

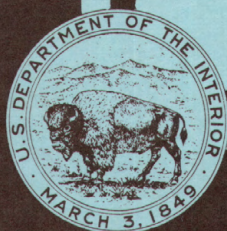
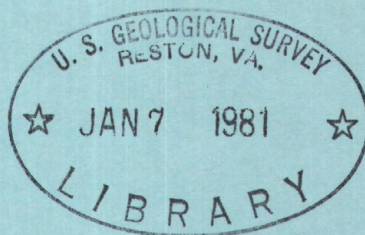
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1974

Water Resources Data for Tennessee

Part 1. Surface Water Records

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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

CALENDAR FOR WATER YEAR 1974

1973

OCTOBER

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

NOVEMBER

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

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

1974

JANUARY

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

FEBRUARY

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

MARCH

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

APRIL

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

MAY

S	M	T	W	T	F	S
			1	2	3	4
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19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE

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

JULY

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

AUGUST

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

SEPTEMBER

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

1974

Water Resources Data for Tennessee

Part 1. Surface Water Records

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

**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**

Prepared in cooperation with

Tennessee Department of Conservation, through the Division
of Water Resources

Tennessee Department of Public Health

Tennessee Department of Transportation

Tennessee Wildlife Resources Agency

City of Chattanooga

City of Lawrenceburg

City of Murfreesboro

Metropolitan Government of Nashville and Davidson County

Tennessee Valley Authority

Corps of Engineers, U.S. Army

Copies of this report may be obtained from

District Chief, Water Resources Division

U.S. Geological Survey

A413 Federal Building - U.S. Courthouse

801 Broadway

Nashville, Tennessee 37203

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WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

IX

(Letters after station name designate type of data:
(c), chemical; (t), water temperature)

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WATER RESOURCES DATA FOR TENNESSEE, 1974

Part 1. Surface-Water Records

Part 2. Water-Quality Records

INTRODUCTION

Water resources data for the 1974 water year for Tennessee, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, and records of water-quality data on the chemical and physical characteristics of surface water, are given in this report. In Part 1, records are included for 134 gaging stations of which 106 are streamflow discharge stations, 1 a daily discharge spring station, and 27 are reservoir or lake stations; also included are records for 31 low-flow partial-record stations, 121 crest-stage partial-record stations, 36 miscellaneous sites, 8 springs, and 2 seepage investigations. Locations of gaging stations are shown in figure 2, and location of partial-record stations are shown in figure 3. In Part 2, data on the quality of surface water (chemical and temperature) collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly, or less frequently, and at some sites data were recorded on punched paper tapes or graphic charts. Records are given for 55 sampling stations of which 18 are continuous record stations, 5 of which show data in addition to temperature, and 37 are miscellaneous sites. Location of water-quality stations are shown in figure 2 with the gaging station sites. Except where noted, the records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of Stanley P. Sauer, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating Federal, State, and Municipal agencies in Tennessee.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are 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 since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." More information is given under the headings "Publications" on pages 17 and 22.

COOPERATION

The U.S. Geological Survey and organizations of the State of Tennessee have had cooperative agreements for the systematic collection of streamflow records since 1918. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Tennessee Department of Conservation, Granville Hinton,
commissioner, through Division of Water Resources,
Robert A. Hunt, director.

Tennessee Department of Highways, Robert F. Smith,
commissioner, through Lewis Evans, director of Bureau
of Highways, and H. W. Derthick, engineer of structures,
and through Paul D. Edens, director of research and
planning.

Tennessee Department of Public Health, E. W. Fowinkle,
commissioner, through Water Quality Control Division,
S. L. Jones, director.

Tennessee Wildlife Resources Agency, Harvey G. Bray,
executive director.

City of Chattanooga, Robert Kirk Walker, mayor, and
E. L. Spencer, city engineer.

City of Lawrenceburg, Ivan Johnston, mayor.

City of Murfreesboro, J. W. Lovell, superintendent, water and sewer department.

Metropolitan Government of Nashville and Davidson County,
Beverly Briley, mayor, through Department of Public Works,
W. D. Lamb, director.

Assistance in the form of funds and/or services was given by the Corps of Engineers, U.S. Army, in collecting records for 17 gaging stations, and by Tennessee Valley Authority in collecting records for 45 gaging stations, 12 temperature stations, and 27 water-quality miscellaneous sites published in this report.

The following organizations aided in collecting records:

Aluminum Co. of America
Bowaters Southern Paper Corp.
Cities Service Co. (Copperhill, Tenn. Operations)

Organizations that supplied data are acknowledged in station descriptions.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined as follows. See also table for converting English units to International System of units (SI) on page 28.

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 metres.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-days 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, or about 646,000 gallons, or 2,447 cubic metres. It represents a runoff of approximately 0.03719 inch from 1 square mile or 0.3647 millimetre from 1 square kilometre.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 millilitres is determined by the immediate or delayed incubation membrane filter method.

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

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

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 (CFS, cfs) 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, 448.8 gallons per minute, or 0.02831 cubic metres per second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

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

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

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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

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).

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 detergents compounds.

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

Milligrams per litre (MG/L, mg/l) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represents the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1, page 6. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per litre of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 6.

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

Particle size is the diameter, in millimetres (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).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as (NH_4^{+1}).....	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1})*.....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2})....	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*...	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate (NO_3^{-1}).....	.01613
Chromium (Cr^{+6})*.....	.11539	Nitrite (NO_2^{-1}).....	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3})...	.03159
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1}).....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*...	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2}).....	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per litre; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per litre to parts per million*

(All values calculated to three significant figures)

<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1,000 g/ml and a specific gravity of sediment of 2.65.

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 distribution 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.

Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

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 discharge 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 by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

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 litre of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

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 and is expressed in micromhos per centimetre at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per litre) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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

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 a 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 water year.

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

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

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. See also table for converting English Units to International Units on p. 28.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

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

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

Pesticide network is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides includes insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to substitute many of the chlorinated hydrocarbon pesticides with more specific, fast-acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

Radiochemical program is a network of regularly sampled water quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in $\mu\text{g/l}$ (micrograms per litre), radium as radium - 226 in PC/L, (pCi/l, picocuries per litre), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per litre ($\mu\text{g/l}$). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

A 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).

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station, partial-record station, miscellaneous site, spring, and water-quality 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 continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the 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 03433500, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "433500." However, the density of miscellaneous sites on the seepage run on the East Fork Stones River (see page 180) make it necessary in some cases to use nine digits in order to indicate the proper downstream order. In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 2 (South Atlantic slope and Eastern Gulf of Mexico basins), Part 3 (Ohio River basin), and Part 7 (Lower Mississippi River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE WATER 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 reading on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. 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 A-6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

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

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration 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, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, 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 gage height at 2400 is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for most stations, is that determined and used by the Geological Survey, the 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." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. 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. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents) and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record," the data given are for the period of record given in "PERIOD OF RECORD" paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds 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 at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, 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 also under "REMARKS."

