	585400
MEAN	34160	48060	38110	44840	26520	41890	34060	24350	24150	26830	23030	19510
MAX	38000	61100	46700	63100	42100	79200	63900	31700	31200	36000	32800	29600
MIN	29100	38800	23800	26100	12800	15300	22000	14400	17600	20100	14800	4400

CAL YR 1979 TOTAL 14385800 MEAN 39410 MAX 111000 MIN 16900
WTR YR 1980 TOTAL 11772200 MEAN 32160 MAX 79200 MIN 4400

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.
WATER TEMPERATURE: February 1976 to current year.

INSTRUMENTATION: Water-quality monitor since February 1976.

REMARKS.--Flow regulated by many reservoirs above station (see p. 305 and Water Resources Data for North Carolina, 1980.)

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 270 micromhos/cm July 27, 1978; minimum, 88 micromhos/cm 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, 250 micromhos/cm July 8, 10; minimum, 108 micromhos/cm Mar. 26.
WATER TEMPERATURE: Maximum, 27.5°C July 17, 18, 23, 24, Aug. 1; minimum, 4.5°C Feb. 9, 12, 14, 17, 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
31...	1200	37400	170	7.5	18.0	4.0	6.0	K8	K3	71	12	20
DEC												
03...	1300	44800	140	7.4	11.5	4.0	9.3	K4	K2	57	12	16
17...	1240	36000	150	7.2	9.0	3.0	10.0	--	--	62	10	18
JAN												
25...	1200	63400	150	7.4	8.0	1.2	14.5	<1	<1	66	7	19
MAR												
06...	1200	30300	170	7.8	6.0	.80	13.8	K2	K1	70	4	20
APR												
30...	1200	33300	145	8.5	15.0	2.0	10.2	K3	K6	59	8	17
MAY												
28...	1415	39000	160	7.1	20.0	4.3	7.0	<1	K1	67	6	19
JUN												
25...	1430	44000	160	7.8	24.0	1.5	8.7	K9	K1	61	0	17
AUG												
05...	1130	36900	155	8.0	26.5	2.2	7.2	K310	50	70	5	20
SEP												
05...	1030	39500	210	7.4	26.0	.60	7.0	22	K90	83	15	24

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
31...	5.0	6.8	22	.4	1.5	59	14	7.0	.1	5.1	110	96
DEC												
03...	4.1	6.5	25	.4	1.4	45	13	6.2	.1	5.2	84	81
17...	4.1	6.4	23	.4	1.5	52	13	7.0	.1	5.3	106	88
JAN												
25...	4.6	5.5	15	.3	1.1	59	14	5.2	.1	5.7	--	92
MAR												
06...	4.8	4.7	13	.2	1.2	66	12	5.2	.1	4.2	99	94
APR												
30...	3.9	4.4	14	.3	1.3	51	12	5.1	.1	4.5	75	80
MAY												
28...	4.8	5.3	14	.3	1.0	61	12	5.0	.1	4.1	94	89
JUN												
25...	4.6	4.5	13	.3	1.3	61	13	4.8	.1	3.7	95	87
AUG												
05...	4.8	5.9	15	.3	1.4	65	11	6.2	.1	5.2	103	95
SEP												
05...	5.7	6.9	15	.3	1.5	68	15	7.8	.1	5.6	120	109

K--Results based on colony count outside acceptable range (non-ideal colony count).

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
31...	--	11100	.58	.29	.050	.010	.79	.53	.030	.010	--
DEC											
03...	.11	10200	.30	.30	--	.050	.41	.15	.020	.010	--
17...	.14	10300	.36	.38	.030	.030	--	.39	.020	.020	2.1
JAN											
25...	.11	13900	.30	.30	.060	.040	.30	.21	.030	.020	3.3
MAR											
06...	.13	8100	.54	.40	.050	.000	.41	.00	.030	.010	--
APR											
30...	.10	6740	.36	.34	.060	.030	.20	.06	.020	.020	3.1
MAY											
28...	.13	9900	.25	.24	.090	.040	.15	.08	.030	.010	1.0
JUN											
25...	.13	11300	.23	.24	.080	.040	.17	.08	.020	.010	2.9
AUG											
05...	.14	10300	.21	.20	.000	.000	.15	.07	.020	.000	2.6
SEP											
05...	.16	12800	.24	.24	--	.040	--	.10	.020	.020	6.3

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
31...	2.1	.2	--	.00	.240	.240	.990	.100	5	505	85
DEC											
03...	2.2	.4	4200	--	--	--	--	--	11	1330	24
17...	--	--	--	--	--	--	--	--	9	875	69
JAN											
25...	--	--	--	--	--	--	--	--	4	685	95
MAR											
06...	2.1	.5	1600	--	--	--	--	--	4	327	77
APR											
30...	--	--	--	--	--	--	--	--	7	629	58
MAY											
28...	--	--	3300	--	--	--	--	--	26	2740	43
JUN											
25...	--	--	--	--	--	--	--	--	14	1660	34
AUG											
05...	--	--	6300	172	4.49	6.54	11.9	2.12	--	--	71
SEP											
05...	5.9	.6	17000	--	--	--	--	--	18	1920	34

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
31...	4	1	--	30	0	1	20	20	0
DEC									
03...	3	3	--	40	0	0	40	40	0
17...	--	--	--	--	--	--	--	--	--
MAR									
06...	1	1	<50	40	0	0	20	10	1
MAY									
28...	--	--	--	--	--	--	--	--	--
JUN									
25...	--	--	--	--	--	--	--	--	--
SEP									
05...	2	1	100	0	0	0	10	10	0

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)
OCT									
31...	1	2	2	320	10	4	1	50	3
DEC									
03...	0	3	--	--	30	0	--	30	10
17...	--	--	--	--	--	--	--	--	--
MAR									
06...	1	1	1	140	20	3	1	50	20
MAY									
28...	--	--	--	--	--	--	--	--	--
JUN									
25...	--	--	--	--	--	--	--	--	--
SEP									
05...	3	7	2	230	10	7	0	130	10

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
31...	<.1	<.1	1	0	0	0	10	0
DEC								
03...	<.1	<.1	2	--	0	0	50	8
17...	--	--	--	--	0	--	--	--
MAR								
06...	.1	.1	1	1	0	0	50	30
MAY								
28...	--	--	--	--	0	--	--	--
JUN								
25...	--	--	--	--	0	--	--	--
SEP								
05...	.1	<.1	5	4	0	0	20	10

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	DEC 3,79	MAR 6,80	MAY 28,80	JUN 25,80	AUG 5,80	SEP 5,80
TIME	1300	1200	1415	1430	1130	1000
TOTAL CELLS/ML	4200	1600	3300	8600	6300	17000
DIVERSITY: DIVISION	1.1	0.4	1.4	0.9	1.2	0.5
.CLASS	1.1	0.4	1.4	0.9	1.2	0.5
..ORDER	1.2	1.3	2.0	1.3	1.5	1.3
...FAMILY	1.2	1.3	2.1	1.5	2.4	1.9
....GENUS	2.2	2.4	2.3	1.7	2.5	2.0

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												
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	320	5	*	0
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	57	1	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	77	1	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	310	4	--	-	*	0
...OOCYSTACEAE												
....ANKISTRODESMUS	21	1	40	2	*	0	51	1	86	1	*	0
....CHLORELLA	--	-	30	2	*	0	*	0	--	-	--	-
....CHODATELLA	--	-	--	-	*	0	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	60	4	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	51	1	--	-	*	0
....OOCYSTIS	--	-	--	-	--	-	--	-	*	0	100	1
....SELENASTRUM	--	-	--	-	--	-	51	1	--	-	*	0
....TETRAEDRON	--	-	--	-	--	-	170	2	*	0	--	-
....TREUBARIA	--	-	--	-	--	-	*	0	--	-	*	0
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	--	-	150	2	--	-	--	-
....SCENEDESMUS	43	1	--	-	230	7	210	2	370	6	280	2
....TETRASTRUM	170	4	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	*	0	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	26	1	*	0	43	1	*	0
....CHLOROGONIUM	--	-	--	-	--	-	--	-	--	-	*	0
....PLATYMONAS	21	1	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....CLOSTERIUM	--	-	--	-	*	0	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	1600#	39	--	-	140	4	260	3	590	9	320	2
....MELOSIRA	1200#	27	410#	26	810#	25	120	1	110	2	120	1
....SKELETONEMA	230	6	130	8	--	-	--	-	--	-	--	-
....STEPHANODISCUS	21	1	--	-	--	-	--	-	--	-	--	-
....THALASSIOSIRA	--	-	130	8	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	*	0	*	0	*	0	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	160	10	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	640#	40	--	-	--	-	--	-	--	-
....SYNEDRA	21	1	--	-	26	1	130	1	100	2	--	-
...NITZSCHIACEAE												
....NITZSCHIA	--	-	*	0	150	5	*	0	57	1	100	1
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	DEC 3,79 1300		MAR 6,80 1200		MAY 28,80 1415		JUN 25,80 1430		AUG 5,80 1130		SEP 5,80 1000	
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												
....ANACYSTIS	--	-	--	-	280	9	400	5	170	3	3900#	23
....GOMPHOSPHAERIA	--	-	--	-	--	-	51	1	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-	8300#	49
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	1500#	47	6500#	75	1200#	19	3600#	21
....SCHIZOTHRIX	870#	21	--	-	--	-	--	-	--	-	--	-
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	3100#	49	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	21	1	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - 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 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	167	164	165	172	171	171	144	140	142	146	143	144
2	166	165	166	174	171	172	141	140	140	145	142	143
3	166	163	165	172	171	171	142	139	141	143	138	141
4	164	163	164	172	170	171	147	142	144	138	133	135
5	165	164	165	169	167	168	154	147	150	133	129	131
6	166	165	166	168	162	165	162	155	159	130	128	129
7	166	164	165	162	157	160	166	162	164	128	126	127
8	166	160	163	156	151	153	167	166	166	128	125	126
9	160	156	158	150	146	148	166	164	165	126	124	125
10	156	154	155	146	145	145	165	162	163	125	121	123
11	155	154	155	145	143	144	163	161	162	123	121	122
12	157	155	156	146	143	144	162	152	158	125	123	124
13	157	156	157	148	146	147	153	151	152	130	126	128
14	160	158	159	149	147	148	152	151	151	131	129	130
15	161	159	160	149	145	147	153	150	151	135	131	133
16	163	161	162	145	141	143	157	150	153	136	134	136
17	166	163	164	141	139	140	156	152	153	137	136	136
18	169	166	167	140	139	140	161	154	158	138	134	136
19	172	169	170	141	140	140	162	154	159	140	138	139
20	173	170	172	143	141	143	150	146	148	141	139	139
21	174	173	174	144	143	143	149	147	147	148	141	145
22	174	173	174	146	144	145	150	147	148	151	144	148
23	175	174	174	149	146	148	151	150	150	146	142	144
24	175	174	174	151	149	149	152	150	151	---	---	---
25	174	172	173	151	148	150	152	148	150	---	---	---
26	174	172	173	150	148	149	148	139	144	152	147	151
27	174	172	173	151	150	150	141	138	139	154	151	152
28	173	171	172	151	149	150	138	136	137	153	144	150
29	172	170	171	150	148	149	143	137	139	148	143	146
30	171	169	170	148	144	146	146	143	144	148	146	148
31	172	171	171	---	---	---	148	144	146	150	147	149
MONTH	175	154	166	174	139	151	167	136	151	154	121	137
		FEBRUARY			MARCH			APRIL			MAY	
1	152	147	151	163	158	161	123	120	122	151	147	150
2	154	149	152	163	158	161	124	121	122	153	149	152
3	156	148	153	161	157	159	131	125	128	155	152	154
4	158	152	155	159	157	158	137	132	135	157	154	156
5	158	152	156	158	157	158	143	138	140	159	156	158
6	161	155	158	160	158	159	144	141	142	191	157	163
7	163	158	160	166	163	165	146	142	143	160	154	157
8	169	159	164	165	163	164	147	146	146	156	152	154
9	170	162	166	163	162	163	147	146	147	154	150	152
10	172	160	167	164	159	161	148	147	147	155	146	149
11	173	164	169	162	158	160	149	146	148	165	146	150
12	175	167	172	161	151	157	150	148	149	148	146	147
13	180	172	177	163	156	159	151	149	150	147	144	146
14	181	169	174	162	157	161	152	150	151	148	145	147
15	177	169	174	165	157	162	158	151	154	148	147	147
16	177	170	174	176	160	165	161	158	160	149	147	148
17	179	169	174	169	161	163	164	159	162	153	147	148
18	177	166	171	164	157	160	166	164	165	187	149	159
19	170	164	167	159	154	156	166	164	165	154	151	152
20	168	165	167	154	147	150	165	163	164	155	152	154
21	167	163	164	147	139	144	165	158	161	157	154	155
22	169	161	163	143	136	140	162	148	154	158	156	157
23	169	160	162	137	127	132	148	144	146	158	156	157
24	167	159	162	126	113	118	144	139	142	161	159	160
25	165	161	162	114	110	112	145	141	144	163	160	161
26	168	161	164	117	108	113	146	141	144	163	159	162
27	168	161	163	121	115	118	145	139	143	165	159	162
28	167	161	162	122	119	120	146	144	145	186	161	168
29	163	159	162	127	121	125	146	142	144	186	160	169
30	---	---	---	127	124	126	148	145	146	181	160	168
31	---	---	---	125	122	123	---	---	---	186	164	170
MONTH	181	147	164	176	108	148	166	120	147	191	144	156

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

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	185	163	170	218	158	173	152	120	130			
2	183	164	169	230	152	173	149	121	130			
3	179	166	169	212	147	165	136	124	129			
4	169	167	168	173	146	155	151	125	135			
5	169	167	168	222	146	164	---	---	---			
6	163	160	162	230	145	168	---	---	---			
7	163	160	162	240	145	180	---	---	---			
8	183	161	166	250	145	172	---	---	---			
9	178	162	167	238	146	165	---	---	---			
10	165	162	163	250	146	160	---	---	---			
11	165	164	164	236	123	151	---	---	---			
12	180	163	168	126	123	124	---	---	---			
13	190	166	171	184	122	131	---	---	---			
14	183	168	171	231	123	141	---	---	---			
15	195	171	178	233	125	144	---	---	---			
16	202	168	176	218	127	144	---	---	---			
17	184	165	171	196	128	141	---	---	---			
18	189	169	174	185	138	139	---	---	---			
19	201	172	179	134	121	165	---	---	---			
20	201	169	178	185	126	137	---	---	---			
21	200	172	180	132	123	127	---	---	---			
22	205	173	178	134	127	130	---	---	---			
23	203	162	175	146	131	140	---	---	---			
24	206	160	174	196	131	154	---	---	---			
25	199	157	173	212	135	160	---	---	---			
26	203	160	171	207	136	160	---	---	---			
27	214	162	176	190	127	150	---	---	---			
28	206	160	169	170	124	140	---	---	---			
29	163	159	161	190	124	150	---	---	---			
30	209	158	171	182	127	142	---	---	---			
31	---	---	---	170	125	138	---	---	---			
MONTH	214	157	171	250	121	151	---	---	---			

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

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

03543005 TENNESSEE RIVER AT WATTS BAR DAM (TAILWATER), TN--Continued

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

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

03543500 SEWEE CREEK NEAR DECATUR, TN

LOCATION.--Lat 35°34'53", long 84°44'53", Meigs County, Hydrologic Unit 06020001, on right bank, 0.3 mi (0.5 km) downstream from bridge on State Highway 58, 0.5 mi (0.8 km) downstream from Dry Fork, 5.0 mi (8.0 km) north of Decatur, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--117 mi^2 (303 km^2).

PERIOD OF RECORD.--May 1934 to current year. Prior to October 1935, published as Suee Creek near Decatur.

REVISED RECORDS.--WSP 1910: 1936(M), 1939(M), 1943(M), 1946, 1948(M), 1949, 1951, 1957, 1958(P). WSP 2110: 1951 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 694.32 ft (211.629 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--46 years, 197 ft^3/s (5.579 m^3/s), 22.87 in/yr (581 mm/yr).

EXTREMES FOR PERIOD RECORD.--Maximum discharge, 23,900 ft^3/s (677 m^3/s) Jan. 7, 1946, gage height, 23.97 ft (7.306 m), from floodmarks, from rating curve extended above 11,300 ft^3/s (320 m^3/s) on basis of slope-area measurement at gage height 22.81 ft (6.952 m); minimum, 11 ft^3/s (0.31 m^3/s) Sept. 24, 1935, Jan. 7-10, Oct. 4, 5, 7, 11, 12, 14, 15, 1940; minimum gage height, 0.15 ft (0.046 m) Sept. 2, 3, 7-9, 13, 20, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft^3/s (65.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 10	1330	3070	86.9	7.94	2.420	Mar. 21	0930	*8790	249	16.25	4.953

Minimum discharge, 16 ft^3/s (0.45 m^3/s) Sept. 13, gage height, 0.23 ft (0.070 m).

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	144	87	196	159	210	110	353	105	109	43	26	23
2	113	681	171	142	160	100	297	97	97	42	29	30
3	93	339	148	129	160	95	262	91	89	45	27	51
4	92	218	136	251	150	99	328	86	82	42	26	26
5	90	167	125	270	130	240	228	84	76	39	27	26
6	76	139	122	217	130	205	201	82	74	37	26	26
7	69	118	116	199	120	382	184	121	70	37	24	24
8	63	104	100	193	110	1070	178	120	66	35	24	24
9	60	239	90	164	120	696	176	86	64	35	24	21
10	163	2650	85	147	130	446	152	79	61	35	23	25
11	113	976	82	267	120	342	138	75	60	35	23	23
12	87	504	80	348	130	290	294	72	58	32	26	22
13	76	371	90	266	120	266	737	70	58	32	28	20
14	68	282	95	257	160	221	1270	67	56	32	24	22
15	64	221	81	226	190	188	551	65	56	30	24	22
16	63	188	77	201	740	171	400	64	53	30	26	21
17	58	160	74	198	420	855	318	167	61	30	26	26
18	57	141	70	817	320	953	271	280	56	30	27	21
19	56	125	70	582	280	540	236	127	53	28	26	24
20	56	111	69	395	260	1930	210	256	51	27	29	24
21	56	100	67	318	240	6800	190	222	47	28	27	22
22	53	92	67	770	210	1360	170	163	47	28	25	22
23	96	90	69	1280	190	759	155	441	47	32	24	22
24	78	729	345	590	170	906	144	1060	49	30	24	23
25	66	557	429	440	150	636	135	517	143	28	24	26
26	61	799	256	350	140	486	171	349	59	29	24	27
27	58	458	207	290	130	403	161	245	48	32	24	24
28	57	355	174	240	120	1280	138	193	47	32	24	26
29	60	280	151	210	120	801	128	162	44	29	24	35
30	82	227	183	200	---	564	115	139	45	28	26	35
31	73	---	186	250	---	447	---	120	---	26	25	---
TOTAL	2401	11508	4211	10366	5630	23641	8291	5805	1926	1018	786	763
MEAN	77.5	384	136	334	194	763	276	187	64.2	32.8	25.4	25.4
MAX	163	2650	429	1280	740	6800	1270	1060	143	45	29	51
MIN	53	87	67	129	110	95	115	64	44	26	23	20
CFSM	.66	3.28	1.16	2.86	1.66	6.52	2.36	1.60	.55	.28	.22	.22
IN.	.76	3.66	1.34	3.30	1.79	7.52	2.64	1.85	.61	.32	.25	.24

CAL YR 1979 TOTAL 102807 MEAN 282 MAX 4960 MIN 45 CFSM 2.41 IN 32.69
WTR YR 1980 TOTAL 76346 MEAN 209 MAX 6800 MIN 20 CFSM 1.79 IN 24.27

03544500 RICHLAND CREEK NEAR DAYTON, TN

LOCATION.--Lat 35°30'17", long 85°01'20", Rhea County, Hydrologic Unit 06020001, on left bank at Morgantown, 0.4 mi (0.6 km) upstream from bridge on State Highway 30, 1.0 mi (1.6 km) northwest of Dayton, 1.8 mi (2.9 km) downstream from Payne Creek, and at mile 5.2 (8.4 km).

DRAINAGE AREA.--50.2 mi^2 (130.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1927 to September 1931, June 1934 to September 1955, October 1955 to June 1979 (annual maximums only), July 1979 to September 1980. Published as "at Dayton" June 1927 to September 1931.

REVISIONS.--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 September 1980 present site and datum.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s) and above 2,000 ft^3/s (56.6 m^3/s) which are poor due to measuring conditions and indefinite stage-discharge relation.

AVERAGE DISCHARGE.--26 years, 108 ft^3/s (3.059 m^3/s), 29.22 in/yr (742 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 11,000 ft^3/s (312 m^3/s) Nov. 18, 1957, gage height 11.2 ft (3.41 m) present datum, from rating curve extended above 4,600 ft^3/s (130 m^3/s) based on logarithmic plotting and contracted-opening measurement of peak flow; minimum no flow, many days during 1929, 1931.

EXTREMES FOR CURRENT PERIOD.--July 1979 to September 1980: maximum discharge 7,190 ft^3/s (204 m^3/s) at 0045 hours Mar. 21, gage height 8.89 ft (2.710 m) recorded; 9.15 ft (2.789 m) from crest-stage gage; minimum daily discharge .03 ft^3/s (0.001 m^3/s) Sept. 18, 19, 1980.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										2.0	42	12
2										1.8	35	9.0
3										1.7	26	11
4										1.6	21	11
5										1.5	17	9.3
6										1.4	13	6.9
7										1.4	11	5.6
8										1.5	12	4.6
9										2.0	9.3	3.9
10										5.0	7.7	3.6
11										8.0	7.2	3.1
12										10	8.5	2.8
13										37	8.8	3.3
14										47	7.4	7.2
15										40	6.2	13
16										24	5.4	8.5
17										16	4.8	6.7
18										12	4.4	5.7
19										12	4.1	5.1
20										89	3.8	4.7
21										388	3.3	40
22										410	16	54
23										174	8.8	30
24										112	6.9	21
25										361	5.8	17
26										416	5.4	14
27										244	6.4	342
28										200	6.4	2400
29										121	14	600
30										78	13	400
31										59	16	---
TOTAL										2877.9	356.6	4055.0
MEAN										92.8	11.5	135
MAX										416	42	2400
MIN										1.4	3.3	2.8
CFSM										1.85	.23	2.69
IN										2.13	.26	3.00

03544500 RICHLAND CREEK NEAR DAYTON, TN--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	60	103	117	61	50	192	52	36	5.9	.47	.19
2	125	936	84	101	58	45	150	46	29	5.0	.49	.18
3	80	454	70	88	52	44	121	40	23	4.4	.45	.17
4	78	244	63	182	47	42	128	35	19	4.4	.45	.15
5	78	163	58	220	45	132	100	33	15	4.2	.49	.12
6	59	122	54	170	43	153	85	34	12	3.6	.42	.13
7	47	96	50	147	40	347	74	41	11	3.0	.38	.10
8	37	80	42	147	36	1090	77	58	9.2	2.6	.35	.06
9	32	243	36	125	39	674	83	40	7.8	2.2	.31	.07
10	100	1600	34	106	39	350	67	32	6.7	1.9	.30	.06
11	91	644	32	109	38	213	59	28	5.9	1.7	.28	.05
12	72	354	32	117	36	161	157	24	5.2	1.3	.35	.04
13	56	225	35	104	35	141	496	21	4.8	1.1	.33	.04
14	44	158	43	117	35	112	890	19	4.3	.99	.30	.04
15	38	121	36	111	47	92	478	17	4.0	.90	.26	.04
16	33	99	34	100	441	82	279	15	3.6	.87	.29	.06
17	29	82	32	102	318	456	190	325	3.8	.79	.26	.06
18	26	70	29	644	201	669	143	673	3.4	.72	.32	.03
19	23	60	28	513	155	377	112	273	2.9	.68	.52	.03
20	21	53	27	293	182	2080	90	267	2.7	.65	.65	.04
21	19	46	26	199	200	2940	75	203	2.2	.63	.60	.05
22	19	41	25	321	181	734	63	139	2.0	.67	.54	.04
23	62	43	28	647	143	408	54	401	2.0	.89	.43	.04
24	52	476	156	350	114	559	47	610	3.4	.93	.35	.12
25	41	445	325	231	95	428	43	348	64	.74	.33	.54
26	36	640	229	167	79	279	47	192	24	.80	.28	.54
27	32	360	167	131	70	200	67	116	13	.82	.23	.35
28	30	231	127	106	65	758	64	81	8.6	.80	.19	.32
29	32	165	104	88	56	544	69	66	7.0	.69	.18	.46
30	52	126	121	78	---	363	60	68	6.5	.60	.19	.63
31	47	---	136	74	---	261	---	47	---	.51	.22	---
TOTAL	1666	8437	2366	6005	2951	14784	4560	4344	342.0	54.98	11.21	4.75
MEAN	53.7	281	76.3	194	102	477	152	140	11.4	1.77	.36	.16
MAX	175	1600	325	647	441	2940	890	673	64	5.9	.65	.63
MIN	19	41	25	74	35	42	43	15	2.0	.51	.18	.03
CFSM	1.07	5.60	1.52	3.87	2.03	9.50	3.03	2.79	.23	.04	.007	.003
IN.	1.23	6.25	1.75	4.45	2.19	10.96	3.38	3.22	.25	.04	.01	.00

WTR YR 1980 TOTAL 45525.94 MEAN 124 MAX 2940 MIN .03 CFSM 2.47 IN 33.74

03544500 RICHLAND CREEK NEAR DAYTON, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 02...	0830	113	39	6.9	16.5	14	5.4	26
NOV 06...	1000	124	34	7.2	9.5	6	5.7	24
DEC 05...	0900	63	37	7.2	3.5	8	6.4	32
JAN 08...	0930	142	32	7.6	5.5	10	6.3	24
FEB 20...	0930	178	35	7.6	4.5	4	5.6	--
MAR 18...	0900	727	35	6.4	9.0	7	5.8	--
MAY 13...	0830	23	53	7.1	17.0	12	8.1	24
JUN 24...	1215	2.1	128	8.0	22.0	18	18	70
JUL 16...	0945	1.1	140	7.7	28.0	44	18	87

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 02...	.04	7.93	180	40	20	20	3	.92
NOV 06...	.03	8.04	140	60	10	10	<10	--
DEC 05...	.04	5.44	1900	0	10	10	<1	--
JAN 08...	.03	9.20	90	0	10	0	0	.15
FEB 20...	--	--	400	10	20	10	<1	--
MAR 18...	--	--	1100	50	40	10	36	71
MAY 13...	.03	1.46	130	10	10	10	2	.12
JUN 24...	.10	.40	80	10	10	0	1	.01
JUL 16...	.12	.26	60	10	10	10	1	.00

03544500 RICHLAND CREEK NEAR DAYTON, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 16...	0945	41	0	12	2.7	10	33	.7	1.9	3.8

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 16...	.1	3.2	78	.18	.000	1	0	100	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 16...	<10	10	<10	<10	0	<10	500	0	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 16...	69	.2	.01	0	0	0	0	22	.00

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 mi^2 (2,942 km^2).

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

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.--38 years, 2,447 ft^3/s (69.30 m^3/s), 29.25 in/yr (743 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,100 ft^3/s (1,330 m^3/s) May 28, 1973, gage height, 15.34 ft (4.676 m), from rating curve extended above 15,000 ft^3/s (425 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) estimated, Sept. 18-20, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Mar. 21, gage height, 7.43 ft (2.265 m); minimum recorded, 188 ft^3/s (5.32 m^3/s) Mar. 2, gage height, 1.86 ft (0.567 m) but may have been less during period of missing record; minimum daily, 1,300 ft^3/s (37.4 m^3/s) Oct. 18.

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	3010	3000	4420	3110	2910	2810	5440	3210	2980	2540	2850	1520
2	3020	3330	4320	3100	2810	1980	5370	3160	2980	2770	2900	2420
3	3020	3230	4550	3100	1580	3040	5350	3130	2970	2510	2850	2510
4	2990	3150	5460	3140	1810	2970	5100	3110	2980	1620	2800	2490
5	3050	3100	5610	3170	1900	2390	4220	2880	2920	1930	2910	2650
6	3040	3070	5470	3150	2090	2930	4200	2370	2960	1470	2840	2550
7	3030	3070	5480	3150	2320	3180	3970	3100	2580	2330	2850	2500
8	3020	3030	5500	3310	2450	4420	3130	2440	2620	2780	2830	2620
9	3000	3050	5520	2840	2650	2670	3180	2070	2610	2850	2780	2630
10	2940	3980	5610	2540	2700	2860	3080	2700	2620	2780	2780	2490
11	3020	3480	5510	2760	2810	2950	3060	2400	2400	2760	2810	2490
12	2890	3330	5460	2900	2650	3180	3230	2380	1900	2750	2820	2540
13	2980	3230	5480	2890	2930	3420	4250	2360	2200	2260	2800	2600
14	3000	3180	5460	2860	2750	3380	4780	2370	2000	2840	2790	1850
15	2040	3140	5480	2780	2690	2880	3500	2340	1700	2820	2750	2300
16	1340	3120	5450	2720	3170	2790	3300	2630	2350	2810	2710	2360
17	1340	3120	5530	2750	2910	4270	3190	2060	2350	2900	1760	2290
18	1300	3120	5540	2970	2820	2990	3140	1770	2320	2900	2780	2320
19	1430	3080	5590	2990	2500	2700	3110	2260	2360	2300	2760	2280
20	2920	3080	5230	2780	2140	6380	3090	2710	2340	2230	2790	1700
21	2980	3080	4290	2790	2180	8240	3080	2750	2080	2220	2830	1480
22	2970	3060	4280	2970	2190	4020	3060	2700	1560	2900	2840	1980
23	3020	3060	4300	3370	1690	3470	3050	2730	2260	2920	2540	2200
24	3030	3620	4360	3360	1670	3540	3030	2190	2780	2910	1700	1420
25	3000	3590	4400	3270	2160	3430	3050	1720	2950	2900	2470	2190
26	2980	3860	4370	2690	2490	3640	3010	2560	2890	2890	2480	1660
27	2940	3420	4350	2770	2610	5570	2480	3160	2850	2880	2450	1550
28	2960	3370	4160	2750	1800	6310	3050	3130	2830	2920	2450	1400
29	2960	4480	3130	2700	2470	6100	2540	3140	2450	2880	2450	1700
30	3030	4400	3110	2680	---	5750	3240	1570	2440	2810	2470	1700
31	2970	---	3110	3060	---	5580	---	2900	---	2860	1760	---
TOTAL	85220	99830	150530	91420	69850	119840	107280	80000	75230	81240	81600	64390
MEAN	2749	3328	4856	2949	2409	3866	3576	2581	2508	2621	2632	2146
MAX	3050	4480	5610	3370	3170	8240	5440	3210	2980	2920	2910	2650
MIN	1300	3000	3110	2540	1580	1980	2480	1570	1560	1470	1700	1400
CFSM	2.42	2.93	4.28	2.60	2.12	3.40	3.15	2.27	2.21	2.31	2.32	1.89
IN.	2.79	3.27	4.93	2.99	2.29	3.92	3.51	2.62	2.46	2.66	2.67	2.11

CAL YR 1979 TOTAL 1130970 MEAN 3099 MAX 9170 MIN 860
WTR YR 1980 TOTAL 1106430 MEAN 3023 MAX 8240 MIN 1300

03557405 HIWASSEE RIVER NEAR BENTON, TN

LOCATION.--Lat 35°12'18", long 84°39'10", Polk County, Hydrologic Unit 06020003, at county road bridge on Patty Road, 1.5 mi (2.4 km) north of Benton, 800 ft (244 m) upstream from Ocoee River, and at mile 34.5 (55.5 km).

DRAINAGE AREA.--1,362 mi^2 (3,528 km^2).

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

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
16...	1010	1540	40	6.1	16.5	5	<1	7.2	1.1	--	20
DEC											
12...	1000	5770	75	6.1	11.5	5	3	10.5	<1.0	--	38
JAN											
16...	0945	--	43	7.2	7.5	7	2	11.4	<1.0	40	15
MAR											
12...	0945	--	42	6.7	6.0	7	5	11.4	<1.0	20	16

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
16...	11	3.0	1.0	20	.03	83.2	<1	.28	.030	.07
DEC										
12...	5	23	2.0	70	.10	1090	2	.09	.030	.09
JAN										
16...	10	1.0	1.0	30	.04	--	<1	.15	.050	<.01
MAR										
12...	9	4.0	1.0	40	.05	--	6	.19	.020	.06

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
16...	.010	--	3	<10	<50	<10	20	<.2	<10	1.5
DEC										
12...	<.010	<.010	<1	10	80	<10	100	<.2	100	1.7
JAN										
16...	.010	<.010	<1	<10	110	<10	10	<.2	<10	1.5
MAR										
12...	.010	.010	11	10	<50	<10	10	<.2	10	2.2

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. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1980), 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.--68 years, 1,255 ft³/s (35.54 m³/s), 32.52 in/yr (826 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, 14,300 ft³/s (405 m³/s) Mar. 21; gage height, 10.09 ft (3.075 m); minimum, 20 ft³/s (0.57 m³/s) Sept. 24, gage height 2.42 ft (0.738 m); minimum daily, 348 ft³/s (9.86 m³/s) July 17.

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	1530	1540	1220	1160	1260	750	3510	1900	1350	1330	987	863
2	1510	1720	1520	1180	1150	841	3480	2250	1350	1520	855	863
3	1390	1610	1520	530	654	1000	3170	1800	1350	1300	846	880
4	1540	1550	1520	627	642	750	3040	1550	1350	1300	951	788
5	1530	1540	1670	695	639	536	3260	1350	1700	914	924	855
6	1530	1430	1970	585	690	1520	3250	1350	1450	949	829	821
7	1520	1520	1970	578	993	1300	3050	1350	1350	1330	863	747
8	1510	1520	1960	893	730	5270	2410	1350	1300	1440	872	898
9	1510	1520	1960	775	400	2170	2320	1650	1300	1530	872	898
10	1520	2570	1960	691	480	1400	2010	1500	1300	1390	863	739
11	1510	1680	1950	709	866	1320	2440	1900	950	1570	1080	788
12	1500	1880	1960	1230	1110	1230	2460	1600	1100	1550	1140	805
13	1500	1570	1980	859	1190	1530	4760	1350	950	1010	978	906
14	1490	1550	1960	358	743	1550	5700	1350	1150	1380	1010	898
15	1530	1540	1960	1050	611	1040	3790	1350	1100	889	1100	942
16	1510	1530	1920	635	1100	1100	3680	1500	1000	543	889	1140
17	1510	1530	1510	632	1230	3210	3360	2450	1100	348	872	557
18	1520	1520	1500	1060	1000	3870	3160	2100	1100	1310	1040	838
19	1520	1520	1780	1140	1000	2050	2240	1950	1310	880	1040	933
20	1520	1520	1580	1020	1000	4710	1780	2350	1330	906	987	924
21	1520	1340	1520	777	700	9660	1920	2350	1340	1270	1020	821
22	1510	1530	1470	724	680	4200	2410	2350	929	906	915	796
23	1530	1520	1310	1410	680	4120	2530	2400	941	942	1020	780
24	1520	1700	1090	1110	680	4160	1750	2650	1240	933	788	813
25	1550	2270	1500	992	707	4130	1550	2450	1170	1080	805	863
26	1530	1990	1500	774	713	3570	2250	2350	1520	796	898	960
27	1530	1630	1510	725	949	3490	3000	2100	1530	889	906	715
28	1530	1080	1470	724	636	4390	2250	2150	1410	1010	821	564
29	1530	1530	1250	674	765	4600	2150	1700	1530	707	855	978
30	1530	1200	1100	580	---	3770	1600	1700	1540	987	796	1200
31	1520	---	1090	1210	---	3400	---	1350	---	942	788	---
TOTAL	47000	48150	50180	26107	23998	86637	84280	57500	38040	33851	28610	25573
MEAN	1516	1605	1619	842	828	2795	2809	1855	1268	1092	923	852
MAX	1550	2570	1980	1410	1260	9660	5700	2650	1700	1570	1140	1200
MIN	1390	1080	1090	358	400	536	1550	1350	929	348	788	557
(†)	-20500	+1200	-17500	+19000	+13700	+34000	+2200	-1100	-2800	-9000	-11700	-7600
MEAN	855	1645	1054	1455	1300	3892	2883	1819	1175	802	545	599
CFSM	1.63	3.14	2.01	2.78	2.48	7.43	5.50	3.47	2.24	1.53	1.04	1.14
IN.	188	3.50	2.32	3.20	2.68	8.55	6.14	4.00	2.50	1.76	1.20	1.28

CAL YR 1979 TOTAL 592441 MEAN 1623 MAX 11100 MIN 326 MEAN‡ 1588 CFSM‡ 3.03 IN.‡ 41.13
WTR YR 1980 TOTAL 549926 MEAN 1503 MAX 9660 MIN 348 MEAN‡ 1502 CFSM‡ 2.87 IN.‡ 39.02

† Change in contents, in cfs-days, in Blue Ridge Lake (Georgia), furnished by Tennessee Valley Authority.
‡ Adjusted for change in contents in lakes and reservoirs listed above.

NOTE.--No gage height record April 24 to June 18.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1911 to September 1916, March 1921 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1916, 1921-36 (adjusted runoff). WSP 1386: 1926.

GAGE.--Water-stage recorder. Datum of gage is 716.96 ft (218.529 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1980), Ocoee No. 3 Lake (station 03562500), and Lake Ocoee (station 03564000).

AVERAGE DISCHARGE.--64 years, 1,342 ft³/s (38.01 m³/s), 30.63 in/yr (778 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, 18,700 ft³/s (530 m³/s) Mar. 21, gage height, 18.09 ft (5.514 m); minimum, 67 ft³/s (1.90 m³/s) Oct. 31, gage height, 2.81 ft (0.856 m); minimum daily, 380 ft³/s (10.8 m³/s) May 9.

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	1300	1420	2180	1410	1650	659	3680	2200	2070	1330	898	798
2	1600	1620	1830	1370	1130	816	3780	2190	1500	1450	828	698
3	1600	2040	2130	859	775	849	3640	2160	2000	1440	830	790
4	1550	1540	2200	957	697	807	3400	2210	1570	1220	824	780
5	1560	2070	2230	1040	658	507	3370	2190	2350	1020	772	969
6	1500	1650	2230	1110	891	904	3390	2200	1740	991	890	756
7	1620	1510	2230	1020	1060	1550	3340	2220	1160	1100	787	846
8	1600	1700	2110	669	805	2650	3100	1420	1100	1270	909	870
9	1410	2040	1740	968	483	2640	2930	380	1560	1410	884	828
10	1470	2110	1960	969	489	2620	2810	392	1290	1350	852	814
11	1560	2120	1920	1280	1360	2700	2660	396	884	1380	887	817
12	1320	2040	1760	1150	1240	2710	2660	993	1170	1380	873	653
13	1630	1960	1890	896	1260	2600	3000	1610	1080	1020	895	712
14	1420	1100	2040	639	846	2580	6930	1450	1030	1010	992	836
15	1550	2020	2000	693	784	2360	5280	1340	1140	1200	904	867
16	1580	1970	2100	632	867	1530	4300	1830	1120	870	919	915
17	1310	1170	2070	454	1010	1840	3910	2600	1120	1020	872	839
18	1290	1390	1920	764	1580	2600	3330	2590	1190	1090	932	825
19	1430	1390	1690	1120	1580	2640	2860	2380	1180	725	915	678
20	2060	1810	1530	875	1290	4240	2690	2570	1170	640	868	891
21	2010	2050	1660	877	890	15900	2690	1720	1120	1130	857	771
22	2090	2030	1360	847	616	7090	2660	2540	1230	735	855	779
23	1320	2070	1130	888	787	5110	2590	2540	1190	805	954	753
24	1440	2140	992	1490	779	4730	2620	2510	1740	799	750	749
25	1490	2150	1500	1800	778	4670	2740	2550	1160	908	744	718
26	1430	2230	1550	1200	787	4330	2050	2510	1420	922	793	845
27	1490	2110	1680	1100	874	3900	2440	2380	1420	780	766	788
28	1400	2130	1730	1130	755	3590	2250	2050	1320	801	811	796
29	1510	2160	1200	790	770	4440	2220	2360	1310	872	797	841
30	1710	2130	755	770	---	4540	2210	2090	1290	883	780	1000
31	1640	---	1210	1050	---	4120	---	2080	---	880	769	---
TOTAL	47890	55870	54527	30817	27491	102222	95530	60651	40624	32431	26407	24222
MEAN	1545	1862	1759	994	948	3297	3184	1956	1354	1046	852	807
MAX	2090	2230	2230	1800	1650	15900	6930	2600	2350	1450	992	1000
MIN	1290	1100	755	454	483	507	2050	380	884	640	744	653

CAL YR 1979 TOTAL 643853 MEAN 1764 MAX 8970 MIN 588 MEAN‡ 1732 CFSM‡ 2.91 IN.‡ 39.52
WTR YR 1980 TOTAL 598682 MEAN 1636 MAX 15900 MIN 380 MEAN‡ 1636 CFSM‡ 2.75 IN.‡ 37.43

‡Adjusted for change in contents in Blue Ridge Lake (Georgia) and Lake Ocoee.

03564500 OCOEE RIVER AT PARKSVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-72, 1975 to current year.

REMARKS.--Flow regulated by Blue Ridge Lake (station 03558500 in Water Resources Data for Georgia, 1979), Ocoee No. 3 Lake (station 03562500), and Lake Ocoee (station 03564000).

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
16...	1115	2060	74	5.9	17.0	4	2	8.6	1.1	--	27
DEC											
12...	1115	2060	39	6.7	9.0	6	2	--	<1.0	--	10
JAN											
16...	1100	2060	110	6.9	12.0	6	16	10.8	<1.0	<10	34
MAR											
12...	1050	2060	--	6.7	9.5	12	0	11.1	<1.0	80	0

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
16...	6	24	1.0	50	.07	278	1	.10	--	.06
DEC										
12...	10	3.0	2.0	30	.04	167	6	.10	.050	.07
JAN										
16...	9	33	2.0	80	.11	445	13	.13	.130	<.01
MAR										
12...	8	35	2.0	50	.07	278	22	.15	.090	.05

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
16...	.010	.100	2	<10	<50	<10	60	<.2	80	2.4
DEC										
12...	<.010	<.010	5	<10	<50	<10	<10	.3	<10	2.0
JAN										
16...	.020	<.010	<1	50	70	51	100	<.2	110	2.3
MAR										
12...	.030	<.010	<1	70	<50	44	110	<.2	70	3.1

03565300 SOUTH CHESTUEE CREEK NEAR BENTON, TN

LOCATION.--Lat 35°10'02", long 84°42'59", Bradley County, Hydrologic Unit 06020002, on right bank 50 ft (15 m) downstream from county highway bridge, 0.2 mi (0.3 km) downstream from Climer Branch, 2.4 mi (3.9 km) southwest of Benton Station, 2.8 mi (4.5 km) north of Ocoee, 3.6 mi (5.8 km) west of Benton, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--31.8 mi^2 (82.4 km^2).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 712.14 ft (217.060 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--23 years, 54.3 ft^3/s (1.538 m^3/s), 23.19 in/yr (589 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Mar. 16, 1973, gage height, 12.11 ft (3.691 m), from rating curve extended above 3,200 ft^3/s (90.6 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 2.1 ft^3/s (0.059 m^3/s) Aug. 31, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 10	0700	2340	66.3	8.15	2.484	Mar. 20	2015	*4740	134	9.38	2.859
Mar. 8	0245	1340	37.9	7.44	2.268	Mar. 28	1545	1110	31.4	7.22	2.201
Mar. 17	2000	1160	32.9	7.27	2.216	Apr. 13	2245	1450	41.1	7.53	2.295

Minimum discharge, 2.4 ft^3/s (0.068 m^3/s) Sept. 16, 23, 27.

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	33	26	41	48	93	37	101	49	23	7.9	7.6	4.7
2	26	187	34	38	73	38	89	44	19	7.4	7.6	4.5
3	22	81	30	32	65	36	81	40	16	7.8	6.6	4.2
4	33	48	28	132	59	39	78	37	15	7.9	6.5	3.9
5	35	36	27	119	52	118	66	34	13	7.7	9.9	4.0
6	22	30	26	81	53	81	61	29	13	7.2	7.3	4.0
7	19	26	25	83	50	221	58	28	13	7.1	6.7	3.5
8	16	24	21	147	44	812	69	31	12	7.1	6.2	3.3
9	15	121	18	95	55	171	71	27	12	7.0	5.9	3.4
10	40	1570	18	76	73	120	56	26	11	6.9	6.0	3.1
11	25	227	17	93	64	95	51	25	11	7.1	7.5	2.8
12	19	119	16	103	67	99	104	23	10	6.8	15	2.7
13	16	86	29	78	64	156	445	22	10	6.4	8.0	2.6
14	14	64	32	71	67	110	561	22	9.9	6.4	6.3	2.5
15	14	52	20	60	79	87	141	22	9.1	6.5	5.9	2.6
16	13	44	18	54	161	77	106	21	8.8	6.0	7.3	2.5
17	13	37	16	67	100	573	87	51	9.7	5.9	5.7	2.6
18	12	33	15	162	78	643	76	53	10	6.1	5.2	3.3
19	12	29	14	112	70	174	70	29	8.8	6.1	5.2	2.7
20	12	25	13	83	84	1780	67	39	9.4	6.5	5.2	2.6
21	11	24	13	69	76	1620	58	32	8.1	6.5	4.9	2.6
22	12	21	12	188	67	254	53	28	7.8	6.6	4.6	2.7
23	32	23	13	283	57	160	49	101	8.6	8.7	4.1	2.6
24	19	327	35	122	50	259	46	112	10	7.3	4.1	3.1
25	17	340	49	95	47	156	49	58	18	7.4	4.1	3.6
26	14	164	28	78	42	123	60	40	11	7.1	3.9	3.8
27	14	95	22	69	39	106	83	30	9.0	9.0	3.7	2.6
28	15	73	19	61	39	654	71	26	8.4	9.7	3.6	3.2
29	15	57	17	53	36	287	77	29	8.7	7.6	3.6	5.9
30	43	47	63	65	---	156	57	84	9.7	7.8	19	7.8
31	22	---	56	205	---	123	---	29	---	6.9	6.9	---
TOTAL	625	4036	785	3022	1904	9365	3041	1221	343.0	222.4	204.1	103.4
MEAN	20.2	135	25.3	97.5	65.7	302	101	39.4	11.4	7.17	6.58	3.45
MAX	43	1570	63	283	161	1780	561	112	23	9.7	19	7.8
MIN	11	21	12	32	36	36	46	21	7.8	5.9	3.6	2.5
CFSM	.64	4.25	.80	3.07	2.07	9.50	3.18	1.24	.36	.23	.21	.11
IN.	.73	4.72	.92	3.54	2.23	10.95	3.56	1.43	.40	.26	.24	.12

CAL YR 1979 TOTAL 28966.0 MEAN 79.4 MAX 1570 MIN 8.3 CFSM 2.50 IN 33.88
WTR YR 1980 TOTAL 24871.9 MEAN 68.0 MAX 1780 MIN 2.5 CFSM 2.14 IN 29.09

03565500 OOSTANAULA CREEK NEAR SANFORD, TN

LOCATION.--Lat 35°19'39", long 84°42'19", McMinn County, Hydrologic Unit 06020002, on right bank 20 ft (6 m) downstream from highway bridge, 1.3 mi (2.1 km) southeast of Sanford, 3.5 mi (5.6 km) northeast of Calhoun, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--57.0 mi^2 (147.6 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 716.51 ft (218.392 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--26 years, 97.4 ft^3/s (2.758 m^3/s), 23.21 in/yr (590 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s (227 m^3/s) Mar. 16, 1973, gage height, 13.43 ft (4.093 m); minimum, 16 ft^3/s (0.45 m^3/s) Oct. 13-28, 1954, Sept. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 11	0715	913	25.9	5.85	1.783	Mar. 29	1145	774	21.9	5.34	1.628
Mar. 21	Unknown	*3660	104	a10.18	3.103	Apr. 14	2230	774	21.9	5.34	1.628

a From high water mark

Minimum discharge, 19 ft^3/s (0.54 m^3/s) Sept. 19.

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	69	54	112	63	132	75	219	92	58	39	27	26
2	60	138	105	61	110	76	197	88	57	37	32	32
3	55	163	98	58	105	74	181	85	54	37	30	32
4	53	92	91	70	100	71	183	84	53	41	29	24
5	58	78	88	98	94	80	175	82	51	37	30	25
6	53	69	86	78	92	120	155	78	50	36	27	26
7	49	63	84	73	90	200	146	76	49	36	27	27
8	49	60	79	73	86	650	138	76	49	35	26	26
9	47	74	77	70	87	800	137	74	49	33	26	25
10	53	660	75	67	95	200	127	71	47	33	25	22
11	72	794	71	68	93	180	120	70	46	33	28	22
12	54	224	69	111	89	150	123	69	44	33	30	26
13	49	166	69	95	85	170	220	66	44	32	32	28
14	47	140	72	95	84	150	638	64	44	33	27	22
15	47	122	67	92	89	140	425	63	44	32	26	24
16	47	111	65	85	132	130	204	62	44	31	25	24
17	44	102	64	83	154	500	176	65	49	29	26	22
18	42	97	60	130	120	700	160	94	46	30	28	21
19	41	92	59	186	110	300	148	73	45	30	29	21
20	41	86	58	128	106	800	139	68	43	29	27	21
21	40	82	57	116	103	2000	131	85	43	30	27	21
22	42	78	56	178	98	700	122	69	42	31	25	26
23	43	77	57	478	94	250	116	89	43	36	25	23
24	49	163	59	310	90	250	111	97	42	36	23	27
25	43	253	80	196	87	300	108	83	47	32	25	27
26	41	271	70	168	82	283	109	71	46	31	25	40
27	40	193	61	151	79	241	112	68	41	30	23	28
28	38	155	58	137	78	414	107	63	40	33	23	25
29	42	137	57	123	76	676	99	65	39	32	23	30
30	81	122	60	117	---	315	95	62	40	28	26	32
31	76	---	72	151	---	253	---	59	---	28	26	---
TOTAL	1565	4916	2236	3909	2840	11248	5121	2311	1389	1023	828	775
MEAN	50.5	164	72.1	126	97.9	363	171	74.5	46.3	33.0	26.7	25.8
MAX	81	794	112	478	154	2000	638	97	58	41	32	40
MIN	38	54	56	58	76	71	95	59	39	28	23	21
CFSM	.89	2.88	1.27	2.21	1.72	6.37	3.00	1.31	.81	.58	.47	.45
IN.	1.02	3.21	1.46	2.55	1.85	7.34	3.34	1.51	.91	.67	.54	.51

CAL YR 1979 TOTAL 47630 MEAN 130 MAX 962 MIN 35 CFSM 2.28 IN 31.08
WTR YR 1980 TOTAL 38161 MEAN 104 MAX 2000 MIN 21 CFSM 1.83 IN 24.90

03565500 OOSTANAULA CREEK NEAR SANFORD, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
01...	1445	64	300	18.0	24	4.1
NOV						
19...	1345	88	300	12.0	20	4.7
JAN						
18...	1110	109	280	11.5	57	17
MAR						
05...	1505	100	270	9.0	42	11
APR						
25...	0950	108	325	17.0	59	17
JUN						
19...	1120	50	245	19.0	118	16
AUG						
07...	1030	25	305	20.0	21	1.4
SEP						
18...	1400	20	305	21.0	20	1.1

03566420 WOLFTEVER CREEK NEAR OOLTEWAH, TN

LOCATION.--Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi (1.0 km) downstream from Southern Railway bridge, 0.9 mi (1.4 km) south of Ooltewah, 1.6 mi (2.6 km) upstream from Little Wolftever Creek, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--18.8 mi^2 (48.7 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 755.08 ft (230.148 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--16 years, 34.8 ft^3/s (0.986 m^3/s), 25.14 in/yr (639 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s (207 m^3/s) Mar. 16, 1973, gage height, 9.75 ft (2.972 m); minimum, 1.8 ft^3/s (0.051 m^3/s) part of each day Sept. 13-18, 1964, Oct. 10, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 10	0245	1850	52.4	7.34	2.237	Mar. 20	1600	*3490	98.8	8.42	2.566
Mar. 7	2345	759	21.5	5.07	1.545	Mar. 28	0945	843	23.9	5.37	1.637
Mar. 17	1315	1150	32.6	6.32	1.926	Apr. 13	2130	1160	32.9	6.35	1.935

Minimum discharge, 2.9 ft^3/s (0.082 m^3/s) Sept. 17-21.

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	49	47	28	26	53	20	54	22	11	7.0	4.6	4.2
2	34	214	23	22	43	20	45	21	10	6.4	4.7	4.2
3	25	79	21	20	39	19	41	21	9.8	6.2	4.4	4.1
4	34	45	19	19	34	19	37	20	9.3	6.1	4.4	6.5
5	25	34	19	18	29	90	32	19	8.8	5.6	5.5	5.2
6	18	27	19	26	30	53	30	17	8.4	5.4	4.6	4.4
7	15	22	17	40	28	237	28	16	8.0	5.4	4.3	4.1
8	14	20	16	25	25	326	40	15	7.7	5.1	4.2	3.8
9	13	265	15	23	33	119	33	13	7.6	5.0	4.4	3.8
10	28	874	15	21	40	78	27	13	7.3	4.9	4.3	4.1
11	16	130	15	33	36	57	26	12	7.1	4.9	4.4	3.6
12	14	84	14	65	36	88	76	11	7.0	4.5	4.3	3.6
13	12	61	24	36	36	130	383	10	6.9	4.4	4.1	3.6
14	11	44	19	28	40	73	212	9.9	6.6	4.4	4.1	3.3
15	10	36	15	21	51	56	91	9.8	6.6	4.4	4.1	3.1
16	9.8	30	15	28	109	48	62	9.7	10	4.4	3.9	3.1
17	9.4	27	16	40	65	610	48	42	9.6	5.7	9.5	3.1
18	9.0	23	16	55	48	235	41	29	7.6	5.1	4.6	3.4
19	9.0	21	16	38	42	110	35	14	7.0	4.7	4.2	3.1
20	8.6	19	16	33	55	1730	32	30	6.5	4.6	4.2	2.9
21	9.0	17	15	70	44	784	29	19	6.0	4.8	4.1	3.1
22	9.4	16	15	180	39	130	26	19	5.9	4.9	4.1	3.1
23	30	26	17	110	34	89	25	99	6.2	5.6	4.1	3.4
24	13	148	35	71	29	185	24	93	45	4.7	3.9	3.4
25	10	142	60	56	27	92	23	43	120	5.8	3.9	3.1
26	9.4	128	30	45	24	69	36	28	15	4.6	4.0	3.1
27	8.6	71	20	39	22	57	36	20	9.7	4.6	4.1	2.9
28	8.6	52	18	34	22	439	26	16	7.9	4.7	3.9	2.9
29	40	40	17	30	20	130	24	15	9.7	4.6	4.0	3.1
30	76	32	22	55	---	94	23	13	9.0	4.6	6.0	3.4
31	27	---	37	109	---	67	---	12	---	4.6	4.3	---
TOTAL	604.8	2774	644	1416	1133	6254	1645	731.4	397.2	157.7	139.2	108.7
MEAN	19.5	92.5	20.8	45.7	39.1	202	54.8	23.6	13.2	5.09	4.49	3.62
MAX	76	874	60	180	109	1730	383	99	120	7.0	9.5	6.5
MIN	8.6	16	14	18	20	19	23	9.7	5.9	4.4	3.9	2.9
CFSM	1.04	4.92	1.11	2.43	2.08	10.7	2.92	1.26	.70	.27	.24	.19
IN.	1.20	5.49	1.27	2.80	2.24	12.37	3.25	1.45	.79	.31	.28	.22

CAL YR 1979 TOTAL 18866.2 MEAN 51.7 MAX 874 MIN 7.5 CFSM 2.75 IN 37.33
WTR YR 1980 TOTAL 16005.0 MEAN 43.7 MAX 1730 MIN 2.9 CFSM 2.32 IN 31.67

NOTE.--No gage-height record Dec. 17 to Jan. 23.

03566510 TENNESSEE RIVER AT CHICKAMAUGA DAM (TAILWATER), TN

LOCATION.--Lat 35°06'11", long 85°13'47", Hamilton County, Hydrologic Unit 06020001, on left downstream side of Chickamauga Dam, 0.1 mi (0.2 km) upstream from Chickamauga Creek, 1.1 mi (1.8 km) south of Hamillville, 3.3 mi (5.3 km) north of Chattanooga, and at mile 471.0 (757.8 km).

DRAINAGE AREA.--20,790 mi^2 (53,846 km^2).

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

REMARKS.--Site located in Nickajack Lake. Flow regulated by many reservoirs above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV											
20...	1140	56000	130	7.0	13.0	11	2	8.3	2.5	--	56
JAN											
29...	1055	59400	170	7.1	8.0	4	6	10.9	2.4	20	61
MAR											
04...	1130	42100	170	7.6	5.0	9	5	12.4	2.2	--	71
APR											
17...	1345	--	150	7.2	14.0	6	6	10.5	<1.0	180	55

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
20...	41	17	7.0	100	.14	15100	3	.74	.060	.11
JAN										
29...	50	14	5.0	100	.14	16000	2	--	.060	.08
MAR										
04...	58	18	6.0	--	--	--	6	.41	.150	.05
APR										
17...	57	12	5.0	80	.11	--	6	.42	.050	.07

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV										
20...	.020	.010	2	<10	<50	<10	20	<.2	20	3.3
JAN										
29...	.030	.020	<1	10	60	<10	10	<.2	30	2.6
MAR										
04...	.020	.010	<1	20	<50	<10	20	<.2	150	2.7
APR										
17...	.020	--	8	<10	--	<10	--	<.2	10	2.2

03568000 TENNESSEE RIVER AT CHATTANOOGA, TN

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, Hydrologic Unit 06020001, on right bank at Rivermont Golf and Country Club, 0.5 mi (0.8 km) downstream from South Chickamauga Creek, 3.0 mi (4.8 km) downstream from Chickamauga Dam, 3.5 mi (5.6 km) upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6 (752.4 km).

DRAINAGE AREA.--21,400 mi^2 (55,430 km^2), approximately.

PERIOD OF RECORD.--April 1874 to current year. Monthly discharges only for some periods, published in WSP 1306. July 1930 to December 1935, published as "at Hales Bar, near Chattanooga." Gage-height records collected in this vicinity since 1874 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1306: 1916(M). WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft (189.317 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi (11.3 km) upstream from Chattanooga to Hales Bar Dam 33 mi (53 km) downstream at or within 0.2 ft (0.06 m) of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi (80.3 km) downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi (3.5 km) downstream from base gage at same datum.

REMARKS.--Records good. Flow regulated since 1936 by increasing number of upstream reservoirs (see p. 305 and Water Resources Data for adjoining states, 1980).

AVERAGE DISCHARGE.--106 years, 37,280 ft^3/s (1,056 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft^3/s (11,600 m^3/s) Mar. 1, 1875, gage height, 53.8 ft (16.40 m), present datum, at Walnut Street, from rating curve extended above 250,000 ft^3/s (7,080 m^3/s); minimum daily, 1,200 ft^3/s (34.0 m^3/s) Nov. 1, 1953; minimum gage height, 0.0 ft (0.00 m) Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft (17.65 m) Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft^3/s (13,000 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 168,000 ft^3/s (4,760 m^3/s) Mar. 21, gage height, 28.73 ft (8.757 m) Mar. 22; maximum gage height at Walnut Street, 26.93 ft (8.208 m) Mar. 22; minimum daily discharge, 12,700 ft^3/s (360 m^3/s) Sept. 28, minimum gage height, 11.17 ft (3.405 m) June 21.

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	47700	44500	60200	31600	47000	28600	80400	34500	23400	32500	29800	21200
2	43000	49600	59800	37700	46400	30100	76300	40700	28200	31100	30800	21600
3	41900	54000	57700	43000	46200	36100	69800	37100	29300	31600	31100	28000
4	40800	51100	55600	40900	40000	37800	55000	31500	31500	31300	29300	29400
5	40900	51600	55700	38800	40400	32200	45600	29000	31500	28000	23800	30700
6	40700	55500	55900	44400	36900	37800	45300	29400	31800	27200	22500	24700
7	40600	57400	56500	44400	37700	40600	40000	29300	31800	29200	25100	23200
8	40200	56900	57100	39900	40600	36700	27900	28600	23200	29700	29100	27800
9	39800	56500	57200	45700	30200	39100	23500	28300	30400	36400	20600	31500
10	39500	70400	57200	48500	25300	50700	25000	27000	33400	37200	25800	25000
11	40900	80900	49200	46500	36900	57400	30900	24200	33000	33300	23900	25300
12	40400	76800	48700	44500	41000	56400	43100	26300	30400	31700	25000	24500
13	37600	73600	53300	44500	36900	47700	50700	24800	28000	33400	29700	23200
14	37800	72400	48000	47200	35500	41400	62600	28000	22800	34600	30500	15800
15	37800	70900	39300	50100	32600	30900	58100	27400	24900	37900	30100	24300
16	39500	63900	41200	50100	29900	25700	48900	30700	28600	38300	30800	27200
17	40800	57200	45300	50200	34800	38600	46300	33300	28300	35000	30400	26600
18	41000	56900	45100	52800	39700	44200	42200	24500	28200	29100	31000	24100
19	39700	56900	45100	61400	39300	55100	39600	34800	30600	27300	30500	21300
20	39100	58000	40900	67800	33800	64300	38900	34700	27100	34700	22800	18700
21	39200	57900	40100	67900	35000	131000	37500	35000	22300	40000	24000	20600
22	39100	57400	31700	64900	27700	149000	41000	34400	23100	37000	30500	22400
23	38500	53600	30900	63100	22900	132000	41600	35000	26500	28200	30500	24800
24	39100	51500	37100	68300	22500	111000	44800	34400	29100	29500	26100	24100
25	39200	61700	42800	77600	29800	97900	38300	41500	34200	31200	23900	20600
26	39100	68000	42200	79200	28900	100000	40000	40800	40000	20400	25900	19300
27	39000	75000	42700	75600	24200	99000	38500	39400	35200	21100	24600	13000
28	38600	72500	43000	64200	17600	106000	33600	39500	26800	28900	23300	12700
29	39100	69600	43000	58600	22600	107000	32600	37000	25700	30000	25500	18800
30	42600	65100	43200	54200	---	94000	36500	31100	33100	30100	22200	22600
31	45000	---	42800	50200	---	85000	---	32600	---	29700	22000	---
TOTAL	1248200	1847300	1468500	1653800	982300	2043300	1334500	1004800	872400	975600	831100	693000
MEAN	40260	61580	47370	53350	33870	65910	44480	32410	29080	31470	26810	23100
MAX	47700	80900	60200	79200	47000	149000	80400	41500	40000	40000	31100	31500
MIN	37600	44500	30900	31600	17600	25700	23500	24200	22300	20400	20600	12700

CAL YR 1979 TOTAL 17794400 MEAN 48750 MAX 142000 MIN 24300
WTR YR 1980 TOTAL 14954800 MEAN 40860 MAX 149000 MIN 12700

NOTE.--No gage-height record Nov. 14 to Jan. 23.

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, Hydrologic Unit 06020004, on right bank 15 ft (5 m) downstream from county road bridge, 1.5 mi (2.4 km) east of Whitwell, 3.0 mi (4.8 km) upstream from bridge on State Highway 27, 4.5 mi (7.2 km) downstream from Griffith Creek, and at mile 25.1 (40.4 km).

DRAINAGE AREA.--402 mi^2 (1,041 km^2), includes 18 mi^2 (47 km^2) without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Prior to December 1920 monthly discharges only, published in WSP 1306.

REVISED RECORDS.--WSP 603: 1922(M). WSP 758: 1929(M). WSP 1033: 1943(M). WSP 1386: 1921-22, 1923-25(M), 1927-28(M), 1930(M), 1933(M). WSP 1910: Drainage area. WDR TN-76-1: 1973-75(P).

GAGE.--Water-stage recorder. Datum of gage is 632.73 ft (192.856 m) Tennessee Valley Authority datum. Prior to Sept. 18, 1927, nonrecording gage at same site at datum 0.03 ft (0.009 m) higher. Sept. 18, 1927, to Sept. 30, 1930, nonrecording gage at bridge 15 ft (5 m) upstream at present datum.

REMARKS.--Records good. Prior to 1950 some diurnal fluctuation caused by small mills above station.

AVERAGE DISCHARGE.--60 years, 751 ft^3/s (21.27 m^3/s), 25.37 in/yr, (644 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s (920 m^3/s) Mar. 16, 1973, gage height, 17.65 ft (5.380 m); minimum, 16 ft^3/s (0.45 m^3/s) Sept. 6-21, 27, 28, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of about 19 ft (5.8 m) from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft^3/s (156 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 8	1730	6470	183	13.16	4.011	Mar. 21	1130	*20500	581	16.03	4.886

Minimum discharge, 39 ft^3/s (1.10 m^3/s) Sept. 19, 20, 22, 23, 24.

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	1040	227	872	776	803	553	1680	498	339	120	57	47
2	672	1070	759	719	710	523	1370	461	304	117	56	46
3	481	1440	665	662	662	476	1180	430	279	114	56	50
4	403	1220	600	863	623	461	1230	403	259	112	56	46
5	369	895	563	1220	584	674	1160	380	239	109	60	50
6	319	666	535	1190	572	1030	1010	362	226	107	59	48
7	278	548	505	1060	541	1420	899	350	212	108	57	47
8	247	463	461	1000	508	5750	837	343	203	105	55	46
9	223	509	425	962	514	5200	826	335	192	102	55	46
10	243	2740	401	897	547	3400	750	309	185	99	54	46
11	286	3000	383	857	529	2170	688	293	178	97	53	45
12	269	2040	370	888	523	1480	1080	280	172	96	54	45
13	254	1440	368	860	508	1240	1860	270	165	93	56	43
14	225	1130	365	866	499	1050	3980	259	161	90	53	42
15	204	944	360	839	535	890	3250	249	157	78	53	42
16	191	815	347	800	1060	783	2260	240	152	65	54	41
17	181	719	335	773	1620	1700	1580	310	154	64	52	40
18	171	641	322	2150	1450	3570	1240	1180	147	63	52	40
19	162	581	315	4090	1170	2870	1050	1120	143	62	52	40
20	155	526	310	3020	1090	3470	909	1220	138	61	52	40
21	149	482	302	2100	1090	17700	801	1450	135	60	51	41
22	145	447	294	1720	1040	13500	715	1130	130	62	51	40
23	189	447	292	3050	953	9350	645	955	132	64	48	39
24	256	1230	447	2870	863	4800	589	1210	133	61	48	40
25	243	1730	1220	2100	788	3360	548	1380	142	59	48	42
26	240	1990	1430	1540	719	2740	526	1070	136	60	47	45
27	220	1790	1250	1270	659	2060	570	802	132	60	47	45
28	202	1520	1040	1110	626	3170	578	614	128	59	46	51
29	199	1210	863	971	591	4280	566	495	125	59	48	53
30	212	1020	794	888	---	3040	540	438	124	64	48	52
31	217	---	812	906	---	2250	---	382	---	60	48	---
TOTAL	8645	33480	18005	43017	22377	104960	34917	19218	5322	2530	1626	1338
MEAN	279	1116	581	1388	772	3386	1164	620	177	81.6	52.5	44.6
MAX	1040	3000	1430	4090	1620	17700	3980	1450	339	120	60	53
MIN	145	227	292	662	499	461	526	240	124	59	46	39
CFSM	.69	2.78	1.45	3.45	1.92	8.42	2.90	1.54	.44	.20	.13	.11
IN.	.80	3.10	1.67	3.98	2.07	9.71	3.23	1.78	.49	.23	.15	.12

CAL YR 1979 TOTAL 367823 MEAN 1008 MAX 8210 MIN 125 CFSM 2.51 IN 34.04
WTR YR 1980 TOTAL 295435 MEAN 807 MAX 17700 MIN 39 CFSM 2.01 IN 27.34

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 01...	1515	1030	154	7.9	18.0	66	9.1	87
NOV 06...	1030	493	155	7.8	11.0	66	8.6	86
DEC 04...	1400	591	160	7.7	7.0	74	6.9	102
JAN 07...	1330	1070	148	8.0	7.0	64	8.6	80
FEB 19...	1615	1030	135	7.8	6.5	60	8.1	--
MAR 18...	1445	3420	95	7.4	10.0	36	7.8	46
MAY 12...	1600	271	195	8.0	18.0	77	7.3	101
JUN 23...	1515	130	200	7.7	22.0	100	6.0	128
JUL 15...	0930	89	225	7.9	27.5	110	5.3	136

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 01...	.12	242	1100	50	120	0	49	136
NOV 06...	.12	114	390	30	50	30	11	15
DEC 04...	.14	163	420	40	30	30	3	4.8
JAN 07...	.11	231	460	50	50	10	13	38
FEB 19...	--	--	980	20	40	10	57	159
MAR 18...	.06	425	1200	60	110	10	56	517
MAY 12...	.14	73.9	250	30	30	20	6	4.4
JUN 23...	.17	44.9	1100	10	70	30	10	3.5
JUL 15...	.19	32.7	390	10	80	40	12	2.9

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 15...	0930	110	0	34	6.1	1.6	3	.1	1.1	3.0

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 15...	.1	5.2	123	.66	.020	1	0	<50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 15...	<10	10	<10	<10	0	<10	8000	0	<10

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 15...	350	.1	.00	0	0	0	10	20	.00

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. 305 and Water Resources Data for adjoining states, 1980).