Previously published 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 "REVISIONS (WATER YEARS)" 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 were revised, that 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 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 following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges 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.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected 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.

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 one lake a table showing gage height at 2400 is given.

Data collected at partial-record stations and miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites. Also shown are tables of spring measurements and measurements made during seepage investigations.

Accuracy of Data

The accuracy of discharge 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 interpretation 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 is 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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. 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 and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes or to other factors. For such stations, figure 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 discharge measurements, gage-height record, 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.

Records of discharge collected by agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected in Tennessee at 69 sites during the 1974 water year by the following agencies:

Tennessee Valley Authority:	34 sites in Tennessee River basin
U.S. Army Corps of Engineers:	10 sites in Cumberland River basin
	25 sites in Lower Mississippi River basin

Information on specific sites can be obtained from the district office of the U.S. Geological Survey at the address given on page II of this report.

EXPLANATION OF WATER QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads in this report.

Descriptive statements are given for water-quality stations located at or near streamflow stations. Given are location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Water-quality information is presented for chemical, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnished information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations.

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.G. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (centigrade, °C). In waters with a density of 1,000 g/ml (grams per millilitre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per litre. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using Table 3 on page 20 .

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5 °C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre. (See "Definition of Terms," p. 5 and table for converting English Units to SI Units, p. 28).

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman. The method for determining elemental constituents by emission spectrographic techniques is described by Barnett and Mallory. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Lamar; Lamar, Goerlitz, and Law; and Goerlitz and Brown. The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others.

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 the 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 U.S. Geological Survey district office at the address given on the back of the title page of this report.

Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken about the same time each day when sample is collected. Large streams have a small diurnal temperature change while small, 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 continuously-recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Tennessee are listed below. Data for Cumberland and Tennessee River basins are given in Part 3 and for lower Mississippi River basin in Part 7.

<u>Water Year</u>	<u>Part 3</u>	<u>Part 7</u>	<u>Water Year</u>	<u>Part 3</u>	<u>Part 7</u>
1941	942	942	1956	1450	1452
1942	950	950	1957	1520	1522
1943	970	970	1958	1571	1573
1944	1022	1022	1959	1642	1644
1945	1030	1030	1960	1742	1744
1946	1050	1050	1961	1882	1884
1947	1102	1102	1962	1942	1944
1948	1132	1133	1963	1948	1950
1949	1162	1163	1964	1955	1957
1950	1186	1188	1965	1962	1964
1951	1197	1199	1966	1992	1994
1952	1250	1252	1967	2012	2014
1953	1290	1292	1968	2093	2096
1954	1350	1352	1969	2143	2146
1955	1400	1402	1970	2153	2156

HYDROLOGIC CONDITIONS

Runoff for the 1974 water year was considerably greater than long-term averages on most streams across Tennessee. Runoff amounts and trends are illustrated at three long-term gaging stations in figure 1. Local storms, as well as general rains, from November 1973 to June 1974 caused excessive runoff for most months. Storm runoff, added to existing high base flows from fully charged ground water reservoirs caused many streams to overflow lowlands causing local flood problems. There was no loss of life and flood damages were generally not high because most floods were less than 25-year recurrence interval in magnitude.

During November, the monthly average runoff was excessive in the eastern two-thirds of the State. (Excessive meaning within the upper 25 percent of record for selected index stations which have an average length of record of 48 years). November was the seventh month of the last nine months that excessive runoff has been recorded over most of Tennessee. Local flooding occurred in the Clinch and upper Duck River basins in eastern Tennessee on November 26-28, caused by rainfall totals of 2 to 12 inches. Floods were also recorded in December on Christmas Day in eastern Tennessee, and January 9-11 in the Cumberland River basin in the north-central part of the State. Local floods occurred May 21 in three north-central counties (Montgomery, Robertson, and Davidson), and May 30 in two eastern counties (Blount and Loudon). Two earth-fill dams were threatened by the May 21 floods when parts of the dams sloughed off, but neither dam failed.

Below normal rainfalls in July, August, and September, generally over the entire State, did not cause deficient streamflows. (Deficient meaning within the lowest 25 percent of recorded flows for period of record at selected index stations). High base flows were sustained during this period by ground water reservoirs highly charged from floods and excessive rainfall for most of the preceding period September 1972 to June 1974.

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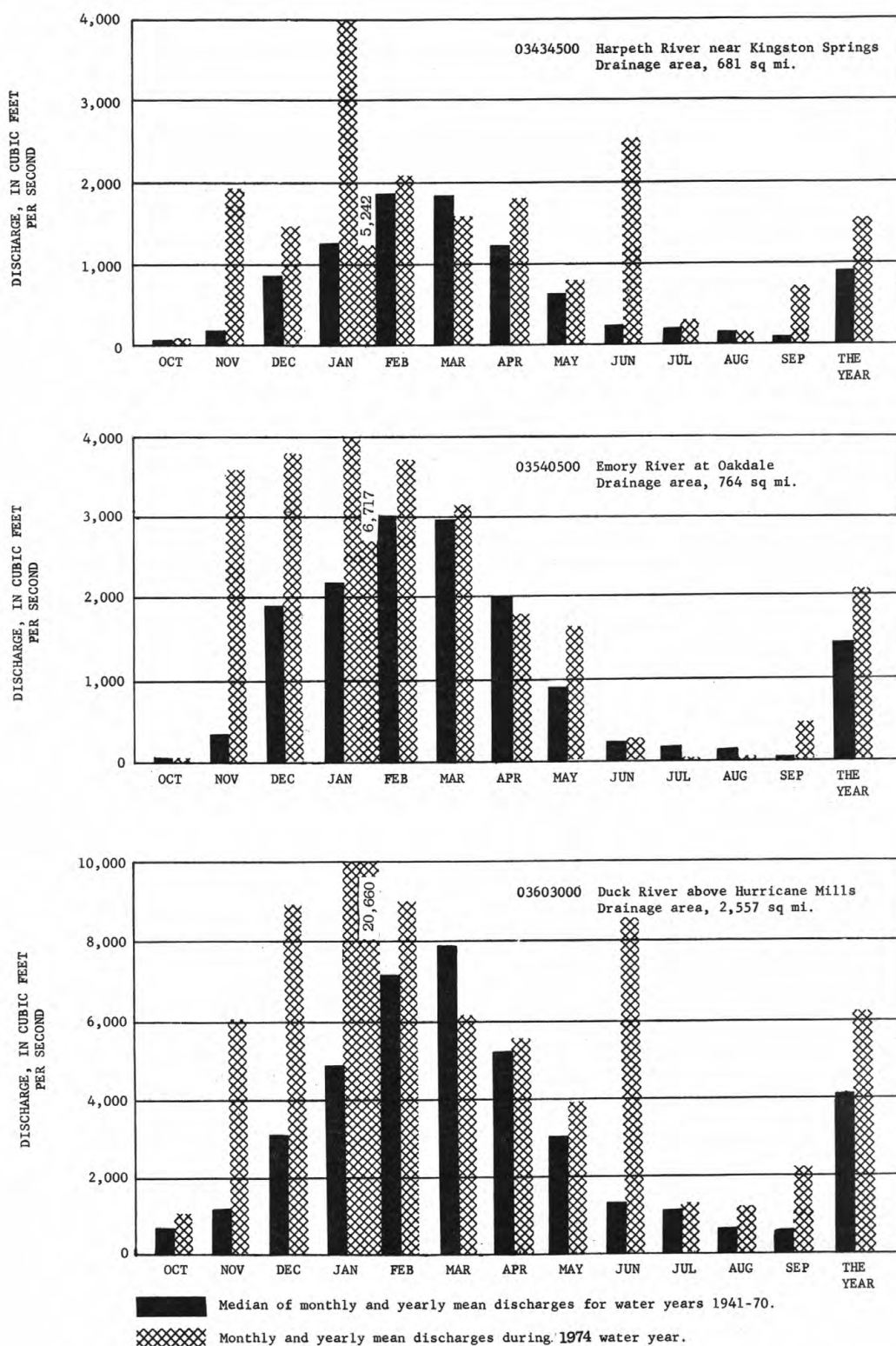


Figure 1.--Runoff during 1974 water year compared with median runoff for period 1941-70 for three representative gaging stations.

Table 4.--Factors for converting English units to International System units (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
Length		
inches (in)	25.4	millimetres (mm)
	.0254	metres (m)
feet (ft)	.3048	metres (m)
yards (yd)	.9144	metres (m)
rods	5.0292	metres (m)
miles (mi)	1.609	kilometres (km)
Area		
acres	4047	square metres (m ²)
	.4047	*hectares (ha)
	.4047	square hectometres (hm ²)
	.004047	square kilometres (km ²)
square miles (mi ²)	2.590	square kilometres (km ²)
Volume		
gallons (gal)	3.785	**litres (l)
	3.785	cubic decimetres (dm ³)
	3.785x10 ⁻³	cubic metres (m ³)
million gallons (10 ⁶ gal)	3785	cubic metres (m ³)
	3.78x10 ⁻³	cubic hectometres (hm ³)
cubic feet (ft ³)	28.32	cubic decimetres (dm ³)
	.02832	cubic metres (m ³)
cfs-days [(ft ³ /s) · d]	2447	cubic metres (m ³)
	2.447x10 ⁻³	cubic hectometres (hm ³)
acre-feet (acre-ft)	1233	cubic metres (m ³)
	1.233x10 ⁻³	cubic hectometres (hm ³)
	1.233x10 ⁻⁶	cubic kilometres (km ³)
Flow		
cubic feet per second (ft ³ /s)	28.32	litres per second (l/s)
	28.32	cubic decimetres per second (dm ³ /s)
	.02832	cubic metres per second (m ³ /s)
gallons per minute (gpm)	.06309	litres per second (l/s)
	.06309	cubic decimetres per second (dm ³ /s)
	6.309x10 ⁻⁵	cubic metres per second (m ³ /s)
million gallons per day (mgd)	43.81	cubic decimetres per second (dm ³ /s)
	.04381	cubic metres per second (m ³ /s)
Mass		
tons (short)	.9072	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p. 15, 1972 edition.

**The unit litre is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

PART 1. SURFACE WATER RECORDS

CUMBERLAND RIVER BASIN

03408500 New River at New River, Tenn.

LOCATION.--Lat 36°23'08", long 84°33'17", Scott County, 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 miles (2.7 km) downstream from Brimstone Creek, and at mile 8.6 (13.8 km).

DRAINAGE AREA.--382 sq mi (989 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,092.43 ft (332.973 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 736 cfs (20.84 cu m/s), 26.16 in/yr (664 mm/yr).

EXTREMES.--Current year: Maximum discharge, 32,800 cfs (929 cu m/s) Nov. 27, gage height, 26.52 ft (8.083 m), from rating curve extended above 27,000 cfs (765 cu m/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 12 cfs (0.34 cu m/s) several days in August, gage height, 1.65 ft (0.503 m).

Period of record: Maximum discharge, 63,700 cfs (1,810 cu m/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 cfs (765 cu m/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, no flow part of each day Aug. 12-15, 1944.

Flood of Mar. 23, 1929 reached a stage of 41.2 ft (12.56 m), discharge, 74,700 cfs (2,120 cu m/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.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1436: Drainage area. WRD Tenn. 1973: 1939(M), 1951(M), 1970(M).

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	141	931	3,170	1,040	582	1,520	312	949	45	17	155
2	74	162	677	1,990	3,760	511	3,830	316	2,330	40	19	251
3	112	114	531	5,150	6,260	460	2,590	757	1,160	35	25	323
4	87	91	455	4,980	2,670	410	6,070	620	719	35	18	365
5	77	98	870	2,610	1,600	406	2,860	521	487	58	20	160
6	54	150	779	1,610	1,260	1,070	1,600	593	374	69	40	127
7	44	127	571	1,220	1,710	2,130	1,100	455	406	55	33	223
8	162	100	455	918	1,380	1,630	949	374	316	53	25	148
9	146	91	387	5,330	1,080	1,180	1,300	502	251	41	22	103
10	96	87	344	7,310	853	918	1,030	469	203	38	20	84
11	66	75	300	26,500	741	752	847	401	168	61	27	68
12	49	64	254	5,480	614	858	725	3,020	150	55	49	91
13	40	58	282	2,170	546	876	725	2,450	150	38	251	155
14	39	54	460	1,470	531	725	671	1,210	123	31	69	135
15	41	55	352	1,180	497	631	648	795	106	27	47	94
16	40	179	327	956	1,210	773	556	683	100	23	38	71
17	39	173	297	801	2,290	981	566	487	101	21	30	54
18	32	125	258	689	1,450	847	506	378	94	19	30	45
19	30	103	236	614	1,230	1,770	455	316	79	18	35	39
20	26	89	460	546	1,360	5,790	420	264	71	17	26	35
21	24	258	2,960	671	1,150	12,500	374	497	68	16	21	1,020
22	23	968	1,540	625	4,680	4,890	348	864	80	26	21	994
23	23	435	1,060	757	2,990	2,360	882	1,730	85	32	17	320
24	22	289	829	2,360	1,770	1,690	829	1,280	65	27	14	176
25	21	244	801	5,100	1,230	1,300	671	962	61	22	12	125
26	20	1,180	19,400	3,690	900	1,100	571	631	58	23	13	100
27	19	23,800	8,830	4,680	752	975	497	876	53	30	15	101
28	91	20,500	2,110	5,860	648	975	425	648	50	25	19	392
29	336	3,250	1,370	6,240	-----	1,020	365	561	51	24	14	331
30	148	1,450	1,970	2,260	-----	2,000	320	1,350	50	25	25	236
31	117	-----	2,650	1,430	-----	1,950	-----	1,070	-----	21	182	-----
TOTAL	2,199	54,510	52,746	108,367	46,202	54,060	34,250	25,392	8,958	1,050	1,194	6,521
MFAN	70.9	1,817	1,701	3,496	1,650	1,744	1,142	819	299	33.9	38.5	217
MAX	336	23,800	19,400	26,500	6,260	12,500	6,070	3,020	2,330	69	251	1,020
MIN	19	54	236	546	497	406	320	264	50	16	12	35
CFSM	.19	4.76	4.45	9.15	4.32	4.57	2.99	2.14	.78	.09	.10	.57
IN.	.21	5.31	5.14	10.55	4.50	5.26	3.34	2.47	.87	.10	.12	.64