AVERAGE DISCHARGE.--50 years, 38,070 ft³/s (1,078 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 daily discharge, 170,000 ft³/s (4,810 m³/s), Mar. 22, maximum gage height, 28.54 ft (8.699 m) Mar. 22; minimum daily, 12,700 ft³/s (360 m³/s) Sept. 27; minimum gage height, 11.49 ft (3.502 m) Sept. 27.

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	56600	49700	66800	41600	54100	35700	84000	40000	27900	41900	34200	28900
2	49600	55100	63300	44500	55900	39600	78700	45600	36600	38300	34100	28500
3	48500	57100	68000	47600	55300	38000	74000	43700	37500	32400	25800	31600
4	47100	52100	64500	50500	48900	40200	54900	35000	37700	31300	33600	34700
5	51500	54200	62600	51800	45700	32200	42400	33900	37700	37100	27700	36700
6	45500	59400	62200	51700	43400	41500	43100	36300	39100	28600	30700	29100
7	43600	62200	64500	50700	48300	36500	50400	35900	38700	37500	35300	23600
8	43400	60000	60800	50900	50200	29800	39100	32000	19900	38500	30800	36100
9	44300	61300	60700	54100	35000	45700	31900	37300	32000	41500	20000	38000
10	44400	84800	65700	59500	30400	55200	31900	30000	37200	42000	24300	27700
11	44000	89100	63300	56600	39600	70600	32400	28600	37900	41400	27800	27500
12	47900	83500	54600	56200	41900	67500	53000	33200	36300	33100	30700	27100
13	38900	77200	59000	51100	39600	45300	80200	35800	32300	32000	33400	29400
14	37600	79700	56200	55400	36300	43500	92300	30500	28400	40200	32600	19600
15	42500	79600	40800	60200	32400	25900	68000	32000	28900	46000	34400	28800
16	43400	76000	40700	59100	28300	19800	55700	36400	35900	46000	30700	32200
17	46200	65800	52700	61000	35300	46000	65300	35200	34500	38600	33200	32500
18	44900	64900	57200	66300	43200	59600	51600	30400	30900	34100	36400	29700
19	47900	66600	51700	76000	41500	66800	45300	41000	34600	25900	37100	28200
20	42200	62800	50400	82300	40900	83600	43900	39200	32300	38800	30400	28900
21	42200	64500	46800	78600	43300	140000	49100	46000	27500	44700	32800	23400
22	46300	60300	36500	78700	33700	170000	50000	43800	29000	43200	29300	29600
23	41800	60900	35500	82300	29500	143000	50700	40400	32700	35400	31600	27700
24	43200	66300	40000	83400	30300	121000	50000	42800	33400	29600	26800	26200
25	43900	74200	51000	91300	36400	104000	43900	50700	40100	38300	30500	28100
26	42800	81100	51700	92800	43400	106000	43300	49900	48500	25600	32600	22800
27	45500	87900	51600	88000	36400	98500	43600	43500	43100	15000	30100	12700
28	40600	84000	51000	80900	20800	111000	40200	50600	35200	36000	27400	15600
29	44300	81400	50900	71600	19100	110000	38900	42600	25000	37700	29000	21500
30	48600	78700	50900	65900	---	102000	44200	38400	35900	36500	22300	27100
31	51800	---	50400	58700	---	90800	---	35800	---	33300	26300	---
TOTAL	1401000	2080400	1682000	1999300	1139100	2219300	1572000	1196500	1026700	1120500	941900	833500
MEAN	45190	69350	54260	64490	39280	71590	52400	38600	34220	36150	30380	27780
MAX	56600	89100	68000	92800	55900	170000	92300	50700	48500	46000	37100	38000
MIN	37600	49700	35500	41600	19100	19800	31900	28600	19900	15000	20000	12700

CAL YR 1979 TOTAL 20645000 MEAN 56560 MAX 169000 MIN 26500
WTR YR 1980 TOTAL 17212200 MEAN 47030 MAX 170000 MIN 12700

NOTE.--No gage-height record Mar. 3 to Apr. 7.

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 current year.
WATER TEMPERATURES: July 1975 to current year.

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

REMARKS.--Interruptions in record due to recorder malfunction. Flow regulated by many reservoirs (see p. 305 and Water Resources Data for adjoining states, 1980).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 209 micromhos Oct. 3-5, 1978; minimum recorded, 94 micromhos Dec. 31, 1975.
WATER TEMPERATURES: Maximum recorded, 31.0°C Aug. 26-28, 30, 1975, June 15, 1978; minimum recorded, 2.0°C Jan. 22, 1977, Feb. 7, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum not determined; minimum not determined.
WATER TEMPERATURES: Maximum recorded, 29.5°C many days in July, Aug., and Sep.; minimum not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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...	1100	41200	165	7.8	17.5	3.0	7.8	48	28	68	9	20
NOV												
29...	1230	85600	150	8.1	12.5	8.0	9.5	26	1	58	11	17
DEC												
18...	0940	60300	150	8.2	9.0	2.0	9.2	--	--	62	16	18
JAN												
23...	0800	84100	138	7.3	8.0	2.0	12.1	K12	K2	61	10	18
FEB												
27...	1330	36400	165	7.6	8.0	.50	14.4	K120	K55	75	16	22
APR												
29...	1440	38900	155	8.3	16.5	4.6	11.0	63	71	61	3	18
MAY												
29...	1120	41600	142	6.7	21.5	3.0	7.1	16	23	59	13	17
JUN												
26...	1030	48200	165	7.6	25.0	1.0	8.5	K210	61	64	8	19
AUG												
27...	1000	22800	160	7.2	28.0	1.4	6.8	K280	K100	67	14	19
SEP												
09...	1000	43500	175	7.2	28.0	.20	6.9	K150	43	68	16	19

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
16...	4.3	6.2	21	.3	1.3	59	13	7.2	.1	5.5	95	95
NOV												
29...	3.7	5.5	17	.3	1.4	47	12	6.6	.0	5.3	82	80
DEC												
18...	4.1	6.4	23	.4	1.4	46	13	7.2	.1	5.5	104	85
JAN												
23...	4.0	5.7	21	.3	1.1	51	13	5.7	.1	5.6	--	85
FEB												
27...	4.9	5.6	14	.3	1.2	59	13	6.7	.1	4.3	98	95
APR												
29...	4.0	4.5	13	.3	1.3	58	12	5.4	.1	4.7	--	87
MAY												
29...	3.9	5.2	16	.3	1.0	46	11	5.4	.1	4.9	92	77
JUN												
26...	4.1	5.6	16	.3	1.3	56	15	6.4	.1	4.2	89	91
AUG												
27...	4.7	6.3	17	.3	1.4	53	13	7.6	.1	6.2	97	91
SEP												
09...	5.0	7.1	18	.4	1.3	52	13	8.5	.1	5.8	97	92

K--Results based on colony count outside acceptable range (non-ideal colony count).

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 16...	.13	10600	.37	.38	.060	.060	.09	.07	.030	.020	--
NOV 29...	.11	19000	.33	.31	.010	.000	.21	.15	.040	.020	--
DEC 18...	.14	16900	.37	.38	.030	.020	.25	.18	.030	.030	2.0
JAN 23...	.10	16800	.28	.28	.030	.020	--	.74	.050	.020	5.2
FEB 27...	.13	9630	.30	.36	--	.100	--	.00	.040	.020	--
APR 29...	.11	8300	.50	.37	.080	.030	.07	.07	.030	.020	5.1
MAY 29...	.13	10300	.29	.28	.050	.020	.18	.12	.040	.020	2.6
JUN 26...	.12	11600	.29	.32	.070	.070	.18	.10	.040	.030	4.5
AUG 27...	.13	5970	.17	.17	.040	.040	.10	.05	.030	.040	2.5
SEP 09...	.13	11400	.19	.19	.040	.030	.28	.08	.000	.020	4.6

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	6.8	.7	--	--	--	--	--	--	5	556	54
NOV 29...	3.1	.2	370	--	--	--	--	--	20	4620	95
DEC 18...	--	--	--	--	--	--	--	--	4	651	94
JAN 23...	--	--	--	--	--	--	--	--	6	1360	80
FEB 27...	1.7	--	4800	74.3	1.18	1.42	3.23	.200	12	1180	64
APR 29...	--	--	--	--	--	--	--	--	7	735	80
MAY 29...	--	--	1100	--	--	--	--	--	29	3260	35
JUN 26...	--	--	--	416	1.73	2.05	.770	.110	17	2210	40
AUG 27...	--	--	1200	--	--	--	--	--	5	308	82
SEP 09...	--	.2	1100	--	--	--	-	--	12	1410	31

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 16...	3	1	100	0	0	2	30	10	0
NOV 29...	3	3	--	40	0	3	40	30	1
DEC 18...	--	--	--	--	--	--	--	--	--
FEB 27...	1	0	<50	30	0	0	10	10	0
MAY 29...	--	--	--	--	--	--	--	--	--
JUN 26...	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--
SEP 09...	1	0	<50	0	0	0	30	10	6

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)
OCT 16...	0	1	2	260	10	0	0	40	20
NOV 29...	2	3	3	570	30	0	0	70	9
DEC 18...	--	--	--	--	--	--	--	--	--
FEB 27...	0	3	1	220	30	1	0	60	40
MAY 29...	--	--	--	--	--	--	--	--	--
JUN 26...	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--
SEP 09...	0	10	2	110	10	19	1	30	0

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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 16...	.1	.1	0	0	0	0	0	0
NOV 29...	<.1	<.1	3	1	0	0	20	0
DEC 18...	--	--	--	--	0	--	--	--
FEB 27...	.1	.1	2	0	1	0	30	30
MAY 29...	--	--	--	--	0	--	--	--
JUN 26...	--	--	--	--	0	--	--	--
AUG 27...	--	--	--	--	0	--	--	--
SEP 09...	.3	.2	7	0	0	0	10	0

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PCB TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)
NOV 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 27...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
MAY 29...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
AUG 27...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 29,79		FEB 27,80		MAY 29,80		JUN 26,80	
TIME	1230		1330		1120		1030	
TOTAL CELLS/ML	370		4800		1100		280	
DIVERSITY: DIVISION	0.7		0.4		1.2		1.5	
.CLASS	0.7		0.4		1.2		1.5	
..ORDER	1.2		0.8		1.5		1.7	
...FAMILY	1.3		0.8		1.5		1.9	
....GENUS	2.6		1.7		2.1		2.5	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	13	5
...OOCYSTACEAE								
....ANKISTRODESMUS	20	5	200	4	--	-	13	5
....KIRCHNERIELLA	--	-	--	-	--	-	64#	23
....OOCYSTIS	40	11	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	5	1	57	1	77	7	13	5
....PLATYMONAS	5	1	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	130#	34	2400#	50	230#	21	120#	41
....MELOSIRA	50	14	1800#	37	550#	49	26	9
....SKELETONEMA	91#	25	--	-	--	-	--	-
..PENNALES								
...DIATOMACEAE								
....DIATOMA	5	1	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	260	5	--	-	--	-
....FRAGILARIA	5	1	--	-	--	-	--	-
....SYNEDRA	--	-	29	1	13	1	--	-
...NAVICULACEAE								
....NAVICULA	15	4	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	5	1	29	1	13	1	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 29,79		FEB 27,80		MAY 29,80		JUN 26,80	
TIME	1230		1330		1120		1030	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	51	5	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	13	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	13	1	26	9
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	150	14	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	29	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	13	5
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	29	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	AUG 27,80		SEP 9,80		SEP 9,80	
TIME	1000		1000		1030	
TOTAL CELLS/ML	1200		1400		1100	
DIVERSITY: DIVISION	1.3		1.6		1.3	
.CLASS	1.3		1.6		1.4	
..ORDER	1.8		2.0		1.5	
...FAMILY	2.0		2.1		1.5	
....GENUS	2.7		2.4		1.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	26	2	--	-	--	-
...MICRACTINIACEAE						
....GOLENKINIA	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	26	2	--	-
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	13	1
....TREUBARIA	13	1	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	100	8	--	-
....CRUCIGENIA	--	-	52	4	--	-
....SCENEDESMUS	77	7	--	-	26	2
....TETRASTRUM	51	4	--	-	--	-
..TETRASPORALES						
...COCCOMYXACEAE						
....ELAKATOTHRIX	26	2	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	13	1	64	5	52	5
....PLATYMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	460#	40	120	8	77	7
....MELOSIRA	240#	21	300#	22	570#	50
....SKELETONEMA	--	-	--	-	--	-
..PENNALES						
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	13	1	--	-	--	-
...NAVICULACEAE						
....NAVICULA	26	2	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	39	3	13	1	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	13	1

NOTE: # - Dominant organism; equal to or greater than 15%

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	AUG 27,80		SEP 9,80		SEP 9,80	
TIME	1000		1000		1030	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	26	2	13	1
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	170	14	52	4	370#	33
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	620#	45	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	13	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..GYMNODINIALES						
...GYMNODINIACEAE						
....GYMNODINIUM	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	20.0	20.0	18.0	17.5	17.5						
2	20.5	20.0	20.0	17.5	16.5	17.0						
3	20.5	20.0	20.0	16.5	16.0	16.5						
4	20.0	19.5	20.0	16.5	16.0	16.0						
5	20.0	19.0	19.5	16.0	15.5	16.0						
6	19.5	19.0	19.0	16.0	15.5	16.0						
7	19.5	18.5	19.0	16.0	15.5	16.0						
8	19.5	18.5	19.0	16.0	15.5	15.5						
9	19.5	19.0	19.0	15.5	15.5	15.5						
10	19.0	18.0	18.5	15.5	14.5	15.0						
11	19.0	18.0	18.0	14.5	14.0	14.0						
12	19.0	17.5	18.5	14.0	13.5	13.5						
13	19.0	18.0	18.5	14.0	13.5	13.5						
14	18.5	17.5	18.0	13.5	13.0	13.5						
15	19.0	17.5	18.0	13.5	13.0	13.0						
16	18.5	17.5	18.0	13.0	13.0	13.0						
17	19.0	17.5	18.0	13.5	13.0	13.0						
18	19.0	17.5	18.5	13.5	13.0	13.0						
19	19.0	18.5	19.0	13.5	12.5	13.0						
20	19.5	19.0	19.0	13.5	13.0	13.5						
21	19.5	19.0	19.5	14.0	13.0	13.5						
22	20.5	19.5	20.0	14.0	13.5	13.5						
23	20.0	19.0	19.5	14.0	13.5	14.0						
24	19.5	19.0	19.0	14.0	13.5	13.5						
25	19.0	18.5	19.0	14.0	13.5	13.5						
26	19.0	18.0	18.5	14.0	13.5	13.5						
27	19.0	18.0	18.5	13.5	13.0	13.0						
28	18.5	17.5	18.0	13.5	12.5	13.0						
29	18.0	18.0	18.0	---	---	---						
30	18.0	17.5	17.5	---	---	---						
31	18.0	17.5	18.0	---	---	---						
MONTH	20.5	17.5	19.0	18.0	12.5	14.5						
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.0	25.0	25.5	28.5	27.0	27.5	29.0	27.5	28.0
2	---	---	---	26.0	25.0	25.5	28.5	27.5	28.0	29.0	28.0	28.0
3	---	---	---	26.5	25.0	26.0	28.5	27.5	28.0	29.0	27.5	28.5
4	---	---	---	27.0	25.5	26.0	28.5	27.5	27.5	29.0	28.0	28.5
5	---	---	---	27.0	25.5	26.5	28.5	27.5	28.0	29.0	28.0	28.5
6	---	---	---	27.5	26.0	26.5	28.5	27.5	28.0	29.5	28.0	28.5
7	---	---	---	27.5	26.0	26.5	29.0	27.5	28.0	29.5	28.5	29.0
8	---	---	---	27.5	26.0	27.0	29.0	27.5	28.5	29.5	28.5	29.0
9	---	---	---	28.0	26.5	27.0	29.5	28.0	28.5	29.5	28.5	29.0
10	---	---	---	28.0	27.0	27.5	29.5	28.0	28.5	29.5	28.5	29.0
11	---	---	---	28.5	27.5	28.0	28.5	28.0	28.5	29.5	28.0	29.0
12	---	---	---	29.0	27.5	28.0	29.0	28.0	28.5	29.5	28.5	29.0
13	---	---	---	29.0	27.5	28.5	29.5	28.0	28.5	29.5	28.5	29.0
14	---	---	---	29.0	28.0	28.5	29.5	28.0	28.5	29.5	28.5	29.0
15	---	---	---	29.0	28.5	28.5	29.5	28.0	28.5	29.5	28.5	29.0
16	---	---	---	29.5	28.5	29.0	29.5	28.0	29.0	29.5	28.0	28.5
17	---	---	---	29.5	28.5	29.0	29.5	28.0	28.5	28.5	28.0	28.5
18	---	---	---	29.5	28.5	29.0	29.0	28.0	28.5	29.0	28.0	28.5
19	---	---	---	29.5	28.5	29.0	29.5	28.0	28.5	28.5	28.0	28.0
20	---	---	---	29.0	28.0	28.5	29.5	28.0	28.5	29.0	28.0	28.5
21	---	---	---	29.0	28.0	28.5	29.5	28.0	28.5	28.5	28.0	28.5
22	---	---	---	28.5	28.0	28.0	29.0	28.0	28.5	29.0	28.0	28.5
23	---	---	---	28.0	27.5	28.0	29.0	28.0	28.5	29.5	28.5	29.0
24	---	---	---	28.5	27.5	28.0	29.0	27.5	28.0	29.0	28.5	28.5
25	---	---	---	28.5	27.5	28.0	28.5	27.5	28.0	28.5	28.0	28.0
26	---	---	---	28.5	27.5	28.0	28.5	27.5	28.0	28.5	27.5	28.0
27	25.5	24.5	25.0	28.0	27.5	27.5	28.5	27.5	28.0	27.5	27.0	27.0
28	26.0	24.5	25.0	28.5	27.5	28.0	28.5	27.5	28.0	27.0	26.5	27.0
29	25.5	25.0	25.0	28.5	27.5	27.5	28.5	27.5	28.0	26.5	26.5	26.5
30	26.0	25.0	25.5	28.0	27.0	27.5	28.5	27.5	28.0	26.5	26.0	26.5
31	---	---	---	28.5	27.0	27.5	28.5	27.5	28.0	---	---	---
MONTH	---	---	---	29.5	25.0	27.5	29.5	27.0	28.0	29.5	26.0	28.5

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.--29 years, 143 ft³/s (4.050 m³/s), 29.60 in/yr (752 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.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8	0630	2210	62.6	10.28	3.133	Mar. 21	0300	*6310	179	12.32	3.755

Minimum discharge, 1.4 ft³/s (0.040 m³/s) Sept. 16, 18-20, 22-24.

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	211	183	148	147	122	76	211	138	24	10	2.9	1.8
2	121	582	122	134	99	74	175	113	20	9.1	2.8	1.9
3	88	362	101	121	93	66	150	95	17	8.6	2.7	2.5
4	73	221	90	179	87	68	254	81	15	7.8	3.1	3.0
5	81	161	83	228	80	222	201	71	13	7.5	4.2	5.5
6	59	127	79	187	78	313	155	61	12	7.1	3.6	3.1
7	46	105	75	172	75	449	132	55	11	7.1	3.5	2.4
8	37	89	67	207	70	1730	117	54	10	7.1	3.1	2.1
9	48	113	59	179	77	911	110	50	10	6.7	2.9	2.0
10	77	705	55	151	94	401	96	42	9.5	6.4	2.7	1.8
11	90	535	53	141	83	255	86	38	9.1	6.4	3.2	1.8
12	69	299	52	167	80	201	222	35	9.1	6.1	2.8	1.8
13	57	209	66	150	72	190	484	31	8.6	5.8	2.7	1.7
14	49	160	99	138	72	157	846	28	8.2	5.8	2.4	1.6
15	44	128	78	123	90	131	466	25	7.8	5.5	2.3	1.6
16	41	109	72	108	315	116	288	23	7.8	4.9	2.2	1.5
17	39	93	66	113	373	462	204	59	11	4.7	2.2	1.5
18	36	81	60	620	238	754	162	427	12	4.2	2.1	1.6
19	34	73	58	701	191	406	135	215	10	4.2	2.1	1.6
20	33	66	56	353	234	1590	115	146	9.5	4.0	1.9	1.6
21	32	61	52	241	249	3770	97	116	8.6	3.9	1.9	1.7
22	34	57	50	305	205	1190	84	83	8.2	3.9	1.8	1.6
23	174	157	88	642	167	588	74	134	7.8	4.0	1.8	1.5
24	153	1080	290	387	140	520	66	159	7.8	3.6	1.6	1.8
25	108	1110	504	266	121	423	62	139	7.8	3.5	1.6	2.5
26	83	1290	389	197	105	295	111	99	8.6	3.4	1.5	2.4
27	70	722	263	158	95	229	220	70	8.6	3.6	1.5	2.2
28	62	359	194	131	90	712	192	51	7.8	3.6	1.5	2.3
29	65	247	154	113	84	732	208	41	9.1	3.4	1.5	2.6
30	103	184	146	110	---	391	174	34	10	3.1	1.8	2.8
31	88	---	160	158	---	283	---	30	---	3.0	2.2	---
TOTAL	2305	9668	3829	7027	3879	17705	5897	2743	318.9	168.0	74.1	63.8
MEAN	74.4	322	124	227	134	571	197	88.5	10.6	5.42	2.39	2.13
MAX	211	1290	504	701	373	3770	846	427	24	10	4.2	5.5
MIN	32	57	50	108	70	66	62	23	7.8	3.0	1.5	1.5
CFSM	1.13	4.91	1.89	3.46	2.04	8.70	3.00	1.35	.16	.08	.04	.03
IN.	1.31	5.48	2.17	3.98	2.20	10.04	3.34	1.56	.18	.10	.04	.04

CAL YR 1979 TOTAL 70915.7 MEAN 194 MAX 2120 MIN 7.8 CFSM 2.96 IN 40.21
WTR YR 1980 TOTAL 53677.8 MEAN 147 MAX 3770 MIN 1.5 CFSM 2.24 IN 30.44

03578000 ELK RIVER NEAR PELHAM, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT								
01...	1045	195	133	7.7	15.5	55	12	77
NOV								
05...	1300	153	119	7.4	12.0	54	10	--
DEC								
04...	1030	93	153	7.8	8.0	67	12	117
JAN								
07...	1030	166	142	8.1	8.5	58	12	79
FEB								
19...	1015	184	125	7.9	6.0	48	11	--
MAR								
17...	1700	727	148	7.8	11.0	18	12	93
MAY								
12...	1015	34	185	7.6	15.0	70	14	102
JUN								
25...	1215	7.8	260	7.8	20.0	106	19	162
JUL								
14...	1345	5.8	268	7.6	27.0	108	25	175

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								
01...	.10	40.5	330	40	50	0	12	6.3
NOV								
05...	--	--	210	40	40	30	1	.41
DEC								
04...	.16	29.4	140	20	--	40	1	.25
JAN								
07...	.11	35.4	200	10	30	20	3	1.3
FEB								
19...	--	--	180	20	20	10	8	4.0
MAR								
17...	.13	183	1500	90	140	70	60	118
MAY								
12...	.14	9.42	290	0	40	40	6	.55
JUN								
25...	.22	3.41	220	--	90	--	5	.11
JUL								
14...	.24	2.74	310	20	140	120	8	.13

03578000 ELK RIVER NEAR PELHAM, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 14...	1345	130	17	39	7.3	1.8	3	.1	1.4	2.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUL 14...	.1	3.7	147	.54	.010	1	0	<50	0

DATE	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
JUL 14...	<10	10	20	<10	2	<10	4900	0	30

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CYANIDE TOTAL (MG/L AS CN)
JUL 14...	170	.1	.00	0	0	0	10	13	.00

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 current year. 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.--60 years, 492 ft³/s (13.93 m³/s), 24.30 in/yr (617 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, 17,100 ft³/s (484 m³/s) at 0115 hours Mar. 21, gage height, 15.81 ft (4.819 m); minimum, 28 ft³/s (0.793 m³/s) Sept. 22, 23.

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	830	656	629	430	595	426	984	411	102	107	48	40
2	797	1200	623	419	598	357	628	411	111	62	47	41
3	489	1250	382	419	433	236	666	264	113	61	47	48
4	678	1060	381	758	299	115	927	252	182	61	47	47
5	550	510	381	547	299	277	784	264	210	61	62	46
6	447	297	381	614	417	742	716	272	205	64	67	46
7	446	296	381	650	383	2120	510	272	149	70	65	45
8	437	295	343	596	359	4510	435	309	102	65	64	44
9	427	577	315	595	358	1970	572	257	107	62	62	41
10	430	1880	292	593	356	1730	407	182	89	59	62	41
11	421	1450	254	599	484	863	356	122	61	58	62	40
12	415	1060	254	597	247	860	902	120	62	58	63	37
13	411	701	377	595	287	442	1500	120	63	57	59	35
14	403	644	360	524	354	658	2200	154	63	56	58	35
15	389	585	252	348	361	614	1610	205	64	53	56	35
16	380	423	425	355	698	612	999	203	67	51	55	33
17	415	423	271	518	1160	1480	732	1250	389	51	56	32
18	334	421	219	1150	910	1650	661	1060	203	51	56	33
19	112	419	109	1980	517	1630	632	937	56	49	55	32
20	111	419	203	1240	597	5210	523	989	56	47	52	32
21	111	294	252	957	600	14600	419	563	56	46	53	29
22	114	283	252	1030	600	4610	356	431	56	42	55	29
23	197	1250	539	2010	598	2130	349	492	63	43	53	29
24	387	2700	610	1140	595	2010	293	784	69	43	50	30
25	469	2470	1450	1060	478	1440	283	907	124	42	49	32
26	462	2160	1070	994	338	1020	315	701	71	50	48	33
27	458	2280	867	680	297	948	554	431	69	52	46	32
28	454	1240	604	530	296	3250	618	419	67	56	45	34
29	456	696	420	423	416	1750	618	283	81	53	45	39
30	422	835	359	425	---	1180	423	249	339	51	44	40
31	374	---	579	585	---	1650	---	139	---	48	42	---
TOTAL	12826	28774	13834	23361	13930	61090	20972	13453	3449	1729	1673	1110
MEAN	414	959	446	754	480	1971	699	434	115	55.8	54.0	37.0
MAX	830	2700	1450	2010	1160	14600	2200	1250	389	107	67	48
MIN	111	283	109	348	247	115	283	120	56	42	42	29
(†)	-1700	-900	-200	+100	-100	+3000	-100	-100	+100	-300	-200	-200
MEAN‡	359	929	440	757	477	2067	696	431	118	46.1	47.5	30.3
CFSM†	1.31	3.38	1.60	2.75	1.73	7.52	2.53	1.57	.43	.17	.17	.11
IN.‡	1.50	3.77	1.84	3.17	1.87	8.67	2.82	1.81	.48	.19	.20	.12

CAL YR 1979 TOTAL 232518 MEAN 637 MAX 5560 MIN 29 MEAN‡ 636 CFSM‡ 2.31 IN.‡ 31.38
WTR YR 1980 TOTAL 196201 MEAN 536 MAX 14600 MIN 29 MEAN‡ 534 CFSM‡ 1.94 IN.‡ 26.45

† Change in contents, in cfs-days, in Woods Reservoir.
‡ Adjusted for change in contents.

03582000 ELK RIVER ABOVE FAYETTEVILLE, TN

LOCATION.--Lat 35°08'04", long 86°32'23", Lincoln County, Hydrologic Unit 06030003, on right bank 100 ft (30 m) downstream from highway bridge, 1.8 mi (2.9 km) southeast of Fayetteville, 4.0 mi (6.4 km) upstream from Norris Creek, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--827 mi^2 (2,142 km^2).

WATER-DISCHARGE RECORDS

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.--46 years, 1,461 ft^3/s (41.38 m^3/s), 23.99 in/yr (609 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,600 ft^3/s (1,180 m^3/s) Mar. 16, 1973, gage height, 28.63 ft (8.726 m); minimum, 67 ft^3/s (1.90 m^3/s) Dec. 9, 10, 11, 1970, gage height, 0.75 ft (0.229 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1842 reached a stage of 27.5 ft (8.38 m), discharge, 37,000 ft^3/s (1,050 m^3/s), and flood of Mar. 23, 1929, reached a stage of 27.2 ft (8.29 m), discharge, 36,000 ft^3/s (1,020 m^3/s), from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,200 ft^3/s (629 m^3/s) at 0930 hours Mar. 21, gage height, 22.85 ft (6.965 m); minimum observed, 131 ft^3/s (3.71 m^3/s) Aug. 11.

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	1800	3950	2800	2670	1580	915	5280	1370	503	1100	309	243
2	2800	5400	3030	1620	1480	842	4580	1320	449	538	314	436
3	2700	3490	2910	2580	1440	807	4350	929	1230	513	206	498
4	2740	3020	2880	2920	1390	949	4330	413	948	502	204	457
5	2710	2830	2870	2790	994	1970	4240	562	778	346	309	446
6	2610	2730	2890	1800	883	1700	4170	808	615	253	308	448
7	2650	2670	2870	908	852	4160	4120	799	592	446	305	181
8	1570	2770	2840	1270	825	8970	3330	673	322	482	1020	200
9	1520	3500	2810	1520	886	2400	3580	734	309	1070	1080	431
10	1660	3920	2700	1750	1030	1770	4010	560	538	1080	219	446
11	1760	3610	2530	1840	965	4260	4000	313	545	1360	188	445
12	1870	3200	2520	1920	668	3200	3360	448	538	794	271	442
13	1900	3090	2510	1060	472	922	2270	723	533	236	1100	450
14	1630	3300	2730	952	455	2690	3080	581	530	221	488	172
15	718	3550	2210	1450	507	4040	4660	629	262	874	466	193
16	2380	3530	447	807	1360	4020	4460	683	261	1340	471	417
17	2060	3150	705	454	870	5310	4290	4930	387	1090	200	442
18	2140	2760	2500	1190	948	2900	3480	3570	378	1090	200	446
19	2130	1860	2500	1810	1230	4340	2680	2490	921	1090	524	442
20	1830	3230	2500	1700	1450	8830	726	2480	951	251	467	451
21	765	3260	2370	1580	2420	19600	913	2720	963	221	1060	169
22	301	1860	1990	2330	2380	6570	1700	2980	266	314	537	191
23	1780	1430	654	3100	1930	6130	1680	3690	253	336	503	419
24	2060	5640	1690	2920	555	6760	1640	2960	529	333	240	444
25	1700	3350	1500	2750	636	6390	1410	948	712	323	237	460
26	1670	1690	1320	2570	1030	7710	1620	768	558	326	478	453
27	1490	3270	2840	2460	997	6250	759	936	514	267	447	460
28	652	3240	3160	2370	915	8220	969	2430	508	306	443	196
29	703	3130	2790	1560	836	5450	1440	2040	355	327	444	248
30	1430	3050	2030	1480	---	3850	1390	2260	497	321	461	476
31	1450	---	948	1910	---	5090	---	2030	---	316	176	---
TOTAL	55179	95480	71044	58041	31984	147015	88517	48777	16745	18066	13675	11202
MEAN	1780	3183	2292	1872	1103	4742	2951	1573	558	583	441	373
MAX	2800	5640	3160	3100	2420	19600	5280	4930	1230	1360	1100	498
MIN	301	1430	447	454	455	807	726	313	253	221	176	169

CAL YR 1979 TOTAL 720817 MEAN 1975 MAX 11200 MIN 203 MEAN‡ 1983 CFSM‡ 2.40 IN.‡ 32.54
WTR YR 1980 TOTAL 655725 MEAN 1792 MAX 19600 MIN 169 MEAN‡ 1706 CFSM‡ 2.06 IN.‡ 28.07

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03582000 ELK RIVER ABOVE FAYETTEVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
17...	1300	1880	170	7.3	15.0	5	2	7.2	<1.0	--	89
DEC											
12...	1000	2960	150	7.8	14.0	9	3	9.5	<1.0	--	79
JAN											
23...	1100	3100	210	6.8	8.3	30	50	10.2	3.0	>2000	100
APR											
02...	0915	4560	220	6.9	10.0	13	3	10.6	4.1	--	84

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
17...	87	7.0	4.0	120	.16	609	3	.52	.110	.10
DEC										
12...	70	7.0	4.0	80	.11	639	5	.29	.050	.14
JAN										
23...	88	8.0	4.0	160	.22	1340	85	.73	.090	.21
APR										
02...	94	7.0	3.0	100	.14	1230	13	.71	.020	.08

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
17...	.020	--	<1	20	<50	<10	370	.5	30	2.6
DEC										
12...	.020	<.010	<1	<10	<50	<10	10	<.4	30	2.7
JAN										
23...	.230	.140	<1	<10	160	<10	50	<.2	20	6.1
APR										
02...	.030	--	<1	<10	--	<10	--	<.2	<10	1.8

03584500 ELK RIVER NEAR PROSPECT, TN

LOCATION.--Lat 35°01'39", long 86°56'52", Giles County, Hydrologic Unit 06030004, on right bank 50 ft (15 m) upstream from county road bridge, 1.1 mi (1.8 km) downstream from Richland Creek, 3.2 mi (5.1 km) east of Prospect, 5.4 mi (8.7 km) upstream from Ford Creek, 7.9 mi (12.7 km) upstream from Tennessee - Alabama State line, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--1,784 mi^2 (4,621 km^2).

PERIOD OF RECORD.--July 1904 to February 1908, January 1919 to current year. Published as "near Elkmont, Ala." 1904-8, 1919-34. Record for both sites published January to March 1934.

REVISED RECORDS.--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. WSP 1436: 1920-22, 1923(M), 1924, 1927, 1929, 1931-32(M).

GAGE.--Water-stage recorder. Datum of gage is 563.29 ft (171.691 m) National Geodetic Vertical Datum of 1929. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934, nonrecording gage 11.9 mi (19.1 km) downstream at datum 13.52 ft (4.121 m) lower.

REMARKS.--Records good. Flow regulated by Woods Reservoir (station 03579000) since May 1952, and Tims Ford Lake (station 03580740) since December 1970. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--64 years (1905-7, 1920-80), 3,103 ft^3/s (87.88 m^3/s), 23.62 in/yr (600 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft^3/s (3,310 m^3/s) Mar. 17, 1973, gage height, 40.12 ft (12.229 m), from rating curve extended above 63,000 ft^3/s (1,780 m^3/s) on basis of slope-area measurement at gage height 38.17 ft (11.634 m) and contracted-opening measurement at gage height 38.96 ft (11.875 m); minimum, 78 ft^3/s (2.21 m^3/s) Sept. 29, 1961 (caused by highway construction upstream).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage of 40.9 ft (12.47 m), discharge, 130,000 ft^3/s (3,680 m^3/s), and may have been equaled by a flood in March 1897, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,000 ft^3/s (1440 m^3/s) at 2130 hours Mar. 21, gage height, 32.90 ft (10.028 m); minimum, 271 ft^3/s (7.67 m^3/s) Sept. 16, 23.

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	4510	9270	4770	3790	3490	1830	8400	2230	2400	1070	515	376
2	4300	19400	4300	3070	3010	1920	7610	2140	1270	1370	493	319
3	4110	15900	4310	4190	2830	1590	6660	2040	1310	826	461	441
4	4100	7080	4110	4780	2710	1780	6310	1360	1700	896	430	582
5	4380	5380	4010	4140	2540	4890	5970	1000	1540	851	347	542
6	3970	4670	3980	2780	2110	5560	5700	1180	1310	640	381	542
7	3720	4260	3890	3310	1980	8680	5520	1360	1090	775	436	525
8	3400	4000	3760	3100	1860	21200	7030	1470	1030	858	461	376
9	2470	5480	3670	3200	1990	23900	7530	1200	775	794	1060	306
10	2630	12500	3610	3400	2470	11200	6350	1290	706	1350	1070	410
11	2790	9750	3390	4590	2510	6500	5850	994	858	1450	472	493
12	2530	7150	3340	6080	2400	7320	8180	788	877	1370	525	493
13	2970	5720	3770	4780	1970	4880	9900	961	851	974	420	488
14	2430	5040	3850	3370	1760	3140	15900	1020	832	531	987	493
15	1950	4970	3610	3440	1830	5350	11900	961	820	415	570	376
16	1860	4980	1570	3050	3760	5760	9050	1090	634	974	559	279
17	2780	4790	1180	2370	4190	17700	7410	10400	582	1440	395	386
18	2850	4220	3250	6140	3190	24100	6650	20000	682	1210	347	477
19	2720	3480	3340	7750	3180	14500	5360	14400	694	1200	324	488
20	2690	3190	3330	5620	3320	16900	3550	6780	1140	1180	537	493
21	1860	4130	3170	4500	4020	40500	2310	5350	1190	498	616	498
22	1070	3960	2990	5390	4260	42900	2780	5200	1190	400	1010	376
23	1780	3320	4710	11100	4050	26900	2970	8240	622	611	587	275
24	2730	11300	10200	7980	2790	14700	2840	7550	565	682	576	386
25	2650	11400	6970	6430	1950	12000	2660	4950	845	565	405	493
26	2340	11600	4710	5340	2040	10700	2910	3170	1000	725	347	515
27	2250	9300	5210	4670	2290	10400	2390	2530	820	706	472	498
28	1910	6920	5080	4210	2040	19900	1800	3090	750	1360	515	525
29	1260	5830	4540	3750	1940	23900	2200	3520	801	743	509	436
30	2470	5160	3420	3120	---	15300	2350	3230	1030	587	509	400
31	2610	---	2830	3940	---	8160	---	3190	---	548	542	---
TOTAL	86090	214150	124870	143380	78480	414060	176040	122684	29914	27599	16878	13287
MEAN	2777	7138	4028	4625	2706	13360	5868	3958	997	890	544	443
MAX	4510	19400	10200	11100	4260	42900	15900	20000	2400	1450	1070	582
MIN	1070	3190	1180	2370	1760	1590	1800	788	565	400	324	275

CAL YR 1979 TOTAL 1642437 MEAN 4500 MAX 31300 MIN 375 MEAN‡ 4507 CFSM‡ 2.53 IN.‡ 34.30
WTR YR 1980 TOTAL 1447432 MEAN 3955 MAX 42900 MIN 275 MEAN‡ 3869 CFSM‡ 2.17 IN.‡ 29.52

‡ Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03588000 SHOAL CREEK AT LAWRENCEBURG, TN

LOCATION.--Lat 35°14'40", long 87°21'02", Lawrence County, Hydrologic Unit 06030005, on left bank at Lawrenceburg municipal water-supply intake, 500 ft (152 m) downstream from Little Shoal Creek, 0.5 mi (0.8 km) upstream from Crowson Creek, 0.9 mi (1.4 km) west of courthouse in Lawrenceburg, and at mile 55.9 (89.9 km).

DRAINAGE AREA.--55.4 mi^2 (143.5 km^2).

PERIOD OF RECORD.--June 1932 to March 1934, March 1967 to current year.

REVISED RECORDS.--WSP 1306: Drainage area. WSP 2110: 1933.

GAGE.--Water-stage recorder. Datum of gage is 784.41 ft (239.088 m) National Geodetic Vertical Datum of 1929. June 7, 1932, to Mar. 31, 1934, nonrecording gage at site 500 ft (152 m) downstream at datum 4.01 ft (1.222 m) lower. Mar. 22, 1967, to Sept. 30, 1970, at site 1,300 ft (396 m) downstream at datum 7.71 ft (2.350 m) lower.

REMARKS.--Records poor. About 6 ft^3/s (0.17 m^3/s) were diverted by Lawrenceburg water plant, some of which was returned to the stream through sewage treatment plant 0.6 mi (1.0 km) downstream. Records of periodic water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--14 years (water years 1933, 1968-80), 114 ft^3/s (3.228 m^3/s), 27.94 in/yr (710 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Mar. 15, 1973, gage height, 18.71 ft (5.703 m), from rating curve extended above 6,700 ft^3/s (190 m^3/s) on basis of computation of peak flow over dam; minimum daily, 19 ft^3/s (0.54 m^3/s) Nov. 2, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1846, 20.0 ft (6.10 m) present site and datum, Mar. 28, 1902, discharge, 23,000 ft^3/s (651 m^3/s); flood of Mar. 21, 1955, reached a stage of 17.2 ft (5.24 m), present site and datum, discharge 18,000 ft^3/s (510 m^3/s), from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (60.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 25	1530	2100	59.5	5.56	1.695	Mar. 28	0545	4890	138	8.44	2.572
Dec. 24	0900	1990	56.4	5.43	1.655	Apr. 8	0800	3040	86.1	6.56	2.000
Mar. 8	0500	3260	92.3	6.77	2.064	May 17	1515	*8550	242	11.64	3.548
Mar. 17	0615	4570	129	8.12	2.475	July 22	1800	5490	155	9.01	2.746
Mar. 20	2045	8170	231	11.34	3.456						

Minimum daily discharge, 26 ft^3/s (0.74 m^3/s) Oct. 26.

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	59	593	103	92	103	77	181	77	78	56	51	36
2	63	165	94	87	101	73	165	73	74	50	51	48
3	56	100	86	84	101	70	155	75	70	176	49	38
4	62	83	82	90	92	84	149	75	65	73	48	46
5	56	74	80	85	92	177	138	73	62	54	45	48
6	54	68	78	80	90	109	132	72	60	122	43	36
7	52	63	75	100	86	957	125	107	58	95	44	36
8	50	62	72	140	88	1290	976	97	56	53	43	34
9	52	318	69	130	95	267	216	75	54	51	43	33
10	59	292	65	115	95	195	169	72	52	50	43	33
11	51	126	63	170	90	164	158	70	51	48	41	32
12	65	102	65	210	84	167	360	66	49	48	41	33
13	47	91	132	170	79	155	674	65	48	49	40	34
14	47	82	89	150	84	141	549	63	47	47	41	34
15	40	76	78	125	197	132	239	61	46	46	41	32
16	38	72	75	115	305	389	190	273	45	45	41	31
17	39	70	71	105	187	2540	169	2670	44	44	40	40
18	39	65	66	95	101	381	158	373	55	43	74	33
19	43	63	65	90	107	238	150	211	53	45	47	32
20	49	59	63	85	145	3270	142	211	51	44	40	33
21	49	57	60	113	115	983	123	134	50	49	39	34
22	66	61	60	558	107	305	110	308	49	1310	37	32
23	46	715	440	241	99	247	84	423	53	193	38	33
24	29	331	961	159	94	533	81	254	66	70	38	32
25	27	967	254	141	88	244	82	152	60	59	37	33
26	26	406	160	126	81	214	84	126	54	64	35	32
27	27	176	143	117	79	200	81	111	51	182	35	33
28	34	146	116	111	79	1810	84	101	48	178	35	39
29	33	125	106	107	75	341	82	92	65	63	36	47
30	29	110	103	117	---	279	79	87	66	55	48	34
31	34	---	99	113	---	208	---	84	---	52	39	---
TOTAL	1421	5718	4073	4221	3139	16240	6085	6731	1680	3514	1323	1071
MEAN	45.8	191	131	136	108	524	203	217	56.0	113	42.7	35.7
MAX	66	967	961	558	305	3270	976	2670	78	1310	74	48
MIN	26	57	60	80	75	70	79	61	44	43	35	31
CFSM	.83	3.45	2.37	2.46	1.95	9.46	3.66	3.92	1.01	2.04	.77	.64
IN.	.95	3.84	2.73	2.83	2.11	10.90	4.09	4.52	1.13	2.36	.89	.72

CAL YR 1979 TOTAL 52320 MEAN 143 MAX 2650 MIN 26 CFSM 2.58 IN 35.13
WTR YR 1980 TOTAL 55216 MEAN 151 MAX 3270 MIN 26 CFSM 2.73 IN 37.08

NOTE.--No gage-height record May 28 to July 1.

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.--18 years, 89.3 ft³/s (2.529 m³/s), 28.20 in/yr (716 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.--Peak discharges above base of 1200 ft³/s (34.0 m³/s) and maximum (*), from rating curve extended above 4,100 ft³/s (116 m³/s) on basis of contracted-opening measurement:

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 24	1315	2200	62.3	8.21	2.502	Mar. 28	0845	2500	70.8	8.52	2.597
Mar. 8	0830	4000	113	9.75	2.972	May 17	1830	*8680	246	12.11	3.691
Mar. 17	0900	4700	133	10.21	3.112	May 22	2245	1700	48.1	7.63	2.326
Mar. 20	2200	8150	231	11.92	3.633						

Minimum discharge, 18 ft³/s (0.51 m³/s) Sept. 23.

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	43	544	92	78	90	57	176	76	60	41	32	25
2	42	342	78	71	87	53	151	74	56	38	32	40
3	39	176	70	67	84	52	136	72	53	36	30	38
4	43	118	64	84	80	56	118	70	50	37	32	28
5	39	92	60	73	79	118	110	68	49	35	30	28
6	36	76	58	70	78	100	103	67	47	34	29	26
7	34	64	53	105	74	637	97	85	46	36	28	24
8	32	57	48	113	76	1750	462	106	45	35	28	23
9	30	107	46	107	80	416	340	81	41	34	27	22
10	40	199	45	98	83	236	219	74	40	33	27	21
11	34	140	43	207	78	162	172	72	42	32	27	20
12	32	110	45	191	73	140	280	70	42	30	26	20
13	29	92	107	157	68	120	422	67	42	29	26	20
14	28	77	97	128	82	105	523	64	41	29	27	20
15	28	67	92	107	170	93	332	62	40	29	33	20
16	28	59	84	102	260	189	221	78	40	28	28	20
17	28	54	74	92	160	2870	172	2640	42	28	27	20
18	28	49	67	84	88	508	147	748	42	27	25	21
19	27	60	63	78	92	277	128	268	41	27	27	20
20	27	47	59	75	125	2280	113	187	40	27	26	19
21	27	45	55	100	100	1470	107	133	39	28	24	20
22	30	47	53	490	90	387	100	498	38	290	23	20
23	45	342	318	210	85	252	95	671	40	147	24	20
24	33	520	1250	140	80	318	91	295	50	64	23	19
25	29	523	474	122	73	236	100	174	48	45	22	25
26	28	544	245	110	67	183	95	125	41	41	21	24
27	28	270	162	100	64	164	87	101	39	40	21	21
28	30	181	123	96	61	1350	84	86	37	41	21	25
29	45	131	105	94	58	492	84	76	50	36	22	34
30	40	106	98	102	---	329	78	70	50	34	28	32
31	43	---	86	98	---	228	---	63	---	34	30	---
TOTAL	1045	5239	4314	3749	2685	15628	5343	7321	1331	1445	826	715
MEAN	33.7	175	139	121	92.6	504	178	236	44.4	46.6	26.6	23.8
MAX	45	544	1250	490	260	2870	523	2640	60	290	33	40
MIN	27	45	43	67	58	52	78	62	37	27	21	19
CFSM	.78	4.07	3.23	2.81	2.15	11.7	4.14	5.49	1.03	1.08	.62	.55
IN.	.90	4.53	3.73	3.24	2.32	13.52	4.62	6.33	1.15	1.25	.71	.62

CAL YR 1979 TOTAL 47922 MEAN 131 MAX 2680 MIN 24 CFSM 3.05 IN 41.46
WTR YR 1980 TOTAL 49641 MEAN 136 MAX 2870 MIN 19 CFSM 3.16 IN 42.94

NOTE.--No gage-height record Jan. 16 to Feb. 27.

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.--55 years, 655 ft³/s (18.55 m³/s), 25.56 in/yr (649 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, from 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.--Peak discharges above base of 6,500 ft³/s (184 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 24	2115	9290	263	13.27	4.045	Mar. 21	0400	*31300	886	20.26	6.175
Mar. 8	1530	11700	331	14.60	4.450	Mar. 28	1730	12500	354	15.01	4.575
Mar. 17	1600	22800	646	18.31	5.581	May 17	2330	30400	861	20.09	6.123

Minimum discharge, 140 ft³/s (3.96 m³/s) Sept. 16, 17, 23, 24.

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	389	2350	843	737	710	548	1520	577	657	389	302	191
2	368	2880	746	675	666	529	1310	555	618	342	290	188
3	351	1400	666	637	648	507	1170	537	581	325	270	296
4	358	991	622	714	629	513	1060	516	559	439	260	211
5	348	821	599	692	614	994	956	502	537	400	250	203
6	319	692	581	644	618	1140	870	491	516	324	240	203
7	299	610	552	805	581	2260	810	534	498	334	230	186
8	284	559	512	1110	559	9630	3300	826	474	372	225	173
9	275	741	477	1030	625	3740	2720	622	460	320	220	163
10	328	2090	460	898	664	2020	1660	544	450	296	215	155
11	319	1570	453	1270	660	1490	1320	519	436	287	210	153
12	287	1130	453	1630	656	1280	2040	498	425	265	205	148
13	266	904	688	1350	632	1130	2810	481	411	250	206	148
14	251	764	810	1120	624	962	4580	460	400	240	206	155
15	245	675	714	961	780	840	2600	443	389	230	260	150
16	245	622	675	830	1040	895	1780	588	372	225	221	143
17	242	577	614	760	835	14300	1410	9670	429	220	208	148
18	240	537	566	710	780	5750	1220	9330	411	215	198	165
19	232	505	548	650	845	2500	1090	2500	382	210	257	155
20	229	477	530	630	918	5760	985	2080	361	208	240	148
21	229	457	502	600	860	14200	893	1440	345	205	213	150
22	237	457	481	1350	820	3490	801	2000	338	1300	196	150
23	351	1400	1230	2600	770	2240	737	5200	342	3940	181	143
24	296	4380	6700	1780	700	2720	692	2750	519	906	175	145
25	272	3080	4640	1430	660	2230	764	1730	484	590	168	168
26	248	4770	2090	1140	620	1730	719	1290	379	481	165	173
27	237	2240	1470	996	582	1450	675	1050	342	470	165	158
28	234	1590	1140	859	589	8240	637	910	328	579	163	178
29	345	1210	979	773	569	4820	633	837	379	422	168	257
30	335	979	904	759	---	2560	607	764	523	334	188	254
31	322	---	810	792	---	1910	---	701	---	314	211	---
TOTAL	8981	41458	33055	30932	20254	102378	42369	50945	13345	15432	6706	5258
MEAN	290	1382	1066	998	698	3303	1412	1643	445	498	216	175
MAX	389	4770	6700	2600	1040	14300	4580	9670	657	3940	302	296
MIN	229	457	453	600	559	507	607	443	328	205	163	143
CFSM	.83	3.97	3.06	2.87	2.01	9.49	4.06	4.72	1.28	1.43	.62	.50
IN.	.96	4.43	3.53	3.31	2.17	10.94	4.53	5.45	1.43	1.65	.72	.56

CAL YR 1979 TOTAL 374610 MEAN 1026 MAX 15000 MIN 170 CFSM 2.95 IN 40.04
WTR YR 1980 TOTAL 371113 MEAN 1014 MAX 14300 MIN 143 CFSM 2.91 IN 39.67

03588500 SHOAL CREEK AT IRON CITY, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Records on page 271 furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 01...	1430	392	135	22.0	5	5.3
NOV 19...	1230	442	140	12.0	<10	--
JAN 22...	1300	1310	50	10.0	13	46
FEB 27...	1230	624	80	8.0	5	8.4
APR 09...	1530	2430	65	14.0	54	354
MAY 28...	1130	890	85	18.0	11	26
JUL 02...	0900	340	110	24.0	15	14
AUG 13...	1300	203	120	28.0	3	1.6

DATE	PCB 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 01...	.00	.00	.0	.00	.00	.00	.00	.00	.00
FEB 27...	.00	.00	.0	.00	.00	.00	.00	.00	.00
MAY 28...	.00	.00	.0	.00	.00	.00	.00	.00	.00
AUG 13...	.00	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, 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)
OCT 01...	.00	.00	.00	.00	0	.00	.00	.00
FEB 27...	.00	.00	.00	.00	0	.00	.00	.00
MAY 28...	.00	.00	.00	.00	0	.00	.00	.00
AUG 13...	.00	.00	.00	.00	0	.00	.00	.00

03588500 SHOAL CREEK AT IRON CITY, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 25...	1000	275	130	7.6	12.0	8	2	8.9	1.4	--	58
DEC 11...	1300	453	100	7.8	9.0	2	1	10.7	<1.0	--	45
JAN 16...	1100	840	--	7.3	10.0	3	2	11.3	<1.0	120	40
MAR 11...	1015	1520	91	6.8	10.0	5	11	12.5	1.2	400	32

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 25...	54	8.0	4.0	100	.14	74.2	2	.55	.020	.06
DEC 11...	42	4.0	2.0	60	.08	73.4	4	.72	.010	.10
JAN 16...	33	4.0	3.0	60	.08	136	<1	.69	.020	<.01
MAR 11...	24	6.0	2.0	70	.10	287	6	.55	<.010	.06

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 25...	.050	.010	<1	20	<50	<10	<10	<.2	30	3.0
DEC 11...	.040	.010	<1	<10	<50	<10	10	<.2	280	1.6
JAN 16...	.030	<.010	<1	<10	50	<10	20	<.2	10	<2.5
MAR 11...	.030	--	<1	10	--	<10	--	<.2	10	1.5

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 current year.
WATER TEMPERATURE: April 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1976.

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, not determined; minimum, not determined.
WATER TEMPERATURE: Maximum, 32.5°C Aug. 19, 20, 21; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
17...	0930	56800	170	7.5	19.0	4.0	7.8	K2	<1	71	12	22
NOV												
16...	1000	104000	178	7.4	13.5	6.0	9.2	29	K5	71	12	22
DEC												
19...	0815	67600	160	7.4	7.5	3.0	13.8	K11	K6	61	11	19
JAN												
17...	0930	71700	165	7.0	7.5	.80	11.3	22	K1	120	9	33
MAR												
06...	1000	68200	165	6.8	6.0	1.0	12.7	K7	K7	70	14	22
APR												
17...	1000	127000	133	6.4	14.5	2.5	9.8	21	31	53	8	17
MAY												
15...	0915	37600	132	6.8	20.0	5.6	7.6	<1	23	57	14	18
JUN												
19...	1000	23800	150	6.7	26.0	.50	7.1	<1	K9	--	--	--
JUL												
17...	0930	9500	156	--	30.0	2.0	5.8	--	K17	59	4	18
AUG												
20...	1000	14400	162	7.4	30.0	1.6	5.8	K2	59	64	6	18
SEP												
17...	0830	15900	161	6.3	28.0	1.5	4.9	<1	90	63	12	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
17...	4.0	5.6	18	.3	1.5	59	11	6.3	.1	5.4	97	94
NOV												
16...	4.0	6.0	19	.3	1.5	59	14	7.1	.1	5.4	101	97
DEC												
19...	3.2	5.7	20	.3	1.7	50	11	6.1	.1	5.3	97	84
JAN												
17...	9.0	3.6	9	.1	1.5	110	19	2.7	.1	3.3	--	140
MAR												
06...	3.6	4.7	13	.2	1.1	56	11	5.5	.1	4.4	--	89
APR												
17...	2.5	3.8	13	.2	.7	45	7.9	3.8	.1	4.4	80	70
MAY												
15...	2.8	3.8	13	.2	.9	43	8.2	4.2	.1	4.7	84	71
JUN												
19...	--	--	--	--	--	48	9.9	4.9	.1	--	91	--
JUL												
17...	3.5	5.8	17	.3	1.0	55	9.7	6.2	.1	3.2	109	81
AUG												
20...	4.5	6.1	17	.3	1.4	58	11	6.4	.2	5.2	80	88
SEP												
17...	4.3	6.4	18	.4	1.4	51	13	7.1	.1	5.4	86	87

K--Results based on colony count outside acceptable range (non-ideal colony count).

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
17...	.13	14900	.48	.48	.000	.010	--	.55	.060	.050	--
NOV											
16...	.14	28400	.42	.42	.040	.030	.34	.29	.070	.050	3.3
DEC											
19...	.13	17700	.44	.44	.070	.020	.28	.14	.050	.030	1.5
JAN											
17...	.17	23800	.35	.35	.000	.030	.31	.04	.020	.010	5.8
MAR											
06...	1.31	16400	.63	.64	.110	.060	.89	.00	--	.030	--
APR											
17...	.11	27400	.57	.59	.070	.000	.34	.39	.060	.040	1.6
MAY											
15...	.11	8530	--	.52	.070	.010	--	.49	.050	.030	--
JUN											
19...	.12	5850	.34	.34	.050	.050	.30	.16	.030	.010	--
JUL											
17...	.15	2800	.16	.18	.070	.070	.21	.00	.030	.020	2.0
AUG											
20...	.11	3110	.09	.09	.100	.090	.22	.09	.050	.020	--
SEP											
17...	.12	3690	.26	.19	.040	.000	.17	.23	.040	.000	5.9

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
17...	5.5	.2	--	115	31.9	43.5	101	15.3	26	3990	25
NOV											
16...	--	--	300	--	--	--	--	--	7	1970	89
DEC											
19...	--	--	--	--	--	--	--	--	10	1830	94
JAN											
17...	--	--	--	--	--	--	--	--	9	1740	19
MAR											
06...	1.9	.3	3700	29.4	11.0	14.0	102	.000	6	1110	72
APR											
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
15...	6.9	.2	29	14.8	4.09	5.67	107	18.3	10	1020	83
JUN											
19...	--	--	590	--	--	--	--	--	7	450	79
JUL											
17...	--	--	--	--	--	--	--	--	10	256	60
AUG											
20...	--	--	4900	--	--	--	--	--	10	389	53
SEP											
17...	--	--	--	80.6	17.2	22.7	68.2	7.27	6	258	--

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT 17...	3	3	0	0	0	0	30	20	0
MAR 06...	3	1	<50	20	0	0	20	10	0
MAY 15...	4	3	<50	40	0	0	40	10	0
JUN 19...	--	1	100	--	0	--	--	10	0
AUG 20...	3	3	100	100	0	0	--	20	0

DATE	CORALT, 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)
OCT 17...	0	8	2	370	10	7	2	60	20
MAR 06...	0	2	1	130	20	1	0	30	4
MAY 15...	0	4	3	370	40	0	0	40	10
JUN 19...	0	4	3	310	--	3	0	40	--
AUG 20...	0	4	2	160	10	3	0	40	0

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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 17...	.1	<.1	0	0	0	0	10	3
MAR 06...	.1	.1	1	1	0	0	--	120
MAY 15...	.1	<.1	0	2	0	0	20	10
JUN 19...	--	--	4	0	0	0	20	--
AUG 20...	<.1	<.1	4	0	0	0	10	10

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	NOV 16,79	MAR 6,80	MAY 15,80	JUN 19,80	JUL 17,80	AUG 20,80
TIME	1000	1000	0915	1000	0930	1000
TOTAL CELLS/ML	300	3700	29	590	17000	4900
DIVERSITY: DIVISION	1.0	0.7	0.0	1.1	0.9	1.5
.CLASS	1.0	0.7	0.0	1.1	0.9	1.5
..ORDER	1.0	0.7	0.0	1.2	1.5	1.9
...FAMILY	1.0	0.7	0.0	1.6	1.7	2.1
....GENUS	1.6	1.8	1.0	2.5	2.4	2.6

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												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	13	2	--	-	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	130	3
....MICRACTINIUM	--	-	--	-	--	-	100#	17	300	2	130	3
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	13	2	*	0	--	-
....CHODATELLA	--	-	--	-	--	-	--	-	*	0	25	1
....DICHOTOMOCOCCUS	110#	38	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	140	1	--	-
....KIRCHNERIELLA	14	5	--	-	--	-	51	9	*	0	--	-
....SELENASTRUM	--	-	--	-	--	-	13	2	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	13	2	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-	25	1
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	220	1	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	220	1	400	8
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	87	2	--	-	13	2	220	1	75	2
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	--	-	*	0	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	29	10	2000#	54	14#	50	130#	22	660	4	1800#	36
....MELOSIRA	140#	48	260	7	14#	50	230#	39	850	5	880#	18
....STEPHANODISCUS	--	-	910#	24	--	-	--	-	--	-	--	-
..PENNALES												
...FRAGILARIACEAE												
....SYNEDRA	--	-	--	-	--	-	--	-	*	0	--	-
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	--	-	--	-	220	1	150	3
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	*	0	25	1
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	25	1
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	*	0	--	-

NOTE: # - Dominant organism; equal to or greater than 15%
* - Observed organism, may not have been counted, less than 1/2%

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE TIME	NOV 16,79 1000		MAR 6,80 1000		MAY 15,80 0915		JUN 19,80 1000		JUL 17,80 0930		AUG 20,80 1000	
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	--	-	--	-	--	-	--	-	2600#	15	--	-
....ANACYSTIS	--	-	430	12	--	-	13	2	9500#	56	150	3
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	820	5	1100#	22
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-	710	4	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	25	1
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	22	1	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

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
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	156	148	151	166	162	165	140	139	140	152	147	150
2	158	154	156	170	164	168	142	140	141	155	150	154
3	160	155	158	171	169	169	144	142	143	160	155	158
4	164	159	162	170	167	168	147	142	145	163	154	160
5	167	164	165	167	166	167	147	145	146	164	159	162
6	167	164	166	167	167	167	146	143	145	163	161	163
7	169	165	167	169	167	167	150	144	147	163	160	162
8	170	167	168	167	160	164	148	147	148	165	162	163
9	169	167	168	163	160	161	152	147	150	167	163	165
10	170	168	169	164	162	163	152	149	151	166	162	164
11	171	169	170	166	164	165	153	150	151	166	163	164
12	171	168	169	167	166	166	152	147	150	165	164	164
13	171	168	169	171	167	169	151	149	151	164	163	164
14	171	167	170	172	171	171	151	150	151	165	161	163
15	171	169	169	173	171	172	151	150	151	165	163	164
16	172	167	170	171	170	170	153	150	151	172	164	167
17	172	170	171	171	167	169	153	152	152	171	164	169
18	173	169	171	169	166	167	153	150	152	170	168	169
19	172	168	171	167	165	166	151	151	151	172	166	169
20	172	169	171	168	164	165	154	151	153	172	164	168
21	172	168	170	168	165	166	154	152	153	169	163	166
22	171	167	168	167	162	164	154	151	153	168	164	166
23	169	165	166	162	160	162	152	147	150	169	162	167
24	168	163	165	160	156	158	152	148	151	169	165	166
25	166	163	164	156	148	151	150	144	147	168	163	166
26	165	162	164	151	147	149	145	142	144	164	155	161
27	165	161	163	147	143	145	142	140	141	158	154	156
28	165	161	163	143	141	142	144	139	142	157	155	156
29	165	159	162	143	141	142	146	141	144	158	155	156
30	163	159	161	141	140	140	148	145	146	157	154	156
31	165	160	163	---	---	---	149	145	147	---	---	---
MONTH	173	148	166	173	140	162	154	139	148	172	147	163
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	---	---	---	135	130	133
2				---	---	---	---	---	---	134	132	133
3				---	---	---	---	---	---	134	132	134
4				---	---	---	---	---	---	135	133	134
5				---	---	---	---	---	---	136	134	135
6				172	169	171	---	---	---	137	135	136
7				175	165	171	---	---	---	136	133	135
8				---	---	---	---	---	---	135	133	135
9				---	---	---	---	---	---	134	131	133
10				---	---	---	---	---	---	134	133	133
11				---	---	---	---	---	---	136	133	134
12				---	---	---	---	---	---	137	133	136
13				---	---	---	---	---	---	136	134	135
14				---	---	---	---	---	---	135	132	134
15				---	---	---	---	---	---	135	132	133
16				---	---	---	---	---	---	135	132	134
17				---	---	---	134	132	133	137	134	135
18				---	---	---	132	131	131	144	137	140
19				---	---	---	132	131	131	146	143	145
20				---	---	---	131	130	131	144	140	141
21				---	---	---	131	130	130	141	139	140
22				---	---	---	131	129	129	140	137	138
23				---	---	---	131	129	130	139	136	138
24				---	---	---	130	128	129	144	140	142
25				---	---	---	130	126	128	145	144	145
26				---	---	---	127	126	127	146	143	144
27				---	---	---	128	126	127	146	145	146
28				---	---	---	131	128	129	147	132	139
29				---	---	---	132	129	130	133	131	132
30				---	---	---	133	130	132	132	129	130
31				---	---	---	---	---	---	130	128	129
MONTH				---	---	---	---	---	---	147	128	136

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

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	129	127	128	151	148	150	156	155	156	162	160	161
2	128	127	127	150	148	149	157	155	156	161	160	161
3	129	127	128	151	147	148	157	155	156	162	161	162
4	129	128	129	150	147	148	156	154	155	162	161	161
5	133	129	130	149	146	148	156	154	155	163	162	162
6	134	132	133	149	147	148	156	155	155	163	162	163
7	136	134	135	150	148	149	156	155	156	165	164	164
8	137	136	136	150	149	149	156	155	156	165	164	164
9	137	136	136	152	150	150	157	156	156	166	165	166
10	137	136	137	153	151	152	157	156	157	166	165	166
11	139	136	137	154	152	153	157	156	157	168	166	167
12	138	137	138	155	153	154	158	157	157	167	166	167
13	140	138	139	156	153	154	158	157	157	168	167	168
14	143	140	142	155	154	154	158	157	158	168	167	168
15	144	143	143	155	154	155	158	157	158	169	167	168
16	146	144	145	156	155	155	159	158	158	169	149	161
17	146	145	145	156	155	156	159	158	158	158	148	151
18	146	145	146	157	155	156	159	158	158	---	---	---
19	147	145	146	157	156	156	159	158	158	---	---	---
20	147	146	147	157	156	156	161	158	159	---	---	---
21	147	146	146	157	156	157	160	159	160	---	---	---
22	148	146	147	157	156	157	160	159	159	---	---	---
23	149	147	148	157	156	156	160	159	159	---	---	---
24	149	148	149	157	155	156	160	159	160	---	---	---
25	150	148	149	157	156	156	160	159	159	---	---	---
26	150	149	150	157	156	156	160	158	159	---	---	---
27	151	149	150	157	156	157	160	158	159	---	---	---
28	151	149	150	157	156	156	160	159	160	---	---	---
29	152	150	151	157	155	156	160	159	160	---	---	---
30	152	149	150	157	155	156	161	160	160	---	---	---
31	---	---	---	157	155	156	161	160	160	---	---	---
MONTH	152	127	141	157	146	154	161	154	158	---	---	---

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

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

03593005 TENNESSEE RIVER AT PICKWICK LANDING DAM (LL), TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	---	---	---	17.5	17.0	17.0
2				---	---	---	---	---	---	17.5	17.0	17.5
3				---	---	---	---	---	---	17.5	17.0	17.5
4				---	---	---	---	---	---	18.0	17.5	17.5
5				---	---	---	---	---	---	18.0	17.5	18.0
6				6.5	5.5	6.0	---	---	---	18.5	18.0	18.0
7				6.5	6.5	6.5	---	---	---	19.0	18.0	18.5
8				---	---	---	---	---	---	19.5	18.5	19.0
9				---	---	---	---	---	---	19.0	18.5	18.5
10				---	---	---	---	---	---	19.5	19.0	19.0
11				---	---	---	---	---	---	20.0	19.5	20.0
12				---	---	---	---	---	---	20.0	20.0	20.0
13				---	---	---	---	---	---	20.0	20.0	20.0
14				---	---	---	---	---	---	20.0	19.5	20.0
15				---	---	---	---	---	---	19.5	19.5	19.5
16				---	---	---	---	---	---	20.5	19.5	20.0
17				---	---	---	15.0	14.5	15.0	21.0	20.5	20.5
18				---	---	---	15.0	15.0	15.0	21.0	20.5	21.0
19				---	---	---	15.5	15.0	15.0	21.5	21.0	21.0
20				---	---	---	15.5	15.0	15.5	21.5	21.0	21.5
21				---	---	---	15.5	15.0	15.5	22.0	21.0	21.5
22				---	---	---	16.0	15.5	15.5	21.5	21.0	21.5
23				---	---	---	17.0	16.0	16.5	21.5	21.0	21.5
24				---	---	---	17.5	16.5	17.0	22.5	21.5	22.0
25				---	---	---	17.5	16.5	17.0	23.0	22.0	22.5
26				---	---	---	17.0	16.5	17.0	23.0	22.0	22.5
27				---	---	---	17.0	17.0	17.0	23.0	22.5	22.5
28				---	---	---	17.0	17.0	17.0	23.0	23.0	23.0
29				---	---	---	17.0	17.0	17.0	23.5	23.0	23.5
30				---	---	---	17.5	17.0	17.0	24.0	23.0	23.5
31				---	---	---	---	---	---	24.0	23.5	24.0
MONTH				---	---	---	---	---	---	24.0	17.0	20.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	24.0	24.0	27.5	27.0	27.0	30.5	29.5	30.0	29.5	29.0	29.0
2	24.5	24.5	24.5	28.0	27.5	27.5	30.5	30.0	30.0	29.5	29.0	29.0
3	25.0	24.5	24.5	28.5	28.0	28.0	30.0	29.5	30.0	29.0	29.0	29.0
4	25.0	24.5	24.5	28.5	28.0	28.0	29.5	29.0	29.5	29.5	29.0	29.0
5	25.5	24.5	25.0	28.5	28.0	28.0	29.0	29.0	29.0	29.5	29.0	29.5
6	26.0	25.5	25.5	28.5	28.0	28.0	29.5	29.0	29.5	29.5	29.0	29.5
7	26.5	25.5	26.0	28.5	27.5	28.0	30.0	29.0	29.5	29.5	29.0	29.0
8	26.5	25.0	25.5	29.0	28.0	28.5	30.0	29.5	30.0	29.5	29.0	29.5
9	25.5	25.0	25.0	29.5	28.5	29.0	30.0	29.5	30.0	29.5	29.0	29.5
10	25.5	25.0	25.0	29.5	29.0	29.0	30.5	29.5	30.0	29.5	29.0	29.5
11	26.0	25.0	25.5	29.5	28.5	29.0	30.5	30.0	30.0	29.0	29.0	29.0
12	25.5	25.0	25.0	29.5	28.5	29.0	30.5	30.0	30.0	29.0	28.5	29.0
13	25.5	25.0	25.5	29.5	29.0	29.5	30.0	30.0	30.0	29.0	28.5	29.0
14	26.0	25.5	25.5	29.5	29.0	29.5	30.5	30.0	30.0	29.0	29.0	29.0
15	26.5	26.0	26.0	30.5	29.5	29.5	30.5	30.0	30.0	29.0	28.5	29.0
16	26.5	26.0	26.5	30.5	29.5	30.0	30.5	30.0	30.0	28.5	28.5	28.5
17	26.0	25.5	26.0	30.5	29.5	30.0	30.5	30.0	30.5	28.5	28.0	28.5
18	26.0	25.5	26.0	30.0	29.5	30.0	30.5	30.5	30.5	28.5	28.0	28.0
19	26.0	26.0	26.0	30.5	29.5	30.0	31.0	30.5	30.5	28.0	27.5	28.0
20	26.5	26.0	26.0	30.5	30.5	30.5	31.0	30.5	30.5	28.0	27.5	28.0
21	26.0	26.0	26.0	30.5	30.0	30.5	31.0	30.5	30.5	28.0	27.5	28.0
22	26.5	26.0	26.5	30.0	29.5	30.0	30.5	30.0	30.5	28.0	28.0	28.0
23	27.0	26.5	26.5	29.5	29.5	29.5	30.5	30.0	30.0	28.0	28.0	28.0
24	27.0	26.5	26.5	29.5	29.0	29.5	30.0	30.0	30.0	28.0	27.5	27.5
25	26.5	26.5	26.5	29.5	29.0	29.0	30.0	29.5	30.0	27.5	27.5	27.5
26	27.0	26.5	26.5	29.5	29.0	29.0	30.0	29.5	30.0	27.5	27.0	27.0
27	27.0	26.5	26.5	29.5	29.0	29.5	30.0	29.5	30.0	26.5	26.0	26.5
28	28.0	27.0	27.5	29.5	29.0	29.0	30.0	29.5	30.0	26.0	25.5	25.5
29	28.0	27.5	27.5	29.0	29.0	29.0	29.5	29.5	29.5	25.5	25.0	25.0
30	27.5	27.0	27.0	29.5	29.0	29.5	29.5	29.0	29.5	24.5	24.5	24.5
31	---	---	---	30.0	29.5	29.5	29.0	29.0	29.0	---	---	---
MONTH	28.0	24.0	26.0	30.5	27.0	29.0	31.0	29.0	30.0	29.5	24.5	28.0

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 poor. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. 305 and Water Resources Data for adjoining states, 1979). Flow now is almost completely regulated.

AVERAGE DISCHARGE.--50 years, 55,311 ft³/s (1,566 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, 311,000 ft³/s (8,808 m³/s) Mar. 24; maximum gage height, 87.89 ft (26.789 m) Mar. 24; minimum daily discharge, 12,000 ft³/s (340 m³/s) Sept. 14; minimum gage height, 54.64 ft (16.654 m) Sept. 28.

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	90300	60400	117000	53800	80400	41000	185000	50700	49100	37700	39500	20800
2	86800	66200	116000	55800	80600	42800	155000	57400	48500	31500	44700	24900
3	86400	81000	108000	69100	66700	39300	120000	61200	47900	34300	35000	35400
4	79500	82400	89500	64800	68400	48200	88400	43500	52400	41100	34600	31800
5	69400	85500	82800	66000	59100	45500	78600	45500	41600	40700	19800	36400
6	69000	89000	81900	57900	59000	62500	73900	41800	34300	31700	18000	28100
7	68700	89600	78700	59500	56700	70300	64000	43200	33300	37500	18800	33200
8	69600	90400	73800	59500	59700	98000	55800	49500	33800	40000	25200	36500
9	65800	92600	72800	64400	61600	112000	58300	47100	36800	37700	39300	37200
10	61100	102000	72500	79200	52400	117000	48500	36000	39000	39700	44400	27100
11	59000	118000	72100	80100	57300	125000	56400	29200	40500	30900	30200	30200
12	62300	119000	61300	81200	61300	132000	87400	35300	34400	41100	28900	26100
13	56000	120000	82800	78800	62600	133000	112000	34100	30500	32900	25900	22900
14	52700	120000	68000	73800	60000	121000	124000	32800	33400	35700	28000	12000
15	58700	114000	57800	65600	61400	105000	133000	30200	36900	41000	29000	22900
16	55900	102000	52800	68900	56800	109000	130000	35800	25400	39200	45000	26200
17	55200	99100	63200	67000	52100	131000	106000	67000	29100	37700	45500	30800
18	54800	98500	60700	71800	58600	157000	84400	124000	30500	35500	25000	27000
19	55200	94600	60000	86100	60500	160000	73200	123000	34100	42600	26700	24900
20	45800	86600	56300	96100	61100	177000	73800	109000	35000	47800	30100	25600
21	39800	80600	52700	91400	65500	255000	71400	96500	35300	38600	32900	24100
22	41800	80400	41500	92000	51900	290000	65400	92300	33800	37700	39800	25400
23	45600	84000	40800	99000	45200	299000	53800	93500	31800	31100	39900	25700
24	49300	93000	63900	107000	40000	294000	58100	100000	32000	27100	38500	22700
25	50200	104000	85800	111000	48300	269000	67200	99800	44600	17600	29500	21500
26	49400	112000	82700	117000	50400	246000	69100	92000	51300	41000	30300	21700
27	50000	116000	78800	118000	44400	224000	69400	77400	51100	39500	24600	22100
28	48100	119000	76400	114000	40800	220000	69200	64500	46300	40100	22000	18400
29	49100	118000	73100	100000	26600	236000	55300	54100	44300	35900	23600	32500
30	52700	118000	56300	85900	---	229000	55500	49600	36600	32800	20400	38700
31	59800	---	61700	82000	---	205000	---	49300	---	34100	19900	---
TOTAL	1838000	2935900	2241700	2516700	1649400	4793600	2542100	1965300	1153600	1131800	955000	812800
MEAN	59290	97860	72310	81180	56880	154600	84740	63400	38450	36510	30810	27090
MAX	90300	120000	117000	118000	80600	299000	185000	124000	52400	47800	45500	38700
MIN	39800	60400	40800	53800	26600	39300	48500	29200	25400	17600	18000	12000

CAL YR 1979 TOTAL 27668900 MEAN 75810 MAX 217000 MIN 28200
WTR YR 1980 TOTAL 24535900 MEAN 67040 MAX 299000 MIN 12000

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.--46 years, 189 ft³/s (5.352 m³/s), 23.99 in/yr (609 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.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 24	0730	2560	72.5	7.01	2.137	Mar. 20	2300	*14700	416	15.91	4.849
Mar. 8	1230	4980	141	10.17	3.100	Mar. 28	1430	2860	81.0	7.47	2.277

Minimum discharge, 18 ft³/s (0.510 m³/s) Sept. 24.

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	212	383	162	214	171	86	293	87	58	35	26	19
2	162	1080	139	177	131	80	240	80	55	32	25	62
3	126	401	118	151	120	77	207	73	51	31	26	37
4	133	240	107	276	118	92	185	69	49	31	529	60
5	149	177	103	324	109	240	162	65	47	31	448	51
6	107	143	103	214	107	242	147	60	44	29	72	29
7	86	118	107	383	105	732	137	63	43	29	45	24
8	72	103	96	614	102	3700	293	65	42	27	38	22
9	64	285	83	327	120	1000	324	59	40	27	34	21
10	93	1260	79	237	153	501	195	55	39	27	32	21
11	99	532	76	310	147	338	155	52	38	26	34	21
12	79	315	74	455	139	276	468	51	36	25	41	21
13	64	235	89	285	120	263	826	50	36	25	33	21
14	56	185	120	229	124	235	1260	49	36	24	31	20
15	52	153	96	197	175	200	498	47	35	24	31	20
16	49	135	86	173	644	183	301	48	35	24	31	19
17	47	116	76	171	368	1620	227	468	40	24	29	20
18	45	105	67	574	222	983	188	610	37	21	29	20
19	42	96	65	529	195	468	162	301	34	21	28	19
20	41	87	64	304	290	5130	145	674	33	21	27	20
21	40	83	62	242	237	6090	128	293	32	22	27	19
22	46	77	59	790	207	900	115	202	31	24	26	19
23	145	532	171	1320	173	571	105	498	32	25	25	19
24	115	1940	830	488	145	842	97	414	38	25	24	18
25	79	770	778	353	126	546	96	240	42	51	24	19
26	64	697	420	279	113	368	141	155	37	84	24	19
27	57	407	285	237	103	298	141	109	33	67	24	18
28	53	304	214	204	99	1960	120	87	31	44	22	21
29	77	248	177	179	92	774	109	77	44	32	20	24
30	171	192	200	164	---	508	97	69	43	28	20	22
31	120	---	240	217	---	417	---	60	---	26	21	---
TOTAL	2745	11399	5346	10617	4955	29720	7562	5230	1191	962	1846	745
MEAN	88.5	380	172	342	171	959	252	169	39.7	31.0	59.5	24.8
MAX	212	1940	830	1320	644	6090	1260	674	58	84	529	62
MIN	40	77	59	151	92	77	96	47	31	21	20	18
CFSM	.83	3.55	1.61	3.20	1.60	8.96	2.36	1.58	.37	.29	.56	.23
IN.	.95	3.96	1.86	3.69	1.72	10.33	2.63	1.82	.41	.33	.64	.26

CAL YR 1979 TOTAL 98445 MEAN 270 MAX 3560 MIN 35 CFSM 2.52 IN 34.23
WTR YR 1980 TOTAL 82318 MEAN 225 MAX 6090 MIN 18 CFSM 2.10 IN 28.62

03596000 DUCK RIVER BELOW MANCHESTER, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1975 to current year.

INSTRUMENTATION.--Temperature recorder since Dec. 5, 1975.

REMARKS.--No record Oct. 3 to Nov. 1, Feb. 10-26, May 16 to June 2 (clock stopped, range in temperature 16.0°C to 21.0°C), Aug. 1-26, Sept. 9-24.

COOPERATION.--Temperature records furnished by Tennessee Valley Authority.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.0°C July 14, 16-17; minimum 3.0°C Dec. 2, but minimum could have been lower during period of missing record.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
03...	1030	111	110	18.5	5	1.5
NOV						
15...	1040	154	105	9.0	6	2.5
JAN						
24...	0915	508	65	5.5	14	19
FEB						
21...	1420	242	93	8.0	5	3.3
APR						
09...	1330	305	105	17.0	33	27
MAY						
14...	1540	48	140	19.5	8	1.0
JUN						
26...	0915	39	148	23.0	6	.63
AUG						
12...	0930	46	155	25.0	14	1.7

03596000 DUCK RIVER BELOW MANCHESTER, TN--Continued

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

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

03596000 DUCK RIVER BELOW MANCHESTER, TN--Continued

TEMPERATURE, WATER (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	---	---	---	24.5	22.0	23.5	---	---	---	24.5	23.0	24.0
2	---	---	---	25.0	22.0	24.0	---	---	---	---	---	---
3	23.5	21.0	22.0	25.0	23.5	24.5	---	---	---	24.0	21.5	23.0
4	24.0	21.5	23.0	25.5	23.0	24.5	---	---	---	24.5	22.0	23.5
5	23.5	21.5	23.0	26.0	23.5	25.0	---	---	---	24.0	22.0	23.5
6	24.0	21.5	23.0	26.0	24.0	24.5	---	---	---	24.5	23.0	24.0
7	24.5	22.0	23.5	25.5	23.0	24.5	---	---	---	24.5	23.0	23.5
8	24.0	21.5	23.0	26.0	23.5	25.0	---	---	---	24.5	22.0	23.5
9	22.0	20.0	21.0	26.5	24.5	25.5	---	---	---	---	---	---
10	21.5	19.5	20.5	26.5	24.5	25.5	---	---	---	---	---	---
11	22.0	20.0	21.0	27.0	24.5	25.5	---	---	---	---	---	---
12	21.5	19.5	21.0	27.0	25.0	26.0	---	---	---	---	---	---
13	23.0	20.0	21.5	27.0	25.0	26.0	---	---	---	---	---	---
14	23.5	20.5	22.0	28.0	25.0	26.0	---	---	---	---	---	---
15	24.0	21.0	23.0	27.0	25.5	26.0	---	---	---	---	---	---
16	23.5	21.5	22.0	28.0	25.0	26.5	---	---	---	---	---	---
17	23.5	21.5	22.0	28.0	25.0	26.0	---	---	---	---	---	---
18	23.5	21.0	22.0	27.0	24.5	26.0	---	---	---	---	---	---
19	24.0	21.0	23.0	26.5	24.5	25.5	---	---	---	---	---	---
20	24.5	21.5	23.0	26.5	24.5	25.5	---	---	---	---	---	---
21	24.0	21.0	23.0	26.0	24.5	25.5	---	---	---	---	---	---
22	24.0	21.5	23.0	25.0	24.0	24.5	---	---	---	---	---	---
23	23.0	21.0	22.0	24.5	23.0	23.5	---	---	---	---	---	---
24	22.0	21.0	21.5	25.0	23.0	24.0	---	---	---	---	---	---
25	24.0	21.0	23.0	25.0	23.0	24.5	---	---	---	23.5	22.0	23.0
26	25.0	22.0	23.5	24.5	23.0	23.5	---	---	---	23.0	21.0	21.5
27	25.0	22.0	24.0	24.5	22.0	23.5	24.5	23.0	24.0	20.5	19.0	19.5
28	25.5	23.5	24.5	24.5	22.0	23.5	24.5	23.0	24.0	19.5	18.5	19.0
29	26.5	25.0	24.5	25.0	22.0	24.0	24.5	23.5	24.0	19.5	19.0	19.0
30	---	---	---	25.5	23.0	24.0	24.5	23.0	23.5	20.0	19.0	19.5
31	---	---	---	26.0	23.5	25.0	24.5	22.0	23.5	---	---	---
MONTH	26.5	19.5	22.5	28.0	22.0	25.0	---	---	---	---	---	---

03597850 DUCK RIVER AT SHELBYVILLE WATERWORKS, NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'24", long 86°27'50", Bedford County, Hydrologic Unit 06040002, 1.3 mi (2.1 km) downstream from bridge on State Route 82, 1.6 mi (2.6 km) upstream from bridge on U. S. Highway 231, 1.6 mi (2.6 km) upstream from bridge on U. S. Highway 231, 1.6 mi (2.6 km) east of Royal, and at mile 222.0 (357.2 km).

DRAINAGE AREA.--425 mi^2 (1,101 km^2).

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

REMARKS.--Flow regulated by Normandy Lake (station 03596460) above site.

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
NOV												
13...	1130	324	150	7.4	13.0	6	4	9.0	--	1.3	--	--
JAN												
08...	0900	--	--	7.2	7.5	35	34	11.0	16	--	>1000	>1000
22...	1050	--	--	7.1	8.3	3	5	11.2	6	1.5	--	--
FEB												
19...	1110	--	--	7.8	6.0	2	3	11.8	24	1.4	100	10
MAR												
04...	1140	--	--	8.1	3.5	5	2	14.0	4	1.6	100	<10
25...	1130	--	--	7.4	--	26	22	10.7	12	1.9	--	--
APR												
01...	1230	--	180	7.2	11.0	--	--	11.8	14	1.3	--	--
15...	1220	--	--	7.1	12.2	12	9	11.1	10	1.6	--	--
30...	1205	--	250	7.7	16.1	4	2	10.2	8	--	--	--
MAY												
13...	1120	--	190	7.5	20.0	--	--	7.8	--	--	--	--
27...	1235	--	150	7.5	18.3	--	--	10.5	8	1.9	>20000	180

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, TOTAL (MG/L AS NO3)
NOV												
13...	75	--	--	--	86	14	3.0	--	100	.14	10	--
JAN												
08...	--	36	3.8	1.6	90	15	3.0	5.3	130	.18	36	5.8
22...	--	31	3.3	1.6	91	6.0	3.0	4.7	130	.18	8	4.0
FEB												
19...	--	38	3.5	3.7	93	11	6.0	5.2	140	.19	8	6.2
MAR												
04...	--	34	4.1	2.3	110	10	5.0	2.5	140	.19	2	3.4
25...	--	17	2.2	1.3	42	3.0	2.0	4.3	70	.10	37	3.4
APR												
01...	--	26	2.7	1.4	61	--	--	4.3	--	--	--	--
15...	--	25	2.4	1.3	66	6.0	3.0	5.6	180	.24	19	3.9
30...	--	--	--	--	95	8.0	4.0	--	130	.18	2	1.9
MAY												
13...	--	--	--	--	76	--	--	--	--	--	--	2.7
27...	--	--	--	--	63	--	--	--	--	--	--	3.5

03597850 DUCK RIVER AT SHELBYVILLE WATERWORKS, NEAR SHELBYVILLE, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
NOV									
13...	.59	.090	.17	--	.020	--	<1	4.0	--
JAN									
08...	.66	.090	.57	.180	--	--	--	6.5	--
22...	.70	.070	.13	.040	--	--	--	4.1	--
FEB									
19...	.88	.120	.41	.020	--	.020	--	5.0	--
MAR									
04...	.62	.020	.12	.010	--	.010	--	2.5	--
25...	.58	.070	.12	.040	--	.030	--	4.8	--
APR									
01...	--	.110	.12	.040	.030	--	--	3.1	--
15...	.64	--	.18	--	--	--	--	4.1	--
30...	.20	.020	.22	.010	.010	--	--	2.9	--
MAY									
13...	.40	.050	.15	.020	.040	--	--	4.1	2.3
27...	.57	.050	.17	.020	.030	--	--	3.9	3.1

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV								
13...	<10	--	<50	17	--	50	<.2	50
JAN								
08...	--	1600	<50	--	100	30	--	--
22...	--	220	<50	--	60	30	--	--
FEB								
19...	--	280	<50	--	400	350	--	--
MAR								
04...	--	<50	<50	--	40	40	--	--
25...	--	1500	<50	--	150	<10	--	--
APR								
01...	--	300	50	--	80	20	--	--
15...	--	600	90	--	110	30	--	--
30...	--	--	--	--	--	--	--	--
MAY								
13...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--

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.--47 years, 832 ft³/s (23.56 m³/s), 23.49 in/yr (597 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, 21,000 ft³/s (595 m³/s) at 1000 hours Mar. 21, gage height, 27.64 ft (8.425 m); minimum, 154 ft³/s (4.36 m³/s) Sept. 19; minimum daily, 154 ft³/s (4.36 m³/s) Sept. 19.

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	2160	3630	1550	748	660	276	1780	224	335	250	201	169
2	1360	5480	1450	710	641	264	1640	221	315	220	193	169
3	1130	2700	1380	677	631	255	1540	212	299	203	187	167
4	1100	2020	1330	1140	612	259	973	209	287	212	179	166
5	503	1760	1290	1240	349	706	737	212	277	199	328	165
6	353	1550	1270	1010	311	692	603	209	268	280	375	164
7	292	1060	1240	1290	300	2420	541	204	259	361	226	164
8	257	944	1180	1700	282	9120	1430	262	253	222	212	164
9	232	1780	1140	1490	312	4140	1010	224	244	204	206	164
10	292	3680	1110	1370	404	2880	725	259	221	191	204	164
11	292	2980	761	2770	403	2790	621	212	209	184	201	162
12	250	2470	499	1760	605	2570	1130	204	201	191	198	161
13	225	2210	557	1490	608	2370	2620	198	195	195	202	161
14	202	1940	660	1090	602	1110	3660	195	204	195	194	161
15	187	1330	566	771	658	926	3020	193	209	193	188	159
16	210	1260	538	719	1980	877	2340	187	209	190	189	157
17	220	1190	511	1220	1460	5410	1200	1330	226	182	195	156
18	215	1150	490	2620	1100	3900	1020	1540	215	179	243	156
19	210	1110	485	1800	1010	2950	768	1860	198	185	241	154
20	205	1070	480	1560	1210	8240	648	2670	190	187	225	155
21	202	1040	463	1270	1190	18700	599	1740	182	186	209	158
22	217	1010	286	4140	1090	8670	460	1160	176	187	190	161
23	503	1820	1040	2780	780	6080	362	1320	174	197	180	161
24	364	4580	2990	2670	698	6150	322	1170	190	202	176	162
25	398	2810	2460	2170	652	5260	306	1030	435	198	174	164
26	383	2680	1840	1020	614	2230	325	907	224	393	174	164
27	459	2500	2450	867	417	1240	303	820	184	346	172	164
28	455	2510	1440	820	377	5590	268	768	176	240	171	164
29	1000	2550	1280	790	310	2840	256	460	287	225	170	168
30	1320	2340	1180	760	---	2130	241	393	427	216	169	172
31	873	---	780	690	---	2060	---	355	---	206	169	---
TOTAL	16069	65154	34696	45152	20266	113105	31448	20948	7269	6819	6341	4876
MEAN	518	2172	1119	1457	699	3649	1048	676	242	220	205	163
MAX	2160	5480	2990	4140	1980	18700	3660	2670	435	393	375	172
MIN	187	944	286	677	282	255	241	187	174	179	169	154
(†)	-4000	-12800	-7900	+3200	+2900	+10200	+4900	+2300	-1100	-2900	-2300	-3700
MEAN‡	389	1745	864	1560	799	3978	1212	750	206	126	130	39.2
CFSM‡	.81	3.63	1.80	3.24	1.66	8.27	2.52	1.56	.43	.26	.27	.08
IN.‡	.93	4.05	2.07	3.74	1.79	9.53	2.81	1.80	.48	.30	.31	.09

CAL YR 1979 TOTAL 435088 MEAN 1192 MAX 9250 MIN 162 MEAN‡ 1190 CFSM‡ 2.47 IN.‡ 33.58
WTR YR 1980 TOTAL 372143 MEAN 1017 MAX 18700 MIN 154 MEAN‡ 986 CFSM‡ 2.05 IN.‡ 27.91

† 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.

REMARKS.--Temperature recorder clock stopped, May 14 to June 3, Sept. 2-16.

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, 0.5°C Jan. 22, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 33.0°C July 16, 17; minimum, 2.0°C Feb. 4.

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

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

03599460 DUCK RIVER NEAR COLUMBIA, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	3.5	4.0	9.5	5.0	7.0	13.5	11.5	13.0	17.0	16.0	16.5
2	4.0	3.0	3.5	5.0	4.5	5.0	13.5	12.0	13.0	18.0	16.5	17.0
3	4.0	3.0	3.5	5.5	4.0	4.5	13.5	12.0	12.0	18.5	17.0	18.0
4	4.0	2.0	3.5	6.0	5.0	5.5	14.0	12.0	13.0	18.5	17.0	18.0
5	4.0	3.0	3.0	6.5	6.0	6.0	14.0	11.5	13.0	18.5	18.0	18.5
6	3.5	3.0	3.0	7.0	5.5	6.0	14.0	12.0	13.5	19.5	18.0	19.0
7	4.0	3.5	3.5	9.0	6.5	8.0	15.0	12.0	13.5	20.0	19.0	19.5
8	4.0	3.5	4.0	10.5	9.0	9.5	15.0	13.5	14.5	20.0	19.0	19.5
9	4.0	3.5	4.0	11.5	10.5	11.0	15.0	14.0	14.5	19.5	19.0	19.5
10	4.5	3.5	4.0	11.5	11.0	11.0	15.0	14.0	14.5	19.5	18.5	19.0
11	5.0	3.5	4.0	11.0	9.5	10.5	15.0	13.5	14.0	19.5	18.5	19.0
12	5.0	4.0	4.5	10.5	9.0	9.5	14.0	13.0	13.5	20.0	19.0	19.5
13	5.0	3.5	4.5	9.0	8.0	8.5	13.5	11.0	12.0	20.5	20.0	20.5
14	6.0	4.0	5.0	9.0	7.0	8.0	11.0	10.0	10.5	---	---	---
15	6.5	5.0	5.5	9.5	8.0	8.5	11.0	10.0	10.5	---	---	---
16	7.0	6.5	7.0	9.5	9.0	9.5	12.0	10.5	11.0	---	---	---
17	7.0	6.0	6.5	11.0	9.5	10.0	13.5	11.0	12.0	---	---	---
18	6.5	5.0	6.0	11.0	10.5	10.5	14.0	13.0	13.5	---	---	---
19	6.0	5.5	6.0	11.0	10.0	10.5	15.5	13.5	14.5	---	---	---
20	7.0	6.0	6.5	11.0	9.5	10.0	16.5	14.5	15.5	---	---	---
21	9.0	7.0	8.5	11.5	10.5	11.0	18.0	15.0	16.0	---	---	---
22	10.5	9.0	10.0	11.5	11.0	11.5	19.0	15.5	17.0	---	---	---
23	11.5	10.5	11.0	11.5	10.0	10.5	19.5	16.5	18.0	---	---	---
24	12.0	11.0	11.5	10.5	10.0	10.5	19.5	18.5	19.0	---	---	---
25	11.5	9.5	11.0	11.0	10.5	10.5	19.5	16.5	18.5	---	---	---
26	10.0	8.5	9.5	11.0	10.0	10.5	16.5	16.0	16.0	---	---	---
27	9.5	8.0	9.0	10.5	9.5	10.0	16.5	15.5	16.0	---	---	---
28	10.5	8.5	9.5	11.0	10.0	10.5	16.0	15.5	15.5	---	---	---
29	10.5	9.0	9.5	11.5	10.0	11.0	16.0	15.0	15.5	---	---	---
30	---	---	---	13.0	11.0	12.0	16.0	15.0	15.5	---	---	---
31	---	---	---	13.0	12.0	13.0	---	---	---	---	---	---
MONTH	12.0	2.0	6.0	13.0	4.0	9.5	19.5	10.0	14.5	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.0	24.5	25.0	31.0	28.5	29.5	29.5	28.0	28.5
2	---	---	---	27.0	26.0	26.5	31.0	29.5	30.0	---	---	---
3	---	---	---	28.5	27.0	28.0	30.5	29.5	30.0	---	---	---
4	25.5	24.5	25.0	27.0	25.5	26.0	30.0	28.5	29.0	---	---	---
5	25.5	25.0	25.0	29.5	26.5	28.0	29.5	28.5	29.0	---	---	---
6	26.5	25.5	26.0	30.0	28.5	29.0	30.0	28.0	29.0	---	---	---
7	27.0	26.0	26.5	30.0	29.0	29.0	30.0	29.0	29.5	---	---	---
8	27.0	26.0	26.5	30.5	29.0	29.5	30.5	29.5	30.0	---	---	---
9	26.0	24.5	25.0	30.5	29.5	30.0	31.5	30.0	30.5	---	---	---
10	24.5	24.0	24.5	30.5	30.0	30.5	32.0	30.5	31.0	---	---	---
11	24.5	23.5	24.0	31.5	30.0	30.5	32.0	30.5	31.0	---	---	---
12	24.5	23.5	24.0	32.0	30.0	31.0	31.5	30.5	31.0	---	---	---
13	24.5	24.0	24.5	32.0	30.5	31.0	31.0	29.5	30.0	---	---	---
14	25.5	24.5	25.0	31.5	30.5	31.0	30.5	29.0	29.5	---	---	---
15	26.5	25.0	25.5	31.5	30.5	31.0	30.0	29.0	29.5	---	---	---
16	26.5	25.5	26.0	33.0	30.5	31.0	30.0	29.0	29.5	---	---	---
17	26.0	25.0	25.5	33.0	31.0	31.5	30.5	29.0	29.5	25.5	24.5	25.0
18	25.5	25.0	25.0	31.5	30.5	31.0	31.0	29.5	30.0	25.0	24.0	24.5
19	26.0	25.5	25.5	31.0	30.0	30.5	30.5	29.5	30.0	25.0	23.5	24.0
20	26.5	25.5	26.0	31.5	29.5	30.5	30.5	29.5	30.0	25.0	24.0	24.5
21	27.0	25.5	26.0	31.0	29.5	30.5	31.5	30.0	30.0	25.0	24.5	24.5
22	28.0	25.5	26.5	29.5	23.0	27.0	30.5	29.5	30.0	25.5	24.5	25.0
23	27.0	26.0	26.5	25.5	23.0	25.0	29.5	29.0	29.0	26.0	25.0	25.5
24	26.0	25.0	25.5	25.5	24.0	25.0	29.5	28.5	29.0	25.5	25.0	25.0
25	26.5	25.0	25.5	27.0	25.5	26.0	29.5	28.0	28.5	25.0	24.0	24.5
26	27.0	25.5	26.5	28.5	26.5	28.0	29.5	28.0	28.5	24.0	23.0	23.5
27	28.0	26.5	27.0	28.0	26.5	27.0	29.0	27.0	28.0	23.0	20.5	21.5
28	29.0	28.0	28.5	26.5	25.5	26.0	29.0	27.0	28.0	20.5	19.5	20.0
29	28.5	23.0	25.5	26.5	25.0	26.0	28.5	27.0	28.0	19.5	19.0	19.5
30	25.0	23.5	24.0	28.0	26.5	27.0	28.5	27.0	28.0	19.5	19.0	19.0
31	---	---	---	30.0	28.0	28.5	28.5	27.0	28.0	---	---	---
MONTH	29.0	23.0	25.5	33.0	23.0	28.5	32.0	27.0	29.5	---	---	---

03599482 DUCK RIVER AT COLUMBIA WATERWORKS, TN

LOCATION.--Lat 35°37'34", long 87°01'13", Maury County, Hydrologic Unit 06040003, 0.8 mi (1.3 km) downstream from Bear Creek, 1.1 mi (1.8 km) northeast of Columbia Courthouse, 3.8 mi (6.1 km) south of Darks Mill, and at mile 133.9 (215.4 km).

DRAINAGE AREA.--1,195 mi^2 (3,095 km^2).

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

REMARKS.--Flow regulated by Normandy Lake (station 03596460).

COOPERATION.--Records furnished by Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT											
30...	1150	--	7.8	14.0	--	15	10.5	11	<1.0	6900	400
NOV											
01...	1220	--	7.6	14.0	--	35	9.4	--	--	45000	5000
DEC											
13...	1230	--	6.2	11.0	--	18	12.8	--	--	10800	1200
JAN											
09...	1300	--	7.2	7.0	5	8	--	5	<1.0	--	--
22...	0815	--	7.7	8.9	5	15	11.1	7	--	--	--
FEB											
19...	0900	--	7.7	6.0	10	37	11.4	30	3.9	>200000	480
MAR											
04...	0900	--	8.1	4.5	5	2	12.0	4	2.7	600	<10
25...	1345	--	7.2	12.0	12	30	7.8	10	1.3	--	--
APR											
01...	0915	340	7.3	12.0	--	--	10.3	10	1.1	--	--
15...	0910	--	6.9	11.1	37	50	10.3	4	1.9	--	--
30...	0915	300	7.7	15.6	2	5	9.3	7	--	--	--
MAY											
13...	0855	320	8.0	22.0	--	--	9.1	--	--	--	--
27...	0935	390	7.5	19.4	11	11	8.7	7	1.2	>20000	92

DATE	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, TOTAL (MG/L AS NO3)
OCT											
30...	110	4.6	--	130	--	--	--	190	.26	25	--
NOV											
01...	--	--	--	120	--	--	--	--	--	67	--
DEC											
13...	--	--	--	110	--	--	--	--	--	15	--
JAN											
09...	62	4.9	1.7	150	15	4.0	5.9	200	.27	17	5.0
22...	50	4.0	1.7	150	30	3.0	6.2	170	.23	21	4.8
FEB											
19...	59	4.2	2.5	100	18	5.0	6.3	230	.31	29	7.5
MAR											
04...	59	4.4	1.8	150	12	4.0	2.6	180	.24	6	3.0
25...	36	3.1	1.8	76	7.0	3.0	4.9	120	.16	55	4.3
APR											
01...	50	3.9	1.4	120	--	--	--	--	--	--	--
15...	41	3.1	1.1	100	10	3.0	5.8	--	--	79	3.6
30...	--	--	--	130	9.0	4.0	--	--	--	8	3.5
MAY											
13...	--	--	--	130	--	--	--	--	--	--	1.8
27...	--	--	--	140	12	4.0	--	180	.24	14	5.8

03599482 DUCK RIVER AT COLUMBIA WATERWORKS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT												
30...	1.0	.050	.15	.100	--	--	--	--	3500	90	210	<10
JAN												
09...	.84	.050	.23	.070	--	--	--	--	370	<50	40	<10
22...	.91	.060	.11	.060	--	.100	3.7	--	340	<50	40	10
FEB												
19...	1.1	.070	.53	.090	--	.130	7.2	--	1800	150	140	90
MAR												
04...	.54	.040	.10	.060	--	.050	2.5	--	140	50	30	20
25...	.79	.040	.14	.020	--	.080	4.4	--	1400	<50	170	<10
APR												
01...	--	--	--	--	--	--	--	--	740	<50	80	20
15...	.53	.070	.22	.060	.080	--	6.4	--	2200	70	220	100
30...	.44	.070	.29	.050	.060	--	4.1	--	--	--	--	--
MAY												
13...	.14	.010	.25	.030	.070	--	3.4	2.0	--	--	--	--
27...	1.0	.090	.21	.080	.090	--	4.1	3.2	--	--	--	--

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.--64 years, 1905-8, 1921-80, 2,020 ft³/s (57.21 m³/s), 22.70 in/yr (577 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, 35,100 ft³/s (994 m³/s) at 1000 hours Mar. 21, gage height, 39.84 ft (12.143 m); minimum, 178 ft³/s (5.04 m³/s) Sept. 17.

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	4490	7340	3620	1900	1630	1010	4490	623	894	623	286	206
2	3670	16900	2810	1670	1500	864	3710	567	773	584	265	212
3	2900	16200	2290	1550	1390	792	3220	517	689	458	250	222
4	2270	7230	2090	1700	1330	763	2880	481	623	454	246	222
5	2250	4340	1960	2540	1280	1430	2350	446	567	327	236	215
6	1980	3370	1870	2680	1160	2190	1750	429	526	311	239	212
7	1440	2820	1790	2400	930	3530	1460	424	489	292	402	203
8	1180	2250	1710	3130	879	12000	3870	420	458	481	324	200
9	981	2120	1620	3650	884	17900	7440	420	424	477	265	200
10	1140	6000	1540	2930	1010	11000	4000	454	398	318	246	197
11	1330	8390	1490	2840	1270	5590	2410	402	381	276	236	200
12	1310	5770	1390	5200	1350	4540	2510	402	347	254	286	190
13	1070	4360	2120	5180	1410	4020	4530	351	327	246	623	187
14	860	3570	2450	3550	1460	3590	13000	340	318	254	318	184
15	740	3070	2060	2880	1740	2520	10300	327	311	250	292	184
16	662	2440	1650	2290	5200	1990	6320	415	311	243	250	184
17	610	2040	1440	2120	5740	13400	4710	7690	364	236	236	187
18	588	1870	1260	3750	3820	18400	3170	16600	347	229	232	190
19	567	1740	1140	8030	2830	12100	2440	9680	340	222	250	184
20	538	1640	1070	5460	3170	15900	1990	9530	314	225	302	187
21	505	1570	1010	3780	3450	33800	1660	7900	292	236	299	190
22	517	1500	945	4390	2930	34200	1490	4800	279	698	254	197
23	860	2660	1480	9790	2540	29000	1270	5700	268	1130	236	200
24	1290	8420	6470	8620	2120	16300	1020	5570	272	411	222	200
25	1280	10700	9420	5460	1800	10800	925	3880	283	318	209	200
26	945	10500	6590	4440	1620	8540	884	2910	305	330	209	200
27	860	7460	4200	3140	1500	5270	830	2270	446	454	206	203
28	816	5250	4020	2230	1330	11400	802	1890	314	997	206	206
29	1030	4460	3010	1910	1130	15500	726	1650	894	584	203	212
30	3680	4040	2440	1720	---	8980	662	1490	930	377	203	219
31	3820	---	2230	1630	---	5480	---	1070	---	314	200	---
TOTAL	46179	160020	79185	112560	58403	312799	96819	89648	13484	12609	8231	5993
MEAN	1490	5334	2554	3631	2014	10090	3227	2892	449	407	266	200
MAX	4490	16900	9420	9790	5740	34200	13000	16600	930	1130	623	222
MIN	505	1500	945	1550	879	763	662	327	268	222	200	184
(†)	-4000	-12800	-7900	+3200	+2900	+10200	+4900	+2300	-1100	-2900	-2300	-3700
MEAN‡	1361	4907	2300	3734	2114	10419	3391	2966	413	313	191	76.4
CFSM‡	1.13	4.06	1.90	3.09	1.75	8.62	2.81	2.46	.34	.26	.16	.06
IN.‡	1.30	4.53	2.19	3.56	1.89	9.94	3.13	2.83	.38	.30	.18	.07

CAL YR 1979 TOTAL 1188723 MEAN 3257 MAX 26700 MIN 209 MEAN‡ 3255 CFSM‡ 2.69 IN.‡ 36.57
WTR YR 1980 TOTAL 995930 MEAN 2721 MAX 34200 MIN 184 MEAN‡ 2691 CFSM‡ 2.23 IN.‡ 30.32

† 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.--27 years, 28.8 ft³/s (0.816 m³/s), 22.35 in/yr (568 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.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8		Unknown		Unknown		Mar. 28		Unknown		Unknown	
Mar. 17		Unknown		Unknown		May 17	1545	2210	62.6	7.77	2.368
Mar. 20		*Unknown		Unknown							

Minimum discharge, 3.4 ft³/s (0.096 m³/s) Aug. 28.

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	13	283	30	25	20	20	54	13	17	9.9	7.1	5.8
2	20	128	26	23	20	19	49	12	15	9.4	7.1	61
3	15	65	23	22	20	75	46	12	15	11	7.1	24
4	17	42	21	33	19	77	44	11	14	11	7.1	39
5	15	31	20	29	19	53	41	10	13	9.4	6.6	36
6	13	26	20	26	20	42	39	10	13	17	6.6	19
7	13	22	18	42	19	280	37	12	13	16	6.2	15
8	12	20	16	44	19	370	290	14	12	11	6.2	13
9	13	50	15	37	20	75	82	10	12	9.4	5.8	12
10	19	83	15	33	20	68	55	9.4	11	9.4	6.2	11
11	15	56	15	81	21	48	49	8.9	10	8.4	5.8	10
12	14	41	16	75	21	46	80	8.9	11	7.1	5.8	9.9
13	13	31	86	59	20	45	164	8.4	12	7.5	5.8	9.4
14	12	27	56	45	21	43	182	8.4	10	8.0	5.4	9.4
15	12	23	43	36	45	40	94	8.0	9.9	7.5	12	8.9
16	12	22	34	32	82	115	61	20	9.9	7.5	9.4	8.4
17	11	19	28	34	55	660	45	626	14	7.1	7.1	10
18	11	18	24	65	42	122	37	202	11	7.1	15	9.9
19	12	17	23	55	44	70	31	126	10	6.6	10	9.4
20	12	16	21	45	63	1000	27	95	9.9	6.6	7.5	8.9
21	12	16	19	38	51	290	23	65	9.4	7.1	6.6	8.9
22	18	16	18	121	43	90	21	108	8.9	30	6.2	8.9
23	20	231	80	111	37	74	20	136	9.9	28	6.2	8.4
24	14	177	274	75	31	160	19	94	12	13	5.8	9.4
25	13	200	126	55	29	73	18	67	12	10	5.8	9.9
26	12	170	74	42	25	64	17	42	9.9	11	5.4	8.9
27	12	87	51	34	23	60	16	29	9.4	11	5.4	8.4
28	12	61	38	29	23	520	15	24	8.9	9.9	5.0	9.4
29	42	44	33	27	21	100	14	21	20	8.4	5.8	9.9
30	33	35	31	26	---	82	13	20	13	8.0	5.8	9.4
31	26	---	28	23	---	62	---	18	---	7.5	6.2	---
TOTAL	488	2057	1322	1422	893	4843	1683	1849.0	356.1	330.8	214.0	421.5
MEAN	15.7	68.6	42.6	45.9	30.8	156	56.1	59.6	11.9	10.7	6.90	14.1
MAX	42	283	274	121	82	1000	290	626	20	30	15	61
MIN	11	16	15	22	19	19	13	8.0	8.9	6.6	5.0	5.8
CFSM	.90	3.92	2.43	2.62	1.76	8.91	3.21	3.41	.68	.61	.39	.81
IN.	1.04	4.37	2.81	3.02	1.90	10.29	3.58	3.93	.76	.70	.45	.90

CAL YR 1979 TOTAL 14817.8 MEAN 40.6 MAX 1020 MIN 6.2 CFSM 2.32 IN 31.50
WTR YR 1980 TOTAL 15879.4 MEAN 43.4 MAX 1000 MIN 5.0 CFSM 2.48 IN 33.75

NOTE.--No gage-height record Mar. 7 to Apr. 10.

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

AVERAGE DISCHARGE.--55 years, 317 ft³/s (8.977 m³/s), 21.31 in/yr (541 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.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 24	0045	4010	114	9.80	2.987	Dec. 24	1345	4460	126	10.27	3.130
Dec. 13	1215	7220	204	12.39	3.776	Mar. 20	2115	*13800	391	15.46	4.712

Minimum recorded discharge, 90 ft³/s (2.55 m³/s) Aug. 29, 30, but may have been less during period of no gage-height record Aug. 31 to Sept. 30.

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	285	621	581	479	314	334	806	301	323	210	126	95
2	293	783	499	442	303	314	704	290	301	182	123	95
3	270	585	442	418	298	303	647	280	280	176	123	95
4	268	479	409	467	290	309	595	270	270	174	126	100
5	261	415	386	448	288	519	529	266	258	164	125	140
6	251	368	365	430	285	546	489	261	246	160	123	120
7	242	331	342	526	278	606	464	254	237	156	119	110
8	232	309	314	581	273	802	952	246	228	152	119	105
9	225	323	293	560	273	728	1010	237	216	149	121	100
10	228	421	280	523	268	651	838	232	210	147	121	100
11	221	391	273	643	266	564	708	230	205	144	122	100
12	216	365	325	643	263	519	760	228	196	140	125	100
13	210	342	3780	595	261	493	1060	225	194	139	122	95
14	205	320	1670	560	261	445	2310	223	190	137	182	95
15	201	298	1050	509	325	403	1360	216	186	137	210	95
16	199	283	830	476	961	391	992	225	182	136	168	95
17	196	268	662	560	806	1170	822	1000	194	132	119	95
18	194	256	574	536	666	1130	712	1220	186	132	111	95
19	192	249	526	486	595	878	625	927	180	128	109	95
20	190	239	479	457	610	5430	560	799	176	125	107	95
21	188	230	442	436	567	5170	509	658	170	128	103	95
22	192	232	415	451	540	1610	467	606	168	176	100	100
23	216	1450	834	454	499	1110	436	996	166	168	97	100
24	199	2530	3310	433	457	1480	409	935	168	140	96	100
25	194	1670	1790	427	430	1150	400	760	180	136	94	105
26	190	1820	1110	406	400	927	383	617	168	132	93	110
27	188	1090	866	386	380	802	359	512	162	132	93	115
28	237	987	724	368	368	2100	339	445	156	145	92	115
29	293	810	628	354	348	1780	325	400	201	134	91	115
30	261	674	574	342	---	1230	314	380	377	132	93	115
31	246	---	523	331	---	965	---	345	---	129	93	---
TOTAL	6983	19139	25296	14727	11873	34859	20884	14584	6374	4572	3646	3090
MEAN	225	638	816	475	409	1124	696	470	212	147	118	103
MAX	293	2530	3780	643	961	5430	2310	1220	377	210	210	140
MIN	188	230	273	331	261	303	314	216	156	125	91	95
CFSM	1.11	3.16	4.04	2.35	2.03	5.56	3.45	2.33	1.05	.73	.58	.51
IN.	1.29	3.52	4.66	2.71	2.19	6.42	3.85	2.69	1.17	.84	.67	.57

CAL YR 1979 TOTAL 222049 MEAN 608 MAX 10800 MIN 117 CFSM 3.01 IN 40.89
WTR YR 1980 TOTAL 166027 MEAN 454 MAX 5430 MIN 91 CFSM 2.25 IN 30.58

NOTE.--No gage-height record Aug. 31 to Sept. 30.

03603000 DUCK RIVER ABOVE HURRICANE MILLS, TN

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, Hydrologic Unit 06040003, on left bank 0.4 mi (0.6 km) downstream from Tumbling Creek, 1.3 mi (2.1 km) upstream from bridge on State Highway 13, 3.6 mi (5.8 km) Southeast of Hurricane Mills, and at mile 26.0 (41.8 km).

DRAINAGE AREA.--2,557 mi^2 (6,623 km^2).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1951, published as "near Hurricane Mills."

REVISED RECORDS.--WSP 803: 1935. WSP 823: 1927(M). WSP 853: Drainage area. WSP 1436: 1926-28, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 370.53 ft (112.938 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 21, 1934, nonrecording gage and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder at bridge 5.6 mi (9.0 km) downstream at datum 8.80 ft (2.682 m) lower.

REMARKS.--Records good. Flow regulated since January 1976 by Normandy Lake (station 03596460). Prior to 1953 occasional regulation at low flow from small dams upstream. Minor diversions for irrigation. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--55 years, 4,151 ft^3/s (118 m^3/s), 22.05 in/yr (560 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 122,000 ft^3/s (3,460 m^3/s) Feb. 14, 1948, gage height, 30.70 ft (9.357 m), from floodmark in gage house, present site and datum; minimum, 185 ft^3/s (5.24 m^3/s) Sept. 11, 12, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59,700 ft^3/s (1,690 m^3/s) at 0815 hours Mar. 22, gage height, 24.49 ft (7.465 m); minimum, 734 ft^3/s (20.8 m^3/s) Sept. 16, 17. 20, 21.

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	10700	6140	8170	5400	3790	3320	12000	2650	3520	3000	1270	800
2	7090	12900	7220	4810	3590	3060	9540	2530	3090	2190	1160	806
3	5850	21600	6180	4290	3420	2850	8060	2420	2790	1850	1080	895
4	5080	23700	5180	4010	3230	2690	7120	2290	2560	1770	1060	948
5	4170	14900	4670	4340	3080	2950	6350	2200	2380	1680	1060	948
6	3760	8030	4340	4750	3000	4090	5640	2100	2240	1590	1530	948
7	3640	6280	4080	5420	2920	4930	4830	2020	2110	1540	1320	961
8	3030	5340	3820	5730	2710	8450	5150	1940	2000	1460	1100	882
9	2590	4690	3580	6220	2570	16500	10900	1920	1890	1330	1140	843
10	2370	4540	3370	6840	2550	23000	13300	1860	1790	1330	1140	806
11	2320	7490	3210	6270	2590	21500	9820	1810	1690	1360	1050	770
12	2440	11200	3240	6370	2730	11100	7420	1820	1610	1200	1020	758
13	2490	9220	11800	7930	2910	8510	8220	1800	1550	1120	981	746
14	2320	7200	19200	9120	2930	7450	15500	1820	1480	1060	961	758
15	2100	6060	11100	7190	3190	6640	23100	1700	1440	1030	1430	752
16	1940	5300	7910	6100	5910	5650	21800	1650	1390	1010	1320	740
17	1790	4610	6270	5500	11200	8220	13600	2010	1440	974	1430	758
18	1680	3930	5180	5290	11100	26300	10100	19000	1570	935	1150	758
19	1610	3610	4490	6330	8700	31500	7880	33300	1590	895	1050	758
20	1570	3110	4040	10400	7380	32500	6410	27900	1450	863	1030	758
21	1540	3140	3680	9460	7490	45600	5560	21800	1380	856	988	824
22	1540	3020	3410	7220	7460	58500	4860	15800	1320	1010	961	862
23	1650	4360	3490	7670	6800	51600	4360	13400	1300	2210	981	850
24	1970	13400	11500	12600	6020	45700	3980	14800	1320	3550	915	856
25	2190	22500	23000	13700	5350	41600	3640	13200	1350	2390	882	968
26	2360	25400	21300	9650	4690	26800	3490	9820	1290	1690	856	915
27	2180	23900	14800	7850	4210	15100	3320	7490	1240	1410	824	876
28	2000	16800	10000	6470	3900	13600	3080	6090	1220	1380	794	836
29	2130	11800	8290	5110	3640	24800	2930	5130	1590	1510	788	843
30	2470	9430	7160	4470	---	26900	2800	4490	2210	1860	788	895
31	3770	---	5700	4090	---	20800	---	4120	---	1530	800	---
TOTAL	92340	303600	239380	210600	139060	602210	244760	230880	53800	47583	32859	25118
MEAN	2979	10120	7722	6794	4795	19430	8159	7448	1793	1535	1060	837
MAX	10700	25400	23000	13700	11200	58500	23100	33300	3520	3550	1530	968
MIN	1540	3020	3210	4010	2550	2690	2800	1650	1220	856	788	740

CAL YR 1979 TOTAL 2635481 MEAN 7220 MAX 46600 MIN 694 MEAN‡ 7218 CFSM‡ 2.82 IN.‡ 38.32
WTR YR 1980 TOTAL 2222190 MEAN 6072 MAX 58500 MIN 740 MEAN‡ 6041 CFSM‡ 2.36 IN.‡ 32.16

‡ Adjusted for change in contents in Normandy Lake.

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, Hydrologic Unit 06040004, on right bank 0.4 mi (0.6 km) downstream from Little Opossum Creek, 0.5 mi (0.8 km) downstream from bridge on State Highway 13, 1.3 mi (2.1 km) north of Flat Woods, 3.9 mi (6.3 km) upstream from Sinking Creek, and at mile 58.7 (94.4 km).

DRAINAGE AREA.--447 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.--60 years, 757 ft³/s (21.44 m³/s), 23.00 in/yr (584 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.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 24	1430	4970	141	11.20	3.414	Mar. 29	0800	7570	214	13.97	4.258
Nov. 26	0900	5610	159	11.93	3.636	Apr. 9	0630	4600	130	10.69	3.258
Dec. 25	0130	8950	253	15.16	4.621	Apr. 14	1600	5390	153	11.69	3.563
Mar. 8	1800	6090	172	12.46	3.798	May 18	1430	18400	521	20.84	6.352
Mar. 17	2330	18700	530	20.96	6.389	May 23	1430	5920	168	12.27	3.740
Mar. 21	0930	*42600	1210	26.98	8.224						

Minimum discharge, 204 ft³/s (5.78 m³/s) Sept. 23, 24.

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	505	578	1040	926	763	688	1790	733	826	689	323	234
2	483	2470	915	865	715	659	1530	710	772	568	311	219
3	481	1810	817	806	691	628	1370	690	727	548	308	314
4	458	1250	751	846	688	628	1210	671	685	579	311	399
5	446	949	719	888	682	843	1080	651	662	534	323	335
6	427	781	707	830	697	987	972	643	640	502	308	356
7	408	695	679	861	678	1340	913	638	619	483	296	296
8	394	635	642	1060	654	5000	1900	669	600	588	285	256
9	384	631	623	1080	656	4200	4020	702	581	509	276	242
10	416	932	586	994	653	2300	2340	666	568	471	267	228
11	489	1090	558	1020	643	1670	1760	633	557	454	265	222
12	434	913	823	1230	638	1370	2110	619	543	437	267	219
13	411	821	2180	1230	633	1230	2680	611	532	423	262	216
14	389	750	2160	1100	616	1070	4730	602	526	414	267	216
15	370	689	1430	1010	676	939	3660	590	514	407	267	225
16	369	646	1150	952	1100	943	2410	586	510	398	273	216
17	369	610	989	974	1210	10400	1820	1710	588	388	259	219
18	366	578	876	1020	1040	12600	1520	15300	625	375	251	222
19	363	552	801	1220	972	3230	1340	5090	566	369	251	222
20	361	531	749	1080	1150	5360	1180	3170	534	365	256	216
21	355	514	716	992	1200	32200	1090	2520	515	367	245	213
22	367	518	689	1090	1100	8630	1010	2030	500	620	234	213
23	472	1300	1180	2110	1020	2830	945	5090	550	1440	222	207
24	522	4530	5900	1910	945	2410	905	3530	618	1270	219	207
25	429	3940	6650	1520	874	2260	879	2370	622	740	216	245
26	404	5130	2830	1260	817	1840	859	1750	573	720	213	273
27	379	3070	1900	1070	768	1600	834	1380	525	556	210	253
28	369	2000	1460	957	739	3660	801	1170	499	480	213	245
29	395	1550	1230	875	716	6250	766	1040	562	563	210	273
30	437	1240	1100	829	---	2990	747	961	820	392	228	323
31	434	---	1010	814	---	2250	---	897	---	347	239	---
TOTAL	12886	41703	43860	33419	23734	123005	49171	58422	17959	16996	8075	7524
MEAN	416	1390	1415	1078	818	3968	1639	1885	599	548	260	251
MAX	522	5130	6650	2110	1210	32200	4730	15300	826	1440	323	399
MIN	355	514	558	806	616	628	747	586	499	347	210	207
CFSM	.93	3.11	3.17	2.41	1.83	8.88	3.67	4.22	1.34	1.23	.58	.56
IN.	1.07	3.47	3.65	2.78	1.98	10.24	4.09	4.86	1.49	1.41	.67	.63

CAL YR 1979 TOTAL 441438 MEAN 1209 MAX 12600 MIN 312 CFSM 2.71 IN 36.74
WTR YR 1980 TOTAL 436754 MEAN 1193 MAX 32200 MIN 207 CFSM 2.67 IN 36.35

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; mimimum, 0.0°C many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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)
OCT 25...	1045	429	80	7.8	11.5	9.8	--	--	--	40	4	13
FEB 13...	1100	622	75	8.1	5.0	13.1	K4	K3	K5	34	2	11
MAR 27...	1145	1580	75	7.1	12.0	--	92	36	110	28	4	9.0
MAY 14...	1100	604	86	8.0	17.0	--	K100	49	63	37	8	12
JUL 30...	1030	381	100	7.8	24.0	7.9	--	K290	120	40	0	13
AUG 26...	1100	223	96	6.6	24.0	7.2	--	--	--	42	3	14

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	SODIUM PERCENT	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (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 25...	1.9	1.9	.1	9	2.9	1.0	36	3.7	2.2	.1	6.2	58
FEB 13...	1.5	1.3	.1	9	1.9	.6	32	3.1	2.2	.0	4.8	49
MAR 27...	1.4	1.2	.1	8	2.0	.8	24	5.0	1.4	.1	6.3	--
MAY 14...	1.6	1.1	.1	6	--	.6	29	3.2	1.4	.0	4.0	40
JUL 30...	1.8	1.2	.1	6	2.0	.8	41	2.8	1.5	.0	6.6	55
AUG 26...	1.7	1.3	.1	6	--	.8	39	2.6	1.4	.1	7.0	--

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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 25...	52	.08	67.2	--	.06	.020	.06	.010	.03	6	6.9
FEB 13...	45	.07	82.3	.19	.20	.010	.03	.000	.00	2	3.4
MAR 27...	42	.05	145	.47	.48	.040	.12	.010	.03	15	64
MAY 14...	42	.05	65.2	.14	.16	.010	.03	.000	.00	7	11
JUL 30...	53	.07	56.6	.30	.27	.030	.09	.040	.12	22	23
AUG 26...	53	.06	31.9	.18	.20	.050	.15	.010	.03	12	7.2

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
AUG 26...	<.9	<.4	<.6	<.3	.9	<.4	.9	<.4	.05	.08

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CYANIDE TOTAL (MG/L AS CN)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
MAY 14...	.00	3	1	<50	20	<1	0	3	20	11	<3
JUL 30...	.00	5	3	100	30	<1	0	2	--	25	<3

DATE	COPPER, TOTAL (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL (UG/L AS HG)
MAY 14...	0	<10	140	20	0	<10	<4	20	9	.1
JUL 30...	1	<10	530	40	1	<10	<4	40	10	<.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY 14...	<.1	<10	0	0	0	0	45	<6.0	--	7
JUL 30...	<.1	10	--	--	0	0	50	<6.0	10	5

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)
AUG 26...	.00	4	.0	.00	.0	.0	0	.00	.0	.00

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)
AUG 26...	.0	.00	.0	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)
AUG 26...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG 26...	.00	.00	.00	.00	0	0	.00	.01	.00	.00

03604500 BUFFALO RIVER NEAR LOBELVILLE, TN

LOCATION.--Lat 35°48'46", long 87°47'51", Perry County, Hydrologic Unit 06040004, on right bank 30 ft (9 m) upstream from Standing Rock Bridge, 1.4 mi (2.3 km) downstream from bridge on State Highway 13, 3 mi (5 km) north of Lobelville, 13 mi (21 km) downstream from Cane Creek, and at mile 17.7 (28.5 km).

DRAINAGE AREA.--707 mi^2 (1,831 km^2).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935. WSP 823: Drainage area. WSP 853: 1928-37. WSP 1436: 1932(M).

GAGE.--Water-stage recorder. Datum of gage 403.02 ft (122.840 m) National Geodetic Vertical Datum of 1929. Nov. 1, 1927, to May 31, 1934, nonrecording gage 40 ft (12 m) downstream at same datum.

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

AVERAGE DISCHARGE.--53 years, 1,197 ft^3/s (33.90 m^3/s), 22.99 in/yr (584 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft^3/s (2,830 m^3/s) Feb. 14, 1948, gage height, 23.76 ft (7.242 m) from high-water mark in gage house, from rating curve extended above 40,000 ft^3/s (1,130 m^3/s) on basis of slope-area measurement of peak flow; minimum, 135 ft^3/s (3.82 m^3/s) Aug. 18, 1953, caused by regulations upstream at unknown location; minimum discharge unaffected by regulation, 142 ft^3/s (4.02 m^3/s) Oct. 1-8, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 14, 1948. Flood of March 1902 reached a stage of about 21.8 ft (6.64 m), discharge not determined, from flood profile by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,200 ft^3/s (147 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 26	0415	11600	328	13.52	4.121	Mar. 30	0730	9400	266	12.45	3.795
Dec. 13	2300	8680	246	12.09	3.685	Apr. 10	0500	5680	161	10.12	3.084
Dec. 26	0345	10600	300	13.05	3.978	Apr. 15	1400	7940	225	11.65	3.551
Mar. 9	2015	7370	209	11.30	3.444	May 19	1500	14300	405	14.50	4.420
Mar. 19	0045	16300	462	15.05	4.587	May 24	1400	7950	225	11.66	3.554
Mar. 22	0830	*28900	818	17.48	5.328						

Minimum discharge, 351 ft^3/s (9.94 m^3/s) Aug. 29.

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	921	793	2100	1600	1250	1160	3220	1160	1340	998	639	370
2	921	1130	1790	1460	1180	1120	2560	1130	1240	946	590	380
3	868	2580	1570	1360	1120	1060	2350	1090	1150	828	558	434
4	849	2070	1410	1370	1080	1030	2120	1060	1090	861	547	432
5	826	1620	1300	1390	1070	1220	1870	1040	1020	812	556	537
6	778	1360	1230	1390	1060	1440	1680	1010	977	752	553	528
7	742	1180	1170	1400	1050	1700	1550	992	939	746	536	524
8	708	1070	1100	1600	962	3590	2120	977	906	692	515	512
9	684	1020	1010	1740	952	6490	4040	1040	873	735	497	460
10	687	1150	992	1690	919	5240	4900	1020	846	689	484	433
11	699	1380	855	1680	801	3130	3250	972	822	642	473	410
12	764	1470	921	1720	835	2460	3330	951	800	608	459	395
13	730	1350	5990	1950	991	2110	4160	972	780	583	455	384
14	686	1240	6520	1790	888	1870	6080	946	764	557	463	376
15	659	1150	3710	1700	1450	1640	7600	926	749	537	456	373
16	633	1080	2620	1590	2200	1500	5150	921	734	522	468	365
17	620	1010	2100	1570	1790	4390	3500	1160	844	505	456	373
18	614	930	1780	1570	1750	12300	2790	4080	845	491	441	399
19	609	768	1570	1580	1780	12800	2390	12100	858	476	429	395
20	605	867	1410	1680	1920	7550	2090	7470	807	465	420	391
21	599	798	1310	1590	2030	17300	1870	4740	759	461	420	399
22	615	828	1230	1550	1980	25100	1710	3700	726	666	408	406
23	698	1990	1400	1770	1830	10200	1590	5730	717	1780	394	395
24	730	5200	5550	2530	1680	4340	1500	7420	761	1660	382	410
25	807	8420	9560	2380	1540	3650	1460	4870	846	1500	372	429
26	728	10600	9050	1930	1430	3230	1410	3340	833	1150	365	437
27	689	7960	4010	1770	1340	2740	1360	2600	787	1050	360	452
28	672	4650	2780	1600	1280	3530	1300	2130	729	890	356	452
29	698	3160	2270	1460	1210	6580	1260	1830	788	796	354	452
30	700	2560	1870	1380	---	8140	1210	1580	896	780	355	464
31	723	---	1720	1310	---	4190	---	1450	---	713	363	---
TOTAL	22262	71384	81898	51100	39368	162800	81420	80407	26226	24891	14124	12767
MEAN	718	2379	2642	1648	1358	5252	2714	2594	874	803	456	426
MAX	921	10600	9560	2530	2200	25100	7600	12100	1340	1780	639	537
MIN	599	768	855	1310	801	1030	1210	921	717	461	354	365
CFSM	1.02	3.37	3.74	2.33	1.92	7.43	3.84	3.67	1.24	1.14	.65	.60
IN.	1.17	3.76	4.31	2.69	2.07	8.57	4.28	4.23	1.38	1.31	.74	.67

CAL YR 1979 TOTAL 746613 MEAN 2046 MAX 15000 MIN 496 CFSM 2.89 IN 39.28
WTR YR 1980 TOTAL 668647 MEAN 1827 MAX 25100 MIN 354 CFSM 2.58 IN 35.18

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 good. Natural flow of stream effected by transbasin diversion of water from the Duck River basin into the Trace Creek basin to supplement the Waverly municipal water supply.

AVERAGE DISCHARGE.--17 years, 54.2 ft³/s (1.535 m³/s), 23.07 in/yr (586 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.--Peak discharges above base of 1,850 ft³/s (52.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	1900	*2640	74.8	8.01	2.441	Mar. 21	Unknown	1940	54.9	a7.2	2.19
Dec. 13	0615	2170	61.5	7.47	2.277						

a From floodmarks.

Minimum discharge, 4.6 ft³/s (0.13 m³/s) Sept. 11.