CAL YR 1973 TOTAL 453,836 MFAN 1,243 MAX 35,000 MIN 19 CFSM 3.25 IN 44.20
WTR YR 1974 TOTAL 395,449 MFAN 1,083 MAX 26,500 MIN 12 CFSM 2.84 IN 38.51

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-27	1430	26.52	32,800	01-28	2230	16.93	14,100
12-26	2000	25.19	29,700	03-21	1700	21.42	21,700
01-11	1000	26.34	32,300				

CUMBERLAND RIVER BASIN

31

03414500 East Fork Obey River near Jamestown, Tenn.

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

DRAINAGE AREA.--202 sq mi (523 sq km), includes 6 sq mi (16 sq km) without surface drainage.

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

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

AVERAGE DISCHARGE.--32 years, 411 cfs (11.64 cu m/s), 27.63 in/yr (702 mm/yr).

EXTREMES.--Current year: Maximum discharge, 23,100 cfs (654 cu m/s) Jan. 10, gage height, 22.31 ft (6.800 m); minimum, 12 cfs (0.34 cu m/s) Oct. 27, 28, gage height, 0.92 ft (0.280 m).

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

Flood in March 1929 reached a stage of about 30.7 ft (9.36 m) from flood profile by Corps of Engineers.

REMARKS.--Records good. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1276: 1944, 1946(M). WSP 1506: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	48	610	1,950	677	411	615	261	472	26	10	64
2	17	43	440	1,230	2,400	372	1,660	261	848	23	10	102
3	19	37	354	2,020	3,490	338	1,360	328	605	21	19	538
4	17	31	299	2,830	1,800	309	3,300	320	417	21	26	507
5	16	35	281	1,540	1,170	296	1,610	304	312	55	22	263
6	15	47	246	1,040	1,110	629	1,050	334	252	42	16	263
7	15	44	203	848	1,280	1,180	774	317	218	29	13	357
8	16	37	176	692	999	930	1,130	280	176	31	14	252
9	23	33	163	3,160	774	708	1,330	289	150	48	53	215
10	25	30	152	6,920	601	546	960	313	134	61	31	533
11	20	27	139	12,700	499	461	727	291	129	44	127	334
12	17	24	129	2,990	437	464	573	1,600	115	33	293	309
13	16	23	147	1,550	391	464	501	1,250	102	24	124	309
14	17	22	206	1,080	369	401	532	756	88	20	100	209
15	16	22	191	859	351	357	555	500	77	18	110	157
16	16	33	171	733	516	437	456	434	77	17	49	119
17	15	54	160	615	919	638	431	364	73	16	41	91
18	14	41	144	516	718	551	389	293	65	15	31	81
19	14	33	134	461	653	2,130	348	244	54	13	24	73
20	14	30	461	427	697	3,560	313	213	48	13	20	65
21	13	70	1,410	759	629	5,120	281	183	44	12	17	754
22	13	185	826	790	2,270	2,500	337	169	42	12	33	376
23	13	147	547	795	1,630	1,420	1,460	659	40	12	46	238
24	13	104	457	1,820	1,130	999	898	607	39	12	36	157
25	13	93	733	2,810	816	738	602	435	38	12	26	117
26	12	555	9,660	2,230	619	578	468	339	37	11	20	95
27	12	9,920	3,370	1,830	503	481	386	362	35	11	17	287
28	19	8,210	1,490	1,870	447	481	330	338	31	11	52	376
29	24	1,950	1,220	1,890	-----	538	287	265	31	11	46	261
30	35	982	1,490	1,250	-----	800	257	224	28	11	35	179
31	40	-----	2,340	897	-----	744	-----	201	-----	11	48	-----
TOTAL	545	22,910	28,389	61,102	27,895	29,581	23,920	12,734	4,777	696	1,509	7,681
MEAN	17.6	764	916	1,971	996	954	797	411	159	22.5	48.7	256
MAX	40	9,920	9,660	12,700	3,490	5,120	3,300	1,600	848	61	293	754
MIN	12	22	129	427	351	296	257	169	28	11	10	64
CFSM	.09	3.78	4.53	9.76	4.93	4.72	3.95	2.03	.79	.11	.24	1.27
IN.	.10	4.22	5.23	11.25	5.14	5.45	4.41	2.35	.88	.13	.28	1.41

CAL YR 1973 TOTAL 250,214.0 MEAN 686 MAX 15,800 MIN 4.0 CFSM 3.40 IN 46.08
WTR YR 1974 TOTAL 221,739.0 MEAN 608 MAX 12,700 MIN 10 CFSM 3.01 IN 40.84

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0600	20.70	19,900	01-10	2345	22.31	23,100
12-26	1515	18.33	15,700	03-21	1100	12.76	8,190

CUMBERLAND RIVER BASIN

03416000 Wolf River near Byrdstown, Tenn.

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

DRAINAGE AREA.--106 sq mi (275 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 707.54 ft (215.658 m) above mean sea level, Sandy Hook datum.

AVERAGE DISCHARGE.--32 years, 186 cfs (5.268 cu m/s), 23.83 in/yr (605 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,900 cfs (450 cu m/s) Nov. 27, gage height, 9.66 ft (2.944 m); minimum, 9.0 cfs (0.25 cu m/s) July 25, 26, Aug. 1, 2, gage height, 1.06 ft (0.323 m).