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	28	40	114	57	31	31	72	26	36	31	26	7.2
2	29	48	91	51	29	30	64	26	42	27	20	7.2
3	22	37	76	48	28	29	187	23	40	22	19	7.7
4	24	31	67	51	26	32	118	23	35	21	18	8.5
5	23	28	60	53	25	138	72	21	30	18	20	7.7
6	22	25	55	50	25	91	63	22	27	23	24	5.5
7	20	24	49	67	25	156	54	22	26	31	19	5.8
8	19	23	44	72	24	171	139	20	23	35	15	6.4
9	17	51	39	61	24	114	92	18	19	30	15	5.5
10	17	105	36	54	24	89	79	19	23	21	15	5.4
11	16	71	32	91	23	74	69	18	19	14	12	7.4
12	15	57	85	85	23	66	76	19	17	14	15	12
13	17	51	740	69	23	115	227	22	19	17	16	14
14	15	44	214	63	23	64	268	26	17	15	17	11
15	13	40	146	56	92	56	152	23	14	17	19	6.0
16	14	38	111	53	230	49	109	23	14	17	17	6.0
17	13	36	88	68	125	86	86	38	17	16	12	7.7
18	13	32	73	65	94	200	72	66	16	15	13	8.2
19	13	30	65	55	79	460	62	43	14	16	17	8.8
20	13	28	57	49	80	800	54	37	15	15	17	10
21	13	26	51	46	75	1490	48	33	14	14	15	11
22	15	31	48	60	68	900	42	48	13	171	16	11
23	25	802	189	71	61	520	38	94	14	63	15	13
24	22	373	457	59	53	310	35	89	16	36	12	14
25	19	1530	219	55	49	177	38	62	16	24	8.8	12
26	17	404	148	50	43	100	36	49	18	27	8.5	12
27	17	227	113	46	41	409	36	44	19	29	8.5	11
28	23	303	92	42	38	230	31	48	16	23	8.5	10
29	26	192	77	39	35	139	30	41	104	22	7.7	10
30	23	144	69	37	---	90	28	38	47	19	8.0	10
31	23	---	63	35	---	82	---	36	---	18	7.4	---
TOTAL	586	4871	3768	1758	1516	7298	2477	1117	740	861	461.4	272.0
MEAN	18.9	162	122	56.7	52.3	235	82.6	36.0	24.7	27.8	14.9	9.07
MAX	29	1530	740	91	230	1490	268	94	104	171	26	14
MIN	13	23	32	35	23	29	28	18	13	14	7.4	5.4
CFSM	.59	5.08	3.82	1.78	1.64	7.37	2.59	1.13	.77	.87	.47	.28
IN.	.68	5.68	4.39	2.05	1.77	8.51	2.89	1.30	.86	1.00	.54	.32

CAL YR 1979 TOTAL 35947.6 MEAN 98.5 MAX 1830 MIN 7.4 CFSM 3.09 IN 41.92
WTR YR 1980 TOTAL 25725.4 MEAN 70.3 MAX 1530 MIN 5.4 CFSM 2.20 IN 30.00

03605555 TRACE CREEK ABOVE DENVER, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	1130	21	210	16.0	5	.29
NOV						
28...	1625	264	135	9.0	28	20
JAN						
23...	1525	61	170	8.0	4	.66
FEB						
27...	1425	39	185	9.5	11	1.2
APR						
09...	1430	100	135	16.5	4	1.1
MAY						
21...	1655	31	190	21.0	2	.17
JUL						
02...	1215	30	220	27.0	11	.89
AUG						
13...	1800	15	230	27.5	11	.45

03606500 BIG SANDY RIVER AT BRUCETON, TN

LOCATION.--Lat 36°02'19", long 88°13'42", Carroll County, Hydrologic Unit 06040005, on right bank on downstream end of abutment of county bridge, 700 ft (213 m) downstream from bridge on U.S. Highway 70, 0.6 mi (1.0 km) upstream from Cherry Creek, 0.9 mi (1.4 km) east of Bruceton, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--205 mi^2 (531 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1929 to current year.

REVISED RECORDS.--WSP 853: Drainage area. WSP 923: 1929-35.

GAGE.--Water-stage recorder. Datum of gage is 380.58 ft (116.001 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 1, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--51 years, 295 ft^3/s (8.354 m^3/s), 19.54 in/yr (496 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) Jan. 21, 1935, gage height, 16.16 ft (4.926 m) from graph based on gage readings, from rating curve extended above 9,200 ft^3/s (261 m^3/s); minimum, 28 ft^3/s (0.79 m^3/s) Aug. 17-19, 22, Sept. 1, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1897 reached a stage of 18 ft (5.5 m), discharge, 25,000 ft^3/s (708 m^3/s), and flood in March 1919 reached a stage of 17 ft (5.2 m), discharge, 21,000 ft^3/s (595 m^3/s), from reports by Tennessee Valley Authority.

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

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 25	2345	*6720	190	14.53	4.429	Mar. 22	0500	4920	139	13.93	4.246
Dec. 13	1830	2350	66.6	12.30	3.749						

Minimum discharge 72 ft^3/s (2.04 m^3/s) Sept. 15, 16.

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	166	440	461	351	278	205	402	229	150	379	105	82
2	231	342	333	324	274	226	334	216	141	190	101	81
3	180	244	289	332	278	229	383	207	134	183	99	82
4	221	213	285	519	282	273	403	200	131	422	99	82
5	197	197	280	498	280	422	326	196	135	480	98	107
6	165	186	271	402	294	339	287	204	131	248	99	114
7	153	181	251	414	287	436	274	187	127	409	94	97
8	143	184	232	421	298	466	734	177	142	204	90	92
9	142	527	223	351	316	320	768	169	147	152	87	82
10	172	672	224	316	315	266	866	167	131	137	86	78
11	159	469	225	555	309	234	516	166	124	129	83	76
12	148	314	421	555	298	269	506	183	119	115	85	74
13	144	238	2130	507	280	287	852	263	118	112	83	74
14	134	216	2070	373	325	245	1680	249	118	105	102	73
15	133	205	1850	328	633	222	1520	203	114	104	270	72
16	134	197	959	342	1140	244	1300	235	111	102	311	72
17	135	192	374	668	860	1200	551	291	151	100	153	81
18	135	180	286	620	599	1180	371	293	135	97	137	102
19	135	187	281	516	360	1350	328	225	130	93	126	94
20	136	187	268	360	552	1630	291	211	123	91	123	85
21	137	186	255	324	454	3100	269	188	120	90	103	93
22	159	224	252	466	352	4060	251	266	116	119	95	127
23	286	1650	521	534	296	2300	237	463	147	313	90	104
24	192	2460	1730	425	261	2040	227	279	293	419	92	109
25	159	3540	1480	350	249	1540	339	219	221	393	90	150
26	151	5350	1050	318	231	1200	474	185	156	163	87	158
27	149	3690	606	303	227	570	560	168	132	158	84	127
28	320	2590	428	285	225	1170	356	158	121	308	83	118
29	403	1630	436	278	213	1010	274	152	402	163	83	123
30	257	790	364	285	---	984	244	150	442	125	83	135
31	222	---	344	292	---	642	---	150	---	112	83	---
TOTAL	5598	27681	19179	12612	10766	28659	15923	6649	4762	6215	3404	2944
MEAN	181	923	619	407	371	924	531	214	159	200	110	98.1
MAX	403	5350	2130	668	1140	4060	1680	463	442	480	311	158
MIN	133	180	223	278	213	205	227	150	111	90	83	72
CFSM	.88	4.50	3.02	1.99	1.81	4.51	2.59	1.04	.78	.98	.54	.48
IN.	1.02	5.02	3.48	2.29	1.95	5.20	2.89	1.21	.86	1.13	.62	.53

CAL YR 1979 TOTAL 214556 MEAN 588 MAX 7450 MIN 105 CFSM 2.87 IN 38.93
WTR YR 1980 TOTAL 144392 MEAN 395 MAX 5350 MIN 72 CFSM 1.93 IN 26.20

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 05...	1525	186	42	14.5	17	8.5
NOV 28...	1055	2610	33	9.0	63	444
JAN 23...	1400	520	42	6.5	46	65
FEB 27...	1135	211	47	6.5	37	21
APR 09...	1125	770	41	14.0	169	351
MAY 21...	1215	180	49	18.5	42	20
JUL 02...	1050	188	39	26.5	117	59
AUG 13...	1530	84	31	24.5	33	7.5

DATE	PCB TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
OCT 05...	.00	.00	.0	.00	.00	.00	.00	.00	.00
FEB 27...	.00	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 05...	.00	.00	.00	.00	0	.01	.00	.00
FEB 27...	.00	.00	.00	.00	0	.00	.00	.00

03609500 TENNESSEE RIVER NEAR PADUCAH, KY.

LOCATION.--Lat 37°01'11", long 88°16'50", Marshall County, Hydrologic Unit 06040006, on left bank at Gilbertsville, 4,000 ft (1,200 m) downstream from Kentucky Dam, 2.3 mi (3.7 km) upstream from Shadie Creek, 16 mi (26 km) east of Paducah, and at mile 21.6 (34.8 km).

DRAINAGE AREA.--40,200 mi^2 (104,100 km^2), approximately.

PERIOD OF RECORD.--October 1875 to September 1889 (gage heights only), October 1889 to current year. Prior to October 1931, published as "at Johnsonville, Tenn.", and October 1931 to September 1939, published as "near Johnsonville, Tenn."

REVISED RECORDS.--WSP 1306: 1936 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 286.35 ft (87.279 m) National Geodetic Vertical Datum of 1929. Prior to October 1939, various types of gages between 75 and 80 mi (121 and 129 km) upstream at datums from 33.16 to 34.67 ft (10.107 to 10.567 m) higher. October 1939 to September 1942, water-stage recorder 16.4 mi (26.4 km) downstream at present datum. Auxiliary water-stage recorder 16.3 mi (26.2 km) downstream at present datum since Oct. 1, 1942. October 1939 to Sept. 30, 1942, auxiliary water-stage recorder at same site and datum as present base gage at Gilbertsville. (See WSP 1706 for details).

REMARKS.--Records good. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other lakes have been built above station (see basic data releases for adjoining states). Flow completely regulated. Barkley-Kentucky Canal (station 03438190) diverts water from or to Lake Barkley in Cumberland River basin.

AVERAGE DISCHARGE.--76 years (1889-1965, prior to opening of Barkley-Kentucky Canal), 64,060 ft^3/s (1,814 m^3/s), unadjusted; 15 years (1965-80, since opening of Barkley-Kentucky Canal), 67,380 ft^3/s (1908 m^3/s), 22.76 in/yr (578 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500,000 ft^3/s (14,200 m^3/s) Feb. 17, 1948; maximum gage height, 62.43 ft (19.029 m) Feb. 2, 1937, at Gilbertsville, present datum; minimum daily discharge, 60 ft^3/s (1.70 m^3/s) May 16, 1961.
Maximum discharge since closure of Kentucky Dam on Aug. 30, 1944, 500,000 ft^3/s (14,200 m^3/s) Feb. 17, 1948.
Maximum discharge since opening of Barkley-Kentucky Canal in June 1966, 420,000 ft^3/s (11,900 m^3/s) Mar. 17, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 361,000 ft^3/s (10,200 m^3/s) Mar. 24; maximum gage height, 49.29 ft (15.024 m) Mar. 26; minimum daily discharge, 25,200 ft^3/s (714 m^3/s) Aug. 30; minimum gage height, 12.91 ft (3.935 m) Aug. 12.

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	75700	53700	182000	83700	78400	38100	274000	45000	43800	38000	39900	28200
2	87200	66800	175000	82000	72500	38100	254000	44400	43500	38100	40000	27600
3	96000	86800	170000	82300	72800	35800	217000	45100	43500	38200	35900	30800
4	97900	87700	157000	75700	62800	51400	178000	45100	42800	38700	37600	31200
5	94900	97700	140000	64200	56800	46600	158000	44800	42100	39000	32800	31500
6	92500	106000	118000	62000	57300	53600	146000	39600	38800	40000	32300	30100
7	91800	104000	96000	65000	55500	52500	127000	38900	40500	39700	33600	30900
8	90500	104000	80000	66900	55200	77300	113000	38700	40000	40300	32300	31200
9	81000	104000	82000	75600	55400	123000	103000	38000	38000	39900	28100	35800
10	77400	109000	81000	88500	54800	137000	86800	41100	38400	43200	28400	36300
11	77300	119000	75000	88900	58600	160000	80200	40200	30400	43800	33800	35800
12	66600	119000	69000	88000	57600	171000	87600	41000	32100	37000	34900	35400
13	51600	120000	84000	86200	54700	160000	98800	36400	30500	37200	34700	26300
14	42800	120000	104000	85900	54700	132000	124000	34900	31200	38000	42200	27200
15	43000	121000	107000	85700	55400	115000	148000	34700	30900	44800	39900	34200
16	43200	120000	104000	85600	57200	115000	157000	39000	30600	44300	32200	33000
17	43900	112000	96000	86400	56900	144000	144000	51400	29300	44300	34300	34000
18	44300	101000	83000	86100	55500	188000	120000	110000	28300	43800	30300	33600
19	44400	96000	63000	86000	54500	207000	99800	142000	28100	34600	29900	26500
20	43700	85900	51000	86600	62300	224000	91200	148000	26900	34800	30900	26600
21	43500	78800	51000	97700	63800	269000	84600	145000	27200	34800	33300	26200
22	45200	71300	54000	109000	54700	323000	84300	131000	27000	35100	33400	33400
23	45300	72400	55000	109000	54400	345000	78900	122000	27100	34200	34500	35400
24	44500	90800	70000	124000	43400	355000	68900	121000	28200	39900	30900	34800
25	42900	131000	94000	142000	47000	351000	62100	111000	31700	40100	31200	35500
26	43500	167000	110000	143000	49300	339000	66500	101000	38300	39600	30500	35500
27	41500	184000	124000	144000	40200	317000	68700	91500	38900	37200	28400	26600
28	43400	185000	122000	143000	40300	302000	61900	73100	39300	37400	28500	26600
29	49000	184000	119000	124000	33500	299000	55500	55200	39600	36200	27200	25600
30	55700	185000	111000	97600	---	298000	52000	45000	38600	37700	25200	31200
31	53800	---	94100	81700	---	283000	---	44800	---	41600	28200	---
TOTAL	1894000	3382900	3121100	2926300	1615500	5750400	3490800	2138900	1045600	1211500	1015300	937000
MEAN	61100	112800	100700	94400	55710	185500	116400	69000	34850	39080	32750	31230
MAX	97900	185000	182000	144000	78400	355000	274000	148000	43800	44800	42200	36300
MIN	41500	53700	51000	62000	33500	35800	52000	34700	26900	34200	25200	25600

CAL YR 1979 TOTAL 33101600 MEAN 90690 MAX 232000 MIN 28000
WTR YR 1980 TOTAL 28529300 MEAN 77950 MAX 355000 MIN 25200

RESERVOIRS IN TENNESSEE RIVER BASIN, TN

03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at Douglas Dam on French Broad River, 6.5 mi (10.5 km) north of Sevierville, and at mile 32.3 (52.0 km). DRAINAGE AREA, 4,541 mi^2 (11,761 km^2). PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gages, 32 ft (10 m) high by 40 ft (12 m) wide and 8 sluice gates 10 ft (3 m) high by 5.67 ft (1.73 m) wide. Closure of dam was made Feb. 19, 1943; water in reservoir first reached minimum pool elevation Feb. 25, 1943. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,002.00 ft (305.410 m), top of gates, is 743,600 cfs-days (1,820 hm^3), of which 703,100 cfs-days (1,720 hm^3) is controlled storage above elevation 920.00 ft (280.416 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 760,000 cfs-days (1,860 hm^3) July 25, 1949, elevation, 1,001.79 ft (305.346 m); minimum after first filling, 1,000 cfs-days (2.447 hm^3) Jan. 16, 1956, elevation, 883.7 ft (269.35 m) estimated.

EXTREMES FOR CURRENT YEAR: Maximum contents, 659,700 cfs-days (1,614 hm^3) June 2, elevation, 966.74 ft (303.806 m); minimum, 115,500 cfs-days (282.6 hm^3) Jan. 6, elevation, 940.60 ft (286.965 m).

03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft (140 m) upstream from South Holston Dam on South Fork Holston River, 7.0 mi (11.3 km) southeast of Bristol, Virginia-Tennessee, and at mile 49.8 (80.1 km). DRAINAGE AREA, 703 mi^2 (1,821 km^2). PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 11, 1951, non-recording gage at same site and datum.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft (530.962 m), spillway crest, is 385,700 cfs-days (942.6 hm^3), of which 324,200 cfs-days (793.3 hm^3) is controlled storage above elevation 1,616.00 ft (492.557 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 347,100 cfs-days (849.3 hm^3) Apr. 3, 1975, elevation, 1,732.82 ft (528.164 m); minimum after first filling, 57,700 cfs-days (141.2 hm^3) Jan. 13, 1956, elevation, 1,614.15 ft (491.993 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 325,200 cfs-days (795.8 hm^3) June 2, elevation, 1,727.41 ft (526.515 m); minimum, 214,000 cfs-days (523.7 hm^3) Sept. 30, elevation, 1,693.64 ft (516.221 m).

03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi (8 km) east of Elizabethton, and at mile 36.7 (59.0 km). DRAINAGE AREA, 468 mi^2 (1,212 km^2). PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) in diameter. Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,975.00 ft (601.980 m), spillway crest, is 341,300 cfs-days (835.2 hm^3), of which 315,000 cfs-days (770.8 hm^3) is controlled storage above elevation 1,815.00 ft (553.212 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 293,300 cfs-days (717.7 hm^3) Apr. 6, 1974, elevation, 1,961.07 ft (597.734 m); minimum after first filling, 25,100 cfs-days (61.42 hm^3) Jan. 13, 1956, elevation, 1,813.47 ft (552.746 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 284,800 cfs-days (696.9 hm^3) Apr. 20, elevation, 1,958.40 ft (596.920 m); minimum, 194,400 cfs-days (475.7 hm^3) Sept. 23, elevation, 1,927.43 ft (587.481 m).

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi (1.1 km) northeast of Spurgeon, 1.3 mi (2.1 km) downstream from Watauga River, and at mile 18.6 (29.9 km). DRAINAGE AREA, 1,840 mi^2 (4,766 km^2). PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates. 35 ft (11 m) high by 35 ft (11 m) wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,385.0 ft (422.15 m), top of gates, is 97,500 cfs-days (238.6 hm^3), of which 74,800 cfs-days (183.0 hm^3) is controlled storage above elevation 1,330 ft (405.4 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 99,100 cfs-days (242.5 hm^3) May 19, 1964, elevation 1,384.99 ft (422.145 m); minimum after first filling, 21,300 cfs-days (52.12 hm^3) Jan. 23, 1956, elevation, 1,327.06 ft (404.488 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 95,000 cfs-days (232.5 hm^3) July 12, elevation, 1,383.85 ft (421.797 m); minimum, 36,100 cfs-days (88.34 hm^3) Nov. 8, elevation, 1,345.13 ft (409.996 m).

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi (0.3 km) upstream from bridge on U. S. Highway 23, 4.5 mi (7.2 km) southeast of Kingsport, and at mile 8.2 (13.2 km). DRAINAGE AREA, 1,903 mi^2 (4,929 km^2). PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, 35 ft (11 m) high by 35 ft (11 m) wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,263 ft (385.0 m), top of gates, is 13,600 cfs-days (33.28 hm^3), of which 2,200 cfs-days (5.383 hm^3) is controlled storage above elevation 1,258 ft (383.4 m), minimum pool. Reservoir is used for navigation, flood control and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 14,000 cfs-days (34.26 hm^3) Feb. 11, 1954, elevation, 1,263.80 ft (385.206 m), minimum after first filling, 9,300 cfs-days (22.76 hm^3) Mar. 16, 1954, elevation, 1,252.32 ft (381.707 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 13,600 cfs-days (33.28 hm^3) Aug. 18, elevation, 1,262.98 ft (384.956 m); minimum, 11,200 cfs-days (27.41 hm^3) Sept. 15, elevation 1,256.45 ft (383.271 m).

RESERVOIRS IN TENNESSEE RIVER BASIN, TN--Continued

03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi (0.5 km) upstream from bridge on State Highway 92, 2.7 mi (4.3 km) upstream from Mill Spring Creek, 2.8 mi (4.5 km) north of Jefferson City, and at mile 52.3 (84.2 km). DRAINAGE AREA, 3,429 mi^2 (8,881 km^2). PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates 32 ft (10 m) high by 40 ft (12 m) wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,075.0 ft (327.66 m), top of gates, is 778,400 cfs-days (1,905 hm^3), of which 736,200 cfs-days (1,801 hm^3) is controlled storage above elevation 980.0 ft (298.70 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 779,400 cfs-days (1,907 hm^3) May 11, 1944, maximum elevation, 1,074.47 ft (327.498 m) May 30, 1973; minimum after first filling, 48,400 cfs-days (118.4 hm^3) Jan. 7, 1954, elevation, 980.77 ft (298.939 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 544,900 cfs-days (1,333 hm^3) Oct. 4, elevation, 1,058.10 ft (322.509 m); minimum, 258,700 cfs-days (633.0 hm^3) Feb. 11, elevation, 1,028.87 ft (313.600 m).

03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi (2 km) northeast of Lenoir City, and at mile 602.3 (969.1 km). DRAINAGE AREA, 9,550 mi^2 (24,730 km^2). PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates 32 ft (10 m) high by 40 ft (12 m) wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Revised capacity table put into use Jan. 19, 1980. Total level pool capacity at elevation 815.00 ft (248.412 m), top of gates, is 424,000 cfs-days (1,038 hm^3), of which 120,000 cfs-days (293.6 hm^3) is controlled flood storage above elevation 807.00 ft (245.974 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

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, 392,000 cfs-days (959.2 hm^3) May 21; maximum elevation, 813.15 ft (247.848 m) July 30; minimum midnight contents, 308,000 cfs-days (753.7 hm^3) Feb. 29; minimum elevation, 807.06 ft (245.992 m) Dec. 19.

03518200 CHILHOWEE LAKE.--Lat 35°32'43", long 84°03'02", Monroe County, Hydrologic Unit 06010204, at Chilhowee Dam on Little Tennessee River, 2.4 mi (3.9 km) southwest of Chilhowee, 2.6 mi (4.2 km) upstream from Citico Creek, 10.1 mi (16.2 km) downstream from Calderwood Dam, and at mile 33.6 (54.1 km). DRAINAGE AREA, 1,977 mi^2 (5,120 km^2). PERIOD OF RECORD, August 1957 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with rockfill end abutments. Spillway controlled by six radial gates 38 ft (12 m) high by 35 ft (11 m) wide. Closure of dam was made June 9, 1957; storage began Aug. 1, 1957; water in reservoir first reached minimum pool elevation Aug. 9, 1957. Total capacity at elevation 874.0 ft (266.40 m), top of gates, is 24,800 cfs-days (60.68 hm^3), of which 3,400 cfs-days (8.320 hm^3) is controlled storage above elevation 870.0 ft (265.18 m), minimum pool. Reservoir is used for navigation, flood control, and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 25,400 cfs-days (62.15 hm^3) May 28, 1973, elevation, 874.60 ft (266.578 m); minimum after first filling, 18,100 cfs-days (44.29 hm^3) May 18, 1963, elevation, 865.94 ft (263.938 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 24,800 cfs-days (60.69 hm^3) Feb. 14, elevation, 873.99 ft (266.392 m); minimum, 20,000 cfs-days (48.94 hm^3) Oct. 9, elevation, 868.28 ft (264.652 m).

03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi (4.0 km) northwest of Norris, and at mile 79.8 (128.4 km). DRAINAGE AREA, 2,912 mi^2 (7,542 km^2). PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of gage is 0.11 ft (0.034 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with three drum gates 100 ft (30 m) wide by 14 ft (4 m) high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,034.1 ft (315.19 m), top of gates, is 1,286,600 cfs-days (3,148 hm^3), of which 1,140,400 cfs-days (2,791 hm^3) is controlled storage above elevation 930.11 ft (283.498 m), minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,236,700 cfs-days (3,026 hm^3) Feb. 11, 1937, elevation, 1,031.21 ft (314.313 m); minimum after first filling, 75,500 cfs-days (184.7 hm^3) Jan. 24, 1956, elevation, 909.46 ft (277.203 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 957,300 cfs-days (2,343 hm^3) May 27, elevation, 1,015.83 ft (309.625 m); minimum, 490,800 cfs-days (1,201 hm^3) Sept. 30, elevation, 980.03 ft (298.713 m).

03505900 MELTON HILL LAKE.--Lat 35°53'04", 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi (14 km) southwest of Oak Ridge, 19 mi (31 km) west of Knoxville, 57 mi (92 km) downstream from Norris Dam on Clinch River, and at mile 23.1 (37.2 km). DRAINAGE AREA, 3,343 mi^2 (8,658 km^2). PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft (13 m) high by 40 ft (12 m) wide. Dam completed and storage began May 1, 1963; water in reservoir first reached minimum pool elevation May 23, 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 796 ft (242.6 m), top of gates, is 63,500 cfs-days (155.4 hm^3), of which 16,100 cfs-days (39.40 hm^3) is controlled storage above elevation 790.0 ft (240.79 m), minimum pool. Reservoir is used for navigation, power, and recreation. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 64,900 cfs-days (158.8 hm^3) Mar. 16, 1973, elevation, 796.45 ft (242.758 m); minimum after first filling, 35,100 cfs-days (85.89 hm^3) Feb. 9, 1966, elevation, 784.10 ft (238.994 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 60,500 cfs-days (148.0 hm^3) Jan. 18, elevation, 795.00 ft (242.316 m); minimum, 47,700 cfs-days (116.7 hm^3) Nov. 9, elevation, 790.10 ft (240.822 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 mi^2 (44.830 km^2), approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates 32 ft (10 m) high by 40 ft (12 m) wide, also one 2-section leaf trashway gate 16.3 ft (5.0 m) high by 24 ft (7 m) wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 745.0 ft (227.08 m), top of gates, is 592,400 cfs-days (1,450 hm^3), of which 191,000 cfs-days (467.6 hm^3) is controlled flood storage above elevation 735.0 ft (224.03 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 745.40 ft (227.198 m) Mar. 17, 1973; minimum after first filling, 733.44 ft (223.552 m) Mar. 20, 1945. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 519,000 cfs-days (1,270 hm^3) May 24; maximum elevation, 741.45 ft (225.994 m) May 24; minimum midnight contents, 409,000 cfs-days (1,001 hm^3) Jan. 27; minimum elevation, 735.00 ft (224.028 m) Feb. 23.

03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi (22.2 km) east of Cleveland, and at mile 11.9 (19.1 km). DRAINAGE AREA, 595 mi^2 (1,541 km^2). PERIOD OF RECORD, June 1914 to current year. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir," and October 1953 to September 1968, as "Parksville Lake." GAGE, nonrecording gage. Datum of gage is 6.89 ft (2.100 m) National Geodetic Vertical Datum of 1929. Gage readings have been reduced to National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 347 ft (110 m) of spillway. Spillway is equipped with four floodgates 6 ft (2 m) high by 20 ft (6 m) wide and 265 ft (80 m) of flashboards about 5.7 ft (2 m) high. Crest of spillway under gates is at elevation 830.82 ft (253.234 m); remainder of spillway is 1.0 ft (0.3 m) higher. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1979. Total capacity at elevation 837.55 ft (255.285 m), about top of flashboards, is 42,300 cfs-days (103.5 hm^3), of which 16,200 cfs-days (39.64 hm^3) is controlled storage above elevation 816.9 ft (248.99 m), minimum pool. Reservoir is used for power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum midnight contents observed, 53,300 cfs-days (130.4 hm^3) July 9, 1916; maximum midnight elevation observed, 840.2 ft (256.09) Feb. 10,1946; minimum contents observed, 27,300 cfs-days (66.80 hm^3) Jan. 27, 1956, elevation, 817.7 ft (249.23 m); minimum midnight elevation observed, 814.8 ft (248.35 m) Dec. 14, 1934.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 44,200 cfs-days (108.2 hm^3) Mar. 21, elevation, 839.5 ft (255.88 m); minimum contents observed, 33,000 cfs-days (80.75 hm^3) Jan. 18, elevation, 827.0 ft (252.07 m).

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi (9.3 km) northeast of Chattanooga, 58.9 mi (94.8 km) downstream from Watts Bar Dam, and at mile 471.0 (757.8 km). DRAINAGE AREA, 20,790 mi^2 (53,850 km^2), approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft (12.33 m) high by 40 ft (12 m) wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 685.44 ft (208.922 m), top of gates, is 372,600 cfs-days (911.8 hm^3), of which 175,000 cfs-days (428.2 hm^3) is controlled flood storage above elevation 675.0 ft (205.74 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 686.10 ft (209.123 m) Mar. 18, 1973; minimum after first filling, 673.27 ft (205.213 m) Jan. 21, 1942. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 334,000 cfs-days (817.3 hm^3) Mar. 21; maximum elevation, 683.29 ft (208.267 m) Mar. 22; minimum midnight contents, 204,000 cfs-days (499.2 hm^3) Feb. 26; minimum elevation, 674.85 ft (205.694 m) Feb. 27.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi (3 km) upstream from Sequatchie River, 5 mi (8 km) south of Jasper, 46.3 mi (74.5 km) downstream from Chickamauga Dam, and at mile 424.7 (683.3 km). DRAINAGE AREA, 21,870 mi^2 (56,640 km^2), approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft (181.36 m), is equipped with 10 radial gates, each 40 ft (12 m) high by 40 ft (12 m) wide. A trash gate, 5.5 ft (1.7 m) high by 15 ft (5 m) wide, is located between the spillway and powerhouse. Dam was completed and storage began on Dec. 14, 1967. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 635.0 ft (193.55 m), top of gates, is 127,200 cfs-days (311.3 hm^3), of which 16,200 cfs-days (39.64 hm^3) is controlled storage above elevation 632.0 ft (192.63 m), ordinary minimum. Reservoir is used for navigation and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 634.99 ft (193.545 m) Apr. 19, 1969; minimum after first filling, 630.82 ft (192.274 m) Feb. 20, 1968. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 145,000 cfs-days (354.8 hm^3) Mar. 4; maximum elevation, 634.35 ft (193.350 m) Mar. 10; minimum midnight contents, 118,000 cfs-days (288.7 hm^3) Dec. 11; minimum elevation, 631.90 ft (192.603 m) Apr. 1.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi (1.9 km) upstream from Spring Creek, 2.5 mi (4.0 km) northeast of Estill Springs, 6.8 mi (10.9 km) upstream from bridge on U. S. Highway 41-A, and at mile 170.0 (273.5 km). DRAINAGE AREA, 263 mi^2 (681 km^2). PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, 24 ft (7 m) high by 50 ft (15 m) wide and two sluice gates 6 ft (2 m) high by 4 ft (1 m) wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft (293.22 m), surcharge pool, is 44,400 cfs-days (108.6 hm^3), of which 9,900 cfs-days (24.22 hm^3) is controlled storage above elevation 957.0 ft (291.69 m), minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes. Twice-daily gage readings (0600 and 2400 hours) furnished by U. S. Air Force.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,300 cfs-days (103.5 hm^3) April 21 and 22, 1956, elevation, 960.98 ft (292.907 m); minimum after first filling, 26,300 cfs-days (64.36 hm^3) Nov. 8-11, 1953, elevation, 951.93 ft (290.148 m).

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 39,900 cfs-days (97.64 hm^3) Mar. 30, elevation, 959.81 ft (292.550 m); minimum midnight contents, 36,200 cfs-days (88.58 hm^3) Dec. 28, elevation, 957.88 ft (291.962 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 mi^2 (1,370 km^2). PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates 42 ft (13 m) high by 40 ft (12 m) wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 3, 1971. Total capacity at elevation 895 ft (272.8 m), top of gates, is 306,500 cfs-days (750.0 hm^3), of which 160,300 cfs-days (392.2 hm^3) is controlled storage above elevation 860 ft (262.1 m), minimum pool. Reservoir is used for flood control, power, and recreation. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 296,300 cfs-days (725.0 hm^3) Mar. 17, 1973, elevation, 893.24 ft (272.260 m); minimum after first filling 154,000 cfs-days (376.8 hm^3) Oct. 15, 1972, elevation, 862.24 ft (262.811 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 276,800 cfs-days (677.3 hm^3) Mar. 24, elevation, 889.78 ft (271.205 m); minimum, 192,700 cfs-days (471.5 hm^3) Jan. 5, elevation, 872.24 ft (265.859 m).

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi (2.4 km) north of town of Pickwick Dam, 6.1 mi (9.8 km) upstream from Lick Creek, 52.7 mi (84.8 km) downstream from Wilson Dam, and at mile 206.7 (332.6 km). DRAINAGE AREA, 38,820 mi^2 (85,000 km^2), approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 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 hm^3), of which 210,200 cfs-days (514.4 hm^3) is controlled flood storage above elevation 408.0 ft (124.36 m), minimum navigation pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 419.49 ft (127.860 m) Mar. 30, 1944; minimum after first filling, 407.12 ft (124.090 m) Dec. 18, 1944. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 579,000 cfs-days (1,417 hm^3) Mar. 23; maximum elevation, 417.83 ft (127.335 m) May 18; minimum midnight contents, 360,000 cfs-days (880.9 hm^3) Feb. 15; minimum elevation, 408.02 ft (124.365 m) Feb. 16.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'48", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi (2.4 km) northeast of Normandy, 2.6 mi (4.2 km) downstream from Riley Creek, 8 mi (13 km) north of Tullahoma, and at mile 248.6 (400.0 km). DRAINAGE AREA, 195 mi^2 (505 km^2). PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, 40 ft (12 m) high by 36 ft (11 m) wide. Storage began Jan. 5, 1976; water in reservoir first reached minimum pool elevation Mar. 22, 1976. Revised capacity table put into use Jan. 1, 1977. Total capacity at elevation 880 ft (268.2 m), top of gates, is 64,000 cfs-days (156.6 hm^3), of which 30,400 cfs-days (74.39 hm^3) is controlled storage above elevation 859 ft (261.8 m), minimum pool. Reservoir is used for flood control, water supply, water quality control, recreation, and shoreline development. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 61,800 cfs-days (151.2 hm^3) Apr. 5, 1977, elevation, 878.66 ft (276.816 m); minimum after first filling, 28,300 cfs-days (69.25 hm^3) Dec. 15, 1977, elevation, 854.48 ft (260.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 61,000 cfs-days (149.3 hm^3) Mar. 21, elevation, 878.15 ft (267.660 m); minimum, 33,600 cfs-days (82.22 hm^3) Dec. 30, elevation, 859.02 ft (261.829 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 mi^2 (104,100 km^2), approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete dam with 24 lift gates 50 ft (15 m) high by 40 ft (12 m) wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft (114.30 m), top of gates, is 3,090,000 cfs-days (7,561 hm^3), of which 2,020,700 cfs-days (4,945 hm^3) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles (2.82 km) long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

EXTREMES FOR PERIOD OF RECORD: Maximum elevation, 369.01 ft (112.474 m) Mar. 28, 1973; minimum after first filling, 348.02 ft (106.076 m) Mar. 11, 1961. Contents based on backwater profile.

EXTREMES FOR CURRENT YEAR: Maximum midnight contents, 1,973,000 cfs-days (4,828 hm^3) Mar. 24; maximum elevation, 359.97 ft (109.719 m) Apr. 19; minimum midnight contents, 1,090,000 cfs-days (2,667 hm^3) Feb. 29;minimum elevation, 353.57 ft (107.768 m) Feb. 25.

OTHER RESERVOIRS.--The following small reservoirs in the Tennessee River basin are described below, but records of contents are not published herein.

03466400 DAVY CROCKETT LAKE on Nolichucky River at Nolichucky Dam, TN, with a total capacity of 1,300 cfs-days (3.181 hm^3), of which 900 cfs-days (2.202 hm^3) is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, TN, with a total capacity of 20,800 cfs-days (50.90 hm^3) of which 2,060 cfs-days (5.041 hm^3) is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles (8.0 km) west of Ducktown, TN, with a total capacity of 2,040 cfs-days (4.992 hm^3), of which 1,900 cfs-days (4.649 hm^3) is controlled storage. Records of contents previous to 1971 water year published (as Ocoee No. 3 Lake near Ducktown, TN).

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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.....	985.87	514900	-	1714.73	280100	-	1946.58	247900	-
Oct. 31.....	975.97	399100	-115800	1706.10	251700	-28400	1940.45	230200	-17700
Nov. 30.....	974.80	386500	-12600	1705.49	249800	-1900	1945.03	243300	+13100
Dec. 31.....	942.31	124600	-261900	1701.28	236700	-13100	1940.81	231200	-12100
CAL YR 1979	-	-	-700	-	-	+35500	-	-	+34700
Jan. 31.....	942.62	126300	+1700	1706.81	253900	+17200	1940.55	230500	-700
Feb. 29.....	951.97	184800	+58500	1708.56	259600	+5700	1941.76	233900	+3400
Mar. 31.....	982.16	469500	+284700	1723.56	311800	+52200	1954.74	273100	+39200
Apr. 30.....	991.29	585300	+115800	1726.44	321500	+9700	1957.82	283000	+9900
May 31.....	996.51	656400	+71100	1726.54	321900	+400	1956.64	279200	-3800
June 30.....	989.93	567300	-89100	1719.78	297700	-24200	1949.38	256200	-23000
July 31.....	976.82	408400	-158900	1711.30	268600	-29100	1937.58	222000	-34200
Aug. 31.....	966.27	301700	-106700	1703.08	242200	-26400	1931.81	206000	-16000
Sept. 30.....	955.84	212900	-88800	1693.65	214000	-28200	1927.88	195600	-10400
WTR YR 1980	-	-	-302000	-	-	-66100	-	-	-52300
	03486800 BOONE LAKE			03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30.....	1364.07	59200	-	1262.53	13400	-	1057.56	538200	-
Oct. 31.....	1346.82	37800	-21400	1261.50	12900	-500	1049.91	449200	-89000
Nov. 30.....	1353.49	45600	+7800	1259.20	11900	-1000	1042.11	370100	-79100
Dec. 31.....	1353.72	45900	+300	1261.23	12800	+900	1030.74	272900	-97200
CAL YR 1979	-	-	-4800	-	-	+900	-	-	+100
Jan. 31.....	1356.48	49400	+3500	1260.48	12500	-300	1032.05	283200	+10300
Feb. 29.....	1362.25	56600	+7200	1260.25	12400	-100	1035.98	315700	+32500
Mar. 31.....	1372.90	73600	+17000	1259.64	12100	-300	1053.77	492800	+177100
Apr. 30.....	1380.50	87900	+14300	1261.40	12900	+800	1053.93	494600	+1800
May 31.....	1382.36	91800	+3900	1260.24	12400	-500	1053.55	490200	-4400
June 30.....	1380.94	88800	-3000	1262.52	13400	+1000	1053.32	487600	-2600
July 31.....	1382.78	92700	+3900	1260.61	12500	-900	1050.14	451700	-35900
Aug. 31.....	1381.57	90100	-2600	1260.92	12700	+200	1039.64	347700	-104000
Sept. 30.....	1377.34	81700	-8400	1259.68	12100	-600	1031.47	278600	-69100
WTR YR 1980	-	-	+22500	-	-	-1300	-	-	-259600
	03499500 FORT LOUDOUN LAKE‡			03518200 CHILHOWEE LAKE			03532500 NORRIS LAKE		
Sept. 30.....	812.07	176000	-	872.38	23400	-	988.34	702100	-
Oct. 31.....	812.15	177000	+1000	871.44	22600	-800	986.81	562800	-139300
Nov. 30.....	808.48	153000	-24000	873.33	24200	+1600	987.76	573400	+10600
Dec. 31.....	807.50	146000	-7000	872.39	23400	-800	984.86	541300	-32100
CAL YR 1979	-	-	+1000	-	-	-900	-	-	+5600
Jan. 31.....	807.65	316000	a+170000	872.30	23400	0	992.71	631400	+90100
Feb. 29.....	807.28	308000	-8000	873.03	24000	+600	990.36	603500	-27900
Mar. 31.....	808.86	332000	+24000	871.92	23000	-1000	1011.05	882000	+278500
Apr. 30.....	812.45	385000	+53000	872.85	23800	+800	1013.91	926500	+44500
May 31.....	812.42	384000	-1000	873.88	24700	+900	1015.75	956000	+29500
June 30.....	812.42	383000	-1000	872.77	23800	-900	1007.91	834800	-121200
July 31.....	812.60	387000	+4000	872.10	23200	-600	999.89	722600	-112200
Aug. 31.....	812.45	384000	-3000	873.48	24400	+1200	990.09	600200	-122400
Sept. 30.....	812.73	388000	+4000	871.91	23000	-1400	980.06	491000	-109200
WTR YR 1980	-	-	a+212000	-	-	-400	-	-	-211100

‡ Contents based on backwater profile.

a Primarily result of completion of Tellico Canal in January 1980.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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.....	793.70	56800	-	741.40	518000	-	835.4	40300	-
Oct. 31.....	793.86	57200	+400	738.89	470000	-48000	834.7	39700	-600
Nov. 30.....	794.00	57600	+400	736.06	425000	-45000	832.5	37700	-2000
Dec. 31.....	793.35	55800	-1800	735.78	416000	-9000	829.4	35000	-2700
CAL YR 1979	-	-	+100	-	-	+4000	-	-	+1400
Jan. 31.....	793.85	57200	+1400	735.36	415000	-1000	828.7	34400	-600
Feb. 29.....	790.94	49700	-7500	735.88	416000	+1000	828.3	34000	-400
Mar. 31.....	792.86	54600	+4900	736.33	432000	+16000	834.8	39800	+5800
Apr. 30.....	793.38	55900	+1300	741.04	511000	+79000	831.2	36500	-3300
May 31.....	792.72	54200	-1700	741.04	510000	-1000	835.8	40700	+4200
June 30.....	793.68	56800	+2600	740.34	497000	-13000	835.4	40300	-400
July 31.....	793.10	55200	-1600	741.08	513000	+16000	834.9	39900	-400
Aug. 31.....	793.62	56600	+1400	740.78	505000	-8000	835.1	40100	+200
Sept. 30.....	793.25	55600	-1000	740.98	509000	+4000	835.5	40400	+300
WTR YR 1980	-	-	-1200	-	-	-9000	-	-	+100
	03566500 CHICKAMAUGA LAKE‡			03570520 NICKAJACK LAKE‡			03579000 WOODS RESERVOIR		
Sept. 30.....	681.49	299000	-	633.38	124000	-	959.46	39200	-
Oct. 31.....	678.92	258000	-41000	633.86	125000	+1000	958.57	37500	-1700
Nov. 30.....	676.53	228000	-30000	633.29	120000	-5000	958.10	36600	-900
Dec. 31.....	675.47	207000	-21000	633.74	125000	+5000	957.98	36400	-200
CAL YR 1979	-	-	-13000	-	-	0	-	-	-500
Jan. 31.....	676.18	223000	+16000	633.05	122000	-3000	958.06	36500	+100
Feb. 29.....	676.15	213000	-10000	633.80	122000	0	957.98	36400	-100
Mar. 31.....	675.90	223000	+10000	632.25	125000	+3000	959.54	39400	+3000
Apr. 30.....	682.20	311000	+88000	633.25	121000	-4000	959.52	39300	-100
May 31.....	682.44	316000	+5000	633.62	123000	+2000	959.44	39200	-100
June 30.....	682.40	315000	-1000	633.62	123000	0	959.49	39300	+100
July 31.....	680.90	288000	-27000	633.60	122000	-1000	959.37	39000	-300
Aug. 31.....	681.00	289000	+1000	633.40	121000	-1000	959.26	38800	-200
Sept. 30.....	681.08	290000	+1000	633.65	122000	+1000	959.16	38600	-200
WTR YR 1980	-	-	-9000	-	-	-2000	-	-	-600
	03580740 TIMS FORD LAKE			03593000 PICKWICK LAKE‡			03596460 NORMANDY LAKE		
Sept. 30.....	888.52	270000	-	412.83	449000	-	876.51	58400	-
Oct. 31.....	884.26	247700	-22300	410.65	400000	-49000	873.99	54400	-4000
Nov. 30.....	880.94	231400	-16300	411.74	429000	+29000	865.33	41600	-12800
Dec. 31.....	873.46	197800	-33600	409.64	387000	-42000	859.13	33700	-7900
CAL YR 1979	-	-	+3300	-	-	+13000	-	-	-800
Jan. 31.....	875.52	206600	+8800	409.20	376000	-11000	861.75	36900	+3200
Feb. 29.....	877.93	217300	+10700	408.95	365000	-11000	863.99	39800	+2900
Mar. 31.....	888.74	271200	+53900	414.73	500000	+135000	871.22	50000	+10200
Apr. 30.....	884.74	250200	-21000	414.12	469000	-31000	874.32	54900	+4900
May 31.....	886.15	257400	+7200	414.30	474000	+5000	875.79	57200	+2300
June 30.....	886.00	256700	-700	413.40	454000	-20000	875.09	56100	-1100
July 31.....	884.76	250300	-6400	412.80	441000	-13000	873.26	53200	-2900
Aug. 31.....	883.45	243700	-6600	412.12	427000	-14000	871.77	50900	-2300
Sept. 30.....	882.54	239100	-4600	411.60	417000	-10000	869.34	47200	-3700
WTR YR 1980	-	-	-30900	-	-	-32000	-	-	-11200

‡ Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03609000	KENTUCKY LAKE‡	
Sept. 30.....	359.17	1479000	-
Oct. 31.....	354.95	1149000	-330000
Nov. 30.....	358.55	1503000	+354000
Dec. 31.....	355.01	1162000	-341000
CAL YR 1979	-	-	+22000
Jan. 31.....	354.04	1137000	-25000
Feb. 29.....	354.19	1090000	-47000
Mar. 31.....	357.60	1777000	+687000
Apr. 30.....	359.25	1455000	-322000
May 31.....	359.25	1451000	-4000
June 30.....	359.68	1488000	+37000
July 31.....	357.93	1343000	-145000
Aug. 31.....	356.45	1228000	-115000
Sept. 30.....	355.15	1153000	-75000
WTR YR 1980	-	-	-326000

‡ Contents based on backwater profile.

07024300 BEAVER CREEK AT HUNTINGDON, TN

LOCATION.--Lat 35°59'56", long 88°26'01", Carroll County, Hydrologic Unit 08010203, on left bank on downstream end of pier of bridge on U.S. Highway 70, 0.3 mi (0.5 km) southwest of Huntingdon, 0.6 mi (1.0 km) downstream from Brier Creek, and at mile 5.6 (9.0 km).

DRAINAGE AREA.--55.5 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.--18 years, 117 ft³/s (3.313 m³/s), 28.63 in/yr (727 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.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	0230	2840	80.4	11.52	3.511	Mar. 21	0515	*3100	87.8	11.68	3.560
Dec. 13	1915	1940	54.9	10.79	3.289						

Minimum discharge, 27 ft³/s (0.76 m³/s) Sept. 10, 11-16, 17.

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	40	155	82	71	50	53	97	51	37	42	33	28
2	51	84	67	64	49	58	84	48	36	40	33	27
3	40	59	62	75	55	61	153	46	35	59	33	27
4	61	52	64	156	56	83	113	45	35	42	33	27
5	46	48	64	100	56	136	80	49	35	37	33	28
6	46	47	62	79	60	82	71	55	34	59	33	27
7	40	45	56	119	59	188	70	45	34	174	33	27
8	38	47	52	92	65	88	400	42	47	59	32	27
9	38	238	50	79	70	99	259	40	36	40	32	27
10	45	343	51	71	69	79	94	40	35	37	32	27
11	41	120	53	218	66	64	83	39	34	37	32	27
12	40	71	158	138	63	99	144	52	34	36	32	27
13	38	61	1440	86	62	92	327	64	34	35	32	27
14	37	54	1080	77	91	71	936	45	34	35	32	27
15	38	52	218	71	270	63	382	42	34	34	113	27
16	38	52	96	101	867	94	106	72	34	34	109	27
17	38	50	69	255	318	646	79	60	43	34	34	36
18	39	50	63	149	95	595	84	51	37	33	31	30
19	40	49	66	84	106	152	70	44	36	33	31	28
20	41	49	63	72	196	889	61	44	37	33	30	28
21	41	50	61	67	117	2500	58	40	35	33	30	44
22	73	137	63	184	98	645	53	80	34	37	29	38
23	82	1520	214	149	80	179	51	98	46	37	29	40
24	43	1990	1040	87	68	885	49	54	51	35	29	36
25	39	1490	744	77	65	606	134	45	39	34	29	36
26	39	2190	168	67	57	145	104	41	35	34	29	34
27	39	569	90	65	59	96	79	38	34	35	28	32
28	148	434	75	61	61	559	63	37	33	36	28	32
29	142	277	69	58	53	600	56	37	128	34	28	33
30	65	106	76	59	---	243	53	39	90	34	28	33
31	57	---	69	56	---	131	---	38	---	33	28	---
TOTAL	1603	10489	6585	3087	3381	10281	4393	1521	1246	1315	1118	914
MEAN	51.7	350	212	99.6	117	332	146	49.1	41.5	42.4	36.1	30.5
MAX	148	2190	1440	255	867	2500	936	98	128	174	113	44
MIN	37	45	50	56	49	53	49	37	33	33	28	27
CFSM	.93	6.31	3.82	1.80	2.11	5.98	2.63	.89	.75	.76	.65	.55
IN.	1.07	7.03	4.41	2.07	2.27	6.89	2.94	1.02	.84	.88	.75	.61

CAL YR 1979 TOTAL 78753 MEAN 216 MAX 4850 MIN 32 CFSM 3.89 IN 52.78
WTR YR 1980 TOTAL 45933 MEAN 126 MAX 2500 MIN 27 CFSM 2.27 IN 30.79

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	1400	64	70	15.0	58	10	72
NOV 15...	1000	53	60	7.5	12	1.7	--
DEC 13...	0930	1410	88	5.5	414	1580	--
JAN 16...	1300	103	68	10.0	79	22	--
FEB 26...	0930	55	54	4.0	13	1.9	--
APR 08...	1100	437	52	15.0	450	531	80
MAY 28...	1000	40	45	18.0	30	3.2	--
JUL 08...	1115	59	100	24.0	155	25	92
AUG 20...	0900	30	110	21.0	43	3.5	--
SEP 24...	0945	35	58	18.5	30	2.9	--

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 15...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB 26...	.00	--	.00	--	.0	--	.00	--	.00	--
MAY 28...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL 08...	.00	0	.00	.0	.0	0	.00	.0	.00	.0

DATE	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)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV 15...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB 26...	.00	--	.00	--	.00	.00	.00	--	.00	--
MAY 28...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL 08...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
NOV 15...	.00	--	.00	--	0	--	.00	.00	.00
FEB 26...	.00	--	.00	--	0	--	.00	.00	.00
MAY 28...	.00	--	.00	--	0	--	.00	.00	.00
JUL 08...	.00	.0	.00	.0	0	0	--	--	--

07024300 BEAVER CREEK AT HUNTINGDON, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
FEB												
26...	0959	34	6.0	<1	<1	7	47	77	85	94	99	100
26...	1000	34	17	<1	<1	21	81	96	98	>98	99	100
26...	1001	34	26	<1	3	58	91	97	98	>98	>99	100

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.--51 years, 588 ft³/s (16.65 m³/s), 20.85 in/yr (530 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.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	2400	*7960	225	15.40	4.694	Mar. 23	0300	6560	186	15.11	4.606

Minimum discharge, 138 ft³/s (3.91 m³/s) Sept. 16, 17-20, 21.

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	254	535	2090	481	311	364	1520	367	206	557	148	141
2	230	501	1180	445	318	354	978	338	195	471	148	140
3	221	520	723	427	315	352	889	316	184	382	147	140
4	221	489	558	467	311	391	898	298	177	353	145	292
5	221	436	482	502	314	497	795	286	172	333	156	180
6	219	395	440	519	331	512	689	318	169	296	150	152
7	211	371	407	569	330	1120	596	305	165	245	149	150
8	203	360	373	534	339	1450	1700	284	163	251	148	148
9	193	415	345	517	368	1350	1720	262	160	350	147	146
10	189	559	325	478	374	1270	1740	244	164	314	146	144
11	187	702	312	794	373	914	1600	231	166	247	145	143
12	185	741	838	693	364	683	1320	273	162	202	144	142
13	184	697	2480	713	354	599	1350	315	157	177	143	141
14	179	446	2160	652	375	544	1830	303	156	163	143	140
15	176	381	2340	552	1200	495	1680	289	156	157	150	139
16	175	342	2620	517	1830	539	1690	294	154	155	149	138
17	172	318	2360	577	1640	1580	1490	349	152	154	168	138
18	171	303	1410	627	1700	1470	903	323	151	153	183	138
19	169	294	733	670	1570	1520	628	322	151	151	173	138
20	169	289	538	610	1080	2340	520	309	151	150	154	138
21	171	288	463	513	852	3810	457	289	152	149	153	140
22	173	489	432	629	778	5590	414	304	155	162	152	187
23	189	1990	687	645	691	6210	403	333	577	187	150	301
24	274	1820	1830	679	590	5870	374	373	417	177	149	270
25	288	2450	1800	631	504	3750	392	373	316	166	148	267
26	284	6230	2050	539	440	2650	442	332	288	160	147	251
27	278	7480	2200	475	408	2190	507	287	240	153	146	223
28	286	6840	1830	425	390	2080	494	254	200	151	145	198
29	312	5530	982	388	370	1850	454	231	790	151	144	180
30	405	3500	644	366	---	1970	405	216	626	150	143	169
31	423	---	532	348	---	1960	---	208	---	149	142	---
TOTAL	7012	45711	36164	16982	18820	56274	28878	9226	7072	7016	4655	5214
MEAN	226	1524	1167	548	649	1815	963	298	236	226	150	174
MAX	423	7480	2620	794	1830	6210	1830	373	790	557	183	301
MIN	169	288	312	348	311	352	374	208	151	149	142	138
CFSM	.59	3.98	3.05	1.43	1.70	4.74	2.51	.78	.62	.59	.39	.45
IN.	.68	4.44	3.51	1.65	1.83	5.47	2.80	.90	.69	.68	.45	.51

CAL YR 1979 TOTAL 421962 MEAN 1156 MAX 17100 MIN 148 CFSM 3.02 IN 40.98
WTR YR 1980 TOTAL 243024 MEAN 664 MAX 7480 MIN 138 CFSM 1.73 IN 23.60

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 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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 24...	1245	208	65	15.0	35	20	65
NOV 15...	1315	377	60	7.5	44	45	--
DEC 12...	1530	522	90	8.0	274	386	--
JAN 17...	1530	597	65	11.0	104	168	--
FEB 27...	0915	412	57	6.0	42	47	--
APR 09...	0930	1710	52	14.5	231	1070	77
MAY 28...	1430	254	70	25.0	73	50	--
JUL 08...	1400	271	60	30.0	116	85	--
AUG 19...	1630	169	55	28.0	78	36	--
SEP 25...	1030	271	60	20.5	140	102	91

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 15...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB 27...	.00	--	.00	--	.0	--	.00	--	.00	--
MAY 28...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL 08...	.00	0	.00	.0	.0	0	.00	.0	.00	.0

DATE	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)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV 15...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB 27...	.00	--	.00	--	.00	.00	.00	--	.00	--
MAY 28...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL 08...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
NOV 15...	.00	--	.00	--	0	--	.00	.00	.00
FEB 27...	.00	--	.00	--	0	--	.00	.00	.00
MAY 28...	.00	--	.00	--	0	--	.00	.00	.00
JUL 08...	.00	.0	.00	.0	0	0	--	--	--

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
FEB												
27...	0859	103	25	<1	<1	6	74	95	96	97	99	100
27...	0900	103	69	0	0	4	64	98	99	>99	100	--
27...	0901	103	85	2	3	11	74	89	93	96	100	--

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 fair.

COOPERATION.--Thirty-seven discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--43 years, (water years 1930-58, 1967-80), 2,699 ft³/s (76.44 m³/s), 19.79 in/yr (503 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, 17,200 ft³/s (487 m³/s) Nov. 26, gage height, 31.35 ft (9.555 m); minimum, 450 ft³/s (12.74 m³/s) Sept. 2.

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	1080	1690	9500	1900	1240	1280	3500	1390	1100	2830	571	468
2	876	1460	7050	1810	1180	1260	3000	1310	889	1490	558	463
3	820	1190	4150	1710	1160	1270	2500	1250	818	2020	548	472
4	798	1050	2600	1930	1190	1340	2250	1200	786	1610	534	468
5	794	981	1750	2170	1210	2440	2100	1150	772	1110	539	1440
6	770	922	1550	1950	1230	2340	2050	1160	763	889	608	1190
7	749	871	1490	1920	1250	2920	2000	1140	740	1290	562	1160
8	725	856	1380	2120	1260	7280	10000	1090	726	971	534	1110
9	700	1280	1300	1830	1300	4770	9050	1040	831	804	525	665
10	700	1810	1270	1680	1350	3120	6050	1000	754	827	511	576
11	713	1610	1250	4410	1340	2350	4640	971	712	763	502	548
12	708	1330	3160	5430	1300	1780	8550	1000	689	689	534	539
13	684	1250	14900	2900	1250	1760	7330	1430	646	632	520	543
14	664	1140	16400	2230	1250	1630	12800	1290	627	594	515	548
15	648	1020	16800	1940	3750	1440	13300	1090	603	576	651	534
16	648	946	14400	1850	12000	1820	10400	1070	594	558	576	543
17	648	926	10200	2120	11200	9180	6500	1190	613	558	539	646
18	640	906	7200	2290	8300	11200	3700	2240	622	632	562	818
19	632	875	4080	1960	5500	8870	1900	2060	637	529	558	712
20	628	830	2250	1860	3750	8350	1580	1540	632	507	534	637
21	620	867	1800	1750	2700	12200	1380	1190	651	494	534	646
22	674	3640	1650	1710	2450	12500	1300	1070	637	1950	529	845
23	858	12200	2330	2330	2150	12400	1230	1450	1060	4630	498	1770
24	803	14100	10800	2000	1950	13100	1190	1510	5140	2970	485	1540
25	721	15200	12100	1830	1710	13600	1140	1290	2820	1530	481	1140
26	692	16900	10800	1720	1550	13000	1600	1160	1180	864	476	995
27	696	16800	8100	1580	1430	11000	1840	1040	918	759	476	831
28	737	16000	4540	1510	1430	7200	1800	956	795	684	476	731
29	889	14900	3250	1420	1360	5000	1620	908	3960	646	476	680
30	949	13000	2350	1340	---	4500	1490	961	6930	618	476	670
31	880	---	2050	1280	---	4200	---	913	---	590	476	---
TOTAL	23144	146550	182450	64480	78740	185100	127790	38059	38645	35614	16364	23928
MEAN	747	4885	5885	2080	2715	5971	4260	1228	1288	1149	528	798
MAX	1080	16900	16800	5430	12000	13600	13300	2240	6930	4630	651	1770
MIN	620	830	1250	1280	1160	1260	1140	908	594	494	476	463
CFSM	.40	2.64	3.18	1.12	1.47	3.22	2.30	.66	.70	.62	.29	.43
IN.	.46	2.94	3.66	1.30	1.58	3.72	2.57	.76	.78	.72	.33	.48

CAL YR 1979 TOTAL 1716039 MEAN 4701 MAX 35900 MIN 616 CFSM 2.54 IN 34.47
WTR YR 1980 TOTAL 960864 MEAN 2625 MAX 16900 MIN 463 CFSM 1.42 IN 19.30

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: June 1975 to current year.
WATER TEMPERATURE: June 1975 to current year.

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

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, not determined; minimum, not determined.
WATER TEMPERATURE: Maximum, 32.5°C July 14, 15; minimum, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
18...	1030	640	82	6.6	17.0	9.0	8.9	92	K38	23	3	5.9
NOV												
14...	1000	1160	84	6.4	7.0	20	11.0	2400	360	23	0	5.6
DEC												
20...	0900	2300	76	6.6	3.0	50	13.2	900	4000	22	0	5.6
JAN												
15...	1000	1960	95	6.6	7.5	15	10.2	290	300	28	0	6.9
MAR												
04...	1000	1290	100	6.2	4.5	6.0	11.8	82	K36	28	0	6.6
APR												
15...	1130	13400	58	--	7.0	22	10.4	6200	6700	19	4	5.1
MAY												
13...	1030	1460	120	6.3	20.5	37	7.5	6000	K33000	36	0	8.6
JUN												
17...	1000	599	83	6.2	23.0	30	7.7	--	98	23	0	5.6
JUL												
15...	1100	567	90	6.1	30.0	32	6.8	72	40	21	0	6.1
AUG												
21...	1100	529	85	6.5	28.0	24	7.6	K620	48	21	0	4.8
SEP												
18...	0900	840	84	6.6	19.5	1.4	6.5	K2800	K850	20	0	4.8

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
18...	2.1	5.7	43	.5	1.4	20	2.4	4.6	.1	12	52	49
NOV												
14...	2.2	5.1	39	.5	2.7	30	5.4	4.8	.1	11	60	56
DEC												
20...	2.0	4.6	37	.4	2.4	--	8.7	4.2	.1	9.4	56	56
JAN												
15...	2.7	5.4	37	.4	1.9	31	10	4.8	.1	9.7	66	62
MAR												
04...	2.8	6.6	33	.5	1.2	35	7.0	5.7	.1	9.7	76	63
APR												
15...	1.5	3.4	26	.3	1.5	15	6.4	2.4	.1	4.8	54	36
MAY												
13...	3.5	7.7	30	.6	2.3	39	6.5	6.9	.2	9.3	70	71
JUN												
17...	2.3	6.7	37	.6	1.0	26	2.8	4.1	.1	13	63	54
JUL												
15...	1.5	12	52	1.1	1.8	21	7.1	10	.1	11	--	66
AUG												
21...	2.1	7.4	42	.7	1.1	27	3.4	5.5	.1	13	55	56
SEP												
18...	2.0	7.5	42	.7	1.5	21	4.1	5.4	.1	13	85	53

K--Results based on colony count outside acceptable range (non-ideal colony count).

07026000 OBION RIVER AT OBION, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 18...	.07	89.9	.65	.65	.030	.000	.36	.05	.090	.050	--
NOV 14...	.08	188	.32	.33	.120	.100	.39	.31	.110	.030	4.2
DEC 20...	.08	348	.44	.44	.540	.230	.05	.06	.150	.030	8.4
JAN 15...	.09	349	.51	.48	.130	.080	.61	.42	.130	.040	17
MAR 04...	.10	265	.41	.40	.100	.110	.22	.11	.100	.020	--
APR 15...	.07	1950	--	.50	.120	.110	.57	.55	.270	.040	--
MAY 13...	.10	276	.60	.58	.530	.420	.77	.56	.400	.180	--
JUN 17...	.09	102	.59	.57	--	.090	--	.20	.140	.030	1.7
JUL 15...	.15	165	.86	.79	--	.310	--	.02	.090	.020	13
AUG 21...	.07	78.6	--	.48	.140	.130	--	.31	.130	.080	--
SEP 18...	.12	193	.53	.54	.230	.210	.49	.14	.270	.000	5.7

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 18...	1.7	.5	--	54.4	19.8	20.6	14.7	1.55	20	35	92
NOV 14...	--	--	890	--	--	--	--	--	48	150	76
DEC 20...	--	--	--	--	--	--	--	--	123	764	80
JAN 15...	--	--	--	--	--	--	--	--	72	381	78
MAR 04...	6.8	.6	1700	123	11.0	11.3	2.44	.000	35	122	60
APR 15...	--	--	--	--	--	--	--	--	282	10200	77
MAY 13...	5.9	1.3	1600	35.8	18.2	20.2	55.8	.930	230	907	85
JUN 17...	--	--	1800	--	--	--	--	--	125	202	77
JUL 15...	--	--	--	--	--	--	--	--	87	133	81
AUG 21...	4.4	1.0	14000	--	--	--	--	--	53	76	89
SEP 18...	--	--	--	--	--	--	--	--	264	599	96

07026000 OBION RIVER AT OBION, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
18...	2	1	0	1	0	0	20	10	1
MAR									
04...	3	1	<50	50	0	4	20	10	0
MAY									
13...	4	3	<50	50	--	3	20	10	0
AUG									
21...	1	1	100	100	2	0	10	<10	5

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)
OCT									
18...	0	1	1	1100	140	4	0	160	150
MAR									
04...	0	1	1	1200	150	26	0	200	170
MAY									
13...	0	5	5	4200	70	5	1	500	310
AUG									
21...	0	3	3	1700	110	10	0	200	90

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
18...	<.1	<.1	1	1	0	0	10	0
MAR								
04...	.1	<.1	3	0	0	0	--	30
MAY								
13...	.1	.1	5	0	0	0	20	0
AUG								
21...	.3	.1	4	3	0	0	10	0

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
FEB										
27...	1130	157	41	<1	2	78	99	>99	>99	100
27...	1131	157	80	<1	<1	38	>99	>99	100	--
27...	1132	157	120	1	3	77	100	--	--	--

07026000 OBION RIVER AT OBION, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	NOV 14,79 1000		MAR 4,80 1000		MAY 13,80 1030		JUN 17,80 1000	
TOTAL CELLS/ML	890		1700		1600		1800	
DIVERSITY: DIVISION	1.2		1.5		1.3		1.5	
.CLASS	1.2		1.5		1.3		1.5	
..ORDER	2.0		1.9		1.3		2.1	
...FAMILY	2.5		2.9		2.3		2.7	
....GENUS	2.6		3.3		2.8		3.4	
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	--	-	--	-	39	2	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	39	2	--	-
....MICRACTINIUM	150#	17	400#	24	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	26	3	47	3	26	2	180	10
....CHLORELLA	--	-	190	11	64	4	39	2
....CHODATELLA	--	-	9	1	51	3	13	1
....DICTYOSPHAERIUM	52	6	--	-	90	5	220	12
....KIRCHNERIELLA	--	-	110	7	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	100	6	26	1
....TETRAEDRON	--	-	9	1	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	13	1
....WESTELLA	--	-	--	-	--	-	13	1
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	51	3
....SCENEDESMUS	52	6	150	9	720#	44	310#	17
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	26	3	37	2	--	-	13	1
...VOLVOCACEAE								
....PANDORINA	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	13	1	--	-	--	-	--	-
....EUASTRUM	--	-	--	-	--	-	26	1
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	210	13	--	-	90	5
....MELOSIRA	--	-	--	-	--	-	64	4
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	9	1	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	26	2	--	-
....SYNEDRA	--	-	37	2	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	9	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	13	1	28	2	39	2	26	1
...NITZSCHIACEAE								
....NITZSCHIA	13	1	100	6	190	12	180	10
...SURIRELLACEAE								
....SURIRELLA	13	1	9	1	--	-	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CENTRITRACTACEAE								
....CENTRITRACTUS	--	-	--	-	--	-	--	-
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-

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 1979 TO SEPTEMBER 1980

DATE TIME	NOV 14,79 1000		MAR 4,80 1000		MAY 13,80 1030		JUN 17,80 1000	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	190#	22	--	-	230	14	270#	15
....COCCOCHLORIS	--	-	--	-	13	1	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENOPSIS	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	340#	38	--	-	--	-	260	14
....SCHIZOTHRIX	--	-	280#	17	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	47	3	13	1	--	-

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 1979 TO SEPTEMBER 1980

DATE / TIME	JUL 15,80 1100		AUG 21,80 1100		SEP 18,80 0900	
TOTAL CELLS/ML	36000		14000		13000	
DIVERSITY: DIVISION	1.2		1.1		0.7	
.CLASS	1.3		1.1		0.7	
..ORDER	2.0		2.1		1.5	
...FAMILY	2.2		2.6		2.0	
....GENUS	2.6		3.0		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	--	-	--	-
...COELASTRACEAE						
....COELASTRUM	--	-	--	-	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	200	1
...MICRACTINIACEAE						
....GOLENKINIA	*	0	--	-	--	-
....MICRACTINIUM	990	3	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	630	2	330	2	150	1
....CHLORELLA	--	-	--	-	--	-
....CHODATELLA	*	0	*	0	*	0
....DICTYOSPHAERIUM	900	3	570	4	150	1
....KIRCHNERIELLA	270	1	--	-	100	1
....OOCYSTIS	900	3	130	1	--	-
....SELENASTRUM	360	1	170	1	--	-
....TETRAEDRON	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	720	2	--	-	--	-
....SCENEDESMUS	810	2	740	5	400	3
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	1900	5	300	2	100	1
...VOLVOCACEAE						
....PANDORINA	--	-	540	4	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	*	0	--	-
....EUASTRUM	--	-	*	0	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	540	2	130	1	*	0
....MELOSIRA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	*	0	170	1	100	1
...NITZSCHIACEAE						
....NITZSCHIA	3100	9	300	2	330	2
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
.XANTHOPHYCEAE						
..HETEROCOCCALES						
...CENTRITRACTACEAE						
....CENTRITRACTUS	180	1	--	-	--	-
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	--	-	*	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 1979 TO SEPTEMBER 1980

DATE TIME	JUL 15,80 1100		AUG 21,80 1100		SEP 18,80 0900	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	2600	7	--	-	600	4
....ANACYSTIS	1700	5	5300#	38	3700#	28
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENOPSIS	--	-	--	-	1300	9
...OSCILLATORIACEAE						
....LYNGBYA	--	-	900	7	--	-
....OSCILLATORIA	20000#	55	1500	11	6300#	47
....SCHIZOTHRIX	--	-	--	-	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	2400#	17	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	*	0	*	0
....TRACHELOMONAS	*	0	*	0	*	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 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	92	72	80	112	89	99	---	---	---	91	89	90
2	82	64	75	96	88	93	---	---	---	91	90	91
3	85	61	79	95	88	93	---	---	---	95	92	93
4	91	67	79	94	85	91	---	---	---	107	95	103
5	88	81	86	98	94	96	---	---	---	107	97	103
6	87	80	85	99	90	96	---	---	---	97	95	96
7	87	79	83	98	87	96	---	---	---	102	96	99
8	83	75	80	141	92	109	---	---	---	101	94	97
9	86	82	84	113	90	100	---	---	---	117	93	95
10	87	66	79	---	---	---	---	---	---	95	94	95
11	89	71	80	---	---	---	---	---	---	---	---	---
12	87	39	64	---	---	---	---	---	---	---	---	---
13	89	70	77	---	---	---	---	---	---	---	---	---
14	87	69	78	---	---	---	---	---	---	---	---	---
15	82	69	72	---	---	---	---	---	---	---	---	---
16	87	72	80	---	---	---	---	---	---	129	94	102
17	89	74	85	---	---	---	---	---	---	117	96	101
18	93	84	90	---	---	---	---	---	---	95	90	92
19	97	93	95	---	---	---	---	---	---	92	91	91
20	97	95	96	---	---	---	---	---	---	97	91	94
21	98	95	97	---	---	---	---	---	---	93	92	92
22	103	93	95	---	---	---	86	83	85	96	93	95
23	135	108	118	---	---	---	105	85	92	96	86	89
24	107	90	98	---	---	---	106	58	78	88	85	86
25	101	84	97	---	---	---	67	45	56	89	88	89
26	103	92	98	---	---	---	67	64	66	89	88	88
27	100	92	98	---	---	---	68	67	68	89	88	89
28	109	95	98	---	---	---	71	68	69	89	88	89
29	---	---	---	---	---	---	80	71	75	91	89	90
30	93	82	89	---	---	---	87	80	84	112	91	98
31	133	91	108	---	---	---	88	87	88	---	---	---
MONTH	135	39	87	---	---	---	---	---	---	129	85	94
		FEBRUARY			MARCH			APRIL			MAY	
1							---	---	---	75	61	69
2							---	---	---	---	---	---
3							---	---	---	---	---	---
4							---	---	---	---	---	---
5							---	---	---	---	---	---
6							---	---	---	---	---	---
7							---	---	---	---	---	---
8							---	---	---	---	---	---
9							---	---	---	---	---	---
10							---	---	---	---	---	---
11							76	67	69	---	---	---
12							---	---	---	---	---	---
13							---	---	---	---	---	---
14							---	---	---	92	86	89
15							---	---	---	93	89	91
16							72	68	70	106	90	93
17							79	72	75	112	93	101
18							89	79	84	93	68	78
19							94	89	90	83	72	77
20							95	92	94	86	79	82
21							100	95	97	92	86	89
22							104	97	101	91	89	90
23							106	102	104	118	90	96
24							105	103	104	---	---	---
25							105	104	105	---	---	---
26							112	98	105	---	---	---
27							102	77	95	---	---	---
28							86	82	84	---	---	---
29							86	61	78	---	---	---
30							75	69	71	---	---	---
31							---	---	---	---	---	---
MONTH							---	---	---	---	---	---

07026000 OBION RIVER AT OBION, TN--Continued

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	---	---	---	104	91	96	91	87	89	85	80	82
2	---	---	---	---	---	---	93	87	90	79	75	77
3	---	---	---	---	---	---	86	82	84	84	75	79
4	---	---	---	---	---	---	86	81	83	88	83	85
5	---	---	---	---	---	---	84	81	82	90	59	71
6	---	---	---	---	---	---	87	82	84	70	61	67
7	---	---	---	---	---	---	88	82	85	84	70	75
8	---	---	---	---	---	---	89	84	86	132	72	96
9	---	---	---	---	---	---	89	84	87	147	83	113
10	---	---	---	---	---	---	86	82	84	178	112	130
11	93	88	91	---	---	---	81	77	78	163	83	99
12	92	88	90	---	---	---	86	77	81	90	80	86
13	93	89	91	---	---	---	87	82	85	91	86	88
14	97	87	90	---	---	---	86	82	84	91	83	86
15	90	84	87	---	---	---	86	72	79	84	76	79
16	85	81	84	95	91	93	87	75	83	81	76	78
17	94	82	86	99	92	94	83	78	81	94	79	84
18	93	90	92	93	78	86	76	72	74	92	78	84
19	92	87	90	97	84	93	78	72	76	84	81	82
20	95	85	88	93	90	92	83	77	81	88	82	85
21	89	84	86	90	86	88	87	80	84	85	82	83
22	86	82	84	91	52	78	90	83	87	83	72	79
23	86	69	80	70	44	54	92	83	89	97	69	78
24	70	52	61	---	---	---	90	86	88	84	66	71
25	75	59	66	---	---	---	84	78	81	106	76	83
26	95	76	88	---	---	---	84	79	82	107	76	81
27	101	92	96	95	79	85	90	83	87	80	77	79
28	112	101	107	95	80	84	90	84	87	84	79	82
29	117	82	105	84	80	82	92	84	89	80	78	79
30	92	80	84	92	86	90	98	85	89	80	76	78
31	---	---	---	90	86	89	89	82	85	---	---	---
MONTH	---	---	---	---	---	---	98	72	84	178	59	84

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

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

07026000 OBION RIVER AT OBION, TN--Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1							---	---	---	11.0	8.0	10.0
2							---	---	---	---	---	---
3							---	---	---	---	---	---
4							---	---	---	---	---	---
5							---	---	---	---	---	---
6							---	---	---	---	---	---
7							---	---	---	---	---	---
8							---	---	---	---	---	---
9							---	---	---	---	---	---
10							16.5	15.0	16.0	---	---	---
11							16.0	15.0	15.5	---	---	---
12							---	---	---	---	---	---
13							---	---	---	---	---	---
14							---	---	---	23.0	21.0	22.0
15							---	---	---	22.0	20.0	21.0
16							11.0	8.5	10.0	20.5	19.5	20.0
17							13.0	11.0	12.0	22.0	20.0	21.0
18							15.5	13.0	14.0	22.0	19.5	21.0
19							16.0	14.5	15.5	22.5	21.0	22.0
20							17.5	15.0	16.5	22.5	21.0	22.0
21							19.0	16.5	18.0	23.0	20.5	22.0
22							20.0	17.5	19.0	23.0	20.0	21.5
23							20.0	18.5	19.5	20.0	19.5	19.5
24							19.5	18.0	19.0	---	---	---
25							17.5	11.5	14.0	---	---	---
26							11.5	10.0	10.5	---	---	---
27							10.5	7.5	9.5	---	---	---
28							10.0	8.0	9.0	---	---	---
29							10.5	8.5	9.5	---	---	---
30							11.0	9.5	10.0	---	---	---
31							---	---	---	---	---	---
MONTH							---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	27.5	24.5	25.5	30.5	28.5	29.5	28.0	25.5	27.0
2	---	---	---	29.0	26.5	28.0	30.0	27.5	29.0	28.0	25.5	26.5
3	---	---	---	29.0	25.0	26.0	29.0	26.5	28.0	27.5	24.5	26.0
4	---	---	---	27.5	24.5	25.5	28.5	26.5	27.5	28.0	26.0	27.0
5	---	---	---	29.5	26.5	28.0	28.0	26.5	27.0	27.0	23.5	25.0
6	---	---	---	31.0	28.0	29.5	28.5	25.5	27.0	27.0	24.0	25.0
7	---	---	---	30.5	26.5	28.5	30.0	27.0	28.5	27.0	24.5	25.5
8	---	---	---	31.0	27.5	29.5	31.0	28.0	29.5	26.5	23.5	25.0
9	---	---	---	31.5	29.0	30.5	31.0	28.5	30.0	27.5	25.0	26.5
10	---	---	---	31.0	29.0	30.5	30.5	28.5	30.0	27.5	25.0	26.0
11	24.5	22.0	23.5	31.5	29.0	30.5	30.0	28.0	29.5	25.0	22.0	23.5
12	24.0	21.0	23.0	32.0	29.0	31.0	30.0	27.0	28.5	25.0	22.5	24.0
13	25.5	22.0	23.5	32.0	29.0	31.0	29.5	26.5	28.0	25.5	23.5	25.0
14	26.0	23.0	24.5	32.5	29.0	31.0	28.5	26.5	27.5	26.5	24.0	25.5
15	26.5	23.5	25.5	32.5	30.0	31.5	28.0	26.0	26.5	26.0	23.5	25.0
16	26.5	24.5	25.5	32.0	29.5	31.0	28.5	25.0	27.0	25.5	23.5	24.5
17	25.0	22.5	23.5	31.5	29.5	30.5	29.5	26.5	28.5	25.5	21.5	23.0
18	25.0	22.0	23.5	30.5	28.0	29.0	30.0	27.5	29.0	22.0	19.5	20.5
19	26.5	23.5	25.0	30.5	27.0	29.0	30.0	27.5	29.0	23.5	20.0	22.0
20	26.5	23.0	24.5	30.5	28.0	29.5	30.0	28.0	29.0	24.0	22.0	23.0
21	24.5	22.5	24.0	30.5	28.0	29.0	30.0	27.5	30.0	24.5	23.0	23.5
22	26.0	22.5	24.0	29.0	24.0	26.5	29.0	25.5	27.0	26.0	23.0	24.5
23	26.5	23.0	25.5	25.5	23.5	24.0	27.0	24.5	26.0	26.0	21.5	23.5
24	23.0	21.5	22.0	25.5	24.5	25.0	27.0	24.0	26.0	21.5	20.5	21.0
25	25.5	21.5	23.0	26.5	25.0	25.5	27.5	24.5	26.5	21.0	20.5	20.5
26	28.0	25.0	26.5	28.0	25.5	27.0	27.5	25.0	26.5	20.5	19.0	19.5
27	29.0	26.0	27.5	28.0	26.0	27.0	27.5	25.5	26.5	20.0	18.5	18.5
28	29.5	27.0	28.5	28.0	25.0	26.5	27.0	25.5	26.5	18.5	17.5	18.0
29	29.5	23.0	26.0	28.0	25.0	27.0	26.5	24.5	25.5	19.5	18.0	18.5
30	25.5	23.5	24.0	30.0	26.5	28.0	27.0	24.5	26.0	20.5	18.5	19.5
31	---	---	---	30.5	27.5	29.0	27.5	25.0	26.5	---	---	---
MONTH	---	---	---	32.5	23.5	28.5	31.0	24.0	28.0	28.0	17.5	23.5

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 poor. Lake frozen over several days in February.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft (4.770 m), from recorded range in stage, about Apr. 26, 1973; minimum, 10.54 ft (3.213 m) Sept. 22, 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, 12.74 ft (3.883 m) Apr. 13; minimum, 10.54 ft (3.213 m) Sept. 22.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.31	12.17	12.62	---	11.26	11.26	12.06	12.16	12.05	11.95	11.51	10.86
2	12.25	12.19	12.59	---	11.25	11.26	12.14	12.15	12.02	12.01	11.43	10.91
3	12.30	12.19	12.55	---	11.24	11.24	12.16	12.13	12.06	12.02	11.44	10.88
4	12.26	12.19	12.52	---	11.22	11.24	12.24	12.10	12.07	11.99	11.36	10.87
5	12.20	12.17	12.48	---	11.21	11.24	12.23	12.07	12.03	11.99	11.44	10.86
6	12.21	12.22	12.46	---	11.20	11.25	12.19	12.07	12.01	11.99	11.42	10.84
7	12.19	12.17	12.45	---	11.19	11.30	12.26	12.10	11.96	11.98	11.42	10.82
8	12.14	12.24	12.44	---	11.19	11.35	12.27	12.07	11.99	11.96	11.40	10.80
9	12.18	12.28	12.43	---	11.18	11.37	12.29	12.03	11.95	11.92	11.37	10.81
10	12.15	12.32	12.42	---	11.17	11.38	12.29	11.95	11.95	11.91	11.34	10.76
11	12.13	12.32	12.41	---	11.17	11.39	12.45	11.96	11.91	11.89	11.35	10.73
12	12.19	12.29	12.43	---	11.16	11.40	12.62	12.05	11.88	11.85	11.34	10.69
13	12.14	12.29	12.46	---	11.15	11.41	12.74	12.17	11.85	11.86	11.31	10.67
14	12.11	12.28	12.48	---	11.15	11.41	12.61	12.14	11.80	11.81	11.31	10.69
15	12.09	12.24	12.41	12.45	11.31	11.41	12.67	12.14	11.73	11.77	11.29	10.65
16	12.09	12.27	12.39	12.39	11.40	11.43	12.60	12.14	11.81	11.73	11.26	10.69
17	12.09	12.27	---	12.32	11.46	11.58	12.52	12.13	11.78	11.73	11.22	10.67
18	12.07	12.26	---	12.21	11.51	11.65	12.43	12.14	11.77	11.70	11.22	10.66
19	12.03	12.24	---	12.10	11.54	11.67	12.32	12.15	11.80	11.66	11.20	10.62
20	12.01	12.25	---	12.00	11.55	11.72	12.21	12.15	11.75	11.62	11.16	10.63
21	12.01	12.26	---	11.87	11.54	11.70	12.11	12.16	11.73	11.60	11.16	10.63
22	12.10	12.31	---	11.78	11.52	11.70	12.11	12.17	11.69	11.61	11.14	10.68
23	12.14	12.45	---	11.66	11.48	11.61	12.12	12.17	11.74	11.60	11.11	10.77
24	12.13	12.48	---	11.51	11.43	11.69	12.23	12.18	11.79	11.55	11.06	10.80
25	12.12	12.58	---	11.45	11.38	11.64	12.27	12.19	11.80	11.52	11.05	10.84
26	12.11	12.62	---	11.43	11.32	11.64	12.23	12.18	11.79	11.54	11.03	10.79
27	12.07	12.65	---	11.38	11.28	11.68	12.19	12.15	11.75	11.64	11.00	10.77
28	12.17	12.66	---	11.35	11.26	11.74	12.20	12.11	11.71	11.61	11.00	10.75
29	12.17	12.66	---	11.32	11.25	11.79	12.18	12.09	11.86	11.59	10.96	10.75
30	12.15	12.64	---	11.30	---	11.82	12.18	12.07	11.92	11.56	10.93	10.74
31	12.13	---	---	11.29	---	11.96	---	12.12	---	11.54	10.90	---
MEAN	12.14	12.34	---	---	11.31	11.51	12.30	12.12	11.87	11.76	11.23	10.75
MAX	12.31	12.66	---	---	11.55	11.96	12.74	12.19	12.07	12.02	11.51	10.91
MIN	12.01	12.17	---	---	11.15	11.24	12.06	11.95	11.69	11.52	10.90	10.62

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.--51 years, 2,420 ft³/s (68.53 m³/s), 22.21 in/yr (564 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.--Peak discharges above base of 8,500 ft³/s (241 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 27		Unknown		Unknown		Mar. 21	1300	*44800	1270	20.53	6.258
Dec. 29	0400	10500	297	15.90	4.846	Apr. 16	1600	12400	351	16.37	4.990

Minimum discharge, 323 ft³/s (9.15 m³/s) Sept. 25.

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	5020	1370	7200	6790	3630	1650	10300	2580	1240	2180	555	508
2	4520	1430	6000	6030	3340	1580	9250	2230	1430	1900	531	495
3	3820	1530	4000	5480	3070	1530	8190	1960	1470	1600	516	475
4	2640	1580	2500	5050	2880	1520	7210	1780	1410	1150	510	473
5	1820	1410	2000	4570	2740	1570	6420	1640	1240	844	512	573
6	1390	1220	1500	4090	2590	1750	5760	1530	1050	674	599	576
7	1150	1080	1200	3700	2410	2100	5190	1460	916	605	605	500
8	1030	997	1100	3340	2260	3540	6530	1540	833	560	550	456
9	957	1050	1000	2990	2270	4620	6250	1560	836	540	512	438
10	928	1400	950	2720	2490	5490	5410	1520	836	520	489	417
11	918	1780	925	2850	2660	6840	5210	1390	809	500	482	402
12	931	2080	1550	3570	2700	8180	7180	1290	752	480	518	386
13	927	2230	2800	4070	2730	7980	8910	1290	700	460	514	373
14	886	2210	7000	4080	2770	7260	10900	1300	664	440	504	361
15	838	2020	8000	3870	2790	6500	11400	1290	639	425	528	356
16	788	1800	7800	3830	2800	6190	12100	1250	621	404	548	356
17	760	1580	7400	4050	2650	13500	11400	1280	625	389	572	362
18	748	1410	7100	4130	2450	17800	10200	1430	697	378	544	354
19	743	1200	6900	4000	2300	22800	8830	1510	920	368	499	384
20	736	1000	6400	3710	2410	30900	7750	2170	964	360	467	413
21	725	950	5820	3410	2560	42600	6880	2850	852	353	455	419
22	727	2000	5280	3370	2620	34500	6250	2670	760	419	445	403
23	806	5000	4940	3570	2560	28200	5790	2290	715	538	445	362
24	863	7500	5470	3700	2480	23900	5380	2020	1290	646	439	336
25	900	8500	5790	3750	2350	17500	4940	1890	1700	717	434	340
26	879	9000	5870	3760	2160	13300	4620	1740	2050	845	424	356
27	826	10000	6780	3840	1970	10500	4460	1520	2110	728	408	379
28	804	10000	9810	3950	1830	10000	3930	1330	2040	655	398	410
29	896	9000	9980	4000	1720	9680	3450	1170	2060	652	411	468
30	1010	8000	8850	4020	---	9880	2990	1060	2270	630	433	564
31	1200	---	7690	3910	---	10100	---	1020	---	591	464	---
TOTAL	41186	100327	159605	124200	74190	363460	213080	51560	34499	21551	15311	12695
MEAN	1329	3344	5149	4006	2558	11720	7103	1663	1150	695	494	423
MAX	5020	10000	9980	6790	3630	42600	12100	2850	2270	2180	605	576
MIN	725	950	925	2720	1720	1520	2990	1020	621	353	398	336
CFSM	.90	2.26	3.48	2.71	1.73	7.92	4.80	1.12	.78	.47	.33	.29
IN.	1.04	2.52	4.01	3.12	1.86	9.14	5.36	1.30	.87	.54	.38	.32

CAL YR 1979 TOTAL 1690496 MEAN 4631 MAX 24700 MIN 587 CFSM 3.13 IN 42.49
WTR YR 1980 TOTAL 1211664 MEAN 3311 MAX 42600 MIN 336 CFSM 2.24 IN 30.46

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 to Sept. 1980.
WATER TEMPERATURE: June to Sept. 1980.

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

REMARKS.--No record Aug. 22-Sept. 16 (battery failure).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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...	1000	788	74	6.6	14.5	15	8.2	540	120	20	3	5.7
NOV												
15...	1100	2020	80	6.5	7.5	25	9.6	120	100	21	9	6.1
DEC												
18...	0900	7020	50	6.3	2.5	50	11.0	720	2800	15	0	4.4
JAN												
16...	1030	3860	60	6.4	8.5	2.0	9.6	96	300	18	0	5.2
MAR												
05...	1000	1560	75	5.9	5.0	6.0	12.1	470	77	20	0	5.8
APR												
16...	1130	11800	55	5.7	12.0	15	10.6	230	220	10	0	2.5
MAY												
14...	0930	1300	75	6.2	19.5	28	7.0	160	130	19	0	5.2
JUN												
18...	0900	671	80	6.3	24.0	12	6.5	96	160	18	2	5.0
JUL												
16...	0930	404	87	6.2	29.5	21	5.4	K110	91	22	3	5.7
AUG												
19...	1100	545	102	6.3	28.0	20	6.3	100	240	17	0	4.5
SEP												
16...	0900	343	107	7.2	24.5	6.6	6.9	85	K150	16	0	4.4

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
16...	1.5	5.0	40	.5	1.9	17	4.0	5.8	.1	11	48	47
NOV												
15...	1.5	5.2	38	.5	2.5	20	7.6	6.3	.1	9.8	56	47
DEC												
18...	1.0	2.6	25	.3	1.8	--	6.8	2.9	.0	6.8	48	42
JAN												
16...	1.2	2.6	23	.3	1.2	--	8.2	3.4	.1	7.7	44	44
MAR												
05...	1.4	5.0	34	.5	.7	--	7.9	5.3	.1	8.6	49	51
APR												
16...	.9	2.3	29	.3	1.7	--	5.2	1.4	.0	5.7	42	30
MAY												
14...	1.5	5.4	37	.5	.9	19	5.0	5.0	.1	8.9	57	45
JUN												
18...	1.4	7.3	44	.7	1.3	20	4.5	7.4	.1	10	78	49
JUL												
16...	2.0	5.7	35	.5	.6	19	2.8	4.6	.1	10	--	44
AUG												
19...	1.5	11	55	1.1	1.6	18	6.3	11	.2	12	74	64
SEP												
16...	1.3	13	60	1.4	1.8	21	10	11	.1	12	77	70

K--Results based on colony count outside acceptable range (non-ideal colony count).

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 16...	.07	102	.31	.35	.160	.170	.23	.19	.060
NOV 15...	.08	305	.18	.13	.170	.150	.46	.41	.080
DEC 18...	.07	910	--	.16	.100	.070	.50	.49	.080
JAN 16...	.06	459	.19	.18	.090	.100	.61	.51	.060
MAR 05...	.07	206	.21	.21	.230	.190	.14	.12	.560
APR 16...	.06	1340	.14	.14	.110	.030	.84	.36	.090
MAY 14...	.08	200	.25	.22	.300	.320	.31	.09	.130
JUN 18...	.11	141	.50	.53	.480	.480	.50	.10	.080
JUL 16...	.14	111	.32	.32	--	.060	--	.02	.110
AUG 19...	.10	109	--	1.2	--	.190	--	.80	.090
SEP 16...	.10	71.3	--	.94	--	.170	--	.31	.070

DATE	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-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	.030	--	3.1	--	--	25	53	79
NOV 15...	.010	4.5	--	--	1500	47	256	58
DEC 18...	.010	5.6	--	--	--	34	644	47
JAN 16...	.020	2.8	--	--	--	29	302	65
MAR 05...	.320	--	1.4	.5	900	17	72	80
APR 16...	.020	3.8	--	--	--	38	1210	86
MAY 14...	.030	--	6.2	.6	190	42	147	76
JUN 18...	.020	1.9	--	--	13	53	96	79
JUL 16...	.030	3.7	--	--	--	64	70	61
AUG 19...	.050	--	.2	--	1900	72	106	65
SEP 16...	.000	6.3	--	--	--	176	163	57

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
16...	1	1	0	0	1	3	20	10	0
MAR									
05...	3	1	<50	40	0	0	20	10	0
MAY									
14...	3	3	<50	40	0	0	230	10	0
AUG									
19...	3	2	<50	0	2	0	20	10	5

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)
OCT									
16...	0	3	2	2500	330	1	0	340	320
MAR									
05...	0	1	1	1100	210	2	0	160	140
MAY									
14...	0	210	17	2800	20	4	0	280	220
AUG									
19...	0	16	3	2600	0	12	0	270	150

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
16...	<.1	<.1	1	1	0	0	10	5
MAR								
05...	.2	.2	2	2	0	0	--	10
MAY								
14...	<.1	<.1	140	37	0	0	60	20
AUG								
19...	.2	<.1	28	5	0	0	20	10

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
FEB										
26...	1159	910	35	>1	3	21	84	99	>99	100
26...	1200	910	70	<1	<1	5	37	97	>99	100
26...	1201	910	105	<1	<1	7	81	>99	100	--

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 15,79	MAR 5,80	MAY 14,80	JUN 18,80
TIME	1100	1000	0930	0900
TOTAL CELLS/ML	1500	900	190	13
DIVERSITY: DIVISION	0.5	1.7	1.6	0.0
.CLASS	0.5	1.7	1.6	0.0
..ORDER	1.4	2.1	1.8	0.0
...FAMILY	1.4	2.8	2.1	0.0
....GENUS	1.8	3.1	2.1	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	130	15	14	8	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	62	7	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	27	3	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	57#	31	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	14	1	14	2	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-
....STAURASTRUM	29	2	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	21	2	14	8	--	-
....MELOSIRA	--	-	55	6	--	-	--	-
..PENNALES								
...FRAGILARIACEAE								
....FRAGILARIA	--	-	14	2	--	-	--	-
....SYNEDRA	--	-	55	6	--	-	13#	100
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	27	3	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	21	2	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	29	2	140#	16	43#	23	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	43	3	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	230#	16	--	-	--	-	--	-
....ANACYSTIS	320#	22	--	-	57#	31	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENOPSIS	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	800#	55	--	-	--	-	--	-
....SCHIZOTHRIX	--	-	34	4	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	7	1	--	-	--	-
....TRACHELOMONAS	--	-	290#	32	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL 16,80		AUG 19,80		SEP 16,80	
TIME	0930		1100		0900	
TOTAL CELLS/ML	830		1900		1200	
DIVERSITY: DIVISION	1.5		1.4		0.5	
.CLASS	1.6		1.4		0.5	
..ORDER	2.3		1.8		1.3	
...FAMILY	2.9		2.0		1.3	
....GENUS	3.3		2.2		1.3	

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...HYDRODICTYACEAE						
....PEDIASTRUM	14	2	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	86	10	13	1	--	-
....CHODATELLA	--	-	13	1	--	-
....DICTYOSPHAERIUM	29	3	51	3	--	-
....OOCYSTIS	--	-	51	3	--	-
....SELENASTRUM	--	-	13	1	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	130#	16	--	-	--	-
....SCENEDESMUS	160#	19	--	-	150	12
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	57	7	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....CLOSTERIUM	29	3	--	-	--	-
....COSMARIUM	--	-	13	1	--	-
....STAURASTRUM	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-
..PENNALES						
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	14	2	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	64	3	--	-
...NITZSCHIACEAE						
....NITZSCHIA	100	12	770#	41	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...CHROMULINACEAE						
....CHRYSOCOCCUS	14	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	--	-	--	-
....ANACYSTIS	86	10	630#	34	780#	63
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENOPSIS	--	-	--	-	310#	25
...OSCILLATORIACEAE						
....OSCILLATORIA	86	10	220	12	--	-
....SCHIZOTHRIX	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	29	3	26	1	--	-
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

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	---	---	---	64	61	63	86	74	79	---	---	---
2	---	---	---	70	64	67	86	73	80	---	---	---
3	---	---	---	70	67	69	73	69	71	---	---	---
4	---	---	---	70	67	68	73	64	68	---	---	---
5	---	---	---	72	69	71	70	64	67	---	---	---
6	---	---	---	74	71	73	84	63	71	---	---	---
7	---	---	---	76	71	73	84	77	81	---	---	---
8	---	---	---	78	73	75	87	80	83	---	---	---
9	---	---	---	82	70	76	86	73	80	---	---	---
10	---	---	---	89	80	85	80	77	79	---	---	---
11	---	---	---	90	85	87	90	73	81	---	---	---
12	---	---	---	89	85	87	97	86	90	---	---	---
13	---	---	---	91	83	87	95	87	91	---	---	---
14	---	---	---	91	86	88	95	86	90	---	---	---
15	---	---	---	91	84	88	92	80	87	---	---	---
16	---	---	---	90	84	87	93	82	88	---	---	---
17	---	---	---	92	86	89	92	85	87	93	75	85
18	---	---	---	91	83	88	99	84	90	87	76	80
19	---	---	---	102	89	94	100	86	92	80	75	77
20	---	---	---	104	80	91	86	78	83	79	72	76
21	---	---	---	84	74	78	81	74	78	115	73	82
22	---	---	---	108	78	88	---	---	---	87	81	84
23	---	---	---	77	67	71	---	---	---	103	79	89
24	---	---	---	69	61	65	---	---	---	92	81	86
25	59	51	54	67	57	62	---	---	---	95	81	89
26	53	50	51	70	63	65	---	---	---	89	78	82
27	58	51	54	93	69	76	---	---	---	83	75	80
28	63	57	60	79	69	73	---	---	---	85	75	78
29	64	60	62	79	70	74	---	---	---	91	71	75
30	64	59	61	84	78	81	---	---	---	74	66	70
31	---	---	---	82	78	80	---	---	---	---	---	---
MONTH	---	---	---	108	57	78	---	---	---	---	---	---

TEMPERATURE, WATER (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	---	---	---	26.0	25.0	26.0	29.0	27.5	28.0	---	---	---
2	---	---	---	27.0	25.5	26.5	29.0	27.5	28.0	---	---	---
3	---	---	---	27.0	26.0	26.5	28.5	27.5	27.5	---	---	---
4	---	---	---	28.0	26.5	27.0	27.5	26.5	27.0	---	---	---
5	---	---	---	28.5	27.0	28.0	28.0	26.5	27.0	---	---	---
6	---	---	---	29.5	27.5	28.5	28.5	26.5	27.5	---	---	---
7	---	---	---	29.5	28.0	29.0	28.5	27.0	28.0	---	---	---
8	---	---	---	30.0	28.5	29.5	29.0	27.5	28.0	---	---	---
9	---	---	---	30.5	29.0	29.5	29.0	27.5	28.5	---	---	---
10	---	---	---	30.5	29.0	29.5	29.0	27.5	28.5	---	---	---
11	---	---	---	30.5	29.0	30.0	28.5	27.5	28.0	---	---	---
12	---	---	---	31.0	29.0	30.0	28.5	27.0	28.0	---	---	---
13	---	---	---	31.0	29.0	30.0	29.0	27.0	28.0	---	---	---
14	---	---	---	31.0	29.5	30.5	28.5	27.0	28.0	---	---	---
15	---	---	---	31.5	29.5	30.5	28.5	27.0	27.5	---	---	---
16	---	---	---	31.5	29.5	30.5	28.5	27.0	27.5	---	---	---
17	---	---	---	31.0	29.5	30.0	28.5	27.0	28.0	25.0	23.5	24.0
18	---	---	---	30.5	29.0	30.0	28.5	27.5	28.0	24.0	23.0	23.5
19	---	---	---	30.5	28.5	29.5	29.0	27.5	28.0	24.0	22.5	23.0
20	---	---	---	30.5	28.5	29.5	29.0	25.0	28.0	24.5	23.0	23.5
21	---	---	---	29.5	28.0	28.5	29.0	25.0	27.5	24.5	23.5	24.0
22	---	---	---	28.0	26.0	27.0	---	---	---	25.5	24.0	24.5
23	---	---	---	27.0	25.5	26.0	---	---	---	25.5	24.5	25.0
24	---	---	---	26.5	25.5	26.0	---	---	---	25.0	24.0	24.5
25	24.0	23.0	23.5	26.5	25.0	26.0	---	---	---	24.5	23.5	24.0
26	24.5	23.5	24.0	27.0	25.5	26.5	---	---	---	23.0	22.0	22.5
27	25.0	24.0	24.5	27.0	26.0	26.5	---	---	---	22.0	21.0	21.5
28	26.0	24.5	25.5	27.5	25.5	26.5	---	---	---	21.0	19.5	20.0
29	26.0	25.0	25.5	27.5	25.5	26.5	---	---	---	19.5	19.5	19.5
30	26.0	24.5	25.0	28.0	26.0	27.0	---	---	---	19.5	19.5	19.5
31	---	---	---	28.5	26.5	27.5	---	---	---	---	---	---
MONTH	---	---	---	31.5	25.0	28.0	---	---	---	---	---	---

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.--11 years, 371 ft³/s (10.51 m³/s), 19.23 in/yr (488 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.--Peak discharges above base of 5,500 ft³/s (156 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 24	0730	6490	184	20.39	6.215	Mar. 21	1800	*9380	266	21.85	6.660
Dec. 13	1700	6030	171	20.09	6.123	Apr. 14	0915	7090	201	20.19	6.154
Mar. 18	0200	9290	263	21.80	6.645						

Minimum discharge, 88 ft³/s (2.49 m³/s) Oct. 7, 8, 9, 10, 14, 15-18, Aug. 10, 13.

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	94	106	158	179	175	180	350	115	106	100	91	92
2	91	99	148	173	169	181	190	114	106	99	91	92
3	89	95	143	190	174	182	170	113	106	99	90	92
4	89	94	140	391	177	185	160	112	106	98	90	92
5	89	94	139	242	179	198	150	110	106	98	90	92
6	89	94	139	197	188	199	145	108	105	97	90	92
7	88	94	136	244	181	271	140	132	104	96	90	92
8	88	94	133	272	180	523	620	166	104	96	90	92
9	88	131	133	197	439	274	400	125	103	96	90	92
10	88	185	133	183	317	230	210	110	103	95	90	92
11	88	109	133	871	237	206	3000	110	102	94	90	92
12	88	100	648	443	194	309	2000	340	102	94	90	92
13	88	99	5680	244	183	324	6500	445	101	94	89	92
14	88	98	2280	213	190	233	6200	135	101	93	90	92
15	88	98	321	196	273	204	1270	115	101	93	90	92
16	88	97	178	273	468	1110	371	250	102	92	90	92
17	88	97	148	2480	224	6990	259	171	102	92	90	95
18	88	97	136	700	190	7040	663	125	102	92	90	93
19	89	97	134	291	263	1040	237	115	102	92	90	93
20	89	97	132	230	529	4250	173	139	102	92	90	93
21	90	98	130	208	286	8290	150	125	102	92	90	168
22	92	1060	128	598	234	3230	140	117	102	616	90	106
23	93	5540	437	572	207	799	137	113	102	298	90	125
24	92	4990	3320	270	193	5020	134	111	158	101	90	107
25	91	2800	899	224	187	1510	200	110	110	94	90	321
26	91	1500	307	199	180	421	174	108	104	93	90	127
27	91	362	229	189	180	303	137	108	102	92	90	98
28	92	664	200	180	182	2010	125	107	102	107	91	99
29	98	255	190	175	182	860	120	107	101	93	99	104
30	94	174	188	180	---	790	118	107	100	92	93	99
31	103	---	184	201	---	630	---	107	---	91	92	---
TOTAL	2802	19518	17404	11205	6761	47992	24643	4370	3149	3671	2806	3200
MEAN	90.4	651	561	361	233	1548	821	141	105	118	90.5	107
MAX	103	5540	5680	2480	529	8290	6500	445	158	616	99	321
MIN	88	94	128	173	169	180	118	107	100	91	89	92
CFSM	.35	2.49	2.14	1.38	.89	5.91	3.13	.54	.40	.45	.35	.41
IN.	.40	2.77	2.47	1.59	.96	6.81	3.50	.62	.45	.52	.40	.45

CAL YR 1979 TOTAL 214651 MEAN 588 MAX 9420 MIN 88 CFSM 2.24 IN 30.48
WTR YR 1980 TOTAL 147521 MEAN 403 MAX 8290 MIN 88 CFSM 1.54 IN 20.95

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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...	1345	89	44	17.0	18	4.3	--
30...	1115	94	50	16.5	9	2.3	--
NOV							
26...	1315	2650	52	8.5	1700	12200	16
DEC							
18...	1330	136	110	6.0	22	8.1	--
FEB							
04...	1130	177	70	7.5	20	9.6	--
MAR							
12...	1130	290	120	10.0	128	100	--
APR							
18...	0945	1090	59	14.0	1790	5270	95
JUN							
05...	1115	106	50	22.0	46	13	--
JUL							
16...	1000	92	41	23.5	33	8.2	--
AUG							
28...	1235	91	55	22.0	26	6.4	--

DATE	PCB 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)
DEC									
18...	.00	.00	.0	.00	.00	.00	.00	.00	.00
FEB									
04...	.00	.00	.0	.00	.00	.00	.00	.00	.00
JUN									
05...	.00	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, 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)
DEC								
18...	.00	.00	.00	.00	0	.00	.00	.00
FEB								
04...	.00	.00	.00	.00	0	.00	.00	.00
JUN								
05...	.00	.00	.00	.00	0	.00	.00	.00

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
FEB											
04...	1045	60	45	--	0	6	72	96	99	>99	100
04...	1046	60	30	<1	<1	9	76	97	99	100	--
04...	1047	60	15	0	<1	7	74	96	99	>99	100

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 fair. 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 many days each year.

EXTREMES FOR CURRENT YEAR.--Peaks above base of 175 ft³/s (4.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 22	Unknown	Unknown		Unknown		June 24	0500	411	11.6	4.70	1.433
Mar. 20	1040	342	9.68	4.32	1.317	July 22	Unknown	*1550	43.9	8.57	2.612

No flow many days each year.

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	.05	.11	.24	.24	.63	.11	1.2	.24	.11	.01	.00	.01
2	.05	.06	.16	.24	.63	.06	.98	.24	.08	.01	.00	.12
3	.05	.06	.16	1.0	.75	.09	1.2	.24	.08	.01	.00	.01
4	.05	.06	.16	1.4	.75	.22	.96	2.1	.06	.01	.00	.01
5	.05	.06	.16	.63	.75	.40	.71	.67	.06	.01	.00	.01
6	.05	.08	.16	.24	.75	.11	.77	.24	.06	.00	.00	.01
7	.05	.08	.16	.24	.75	6.0	1.2	.24	.06	.00	.00	.01
8	.05	.08	.16	.24	.95	1.2	13	.76	.06	.00	.00	.01
9	.05	1.1	.16	.24	1.6	.35	1.4	.29	.04	.00	.00	.01
10	.05	.38	.16	.31	1.6	.20	.95	.24	.04	.00	.00	.01
11	5.0	.16	.16	4.7	1.4	.12	13	.24	.04	.00	.00	.01
12	.06	.08	22	.53	1.2	3.3	11	.24	.04	.00	.00	.01
13	.06	.08	15	.44	1.1	1.2	34	.24	.04	.00	.00	.03
14	.06	.08	2.1	.24	.92	.72	8.3	7.5	.04	.00	.00	.03
15	.06	.08	1.2	.63	2.7	.63	2.4	1.8	.04	.01	.00	.02
16	.07	.07	.63	9.3	1.3	33	1.3	1.0	.08	.01	.00	.02
17	.09	.06	.33	4.1	.55	30	1.1	.54	.08	.01	.00	.32
18	.10	.06	.33	1.1	.55	2.6	.78	.28	.08	.01	.00	.01
19	.06	.06	.33	.63	1.6	1.6	.56	.24	.11	.01	.00	.01
20	.06	.05	.33	.33	1.4	66	.48	.48	.16	.01	.00	.03
21	.06	4.8	.33	.33	.95	4.6	.44	.26	.16	.10	.00	.04
22	2.6	37	.44	6.0	.44	3.2	.38	.16	.16	110	.00	.01
23	.12	19	13	1.3	.25	22	.33	.16	.34	.11	.00	7.7
24	.07	.90	15	.75	.16	10	2.9	1.0	46	.08	.00	.03
25	.11	15	1.6	.53	.16	2.2	6.2	.54	.50	.01	.00	1.4
26	.07	1.5	.84	1.0	.06	1.6	2.8	.12	.07	.01	.00	.21
27	.08	.53	.44	1.3	.11	1.9	1.1	.13	.05	.01	.00	.17
28	.17	.34	.33	.84	.19	9.7	.66	.48	.02	.00	.00	1.8
29	.12	.29	.24	.63	.24	2.2	.44	.09	.02	.00	.00	.35
30	.08	.33	.24	.63	---	6.4	.33	.16	.01	.00	.01	.02
31	.84	---	.24	.63	---	1.8	---	.16	---	.00	.01	---
TOTAL	10.44	82.54	76.79	40.72	24.44	213.51	110.87	21.08	48.69	110.43	.02	12.43
MEAN	.34	2.75	2.48	1.31	.84	6.89	3.70	.68	1.62	3.56	.001	.41
MAX	5.0	37	22	9.3	2.7	66	34	7.5	46	110	.01	7.7
MIN	.05	.05	.16	.24	.06	.06	.33	.09	.01	.00	.00	.01
CFSM	.27	2.18	1.97	1.04	.67	5.47	2.94	.54	1.29	2.83	.001	.33
IN.	.31	2.43	2.27	1.20	.72	6.30	3.27	.62	1.44	3.26	.00	.37

CAL YR 1979 TOTAL 905.93 MEAN 2.48 MAX 102 MIN .00 CFSM 1.97 IN 26.73
WTR YR 1980 TOTAL 751.96 MEAN 2.05 MAX 110 MIN .00 CFSM 1.63 IN 22.18

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 fair.

AVERAGE DISCHARGE.--11 years, 1,061 ft³/s (30.05 m³/s), 20.61 in/yr (523 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.--Peak discharges above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	2230	9300	263	15.84	4.828	Apr. 8	1015	7220	204	14.49	4.417
Mar. 20	2045	*19600	555	22.59	6.885	Apr. 13	Unknown	Unknown		Unknown	

Minimum discharge, 251 ft³/s (7.11 m³/s) Aug. 29, 30, but may have been lower when recorder was not functioning properly.

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	575	486	2930	860	939	619	2330	854	537	695	347	290
2	526	464	2270	777	847	604	2040	774	528	557	338	296
3	492	529	1580	755	809	594	1660	722	521	512	330	350
4	466	643	1020	859	801	598	1210	682	506	511	322	356
5	453	664	852	845	783	646	983	640	489	482	318	338
6	442	615	767	786	784	671	870	609	476	425	316	323
7	424	551	713	772	760	857	803	626	459	382	314	323
8	410	492	666	931	796	1510	4370	835	449	359	309	323
9	403	698	627	964	1410	1740	2820	728	438	346	305	358
10	401	727	597	907	1330	1870	2270	633	433	332	305	323
11	396	622	574	1270	1140	2140	1900	583	419	324	304	302
12	390	584	1390	1280	987	2890	9000	981	407	316	299	293
13	382	575	4490	1350	925	2500	13200	950	397	307	296	290
14	374	584	3110	1380	881	1840	12300	701	387	302	298	278
15	367	581	2930	1430	877	1210	9030	632	381	294	319	278
16	365	552	2860	1490	896	2520	6270	858	375	289	336	275
17	362	513	2710	2260	813	8840	4320	853	368	283	333	299
18	361	482	2440	1920	754	11000	3240	711	375	277	314	281
19	357	460	1930	1790	728	10500	2450	613	395	273	299	293
20	350	445	1230	1420	754	15600	1920	582	413	272	292	284
21	348	443	928	1090	787	18000	1520	586	407	270	284	305
22	379	913	822	1300	788	18000	1250	861	398	1910	276	305
23	370	4130	1350	1490	778	10900	1130	1910	386	1190	270	403
24	384	3820	3000	1420	773	9930	1000	1380	634	796	265	313
25	383	6720	2180	1240	740	5890	1410	993	497	564	263	444
26	379	8860	2050	1100	697	4040	1720	815	488	470	257	327
27	384	8330	1810	1040	663	3270	1760	715	455	431	257	317
28	416	6600	1800	956	647	3570	1570	656	429	403	263	374
29	429	4860	1670	856	634	2770	1170	610	420	392	253	425
30	417	3780	1350	864	---	2860	966	579	646	373	260	439
31	557	---	1010	1020	---	2510	---	575	---	359	284	---
TOTAL	12742	59723	53656	36422	24521	150489	96482	24247	13513	14696	9226	9805
MEAN	411	1991	1731	1175	846	4854	3216	782	450	474	298	327
MAX	575	8860	4490	2260	1410	18000	13200	1910	646	1910	347	444
MIN	348	443	574	755	634	594	803	575	368	270	253	275
CFSM	.59	2.85	2.48	1.68	1.21	6.94	4.60	1.12	.64	.68	.43	.47
IN.	.68	3.18	2.86	1.94	1.30	8.01	5.13	1.29	.72	.78	.49	.52

CAL YR 1979 TOTAL 638239 MEAN 1749 MAX 12500 MIN 346 CFSM 2.50 IN 33.97
WTR YR 1980 TOTAL 505522 MEAN 1381 MAX 18000 MIN 253 CFSM 1.98 IN 26.90

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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							
01...	1400	594	42	23.0	66	106	--
NOV							
01...	1045	470	52	16.0	134	170	91
26...	1130	8430	50	8.5	3200	72800	11
DEC							
18...	1530	2320	34	2.0	84	526	--
FEB							
04...	1015	796	48	3.0	42	90	--
MAR							
13...	0845	2750	42	9.0	278	2060	--
24...	1330	8580	26	12.5	506	11700	74
APR							
16...	1130	5920	38	14.0	250	4000	--
JUN							
03...	1100	525	44	25.0	100	142	--
JUL							
17...	1000	283	38	27.5	51	39	--
AUG							
26...	1120	259	40	28.0	39	27	--

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC										
18...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB										
04...	.00	--	.00	--	.0	--	.00	--	.00	--
JUN										
03...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL										
17...	.00	0	.00	.0	.0	0	.00	.3	.00	.0

DATE	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)	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)
DEC										
18...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB										
04...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUN										
03...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL										
17...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
DEC									
18...	.00	--	.00	--	0	--	.00	.00	.00
FEB									
04...	.00	--	.00	--	0	--	.00	.00	.00
JUN									
03...	.00	--	.00	--	0	--	.00	.00	.00
JUL									
17...	.00	.0	.00	.0	0	0	.00	.00	.00

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
FEB												
04...	1000	122	30	<1	<1	4	43	90	98	>99	100	--
04...	1001	122	61	<1	<1	10	43	73	91	96	98	100
04...	1002	122	92	<1	<1	13	66	92	99	>99	100	--

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.--6 years (water years 1975-80), 2.74 ft³/s (0.078 m³/s), 25.66 in/yr (652 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 22	2325	263	7.45	8.40	2.560	Mar. 20	1210	*367	10.4	9.26	2.822
Dec. 12	2330	250	7.08	8.28	2.524						

No flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.29	.06	.08	.23	.12	.98	.11	.00	.00	.00	.00
2	.00	.02	.03	.05	.35	.11	.61	.08	.00	.00	.00	.00
3	.00	.00	.02	3.4	.53	.14	.46	.06	.00	.00	.00	.00
4	.00	.00	.03	2.5	.42	.26	.32	.04	.00	.00	.00	.02
5	.00	.00	.03	.44	.60	.53	.24	.05	.00	.00	.00	.00
6	.00	.00	.02	.23	.93	.16	.21	.02	.00	.00	.00	.00
7	.00	.00	.01	.54	.26	11	.22	11	.00	.00	.00	.00
8	.00	.00	.01	.24	2.8	2.8	31	1.2	.00	.00	.00	.00
9	.00	15	.01	.12	9.1	.61	2.0	.17	.00	.00	.00	.00
10	.00	3.1	.01	.09	2.5	.34	.75	.06	.00	.00	.00	.00
11	.00	.51	.86	12	1.1	.19	28	.04	.00	.00	.00	.00
12	.00	.30	36	.75	.61	6.0	21	25	.00	.00	.00	.00
13	.00	.20	42	.39	.62	1.2	59	2.4	.00	.00	.00	.00
14	.00	.12	3.1	.19	.67	.32	13	.04	.00	.00	.00	.00
15	.00	.05	.88	.12	6.8	.20	2.7	.01	.00	.00	.00	.00
16	.00	.02	.46	14	2.3	53	.96	5.6	.00	.00	.00	.00
17	.00	.02	.77	31	.50	46	.63	.10	.00	.00	.00	2.0
18	.00	.00	.22	2.6	.35	3.5	.58	.02	.00	.00	.00	.02
19	.00	.00	.19	.90	.65	1.2	.29	.00	.00	.00	.00	.02
20	.00	.00	.19	.57	.70	85	.19	.00	.00	.00	.00	.10
21	.00	4.8	.16	.41	.45	8.3	.15	.00	.00	.00	.00	.01
22	.72	69	.27	10	.29	2.2	.98	2.9	.00	5.3	.00	.00
23	.05	47	31	3.0	.19	30	.09	.61	.00	.20	.00	6.0
24	.00	2.1	31	1.0	.12	20	3.6	.01	4.9	.15	.00	.05
25	.00	31	3.8	.91	.12	2.6	12	.00	.00	.04	.00	2.0
26	.00	3.1	1.3	.43	.15	1.2	4.2	.00	.00	.01	.00	.02
27	.00	.36	.35	.41	.19	2.3	1.4	.00	.00	.01	.00	.03
28	.00	4.4	.20	.22	.17	20	.46	.00	.00	.00	.00	3.0
29	.00	.36	.16	.18	.12	3.5	.25	.00	.00	.00	.00	.20
30	.00	.26	.17	1.7	---	12	.15	.00	.00	.00	.00	.02
31	3.4	---	.13	.69	---	2.0	---	.00	---	.00	.00	---
TOTAL	4.17	182.01	153.44	89.16	33.82	316.78	186.42	49.52	4.90	5.71	.00	13.49
MEAN	.13	6.07	4.95	2.88	1.17	10.2	6.21	1.60	.16	.18	.000	.45
MAX	3.4	69	42	31	9.1	85	59	25	4.9	5.3	.00	6.0
MIN	.00	.00	.01	.05	.12	.11	.09	.00	.00	.00	.00	.00
CFSM	.09	4.19	3.41	1.99	.81	7.03	4.28	1.10	.11	.12	.000	.31
IN.	.11	4.67	3.93	2.29	.87	8.12	4.78	1.27	.13	.15	.00	.35

CAL YR 1979 TOTAL 1538.50 MEAN 4.22 MAX 81 MIN .00 CFSM 2.91 IN 39.44
WTR YR 1980 TOTAL 1039.42 MEAN 2.84 MAX 85 MIN .00 CFSM 1.96 IN 26.65

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.

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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	0100	Unknown		13.25	4.039	Apr. 11	2245	2290	64.9	12.71	3.874
Mar. 16	2115	Unknown		11.32	3.450	Apr. 13	1910	1720	48.7	11.56	3.523
Mar. 20	1215	Unknown		14.00	4.267	May 12	1045	2050	58.1	12.26	3.737
Apr. 8	0400	1590	45.0	11.27	3.435	July 22	1230	*6990	198	17.72	5.401

No flow many days.

REVISIONS.--Revised daily discharges, in cubic feet per second, for September 28-30, 1979 are given below. These figures supersede those published in the report for 1979.

Sept. 28..... 0 Sept. 29..... 0 Sept. 30..... 0

Month	Total	Mean	Max	Min	Cfsm	Inches
September 1979	422.61	14.1	215	0	.66	.73
Wtr Yr 1979	19448.55	53.3	1430	0	2.49	33.81

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	.00	3.0	.12	1.5	3.0	1.5	125	1.5	.09	.01	.01	.00
2	.00	.25	.68	1.0	4.2	1.4	90	1.1	.08	.00	.00	.01
3	.00	.04	.58	43	6.8	1.7	55	.84	.06	.00	.00	.00
4	.00	.02	.68	36	5.6	3.2	45	.68	.04	.00	.00	.27
5	.00	.01	.68	7.0	8.3	7.0	35	.90	.03	.00	.00	.01
6	.00	.00	.52	4.0	12	3.0	27	.25	.02	.00	.00	.00
7	.00	.00	.40	6.8	3.4	140	30	140	.02	.00	.00	.00
8	.00	.00	.35	2.9	40	25	390	20	.01	.00	.00	.00
9	.00	190	.35	1.6	120	10	30	2.5	.00	.00	.00	.00
10	.00	46	.35	1.3	35	4.0	10	1.0	.00	.00	.00	.00
11	.00	6.5	10	150	15	2.7	350	.64	.00	.00	.00	.00
12	.00	3.8	450	12	8.3	77	320	350	.00	.00	.00	.00
13	.00	2.2	560	5.2	7.8	15	900	34	.00	.00	.00	.00
14	.00	1.5	50	2.7	8.8	5.0	170	1.5	.00	.00	.00	.00
15	.00	.64	13	2.0	86	3.0	35	.13	.00	.00	.00	.00
16	.00	.27	6.2	200	35	680	16	70	.00	.00	.00	.00
17	.00	.25	9.8	390	7.5	580	8.8	2.0	.00	.00	.00	27
18	.00	.11	3.3	40	5.5	45	7.8	.25	.00	.00	.00	.27
19	.00	.05	2.7	13	8.0	15	4.0	.10	.00	.00	.00	.20
20	.00	.10	2.7	8.5	9.0	1300	2.5	.04	.00	.00	.00	2.0
21	.00	60	2.3	5.6	6.0	110	2.0	.02	.00	.00	.00	.13
22	9.5	950	3.5	125	3.8	28	12	33	.00	1520	.00	.09
23	.75	600	390	40	2.5	390	1.3	6.0	.00	39	.00	80
24	.06	45	400	15	1.6	250	52	.70	100	3.5	.00	6.6
25	.01	400	48	13	1.6	45	160	.40	.50	2.5	.00	27
26	.00	48	17	5.5	2.0	15	55	.25	.25	1.7	.00	.27
27	.00	58	5.0	5.2	2.5	35	19	.21	.08	.70	.00	.50
28	.00	68	2.9	3.2	2.3	260	7.0	.18	.03	.20	.70	40
29	.00	4.6	2.3	2.6	1.5	45	3.5	.15	.02	.14	.01	2.0
30	.00	3.3	3.0	22	---	160	2.1	.13	.02	.04	.00	.10
31	45	---	2.0	6.0	---	28	---	.11	---	.02	.00	---
TOTAL	55.32	2491.64	1988.41	1171.6	453.0	4285.5	2965.0	668.58	101.25	1567.81	.72	186.45
MEAN	1.78	83.1	64.1	37.8	15.6	138	98.8	21.6	3.38	50.6	.023	6.22
MAX	45	950	560	390	120	1300	900	350	100	1520	.70	80
MIN	.00	.00	.12	1.0	1.5	1.4	1.3	.02	.00	.00	.00	.00
CFSM	.08	3.88	3.00	1.77	.73	6.45	4.62	1.01	.16	2.36	.001	.29
IN.	.10	4.33	3.46	2.04	.79	7.45	5.15	1.16	.18	2.73	.00	.32

CAL YR 1979 TOTAL 19562.63 MEAN 53.6 MAX 1430 MIN .00 CFSM 2.51 IN 34.00
WTR YR 1980 TOTAL 15935.28 MEAN 43.5 MAX 1520 MIN .00 CFSM 2.03 IN 27.70

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 poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--5 years (water years 1976-80), 6.27 ft³/s (0.178 m³/s), 28.77 in/yr (731 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 20	1005	674	19.1	8.21	2.502	July 22	0900	*1530	43.3	11.96	3.645
June 24	0310	1470	41.6	11.75	3.581	Sept. 25	0615	630	17.8	7.97	2.429

Minimum discharge, 0.05 ft³/s (0.001 m³/s) July 27.

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	2.0	2.2	1.6	2.2	1.9	4.1	3.3	.99	2.5	2.0	.62	1.1
2	1.8	1.6	1.6	2.4	2.4	5.3	2.3	.93	2.5	1.3	.52	11
3	1.9	1.3	1.6	10	2.6	3.5	2.6	1.1	2.6	.92	.86	.43
4	4.0	1.2	1.6	3.4	2.7	7.6	2.2	1.1	1.8	.99	.62	.53
5	2.1	1.5	1.7	1.8	6.4	5.7	2.3	1.3	2.0	2.1	.73	.33
6	1.9	2.0	1.7	1.7	2.2	2.4	2.2	1.3	1.9	3.5	.62	.55
7	1.9	1.3	1.8	4.0	1.9	15	6.2	2.0	2.5	3.9	.86	.79
8	1.7	1.3	1.3	2.1	15	1.5	50	1.2	2.8	3.4	1.1	.79
9	5.6	31	1.8	2.1	4.0	1.3	4.1	1.2	2.7	3.8	.52	1.1
10	3.0	1.6	2.3	2.3	1.8	1.3	4.7	1.1	2.6	3.8	.73	.94
11	1.6	1.3	3.2	25	1.6	1.9	35	1.2	3.0	3.1	.86	.70
12	2.1	1.7	67	1.8	1.6	14	15	27	3.3	2.7	.15	1.1
13	1.8	2.2	18	1.6	1.8	2.2	71	1.8	3.0	2.1	.15	1.5
14	2.1	1.4	2.0	1.6	1.5	1.9	13	1.2	2.8	4.3	.34	2.0
15	2.2	1.0	1.4	1.7	7.8	1.8	3.9	1.1	2.4	3.0	.52	1.8
16	2.3	1.1	1.5	32	1.8	76	2.9	32	1.9	2.6	.52	1.3
17	2.1	1.3	1.9	10	1.6	46	2.6	1.5	2.5	2.4	.73	28
18	4.4	1.2	1.9	2.1	1.7	2.9	2.8	1.1	6.4	1.9	.86	.45
19	1.6	1.7	1.6	1.9	4.8	2.6	2.3	1.3	1.7	1.5	.52	.38
20	2.1	1.7	1.2	2.0	2.4	110	1.7	1.3	2.4	1.8	1.0	7.4
21	2.5	64	.93	2.3	2.2	5.2	2.0	1.4	1.7	15	1.6	.56
22	29	81	4.6	14	2.2	3.7	2.8	20	1.7	340	1.1	.44
23	2.4	30	41	2.3	2.2	51	2.1	5.0	2.2	1.1	.86	26
24	2.3	12	21	2.2	2.4	12	8.1	1.4	188	.86	1.4	3.8
25	2.2	22	3.6	2.1	2.7	3.2	11	1.3	1.4	.28	1.8	33
26	2.1	2.0	1.8	4.0	2.7	2.7	8.8	1.4	1.6	.42	.86	1.9
27	2.4	4.7	1.9	2.3	3.2	11	1.0	1.4	1.9	.10	1.4	2.5
28	6.9	1.8	2.5	2.0	3.2	15	.83	1.5	1.7	.28	2.0	34
29	2.1	2.1	3.7	1.9	2.8	6.2	1.1	1.5	1.7	.42	.48	9.3
30	2.3	1.7	2.2	11	---	13	.94	1.7	1.7	.42	.56	2.5
31	17	---	2.1	1.8	---	2.8	---	2.2	---	.42	.66	---
TOTAL	119.4	280.9	202.03	157.6	91.1	432.8	268.37	120.52	256.9	410.41	25.55	176.19
MEAN	3.85	9.36	6.52	5.08	3.14	14.0	8.96	3.89	8.56	13.2	.82	5.87
MAX	29	81	67	32	15	110	71	32	188	340	2.0	34
MIN	1.6	1.0	.93	1.6	1.5	1.3	.83	.93	1.4	.10	.15	.33
CFSM	1.30	3.16	2.20	1.72	1.06	4.73	3.02	1.31	2.89	4.46	.28	1.98
IN.	1.50	3.53	2.54	1.98	1.14	5.44	3.37	1.51	3.23	5.16	.32	2.21

CAL YR 1979 TOTAL 2953.68 MEAN 8.09 MAX 203 MIN .85 CFSM 2.73 IN 37.11
WTR YR 1980 TOTAL 2542.17 MEAN 6.95 MAX 340 MIN .10 CFSM 2.35 IN 31.94

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN
(National stream-quality accounting and pesticide station)

LOCATION.--Lat 35°07'37", long 90°04'25", Shelby County, Hydrologic Unit 08010100, on left bank 50 ft (15 m) downstream from Harahan Bridge at Memphis, 1.3 mi (2.1 km) downstream from Beale Street gage, 3.5 mi (5.6 km) downstream from Wolf River, 62.4 mi (100.4 km) upstream from St. Francis River, and at mile 734.8 (1,182.3 km).

DRAINAGE AREA.--932,800 mi^2 (2,416,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: January 1933 to September 1980. Monthly discharge only for some periods, published in WSP 1311.
Gage heights: October 1934 to September 1951 and October 1952 to September 1978 in reports of Geological Survey. Since November 1871, at Beale Street gage, in reports of Mississippi River Commision, December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at nonrecording gage 1,000 ft (305 m) downstream, and since December 1934 at water-stage recorder at present site, in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 183.91 ft (56.056 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1934, Beale Street nonrecording gage 1.3 mi (2.1 km) upstream at present datum. Apr. 16 to Dec. 21, 1934, nonrecording gage 1,000 ft (305 m) downstream at present datum.

REMARKS.--Flow regulated by many locks, dams, and reservoirs upstream.

COOPERATION.--Records furnished by Corps of Engineers.

AVERAGE DISCHARGE.--45 years, 470,100 ft^3/s (13,300 m^3/s), 340,600,000 acre-ft/yr (420 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980,000 ft^3/s (56,100 m^3/s) Feb. 8, 1937; maximum gage height, 48.69 ft (14.841 m) Feb. 10, 1937; minimum discharge, 79,200 ft^3/s (2,240 m^3/s) Aug. 26, 1936; minimum gage height, -5.70 ft (-1.737 m) Sept. 21, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1937, 46.55 ft (14.188 m) Apr. 9, 1913, at Beale Street gage or about 45.2 ft (13.78 m) at present site.

NOTE.--Records for 1979 and 1980 water years were not available in time for inclusion in this report. These records will be published in a subsequent report.

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1973 to current year.
WATER TEMPERATURES: February 1973 to current year.

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the Environmental Protection Agency.

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, 31.5°C July 24, 1977; minimum daily, 0.5°C Jan. 23, 27, Feb. 3, 4, 8, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, not determined; minimum daily, not determined.
WATER TEMPERATURES: Maximum daily, not determined; minimum daily, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
02...	1600	643000	339	8.0	21.0	80	7.1	K710	K40	140	44	39
23...	1515	419000	405	8.0	17.5	43	8.7	700	<10	150	53	40
NOV												
19...	1600	531000	373	7.9	11.5	42	9.6	--	K150	150	45	40
DEC												
17...	1630	544000	375	8.0	5.0	50	11.6	400	610	140	33	39
JAN												
15...	1445	440000	349	8.0	7.0	--	11.1	280	430	150	45	40
FEB												
05...	1500	368000	399	8.2	3.5	6.0	12.3	K170	K30	170	58	46
APR												
22...	1350	988000	340	8.1	14.0	68	8.7	410	<10	140	49	37
MAY												
27...	1500	518000	330	8.1	22.5	26	7.7	K78	<10	140	53	36
JUN												
24...	1430	469000	475	7.7	26.5	40	7.3	1300	950	170	52	44
AUG												
04...	1430	271000	443	7.9	29.0	22	8.4	570	K40	170	45	43
18...	1630	305000	451	8.2	30.5	36	6.8	--	--	160	65	42
SEP												
23...	1430	277000	448	7.9	25.0	40	6.8	--	K120	170	49	43

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
02...	9.3	13	22	.5	3.1	92	55	14	.2	5.9	194	199
23...	12	19	28	.7	3.5	96	76	18	.2	6.2	221	237
NOV												
19...	11	15	24	.5	3.0	100	55	15	.2	6.0	233	212
DEC												
17...	11	16	19	.6	2.7	110	53	14	.2	7.1	205	217
JAN												
15...	11	14	17	.5	2.6	100	52	13	.2	7.3	219	207
FEB												
05...	13	14	15	.5	2.4	110	55	16	.1	7.3	223	227
APR												
22...	11	14	18	.5	2.6	89	51	14	.2	6.7	214	198
MAY												
27...	12	16	20	.6	2.7	86	57	15	.2	.3	213	198
JUN												
24...	15	15	16	.5	3.5	120	57	18	.3	7.5	241	245
AUG												
04...	14	24	24	.8	3.6	120	78	19	.3	1.5	267	259
18...	14	26	25	.9	4.1	98	88	21	.3	2.8	269	262
SEP												
23...	15	21	21	.7	3.5	120	67	22	.3	7.7	278	258

K--Results based on colony count outside acceptable range (non-ideal colony count).

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1973 to current year.
WATER TEMPERATURES: February 1973 to current year.

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the Environmental Protection Agency.

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, 31.5°C July 24, 1977; minimum daily, 0.5°C Jan. 23, 27, Feb. 3, 4, 8, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, not determined; minimum daily, not determined.
WATER TEMPERATURES: Maximum daily, not determined; minimum daily, not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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												
02...	1600	643000	339	8.0	21.0	80	7.1	K710	K40	140	44	39
23...	1515	419000	405	8.0	17.5	43	8.7	700	<10	150	53	40
NOV												
19...	1600	531000	373	7.9	11.5	42	9.6	--	K150	150	45	40
DEC												
17...	1630	544000	375	8.0	5.0	50	11.6	400	610	140	33	39
JAN												
15...	1445	440000	349	8.0	7.0	--	11.1	280	430	150	45	40
FEB												
05...	1500	368000	399	8.2	3.5	6.0	12.3	K170	K30	170	58	46
APR												
22...	1350	988000	340	8.1	14.0	68	8.7	410	<10	140	49	37
MAY												
27...	1500	518000	330	8.1	22.5	26	7.7	K78	<10	140	53	36
JUN												
24...	1430	469000	475	7.7	26.5	40	7.3	1300	950	170	52	44
AUG												
04...	1430	271000	443	7.9	29.0	22	8.4	570	K40	170	45	43
18...	1630	305000	451	8.2	30.5	36	6.8	--	--	160	65	42
SEP												
23...	1430	277000	448	7.9	25.0	40	6.8	--	K120	170	49	43

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT												
02...	9.3	13	22	.5	3.1	92	55	14	.2	5.9	194	199
23...	12	19	28	.7	3.5	96	76	18	.2	6.2	221	237
NOV												
19...	11	15	24	.5	3.0	100	55	15	.2	6.0	233	212
DEC												
17...	11	16	19	.6	2.7	110	53	14	.2	7.1	205	217
JAN												
15...	11	14	17	.5	2.6	100	52	13	.2	7.3	219	207
FEB												
05...	13	14	15	.5	2.4	110	55	16	.1	7.3	223	227
APR												
22...	11	14	18	.5	2.6	89	51	14	.2	6.7	214	198
MAY												
27...	12	16	20	.6	2.7	86	57	15	.2	.3	213	198
JUN												
24...	15	15	16	.5	3.5	120	57	18	.3	7.5	241	245
AUG												
04...	14	24	24	.8	3.6	120	78	19	.3	1.5	267	259
18...	14	26	25	.9	4.1	98	88	21	.3	2.8	269	262
SEP												
23...	15	21	21	.7	3.5	120	67	22	.3	7.7	278	258

K--Results based on colony count outside acceptable range (non-ideal colony count).