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

Flood of 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 of March 1929 at a point 12.5 miles (20.1 km) upstream, from floodmarks.

REMARKS.--Records good. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1276: 1943. WSP 1910: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	38	242	856	286	173	245	122	453	21	9.0	43
2	16	34	178	491	776	157	519	133	754	21	9.0	42
3	15	26	146	1,550	1,320	144	481	275	356	20	13	140
4	14	23	128	1,890	604	131	3,240	200	172	19	14	116
5	14	32	116	609	420	128	905	169	68	19	14	60
6	13	39	97	386	488	708	508	156	59	18	13	48
7	13	33	83	314	556	933	370	135	53	18	13	50
8	17	28	74	255	428	480	687	120	49	18	13	45
9	19	26	70	832	332	350	899	112	47	17	13	51
10	20	24	66	3,720	269	277	539	102	46	23	17	83
11	17	22	61	7,110	224	232	394	94	42	24	16	73
12	15	21	57	1,420	193	219	319	330	39	20	24	56
13	14	20	63	666	178	189	268	283	37	17	26	45
14	15	20	79	460	166	167	225	193	35	16	21	38
15	14	20	70	360	148	154	191	153	34	15	33	35
16	14	20	66	290	164	260	168	130	33	15	26	31
17	13	19	61	241	178	279	161	110	31	15	20	28
18	13	19	57	203	164	238	147	94	31	15	17	27
19	12	18	54	183	178	1,020	135	83	30	14	16	25
20	12	18	166	170	238	1,610	124	80	29	14	14	24
21	12	47	370	180	230	2,480	115	70	28	13	17	605
22	12	69	242	183	928	1,110	119	151	32	12	19	335
23	12	45	188	185	612	593	792	377	37	12	14	162
24	12	36	160	316	429	413	413	194	32	12	13	109
25	12	36	232	604	321	323	288	139	27	9.0	12	80
26	11	279	4,190	617	253	270	228	115	25	9.5	11	63
27	11	7,160	1,350	580	217	230	187	106	24	12	10	116
28	26	3,130	560	800	193	207	162	89	23	13	16	196
29	30	701	432	792	-----	241	142	79	23	12	40	127
30	28	363	708	488	-----	321	127	94	22	11	31	91
31	28	-----	2,050	368	-----	282	-----	107	-----	10	38	-----
TOTAL	487	12,366	12,416	27,119	10,493	14,319	13,098	4,595	2,671	484.5	562.0	2,944
MEAN	15.7	412	401	875	375	462	437	148	89.0	15.6	18.1	98.1
MAX	30	7,160	4,190	7,110	1,320	2,480	3,240	377	754	24	40	605
MIN	11	18	54	170	148	128	115	70	22	9.0	9.0	24
CFSM	.15	3.89	3.78	8.25	3.54	4.36	4.12	1.40	.84	.15	.17	.93
IN.	.17	4.34	4.36	9.52	3.68	5.03	4.60	1.61	.94	.17	.20	1.03
CAL YR 1973	TOTAL	102,313.0	MEAN	280	MAX	7,160	MIN	11	CFSM	2.64	IN	35.91
WTR YR 1974	TOTAL	101,554.5	MEAN	278	MAX	7,160	MIN	9.0	CFSM	2.62	IN	35.64

PEAK DISCHARGE (BASE, 3,600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	1015	9.66	15,900	01-11	0200	8.92	12,400
12-26	1515	7.22	6,460	03-21	1030	6.05	3,990
12-31	0845	5.83	3,600	04-04	0700	6.99	5,920

CUMBERLAND RIVER BASIN

33

03417500 Cumberland River at Celina, Tenn.

LOCATION.--Lat 36°33'15", long 85°30'52", Clay County, on right bank at State Highway 52 bridge, 0.5 mile (0.8 km) northwest of courthouse in Celina, 600 ft (183 m) downstream from Obey River and at mile 380.9 (612.7 km).

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

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.

GAGE.--Water-stage recorder. Datum of gage is 489.00 ft (149.047 m) above mean sea level. Prior to Nov. 20, 1930, nonrecording gage at site 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--52 years, 11,580 cfs (328.0 cu m/s), 21.52 in/yr (547 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum recorded discharge, 58,900 cfs (1,670 cu m/s) Jan. 11, gage height, 34.83 ft (10.616 m); minimum, unknown, minimum recorded gage height, 11.07 ft (3.374 m) Dec. 14.

Period of record: Maximum discharge, 145,000 cfs (4,110 cu m/s) Dec. 29, 1926; maximum gage height, 57.25 ft (17.450 m) Dec. 29, 1926, from graph based on gage readings; minimum discharge observed, 69 cfs (1.95 cu m/s) Sept. 2, 11-14, 26, 1925, gage height, 0.20 ft (0.061 m).

Maximum stage since at least 1793, 59.2 ft (18.04 m) in March 1826, from Cumberland River profile.

REMARKS.--Records fair except those for days when discharge is below about 3,500 cfs (99.12 cu m/s), which are poor due to indefinite stage-fall-discharge relation. Discharge less than about 2,500 cfs (70.80 cu m/s) on days for which no discharge is shown.

Monthly total and mean were computed using Corps of Engineers' dam release figures for days not shown. Flow regulated by Lake Cumberland and Dale Hollow Lake (see p. 57).