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	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)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT									
02...	.26	337000	1.1	.99	.040	.000	.96	.95	.340
23...	.30	250000	1.2	.99	.030	.000	1.7	.91	.210
NOV									
19...	.32	334000	1.4	1.4	.050	.050	.82	.74	.170
DEC									
17...	.28	301000	1.6	1.6	.070	.060	1.4	1.1	.210
JAN									
15...	.30	260000	1.5	1.5	.120	.090	1.5	1.5	.230
FEB									
05...	.30	222000	1.5	1.5	.040	.060	.53	.40	.150
APR									
22...	.29	571000	1.7	1.7	.050	.010	1.6	.40	.240
MAY									
27...	.29	298000	.96	.94	.020	.020	1.3	.30	.170
JUN									
24...	.33	305000	3.0	2.9	.070	.100	1.5	.63	.390
AUG									
04...	.36	195000	.70	.80	.000	.000	1.6	.69	.150
18...	.37	222000	.96	.99	.010	.030	.90	.44	.180
SEP									
23...	.38	208000	1.5	1.5	.020	.030	1.1	.73	.250

DATE	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-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
02...	.370	8.3	--	--	--	208	361000	97
23...	.090	--	4.0	.1	--	108	122000	89
NOV								
19...	.080	14	--	--	4800	114	163000	76
DEC								
17...	.070	--	3.7	1.5	--	102	150000	89
JAN								
15...	.160	7.7	--	--	--	134	159000	66
FEB								
05...	.070	8.9	--	--	5600	38	37800	97
APR								
22...	.080	--	5.3	1.6	--	159	424000	89
MAY								
27...	.070	5.5	--	--	9900	89	124000	84
JUN								
24...	.100	13	--	--	1300	--	--	--
AUG								
04...	.060	6.6	--	--	47000	91	66600	85
18...	.080	7.8	--	--	30000	167	138000	50
SEP								
23...	.150	7.0	--	--	15000	116	86800	11

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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)
OCT									
23...	2	1	200	50	2	<1	8	4	3
NOV									
19...	--	--	--	--	--	--	--	--	--
DEC									
17...	1	1	400	200	3	2	8	0	0
JAN									
15...	--	--	--	--	--	--	--	--	--
APR									
22...	2	1	200	100	1	<1	0	0	2
MAY									
27...	--	--	--	--	--	--	--	--	--
AUG									
04...	2	2	100	60	2	<1	0	0	4
SEP									
23...	--	--	--	--	--	--	--	--	--

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)
OCT									
23...	<3	46	12	3100	10	11	0	270	3
NOV									
19...	--	--	--	--	--	--	--	--	--
DEC									
17...	<3	100	8	2100	50	15	0	160	6
JAN									
15...	--	--	--	--	--	--	--	--	--
APR									
22...	<3	10	10	4400	70	10	0	220	7
MAY									
27...	--	--	--	--	--	--	--	--	--
AUG									
04...	<3	8	4	1500	<10	6	0	130	3
SEP									
23...	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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								
23...	.1	.0	9	3	0	0	40	10
NOV								
19...	--	--	--	--	0	--	--	--
DEC								
17...	.0	.0	5	7	0	0	80	80
JAN								
15...	--	--	--	--	0	--	--	--
APR								
22...	.0	.0	10	7	4	0	130	30
MAY								
27...	--	--	--	--	0	--	--	--
AUG								
04...	.0	.0	5	0	0	0	30	10
SEP								
23...	--	--	--	--	0	--	--	--

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PCB TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 05...	ND	ND	ND	ND	ND	ND	--	ND	ND	--	ND	ND
MAY 27...	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 05...	ND	--	ND	--	--	--	ND	--	--	--	--
MAY 27...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
AUG 18...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--

07032000 MISSISSIPPI RIVER AT MEMPHIS, TN--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 19,79		FEB 5,80		MAY 27,80		JUN 24,80	
TIME	1600		1500		1500		1430	
TOTAL CELLS/ML	4800		5600		9900		1300	
DIVERSITY: DIVISION	1.5		0.6		1.6		1.4	
.CLASS	1.5		0.6		1.6		1.4	
..ORDER	1.8		1.1		1.8		1.8	
...FAMILY	2.2		1.2		2.3		2.0	
....GENUS	3.2		1.5		3.3		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	*	0	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	400	4	140	11
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	50	1	--	-
....MICRACTINIUM	--	-	--	-	200	2	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	270	6	280	5	100	1	--	-
....CHODATELLA	--	-	--	-	200	2	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	400	4	--	-
....KIRCHNERIELLA	130	3	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	13	1
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	400	4	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	540	11	280	5	650	7	26	2
....TETRASTRUM	--	-	--	-	800	8	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	150	2	--	-
...PHACOTACEAE								
....PTEROMONAS	--	-	47	1	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....COSCINODISCUS	--	-	--	-	--	-	--	-
....CYCLOTELLA	580	12	--	-	2900#	29	180	13
....MELOSIRA	1300#	26	280	5	1500#	15	230#	17
....SKELETONEMA	460	9	--	-	--	-	--	-
....STEPHANODISCUS	--	-	4100#	73	300	3	--	-
..PENNALES								
...DIATOMACEAE								
....DIATOMA	*	0	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	84	2	470	8	--	-	--	-
....SYNEDRA	42	1	--	-	--	-	13	1
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	--	-	47	1	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	100	2	47	1	100	1	--	-
...SURIRELLACEAE								
....SURIRELLA	*	0	--	-	--	-	--	-
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	39	3
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	50	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

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	NOV 19,79 1600		FEB 5,80 1500		MAY 27,80 1500		JUN 24,80 1430	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	100	1	630#	47
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	63	1	--	-	--	-	64	5
....ANABAENOPSIS	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	750#	16	--	-	1500#	15	--	-
....SCHIZOTHRIX	400	8	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	42	1	--	-	50	1	--	-
....TRACHELOMONAS	42	1	--	-	50	1	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	47	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

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	AUG 4,80 1430		AUG 18,80 1630		SEP 23,80 1430	
TOTAL CELLS/ML	47000		30000		15000	
DIVERSITY: DIVISION	1.6		1.3		1.2	
.CLASS	1.6		1.3		1.2	
..ORDER	2.5		1.6		1.8	
...FAMILY	2.6		1.7		2.2	
....GENUS	3.2		2.1		2.7	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....CHLOROCOCCUM	--	-	--	-	--	-
...COELASTRACEAE						
....COELASTRUM	--	-	--	-	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	530	2	--	-
...MICRACTINIACEAE						
....GOLENKINIA	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	300	1	--	-	--	-
....CHODATELLA	--	-	--	-	--	-
....CLOSTERIOPSIS	--	-	--	-	*	0
....DICTYOSPHAERIUM	1800	4	1300	5	120	1
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	890	2	--	-	80	1
....SELENASTRUM	450	1	--	-	--	-
....TETRAEDRON	--	-	*	0	*	0
....WESTELLA	1800	4	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	860	6
....SCENEDESMUS	1500	3	400	1	880	6
....TETRASTRUM	--	-	--	-	--	-
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	4800	10	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	300	1	*	0	120	1
...PHACOTACEAE						
....PTEROMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....COSCINODISCUS	1200	3	530	2	--	-
....CYCLOTELLA	2800	6	2500	8	520	3
....MELOSIRA	4500	10	5700#	19	1300	9
....SKELETONEMA	--	-	--	-	--	-
....STEPHANODISCUS	--	-	330	1	--	-
..PENNALES						
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....SYNEDRA	--	-	*	0	*	0
...NAVICULACEAE						
....GYROSIGMA	--	-	*	0	--	-
....NAVICULA	--	-	*	0	--	-
...NITZSCHIACEAE						
....NITZSCHIA	7500#	16	670	2	100	1
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	*	0
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	*	0

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

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	AUG 4,80 1430		AUG 18,80 1630		SEP 23,80 1430	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	2400	5	--	-	--	-
....ANACYSTIS	1500	3	330	1	2200	14
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	520	3
....ANABAENOPSIS	--	-	--	-	520	3
...OSCILLATORIACEAE						
....LYNGBYA	--	-	--	-	880	6
....OSCILLATORIA	15000#	32	17000#	56	7000#	46
....SCHIZOTHRIX	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	*	0

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 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379	381	383	---	---	---	---	---	---		---	389
2	379	383	383	---	---	---	---	---	---		---	401
3	379	---	383	---	---	---	---	---	---		---	403
4	379	382	383	---	---	---	---	---	---		441	411
5	379	377	382	---	399	---	---	---	---		428	422
6	379	371	382	---	---	---	---	---	---		419	430
7	378	368	383	---	---	---	---	---	---		423	435
8	378	381	387	---	---	---	---	---	---		408	437
9	379	382	385	---	---	---	---	---	---		416	428
10	378	382	384	---	---	---	---	---	---		422	430
11	380	384	382	---	---	---	---	---	---		420	442
12	379	381	382	---	---	293	---	---	---		420	431
13	379	382	383	---	---	293	---	---	---		443	398
14	379	381	383	---	---	294	---	---	---		456	379
15	379	384	381	349	---	294	---	---	---		470	378
16	381	382	383	---	---	293	---	---	---		483	380
17	380	383	382	---	---	293	---	---	---		482	387
18	381	383	382	---	---	---	---	---	---		464	394
19	380	382	384	---	---	293	---	---	---		453	413
20	380	384	382	---	---	294	---	---	---		437	432
21	380	382	384	---	---	294	---	---	---		437	430
22	380	383	384	---	---	294	340	---	---		432	424
23	380	384	383	---	---	294	---	---	---		446	437
24	380	383	382	---	---	293	---	---	475		455	437
25	379	383	382	---	---	293	---	---	---		448	426
26	381	384	384	---	---	293	---	---	---		430	425
27	381	384	383	---	---	293	---	330	---		411	409
28	381	382	384	---	---	293	---	---	---		406	409
29	381	382	384	---	---	293	---	---	---		407	414
30	381	384	384	---	---	293	---	---	---		400	414
31	382	---	385	---	---	292	---	---	---		393	---
MEAN	380	382	383	---	---	---	---	---	---		434	415

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	21.0	19.0	---	---	---	---	---	---		---	28.0
2	22.5	21.0	18.5	---	---	---	---	---	---		---	28.0
3	22.5	20.0	19.5	---	---	---	---	---	---		---	28.0
4	22.5	20.0	18.0	---	---	---	---	---	---		30.0	28.0
5	22.5	20.0	18.5	---	3.5	---	---	---	---		30.0	28.0
6	22.5	20.0	18.0	---	---	---	---	---	---		30.0	28.0
7	22.5	20.0	18.0	---	---	---	---	---	---		30.0	28.0
8	22.0	20.0	18.0	---	---	---	---	---	---		30.0	28.0
9	22.0	20.0	---	---	---	---	---	---	---		30.0	28.0
10	22.0	20.0	18.0	---	---	---	---	---	---		30.0	28.0
11	22.0	20.0	18.0	---	---	---	---	---	---		30.0	28.0
12	22.0	20.0	---	---	---	11.0	---	---	---		30.0	28.0
13	22.0	20.0	18.0	---	---	11.0	---	---	---		30.0	28.0
14	22.0	20.0	17.5	---	---	11.5	---	---	---		30.0	28.0
15	22.0	20.0	17.5	7.0	---	11.0	---	---	---		30.0	28.0
16	22.0	20.0	17.5	---	---	11.0	---	---	---		30.0	27.0
17	21.5	20.0	17.5	---	---	11.0	---	---	---		30.0	27.0
18	21.5	20.0	17.5	---	---	---	---	---	---		30.0	27.0
19	21.5	19.5	17.5	---	---	11.5	---	---	---		30.0	27.0
20	21.5	19.0	17.5	---	---	12.5	---	---	---		30.0	28.0
21	21.5	19.0	18.0	---	---	11.5	---	---	---		28.0	28.0
22	21.0	19.5	17.5	---	---	11.0	14.0	---	---		28.0	25.0
23	21.0	19.0	18.0	---	---	12.0	---	---	---		28.0	27.0
24	21.0	19.5	17.5	---	---	11.0	---	---	26.5		28.0	25.0
25	21.0	19.0	16.0	---	---	11.0	---	---	---		28.0	25.0
26	21.0	19.5	17.5	---	---	12.0	---	---	---		28.0	25.0
27	21.0	---	17.0	---	---	12.5	---	22.5	---		28.0	25.0
28	21.0	19.0	17.0	---	---	12.0	---	---	---		28.0	25.0
29	21.0	19.0	17.0	---	---	12.5	---	---	---		28.0	22.0
30	21.0	19.0	17.0	---	---	12.5	---	---	---		28.0	20.0
31	21.0	---	17.0	---	---	12.5	---	---	---		27.0	---
MEAN	21.5	20.0	17.5	---	---	---	---	---	---		29.0	27.0

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.--11 years, 112 ft³/s (3.17 m³/s), 22.30 in/yr (566 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 23	0345	4190	119	16.68	5.084	Mar. 24	0145	4240	120	16.79	5.118
Mar. 17	0130	7380	209	23.30	7.102	Apr. 12	0300	4730	134	17.93	5.465
Mar. 20	1445	*7560	214	23.64	7.205	June 24	Unknown	Unknown		Unknown	

Minimum discharge, no flow Aug. 22, 23.

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	2.5	13	13	11	43	.88	77	2.8	2.2	.51	.14	.08
2	.67	1.4	8.9	8.2	25	.68	56	2.1	1.1	.46	.14	5.2
3	.22	.39	6.2	25	22	.42	58	1.4	.93	.34	.15	3.9
4	1.0	.15	5.6	103	16	2.0	63	.98	.68	.34	.11	.93
5	2.2	.09	5.1	35	18	65	35	.71	1.3	.34	.09	.18
6	1.2	.08	4.7	21	28	29	26	.43	1.1	.32	.05	.09
7	.57	.04	4.1	76	16	660	23	4.7	.85	.20	.04	.07
8	.37	.04	3.2	54	217	405	1420	12	9.1	.15	.11	.06
9	.49	365	2.3	26	634	46	259	1.1	3.9	.10	.20	.06
10	.83	91	1.8	17	104	17	138	.37	1.5	.09	.15	.06
11	.80	12	1.6	447	42	6.1	597	.25	1.3	.07	.15	.05
12	.77	4.0	1110	106	23	98	2220	80	.94	.12	.09	.05
13	.46	1.2	1800	40	17	53	2310	29	.71	.16	4.8	.05
14	.27	1.1	261	25	14	15	958	4.8	.68	.18	3.8	.06
15	.27	.27	52	17	26	4.8	94	2.0	.67	.14	.53	.06
16	.27	.34	25	133	46	2010	54	92	2.7	.08	.13	.08
17	.25	.32	13	790	20	4450	29	21	2.8	.11	.08	16
18	.31	.35	8.0	158	11	794	25	6.9	3.4	.05	.06	4.0
19	.27	.46	6.6	48	11	301	19	5.5	1.9	.08	.06	.78
20	.42	.35	5.7	27	15	4150	13	3.1	1.5	.12	.04	.34
21	.53	1.5	4.8	20	14	1710	8.9	11	1.3	.15	.03	19
22	24	701	5.2	560	12	494	6.5	432	1.1	366	.01	6.0
23	13	2400	635	254	8.0	621	5.2	1200	1.2	36	.01	1.4
24	2.5	506	1340	65	5.2	1740	7.1	66	2200	5.3	.05	.57
25	.70	1190	253	36	2.8	228	33	26	105	1.1	.10	16
26	.28	425	67	25	1.3	111	62	14	4.5	.47	.09	10
27	.21	89	35	22	1.1	143	22	9.3	1.1	.33	.06	2.0
28	31	134	22	17	1.1	1200	11	5.8	.45	.22	.03	44
29	17	34	18	14	.83	256	6.0	4.7	.38	.12	.02	47
30	2.8	19	16	165	---	658	3.8	3.8	.31	.10	.08	11
31	178	---	15	168	---	152	---	2.6	---	.14	.10	---
TOTAL	284.16	5991.08	5748.8	3513.2	1394.33	20420.88	8639.5	2046.34	2354.60	413.89	11.50	189.07
MEAN	9.17	200	185	113	48.1	659	288	66.0	78.5	13.4	.37	6.30
MAX	178	2400	1800	790	634	4450	2310	1200	2200	366	4.8	47
MIN	.21	.04	1.6	8.2	.83	.42	3.8	.25	.31	.05	.01	.05
CFSM	.13	2.93	2.71	1.66	.71	9.66	4.22	.97	1.15	.20	.005	.09
IN.	.15	3.27	3.14	1.92	.76	11.14	4.71	1.12	1.28	.23	.01	.10

CAL YR 1979 TOTAL 77044.24 MEAN 211 MAX 3780 MIN .04 CFSM 3.09 IN 42.02
WTR YR 1980 TOTAL 51007.35 MEAN 139 MAX 4450 MIN .01 CFSM 2.04 IN 27.82

NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

WATER-QUALITY RECORDS

RIOD OF RECORD.--August 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
02...	1200	.39	100	22.5	17	.02	--
NOV							
01...	1515	7.5	105	17.0	271	5.5	98
27...	1200	54	65	10.0	31	4.5	--
DEC							
18...	1200	7.0	67	1.5	18	.34	--
FEB							
04...	1430	16	80	3.5	16	.69	--
MAR							
12...	1345	196	91	8.5	304	161	89
APR							
16...	1315	41	100	15.5	33	3.6	--
JUN							
04...	1100	.70	120	28.5	15	.03	--
JUL							
16...	1400	.07	135	37.0	16	.00	--
AUG							
28...	1145	.04	120	28.0	16	.00	--

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC										
18...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB										
04...	.00	--	.00	--	.0	--	.00	--	.00	--
JUN										
04...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL										
16...	.00	0	.00	.0	.0	0	.00	.0	.00	.0

DATE	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)	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)
DEC										
18...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB										
04...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUN										
04...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL										
16...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
DEC									
18...	.00	--	.00	--	0	--	.00	.00	.00
FEB									
04...	.00	--	.00	--	0	--	.00	.00	.00
JUN									
04...	.00	--	.00	--	0	--	.39	.00	.00
JUL									
16...	.00	.0	.00	.0	0	0	.20	.00	.00

07032222 JOHNS CREEK TRIBUTARY AT HOLMES ROAD NEAR MEMPHIS, TN

LOCATION.--Lat 35°00'20", long 89°52'16", Shelby County, Hydrologic Unit 08010211, on left bank at upstream side of bridge at Holmes Road, 1,200 ft (366 m) east of St. Louis-San Francisco Railroad, 2.0 mi (3.2 km) east of U.S. Highway 78, and 2.2 mi (3.5 km) southeast of Memphis city limits.

DRAINAGE AREA.--5.83 mi^2 (15.10 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 304 ft (93 m), from topographic map.

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

AVERAGE DISCHARGE.--5 years, 8.87 ft^3/s (0.251 m^3/s), 20.66 in/yr (525 mm/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,970 ft^3/s (55.8 m^3/s) May 22, 1979, gage height, 12.99 ft (3.959 m); minimum, 0.02 ft^3/s (<0.001 m^3/s) July 26, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 914 ft^3/s (25.9 m^3/s) at 1215 hours Mar. 20, gage height, 6.79 ft (2.070 m); minimum, 0.02 ft^3/s (<.001 m^3/s) July 26.

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	.25	.82	2.6	.93	2.3	2.3	4.4	.96	.32	.13	.11	.38
2	.26	.26	2.0	.65	1.5	2.3	3.0	.93	.32	.10	.13	.38
3	.29	.26	1.7	2.3	1.7	2.5	2.7	.82	.32	.13	.13	.38
4	.32	.21	1.5	4.7	1.7	3.1	2.2	.82	.25	.16	.16	.32
5	.32	.29	1.4	1.9	1.9	19	1.7	.82	.25	.16	.21	.32
6	.32	.32	1.3	1.1	1.9	4.8	1.7	.82	.21	.16	.23	.38
7	.42	.35	1.2	3.3	1.9	84	1.5	.94	.21	.13	.26	.26
8	.38	.32	.89	2.4	53	15	88	1.1	.21	.13	.26	.26
9	.38	37	.82	1.4	32	6.2	6.4	.73	.21	.16	.26	.26
10	.38	4.7	.82	1.2	5.4	4.6	3.2	.71	.24	.13	.26	.26
11	.38	1.0	.82	42	2.9	3.1	85	.71	.26	.13	.33	.32
12	.41	.82	138	3.0	2.1	21	87	23	.26	.10	.41	.32
13	.45	.82	124	1.7	1.6	7.9	213	4.8	.29	.13	.41	.32
14	.45	.82	8.8	1.0	1.5	4.3	39	1.2	.32	.13	.11	.32
15	.45	.77	4.6	.75	4.2	3.3	8.9	.91	.32	.10	.08	.32
16	.45	.71	2.9	16	5.2	258	4.5	19	.32	.10	.06	.32
17	.45	.71	1.4	37	2.7	194	2.7	2.9	.35	.10	.08	.55
18	.45	.71	1.2	4.4	2.3	14	2.5	1.4	.47	.10	.08	.21
19	.17	.71	1.1	2.1	2.3	6.9	2.3	3.9	.60	.10	.08	.21
20	.16	.71	1.0	1.5	2.5	331	1.7	2.5	.33	.08	.09	.21
21	.18	.71	.93	1.2	2.5	27	1.5	1.3	.30	.08	.11	.26
22	3.4	127	.93	68	2.8	7.5	1.2	77	.21	11	.08	.26
23	.42	144	96	9.2	2.7	73	1.2	19	.21	.21	.08	.21
24	.14	12	95	6.5	2.3	84	1.0	2.3	124	.06	.09	.21
25	.13	109	9.1	4.4	2.2	9.1	1.0	1.0	.77	.04	.11	.58
26	.13	14	4.0	3.0	1.9	5.5	4.2	.55	.22	.03	.14	.32
27	.15	6.4	2.5	2.7	2.0	21	2.2	.49	.10	.03	.21	.32
28	3.4	16	1.7	2.3	2.0	67	1.5	.34	.13	.05	.26	2.6
29	.87	5.0	1.2	1.9	2.0	9.5	1.2	.32	.13	.06	.26	1.5
30	.38	3.2	1.2	27	---	35	1.2	.32	.13	.08	.26	.38
31	11	---	1.0	7.8	---	7.3	---	.32	---	.09	.29	---
TOTAL	27.34	489.62	511.61	263.33	151.0	1333.2	577.6	171.91	132.26	14.19	5.63	12.94
MEAN	.88	16.3	16.5	8.49	5.21	43.0	19.3	5.55	4.41	.46	.18	.43
MAX	11	144	138	68	53	331	213	77	124	11	.41	2.6
MIN	.13	.21	.82	.65	1.5	2.3	1.0	.32	.10	.03	.06	.21
CFSM	.15	2.80	2.83	1.46	.89	7.38	3.31	.95	.76	.08	.03	.07
IN.	.17	3.12	3.26	1.68	.96	8.51	3.68	1.10	.84	.09	.04	.08

CAL YR 1979 TOTAL 5534.67 MEAN 15.2 MAX 291 MIN .13 CFSM 2.61 IN 35.31
WTR YR 1980 TOTAL 3690.63 MEAN 10.1 MAX 331 MIN .03 CFSM 1.73 IN 23.55

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 AGREA.--19.4 mi² (50.2 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 276 ft (84 m), from topographic map.

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

AVERAGE DISCHARGE.--5 years, 34.2 ft³/s (0.969 m³/s), 23.94 in/yr (608 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 16	1900	3420	96.9	13.10	3.993	Mar. 20	1250	*5160	146	15.31	4.666

Minimum discharge, 0.24 ft³/s (0.004 m³/s) July 20, 21.

REVISIONS.--The peak discharges for all peaks exceeding 10.00 ft (3.048 m) and 1760 ft³/s (49.84 m³/s) annual maximums (*) for water years 1975-1979, and revised table of daily discharge figures in cubic feet per second for water year 1979 are given below. These figures supersede those published in the reports for 1977, 1978, and 1979.

Water year	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Water year	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1975	July 2, 1975	1745	*3240	91.8	12.84	3.914	1978	Mar. 13, 1978	2210	2340	66.3	11.32	3.450
							1978	May 7, 1978	0630	*3810	108	13.67	4.167
1976	Nov. 30, 1975	1020	2120	60.0	10.90	3.322	1978	June 21, 1978	1115	1990	56.4	10.63	3.240
1976	Feb. 5, 1976	1500	1980	56.1	10.61	3.234							
1976	Feb. 17, 1976	2320	1890	53.5	10.43	3.179	1979	Dec. 3, 1978	1345	*7630	216	17.75	5.410
1976	Feb. 21, 1976	0830	2110	59.8	10.88	3.316	1979	Dec. 8, 1978	1045	3160	89.5	12.71	3.874
1976	Mar. 5, 1976	0315	*2830	80.1	12.18	3.712	1979	Feb. 23, 1979	0650	4460	126	14.51	4.423
1976	Mar. 29, 1976	2305	2280	64.6	11.20	3.414	1979	Mar. 3, 1979	0945	4810	136	14.92	4.548
							1979	Apr. 2, 1979	0025	4690	133	14.78	4.505
1977	Mar. 3, 1977	1745	2730	77.3	12.02	3.664	1979	Apr. 11, 1979	2100	6080	172	16.29	4.965
1977	June 26, 1977	1820	1850	52.4	10.35	3.155	1979	Apr. 23, 1979	0850	4010	114	13.94	4.249
1977	Sept. 24, 1977	1405	*4510	128	14.56	4.438	1979	May 4, 1979	0150	4000	113	13.93	4.246
							1979	May 23, 1979	0030	7030	199	17.21	5.246
1978	Jan. 24, 1978	0725	2640	74.8	11.87	3.618	1979	June 2, 1979	1745	3590	102	13.35	4.069
1978	Jan. 25, 1978	0455	1780	50.4	10.19	3.106	1979	June 3, 1979	0150	3040	86.1	12.53	3.819

07032224 JOHNS CREEK AT RAINES ROAD AT MEMPHIS, 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	.36	.17	1.2	556	2.7	11	203	6.0	4.0	.66	1.2	506
2	.35	.17	1.1	32	3.0	7.0	881	12	852	.68	160	27
3	.33	.15	2330	13	8.0	1240	53	449	567	.74	15	12
4	.32	.15	119	4.7	5.1	92	111	933	38	.91	140	5.2
5	.40	.14	12	5.2	3.6	21	20	58	17	1.1	5.2	2.3
6	.35	.28	7.5	21	19	12	12	34	12	.62	3.0	2.9
7	.32	.84	244	119	42	9.2	7.9	14	10	8.7	2.1	1.5
8	.35	.19	1120	14	31	6.6	181	9.7	7.7	287	1.5	.63
9	.39	.17	60	9.7	18	5.6	150	7.3	3.5	11	13	.50
10	.42	.20	18	10	9.1	106	21	5.9	2.3	3.5	1.3	.56
11	.52	.20	12	6.5	41	16	934	4.9	1.3	5.5	1.3	.48
12	.54	.20	5.1	7.9	42	9.9	382	121	1.3	30	.78	.46
13	4.1	.18	3.5	60	16	7.5	40	13	2.4	3.1	.65	5.2
14	.38	.20	2.6	15	11	5.8	20	7.7	7.7	2.0	.49	1.3
15	.24	.44	1.9	3.8	9.7	4.5	13	6.5	5.2	1.5	.49	.40
16	.21	14	2.1	3.4	5.7	4.0	11	5.4	5.8	1.3	.36	.45
17	.20	101	1.6	21	4.1	4.0	7.7	4.6	4.3	1.4	.31	.51
18	.29	2.5	1.3	13	7.5	4.3	6.7	4.6	3.1	1.0	.29	5.0
19	.27	1.3	1.4	450	12	6.6	6.1	6.2	6.2	1.1	.32	1.1
20	.40	.95	70	845	21	22	5.3	4.6	1.5	220	.36	141
21	.33	.85	35	900	149	15	5.1	4.8	1.3	8.8	13	156
22	.37	10	5.4	12	92	31	36	311	1.3	1.9	7.7	13
23	.27	14	2.9	200	1190	297	1170	1000	1.2	12	1.6	3.9
24	.26	1.8	2.2	70	369	18	140	25	6.5	18	206	2.3
25	.26	1.0	1.5	16	343	8.9	66	13	1.5	2.8	32	1.8
26	.90	57	1.3	9.4	45	5.9	144	5.2	1.1	24	6.5	2.0
27	.28	8.9	1.2	8.8	21	23	26	72	.87	16	2.0	1.1
28	.28	1.7	.95	5.8	10	13	13	15	.66	169	97	.71
29	.22	2.7	1.2	4.0	---	7.8	9.1	13	4.5	9.4	8.0	.54
30	.23	1.6	49	5.7	---	45	7.2	6.3	.97	3.1	2.3	.45
31	.26	---	543	4.2	---	86	---	4.6	---	2.0	1.4	---
TOTAL	14.40	222.98	4657.95	3446.1	2530.5	2145.6	4682.1	3177.3	1572.20	848.81	725.15	896.29
MEAN	.46	7.43	150	111	90.4	69.2	156	102	52.4	27.4	23.4	29.9
MAX	4.1	101	2330	900	1190	1240	1170	1000	852	287	206	506
MIN	.20	.14	.95	3.4	2.7	4.0	5.1	4.6	.66	.62	.29	.40
CFSM	.02	.38	7.73	5.72	4.66	3.57	8.04	5.26	2.70	1.41	1.21	1.54
IN.	.03	.43	8.93	6.61	4.85	4.11	8.98	6.09	3.01	1.63	1.39	1.72

CAL YR 1978 TOTAL 12129.57 MEAN 33.2 MAX 2330 MIN .14 CFSM 1.71 IN 23.26
WTR YR 1979 TOTAL 24919.38 MEAN 68.3 MAX 2330 MIN .14 CFSM 3.52 IN 47.78

07032224 JOHNS CREEK AT RAINES ROAD AT MEMPHIS, TN--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	4.0	6.2	3.6	4.6	.49	15	1.2	1.1	.61	.63	1.0
2	.36	1.0	4.2	2.9	3.3	.45	12	.97	.99	.65	.41	1.2
3	.41	.59	3.3	12	2.8	.41	9.8	.85	.97	.65	.34	1.7
4	1.5	.44	3.3	16	2.8	1.8	7.6	1.1	1.2	.37	.57	1.7
5	.40	.44	3.4	6.0	3.4	22	6.6	1.1	1.1	.29	.85	1.3
6	.44	.44	3.1	4.2	4.2	2.9	4.8	.86	1.2	.31	.86	.78
7	.54	.67	2.3	14	1.8	156	4.5	2.8	1.1	.39	.95	.59
8	.32	.60	2.4	6.8	102	35	415	.59	.73	.49	.76	.84
9	.64	103	2.4	4.2	90	11	28	1.5	.65	.55	.39	.82
10	.70	19	2.6	3.1	13	7.0	13	1.2	.90	.47	.22	.67
11	.34	3.4	3.0	134	10	4.3	306	.26	1.4	.91	.48	.61
12	.32	1.7	383	13	5.0	42	372	170	.76	.82	.62	.77
13	.34	1.3	549	8.2	3.9	15	805	21	.75	.38	7.6	.83
14	.29	1.4	28	5.6	3.3	6.5	163	3.3	.56	.65	2.6	.65
15	.27	.65	13	4.2	12	4.8	33	2.0	.55	.62	.54	1.3
16	.28	.72	8.0	44	8.6	1130	13	64	1.1	.41	.28	1.5
17	.27	.56	3.5	103	2.3	748	9.1	6.9	.91	.53	.22	13
18	1.3	.41	3.3	17	1.4	43	8.4	2.8	1.6	.48	.71	.55
19	.34	.51	3.3	9.1	2.2	19	5.3	7.6	4.0	.49	.69	.42
20	.46	.44	3.2	6.4	2.8	1670	4.1	4.3	1.2	.29	.55	1.5
21	.44	2.8	3.2	4.9	2.0	104	3.5	1.3	.60	1.2	.55	2.9
22	23	362	5.0	162	1.5	24	2.9	483	.37	135	.54	1.1
23	2.5	566	400	20	1.1	252	2.3	97	.58	1.6	.31	.68
24	.45	36	344	7.0	.82	375	2.2	14	685	.53	1.3	.77
25	.37	361	34	3.9	.63	30	11	6.3	7.9	.49	5.8	15
26	.39	47	14	2.4	.56	25	20	3.5	2.7	.33	4.1	1.2
27	.40	41	8.9	2.2	.49	53	5.2	2.3	1.6	.20	.85	.49
28	16	58	6.1	1.7	.57	245	2.8	1.8	.88	.43	2.0	33
29	3.5	13	4.9	1.4	.58	37	2.0	1.9	.54	.46	1.1	19
30	.82	8.2	4.8	41	---	122	1.6	1.4	.54	.47	.75	2.1
31	33	---	4.6	13	---	26	---	1.5	---	.75	.92	---
TOTAL	90.81	1636.27	1860.0	676.8	287.65	5212.65	2288.7	908.33	723.48	151.82	38.49	107.97
MEAN	2.93	54.5	60.0	21.8	9.92	168	76.3	29.3	24.1	4.90	1.24	3.60
MAX	33	566	549	162	102	1670	805	483	685	135	7.6	33
MIN	.27	.41	2.3	1.4	.49	.41	1.6	.26	.37	.20	.22	.42
CFSM	.15	2.81	3.09	1.12	.51	8.66	3.93	1.51	1.24	.25	.06	.19
IN.	.17	3.14	3.57	1.30	.55	9.99	4.39	1.74	1.39	.29	.07	.21

CAL YR 1979 TOTAL 23611.13 MEAN 64.7 MAX 1240 MIN .27 CFSM 3.34 IN 45.27
WTR YR 1980 TOTAL 13982.97 MEAN 38.2 MAX 1670 MIN .20 CFSM 1.97 IN 26.81

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.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map.

REMARKS.--Records fair. 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.--5 years (water years 1976-80), 1.73 ft³/s (.049 m³/s), 39.82 in/yr (1,011 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); minimum, 0.04 ft³/s (0.001 m³/s) May 18, 1976, Nov. 16, 17, Dec. 22, 1977, Dec. 11, 12, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 24	0235	*326	9.23	7.51	2.289	July 22	1145	300	8.50	7.25	2.210

Minimum discharge, 0.04 ft³/s (0.001 m³/s) Dec. 11, 12.

REVISIONS.--Revised daily discharges, in cubic feet per second, for September 12-30, 1979 are given below. These figures supersede those published in the report for 1979.

Sept. 12	.23	Sept. 17	.21	Sept. 22	.27	Sept. 27	.39
13	.44	18	.29	23	.20	28	.26
14	.24	19	.22	24	.27	29	.27
15	.25	20	4.0	25	.24	30	.31
16	.22	21	.70	26	.28		

Month	Total	Mean	Max	Min	Cfsm	In.
September 1979	18.50	.62	7.0	.19	1.05	1.16
Wtr Yr 1979	567.84	1.56	38	.10	2.64	35.74

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	.31	.33	.23	.38	.47	.61	.29	.51	.37	.26	.34	.45
2	.30	.43	.30	.34	.49	.36	.28	.49	.37	.27	.39	3.3
3	.37	.32	.35	1.1	.56	.51	.37	.38	.35	.27	.37	.44
4	.65	.34	.29	.49	.50	.76	.27	.37	.34	.27	.46	.50
5	.36	.37	.27	.35	.73	.72	.26	.32	.34	.28	.39	.31
6	.25	.38	.28	.35	.58	.33	.35	.30	.34	.30	.46	.55
7	.22	.32	.24	.83	.56	2.4	1.7	.81	.31	.29	.33	.39
8	.23	.39	.32	.35	2.0	.33	8.0	.43	.51	.32	.49	.38
9	.58	3.9	.22	.39	.97	.30	.38	.43	.31	.31	.35	.42
10	.32	.24	.24	.45	.67	.40	.33	.29	.34	.61	.46	.34
11	.27	.29	.36	2.8	.63	.37	8.3	.35	.31	.46	.40	.40
12	.32	.25	10	.42	.58	1.4	1.4	4.8	.34	.42	.46	.38
13	.28	.22	2.2	.44	.40	.42	11	.37	.34	.42	.41	.46
14	.26	.27	.32	.37	.41	.48	.78	.33	.31	.41	.48	.35
15	.35	.29	.26	.38	1.3	.34	.39	.30	.34	.45	.35	.70
16	.29	.23	.27	7.1	.38	12	.26	1.8	.35	.48	.47	.70
17	.25	.34	.41	1.2	.38	5.7	.37	.29	.32	.43	.36	8.6
18	.39	.20	.45	.39	.47	.33	.36	.30	.64	.48	.45	3.0
19	.25	.25	.29	.51	.74	.41	.30	.29	.32	.44	.40	2.3
20	.26	.32	.30	.40	.34	16	.25	.26	.34	.47	.50	1.6
21	.34	3.7	.28	.45	.60	.28	.40	.27	.35	1.2	.50	.88
22	2.6	11	.43	2.0	.36	.30	.29	8.4	.40	33	.51	.46
23	.32	2.6	5.8	.52	.39	8.1	.35	.42	.63	.44	.42	4.0
24	.40	.24	2.1	.45	.41	.79	.61	.36	33	.38	.47	.49
25	.34	3.5	.38	.51	.45	.33	.81	.38	.31	.45	.48	1.7
26	.31	.27	.42	.80	.37	.28	.78	.35	.29	.43	.60	.41
27	.38	1.0	.45	.50	.56	1.6	.31	.30	.29	.43	.41	.53
28	.72	.24	.37	.54	.39	1.3	.30	.36	.28	.38	.52	3.3
29	.33	.29	.51	.48	.43	.47	.26	.33	.28	.39	.29	1.0
30	.38	.25	.34	1.8	---	.98	.52	.37	.28	.34	.43	.43
31	1.2	---	.32	.62	---	.36	---	.39	---	.38	.37	---
TOTAL	13.83	32.77	29.00	27.71	17.12	58.96	40.27	25.35	43.30	45.46	13.32	38.77
MEAN	.45	1.09	.94	.89	.59	1.90	1.34	.82	1.44	1.47	.43	1.29
MAX	2.6	11	10	7.1	2.0	16	11	8.4	33	33	.60	8.6
MIN	.22	.20	.22	.34	.34	.28	.25	.26	.28	.26	.29	.31
CFSM	.76	1.85	1.59	1.51	1.00	3.22	2.27	1.39	2.44	2.49	.73	2.19
IN.	.87	2.06	1.83	1.74	1.08	3.71	2.53	1.60	2.73	2.86	.84	2.44

CAL YR 1979 TOTAL 446.30 MEAN 1.22 MAX 34 MIN .10 CFSM 2.07 IN 28.09
WTR YR 1980 TOTAL 385.86 MEAN 1.05 MAX 33 MIN .20 CFSM 1.78 IN 24.29

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

AVERAGE DISCHARGE.--5 years (water years 1976-80), 10.7 ft³/s (0.303 m³/s), 29.18 in/yr (741 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 (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 20	1100	1560	44.2	9.90	3.018	July 22	0910	*3170	89.8	13.25	4.039
June 24	0555	1710	48.4	10.26	3.127						

Minimum discharge, 1.40 ft³/s (0.041 m³/s) Dec. 15, 16, 17.

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	2.5	6.7	2.6	3.3	2.5	2.8	4.2	4.5	3.9	6.7	5.4	4.9
2	3.4	6.5	2.5	3.6	2.6	2.8	4.2	4.2	3.9	5.7	5.5	9.2
3	3.7	7.2	2.5	14	2.5	2.8	4.2	4.4	4.4	5.3	5.8	4.2
4	6.7	7.4	2.5	4.3	2.6	5.9	3.7	4.7	4.4	4.5	4.9	4.2
5	3.9	6.1	2.1	2.3	4.8	6.0	3.2	4.6	4.6	3.8	4.9	4.2
6	3.9	7.2	2.4	2.2	2.9	4.4	2.8	5.0	4.6	3.3	5.0	4.0
7	3.9	7.4	2.5	5.3	2.6	14	19	6.5	4.6	4.2	4.9	3.9
8	3.9	7.9	2.5	2.6	24	4.2	88	3.8	4.4	5.3	5.6	4.3
9	9.2	63	2.5	2.8	4.9	3.7	4.2	3.8	4.6	5.5	9.2	4.6
10	5.5	7.8	2.6	3.4	2.6	3.7	3.9	3.5	4.6	5.3	4.0	4.6
11	4.5	6.1	2.7	34	2.5	3.7	78	3.6	4.6	5.0	4.3	4.3
12	4.4	6.5	100	2.2	2.3	12	15	48	4.6	4.8	4.1	4.2
13	4.0	6.6	21	2.0	2.3	2.7	128	6.7	4.9	5.1	4.0	4.3
14	4.3	7.0	1.7	2.0	2.3	2.6	10	4.1	4.4	5.1	4.2	4.5
15	4.6	6.8	1.7	2.0	10	2.8	3.9	3.8	4.2	5.4	4.3	4.2
16	4.7	6.7	1.5	46	3.0	153	3.6	53	4.4	6.5	4.4	4.9
17	5.0	5.8	1.7	12	2.6	70	3.9	3.0	4.9	6.8	4.4	55
18	6.4	6.0	1.9	2.7	2.6	4.4	3.8	3.0	6.6	7.1	4.4	5.1
19	5.7	5.3	2.0	2.4	4.2	4.2	3.0	3.5	4.5	6.9	4.4	5.5
20	5.4	4.9	2.1	2.5	2.3	180	3.5	3.9	3.7	6.4	4.6	14
21	6.0	82	2.2	2.8	2.3	6.3	4.0	3.7	3.1	18	4.9	4.8
22	38	141	4.8	18	2.4	3.9	4.3	114	2.9	506	4.9	5.0
23	5.5	34	57	2.9	2.2	104	4.6	3.8	3.9	9.3	4.9	42
24	5.0	2.6	26	2.7	2.1	13	6.5	2.8	240	5.5	4.9	5.7
25	4.7	39	2.5	2.4	2.1	3.7	12	3.2	5.0	4.6	4.9	30
26	4.8	3.3	2.5	5.2	2.5	2.8	14	3.2	5.3	3.6	4.9	3.9
27	5.4	9.3	2.5	2.8	2.6	17	3.3	3.5	5.1	3.8	4.9	4.2
28	8.8	3.0	3.0	2.3	2.7	16	3.4	3.5	5.3	4.4	5.4	47
29	6.1	2.7	5.1	2.4	2.8	6.3	3.8	3.8	6.6	5.0	4.9	13
30	5.6	2.8	3.7	16	---	17	4.5	3.5	7.0	5.7	5.0	4.2
31	28	---	3.5	2.9	---	4.2	---	3.7	---	5.7	4.9	---
TOTAL	213.5	508.6	273.8	212.0	107.8	679.9	450.5	326.3	375.0	680.3	152.8	313.9
MEAN	6.89	17.0	8.83	6.84	3.72	21.9	15.0	10.5	12.5	21.9	4.93	10.5
MAX	38	141	100	46	24	180	128	114	240	506	9.2	55
MIN	2.5	2.6	1.5	2.0	2.1	2.6	2.8	2.8	2.9	3.3	4.0	3.9
CFSM	1.38	3.41	1.77	1.37	.75	4.40	3.01	2.11	2.51	4.40	.99	2.11
IN.	1.59	3.80	2.04	1.58	.81	5.08	3.36	2.44	2.80	5.08	1.14	2.34

CAL YR 1979 TOTAL 5124.5 MEAN 14.0 MAX 262 MIN 1.0 CFSM 2.81 IN 38.27
WTR YR 1980 TOTAL 4294.4 MEAN 11.7 MAX 506 MIN 1.5 CFSM 2.35 IN 32.07

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. Due to construction, all gages were out of service from May 2, 1979 to July 2, 1979. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

AVERAGE DISCHARGE.--5 years (water years 1976-1980), 4.66 ft³/s (0.132 m³/s), 19.90 in/yr (505 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 WATER YEARS 1979-80.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3, 1978	0835	497	14.1	6.67	2.033	Apr. 11, 1979	0155	622	17.6	7.43	2.265
Dec. 3, 1978	1150	1680	47.6	12.25	3.734	Apr. 11, 1979	1915	*1830	51.8	12.72	3.877
Dec. 7, 1978	1840	590	16.7	7.24	2.207	Aug. 24, 1979	1900	1150	32.6	9.83	2.996
Dec. 8, 1978	0900	630	17.8	7.48	2.280						
Jan. 19, 1979	2330	509	14.4	6.75	2.057	Mar. 20, 1980	1100	*1290	36.5	10.58	3.225
Feb. 23, 1979	0420	620	17.6	7.42	2.262	Mar. 23, 1980	2150	444	12.6	5.70	1.737
Mar. 3, 1979	0815	1240	35.1	10.51	3.203	June 24, 1980	0330	930	26.3	8.30	2.530
Apr. 1, 1979	2205	1620	45.9	12.07	3.679	July 22, 1980	0910	697	19.7	7.24	2.207
Apr. 8, 1979	2125	1200	34.0	10.35	3.155						

No flow many days each year.

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	.02	.00	.10	99	.20	1.8	138	.26	.08	.02	.21	14
2	.05	.00	.20	26	.51	.40	42	.17	90	.02	11	.09
3	.07	.00	314	.72	1.2	185	2.2	75	8.0	.02	.19	.06
4	.04	.00	4.9	.48	.27	16	14	56	1.0	.02	13	.06
5	.04	.00	1.0	1.0	.26	.75	.56	4.3	.40	.02	.05	.06
6	.04	.05	.48	13	4.8	.48	.10	1.2	.60	.02	.04	.06
7	.02	2.7	74	13	4.7	.30	.07	.60	.25	2.4	.03	.07
8	.02	.03	146	.75	2.0	.20	66	.38	.10	13	.58	.07
9	.06	.01	2.4	13	.58	4.5	3.3	.29	.06	.04	.57	.06
10	.10	.00	.48	.53	.40	11	.38	.22	.04	.01	.03	.04
11	.06	.00	.23	.39	1.3	.40	201	.19	.03	.48	.86	.00
12	.03	.00	.14	.36	.79	.37	3.0	7.9	.02	2.4	.03	.00
13	12	.00	.12	3.2	.49	.30	.39	.93	.02	.02	.02	.78
14	.20	.00	.08	.49	.39	3.6	.04	.45	.02	.01	.02	.05
15	.03	1.3	.07	.19	.34	4.0	.02	.25	.01	.01	.02	.02
16	.02	37	1.5	.17	.27	.14	.01	.15	.01	.01	.02	.02
17	.01	31	.14	2.3	.26	.14	.01	.12	.01	.01	.02	.03
18	.01	.31	.05	.46	1.9	.12	.01	.10	.00	.01	.03	1.4
19	.01	.05	.05	65	.32	3.8	.02	.08	.00	.01	.02	.03
20	.01	.03	27	52	4.9	16	.01	.07	.00	.01	.02	39
21	.01	.02	1.6	4.3	4.7	3.3	.25	.20	.10	.01	.58	2.3
22	.01	7.1	.24	.80	14	26	15	1.5	.02	.01	.11	.10
23	.01	4.1	.13	20	109	22	75	1.7	5.0	.69	.04	.04
24	.00	.14	.42	2.6	3.7	5.0	13	.27	4.0	.03	72	.03
25	.00	.03	.12	.74	20	.78	1.9	.10	.15	5.8	.27	.03
26	2.2	22	.06	.67	2.1	.26	20	.08	.05	.80	.06	.02
27	.03	1.0	.05	.60	.78	4.8	.99	2.5	.02	.17	.02	.02
28	.01	.27	.05	.43	3.6	1.8	.63	2.2	.01	4.6	13	.02
29	.00	1.1	.45	.34	---	1.7	.45	.57	.05	.08	.44	.02
30	.00	.23	12	.34	---	19	.24	.21	.03	.06	.05	.02
31	.00	---	54	.27	---	11	---	.11	---	.04	.04	---
TOTAL	15.11	108.47	642.06	323.13	183.76	344.94	598.58	158.10	110.08	30.83	113.37	58.50
MEAN	.49	3.62	20.7	10.4	6.56	11.1	20.0	5.10	3.67	.99	3.66	1.95
MAX	12	37	314	99	109	185	201	75	90	13	72	39
MIN	.00	.00	.05	.17	.20	.12	.01	.07	.00	.01	.02	.00
CFSM	.15	1.14	6.51	3.27	2.06	3.49	6.29	1.60	1.15	.31	1.15	.61
IN.	.18	1.27	7.51	3.78	2.15	4.03	7.00	1.85	1.29	.36	1.33	.68

CAL YR 1978 TOTAL 1808.44 MEAN 4.95 MAX 314 MIN .00 CFSM 1.56 IN 21.15
WTR YR 1979 TOTAL 2686.93 MEAN 7.36 MAX 314 MIN .00 CFSM 2.31 IN 31.42

07032260 CYPRESS CREEK AT NEELY ROAD AT MEMPHIS, TN--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.13	.28	.30	.59	2.8	1.9	.49	.06	.05	.12	.02
2	.04	.07	.24	.35	.65	2.2	1.5	.49	.04	.06	.10	.01
3	.04	.05	.24	3.3	.49	2.5	1.6	.49	.06	.04	.12	.01
4	.15	.05	.24	.68	.42	6.0	1.3	.59	.04	.03	.16	.03
5	.03	.05	.24	.37	.59	19	.96	.45	.06	.03	.15	.02
6	.02	.04	.26	.36	.39	3.1	.78	.33	.07	.03	.09	.01
7	.02	.04	.26	1.8	.32	19	.63	1.1	.07	.02	.08	.00
8	.02	.04	.25	.83	33	4.6	54	.42	.06	.03	7.1	.00
9	.51	21	.24	.58	11	3.2	3.7	.39	.07	.03	.12	.00
10	.18	.23	.24	.52	2.7	3.0	1.5	.36	.07	.02	.04	.00
11	.06	.07	.24	23	2.5	2.8	50	.36	.08	.01	.02	.00
12	.06	.04	88	1.6	2.2	19	27	36	.08	.07	.04	.00
13	.05	.03	37	.90	2.0	3.4	135	.54	.10	.01	.03	.00
14	.03	.03	.99	.45	1.9	2.9	18	.36	.08	.01	.05	.00
15	.02	.03	.54	.36	9.4	2.7	3.9	.33	.09	.01	.05	.05
16	.02	.02	.41	.88	3.4	119	.90	33	.10	.01	.04	.02
17	.02	.02	.29	20	2.4	65	.97	.15	.10	.01	.03	30
18	.08	.02	.30	2.5	2.3	7.0	1.8	.08	.43	.01	.02	.05
19	.04	.02	.34	1.2	4.1	4.9	.75	.05	5.7	.00	.01	.02
20	.05	.02	.36	.68	2.6	187	.60	.06	.07	.01	.00	2.4
21	.05	22	.34	.59	2.4	6.6	.49	.05	.06	1.9	.00	.33
22	21	99	2.3	37	2.4	3.1	.49	63	.06	76	.00	.07
23	.28	29	52	5.0	2.4	67	.45	.33	.05	.16	.00	.03
24	.18	.50	29	2.6	2.6	16	.84	.18	124	.09	.00	.01
25	.15	34	.85	1.5	2.4	1.9	7.6	.08	.10	.07	.00	12
26	.05	.86	.44	1.3	2.1	1.3	15	.06	.04	.06	.01	.09
27	.03	11	.28	1.1	2.1	16	.84	.06	.02	.06	.02	.15
28	6.5	.98	.29	.90	2.1	23	.71	.02	.02	.06	5.8	23
29	.22	.25	.71	.84	2.1	4.8	.59	.02	.02	.06	.07	5.8
30	.12	.30	.41	15	---	21	.59	.02	.02	.09	.02	.20
31	16	---	.33	2.6	---	2.6	---	1.6	---	.11	.02	---
TOTAL	46.06	219.89	217.91	129.09	103.55	642.4	334.39	141.46	131.82	79.15	14.31	74.32
MEAN	1.49	7.33	7.03	4.16	3.57	20.7	11.1	4.56	4.39	2.55	.46	2.48
MAX	21	99	88	37	33	187	135	63	124	76	7.1	30
MIN	.02	.02	.24	.30	.32	1.3	.45	.02	.02	.00	.00	.00
CFSM	.47	2.31	2.21	1.31	1.12	6.51	3.49	1.43	1.38	.80	.15	.78
IN.	.54	2.57	2.55	1.51	1.21	7.51	3.91	1.65	1.54	.93	.17	.87

CAL YR 1979 TOTAL 2405.15 MEAN 6.59 MAX 201 MIN .00 CFSM 2.07 IN 28.13
WTR YR 1980 TOTAL 2134.35 MEAN 5.83 MAX 187 MIN .00 CFSM 1.83 IN 24.96

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first table is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. Other measurements made for seepage investigations are listed in subsequent tables.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1980

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	1975-80	5-13-80 8-13-80	1.2 .38
		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	4-23-80 6-16-80 8-14-80 9-16-80	26 11 4.4 3.1
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	4-23-80 6-16-80 8-14-80 9-16-80	31 13 8.5 6.9
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	4-23-80 6-16-80 8-14-80 9-16-80	20 7.5 2.7 2.2
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	4-23-80 6-16-80 8-14-80 9-16-80	20 5.6 2.0 1.4
		Cumberland River basin				
03407879	Smoky Creek at Smoky Junction, Tn.	Lat 36°16'38", long 84°22'27", Scott County, 1.0 mile southwest of Smoky Junction, and at mile 0.9.	32.8	1975-80	6-10-80 7-21-80	4.8 .35
**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, 1978-80	5-12-80 7-14-80	12 .79
**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, 1978-80	5-13-80 7-14-80	19 3.2

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin--Continued				
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, 1978-80	5-13-80 8-13-80	10 6.0
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, 1978-80	5-12-80 8-13-80	13 3.5
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, 1978-80	8-12-80	17
**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	1979-80	7-15-80	a .01
**03418995	Glade Creek near Lonewood, Tn.	Lat 35°45'35", long 85°15'57", Bledsoe County line, Hydrologic 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	1979-80	7-15-80	.35
**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, 1978-80	5-12-80 7-16-80	28 6.3
**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	1979-80	7-14-80	a .05
**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	1979-80	7-15-80	4.1
03425275	Goose Creek at Hillsdale, Tn.	Lat 36°26'46", long 86°03'50", Macon County, at secondary road in Hillsdale.	27.4	1980	4-23-80 6-16-80 8-14-80 9-16-80	31 6.8 2.7 1.3
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, 1978-80	5-12-80	2.4
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 Railroad bridge, 2.4 miles east of Hermitage, 3.5 miles southwest of Green Hill, and at mile 5.2.	15.0	1974-75, 1978-80	5-12-80	2.7

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin--Continued				
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, 1978-80	5-12-80	9.0
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 downstream 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, 1978-80	5-12-80	.35
*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	1978-80	8-15-80	3.5
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, 1978-80	9- 8-80	13
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, 1978-80	9-24-80	13
03433810	Brush Creek near Kingston Springs, Tn.	Lat 36°04'38", long 87°04'50", Cheatham County, at new county road bridge, 2.5 miles southeast of Kingston Springs.	27.2	1954, 1974-75, 1978-80	6-11-80 8-12-80	21 12
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 downstream 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, 1978-80	6-11-80 8-12-80	52 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, 1978-80	6-11-80 8-12-80	2.7 2.0
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, 1978-80	6-11-80 8-12-80	3.9 5.1
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, 1978-80	6-13-80 8-12-80	1.4 .92
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, 1978-80	6-12-80 8-15-80	1.9 1.1
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 1978-80	6-12-80 8-14-80	5.5 2.4

See footnotes at end of the table.

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin--Continued				
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, 1978-80	6-12-80 8-14-80	25 8.8
03436130	Passenger Creek near Sango, Tn.	Lat 36°32'07", long 87°11'50", Montgomery County, at county road bridge, 2.4 miles northeast of Sango.	20.5	1964 1974-76, 1978, 1980	6-12-80 8-14-80	5.5 2.7
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, 1978-80	8-14-80	29
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	6-13-80 8-13-80	37 19
		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	1975-80	6-11-80 7-22-80	18 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, 1975-80	6-11-80 7-22-80	4.6 3.6
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, 1979-80	6-10-80	11
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	1975-80	6-10-80 7-21-80	7.4 5.8
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	1975-80	6-11-80 7-21-80	10 7.0
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, 1975-80	6-11-80 7-22-80	7.4 5.0
03468140	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 Chestnut Hill, and at mile 0.7.	1.78	1976-80	6-11-80 7-22-80	.12 .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	1975-80	6-12-80 7-22-80	11 6.5
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	1975-80	6-10-80	17
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	1975-80	6-12-80	5.8

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements 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, 1975-80	6-11-80 7-21-80	30 14
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, 1979-80	6-11-80 7-21-80	6.0 1.8
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, 1979-80	6-10-80 7-22-80	19 11
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, 1979-80	6-10-80 7-21-80	12 8.7
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, 1979-80	6-10-80 7-21-80	27 13
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, 1979-80	6-10-80 7-22-80	.93 .33
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	1955-80	8-11-80 8-27-80	.68 .66
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, 1978-80	8-11-80	.59
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, 1979-80	8-11-80	.17
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, 1979-80	8-12-80	3.9
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, 1978-80	8-14-80	11
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, 1979-80	9-17-80	10
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	1979-80	9-17-80	5.2

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Tennessee River basin--Continued				
03602220	Piney River near 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	9-17-80	17
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	7- 9-80	4.9
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	7- 9-80	71
		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	7-10-80	30
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	7-10-80	4.6
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	7-10-80	47
07026100	Reeds Creek near Trimble, Tn.	Lat 36°10'48", long 89°15'15", Dyer County, at county road bridge, 0.4 mile north of Locust Grove, 4.0 miles southwest of Trimble, and at mile 1.6.	51.8	1975-78, 1980	7-10-80	6.0
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	7- 9-80	6.3
07027750	Nixon Creek near Nut Bush, Tn.	Lat 35°41'59", long 89°16'36", Haywood County, 1.6 miles northeast of Christmasville, on county road bridge 7.2 miles east of Nut Bush, and at mile 6.60.	42.5	1976-78, 1980	7- 9-80	1.0
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	7- 9-80	3.2
		Hatchie River basin				
07029450	Cub Creek near Hebron, Tn.	Lat 35°10'28", long 88°54'50", Hardeman County, at county road bridge, 0.3 mile southeast of State Highway 125, 1.4 miles northwest of Hebron, and 7.8 miles northwest of Middelton.	15.0	1980	7- 9-80	3.0
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	7- 9-80	4.0

Discharge measurements made at low-flow partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements 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	7- 9-80	3.4
		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	7- 9-80	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	7- 9-80	.15

* Also crest-stage partial-record station.
** Also synoptic coal-hydrology partial-record station.
a Estimated.

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 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Mobile River basin					
*02384900	Coahulla Creek near Cleveland, Tn.	Lat 35°07'00", long 84°50'18", Bradley County, at bridge on State Highway 74, 2.5 miles southeast of intersection of State Highways 74 and 60 at Cleveland. Datum of gage is 828.3 ft National Geodetic Vertical Datum of 1929.	4.35	1955-80	3-20-80	6.99	850
		Green River basin					
03313600	West Fork Drakes Creek tributary near Fountain Head	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	1967-80	6-29-80	.83	138
		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‡, 1955-80	3-21-80	11.70	-
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 intersection of State Highways 85 and 52.	15.5	1955-80	3-20-80	8.87	-
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	1955-80	7- 8-80	3.84	149
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	1978-80	1980	<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	1967-80	3-20-80	5.49	1,320
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‡, 1958-80	3-20-80	14.02	18,700
03420600	Owen Branch near Centertown, Tn.	Lat 35°42'30", long 85°53'05", Watten County, at bridge on U.S. Highway 70-S, 2.4 miles southeast of Centertown.	4.60	1955-80	3-20-80	3.35	230

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (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	1955-80	3-20-80	10.48	4,400
03422860	Short Creek tributary at Cookeville, TN	Lat 36°09'01", long 85°30'26", Putnam County, at culvert under Clover Avenue, 0.3 mile southeast of Parkview School, 0.9 mile south of Post Office, at Cookeville.	1.20	1978-79	8-16-78 7- 7-79	4.37 9.31	- -
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‡, 1962-80	3-20-80	9.27	6,340
03425646	Town Creek at Gallatin, TN	Lat 36°22'50", long 86°27'15", Sumner County, at bridge on Maple Street, 0.5 miles downstream from U.S. Highway 31E and Main Street junction at Gallatin, TN.	4.90	1978-80	5- 8-78 12- 8-78 3-20-80	8.55 8.94 7.15	1,560 1,770 960
03425700	Spencer Creek near Lebanon, Tn.	Lat 36°14'20", long 86°24'03", Wilson County, at bridge on county road, 100 ft north of junction of county road and and U.S. Highway 70, 6.5 miles west of square in Lebanon.	3.32	1955-80	3-20-80	4.54	315
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, 1959-80	11- 2-79	5.61	350
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‡, 1962-80	5-17-80	9.47	4,180
03428043	Lytle Creek at Sanbyrne Drive at Murfreesboro, Tn.	Lat 35°49'38", long 86°23'28, Rutherford County, at bridge on Sanbyrne Drive, 1 mile south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft National Geodetic Vertical Datum of 1929.	17.6	1978-80	3-20-80	1.36	-
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, 1965-80	5-17-80	a9.86	2,840
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	1977-80	4- 4-77 3-14-78 5-17-80	6.55 6.82 5.73	1,010 1,120 710

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cumberland River basin--Continued					
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	1965-80	3-28-80	7.65	5,360
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‡, 1976-80	3-28-80	14.63	6,980
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	1965-80	5-17-80	6.19	-
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	1965-80	3-28-80 5-17-80	14.27	10,700
03431062	Mill Creek tributary at Glenrose Avenue at Woodbine, Tn.	Lat 36°07'02", long 86°43'37", Davidson County, at culvert under Glenrose Avenue, 1.1 miles northeast of intersection of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth.	1.17	1977-80	5-17-80	4.79	299
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	1965-80	5-17-80	6.03	1,370
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	1965-80	5-17-80	3.92	334
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	1965-80	5-17-80	9.29	4,620
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	1977-80	5-17-80	5.37	809

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cumberland River basin--Continued					
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	1965-80	5-17-80	7.25	2,020
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	1965-80	5-17-80	7.27	1,400
03431580	Ewing Creek at Knight Road, near Bordeaux, Tn.	Lat 36°13'55", long 86°48'14", Davidson County, at bridge on Knight Road, 3.0 miles northeast of Bordeaux. Datum of gage is 438.27 ft National Geodetic Vertical Datum of 1929.	13.3	1965-80	5-17-80	10.74	6,650
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	1978-80	3-13-78 5- 4-79 7-22-80	4.92 7.74 7.28	150 770 515
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	1978-80	5-17-80	11.82	2,750
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	1978-80	5- 8-78 4-12-79 6-29-80	6.35 9.43 7.41	424 1,012 557
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‡, 1976-80	5- 8-80	9.17	1,630
		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	1967-80	3-21-80	5.96	233
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‡, 1959-80	11-26-79	4.49	730
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	1978-80	8- 4-78 8-14-78 7-21-79 3-21-80	4.81 4.81 8.43 3.90	365 365 1,420 215
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‡, 1959-80	11-26-79	21.43	49,100

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Tennessee River basin--Continued					
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	1967-80	1980	<4.93	<112
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	1954-80	1980	<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	1954-80	3-21-80	10.27	2,270
03469500	West Prong Little Pigeon River near Pigeon Forge, Tn.b/	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‡, 1954-80	3-21-80	9.94	5,560
03481600	Corn Creek at Mountain City, Tn.	Lat 36°29'23", long 81°48'52", Johnson County, at bridge on county road, 600 ft north of junction of county road and U.S. Highway 421, 1 mile northwest of Mountain City.	5.34	1959-61, 1963-80	1980	<2.13	-
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‡, 1959-80	3-21-80	5.84	2,730
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	1973-80	3-21-80	8.25	84
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	1955-80	3-21-80	4.31	104
03492006	Turkey Creek at Morristown, Tn.	Lat 36°14'09", long 83°17'51", Hamblen County, 300 ft downstream from bridge on South Outer Street at Morristown, Tn.	5.09	1978-80	8-11-78 8-28-79 7- 3-80	4.69 5.10 5.02	335 465 435
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	1955-80	3-21-80	3.15	61
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, Tn.	15.7	1978-80	6-12-78 3- 4-79 3-21-80	5.04 5.59 6.08	325 450 660
03519610	Baker Creek tributary near Binfield, Tn.	Lat 35°41'56", long 84°02'46", Blount County at culvert under county road, 1.5 miles east of Binfield.	2.10	1966-77, 1979-80	3-21-80	3.58	63

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Tennessee River basin--Continued					
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‡, 1976-80	3-21-80	7.30	740
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	1954-80	3-21-80	7.89	1,400
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‡, 1955-80	3-21-80	7.53	4,800
03534500	Buffalo Creek at Norris, Tn.	Lat 36°11'05", long 84°03'34", Anderson County, at culvert under Norris Freeway (State Highway 71), 1.0 mile southeast of Norris. Datum of gage is 901.71 ft National Geodetic Vertical Datum of 1929.	d9.92	1948-50‡, 1955-80	4-14-80	5.84	365
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	1967-80	3-21-80	5.67	90
03538130	Caney Creek near Kingston, Tn.	Lat 35°51'53", long 84°23'07", Roane County, 1.5 miles upstream from mouth, 2.4 miles northeast of intersection of U.S. Highway 70 and Buttermilk Road, 7.5 miles east of Kingston.	5.55	1962-80	3-21-80	6.90	1,180
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	1954-80	3-21-80	16.96	5,350
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‡, 1969-80	3-21-80	17.73	8,170
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	1955-80	3-21-80	8.34	864
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	1968-80	3-21-80	5.45	432
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	1967-80	3-18-80	7.26	2,210

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Tennessee River basin--Continued					
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‡, 1955-80	3-21-80	14.33	-
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, Tn.	7.31	1978-80	Unknown 5-23-79 3-20-80	6.08 7.50 6.77	710 1,025 850
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	1955-80	3-20-80	6.97	1,540
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	3-20-80	34.58	-
035686655	South Fork Dobbs Branch at Chattanooga, Tn.	Lat 35°00'36", long 85°17'34", Hamilton County, 33 ft upstream from culvert under Clie Street, 2.9 miles south-southeast of County Courthouse, and at mile 1.3.	1.12	1979-80	3-21-80	50.28	-
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	3-20-80	24.27	-
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	1959-80	3-20-80	9.03	2,780
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, 1965,1979-80	3-20-80	11.29	-
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	1955-80	3-20-80	9.83	5,750
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‡, 1960-80	3-20-80	12.88	4,310
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‡, 1969-80	3-20-80	13.82	9,700
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	1954-80	3-20-80	10.85	8,450

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Tennessee River basin--Continued					
03582395	Tanyard Branch at Fayetteville, Tn.	Lat 35°09'02", long 86°34'22", Lincoln County, 20 ft above culvert on West Cambell Street, 0.1 mile west of junction of West Cambell Street and U.S. Highway 231-431, 0.2 mile southwest of Courthouse, at Fayetteville.	.47	1978-80	7-25-78 6- 3-79 3-20-80	4.00 5.66 4.47	- - -
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	1955-80	3-20-80	7.09	4,350
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‡, 1969-80	5-17-80	13.63	6,750
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	1978-80	5- 8-78 9-21-79 4- 8-80	8.26 8.09 7.46	- - -
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	1955-80	5-17-80	4.17	195
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‡, 1955-80	3-20-80	8.89	2,830
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	1955-80	3-20-80	7.34	5,000
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	1955-80	3-20-80	3.84	185
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	1978-80	6- 8-78 8-26-79 3-20-80	5.42 6.91 6.40	339 514 451
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‡, 1970-80	3-20-80	17.13	9,530
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	1966-80	3-20-80	4.59	348
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	1966-80	1980	<3.57	<415

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Tennessee River basin--Continued					
03597500	Wartrace Creek at Bell Buckle, Tn.	Lat 35°35'16", long 86°20'22", Bedford County, at bridge on State Highway 82, 0.2 mile downstream from Kelly Creek, 0.9 mile east of Bell Buckle, and at mile 7.7. Datum of gage is 822.44 ft National Geodetic Vertical Datum of 1929.	16.3	1953-61‡, 1962-66, 1966-75‡, 1979-50	3-20-80	8.91	3,030
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	1955-80	3-20-80	4.97	1,020
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	1954-80	3-20-80	12.00	5,850
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	1954-80	3-20-80	3.83	-
03604070	Coon Creek tributary near Hohenwald, Tn.	Lat 35°34'07", long 87°40'02", Perry County, at culvert under State Highway 20, 7 miles northwest of Hohenwald.	0.51	1967-80	3-20-80	4.24	110
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	1967-80	3-20-80	3.54	330
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	1967-80	3-20-80	3.64	289
03605700	Deer Creek tributary near Waverly, Tn.	Lat 36°10'20", long 87°44'40", Humphreys County, at culvert under State Highway 13 in Smith Hollow, 8.0 miles northeast of Waverly.	1.04	1955-80	11-23-79	3.20	-
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	1978-80	5-12-78 8-30-79 6-29-80	7.37 9.60 7.68	- - -
		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	1955-80	-	-	-
07025668	Hoosier Creek tributary at Union City, Tn.	Lat 36°25'02", long 89°03'20", Obion County, on right bank 12 ft upstream from culvert under East Jackson Street, and at mile 2.3, Union City.	.27	1978-80	3-13-78 12- 3-78 6-29-80	3.99 5.87 4.49	- - -
07027530	South Fork Forked Deer River tributary at Jackson, Tn.	Lat 35°37'01", long 88°49'19", Madison County, on right bank 15 ft upstream of bridge on Farrar Street and 10 ft east of intersection of Union Street in Jackson.	.98	1978-80	5-29-78 4-11-79 6-29-80	8.86 11.58 11.75	360 640 660

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Obion River basin--Continued					
07028500	North Fork Forked Deer River at Trenton, Tn.	Lat 35°58'49", long 88°55'35", Gibson County, at bridge on State Highways 77 and 104, 0.8 mile east of Trenton, 1.0 mile downstream from Thompson Levee Creek and 1.6 miles upstream from Cain Creek.	73.5	1950-71, 1980	6-23-80	13.25	-
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, 1959-80	6-30-80	6.43	468
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	1954-80	11-25-79	8.55	310
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	1967-80	6-23-80	15.37	3,530
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	1978-80	6-21-78 7- 8-79 4- 8-80	5.98 6.75 5.67	460 630 415
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	-	-	-
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	1978-80	5- 7-78 4- 1-80 4- 8-80	9.59 10.28 9.12	505 610 440
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, 1959-80	3-20-80	15.72	4,150
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	1975-80	7-22-80	9.66	1,650
		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	1975-80	3-20-80	8.[illegible]	174
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	1975-80	[illegible]-80	12.13	840
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, 2,600 ft west of White Station Road, at Memphis.	[illegible]	1975-80	3-20-80	6.01	1,240

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (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	1975-80	3-20-80	5.87	152
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	1975-80	7-22-80	18.84	293
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	1975-80	7-22-80	12.64	392
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	1975-80	7-22-80	12.73	830
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	1975-80	7-22-80	13.06	1,740
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	1975-80	7-22-80	3.74	42
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	1979-80	8-10-78 4- 1-79 6-24-80	11.03 10.92 9.64	- - -
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	1978-80	6-24-80	9.45	410
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	1975-80	7-22-80	6.66	278
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	1975-80	6-24-80	9.81	867
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	1975-80	6-24-80	11.48	316
		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	1975-80	3-23-80	9.19	-
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	1975-80	6-24-80	4.29	58

See footnotes at end of the table.