REVISIONS (WATER YEARS).--WSP 893: 1923-38. WSP 1276: 1924. WSP 1306: 1943 (monthly runoff). WSP 2110: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,800	8,490	40,100	26,500	47,300	22,200	19,000	14,400	14,500	2,500	4,260	2,100
2	11,400	4,020	39,400	32,000	48,400	20,600	27,700	10,100	20,700	12,000	7,750	11,600
3	10,300	3,700	40,100	37,900	51,500	15,400	26,400	9,010	20,800	9,190	9,380	11,500
4	13,300	2,500	40,400	41,200	46,000	7,870	36,300	6,270	30,700	2,800	2,830	11,800
5	16,000	2,050	42,100	38,000	49,200	11,400	34,700	4,730	31,000			10,600
6	15,600	4,800	43,200	38,700	48,900	14,900	36,400	9,590	30,000		2,500	7,800
7	8,500	6,800	39,800	41,900	49,300	13,200	37,500	10,000	30,400		3,400	2,900
8	4,240	5,100	32,100	41,500	48,400	11,700	39,300	9,130	23,900		3,400	4,400
9	7,950	5,120	29,600	46,800	47,000	12,800	41,100	8,710	9,380		8,870	6,900
10	8,960	8,980	27,800	53,300	45,400	9,680	39,000	14,500	5,600		11,800	13,700
11	13,200	12,400	23,800	58,000	44,300	7,010	37,500	14,000	8,120		7,160	13,800
12	8,670	13,600	19,400	56,000	42,600	14,700	36,300	9,520	9,060		5,260	14,600
13	11,400	5,100	5,580	50,000	41,300	19,600	32,800	5,860	13,100		8,490	13,000
14	6,850	7,760	5,290	44,900	39,200	23,800	24,100	9,260	14,800		7,930	8,200
15	4,800	3,800	10,400	44,800	36,600	18,200	19,300	13,600	15,400		11,300	8,800
16	12,400	4,080	11,600	48,700	35,100	13,200	17,300	15,600	17,200		8,050	7,400
17	6,410	6,140	18,700	48,100	33,000	19,200	15,700	16,800	12,000		7,850	4,500
18	4,670	10,900	18,600	47,500	31,500	24,500	12,000	17,000	8,500		7,960	3,800
19	10,200	5,000	12,900	47,000	30,200	23,900	12,400	17,000	6,500	7,510	7,290	2,800
20	5,560	2,100	10,600	46,400	31,300	18,200	10,400	22,100	13,800	8,620	7,980	2,400
21	3,800	3,800	11,800	46,400	34,000	19,100	5,960	23,300	13,900		4,200	2,900
22	3,000	3,800	12,200	46,400	41,600	30,000	5,450	21,900	15,900		3,540	4,100
23	4,870	3,720	9,200	46,000	34,700	34,600	12,700	20,500	15,800		3,190	9,200
24	4,690	3,830	5,690	45,900	26,000	32,800	13,300	18,900	3,000		2,900	6,300
25	6,300	2,500	5,130	45,900	27,200	31,800	9,880	14,700	7,800		2,100	12,100
26	4,700	2,020	9,050	46,000	26,600	30,800	10,300	5,340	3,900		3,040	13,400
27	2,350	6,020	12,600	46,500	24,700	30,700	8,870	2,100	3,500		5,950	8,570
28	2,020	34,000	15,600	48,000	24,600	29,100	5,930	5,500	2,700		5,220	8,080
29	7,290	40,500	9,190	49,100	-----	25,200	6,860	14,500	6,800		3,460	3,830
30	18,200	41,500	2,930	48,500	-----	24,100	14,100	10,000	8,900		2,710	3,300
31	7,440	-----	8,210	47,800	-----	21,500	-----	13,100	-----			-----
TOTAL	249,870	264,130	613,070	1,405,7M	1,085,9M	631,760	648,550	387,020	417,660	88,280	170,620	234,380
MEAN	8,060	8,804	19,780	45,350	38,780	20,380	21,620	12,480	13,920	2,848	5,504	7,813
MAX	18,200	41,500	43,200	58,000	51,500	34,600	41,100	23,300	31,000	12,000	11,800	14,600
MIN	2,020	2,020	2,930	26,500	24,600	7,010	5,450	2,100	2,700			2,100

CAL YR 1973 TOTAL 6,650,970 MEAN 18,220 MAX 43,200 MIN 2,020 MEAN† 17,260 CFSM† 2.36 IN.† 32.05
WTR YR 1974 TOTAL 6,196,940 MEAN 16,980 MAX 58,000 MIN Unknown MEAN† 16,210 CFSM† 2.22 IN.† 30.11

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

NOTE.--No gage-height record Jan. 12 to Feb. 6, Mar. 3-18, June 22 to July 3, Sept. 6-23.

CUMBERLAND RIVER BASIN

03418000 Roaring River near Hilham, Tenn.

LOCATION.--Lat 36°20'27", long 85°25'35", Overton County, on left bank 700 ft (213 m) upstream from Cleek Branch, 0.2 mile (0.3 km) downstream from bridge on State Highway 136, 1.4 miles (2.3 km) upstream from Flat Creek, 2.7 miles (4.3 km) west of Windle, 5.0 miles (8.0 km) south of Hilham, and at mile 22.2 (35.7 km).

DRAINAGE AREA.--78.7 sq mi (203.8 sq km), includes 27.1 sq mi (70.2 sq km) without surface drainage.

PERIOD OF RECORD.--October 1931 to current year. Prior to June 1932 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder and since Sept. 21, 1940, concrete control. Altitude of gage is 770 ft (235 m) by barometer. June 23, 1932, to July 24, 1933, nonrecording gage at site 800 ft (244 m) upstream at different datum. July 25 to Nov. 7, 1933, nonrecording gage 150 ft (46 m) downstream at different datum. Nov. 8, 1933, to Sept. 23, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--43 years, 109 cfs (3.087 cu m/s), 18.81 in/yr (478 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,240 cfs (177 cu m/s) Nov. 27, gage height, 10.04 ft (3.060 m); minimum, 6.9 cfs (0.20 cu m/s) Oct. 27, gage height, 0.83 ft (0.253 m).

Period of record: Maximum discharge, 9,770 cfs (277 cu m/s) Mar. 17, 1963, gage height, 12.98 ft (3.956 m), from highwater mark in gage house, from rating curve extended above 4,000 cfs (113 cu m/s); minimum, 1.9 cfs (0.054 cu m/s) Oct. 19, 24, 26, 28, Nov. 9, 1940; minimum daily, 2.4 cfs (0.068 cu m/s) Sept. 12, 13, 15-19, 1954; minimum gage height, 0.16 ft (0.049 m) Oct. 5, 1936; minimum gage height since concrete control, 0.63 ft (0.192 m) Sept. 16-20, 1954.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Discharge affected occasionally by change in storage in a water-supply reservoir on Carr Creek since 1964. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1033: 1939(M). WSP 1143: 1948. WSP 1276: 1942. WSP 1436: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	22	220	448	202	117	134	74	259	21	9.1	33
2	12	14	157	304	807	105	291	93	277	20	9.5	37
3	12	12	118	888	992	94	242	123	184	20	8.2	70
4	11	12	100	971	460	84	1,530	77	139	19	16	43
5	11	16	86	456	297	88	480	72	111	21	11	41
6	10	16	72	307	297	213	285	73	95	19	9.1	38
7	11	14	63	256	281	280	232	62	80	33	11	35
8	19	13	58	217	248	222	702	57	69	49	18	37
9	13	13	54	966	212	189	567	58	62	30	15	40
10	12	11	51	1,960	185	159	321	57	59	77	14	68
11	11	11	47	4,010	159	138	227	52	54	34	34	45
12	10	10	44	1,160	137	138	195	252	52	25	48	36
13	10	10	51	563	123	111	173	157	47	22	23	30
14	14	10	49	368	114	96	156	100	43	19	45	25
15	11	10	43	278	98	88	146	81	42	19	47	23
16	11	11	41	230	125	118	118	70	43	20	25	21
17	9.5	12	38	195	133	112	113	61	38	16	22	20
18	9.5	11	36	151	120	98	96	55	36	15	16	19
19	9.1	10	35	146	137	695	87	49	34	14	14	19
20	9.1	10	80	131	120	877	78	46	31	17	13	20
21	8.6	37	157	164	105	1,320	71	149	30	23	15	300
22	8.6	36	101	146	572	642	74	483	29	14	16	200
23	8.6	24	88	146	331	349	332	799	31	14	13	100
24	8.6	20	78	209	259	264	183	292	29	14	11	74
25	8.2	22	197	424	209	215	133	217	27	13	9.2	62
26	8.2	95	1,690	353	175	186	110	170	26	12	8.5	55
27	7.7	3,540	782	328	150	163	94	148	25	12	8.0	169
28	27	1,700	342	527	133	149	82	112	25	12	13	171
29	18	567	335	468	-----	147	71	92	25	11	25	117
30	13	287	468	304	-----	182	65	81	22	11	20	85
31	14	-----	925	246	-----	152	-----	71	-----	9.5	28	-----
TOTAL	358.7	6,576	6,606	17,320	7,181	7,791	7,388	4,283	2,024	655.5	574.6	2,033
MEAN	11.6	219	213	559	256	251	246	138	67.5	21.1	18.5	67.8
MAX	27	3,540	1,690	4,010	992	1,320	1,530	799	277	77	48	300
MIN	7.7	10	35	131	98	84	65	46	22	9.5	8.0	19
CFSM	.15	2.78	2.71	7.10	3.25	3.19	3.13	1.75	.86	.27	.24	.86
IN.	.17	3.11	3.12	8.19	3.39	3.68	3.49	2.02	.96	.31	.27	.96