Annual maximum discharge at crest-stage partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (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	1975-80	6-24-80	7.78	506
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	1975-80	6-24-80	7.22	865
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	1975-80	6-24-80	8.68	1,010
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	1975-80	7-22-80	13.73	37

* Also a low-flow 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 mi^2 without surface drainage.
e Published as Beeler Fork at Lawrenceburg prior to 1934.

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 1980

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cumberland River basin				
03420300 Collins River	Caney Fork	Lat 35°40'29", long 85°42'28", Warren County, 0.1 mile upstream from bridge on North Shellford Road, at Shellford.	325	1954	8-29-80	* 28
03420900 Barren Fork	Collins River	Lat 35°40'23", long 85°45'33", Warren County, at bridge on State Highway 56 at McMinnville.	303	1948-54	8-29-80	*100
03426400 Mansker Creek	Cumberland River	Lat 36°18'34", long 86°40'20", Sumner-Davidson Counties, at bridge on U.S. Highway 31E, 3.0 miles west of Hendersonville.	46	1953,1955	9-10-80 9-11-80	* .29 * 1.1
03426480 Dry Creek	Cumberland River	Lat 36°17'13", long 86°41'48", Davidson County, at L & N Railroad bridge, 0.2 miles southeast of Edenwald, near Madison.	7.99		9-10-80 9-11-80	* .14 * .14
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	5-12-80	* 3.7
03431070 Mill Creek	Cumberland River	Lat 36°08'42", long 86°42'48", Davidson County, 100 ft downstream from bridge on Elm Hill Pike, 1.5 miles west of Mudtavern, 3.0 miles southwest of Donelson.	101		9-10-80 9-11-80	* 5.2 * 4.7
03431370 Browns Creek	Cumberland River	Lat 36°09'16", long 86°44'34", Davidson County, at bridge on Lebanon Pike, U.S. Highway 70, 100 ft west of Fesslers Lane intersection.	15.8		9-10-80 9-11-80	* 2.9 * 2.7
03431605 Whites Creek	Cumberland River	Lat 36°12'19", long 86°50'25", Davidson County, at Clarksville Highway near Bordeaux.	52.8		9-10-80 9-11-80	* 1.4 * 1.2
03432590 West Harpeth River	Harpeth River	Lat 35°56'38", long 86°56'35", Williamson County, near bridge on State Highway 96, 4.3 miles west of Franklin.	109	1975	9-23-80	* 3.6
03434580 Harpeth River	Cumberland River	Lat 36°11'33", long 87°10'04", Cheatham County, at bridge on Ashland City Highway, 1.8 miles southwest of Petway.	727	1941,1949-50 1974-75	9-10-80 9-11-80	* 86 * 82
		Tennessee River basin				
03461266 Greenbrier Creek	Cosby Creek	Lat 35°48'12", long 83°14'52", Cocke County, near mouth at bridge on State Highway 32, 0.9 mile northwest of intersection of State Highway 73 and 32, 0.9 mile south of Cosby.	4.96	1978	10-03-78 11-13-78 6-11-80 7-22-80	2.5 * 1.9 * 11 * 2.1
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 1977-78	10-03-78 10-03-78 10-19-78 10-19-78 11-14-78 6-11-80 7-21-80	*377 *379 *308 *306 *290 *761 *475
03464815 South Indian Creek	Nolichucky River	Lat 36°07'38", long 82°26'45", Unicoi County, 0.1 mile above mouth, near Erwin.	81.0	1972, 1974, 1978	10-03-78 10-19-78 11-14-78 6-11-80 7-21-80	* 17 * 17 * 17 * 41 * 51

See footnotes at end of the table.

Discharge measurements made at miscellaneous sites during water year 1980--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Tennessee River basin--Continued				
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	10-03-78	* 14
					10-19-78	* 14
					11-14-78	* 15
					6-11-80	* 25
					7-21-80	* 38
a/03466695 Little Chucky Creek	Nolichucky River	Lat 36°09'27", long 82°57'34", Greene County, 150 ft downstream from bridge on county road, 1.8 miles southwest of Rader, 2.3 miles south of Mosheim, at mile 14.7.	22.5	1977-78	10-03-78	* 1.9
					11-13-78	* 2.3
					6-10-80	* 6.0
03467000 Lick Creek	Nolichucky River	Lat 36°12'05", long 83°02'52", Greene County, 100 ft upstream 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‡ 1977-78	10-03-78	* 20
					11-13-78	* 18
					6-10-80	* 46
03472372 Silver Lake Spring Branch	Laurel Creek	Lat 36°32'07", long 81°46'25", Johnson County, 15 ft downstream from Silver Lake Dam, 4.5 miles northeast of Mountain City.			7-14-80	3.10
03472374 Silver Lake Creek	Laurel Creek	Lat 36°32'17", long 81°46'35", Johnson County, 50 ft upstream from county road bridge, 700 ft east of intersection with State Highway 91, 4.6 miles northeast of Mountain City.			7-14-80	3.18
03566253 Greasy Creek	Candies Creek	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	10-03-78	* .01
					6-10-80	* .25
					7-21-80	* .01
03602308 North Fork Mill Creek	Mill Creek to Piney River	Lat 35°54'20", long 87°21'04", Hickman County, at bridge about 700 ft above Tennessee Products Co. building, 0.3 mile northwest of Wrigley, and at mile 2.0.	1.1		9-08-80	* .16
		Obion River basin				
a/07025400 North Fork Obion River	Obion River	Lat 36°24'20", long 88°51'20", Weakley County, at bridge on U.S. Highway 45E, 4.0 miles north of Martin.	372	1939-79	10-24-79	190
					11-16-79	189
					12-13-79	5840
					1-17-80	386
					2-26-80	286
					4-08-80	2710
					5-28-80	190
					7-09-80	157
					8-20-80	120
					9-24-80	322
07026370 North Reelfoot Creek	Reelfoot Creek	Lat 36°27'50", long 89°15'13", Obion County, at bridge on State Highway 22, 0.9 mile northwest of Clayton.	56.3	1979	10-24-79	4.0
					11-14-79	9.9
					12-12-79	8.9
					1-15-80	43
					2-26-80	22
					4-09-80	84
					5-29-80	3.9
					7-09-80	4.3
					8-19-80	0
					9-24-80	1.1
a/07029100 North Fork Forked Deer River	Forked Deer River	Lat 36°01'49", long 89°23'13", Dyer County, at bridge on business route of U.S. Highway 51, 0.2 mile south of county courthouse in Dyersburg, and at mile 7.2.	939	1939-79	10-24-79	270
					11-16-79	446
					12-13-79	3070
					1-15-80	1480
					2-26-80	1340
					4-10-80	2300
					5-29-80	291
					7-09-80	1410
					8-19-80	168
					9-23-80	694

* Base flow.
‡ Operated as a continuous-record station.
a Operated as a continuous-record station by Corps of Engineers.

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 1980 Water Year include two springs in Dickson County as part of a study of ground water resources of the Dickson area, two springs in Houston County as part of a continuing study of ground water resources in the middle Tennessee area, and a spring in Rutherford County as part of a continuing 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.

Discharge measurements of springs during water year 1980

Site number and name	Location	Tributary to	Date	Discharge (gpm)	Temp. (°C) Water	Specific Conductance (umhos at 25°C)
		Dickson County				
03436645 Columbia Cavern Spring	Lat 36°12'39", long 87°28'26", 2.3 miles southwest of VanLeer, 2.1 miles west of Taylors Crossroads.	Cedar Creek	1-22-80	2530	--	--
03602197 Tice Spring	Lat 36°03'58", long 87°23'58", 0.1 mile south of intersection of county road with Highway 48, 0.9 mile southwest of Dickson.	East Piney River	9-17-80	72	14.0	280
		Houston County				
03436773 Erin Municipal Spring	Lat 36°19'02", long 87°42'59", 1.3 miles west of Courthouse in Erin.	Erin Branch to Wells Creek to Cumberland River	1-22-80	155	--	--
03605900 Largent Spring	Lat 36°19'14", long 87°51'36", 1.0 mile west of Stewart.	Cane Creek to Tennessee River	1-22-80	1120	13.5	195
		Johnson County				
03472370 Silver Lake Spring	Lat 36°32'10", long 81°46'15", at Silver Lake, 4.5 miles northeast of Mountain City.	Laurel Creek	7-14-80	705	12.5	190
		Rutherford County				
03428047 Fox Camp Spring	Lat 35°48'15", long 86°20'52", 1.0 mile north of Mankinville, 3.7 miles southeast of Courthouse in Murfreesboro.	Todd Lake	10-10-79	1050	15.5	310
			10-26-79	480	13.0	340
			11-27-79	1360	15.0	290
			12-18-79	690	10.0	330
			1-03-80	770	11.5	330
			3-26-80	1420	15.0	215
			4-21-80	890	19.0	280
			6-06-80	400	20.0	340

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 1980

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	1979-80	11- 5-79 7-16-80	2.26 -1.32	56 5.9
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, 1979-80	11- 5-79 7-16-80	2.86 2.39	65 6.3
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	1979-80	11- 6-79 7-16-80	2.47 1.95	48 5.1
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	1979-80	11- 6-79 7-16-80	3.11 2.47	20 1.8
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, 1979-80	11- 6-79 7-16-80	2.75 1.81	126 10
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	1979-80	11- 5-79 7-16-80	6.41 5.22	63 5.3
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, Tn.	28.2	1979-80	11- 5-79 7-16-80	4.23 3.56	44 1.9
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, 1975-80	11- 6-79 7-15-80	1.98 0.79	125 6.3
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, 1979-80	11- 6-79 7-15-80	1.07 0.68	44 1.3

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (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, 1979-80	11- 5-79 7-15-80	12.63 12.29	23 1.2
03407920	Buffalo Creek near Winona, Tn.	Lat 36°23'16", long 84°25'13", Scott County, Hydrologic Unit 05130104, 3 miles below Rockhouse Fork, 4.5 miles southeast of Huntsville, and 1.9 miles northeast of Winona.	42.5	1975-80	11- 6-79 7-17-80	7.12 6.33	46 2.0
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	1975-80	11- 6-79 7-17-80	7.73 7.08	24 1.7
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, 1975-80	11- 6-79 7-17-80	2.50 1.67	66 1.0
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, Tn.	27.1	1979-80	11- 5-79 7-15-80	3.04 2.31	52 .31
03408700	Clear Fork at Gatewood, 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	1979-80	11- 6-79 7-17-80	24.22 16.64	110 .78
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, 1979-80	11- 6-79 7-17-80	24.53 13.63	189 2.3
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, 1979-80	11- 6-79 7-17-80	4.88 3.29	47 0
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	1979-80	11- 7-79 7-15-80	4.60 2.93	48 .59

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		Cumberland River basin--Continued					
03410210	South Fork Cumberland River at Leatherwood Ford, Tn.	Lat 36°28'38", long 84°40'09", Scott County, Hydrologic Unit 05130104, 0.8 mile below Anderson Branch, 1.3 miles above North White Oak Creek, 10.1 miles southwest of Oneida and at river mile 70.	806	1961-62, 1979-80	11- 5-79 7-16-80	9.55 6.49	2060 51
*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, 1978-80	11- 7-79 3-21-80 3-28-80 3-28-80 3-28-80 3-28-80	17.34 19.73 18.36 18.67 18.62 18.53	58 978 306 428 407 363
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	1979-80	11- 7-79 3-21-80 7-14-80	28.32 31.25 27.17	29 844 .02
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	1979-80	11- 7-79 3-21-80 7-14-80	28.07 33.34 27.07	22 3450 .32
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, 1979-80	11- 8-79 3-21-80 7-15-80	24.99 25.71 ---	4.8 505 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, 1978-80	11- 7-79 3-21-80 3-28-80 3-28-80 3-28-80	14.89 19.39 15.84 17.09 16.95	48 1420 168 461 416
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	1979-80	11- 7-79 3-20-80 7-15-80	22.36 27.17 21.72	57 1750 5.87
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	1979-80	11- 7-79 3-20-80 7-15-80	17.63 22.25 16.94	27 599 2.0
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, 1979-80	11- 7-79 3-21-80 7-15-80	21.19 24.25 20.58	146 3750 e 5.0
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 northeast of Mobra.	14.8	1979-80	11- 7-79 7-15-80	5.71 ---	1.6 0

See footnotes at the end of table.

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (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	1979-80	11- 7-79 3-20-80 7-15-80	21.54 28.14 ---	24 782 0
*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	1979-80	11- 7-79 3-21-80	17.76 27.52	25 1600
*03418995	Glade Creek near Lonewood, Tn.	Lat 35°45'35", long 85°15'57", Bledsoe County line, Hydrologic 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	1979-80	11- 7-79 3-21-80	22.44 28.83	55 2560
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, 1979-80	11- 7-79 3-20-80 7-14-80	898.21 902.88 ---	8.8 2440 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, 1979-80	11- 7-79 3-20-80	28.69 40.86	82 3550
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 Highway 111 bridge 0.5 mile south of U.S. Highway 70S - State Highway 111 intersection in Sparta.	175	1940-71, 1979-80	11- 8-79 3-22-80 7-16-80	9.01 11.55 8.20	235 4680 33
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	1979-80	11- 7-79 3-21-80 7-16-80	8.18 13.37 7.31	64 3300 3.5
*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	1979-80	11- 6-79 3-20-80	11.53 17.09	42 1050
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, 1978-80	11- 6-79 3-22-80 7-15-80 8-29-80	16.72 25.42 15.39 ---	390 3440 7.0 6.3
*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	1979-80	11- 6-79 3-20-80	18.59 32.81	36 2410

See footnotes at end of the table.

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (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	1979-80	11- 6-79 3-22-80 7-15-80	16.37 33.57 14.71	89 963 4.1
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, 1979-80	11- 6-79 3-20-80 7-15-80	18.27 23.69 ---	70 1380 5.9
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, 1979-80	11- 7-79 3-20-80 7-16-80	21.92 30.68 20.44	62 861 4.2

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (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	1979-80	11- 5-79 7-15-80	14.11 9.47	7.6 2.0
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, 1979-80	11-5-79 7-15-80	14.64 14.27	36 7.4
03532202	Big Creek at Aspen Street at La Follete, 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, 1979-80	11- 5-79 7-15-80	19.28 18.54	28 1.2
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, 1979-80	11- 6-79 7-15-80	16.72 16.10	28 1.4
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 below 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, 1979-80	11- 6-79 7-16-80	5.67 4.89	28 1.5
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	1979-80	11- 7-79 3-21-80 7-18-80	2.86 --- ---	57 854 .18
03538398	Rock Creek near Gobey, Tn.	Lat 36°08'02", long 84°37'31", Morgan County, Hydrologic Unit 06010208, 0.2 mile below 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, 1979-80	11- 7-79 3-21-80 7-17-80	12.66 19.50 11.54	44 709 .17
03539600	Daddys Creek near Hebbertsburg, Tn.	Lat 35°59'53", long 84°49'24", Cumberland County, Hydrologic Unit 06010208, 2.1 miles southwest of Hebbertsburg, 6.9 miles northeast of Crab Orchard, and at mile 9.1.	139	1965, 1957-68, 1979-80	11- 7-79 3-20-80 3-20-80 3-20-80 3-21-80 3-21-80 3-22-80 7-17-80	4.30 5.90 7.42 9.66 12.10 9.62 6.68 2.47	239 1150 2410 5300 9730 5640 1960 2.4
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	1979-80	11- 7-79 7-17-80	3.40 2.24	65 0
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 1979-80	11- 7-79 7-17-80	10.64 8.35	277 1.1

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--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					
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 southwest of Wartburg and 2.4 miles above mouth.	18.4	1979-80	11- 7-79 3-21-80 7-18-80	8.97 11.21 7.74	34 683 .03
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, 1979-80	11- 6-79 3-17-80 7-17-80	2.70 7.75 1.19	86 1250 1.7
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, 1979-80	11- 8-79 3-17-80 7-16-80	2.60 4.59 1.28	57 891 .20
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 Opossum Trot Road, 2.1 miles below Sandy Creek, 2.5 miles above Piney Creek, 5.0 miles northeast of Grandview, 10 miles northwest of Spring City, and 11.4 miles above mouth.	33.8	1958, 1979-80	11- 7-79 3-20-80 7-18-80	18.62 21.60 17.44	70 1290 .13
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, 1979-80	11- 7-79 3-21-80 7-17-80	17.81 --- 16.73	34 788 .02
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, 1979-80	11- 8-79 3-21-80 7-17-80	9.20 11.10 3.41	41 544 .54
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, 1979-80	11- 7-79 3-20-80 7-18-80	1.39 5.61 -0.35	144 2550 .50
03566292	Sale Creek near Sale Creek, Tn.	Lat 35°25'35", long 85°05'24", Hamilton County, Hydrologic Unit 06020001, at Coulterville Road bridge 0.3 mile southwest of Coulterville Road - U.S. Highway 27 intersection.	57.2	1955-56, 1964, 1979-80	11- 6-79 3-18-80 7-15-80	18.30 20.93 ---	109 665 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 upstream from U.S. Highway 27 bridge.	49.0	1932, 1955-56, 1959-68, 1979-80	11- 6-79 3-18-80 7-15-80	11.23 12.07 ---	115 865 .35

Discharge measurements made at synoptic coal-hydrology partial-record staticns during water year 1980--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, 1979-80	11- 6-79 3-18-80 7-15-80	15.91 16.82 ---	171 1330 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, 1979-80	11- 6-79 3-18-80 7-15-80	15.71 16.46 ---	60 440 e .20
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, 1979-80	11- 5-79 3-19-80 7-16-80	13.24 16.88 11.50	192 721 16
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	1979-80	11- 6-79 3-18-80 3-28-80 3-28-80 3-28-80 3-29-80 3-31-80 7-14-80	14.14 17.99 17.94 18.82 19.66 19.10 16.86 12.78	292 1380 1460 1710 2050 1820 1080 39
*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, 1979-80	11- 6-79 3-18-80 7-14-80	-1.26 2.42 ---	18 192 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, 1979-80	11- 6-79 3-18-80 7-14-80	18.40 19.84 ---	87 700 0
03570855	Woodcock Creek Southwest of Dunlap, Tn.	Lat 35°19'19", long 85°26'01", Sequatchie County, Hydrologic Unit 06020004, at Old West Valley Road bridge 0.4 mile northeast of Daus and 4.3 miles southwest of Dunlap.	15.3	1953-55, 1979-80	11- 5-79 3-17-80 7-15-80	18.59 19.93 ---	22 314 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, 1979-80	11- 5-79 3-17-80 7-15-80	13.94 15.27 ---	24 443 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, 1979-80	11- 6-79 3-18-80 7-14-80	25.88 27.88 24.62	213 1970 6.0
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, 1979-80	11- 5-79 3-18-80 7-14-80	--- 11.93 ---	0 55 0

See footnotes at end of the table.

Discharge measurements made at synoptic coal-hydrology partial-record stations during water year 1980--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					
*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 southeast of Monteagle.	50.4	1955-75, 1977-80	11- 5-79 3-17-80 7-14-80	1.03 5.00 0.23	124 1230 4.9
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, 1979-80	11- 5-79 3-18-80 7-14-80	--- 9.80 ---	0 21 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, 1979-80	11- 5-79 3-18-80 7-14-80	14.16 18.98 12.70	61 367 2.9
03572092	Crow Creek near Anderson, Tn.	Lat 35°59'28", long 85°54'07", Franklin County, Hydrologic Unit 06030001, at State Highway 56 bridge, 0.2 mile above Willis Branch, 0.2 mile north of Tennessee-Alabama state line.	78.4	1979-80	11- 5-79 3-18-80 7-14-80	15.51 18.82 13.95	175 1240 6.8
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 northeast of Pelham.	25.7	1953,1962, 1964, 1979-80	11- 5-79 3-17-80 3-28-80 3-28-80 3-28-80 3-28-80 3-29-80 7-14-80	32.03 35.08 34.52 35.61 36.04 35.95 34.14 ---	62 445 304 393 535 514 295 0
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 northeast of Big Spring.	22.4	1953, 1979-80	11- 5-79 3-17-80 7-14-80	--- 22.79 ---	0 210 0
03578095	Betsy Willis Creek near Pelham, Tn.	Lat 35°19'48", long 85°55'12", Coffee County, Hydrologic Unit 06030003, at U.S. Highway 41 bridge 2.7 miles northwest of Pelham.	11.5	1979-80	11- 5-79 3-17-80 7-15-80	26.06 27.07 25.44	11 138 .05
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 1979-80	11- 5-79 3-17-80 7-14-80	25.89 27.14 25.28	24 242 .43
03578290	Beans Creek near Hillsboro, Tn.	Lat 35°22'43", long 85°56'58", Coffee County, Hydrologic Unit 06030003, at U.S. Highway 41 bridge 2.7 miles south of Hillsboro.	14.8	1979-80	11- 5-79 3-17-80 7-15-80	7.81 9.25 ---	28 293 0
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 southeast of courthouse in Winchester.	37.7	1979-80	11- 5-79 3-17-80 7-14-80	34.14 37.86 33.25	84 644 7.5

* **Also crest-stage partial-record station.**

CUMBERLAND RIVER BASIN

03403697 - CLEAR FORK AT HWY 90, AT ANTHRAS, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1415	56	321	7.5	8.0	50	110	--	--
JUL									
16...	1300	5.9	530	7.6	26.5	88	220	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	710	--	0	--	--	460
JUL									
16...	20	40	20	1600	1600	10	56000	20	210

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	460	--	--	--	--	11	1.7
JUL								
16...	190	20	1700	.00	0	130	20	.32

03403710 - TACKETT CREEK AT ANTHRAS, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1600	65	191	7.7	10.5	38	53	--	--
JUL									
16...	1115	6.3	570	8.0	27.0	118	160	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	450	--	60	--	--	150
JUL									
16...	<10	20	<10	410	390	20	18000	<10	120

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	150	--	--	--	--	6	1.1
JUL								
16...	110	10	740	.00	0	44	10	.17

CUMBERLAND RIVER BASIN--Continued

03403715 - STINKING CREEK NEAR NEWCOMB, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1415	48	112	7.3	7.0	14	34	--	--
JUL									
16...	1600	5.1	245	7.6	32.0	22	79	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	690	--	110	--	--	420
JUL									
16...	10	10	10	290	290	0	30000	10	170

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	420	--	--	--	--	8	1.0
JUL								
16...	0	170	490	.00	0	65	4	.06

03403720 - LICK CREEK AT HABERSHAM, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1210	20	229	7.6	6.5	34	66	--	--
JUL									
16...	1430	1.8	670	8.5	31.0	138	190	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	590	--	60	--	--	430
JUL									
16...	30	40	30	390	390	0	76000	20	30

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	430	--	--	--	--	12	.66
JUL								
16...	10	20	2000	.00	0	140	10	.05

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03403740 - HICKORY CREEK AT MORLEY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
NOV									
06...	0845	136	205	7.6	6.0	28	68	--	--
JUL									
16...	1000	10	385	7.4	26.0	58	140	0	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
NOV									
06...	--	--	--	4600	--	40	--	--	930
JUL									
16...	10	20	10	1300	1300	0	22000	<10	330

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV								
06...	50	880	--	--	--	--	104	35
JUL								
16...	20	310	1200	.00	0	78	17	.46

03403770 - ELK CREEK AT NEWCOMB, TN.

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
NOV									
05...	1140	63	182	7.5	8.5	42	42	--	--
JUL									
16...	0830	5.3	295	7.3	27.0	72	66	0	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
NOV									
05...	--	--	--	1100	970	130	--	--	310
JUL									
16...	20	10	10	2200	2200	20	43000	10	580

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV								
05...	0	310	--	--	--	--	22	3.7
JUL								
16...	60	520	2100	.00	0	600	49	.70

CUMBERLAND RIVER BASIN--Continued

03404150 - JELLICO CREEK AT KETCHEN, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1430	44	155	6.9	10.0	11	53	--	--
JUL									
16...	1100	1.9	225	7.0	26.0	18	93	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	960	830	130	--	--	1000
JUL									
16...	20	20	<10	680	650	30	19000	<10	510

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	1000	--	--	--	--	18	2.1
JUL								
16...	0	520	700	.00	0	58	14	.07

03407850 - NEW RIVER AT STAINVILLE, TENN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1545	125	295	7.7	9.0	42	99	--	--
JUL									
15...	1030	6.2	830	7.9	25.5	94	320	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	530	450	80	--	--	150
JUL									
15...	10	20	<10	380	340	40	20000	<10	120

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	150	--	--	--	--	3	1.0
JUL								
15...	10	110	470	.00	0	47	8	.14

CUMBERLAND RIVER BASIN--Continued

03407873 - BEECH FORK AT SHEA, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1600	44	185	7.7	10.0	36	47	--	--
JUL									
15...	1205	44	300	7.8	25.5	60	81	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	280	--	30	--	--	40
JUL									
15...	10	120	20	340	310	30	18000	<10	40

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	20	20	--	--	--	--	1	.12
JUL								
15...	0	40	440	.00	0	65	6	.71

03407890 - MONTGOMERY FORK AT MONTGOMERY, TENN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1630	23	205	6.9	10.5	20	83	--	--
JUL									
15...	1535	1.2	290	7.1	30.0	22	120	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	870	--	220	--	--	470
JUL									
15...	20	20	30	190	190	0	37000	20	370

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	470	--	--	--	--	16	.99
JUL								
15...	0	370	630	.00	0	98	3	.01

CUMBERLAND RIVER BASIN--Continued

03407920 - BUFFALO CREEK NEAR WINONA, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 06...	0830	46	85	6.8	7.5	18	24	--	--
JUL 17...	0815	2.0	180	6.9	23.5	34	43	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 06...	--	--	--	680	--	130	--	--	110
JUL 17...	<10	<10	10	790	700	90	13000	10	270

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 06...	0	110	--	--	--	--	12	1.5
JUL 17...	40	230	660	.00	0	41	10	.05

03407960 - PAINT ROCK CREEK NEAR HUNTSVILLE, TENN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 06...	0845	24	135	7.4	8.0	24	44	--	--
JUL 17...	0910	1.7	250	7.8	25.5	60	54	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 06...	--	--	--	720	--	150	--	--	160
JUL 17...	<10	<10	<10	660	630	30	11000	10	80

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 06...	0	160	--	--	--	--	11	.73
JUL 17...	30	50	500	.00	0	28	13	.06

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03408200 - BRIMSTONE CREEK NEAR ROBBINS, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 06...	1315	66	135	6.8	8.0	14	40	--	--
JUL 17...	1020	.98	285	7.3	26.0	46	82	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 06...	--	--	--	750	--	130	--	--	290
JUL 17...	<10	20	20	690	670	20	21000	20	530

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 06...	0	290	--	--	--	--	6	1.1
JUL 17...	20	510	60	.00	0	69	14	.04

03408550 - NORTH PRONG CLEAR FORK NEAR GRIMSLEY,TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1200	52	42	6.2	7.0	18	5.4	--	--
JUL 15...	1405	.31	75	6.6	27.0	10	18	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	240	--	60	--	--	30
JUL 15...	<10	<10	<10	510	420	90	4300	<10	130

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	0	30	--	--	--	--	2	.28
JUL 15...	70	60	160	.00	0	13	9	.01

CUMBERLAND RIVER BASIN--Continued

03408700 - CLEAR FORK AT GATEWOOD, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 06...	1430	110	37	6.8	7.0	8	7.2	--	--
JUL 17...	1415	.78	53	6.9	30.0	18	5.2	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 06...	--	--	--	170	--	60	--	--	20
JUL 17...	<10	<10	<10	760	530	230	1600	<10	390

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 06...	0	20	--	--	--	--	<1	.12
JUL 17...	150	240	71	.00	0	7	6	.01

03408860 - CLEAR FORK NEAR BURRVILLE, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 06...	1115	189	39	6.2	7.5	8	5.4	--	--
JUL 17...	1300	2.3	44	7.3	28.0	14	4.1	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 06...	--	--	--	220	--	80	--	--	20
JUL 17...	<10	<10	<10	180	100	80	1000	<10	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 06...	10	10	--	--	--	--	1	.51
JUL 17...	0	60	45	.00	0	5	4	.03

CUMBERLAND RIVER BASIN--Continued

03409350 - BONE CAMP CREEK NEAR BURRVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 06...	0920	47	20	5.7	7.0	6	4.0

DATE	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, SUS-PENDED RECOV. (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)
NOV 06...	220	20	10	0	10	2	.25

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 17...	1215	0	<10	<10	<10	<10	4900	20	12	.00	0	17

03409395 - BLACK WOLF CREEK NEAR GLENMARY, TN.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	0830	48	96	6.4	8.5	6	26	--	--
JUL 15...	1830	.59	240	7.2	24.5	48	54	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	570	--	70	--	--	250
JUL 15...	20	40	10	370	370	0	30000	20	240

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 07...	10	240	--	--	--	--	8	1.0
JUL 15...	10	230	2600	.00	0	120	54	.09

CUMBERLAND RIVER BASIN--Continued

03410210 - S F CUMBERLAND R AT LEATHERWOOD FORD, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1700	2060	95	6.7	9.0	12	27	--	--
JUL 16...	1320	51	195	7.7	31.5	13	58	0	<10

DATE	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/G AS CU)	IRON, TOTAL (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL (UG/L AS MN)
NOV 05...	--	--	--	660	--	80	--	--	90
JUL 16...	20	20	20	610	580	30	200000	20	70

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	10	80	--	--	--	--	12	67
JUL 16...	30	40	870	.02	0	69	13	1.8

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03414340 - EAST FORK OBEY RIVER AT OBEY CITY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
NOV								
07...	1330	58	99	3.9	9.5	29	2300	--
MAR								
21...	1545	978	53	4.4	9.5	13	3700	3000
27...	2330	96	85	--	9.5	--	--	--
28...	0800	304	78	4.2	9.5	22	3600	2600
28...	1015	429	78	--	8.5	--	--	--
28...	1315	407	100	4.1	8.5	--	--	--
28...	1500	363	78	4.4	10.0	23	3500	3400

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV							
07...	1500	250	0	250	7	1.1	--
MAR							
21...	670	110	10	100	70	185	35
27...	--	--	--	--	5	1.3	--
28...	990	210	20	190	44	36	63
28...	--	--	--	--	74	86	79
28...	--	--	--	--	54	59	79
28...	110	180	10	170	35	34	74

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUL												
14...	1015	.78	650	3.1	27.0	190	0	<10	<10	<10	<10	1600

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)
JUL												
14...	600	1000	18000	<10	2100	0	2100	85	.00	0	11	<1

CUMBERLAND RIVER BASIN--Continued

03414346 - HURRICANE CREEK AT CAMP GROUND, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1000	29	24	5.5	8.0	2	5.3	--	--
MAR 21...	0915	844	20	5.6	8.0	2	5.2	--	--
JUL 14...	1530	.02	53	7.8	31.0	19	18	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	150	--	60	--	--	30
MAR 21...	--	--	--	3200	3100	70	--	--	260
JUL 14...	<10	<10	<10	430	290	140	2900	<10	50

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP, SIEVE DIAM, % FINER THAN .062 MM
NOV 07...	20	10	--	--	--	--	2	.16	--
MAR 21...	210	50	--	--	--	--	92	210	23
JUL 14...	20	30	190	.00	0	16	3	.00	--

CUMBERLAND RIVER BASIN--Continued

03414430 - EAST FORK OBEY RIVER NEAR WILDER, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
NOV									
07...	1130	22	710	3.0	8.5	250	--	--	--
MAR									
21...	1200	3450	95	4.2	9.0	31	--	--	--
JUL									
14...	1515	.32	2400	2.7	31.0	1200	0	<10	10

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
NOV									
07...	--	--	19000	--	16000	--	--	2300	0
MAR									
21...	--	--	7600	6300	1300	--	--	310	60
JUL									
14...	<10	<10	--	--	77000	63000	<10	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV								
07...	2300	--	--	--	--	22	1.3	--
MAR								
21...	250	--	--	--	--	150	1400	54
JUL								
14...	8400	130	.00	0	30	8	.01	--

CUMBERLAND RIVER BASIN--Continued

03414470 - BUFFALO COVE C NR BOATLAND, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
08...	0900	4.8	160	7.5	11.5	57	19	160
MAR								
21...	1600	505	108	7.5	7.5	34	12	2200

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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)
NOV							
08...	--	20	10	0	10	2	.03
MAR							
21...	2100	70	190	150	40	167	228

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
15...	0730	0	<10	<10	<10	<10	2300	<10	100	.00	0	31

CUMBERLAND RIVER BASIN--Continued

03414680 - WEST FORK OBEY RIVER NEAR ALLRED, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TEMPERATURE, WATER (DEG C)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
NOV								
07...	12.0	80010	48	208	8.0	90	17	--
MAR								
21...	11.5	80010	1420	130	7.2	57	8.0	3900
27...	12.0	--	125	190	--	--	--	--
28...	11.0	--	168	180	--	--	--	--
28...	11.0	80010	168	172	7.9	78	13	390
28...	11.0	--	253	180	--	--	--	--
28...	11.0	--	530	172	--	--	--	--
28...	11.0	--	530	172	--	--	--	--
28...	11.5	--	475	175	7.9	--	--	--
28...	12.0	--	440	175	7.9	--	--	--
28...	12.0	--	416	180	7.8	--	--	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV								
07...	150	0	0	20	20	--	4	.52
MAR								
21...	3900	30	200	210	10	78	142	544
27...	--	--	--	--	--	--	8	2.7
28...	--	--	--	--	--	--	18	8.2
28...	410	20	20	60	40	--	12	5.4
28...	--	--	--	--	--	--	20	14
28...	--	--	--	--	--	--	61	87
28...	--	--	--	--	--	88	71	102
28...	--	--	--	--	--	--	48	62
28...	--	--	--	--	--	--	41	49
28...	--	--	--	--	--	--	43	48

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
JUL									
14...	1200	3.2	270	8.2	27.5	110	38	0	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUL									
14...	40	20	<10	250	230	20	28000	20	50

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
JUL								
14...	20	30	870	.00	0	45	26	.22

CUMBERLAND RIVER BASIN--Continued

03415960 - WOLF RIVER AT WOLF RIVER, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1500	57	130	7.8	10.5	62	6.9	--	--
MAR 20...	1600	1750	68	8.6	9.0	32	6.4	--	--
JUL 15...	1600	5.9	200	7.9	22.5	88	9.5	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	240	--	20	--	--	30
MAR 20...	--	--	--	5200	5100	80	--	--	340
JUL 15...	<10	<10	<10	580	560	20	2700	<10	40

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	[illegible]	10	--	--	--	--	<10	--	--
MAR 20...	320	20	--	--	--	--	212	1000	68
JUL 15...	20	20	200	.00	0	11	10	.16	--

CUMBERLAND RIVER BASIN--Continued

03415975 - ROTTEN FORK WOLF RIVER NEAR PALL MALL, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1600	27	150	7.8	13.0	72	6.6	--	--
MAR									
20...	1300	599	95	8.1	9.5	46	6.6	--	--
JUL									
15...	1500	2.0	250	9.4	32.0	124	10	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	120	--	40	--	--	20
MAR									
20...	--	--	--	3900	3900	50	--	--	240
JUL									
15...	<10	<10	<10	380	360	20	1900	<10	50

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP, SIEVE DIAM, % FINER THAN .062 MM
NOV									
07...	10	10	--	--	--	--	<10	--	--
MAR									
20...	220	20	--	--	--	--	381	616	69
JUL									
15...	10	40	74	.00	0	11	13	.07	--

CUMBERLAND RIVER BASIN--Continued

03418500 - CANEY FORK AT CLIFTY, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH, FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1000	146	35	6.4	9.0	12	6.8	--	--
MAR									
21...	1415	3750	30	6.2	10.0	4	7.1	--	--
JUL									
15...	1315	5.0	220	7.3	34.5	6	84	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	--	--	110	--	--	70
MAR									
21...	--	--	--	940	800	140	--	--	100
JUL									
15...	10	<10	<10	200	180	20	12000	50	400

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
07...	0	70	--	--	--	--	<10	--
MAR								
21...	20	80	--	--	--	--	69	699
JUL								
15...	20	380	640	.00	0	170	4	.05

CUMBERLAND RIVER BASIN--Continued

03418520 - CLIFTY CREEK AT MOBRA,TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV 07...	0900	1.6	400	3.7	8.5	150	1400
MAR 21...	1545	--	65	5.8	10.0	23	1600

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)
NOV 07...	--	1300	5600	0	5600	<10
MAR 21...	1300	300	450	60	390	--

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 15...	1430	0	<10	<10	<10	10	58000	<10	190	.00	0	18

03418925 - BEE CREEK AT LANTANA RD AT WINESAP, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV 07...	1330	24	26	6.6	10.0	8	4.2	310
MAR 20...	1515	782	28	6.2	10.0	14	5.5	3400

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV 07...	--	90	20	0	20	5	.33	--
MAR 20...	3300	120	190	150	40	376	794	61

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 15...	0800	0	<10	<10	<10	<10	2400	<10	130	.00	0	7

CUMBERLAND RIVER BASIN--Continued

03418935 - BEAVERDAM CR AT LANTANA RD NEAR BELLVIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
07...	1100	25	36	7.0	10.5	12	4.3	330
MAR								
21...	0845	1600	28	6.2	8.5	2	5.7	1400

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV								
07...	--	100	40	0	40	7	.47	--
MAR								
21...	1300	130	100	20	80	239	1030	20

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
15...	0820	0	<10	10	<10	<10	7100	<10	140	.00	0	9

CUMBERLAND RIVER BASIN--Continued

03418995 - GLADE CREEK NEAR LONEWOOD, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	0830	55	44	6.3	9.0	9	6.2	--	--
MAR									
21...	1000	2560	30	6.4	9.0	4	5.7	--	--
JUL									
15...	0915	.35	145	8.0	25.0	36	30	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	--	--	1100	--	--	50
MAR									
21...	--	--	--	1200	1100	130	--	--	130
JUL									
15...	<10	<10	<10	260	200	60	5900	<10	70

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
07...	30	20	--	--	--	--	3	.45	--
MAR									
21...	50	80	--	--	--	--	113	781	64
JUL									
15...	30	40	830	.00	0	22	3	.00	--

CUMBERLAND RIVER BASIN--Continued

03419200 - CANE C NR SPENCER, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
07...	1130	8.8	70	7.1	12.0	28	12	110
MAR								
20...	1200	2440	38	7.2	12.0	20	7.2	2900

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV								
07...	--	50	10	0	10	3	.07	--
MAR								
20...	2900	80	410	350	60	223	1470	75

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
14...	1600	0	<10	20	20	<10	30000	<10	1200	.00	0	49

CUMBERLAND RIVER BASIN--Continued

03419270 - CALFKILLER RIVER NEAR TAYLORS, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1215	82	190	7.6	12.0	90	11	--	--
MAR 20...	1600	3550	110	7.6	12.0	48	6.4	--	--
JUL 16...	1620	6.3	280	8.1	24.0	144	18	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	250	--	30	--	--	20
MAR 20...	--	--	--	10000	10000	50	--	--	550
JUL 16...	<10	<10	<10	230	220	10	2900	<10	30

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP, SIEVE DIAM, % FINER THAN .062 MM
NOV 07...	10	10	--	--	--	--	2	.45	--
MAR 20...	540	10	--	--	--	--	543	5210	83
JUL 16...	10	20	110	.00	0	7	5	.04	--

CUMBERLAND RIVER BASIN--Continued

03420000 - CALFKILLER RIVER BELOW SPARTA, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
08...	0845	235	217	7.9	11.0	94	9.0	--	--
MAR									
22...	0815	4680	148	8.0	10.5	102	6.3	--	--
JUL									
16...	1415	33	290	8.4	29.0	146	13	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
08...	--	--	--	270	--	30	--	--	50
MAR									
22...	--	--	--	2600	2600	50	--	--	120
JUL									
16...	<10	<10	<10	170	160	10	5400	<10	80

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
08...	10	40	--	--	--	--	8	5.1
MAR								
22...	110	10	--	--	--	--	104	1310
JUL								
16...	70	10	460	.00	0	23	6	.53

CUMBERLAND RIVER BASIN--Continued

03420116 - ROCKY RIVER AT ROCKY R ROAD AT RIVERVIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
NOV 07...	0945	64	110	7.5	12.0	46	14	--	--
MAR 21...	1030	3300	63	7.2	10.0	18	12	--	--
JUL 16...	0920	3.5	280	8.0	20.5	81	48	0	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
NOV 07...	--	--	--	130	--	20	--	--	10
MAR 21...	--	--	--	4100	4100	30	--	--	830
JUL 16...	<10	<10	<10	130	110	20	5200	<10	40

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	0	10	--	--	--	--	2	.35	--
MAR 21...	580	250	--	--	--	--	237	2110	59
JUL 16...	0	40	130	.00	0	17	4	.04	--

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420156 - COLLINS RIVER AT BARKERTOWN, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	0930	42	42	7.0	9.0	9	8.3	--	--
MAR									
20...	1430	1050	35	6.6	9.5	7	5.5	--	--
JUL									
14...	1010	.05	135	7.6	26.0	38	15	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	200	--	50	--	--	30
MAR									
20...	--	--	--	2600	2500	100	--	--	280
JUL									
14...	20	<10	<10	680	600	80	1200	<10	590

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP, SIEVE DIAM, % FINER THAN .062 MM
NOV									
06...	0	30	--	--	--	--	<10	--	--
MAR									
20...	210	70	--	--	--	--	186	527	68
JUL									
14...	360	230	98	.00	0	12	6	.00	--

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420200 - COLLINS RIVER NEAR TARLTON, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1115	390	65	7.5	11.5	22	8.4	--	--
MAR									
22...	1015	3440	58	7.3	10.0	18	7.8	--	--
JUL									
15...	1115	7.0	228	7.8	20.5	89	21	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	130	--	10	--	--	10
MAR									
22...	--	--	--	2300	2300	40	--	--	690
JUL									
15...	10	<10	<10	110	100	10	4700	30	40

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
06...	0	10	--	--	--	--	1	1.1	--
MAR									
22...	670	20	--	--	--	--	334	3100	45
JUL									
15...	0	50	200	.00	0	31	2	.04	--

CUMBERLAND RIVER BASIN--Continued

03420230 - SCOTT CREEK AT IRVING COLLEGE, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1230	36	258	8.2	12.0	130	7.7	--	--
MAR									
20...	1645	2410	142	7.7	12.5	69	5.7	--	--
JUL									
15...	1240	4.1	320	8.1	20.0	148	12	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	150	--	20	--	--	10
MAR									
20...	--	--	--	5400	5300	80	--	--	680
JUL									
15...	20	<10	<10	120	110	10	4600	<10	10

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP. SIEVE DIAM, % FINER THAN .062 MM
NOV									
06...	0	10	--	--	--	--	4	.39	--
MAR									
20...	650	30	--	--	--	--	444	2890	75
JUL									
15...	0	20	170	.00	0	18	6	.07	--

WATER-QUALITY ANALYSES AT PARTIAL-RECORD STATIONS

CUMBERLAND RIVER BASIN--Continued

03420260 - HILLS CREEK NEAR IRVING COLLEGE, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1430	89	130	7.7	12.0	28	36	--	--
MAR									
22...	0800	963	85	7.8	8.5	26	15	--	--
JUL									
15...	1430	4.1	247	7.9	28.0	85	34	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	220	--	40	--	--	600
MAR									
22...	--	--	--	1000	960	40	--	--	390
JUL									
15...	<10	20	<10	150	150	0	5100	10	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDIMENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	10	590	--	--	--	--	4	.96
MAR								
22...	50	340	--	--	--	--	45	117
JUL								
15...	10	50	320	.00	0	54	3	.03

CUMBERLAND RIVER BASIN--Continued

03420720 - HICKORY CREEK NEAR VIOLA, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
NOV									
06...	1230	70	242	7.8	13.5	98	5.5	--	--
MAR									
20...	1200	1380	90	7.7	11.5	41	4.0	--	--
JUL									
15...	1615	5.9	395	7.9	28.0	150	48	0	<10

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
NOV									
06...	--	--	--	240	--	30	--	--	20
MAR									
20...	--	--	--	7100	7000	120	--	--	530
JUL									
15...	<10	<10	<10	280	250	30	8000	<10	70

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
06...	0	20	--	--	--	--	3	.57	--
MAR									
20...	490	60	--	--	--	--	486	1810	84
JUL									
15...	10	60	160	.00	0	30	7	.11	--

CUMBERLAND RIVER BASIN--Continued

03422850 - FALLING WATER R AT ST. HWY 42,NR COOKEVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1430	62	250	7.8	12.0	110	5.0	--	--
MAR									
20...	1200	861	138	7.3	11.5	62	5.6	--	--
JUL									
16...	1200	4.2	320	8.3	27.0	86	6.7	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	270	--	60	--	--	20
MAR									
20...	--	--	--	6800	6700	70	--	--	530
JUL									
16...	20	<10	<10	490	450	40	7400	<10	110

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
07...	10	10	--	--	--	--	6	1.0	--
MAR									
20...	520	10	--	--	--	--	666	1550	85
JUL									
16...	30	80	730	.01	0	34	70	.79	--

TENNESSEE RIVER BASIN

03532070 - OLD TOWN CREEK NEAR RED HILL, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1415	7.6	260	7.8	13.0	110	8.3	--	--
JUL									
15...	1010	2.0	240	7.6	21.5	110	5.8	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	1600	--	50	--	--	160
JUL									
15...	10	<10	<10	360	330	30	9100	<10	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	60	100	--	--	--	--	36	.74
JUL								
15...	0	60	320	.00	0	18	6	.03

03532100 - DAVIS CREEK NEAR SPEEDWELL, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1110	36	290	8.2	10.5	148	6.6	--	--
JUL									
15...	1255	7.4	350	7.8	18.5	138	3.8	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	50	--	30	--	--	10
JUL									
15...	30	20	<10	500	490	10	15000	<10	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	10	--	--	--	--	6	.58
JUL								
15...	20	40	410	.00	0	25	47	.94

TENNESSEE RIVER BASIN--Continued

03532202 - PIG CREEK AT ASPEN STREET AT LA FOLLETTE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1620	28	285	7.3	11.5	10	66	--	--
JUL									
15...	1500	1.2	500	8.2	24.5	74	120	0	<10

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS C.)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	750	--	130	--	--	1300
JUL									
15...	20	30	30	4000	4000	10	44000	30	510

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	1300	--	--	--	--	--	--
JUL								
15...	320	190	1400	.00	0	150	6	.02

03532480 - COVE CREEK ABOVE COVE LAKE, NEAR CARYVILLE, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	0730	28	120	7.7	7.0	24	23	--	--
JUL									
15...	1750	1.4	355	8.3	26.0	58	79	0	<10

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS C.)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	390	--	110	--	--	50
JUL									
15...	10	20	10	400	340	10	13000	<10	30

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	50	--	--	--	--	3	.23
JUL								
15...	10	20	340	.00	0	49	11	.04

TENNESSEE RIVER BASIN--Continued

03534000 - COAL CR AT LAKE CITY TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	0915	22	230	8.0	8.0	66	43	--	--
MAR									
18...	1045	419	115	6.8	10.0	22	32	--	--
JUL									
15...	1630	2.2	580	8.7	28.0	127	130	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	430	--	60	--	--	180
MAR									
18...	--	--	--	3100	2900	190	--	--	240
JUL									
15...	30	30	20	720	720	0	56000	40	90

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	180	--	--	--	--	6	.36
MAR								
18...	60	180	--	--	--	--	104	118
JUL								
15...	70	20	810	.00	0	110	2	.01

TENNESSEE RIVER BASIN--Continued

03538160 - POPLAR C AT BATLEY RD NR OLIVER SPRINGS, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1415	29	165	7.4	10.5	33	42	--	--
MAR									
18...	0800	846	80	5.8	7.5	14	24	--	--
JUL									
16...	1120	1.5	350	7.7	21.5	42	67	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	430	--	100	--	--	180
MAR									
18...	--	--	--	7100	7100	40	--	--	390
JUL									
16...	10	20	10	620	590	30	30000	20	120

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED, SUSP, SIEVE DIAM, % FINER THAN .062 MM
NOV									
06...	0	130	--	--	--	--	4	.31	--
MAR									
18...	270	120	--	--	--	--	20	46	75
JUL									
16...	30	90	440	.00	0	69	20	.08	--

TENNESSEE RIVER BASIN--Continued

03538398 - ROCK CREEK NEAR GOBEY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	0845	44	37	7.2	9.5	7	7.3	--	--
MAR 21...	1345	709	32	6.8	9.0	8	7.4	--	--
JUL 17...	1615	.17	200	7.0	28.5	60	4.8	0	10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	150	--	40	--	--	10
MAR 21...	--	--	--	920	890	30	--	--	100
JUL 17...	<10	10	<10	2300	1800	480	6800	<10	500

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	0	10	--	--	--	--	<1	.04	--
MAR 21...	70	30	--	--	--	--	102	195	--
JUL 17...	260	240	430	.00	0	20	58	.03	70

TENNESSEE RIVER BASIN--Continued

03539600 - DADDYS CR NR HEBBERTSBURG, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
07...	1000	239	53	7.3	9.0	14	5.0	190
MAR								
20...	1300	1150	40	7.2	8.5	16	5.4	1600
20...	1545	2410	--	--	--	--	--	--
20...	1900	5300	--	--	--	--	--	--
21...	0015	9730	40	7.1	9.0	12	5.7	5200
21...	0330	9730	--	--	--	--	--	--
21...	1600	5640	33	7.3	9.0	10	5.2	1600
22...	1245	1960	37	7.2	9.5	10	5.7	1200

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV								
07...	--	80	10	10	0	3	1.9	--
MAR								
20...	1600	50	90	80	10	76	236	85
20...	--	--	--	--	--	189	1230	80
20...	--	--	--	--	--	565	8090	55
21...	5100	100	450	360	90	564	14800	49
21...	--	--	--	--	--	473	12400	64
21...	1500	70	130	80	50	101	1540	--
22...	1100	70	80	50	30	38	201	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
JUL									
17...	1000	2.4	120	7.7	27.5	48	6.5	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
JUL									
17...	<10	<10	<10	310	270	40	4800	30	80

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JUL								
17...	20	60	120	.00	0	17	4	.03

TENNESSEE RIVER BASIN--Continued

03539719 - WHITE CREEK AT TWIN BRIDGES, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 07...	1030	65	27	6.6	9.0	4	4.2

DATE	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, SUS-PENDED RECOV. (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)
NOV 07...	130	40	30	10	20	<1	.04

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 17...	1345	0	<10	<10	<10	<10	2700	<10	65	.00	0	8

03539750 - CLEAR C NR LANCING TENN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1400	277	30	7.3	9.0	6	5.5	--	--
JUL 17...	1445	1.1	55	6.9	33.5	16	4.1	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	130	--	30	--	--	20
JUL 17...	<10	<10	<10	310	200	110	3700	10	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 07...	10	10	--	--	--	--	1	.75
JUL 17...	10	50	110	.00	0	12	3	.01

TENNESSEE RIVER BASIN--Continued

03539831 - ISLAND CREEK NEAR CATOOSA, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1415	34	22	6.5	10.0	2	5.4	--	--
MAR 21...	1100	683	20	6.1	7.5	2	5.7	--	--
JUL 18...	0930	.03	39	6.1	21.5	5	9.8	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	80	--	30	--	--	10
MAR 21...	--	--	--	510	500	10	--	--	90
JUL 18...	<10	20	<10	430	390	40	3000	20	160

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 07...	0	10	--	--	--	--	<1	.03
MAR 21...	40	50	--	--	--	--	24	44
JUL 18...	100	60	59	.00	0	22	--	--

TENNESSEE RIVER BASIN--Continued
03539860 - CROOKED F NR WARTBURG TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1615	86	115	6.9	10.5	14	34	--	--
MAR									
17...	1500	1250	51	6.8	8.0	6	19	--	--
JUL									
17...	0930	1.7	695	7.9	19.0	102	190	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	550	--	180	--	--	360
MAR									
17...	--	--	--	9600	9500	80	--	--	390
JUL									
17...	<10	10	<10	570	550	20	5000	<10	320

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
06...	0	360	--	--	--	--	6	1.4	--
MAR									
17...	270	120	--	--	--	--	569	1920	61
JUL									
17...	60	260	190	.00	0	26	10	.05	--

TENNESSEE RIVER BASIN--Continued

03540100 - CRAB ORCHARD CREEK NEAR DEERMONT, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
08...	0930	57	50	5.2	7.5	2	16	--	--
MAR									
17...	1245	891	49	6.8	8.5	4	11	--	--
JUL									
16...	1645	.20	310	5.5	27.0	2	110	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
08...	--	--	--	260	--	200	--	--	420
MAR									
17...	--	--	--	2500	2500	20	--	--	270
JUL									
16...	<10	<10	<10	450	250	200	4700	<10	--

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
08...	0	420	--	--	--	--	1	.15	--
MAR									
17...	90	180	--	--	--	--	188	452	60
JUL									
16...	0	3400	61	.00	0	21	7	.00	--

TENNESSEE RIVER BASIN--Continued

03541485 - WHITES CREEK AT BAKERS BRIDGE NEAR GLEN ALICE,TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1330	70	29	6.8	10.0	6	5.2	--	--
MAR 20...	1515	1290	26	6.8	8.0	6	5.2	--	--
JUL 18...	0830	.13	78	7.4	19.5	24	4.3	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	80	--	30	--	--	10
MAR 20...	--	--	--	3400	3300	60	--	--	240
JUL 18...	<10	<10	<10	630	500	130	4000	<10	170

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	10	0	--	--	--	--	3	.57	--
MAR 20...	220	20	--	--	--	--	187	651	70
JUL 18...	130	40	180	.00	0	13	3	.00	--

TENNESSEE RIVER BASIN--Continued
03541487 - PINEY CREEK NEAR WESTEL, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1530	34	34	6.8	11.0	6	5.3	--	--
MAR									
21...	1115	788	30	6.4	8.0	8	6.1	--	--
JUL									
17...	1215	14	85	7.5	23.5	28	5.2	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	110	--	30	--	--	10
MAR									
21...	--	--	--	550	530	20	--	--	70
JUL									
17...	20	10	<10	290	260	30	6000	10	230

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
07...	10	0	--	--	--	--	1	.09
MAR								
21...	40	30	--	--	--	--	32	68
JUL								
17...	50	180	450	.00	0	27	14	.53

TENNESSEE RIVER BASIN--Continued

03541496 - FALL CREEK NEAR OZONE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
08...	0830	41	44	6.3	9.0	12	5.6	--	--
MAR									
21...	1355	544	29	6.4	9.0	14	6.1	--	--
JUL									
17...	1415	.54	195	7.9	22.0	56	13	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
08...	--	--	--	110	--	10	--	--	10
MAR									
21...	--	--	--	920	900	20	--	--	80
JUL									
17...	<10	<10	<10	190	180	10	4100	<10	30

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
08...	10	0	--	--	--	--	1	.11
MAR								
21...	60	20	--	--	--	--	58	85
JUL								
17...	10	20	370	.00	0	19	6	.01

TENNESSEE RIVER BASIN--Continued

03542495 - PINEY RIVER ABOVE SPRING CITY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1315	144	27	6.5	10.0	4	5.2	--	--
MAR									
20...	1430	2550	26	6.6	8.0	4	5.3	--	--
JUL									
18...	1000	.50	73	7.4	19.5	18	9.1	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	100	--	0	--	--	10
MAR									
20...	--	--	--	3800	3700	90	--	--	380
JUL									
18...	<10	10	<10	250	230	20	6800	30	20

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
07...	10	0	--	--	--	--	1	.39	--
MAR									
20...	340	40	--	--	--	--	336	2310	69
JUL									
18...	10	10	350	.00	0	16	14	.02	--

TENNESSEE RIVER BASIN--Continued

03542500 - PINEY R AT SPRING CITY TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
07...	1400	181	30	7.2	11.5	5	5.6	--	--
MAR									
20...	1730	5420	28	7.0	8.5	12	5.7	--	--
JUL									
17...	1615	.63	120	8.1	29.0	40	9.9	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
07...	--	--	--	120	--	40	--	--	10
MAR									
20...	--	--	--	7400	7400	50	--	--	690
JUL									
17...	<10	<10	<10	240	230	10	6000	20	60

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
07...	10	0	--	--	--	--	1	.49
MAR								
20...	630	60	--	--	--	--	709	10400
JUL								
17...	20	40	330	.00	0	25	3	.01

TENNESSEE RIVER BASIN--Continued

03566292 - SALE CREEK NEAR SALE CREEK, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
06...	1230	109	65	6.4	11.0	18	11	180
MAR								
18...	1030	665	49	6.9	9.0	10	8.2	570

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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)
NOV							
06...	--	10	160	0	160	2	.59
MAR							
18...	520	50	140	30	110	22	40

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
15...	1730	0	<10	20	10	<10	20000	<10	1800	.00	0	46

TENNESSEE RIVER BASIN--Continued

03566400 - SODDY C AT SODDY TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1030	115	35	5.8	10.0	2	10	--	--
MAR									
18...	1240	865	28	5.6	9.5	2	8.0	--	--
JUL									
15...	1615	.35	120	5.2	33.0	2	44	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	140	--	10	--	--	160
MAR									
18...	--	--	--	320	300	20	--	--	110
JUL									
15...	10	<10	<10	100	90	10	35000	30	--

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	160	--	--	--	--	5	1.6
MAR								
18...	10	100	--	--	--	--	12	28
JUL								
15...	0	680	650	.00	0	60	2	.00

TENNESSEE RIVER BASIN--Continued

03566530 - NORTH CHICKAMAUGA CREEK NEAR DAISY, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV 06...	0830	171	30	5.2	9.5	8	8.3	100
MAR 18...	1700	1330	25	5.5	9.5	8	7.2	150

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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)
NOV 06...	--	20	60	0	60	2	.92
MAR 18...	110	40	50	10	40	2	7.2

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 15...	1445	0	<10	<10	<10	<10	13000	20	290	.00	0	19

TENNESSEE RIVER BASIN--Continued

03569245 - SUCK CREEK NEAR CHATTANOOGA, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	0800	60	70	4.9	9.5	6	24	--	--
MAR									
18...	1615	440	55	4.8	10.0	2	16	--	--
JUL									
15...	1215	.20	135	5.3	27.0	4	46	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	100	--	50	--	--	500
MAR									
18...	--	--	--	360	340	20	--	--	260
JUL									
15...	<10	<10	<10	240	180	60	5300	<10	--

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	0	500	--	--	--	--	<10	--
MAR								
18...	0	260	--	--	--	--	13	15
JUL								
15...	0	630	66	.00	0	21	3	.00

TENNESSEE RIVER BASIN--Continued

03570602 - SEQUATCHIE RIVER NEAR PIKEVILLE, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1500	192	210	8.3	11.5	96	7.3	--	--
MAR									
19...	0900	721	200	8.5	10.0	80	7.1	--	--
JUL									
16...	1230	16	260	7.9	26.0	135	4.3	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	400	--	50	--	--	60
MAR									
19...	--	--	--	1300	1300	50	--	--	130
JUL									
16...	40	20	<10	600	570	30	17000	20	110

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	30	30	--	--	--	--	13	6.7
MAR								
19...	120	10	--	--	--	--	66	128
JUL								
16...	40	70	930	.01	0	23	14	.60

TENNESSEE RIVER BASIN--Continued

03570695 - SEQUATCHIE RIVER NEAR MT. AIRY, TN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1230	292	200	7.8	12.0	95	7.9	--	--
MAR									
18...	1300	1380	160	7.5	11.0	84	8.4	--	--
27...	2100	840	170	--	12.5	--	--	--	--
28...	0745	1460	145	7.9	11.5	88	6.4	--	--
28...	0850	1710	135	--	11.0	--	--	--	--
28...	1130	2020	120	--	11.5	--	--	--	--
28...	1530	2050	125	--	12.0	--	--	--	--
29...	0835	1850	135	--	12.0	--	--	--	--
31...	1400	1080	758	7.9	12.5	--	--	--	--
JUL									
14...	1435	38	260	8.1	26.0	108	4.7	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	440	--	60	--	--	40
MAR									
18...	--	--	--	2300	2200	60	--	--	240
27...	--	--	--	--	--	--	--	--	--
28...	--	--	--	2300	2300	30	--	--	240
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
JUL									
14...	<10	<10	<10	330	300	30	8500	<10	50

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
06...	20	20	--	--	--	--	10	7.9	--
MAR									
18...	230	10	--	--	--	--	126	469	84
27...	--	--	--	--	--	--	45	102	82
28...	150	90	--	--	--	--	177	698	--
28...	--	--	--	--	--	--	254	1170	83
28...	--	--	--	--	--	--	261	1420	83
28...	--	--	--	--	--	--	188	1040	85
29...	--	--	--	--	--	--	92	460	79
31...	--	--	--	--	--	--	39	114	86
JUL									
14...	20	30	260	.00	0	23	7	.72	--

TENNESSEE RIVER BASIN--Continued

03570800 - LITTLE BRUSH CREEK NR DUNLAP, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
06...	0730	18	38	7.6	9.5	10	7.3	130
MAR								
18...	0845	192	40	7.9	7.0	8	6.6	180

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV, (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)
NOV							
06...	--	10	10	0	10	<10	--
MAR							
18...	170	10	20	10	10	6	3.1

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
14...	1220	0	<10	30	<10	<10	18000	>0	580	.00	0	35

03570810 - BIG BRUSH CREEK NEAR DUNLAP, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
06...	1000	88	38	7.1	11.0	10	6.3	140
MAR								
18...	1045	700	32	7.4	8.0	9	5.6	270

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV, (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)
NOV							
06...	--	20	10	0	10	<10	--
MAR							
18...	230	20	20	10	10	7	13

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
14...	1255	0	<10	20	<10	<10	12000	<10	350	.00	0	18

TENNESSEE RIVER BASIN--Continued

03570855 - WOODCOCK CREEK SOUTHWEST OF DUNLAP, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
05...	1500	22	40	6.4	10.5	8	13	80
MAR								
17...	1730	314	38	5.5	10.0	3	11	600

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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)
NOV							
05...	--	0	210	0	210	<10	--
MAR							
17...	570	30	180	10	170	33	28

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
15...	0815	0	<10	10	10	<10	19000	<10	740	.00	0	37

03570870 - HICKS CREEK AT CARTWRIGHT, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
05...	1330	23	41	7.5	11.5	18	6.5	170
MAR								
17...	1330	443	30	7.6	10.0	6	5.5	1700

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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
NOV								
05...	--	20	10	0	10	<1	--	--
MAR								
17...	1700	50	60	50	10	74	89	56

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
15...	0845	0	<10	10	<10	<10	14000	<10	470	.00	0	19

TENNESSEE RIVER BASIN--Continued

03571500 - L SEQUATCHIE R AT SEQUATCHIE, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
06...	1300	213	115	7.3	11.0	30	17	--	--
MAR									
18...	1300	1970	70	7.7	13.0	18	12	--	--
JUL									
14...	1845	6.0	175	8.1	28.0	73	37	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
06...	--	--	--	250	--	10	--	--	20
MAR									
18...	--	--	--	720	690	30	--	--	80
JUL									
14...	<10	<10	<10	210	190	20	4000	20	70

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
06...	10	10	--	--	--	--	<10	--
MAR								
18...	60	20	--	--	--	--	27	144
JUL								
14...	50	20	360	.00	0	16	3	.05

TENNESSEE RIVER BASIN--Continued

03571700 - PRYOR COVE BRANCH NEAR JASPER, TENN.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 18...	1030	55	32	6.6	8.5	10	6.8	200

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 18...	180	20	40	20	20	4	.59

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 14...	1800	0	<10	10	<10	<10	12000	20	660	.00	0	23

03571800 - RATTLE CR NR MONTEAGLE TENN.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1300	124	140	8.2	14.0	55	7.4	--	--
MAR 17...	1600	1230	125	7.7	13.0	50	7.4	--	--
JUL 14...	1115	4.9	250	8.1	24.5	99	12	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	230	--	40	--	--	10
MAR 17...	--	--	--	1000	960	40	--	--	50
JUL 14...	20	<10	<10	270	250	20	11000	<10	40

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	0	10	--	--	--	--	<10	--
MAR 17...	40	10	--	--	--	--	41	136
JUL 14...	10	30	260	.02	0	26	6	.08

TENNESSEE RIVER BASIN--Continued

03571827 - KELLY COVE CREEK AT SMITHTOWN, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 18...	0830	21	33	6.6	7.0	13	6.0	250

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 18...	230	20	10	0	10	9	.51

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 14...	1215	0	<10	20	<10	<10	21000	<10	340	.00	0	16