CAL YR 1973 TOTAL 67,088.7 MEAN 184 MAX 3,540 MIN 7.7 CFSM 2.34 IN 31.71
WTR YR 1974 TOTAL 62,790.8 MEAN 172 MAX 4,010 MIN 7.7 CFSM 2.19 IN 29.68

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0945	10.04	6,240	02-02	2245	5.00	1,530
12-26	1445	5.88	2,170	03-21	0900	5.51	1,880
12-31	0615	4.99	1,520	04-04	0415	6.20	2,450
01-03	2015	5.08	1,590	04-08	1545	4.61	1,300
01-11	0530	8.97	5,120	05-22	2100	4.55	1,260

CUMBERLAND RIVER BASIN

35

03421000 Collins River near McMinnville, Tenn.

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

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

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

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

AVERAGE DISCHARGE.--50 years, 1,159 cfs (32.82 cu m/s), 24.59 in/yr (625 mm/yr).

EXTREMES.--Current year: Maximum discharge, 40,500 cfs (1,150 cu m/s) Jan. 11, gage height, 30.66 ft (9.345 m); minimum, 110 cfs (3.12 cu m/s) Oct. 27, gage height, 1.21 ft (0.369 m).

Period of record: Maximum discharge, 75,300 cfs (2,130 cu m/s) Mar. 23, 1929, gage height, 39.1 ft (11.92 m), from rating curve extended above 42,000 cfs (1,190 cu m/s) on basis of slope area measurement of peak flow; minimum, 35 cfs (0.991 cu m/s) Sept. 21, 1930.

Flood in 1854 is believed to have been about equal to that of Mar. 23, 1929, from information by local residents.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

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

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	579	2,860	4,080	2,620	1,350	1,640	477	1,290	216	219	151
2	207	579	2,140	3,140	4,110	1,250	3,060	473	2,540	204	195	167
3	207	530	1,700	4,460	8,560	1,140	3,260	530	1,570	192	181	288
4	207	443	1,450	4,590	5,880	1,050	3,790	584	1,200	187	178	302
5	195	378	1,390	3,590	3,840	980	3,770	570	975	426	167	248
6	178	331	1,320	2,910	2,950	1,020	2,620	534	883	464	161	288
7	170	317	1,140	2,820	2,880	1,480	1,990	508	824	561	184	248
8	231	313	1,010	2,500	2,630	1,540	2,040	464	733	455	499	222
9	228	317	913	6,940	2,290	1,350	2,620	439	694	410	324	288
10	198	374	844	15,800	1,960	1,210	2,140	631	626	1,140	225	261
11	175	398	769	36,100	1,730	1,100	1,820	769	607	980	207	213
12	161	374	698	23,900	1,540	1,050	1,580	2,080	530	621	248	190
13	153	339	1,250	8,730	1,400	991	1,520	3,100	561	473	222	178
14	167	309	1,260	4,240	1,780	868	1,500	2,060	430	366	295	181
15	167	288	949	3,540	2,620	795	1,340	2,110	406	292	309	167
16	161	278	839	3,100	5,110	819	1,200	4,330	508	343	275	156
17	153	324	748	2,740	6,710	1,010	1,100	2,700	426	317	271	148
18	136	386	679	2,410	3,990	908	1,010	1,800	370	231	254	143
19	141	370	626	2,140	3,030	1,190	939	1,340	335	210	225	136
20	136	335	800	1,950	2,710	4,140	868	1,090	309	192	192	141
21	131	451	1,920	2,970	2,240	9,120	805	939	292	195	175	164
22	126	2,180	1,640	2,260	4,590	9,480	753	805	275	181	170	151
23	119	1,980	1,400	2,550	4,500	4,550	738	1,360	281	198	187	133
24	112	1,320	1,240	4,410	3,080	2,980	718	1,800	275	195	175	124
25	117	1,030	1,340	7,800	2,340	2,280	674	1,320	254	181	153	121
26	115	1,140	15,400	6,070	1,880	1,890	621	1,060	244	264	143	119
27	112	7,400	23,200	5,910	1,610	1,640	584	1,620	235	924	136	167
28	159	22,300	8,570	5,610	1,440	1,510	552	1,760	231	557	136	244
29	335	14,300	3,760	8,430	-----	1,450	521	1,340	231	426	138	219
30	723	5,170	3,450	5,060	-----	1,960	490	1,070	231	320	146	181
31	698	-----	4,280	3,380	-----	1,890	-----	908	-----	254	151	-----
TOTAL	6,346	64,833	89,585	194,130	90,020	63,991	46,263	40,571	18,366	11,975	6,541	5,739
MEAN	205	2,161	2,890	6,262	3,215	2,064	1,542	1,309	612	386	211	191
MAX	723	22,300	23,200	36,100	8,560	9,480	3,790	4,330	2,540	1,140	499	302
MIN	112	278	626	1,950	1,400	795	490	439	231	181	136	119
CFSM	.32	3.38	4.52	9.78	5.02	3.23	2.41	2.05	.96	.60	.33	.30
IN.	.37	3.77	5.21	11.28	5.23	3.72	2.69	2.36	1.07	.70	.38	.33

CAL YR 1973 TOTAL 746,914 MEAN 2,046 MAX 46,600 MIN 112 CFSM 3.20 IN 43.41
WTR YR 1974 TOTAL 638,360 MEAN 1,749 MAX 36,100 MIN 112 CFSM 2.73 IN 37.10

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	1730	23.90	25,700	01-11	1630	30.66	40,500
12-27	0330	25.87	29,500	03-21	2230	16.76	14,300

CUMBERLAND RIVER BASIN

03422500 Caney Fork near Rock Island, Tenn.

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

DRAINAGE AREA.—1,678 sq mi (4,346 sq km).