03571835 - SWEDEN CREEK NEAR SOUTH PITTSBURG, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1645	61	153	7.5	14.0	70	6.7	--	--
MAR 18...	1215	367	123	7.5	11.5	55	7.0	--	--
JUL 14...	1300	2.9	240	7.8	21.5	108	15	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	270	--	50	--	--	30
MAR 18...	--	--	--	450	430	20	--	--	30
JUL 14...	10	<10	<10	580	520	60	4300	<10	--

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	0	30	--	--	--	--	9	1.5
MAR 18...	10	20	--	--	--	--	20	20
JUL 14...	0	90	160	.00	0	12	6	.05

TENNESSEE RIVER BASIN--Continued

03572092 - CROW CREEK NEAR ANDERSON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1430	175	185	8.0	13.0	92	8.5	--	--
MAR 18...	0900	1240	155	7.9	10.0	72	8.0	--	--
JUL 14...	1545	6.8	250	8.2	32.5	120	13	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	220	--	10	--	--	20
MAR 18...	--	--	--	920	890	30	--	--	50
JUL 14...	<10	<10	<10	320	300	20	4300	<10	80

DATE	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	0	20	--	--	--	--	6	2.8
MAR 18...	40	10	--	--	--	--	36	121
JUL 14...	50	30	130	.00	0	16	16	.29

TENNESSEE RIVER BASIN--Continued

03577966 - ELK RIVER NEAR MT. VIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV								
05...	1000	62	87	7.9	12.5	38	4.3	130
MAR								
17...	1520	445	89	7.3	10.0	36	5.1	1100
28...	0500	200	102	8.0	11.0	--	--	--
28...	0600	300	96	7.6	11.5	45	5.1	1400
28...	0635	304	91	7.5	10.5	--	--	--
28...	0725	393	85	7.4	10.5	--	--	--
28...	0850	535	79	7.5	10.5	--	--	--
28...	1145	514	80	7.7	11.0	--	--	--
28...	1245	515	68	7.7	10.5	--	--	--

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV, (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
NOV								
05...	--	30	10	0	10	<10	--	--
MAR								
17...	1100	40	50	40	10	50	60	69
28...	--	--	--	--	--	108	58	63
28...	1300	60	120	110	10	97	79	64
28...	--	--	--	--	--	88	72	63
28...	--	--	--	--	--	92	98	64
28...	--	--	--	--	--	72	104	65
28...	--	--	--	--	--	47	65	72
28...	--	--	--	--	--	57	79	74

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV, FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV, FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV, FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL												
14...	1545	0	<10	<10	<10	<10	4200	20	14	.02	0	15

TENNESSEE RIVER BASIN--Continued

03577985 - DRY CREEK NEAR MT. VIEW, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 17...	1415	210	74	7.1	11.0	13	17	1000

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 17...	960	40	400	80	320	44	25

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 14...	1500	0	<10	<10	<10	<10	3800	<10	350	.00	0	20

03578095 - BETSY WILLIS CREEK NEAR PELHAM, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1000	11	177	8.2	11.5	94	6.1	--	--
MAR 17...	1310	138	205	8.0	11.0	99	8.0	--	--
JUL 15...	0905	.05	384	7.7	26.5	180	15	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	330	--	80	--	--	20
MAR 17...	--	--	--	2200	2100	80	--	--	120
JUL 15...	<10	<10	<10	160	150	10	700	50	--

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	10	10	--	--	--	--	3	.09
MAR 17...	110	10	--	--	--	--	130	48
JUL 15...	0	30	63	.00	0	43	12	.00

TENNESSEE RIVER BASIN--Continued

03578190 - MUD CREEK NEAR ALTO, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 05...	1000	24	180	7.8	12.0	80	8.9	--	--
MAR 17...	1330	242	170	7.7	12.0	73	7.9	--	--
JUL 14...	1150	.43	210	9.2	33.5	87	13	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 05...	--	--	--	270	--	40	--	--	20
MAR 17...	--	--	--	1700	1600	70	--	--	110
JUL 14...	<10	<10	<10	380	360	20	2900	<10	90

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 05...	0	20	--	--	--	--	2	.13
MAR 17...	100	10	--	--	--	--	130	85
JUL 14...	60	30	360	.00	0	17	16	.02

03578290 - BEANS CR AT US HWY 41, NEAR HILLSBORO, TN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
NOV 05...	1100	28	220	7.8	14.0	100	6.1	310
MAR 17...	1150	293	190	8.3	11.5	93	7.7	2200

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (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)
NOV 05...	--	30	40	10	30	7	.53
MAR 17...	2100	70	150	130	20	118	93

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	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/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 15...	0815	0	<10	20	<10	<10	3300	20	250	.02	0	16

TENNESSEE RIVER BASIN--Continued
03580110 - BOILING FORK CREEK NEAR DECHERD, TENN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV									
05...	1130	84	280	7.7	13.5	132	11	--	--
MAR									
17...	1530	644	220	7.8	12.0	96	9.3	--	--
JUL									
14...	1015	7.5	333	7.6	18.5	151	9.1	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
05...	--	--	--	160	--	40	--	--	20
MAR									
17...	--	--	--	3700	3600	80	--	--	180
JUL									
14...	<10	20	<10	350	320	30	2800	<10	2100

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV								
05...	0	20	--	--	--	--	3	.68
MAR								
17...	170	10	--	--	--	--	187	325
JUL								
14...	200	1900	160	.00	0	23	12	.24

TENNESSEE RIVER BASIN--Continued

03580750 - ELK RIVER BELOW TIMS FORD DAM, TENN. (TVA)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLOR (PLAT-INUM COBALT UNITS)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1030	3650	190	7.3	15.0	5	2	3.0	<1.0	80
DEC 12...	1200	3800	150	7.8	14.0	8	2	8.1	<1.0	75
APR 02...	1105	--	200	7.5	9.0	15	1	11.0	2.8	78

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 17...	83	7.0	4.0	100	.14	985	3	.60	.290	.17
DEC 12...	73	8.0	4.0	90	.12	923	<1	.24	.030	.14
APR 02...	78	7.0	4.0	100	.14	--	3	.66	.060	.20

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	.030	.010	1	20	210	<10	1100	1.2	30	3.1
DEC 12...	.010	<.010	<1	<10	<50	<10	20	<.4	<10	2.4
APR 02...	.030	--	<1	10	--	<10	--	<.2	10	2.4

TENNESSEE RIVER BASIN--Continued

360858084355000 - EMORY RIVER AT GOREY, TN(035382968)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
NOV 07...	1630	57	80	6.9	10.5	12	22	--	--
MAR 21...	1500	854	70	4.6	9.0	4	15	--	--
JUL 18...	0800	.18	117	7.0	23.5	40	21	0	<10

DATE	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/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV 07...	--	--	--	300	--	100	--	--	50
MAR 21...	--	--	--	3900	3800	70	--	--	180
JUL 18...	10	<10	<10	--	0	90	16000	20	140

DATE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 07...	10	40	--	--	--	--	2	.31	--
MAR 21...	160	20	--	--	--	--	224	516	55
JUL 18...	50	90	220	.00	0	37	3	.00	--

OBION RIVER BASIN

07025400 - NORTH FORK OBION RIVER NEAR MARTIN, TENN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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 24...	1000	190	58	13.0	17	8.7	--
NOV 16...	0815	189	58	10.0	23	12	--
JAN 17...	1030	386	55	11.0	56	58	--
FEB 26...	1430	286	54	8.0	25	19	--
APR 08...	1630	2710	54	15.0	864	6320	84
MAY 28...	1730	190	78	25.0	42	22	--
JUL 09...	0900	157	270	24.0	63	27	--
AUG 20...	1300	120	51	21.0	30	9.7	--
SEP 24...	1445	322	50	20.0	198	172	82

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 16...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB 26...	.00	--	.00	--	.0	--	.00	--	.00	--
MAY 28...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL 09...	.00	0	.00	.0	.0	0	.00	.0	.00	.0

DATE	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)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV 16...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB 26...	.00	--	.00	--	.00	.00	.00	--	.00	--
MAY 28...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL 09...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
NOV 16...	.00	--	.00	--	0	--	.00	.00	.00
FEB 26...	.00	--	.00	--	0	--	.00	.00	--
MAY 28...	.00	--	.00	--	0	--	.00	.01	.00
JUL 09...	.00	.0	.00	.0	0	0	--	--	--

OBION RIVER BASIN--Continued

07025400 - NORTH FORK OBION RIVER NEAR MARTIN, TENN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM WIDTH (FT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
FEB												
26...	1459	65	21	0	<1	2	61	96	99	>99	>99	100
26...	1500	65	33	<1	<1	2	59	97	99	>99	100	--
26...	1501	65	47	<1	<1	3	57	94	98	>99	>99	100

OBION RIVER BASIN--Continued

07026370 - N REELFOOT CR AT HWY 22,NEAR CLAYTON, TN

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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 24...	1500	4.0	150	15.0	87	.94	85
NOV 14...	1100	9.9	220	6.0	38	1.0	--
DEC 12...	1040	8.9	340	8.0	101	2.4	--
JAN 15...	1445	43	360	7.0	185	21	--
FEB 26...	1535	22	1250	5.0	82	4.9	--
APR 09...	1330	84	260	16.0	286	65	92
MAY 29...	0930	3.9	520	23.5	94	.99	--
JUL 09...	1200	4.3	220	30.0	171	2.0	85
SEP 24...	1145	1.1	130	19.5	613	1.8	99

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 14...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB 26...	.00	--	.00	--	.0	--	.00	--	.00	--
MAY 29...	.00	--	.00	--	.0	--	.00	--	.00	--
JUL 09...	.00	0	.00	.0	.0	2	.00	2.4	.00	2.0

DATE	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)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV 14...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB 26...	.00	--	.00	--	.00	.00	.00	--	.00	--
MAY 29...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL 09...	.00	.0	.00	.3	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
NOV 14...	.00	--	.00	--	0	--	.04	.02	.02
FEB 26...	.00	--	.00	--	0	--	.00	.00	.00
MAY 29...	.00	--	.00	--	0	--	.05	.00	.00
JUL 09...	.00	.0	.00	.0	0	0	--	--	--

OBION RIVER BASIN--Continued

07029100 - N FK FORKED DEER RIVER AT DYERSBURG TENN (CE)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (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 24...	1145	270	105	15.0	70	51	89
NOV 16...	1000	446	70	8.0	65	78	--
DEC 13...	1030	3070	51	4.5	871	7220	--
JAN 15...	1130	1480	195	8.0	201	803	--
FEB 26...	1200	1340	92	5.5	160	579	--
APR 10...	1230	2300	68	16.0	279	1730	95
MAY 29...	1400	291	160	26.5	79	62	--
JUL 09...	1530	1410	120	32.0	446	1700	94
AUG 19...	0845	168	80	29.5	156	71	970
SEP 23...	1400	694	60	23.5	1210	2270	98

DATE	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 16...	.00	--	.00	--	.0	--	.00	--	.00	--
FEB 26...	.00	--	.00	--	.0	--	.00	--	.00	--
MAY 29...	.10	--	.00	--	.0	--	.00	--	.00	--
JUL 09...	.00	0	.00	.0	.0	0	.00	.0	.00	.0

DATE	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)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV 16...	.00	--	.00	--	.00	.00	.00	--	.00	--
FEB 26...	.00	--	.00	--	.00	.00	.00	--	.00	--
MAY 29...	.00	--	.00	--	.00	.00	.00	--	.00	--
JUL 09...	.00	.0	.00	.0	.00	.00	.00	.0	.00	.0

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	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)	SILVEX, TOTAL (UG/L)
NOV 16...	.00	--	.00	--	0	--	.00	.00	.00
FEB 26...	.00	--	.00	--	0	--	.00	.00	.00
MAY 29...	.00	--	.00	--	0	--	.00	.00	.00
JUL 09...	.00	.0	.00	.0	0	0	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
CUMBERLAND RIVER BASIN									
03417500 - CUMBERLAND RIVER AT CELINA, TENN. (LAT 36 33 15 LONG 085 30 52)									
NOV , 1979					AUG , 1980				
27...	1030	760	365	12.5	06...	1530	12000	145	15.0
AUG , 1980					06...	1645	12600	145	15.0
06...	1130	8630	145	15.0	07...	1130	15500	200	14.5
06...	1245	9990	145	15.0					
03418070 - ROARING RIVER ABOVE GAINESBORO, TENN (LAT 36 21 04 LONG 085 32 45)									
OCT , 1979					MAR , 1980				
02...	0945	260	200	18.0	31...	1640	579	178	12.0
NOV					MAY				
14...	1500	253	180	10.0	13...	1745	26	200	19.5
JAN , 1980					AUG				
07...	1600	1380	180	8.0	05...	1130	152	185	21.0
FEB					07...	1000	1.2	254	21.0
19...	1200	306	190	7.0					
03422500 - CANEY FORK NEAR ROCK ISLAND, TENN. (LAT 35 48 26 LONG 085 37 44)									
NOV , 1979					JUL , 1980				
15...	1045	3410	210	11.0	31...	1115	79	225	23.0
JUN , 1980									
26...	0900	61	190	20.5					
03426800 - EAST FORK STONES RIVER AT WOODBURY, TENN. (LAT 35 49 41 LONG 086 04 36)									
OCT , 1979					APR , 1980				
03...	1200	43	320	17.0	02...	1120	87	255	14.5
NOV					MAY				
15...	1340	52	290	13.0	15...	1615	22	240	19.0
JAN , 1980					JUN				
08...	1155	170	280	11.0	27...	1025	18	265	22.0
FEB					AUG				
21...	1315	71	265	12.5	26...	1050	8.0	280	23.0
03428200 - WEST FORK STONES RIVER AT MURFREESBORO, TENN (LAT 35 54 10 LONG 086 25 48)									
NOV , 1979					JUN , 1980				
16...	1100	237	410	12.0	19...	1145	16	410	24.5
APR , 1980					SEP				
03...	1125	341	405	15.5	24...	1140	10	550	24.5
MAY									
08...	1325	42	380	21.0					

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
CUMBERLAND RIVER BASIN--Continued									
03431517 - CUMMINGS BRANCH AT LICKTON, TENN (LAT 36 18 25 LONG 086 48 00)									
OCT , 1979					APR , 1980				
04...	1030	1.4	340	16.0	07...	1030	3.3	--	13.5
30...	0950	2.3	340	16.0	MAY				
DEC					07...	0845	.95	295	13.0
10...	1215	1.6	320	11.5	JUN				
JAN , 1980					04...	1030	.88	320	18.0
08...	1020	5.4	250	9.0	JUL				
FEB					03...	0915	.62	310	19.0
14...	0935	1.1	280	7.0					
MAR									
14...	0945	3.5	280	8.0					
03431800 - SYCAMORE CREEK NEAR ASHLAND CITY, TENN. (LAT 36 19 12 LONG 087 03 04)									
OCT , 1979					MAY , 1980				
01...	1440	72	255	19.5	27...	0945	100	220	20.0
NOV					AUG				
30...	1340	290	205	6.5	13...	1545	22	280	27.5
JAN , 1980					SEP				
24...	1500	169	220	7.0	10...	1200	13	278	24.5
APR					11...	1300	14	276	22.5
14...	1330	1560	--	10.5					
03432350 - HARPETH RIVER AT FRANKLIN, TENN (LAT 35 55 14 LONG 086 51 56)									
OCT , 1979					APR , 1980				
01...	1200	469	330	19.0	17...	1400	507	300	14.0
NOV					JUL				
26...	1425	1660	290	12.0	17...	1345	1.7	320	30.0
JAN , 1980					AUG				
10...	1430	341	360	8.0	15...	0900	5.3	360	25.0
FEB									
28...	1415	161	350	9.0					
03433500 - HARPETH RIVER AT BELLEVUE, TENN.. (LAT 36 03 16 LONG 086 55 42)									
OCT , 1979					MAY , 1980				
03...	1225	607	350	18.0	20...	1610	5670	135	17.0
NOV					JUL				
21...	1100	300	350	14.0	07...	1300	57	360	29.0
JAN , 1980					AUG				
10...	0945	837	370	8.0	21...	0900	29	--	26.0
MAR									
04...	1115	331	370	4.0					
03435000 - CUMBERLAND RIVER BELOW CHEATHAM DAM, TENN. (LAT 36 19 26 LONG 087 13 32)									
APR , 1980									
18...	1300	39800	215	14.5					
TENNESSEE RIVER BASIN									
03454790 - TRAIL FORK BIG CREEK AT DEL RIO, TN (LAT 35 54 27 LONG 083 01 26)									
JUN , 1980					JUL , 1980				
11...	1115	18	78	16.5	22...	1425	11	116	19.0
03454850 - LONG CREEK NEAR DEL RIO, TN (LAT 35 56 53 LONG 083 03 13)									
JUN , 1980					JUL , 1980				
11...	1215	4.6	340	18.0	22...	1250	3.6	370	18.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TENNESSEE RIVER BASIN--Continued

03461200 - COSBY CREEK ABOVE COSBY TN (LAT 35 46 58 LONG 083 13 03)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					APR , 1980				
01...	1430	20	19	17.5	16...	1335	43	15	10.5
NOV					MAY				
19...	1405	22	19	10.0	30...	1220	25	16	15.0
JAN , 1980					JUL				
09...	1300	46	16	6.0	23...	1415	5.5	18	19.5
FEB					AUG				
19...	1440	31	17	5.0	25...	1530	3.5	19	19.0

03461266 - GREENBRIER CREEK AT HWY 32 AT COSBY TN (LAT 35 48 11 LONG 083 14 51)

JUN , 1980					JUL , 1980				
11...	1430	11	33	18.5	22...	1630	2.1	40	16.0

03464650 - NOLICHUCKY RIVER NEAR ERWIN, TN (LAT 36 07 24 LONG 082 26 37)

JUN , 1980					JUL , 1980				
11...	1130	761	48	21.0	21...	1515	475	67	29.0

03464815 - SOUTH INDIAN CREEK NEAR ERWIN, TN (LAT 36 07 38 LONG 082 26 45)

JUN , 1980					JUL , 1980				
11...	1030	41	80	18.5	21...	1645	51	88	28.0

03465220 - NORTH INDIAN CREEK AT ERWIN, TN (LAT 36 09 02 LONG 082 25 06)

JUN , 1980					JUL , 1980				
11...	0945	25	110	16.5	21...	1715	38	120	25.5

03466099 - JOCKEY CREEK AT LIMESTONE, TN (LAT 36 13 31 LONG 082 38 06)

JUN , 1980				
10...	1415	11	380	20.0

03466228 - SINKING CREEK AT AFTON, TN (LAT 36 11 55 LONG 082 44 31)

OCT , 1979					JUL , 1980				
10...	0930	20	390	13.5	29...	1110	4.9	390	20.0
JAN , 1980					SEP				
14...	1325	23	380	9.0	10...	1055	8.7	390	19.5
FEB					19...	0840	2.8	400	18.0
25...	1340	17	390	10.5					
JUN									
04...	1310	9.4	385	21.0					

03466870 - ROARING FORK NEAR GREENEVILLE, TN (LAT 36 13 18 LONG 082 52 05)

JUN , 1980					JUL , 1980				
10...	1945	7.4	410	19.0	21...	2005	5.8	468	19.0

03466880 - ROARING FORK NEAR MOSHEIM, TN (LAT 36 14 38 LONG 082 53 37)

JUN , 1980					JUL , 1980				
11...	0730	10	455	18.0	21...	1900	7.0	510	20.0

03467000 - LICK CREEK AT MOHAWK, TENN. (LAT 36 12 05 LONG 083 02 52)

JUN , 1980				
10...	1115	46	450	20.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TENNESSEE RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
03467490 - BENT CREEK NEAR SPRINGVALE, TN (LAT 36 11 14 LONG 083 09 53)				
JUN , 1980				
11...	0915	7.4	402	18.0
JUL , 1980				
22...	0945	5.0	446	17.5
03468140 - MUDDY CREEK NEAR CHESTNUT HILL, TN (LAT 35 56 57 LONG 083 20 51)				
JUN , 1980				
11...	1645	.12	368	22.0
JUL , 1980				
22...	1105	.04	417	17.0
03470330 - TUCKAHOE CREEK AT PETERS MILL, TN (LAT 35 58 02 LONG 083 42 07)				
JUN , 1980				
12...	1000	11	325	14.5
JUL , 1980				
22...	1440	6.5	325	20.0
03476515 - BEIDLEMAN CREEK NEAR CAYWOOD FORD, TN (LAT 36 31 28 LONG 082 07 53)				
JUN , 1980				
10...	1630	17	390	18.5
03486000 - WATAUGA RIVER BELOW WILBUR DAM, TENN. (LAT 36 20 39 LONG 082 07 46)				
NOV , 1979				
04...	1330	2650	72	13.0
28...	0930	1830	73	11.0
APR , 1980				
22...	1140	1320	75	9.0
JUL , 1980				
29...	1550	3010	70	10.0
SEP				
11...	1330	52	65	18.0
03486000 - WATAUGA RIVER AT ELIZABETHTON, TENNESSEE (LAT 36 21 21 LONG 082 13 26)				
JUN , 1980				
05...	0910	273	82	15.0
SEP , 1980				
11...	0747	180	87	15.0
03487550 - REEDY CREEK AT OREBANK, TENN. (LAT 36 33 42 LONG 082 27 36)				
OCT , 1979				
09...	1245	10	410	13.5
NOV				
28...	1150	66	380	10.5
JAN , 1980				
16...	0910	66	350	8.0
FEB				
26...	1530	48	350	5.5
APR , 1980				
23...	0925	38	380	14.0
JUN				
06...	0845	16	370	19.5
JUL				
30...	1055	11	375	21.5
SEP				
12...	0915	7.5	400	18.5
03491000 - BIG CREEK NEAR ROGERSVILLE, TENN. (LAT 36 25 34 LONG 082 57 07)				
OCT , 1979				
10...	1410	15	340	12.0
NOV				
29...	1055	51	280	7.5
JAN , 1980				
16...	1145	104	250	9.0
FEB				
27...	1400	63	285	6.5
APR , 1980				
23...	1255	46	280	19.5
JUN				
06...	1030	12	225	21.0
JUL				
30...	1305	7.8	340	23.0
SEP				
12...	1400	6.8	300	22.0
03491300 - BEECH CREEK AT KEPLER, TENN. (LAT 36 24 06 LONG 082 53 09)				
OCT , 1979				
10...	1530	85	280	12.5
NOV				
28...	1640	40	230	9.5
JAN , 1980				
16...	1300	73	210	9.0
FEB				
27...	1530	39	240	5.0
APR , 1980				
23...	1415	39	240	19.5
JUN				
06...	1145	7.9	275	21.5
JUL				
30...	1445	4.9	250	25.0
SEP				
12...	1515	4.4	235	22.5

TENNESSEE RIVER BASIN--Continued

03497300 - LITTLE RIVER ABOVE TOWNSEND, TENN. (LAT 35 39 52 LONG 083 42 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					APR , 1980				
02...	1455	200	21	17.0	17...	1015	444	14	7.0
NOV					MAY				
20...	1530	163	19	9.5	28...	1430	271	15	17.0
JAN , 1980					JUL				
10...	1515	401	16	6.0	10...	1400	87	--	23.5
FEB					AUG				
21...	1600	250	16	7.0	26...	0945	43	24	20.0

03498500 - LITTLE RIVER NEAR MARYVILLE, TENN (LAT 35 47 10 LONG 083 53 04)

OCT , 1979					APR , 1980				
03...	1030	221	85	18.0	17...	1315	832	85	12.5
NOV					JUN				
21...	1000	234	98	10.0	03...	1400	246	88	22.0
JAN , 1980					JUL				
25...	1130	105	84	8.0	23...	1130	107	155	24.0
MAR					SEP				
27...	1215	105	95	10.5	04...	1345	181	94	24.5

03499053 - CULTON CREEK AT ALCOA, TN (LAT 35 46 41 LONG 083 59 46)

JUN , 1980									
12...	0730	5.8	255	15.5					

03518470 - BALD RIVER NEAR TELLICO PLAINS, TN (LAT 35 19 20 LONG 084 10 40)

JUN , 1980					JUL , 1980				
11...	1645	30	8	17.5	21...	1515	14	15	23.0

03518700 - CANE CREEK AT BELLTOWN MILL, TN (LAT 35 25 31 LONG 084 15 16)

JUN , 1980					JUL , 1980				
11...	1500	6.0	68	22.0	21...	1200	1.8	110	24.0

03520170 - POND CREEK NEAR ADOLPHUS, TN (LAT 35 42 20 LONG 084 27 35)

JUN , 1980					JUL , 1980				
10...	1000	19	225	16.0	22...	1230	11	275	23.0

03531700 - MULBERRY CREEK AT ALANTHUS HILL, TN (LAT 36 33 18 LONG 083 22 51)

JUN , 1980					JUL , 1980				
10...	1530	12	270	23.0	21...	1530	8.7	312	21.5

03535000 - BULLRUN CREEK NEAR HALLS CROSSROADS, TENN (LAT 36 06 52 LONG 083 59 16)

OCT , 1979					APR , 1980				
22...	1045	16	340	16.5	08...	1115	79	300	12.5
DEC					MAY				
04...	1430	39	320	2.5	30...	1130	128	220	18.5
JAN , 1980					JUL				
08...	1230	130	285	7.0	10...	1230	15	140	26.0
FEB					AUG				
20...	1045	97	270	6.0	29...	0925	7.2	330	22.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

TENNESSEE RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
03538250 - EAST FORK POPLAR CREEK NEAR OAK RIDGE, TENN. (LAT 35 57 58 LONG 084 21 30)				
OCT , 1979				
05...	1045	26	360	14.0
DEC				
04...	1115	29	340	6.5
JAN , 1980				
24...	1215	93	220	8.0
MAR				
26...	1140	67	260	10.5
JUN , 1980				
03...	1030	21	320	20.0
JUL				
11...	1350	20	370	25.0
SEP				
05...	1300	18	250	23.0
03539800 - OBED RIVER NEAR LANCING, TENN. (LAT 36 04 53 LONG 084 40 15)				
DEC , 1979				
11...	1245	357	38	4.5
MAR , 1980				
19...	1240	3390	75	7.5
MAY				
13...	1100	183	90	19.5
JUL , 1980				
01...	1300	21	65	29.0
AUG				
21...	1225	6.7	80	28.0
03543300 - LITTLE SEWEE CREEK NEAR CENTER POINT, TENN (LAT 35 35 54 LONG 084 42 13)				
JUN , 1980				
10...	1145	27	165	16.5
JUL , 1980				
22...	1115	13	285	22.0
03543500 - SEWEE CREEK NEAR DECATUR, TENN. (LAT 35 34 53 LONG 084 44 53)				
JAN , 1980				
18...	1535	1160	130	11.0
JUN				
20...	1300	49	310	14.0
AUG , 1980				
07...	1305	23	260	23.0
SEP				
19...	0940	23	270	19.5
03556500 - HIWASSEE RIVER NEAR MCFARLAND, TENN (LAT 35 10 48 LONG 084 26 36)				
JAN , 1980				
17...	1310	2670	23	9.0
APR				
24...	1210	3210	25	10.5
SEP , 1980				
24...	1500	1240	34	22.5
03563000 - OCOEE RIVER AT EMF, TENN. (LAT 35 05 48 LONG 084 32 07)				
OCT , 1979				
02...	1120	1460	80	20.0
NOV				
28...	0940	72	200	12.0
APR , 1980				
24...	1700	46	280	19.0
JUN , 1980				
18...	1610	1280	87	19.5
AUG				
06...	0940	30	89	22.0
SEP				
18...	0930	22	140	21.5
03565300 - SOUTH CHESTUEE CREEK NEAR BENTON, TENN (LAT 35 10 02 LONG 084 42 59)				
OCT , 1979				
02...	1510	25	80	20.0
NOV				
18...	0940	72	200	12.0
JAN , 1980				
18...	1015	198	190	11.5
APR				
24...	1620	46	280	19.0
JUN , 1980				
19...	1740	20	300	15.0
AUG				
06...	1205	7.2	320	22.0
SEP				
17...	1555	2.8	300	21.0
03566117 - EAST FORK NORTH MOUSE CREEK NEAR NIOTA, TENN (LAT 35 32 54 LONG 084 33 45)				
JUN , 1980				
10...	1230	.93	238	21.0
JUL , 1980				
22...	1015	.33	270	24.5
03566253 - GREASY CREEK AT HOPEWELL, TN (LAT 35 14 17 LONG 084 53 11)				
JUN , 1980				
10...	1435	.25	155	19.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
TENNESSEE RIVER BASIN--Continued									
03566420 - WOLFTEVER CREEK NEAR OOLTEWAH, TENN (LAT 35 03 43 LONG 085 03 59)									
OCT , 1979					MAY , 1980				
02...	1100	36	205	19.0	13...	1430	9.9	345	20.0
NOV					JUN				
14...	1100	46	90	11.0	24...	1550	10	240	22.0
JAN , 1980					AUG				
23...	1210	115	125	8.0	13...	1100	40	--	23.5
FEB					SEP				
21...	0950	43	190	9.0	17...	1205	3.2	500	22.5
APR									
08...	1215	34	232	15.5					
03579100 - ELK RIVER NEAR ESTILL SPRINGS, TENN. (LAT 35 17 08 LONG 086 06 20)									
OCT , 1979					JUN , 1980				
03...	1600	353	175	24.5	25...	1605	740	150	23.0
MAY , 1980					AUG				
14...	1150	124	140	14.5	27...	1515	45	145	26.0
03584500 - ELK RIVER NEAR PROSPECT, TENN. (LAT 35 01 39 LONG 086 56 52)									
OCT , 1979					APR , 1980				
01...	1320	4180	230	20.0	08...	1335	7430	180	14.0
JAN , 1980					JUL				
09...	1645	3850	230	8.0	01...	1250	1050	220	24.0
FEB					AUG				
26...	1000	1740	260	9.0	11...	1040	458	200	24.0
03588000 - SHOAL CREEK AT LAWRENCEBURG, TENN. (LAT 35 14 40 LONG 087 21 02)									
OCT , 1979					MAY , 1980				
01...	1015	64	150	17.5	28...	1530	108	125	19.0
JAN , 1980					JUL				
21...	1700	113	110	11.5	02...	1430	520	160	23.0
FEB					AUG				
26...	1535	76	120	10.0	13...	1710	41	150	24.0
APR									
09...	0930	238	95	14.0					
03588400 - CHISHOLM CREEK AT WESTPOINT, TENN. (LAT 35 08 04 LONG 087 31 45)									
OCT , 1979					APR , 1980				
01...	1225	46	80	19.5	09...	1200	343	--	14.0
NOV					MAY				
19...	1145	54	64	11.0	28...	0900	94	60	17.0
JAN , 1980					JUL				
22...	1545	277	45	9.5	02...	1115	38	70	23.0
FEB					AUG				
27...	0920	64	60	5.0	13...	0820	25	75	24.5

WATER QUALTIY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
TENNESSEE RIVER BASIN--Continued									
03598000 - DUCK RIVER NEAR SHELBYVILLE, TENN. (LAT 35 28 49 LONG 086 29 57)									
OCT , 1979					JUN , 1980				
02...	1125	1330	175	19.0	30...	1330	406	160	25.0
FEB , 1980					JUL				
25...	0900	645	220	10.0	17...	0955	185	140	27.0
APR					AUG				
07...	1400	559	200	15.0	12...	1000	200	160	24.0
03599500 - DUCK RIVER AT COLUMBIA, TENN. (LAT 35 37 05 LONG 087 01 56)									
FEB , 1980					JUL , 1980				
28...	0825	1350	300	9.0	08...	1430	546	240	30.0
APR					AUG				
10...	1300	3920	220	16.0	14...	1330	305	160	32.0
03600500 - BIG BIGBY CREEK AT SANDY HOOK, TENN (LAT 35 29 19 LONG 087 13 59)									
NOV , 1979					MAY , 1980				
19...	1430	17	140	15.0	27...	1630	27	125	22.0
JAN , 1980					JUL				
21...	1300	38	120	9.5	03...	0800	9.9	140	23.0
FEB					AUG				
27...	1515	24	115	11.0	14...	0815	6.1	155	24.0
APR									
10...	0830	77	120	14.0					
03602500 - PINEY RIVER AT VERNON, TENN. (LAT 35 52 16 LONG 087 30 05)									
OCT , 1979					APR , 1980				
04...	0915	246	220	16.5	11...	1220	716	160	13.0
NOV					JUL				
20...	0945	232	200	13.0	01...	1615	200	230	22.0
JAN , 1980					AUG				
23...	1230	396	190	9.0	14...	1515	116	210	22.5
FEB									
28...	1400	362	--	15.0					
03604500 - BUFFALO RIVER NEAR LOBELVILLE, TENN. (LAT 35 48 46 LONG 087 47 51)									
FEB , 1980					AUG , 1980				
28...	1200	1290	100	10.0	14...	1215	466	135	26.5
MAY									
20...	1610	5900	80	18.0					
LOOSAHATCHIE RIVER BASIN									
07030295 - LOOSAHATCHIE R TR AT NEW ALLEN RD AT MEMPHIS TN (LAT 35 14 17 LONG 089 57 04)									
NOV , 1979					MAR , 1980				
29...	1330	.29	350	5.5	21...	0920	3.6	165	9.0
DEC					APR				
20...	1515	.32	320	10.5	17...	0945	.87	275	14.5
JAN , 1980					JUN				
31...	1055	.63	480	.5	04...	0945	.05	220	26.0
FEB					JUL				
22...	1115	.45	260	15.5	21...	1320	.01	--	31.0
MAR									
12...	1700	1.8	200	10.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
WOLF RIVER BASIN									
07031680 - FLETCHER CREEK NEAR CORDOVA, TN (LAT 35 11 21 LONG 089 45 42)									
NOV , 1979					MAR , 1980				
01...	0955	.20	85	13.0	11...	1710	.16	110	9.0
27...	0920	.38	69	9.5	APR				
DEC					17...	1120	.56	160	15.0
27...	0835	.35	70	4.5					
FEB , 1980									
04...	0905	.27	120	1.0					
07031683 - FLETCHER CR AT WHITTEN RD AT MEMPHIS TN (LAT 35 11 16 LONG 089 50 09)									
NOV , 1979					APR , 1980				
28...	1200	18	70	10.0	01...	1245	6.1	120	18.0
DEC					08...	1300	202	59	17.0
28...	0910	3.7	110	5.0	MAY				
FEB , 1980					01...	1220	.87	160	21.0
06...	0945	5.8	140	1.5	JUN				
MAR					04...	1630	.04	220	34.0
13...	1440	8.4	168	8.5					
07031777 - LICK CREEK AT DICKINSON STREET, AT MEMPHIS, TENN (LAT 35 09 24 LONG 090 00 12)									
NOV , 1979					APR , 1980				
27...	1330	1.2	140	16.5	16...	1215	2.7	--	18.5
DEC					JUN				
20...	1015	1.6	160	10.5	03...	1435	2.6	150	26.5
JAN , 1980					JUL				
31...	1410	1.8	--	6.5	18...	1045	1.1	--	28.0
MAR					AUG				
11...	1445	1.7	145	12.5	27...	1030	2.4	145	24.0
NONCONNAH CREEK BASIN									
07032222 - JOHNS CREEK TRIB AT HOLMES RD, NR MEMPHIS, TN (LAT 35 00 20 LONG 089 52 16)									
OCT , 1979					APR , 1980				
02...	1510	.23	160	22.5	17...	0810	2.4	100	12.0
NOV					JUN				
02...	1445	.23	105	14.0	04...	0805	.25	165	24.0
27...	0910	5.9	85	9.0	JUL				
DEC					16...	1630	.09	153	32.0
19...	1305	1.1	120	2.5	AUG				
FEB , 1980					27...	1310	.24	160	29.0
01...	1340	1.5	70	1.5					
MAR									
12...	0855	43	90	7.0					
07032224 - JOHNS CREEK AT RAINES RD AT MEMPHIS, TN (LAT 35 02 05 LONG 089 53 10)									
OCT , 1979					APR , 1980				
03...	1105	.47	360	18.0	16...	1455	11	180	19.5
NOV					JUN				
02...	1110	.97	290	13.0	04...	0925	1.0	375	24.5
27...	1040	16	138	10.5	JUL				
DEC					17...	1310	.60	150	33.0
19...	1045	3.3	170	2.5	AUG				
FEB , 1980					27...	1015	.65	270	28.0
11...	1605	7.5	140	1.0					
MAR									
12...	1035	102	98	7.0					

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
NONCONNAH CREEK BASIN--Continued									
07032241 - BLACK BAYOU AT SOUTHERN AVENUE, AT MEMPHIS, TENN (LAT 35 06 55 LONG 089 56 00)									
OCT , 1979					APR , 1980				
02...	1445	1.4	120	19.5	17...	0945	.15	140	16.0
11...	1155	.07	155	19.0	JUN				
31...	1150	.26	120	19.0	03...	0945	.11	370	24.5
NOV					JUL				
30...	1430	.06	140	10.5	17...	1600	.14	--	25.0
DEC					AUG				
28...	1410	.09	120	13.0	28...	1450	.08	140	23.0
MAR , 1980									
13...	0930	.84	115	15.0					
07032248 - CANE CREEK AT EAST PERSON AVENUE AT MEMPHIS TENN (LAT 35 06 02 LONG 090 00 43)									
OCT , 1979					APR , 1980				
30...	1210	5.6	160	23.0	16...	1350	3.6	260	19.0
NOV					JUN				
30...	1220	3.0	205	15.0	03...	1500	4.7	200	29.5
DEC					JUL				
28...	1300	3.4	220	13.5	16...	1240	5.8	--	30.5
MAR , 1980					AUG				
12...	1125	8.2	120	10.0	29...	1125	4.3	245	28.0
MISSISSIPPI RIVER BASIN									
07032260 - CYPRESS CREEK AT NEELY RD, AT MEMPHIS TN (LAT 35 01 36 LONG 090 03 23)									
NOV , 1979					APR , 1980				
29...	1345	.41	340	5.5	16...	1100	.96	300	18.0
DEC					JUN				
27...	1515	.32	340	9.5	11...	1105	.08	420	28.0
FEB , 1980					AUG				
06...	0930	.39	130	2.0	28...	1145	.01	300	30.0
MAR									
11...	1535	2.2	320	10.0					

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT	14.71	JAN 22	8.47	APR 8	10.70	AUG 13	19.29

CANNON COUNTY

354823086104400. Local number, Cn:D-1.

LOCATION.--Lat 35°48'23", long 86°10'44", Hydrologic Unit 05130203, on county road on Cannon County and Rutherford County lines, 1.5 mi (2.4 km) south of Readyville.
Owner: Ray Barker.

AQUIFER.--Lebanon Limestone of middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter, 6 in (150 mm), depth 30 ft (9 m), cased with steel to unknown depth, open end.

DATUM.--Land-surface datum is 715 ft (218 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--April 1967 to current year. Analong record April 1967 to February 1971, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.91 (0.28 m) below land-surface datum, Mar. 11, 1968; lowest recorded, 19.38 ft (5.91 m) below land-surface datum, Dec. 9, 10, 1968; highest water level measured, 12.14 ft (3.70 m) below land-surface datum, Jan. 8, 1974; lowest measured, 18.07 ft (5.51 m) below land-surface datum, June 27, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	14.18	APR 2	13.70	JUN 27	18.07	AUG 26	16.58

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. 18.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.23 ft (0.68 m) below land-surface datum, Apr. 4, 1977; 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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.91	14.96	14.80	14.94	13.85	14.19	5.73	12.46	13.78	13.54	14.96	14.99
10	15.00	15.00	14.89	14.83	13.75	6.49	7.98	14.75	14.35	14.76	14.96	15.04
15	14.89	11.09	14.88	14.15	12.94	10.63	9.78	14.61	13.02	14.88	14.98	15.31
20	15.01	14.85	14.93	6.13	7.26	4.81	11.23	14.55	12.82	14.95	14.99	15.50
25	14.99	14.42	14.44	5.86	10.34	3.97	12.84	12.40	12.50	14.94	15.01	14.97
EOM	15.35	13.20	14.90	13.02	13.05	4.25	11.39	14.85	13.26	14.98	14.97	14.98

WTR YR 1980 MAX 3.56 MAR 21, 1980 MIN 15.72 SEP 24, 1980

CUMBERLAND COUNTY

354922085053500. Local number, Cu:C-1.

LOCATION.--Lat 35°49'22", long 85°05'35", Hydrologic Unit 06010208, 9 mi (14 km) southwest of Crossville, 3.8 mi (6.1 km) south of Lantana, 0.6 mi (1.0 km) south of Vandever Community.
Owner: Hubert Roy.

AQUIFER.--Rockcastle conglomerate of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (150 mm), depth 69 ft (21 m), cased to 46 ft (21 m).

DATUM.--Altitude of land-surface datum is 1,970 ft (600 m). Measuring point: Top of well cap, 1.28 ft (0.39 m) above land-surface datum.

PERIOD OF RECORD.--September 1964 to current year (discontinued). Analog record September 1964 to September 1975, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.15 ft (4.01 m) below land-surface datum, Mar. 17, 1973; lowest recorded, 24.92 ft (7.60 m) below land-surface datum, Nov. 16, 1968; highest water level measured, 13.93 ft (4.25 m) below land-surface datum, Mar. 13, 1978; lowest measured, 26.22 ft (7.99 m) below land-surface datum, Sept. 24, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 22	16.55	MAR 12	15.02	APR 18	15.66	AUG 8	25.19	SEP 24	26.22

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 current year. 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, 31.05 ft (9.46 m) below land-surface datum, Nov. 6, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	22.25	MAR 31	20.12	JUN 24	25.57	AUG 12	27.90

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 casing at land-surface datum.

REMARKS.--No record July 18 to Aug. 21 due to aquifer test.

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.67	25.61	25.02	24.11	28.43	25.60	24.20	30.04	30.10	31.72	---	33.08
10	31.30	25.23	28.19	23.79	28.73	23.47	23.26	31.20	31.87	32.88	---	33.00
15	32.40	27.09	21.31	23.89	29.03	25.28	20.70	31.91	32.62	33.13	---	33.06
20	32.76	29.81	24.65	23.86	23.79	22.51	24.01	24.22	32.92	---	---	32.91
25	32.37	19.48	19.62	24.63	25.94	20.80	25.67	23.50	32.78	---	33.13	32.53
EOM	31.79	22.90	24.29	27.22	27.40	21.66	28.23	27.23	29.98	---	33.08	32.42

WTR YR 1980 MAX 11.08 MAR 20, 1980 MIN 33.21 AUG 28, 29, 1980

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, 16.65 ft (5.07 m) below land-surface datum, Sept. 30, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	15.04	DEC 13	11.64	FEB 26	8.27	MAY 29	9.65	AUG 26	16.11
NOV 16	15.43	JAN 15	8.01	APR 9	5.65	JUL 10	12.15	SEP 30	16.65

360147089230700. Local number, Dy:H-7.

LOCATION.--Lat 36°01'47", long 89°23'07", Hydrologic Unit 08010204, 500 ft (152 m) east of U.S. Highway 51 and on south side of Illinois Central railroad, at Dyersburg.
Owner: City of Dyersburg.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 to 10 in (610 to 250 mm), depth 656 ft (200 m), cased to 605 ft (184 m), screened 605 to 655 ft (184 to 200 m).

DATUM.--Land-surface datum is 270.07 ft (82.32 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.10 ft (0.94 m) above land-surface datum.

PERIOD OF RECORD.--February 1954 to current year. Analog record February 1954 to February 1971, periodic measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.69 ft (0.82 m) above land-surface datum, Mar. 1, 2, Apr. 19, 1962; lowest recorded, 17.1 ft (5.2 m) below land-surface datum, Aug. 10, 1956; highest water level measured, 0.20 ft (0.06 m) above land-surface datum, Mar. 20, 1975, lowest measured, 10.22 ft (3.12 m) below land-surface datum, September 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.67	DEC 13	6.78	FEB 26	4.38	MAY 29	5.32	JUL 9	4.90	AUG 26	8.62
NOV 15	6.60	JAN 15	5.14	APR 9	2.70	JUN 10	5.48	AUG 19	6.50	SEP 23	8.18

FAYETTE COUNTY

352226089330101. Local number, Fa:R-1.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft (24 m) south of State Highway 59, 1.2 mi (1.9 km) southeast of U.S. Highway 70, near Braden.
Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 to 4 in (150 to 100 mm), depth 1,025 ft (312 m), cased to 1,008 ft (307 m), screened 1,008 to 1,025 ft (307 to 312 m).

DATUM.--Land-surface datum is 317.50 ft (96.77 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft (1.13 m) above land-surface datum.

PERIOD OF RECORD.--August 1949 to current year. Analog record August 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 64.89 ft (19.78 m) below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft (23.24 m) below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft (22.44 m) below land-surface datum, Apr. 28, 1976; lowest measured, 78.77 ft (24.01 m) below land-surface datum, Aug. 29, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	77.75	DEC 31	77.58	FEB 29	77.72	JUL 1	78.03	AUG 29	78.77
NOV 30	77.63	JAN 31	77.75	MAY 2	77.64	AUG 1	78.32		

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	40.45	DEC 31	40.02	FEB 29	39.80	JUL 1	39.62	AUG 29	40.15
NOV 30	40.30	JAN 31	40.05	MAY 2	39.38	AUG 1	39.85		

HAMILTON COUNTY

351428085003600. Local number, Hm:O-15.

LOCATION.--Lat 35°14'28", long 85°00'36", Hydrologic Unit 06020001, at Smith Road and State Highway 58, near Snow Hill.
Owner: Savannah Valley Utility District.

AQUIFER.--Knox Dolomite of 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 Mar. 4 to Apr. 8; June 18-24. Negative values indicate water levels above ground level.

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.37	3.26	3.70	4.56	4.01	---	---	4.85	5.90	6.38	6.56	6.60
10	5.96	1.28	5.15	4.65	5.01	---	2.97	5.35	6.03	6.31	6.68	6.70
15	6.21	.18	5.87	4.31	4.98	---	- .40	5.47	6.07	6.50	6.72	6.80
20	6.40	2.88	6.11	2.95	4.23	---	1.18	4.77	---	6.43	6.62	6.78
25	6.47	3.11	5.92	.32	4.76	---	3.53	5.31	6.07	6.60	6.78	6.75
EOM	6.43	1.63	5.59	2.70	5.51	---	4.08	5.74	6.27	6.48	6.64	6.74

WTR YR 1980 MAX -1.72 NOV 11, 1979 MIN 6.93 SEP 28, 1980

Maximum could have been exceeded during period of missing record.

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	86.42	86.73	86.08	86.11	86.16	86.12	85.55	85.75	86.12	86.51	86.89	87.21
10	86.54	86.62	86.28	86.13	86.16	85.95	85.54	85.86	86.27	86.60	86.90	87.23
15	86.65	86.60	86.04	86.05	86.20	86.08	85.42	85.94	86.35	86.71	86.91	87.26
20	86.68	86.64	86.13	86.09	85.92	85.78	85.49	85.91	86.42	86.80	86.97	87.34
25	86.72	86.20	85.94	85.98	86.15	85.38	85.58	85.84	86.46	86.67	87.08	87.31
EOM	86.64	86.02	85.99	86.18	86.15	85.36	85.63	86.05	86.45	86.80	87.12	87.23

WTR YR 1980 MAX 85.16 MAR 30, 1980 MIN 87.35 SEP 26, 1980

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, 197.64 ft (60.24 m) below land-surface datum, Sept. 10, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	194.73	195.73	193.83	194.61	---	194.75	191.87	194.11	194.00	194.40	195.47	196.23
10	194.96	195.46	194.99	194.92	---	194.74	192.41	194.11	193.91	194.60	195.61	196.36
15	195.23	195.44	195.11	195.04	---	194.39	192.85	194.29	193.80	194.81	195.70	196.44
20	195.23	195.40	195.03	194.98	---	193.58	192.93	194.28	193.97	194.88	195.76	196.59
25	195.42	195.17	194.99	---	---	192.16	193.01	193.90	193.93	195.14	195.76	196.54
EOM	195.57	194.65	194.75	---	194.94	192.03	193.92	193.75	194.24	195.29	195.78	196.59

WTR YEAR 1980 MAX 191.76 APR 6, 7, 1980 MIN 196.63 SEP 27, 1980

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	125.84	DEC 12	125.75	FEB 26	125.53	MAY 28	125.22	AUG 19	125.89
NOV 14	125.98	JAN 16	125.47	APR 8	124.98	JUL 7	125.44		

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 1958.

DATUM.--Altitude of land-surface datum is 1,030 ft (314 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Missing record Aug. 11, to Sept. 30.

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, 53.48 ft (16.30 m) below land-surface datum, Dec. 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.00	51.18	50.64	50.81	49.83	50.15	49.52	49.06	49.60	50.23	50.95	---
10	51.05	51.11	50.74	50.67	49.87	50.07	49.32	49.18	49.69	50.34	51.02	---
15	51.11	50.99	50.73	50.53	49.80	50.16	49.26	49.30	49.75	50.49	---	---
20	51.12	51.01	50.81	50.34	49.86	49.87	49.10	49.36	49.93	50.60	---	---
25	51.19	50.75	50.86	50.11	50.09	49.83	49.07	49.42	49.96	50.72	---	---
EOM	51.15	50.82	50.74	50.04	50.12	49.65	49.04	49.57	50.10	50.82	---	---

WTR YR 1980 MAX 48.81 APR 13, 1980 MIN 51.23 OCT 26, 1979

Minimum may have been less 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.
Owner: National Park Service.

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 Nov. 10-19.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.34 ft (2.24 m) below land-surface datum, Mar. 21, 1980; 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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.18	9.07	9.21	9.17	9.25	9.27	9.09	9.18	9.31	9.33	9.61	9.49
10	9.29	---	9.31	8.91	9.31	8.72	9.01	9.28	9.42	9.34	9.68	9.63
15	9.30	---	9.26	8.82	9.34	8.95	8.41	9.35	9.48	9.43	9.63	9.66
20	9.35	9.21	9.35	8.76	9.18	8.52	9.01	9.17	9.38	9.52	9.58	9.63
25	9.34	8.68	9.13	8.82	9.11	8.43	9.22	8.85	9.21	9.54	9.53	9.55
EOM	9.36	8.92	9.11	9.13	9.23	8.78	8.93	9.10	9.40	9.56	9.57	9.30

WTR YR 1980 MAX 7.34 MAR 21, 1980 MIN 9.68 AUG 10, 1980 AND OTHERS

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.15	45.62	45.65	45.81	45.75	45.72	45.40	45.12	44.90	45.03	45.48	45.87
10	45.26	45.80	45.88	45.62	45.71	45.64	45.25	44.95	44.70	45.06	45.42	45.92
15	45.11	45.72	45.76	45.86	45.59	45.57	45.28	44.93	44.70	45.15	45.48	45.99
20	45.10	45.78	45.77	46.09	45.62	45.22	45.21	44.98	44.82	45.22	45.54	46.03
25	45.20	45.73	46.01	45.89	45.94	45.52	45.18	44.85	44.75	45.21	45.64	46.18
EOM	45.58	45.88	45.71	46.19	45.80	45.48	45.13	44.83	44.90	45.29	45.77	46.13

WTR YEAR 1980 MAX 44.44 JUN 6, 1980 MIN 46.27 DEC 8, 1979

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.16	52.11	50.11	49.42	49.98	50.41	46.95	46.76	49.43	52.42	53.54	53.94
10	52.19	51.04	50.28	49.74	50.17	50.43	46.43	47.16	49.80	---	53.91	53.95
15	52.09	51.11	50.36	50.17	50.52	50.04	46.32	48.22	50.29	---	53.93	53.95
20	52.08	51.24	50.47	50.01	50.72	48.98	46.29	48.76	50.97	---	53.93	53.95
25	52.19	50.71	50.38	49.79	50.88	48.52	45.90	48.65	50.91	---	53.94	53.95
EOM	52.17	50.59	49.75	49.64	50.55	47.39	46.11	49.05	51.89	53.50	53.94	53.99

WTR YEAR 1980 MAX 45.83 APR 14, 1980 MIN 53.99 SEP 30, 1980

SHELBY COUNTY--Continued

350923090023500. Local number, Sh:O-124.

LOCATION.--Lat 35°09'23", long 90°02'35", Hydrologic Unit 08010100, at Fifth Street and Sycamore Avenue, Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Unused work shaft to tunnel connected to an unknown number of drilled artesian wells, diameter of shaft 30 in (760 mm), depth 98 ft (30 m), cased to 80 ft (24 m).

INSTRUMENTATION.--Water-level recorder since September 1938.

DATUM.--Land-surface datum is 229.70 ft (70.01 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--May 1927 to 1933, 1936 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.09 ft (5.82 m) below land-surface datum, Apr. 1, 1933; lowest, 73.4 ft (22.4 m) below land-surface datum, July 30 to Aug. 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	64.95		---	---	61.62	62.76	58.55	58.43	61.86	65.80	69.42	69.63
10	64.82		---	---	62.71	62.67	58.55	58.84	62.98	67.11	69.46	69.76
15	64.62		---	---	62.95	62.23	58.55	60.18	63.83	68.95	69.57	69.69
20	64.68		---	---	62.36	60.63	58.55	60.09	64.67	69.46	69.52	69.69
25	64.51		---	---	62.50	59.20	58.55	59.99	64.73	69.39	69.52	69.66
EOM	---		60.39	60.62	62.72	58.55	58.55	60.38	65.41	69.30	69.41	---

WTR YEAR 1980 MAX 58.35 MAY 5, 6, 1980 MIN 69.76 SEP 10, 11, 1980

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.07	112.40	111.62	110.65	109.45	109.37	109.01	108.58	109.98	112.87	114.66	116.32
10	113.17	112.10	111.54	110.13	109.27	109.45	108.83	108.61	110.68	113.80	114.96	115.90
15	112.81	112.06	111.35	109.83	109.34	109.89	108.82	108.71	111.44	115.15	115.36	115.78
20	112.65	111.90	111.32	109.68	109.42	109.55	109.22	108.84	111.71	116.29	115.92	115.31
25	112.82	111.71	111.17	109.48	109.81	109.32	108.86	108.83	111.89	115.31	116.64	114.45
EOM	112.40	111.69	110.86	109.57	109.55	109.14	108.59	109.33	111.99	114.65	116.56	113.79

WTR YEAR 1980 MAX 108.52 MAY 6, 7, 1980 MIN 116.75 AUG 28, 1980

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 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.77	133.28	131.14	128.10	130.14	131.29	128.21	129.21	132.45	136.64	138.95	---
10	134.65	132.85	130.82	129.45	130.79	130.89	127.53	129.79	133.00	138.46	139.54	---
15	---	132.76	130.98	128.94	130.99	131.02	127.08	129.92	134.39	140.03	140.65	---
20	---	132.25	130.78	129.59	130.57	130.50	127.96	130.46	135.04	142.35	140.91	---
25	---	131.00	128.67	129.55	130.46	129.26	129.00	130.25	134.87	139.55	141.42	---
EOM	133.45	131.61	128.28	129.54	131.14	128.00	128.90	131.20	135.66	138.94	141.83	136.89

WTR YEAR 1980 MAX 126.61 APR 14, 1980 MIN 142.35 JUL 20, 1980

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 102.82 ft (31.34 m) below land-surface datum, Sept. 18, 19, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.21	102.26	101.93	101.96	101.56	101.30	101.26	100.88	101.01	101.69	---	102.74
10	102.27	102.18	102.12	101.92	101.40	101.27	101.07	100.88	101.16	101.86	---	102.71
15	102.30	102.26	102.09	101.75	101.39	101.63	100.94	100.88	101.26	102.01	---	102.73
20	102.17	102.20	101.93	101.81	101.14	101.33	100.94	100.74	101.42	---	---	102.76
25	102.20	102.05	101.99	101.39	101.62	101.18	100.77	100.70	101.39	---	---	102.59
EOM	102.11	102.16	101.86	101.74	101.38	101.11	100.79	100.93	101.55	---	102.59	102.41

WTR YEAR 1980 MAX 100.62 MAY 23, 1980 MIN 102.82 SEP 18, 19,1980

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 64.75 ft (19.73 m) below land-surface datum, Sept. 30, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	62.11	DEC 28	62.14	FEB 28	62.32	JUN 30	63.95	AUG 28	64.28
NOV 29	62.25	JAN 30	61.93	APR 30	62.38	JUL 31	64.38	SEP 30	64.75

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	55.04	DEC 28	54.48	FEB 28	53.97	JUN 30	53.96	AUG 28	56.26
NOV 29	54.63	JAN 30	53.87	APR 30	51.91	JUL 31	55.37	SEP 30	56.25

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 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL
AUG 15	90.54	APR 17	90.75

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: Top of casing, 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Period of record low resulted from water levels being affected by 48 hour aquifer test run on a nearby well. Missing record Nov. 1 to Jan. 10, Feb. 16-28.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.66 ft (4.67 m) below land-surface datum, Mar. 21, 1980; lowest, 42.71 ft (13.02 m) below land-surface datum, Dec. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.14	---	---	---	33.47	33.73	32.00	33.70	33.38	34.32	34.37	34.59
10	33.62	---	---	32.64	33.70	31.53	32.04	33.93	33.74	34.39	34.45	34.62
15	33.95	---	---	32.48	33.04	33.04	28.29	34.07	33.99	34.44	34.49	34.63
20	34.12	---	---	31.66	---	29.59	32.00	26.01	34.12	34.50	34.50	34.66
25	34.18	---	---	31.57	---	26.18	33.03	29.87	34.23	33.99	34.54	34.65
EOM	33.31	---	---	33.06	33.63	28.84	33.45	32.75	34.23	34.27	34.57	34.66

WTR YEAR 1980 MAX 14.66 MAR 21, 1980 MIN 34.66 SEPT 20, 24, 26-30, 1980

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY

350059089575300 - SH:K-124

DATE	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JUN 13...	43.2	119	5.9	20.0	0	K60	K64	28	0	6.8	2.7	11

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (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)	NITRO-GEN, TOTAL (MG/L AS N)
JUN 13...	1.2	39	1.0	8.2	.1	21	88	77	.17	.07	1.7	1.9

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	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, 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)
JUN 13...	8.3	.210	.64	3	70	2	27	3	11000	240	0	310

DATE	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)	PER-THANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
JUN 13...	260	.1	41	0	0	140	0	.00	.1	.00	.00	.0

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)
JUN 13...	.00	.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 13...	.00	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

K--Results based on colony count outside acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350107089574700 - SH:K-123

DATE	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUN 09...	37.6	2050	6.9	19.0	10	<1	K4	610	0	140	64	170

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
JUN 09...	52	970	28	130	.9	14	1200	.04	23	23	100	.050

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
JUN 09...	.15	4	700	0	14	9	13000	7800	0	8000	.1

DATE	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)
JUN 09...	17	0	0	0	1	.30	.0	.00	.20	.0	.00	.2

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
JUN 09...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 09...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350114090071701 - SH:J-146 MLGW #404

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP 03...	155	6.4	18.0	1	65	14	7.2	8.0	.8	2.4	3.3

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
SEP 03...	.1	17	.00	.01	.01	.01	.04	.010	.03

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
SEP 03...	0	0	2	1	3	350	0	10	.1	0	0

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
SEP 03...	0	10	0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350146089580600 - SH:K-126

DATE	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUN 09...	302	95	5.9	18.0	0	<1	<1	23	0	5.4	2.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (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)
JUN 09...	9.6	.6	31	2.6	4.5	.1	17	65	61	.06	.05

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	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)
JUN 09...	.36	.42	1.9	.000	.00	2	40	1	10	3	200

DATE	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)
JUN 09...	0	7	<.1	0	0	0	0	0	.00	.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350218089511701 - SH:L-36

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)
SEP 03...	86	6.2	19.0	4	37	0	9.2	3.4	3.3	.4	41

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
SEP 03...	2.4	1.6	.1	12	57	.01	.02	.00	.01	.04	.050

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)
SEP 03...	.15	0	0	0	4	0	200	1	10	.2	2

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)
SEP 03...	0	0	0	0	.00	.0	.00	.00	.0	.00	.0

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350410090023600 - SH:J-153

DATE	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (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)
JUN 23...	33.1	1500	6.2	25.0	0	<1	<1	4.5	340	.2	240	.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C 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)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
JUN 23...	802	.01	.01	3.0	3.0	13	.080	.25	3	2	37000	0

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (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)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PER-THANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
JUN 23...	4000	.1	8	1	0	2	.50	9.0	.00	.00	.0	.00

DATE	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
JUN 23...	.1	.00	.00	.01	.05	.00	.00	.00	.00	.00	.00	.00

DATE	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 23...	.01	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350412090030200 - SH:J-152

DATE	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JUN 20...	29.4	1850	6.7	25.0	15	<1	K2	490	0	99	59	150

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (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)	NITRO-GEN, TOTAL (MG/L AS N)
JUN 20...	17	560	20	230	.4	25	1020	957	.16	.16	20	20

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	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, TOTAL RECOV-ERABLE (UG/L AS MN)
JUN 20...	89	.330	1.0	6	1000	4	10	2	15000	0	3500

DATE	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)	PER-THANE TOTAL (UG/L)	PCB TOTAL (UG/L)
JUN 20...	3400	<.1	19	1	0	70	0	.20	.0	.00	.00

DATE	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-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
JUN 20...	.0	.00	.0	.00	.00	.00	.04	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
JUN 20...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	.00

K--Results based on colony count outside acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350446090013500 - SH:J-154 MLGW #137

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP 03...	140	6.2	17.5	0	52	12	5.3	8.2	1.0	2.2	3.3

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
SEP 03...	.1	15	70	.00	.01	.00	.00	.00	.010	.03

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
SEP 03...	1	0	0	1	1	750	1	10	.1	1	0

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
SEP 03...	0	20	0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350518089554400 - SH:K-73 MLGW #85

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP 03...	200	6.3	18.0	5	68	16	6.9	13	.8	18	8.4

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
SEP 03...	.1	14	102	.00	.01	.00	.00	.00	.020	.06

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)
SEP 03...	0	0	1	2	0	930	2	190	.2	3

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)
SEP 03...	0	0	10	0	.00	.0	.00	.00	.0	.00

DATE	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
SEP 03...	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	.00	.00	0	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350540090061700 - SH:J-84 CARGILL, INC., MEMPHIS, TENN

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
SEP 04...	185	6.6	18.0	1	81	0	19	8.1	8.4	.8	87	2.2

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
SEP 04...	2.8	.1	11	108	105	.00	.01	.07	.07	.31	.230

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)
SEP 04...	.71	0	0	1	0	2	570	0	10	.2	0

DATE	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)
SEP 04...	0	0	0	0	.00	.0	.00	.00	.0	.00	.0

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
SEP 04...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 04...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

350917090012000 - SH:O-231 MLGW #10B

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP 03...	140	6.1	17.5	2	54	12	5.9	8.1	.7	2.3	2.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
SEP 03...	.1	17	70	.00	.02	.01	.01	.04	.000	.00

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
SEP 03...	1	0	0	1	1	740	0	20	.1	0	0

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
SEP 03...	0	10	0	.00	.2	.00	.00	.0	.00	.0	.00

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 03...	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351035089580500 - SH:P-124

DATE	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUN 11...	466	180	6.2	18.0	0	<1	K1	74	0	17	7.7	9.7

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
JUN 11...	1.0	84	5.4	3.0	.1	11	95	106	.00	.01	.00	.00

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
JUN 11...	.00	.000	.00	4	90	0	11	4	520	0	20	.3

DATE	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)
JUN 11...	2	0	0	7	0	.00	.0	.00	.00	.0	.00	.0

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
JUN 11...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 11...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351058090005000 - SH:O-230

DATE	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (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)	ALKA-LINITY (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)
JUN 05...	30.7	6000	7.0	24.5	140	K10	44	1950	5.5	530	.5	30

DATE	SOLIDS, RESIDUE AT 180 DEG. C 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)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)
JUN 05...	2440	.03	.03	290	290	1300	3.300	10	44	2300	0	2

DATE	IRON, TOTAL RECOV-ERABLE (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)	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)
JUN 05...	26000	0	370	330	.2	6	0	0	20	12	.00	.2

DATE	PER-THANE TOTAL (UG/L)	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-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
JUN 05...	.00	.30	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00

DATE	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
JUN 05...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351103089585300 - SH:P-122

DATE	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUN 04...	19.4	1050	6.8	16.5	2	<1	<1	320	0	71	34	80

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
JUN 04...	5.1	360	90	45	.3	26	626	578	.02	.02	16	16

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN 04...	71	.480	1.5	4	90	9	17	0	8000	5700	0	5000

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)
JUN 04...	4500	<.1	1	0	0	4	1	.20	.0	.00	.00

DATE	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UE)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
JUN 04...	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)
JUN 04...	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351109089512901 - SH:Q-40

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP 04...	125	6.2	18.5	0	43	10	4.4	8.3	.9	7.1	4.9

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
SEP 04...	.1	13	84	.01	.05	.01	.02	.09	.230	.71

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
SEP 04...	0	100	3	0	2	1400	6	30	.1	1	0

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
SEP 04...	0	30	0	.00	.7	.00	.00	.0	.00	.0	.00

DATE	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
SEP 04...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 04...	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351112089585100 - SH:P-121

DATE	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUN 11...	24.1	2800	6.4	23.0	30	K3	<1	530	0	110	61	270

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
JUN 11...	50	660	4.5	400	.2	28	1370	1360	.00	.04	57	57

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN 11...	250	.150	.46	13	2500	0	23	2	30000	25000	0	11000

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)
JUN 11...	11000	.6	63	0	0	70	9	.40	.1	.00	.40	.0

DATE	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)
JUN 11...	.00	.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 11...	.00	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

K--Results based on colony count outside acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SHELBY COUNTY--Continued

351115089583300 - SH:P-123

DATE	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
JUN 03...	29.4	570	6.4	20.5	<1	<1	.02	.46	.48	2.1	.300

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
JUN 03...	.92	130	90	6	14	1	0	<.1	3	0	0

DATE	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TANNIN AND LIGNIN (MG/L)	PERTHANE TOTAL (UG/L)	PCB TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
JUN 03...	20	0	.00	.0	.00	.00	.0	.00	.0	.00	.00

DATE	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
JUN 03...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 03...	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

WILLIAMSON COUNTY

355631087090401 - WM:K-3 (FV-9)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
FEB 14...	440	7.5	15.0	5	220	48	61	16

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
FEB 14...	4.7	.5	170	42	5.0	.4	9.2	268	241

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	PHENOLS (UG/L)
FEB 14...	.41	.030	.09	100	20	20	8	0

355915087070200 - FV-7

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
FEB 16...	290	7.6	15.0	5	130	0	38	9.6	2.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
FEB 16...	.4	140	6.8	2.5	.1	8.2	153	153	.30

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
FEB 16...	.100	.31	320	20	10	0	0	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

WILLIAMSON COUNTY--Continued

360122087103200 - WM:Q-7 (FV-12)FAIRVIEW,TN

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAR 05...	435	8.0	14.5	5	210	45	46	22	4.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 05...	.3	160	51	2.0	.2	10	246	233	.07

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAR 05...	.220	.67	50	10	10	2	0	.00

CLAIBORNE COUNTY

363324083563601 - CL:M-12, CLAIRFIELD, TN (WELL #A)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLOR (PLATINUM COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
APR 02...	295	7.0	14.0	5	110	0	27	10	17	1.4	130	12

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
APR 02...	5.3	.2	25	177	180	.01	.050	.15	26	400	0	2

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
APR 02...	1	3500	0	330	.2	8	0	0	30	1	.00

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTE
INT 413

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
Room A-413, Federal Building-U.S. Courthouse
801 Broadway, Nashville, TN 37203

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

SPECIAL 4TH CLASS BOOK RATE