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.

GAGE.—Water-stage recorder. Datum of gage is 647.09 ft (197.233 m) above mean sea level. Prior to Mar. 30, 1924, at sites from 80 ft (24 m) to 0.5 mile (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.

AVERAGE DISCHARGE.—60 years (1914-74), 3,199 cfs (90.60 cu m/s), 25.89 in/yr (658 mm/yr), unadjusted.

EXTREMES.—Current year: Maximum discharge, 91,400 cfs (2,588 cu m/s) Jan. 11, gage height, 28.63 ft (8.726 m); minimum, 43 cfs (1.22 cu m/s) Oct. 19, gage height, 2.20 ft (0.671 m); minimum daily, 44 cfs (1.25 cu m/s) Oct. 20.
Period of record: Maximum discharge, 210,000 cfs (5,950 cu m/s) Mar. 23, 1929, gage height, 43.6 ft (13.29 m), present datum, from floodmark, from rating curve extended above 110,000 cfs (3,120 cu m/s); minimum daily, 25 cfs (0.71 cu m/s) several days in August to October 1951.
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 miles (13 km) downstream, from profile by Corps of Engineers.

REMARKS.—Records good. Flow regulated by Great Falls Lake beginning Dec. 8, 1916 (see sta. 03422000).

REVISIONS (WATER YEARS).—WSP 1276: 1934, 1937. WSP 1910: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	580	1,420	6,210	10,100	5,720	3,590	3,970	1,590	3,140	527	586	223
2	350	1,440	4,610	7,630	11,200	3,310	8,040	1,750	2,270	460	282	285
3	300	65	3,790	14,800	22,100	3,200	8,060	1,730	3,160	589	67	222
4	750	65	3,630	13,000	13,900	3,170	9,630	1,400	3,140	389	67	1,690
5	400	1,080	3,610	9,230	9,120	3,020	8,050	1,130	3,150	410	280	957
6	300	1,390	3,590	7,660	7,720	3,170	5,870	2,290	3,060	58	318	1,490
7	50	1,090	3,540	5,880	6,570	3,530	4,680	1,720	2,950	57	310	1,340
8	300	994	3,480	5,690	5,830	4,940	4,970	2,180	2,950	384	474	68
9	350	1,060	3,330	22,500	5,110	4,190	4,800	2,360	2,950	442	590	68
10	1,000	660	3,260	39,500	3,920	3,710	4,560	2,350	2,950	433	519	348
11	400	64	3,150	85,200	3,940	3,380	4,000	2,200	2,940	879	67	459
12	300	583	1,900	49,000	3,610	3,200	3,700	2,590	2,940	941	358	363
13	50	695	2,020	20,000	3,320	3,210	3,490	3,100	2,940	65	645	929
14	50	705	1,980	11,000	3,660	3,200	3,450	3,140	2,940	65	578	294
15	300	584	2,070	9,200	5,080	3,170	3,280	3,160	2,200	445	933	70
16	250	600	2,000	8,000	14,100	3,170	3,190	7,520	797	396	944	556
17	300	745	1,980	6,400	16,700	3,170	3,180	4,880	949	410	516	332
18	300	58	1,920	5,300	9,610	3,170	3,150	3,830	617	567	65	356
19	250	592	1,940	4,900	7,100	3,150	3,130	3,280	515	1,090	431	352
20	44	564	1,960	4,700	6,190	8,640	3,100	3,170	871	67	278	297
21	44	1,710	2,210	6,600	5,140	27,400	3,090	3,160	932	65	274	229
22	699	2,560	2,950	5,200	13,900	22,400	3,070	3,160	566	451	224	223
23	688	2,820	2,790	6,000	11,900	11,100	3,030	3,160	48	237	221	69
24	805	2,830	2,960	12,000	7,980	7,460	3,020	3,190	626	293	70	224
25	578	2,670	2,970	20,000	5,770	5,100	2,980	3,210	559	294	71	551
26	684	2,720	39,200	15,600	4,270	4,320	1,920	3,210	470	524	482	71
27	761	17,200	43,100	14,300	3,790	3,900	1,870	3,200	484	62	456	650
28	71	48,100	15,400	15,400	3,880	3,580	1,900	3,260	464	63	297	400
29	864	27,200	9,790	19,600	-----	3,440	1,960	3,230	460	1,490	295	50
30	1,440	9,090	6,600	12,100	-----	4,930	1,830	3,170	47	297	231	800
31	1,040	-----	11,000	7,690	-----	4,560	-----	3,170	-----	305	71	-----
TOTAL	14,298	131,354	198,940	474,180	221,130	171,480	120,970	90,490	52,085	12,755	11,000	13,966
MEAN	461	4,378	6,417	15,300	7,898	5,532	4,032	2,919	1,736	411	355	466
MAX	1,440	48,100	43,100	85,200	22,100	27,400	9,630	7,520	3,160	1,490	944	1,690
MIN	44	58	1,900	4,700	3,320	3,020	1,830	1,130	47	57	65	50
(†)	-2,000	+15,000	-400	+500	-100	0	-14,500	+11,500	-6,400	+3,900	+200	0
MEAN‡	397	4,878	6,405	15,310	7,894	5,532	3,549	3,290	1,523	537	361	466
CFSM‡	.24	2.91	3.82	9.12	4.70	3.30	2.12	1.96	.91	.32	.22	.28
IN,‡	.27	3.24	4.40	10.52	4.90	3.80	2.36	2.26	1.01	.37	.25	.31

CAL YR 1973 TOTAL 1,815,410 MEAN 4,974 MAX 108,000 MIN 44 MEAN‡ 4,975 CFSM‡ 2.96 IN.‡ 40.25
WTR YR 1974 TOTAL 1,512,648 MEAN 4,144 MAX 85,200 MIN 44 MEAN‡ 4,165 CFSM‡ 2.48 IN.‡ 33.70

† Change in contents, in cfs-days, in Great Falls Lake, furnished by Tennessee Valley Authority.

‡ Adjusted for change in contents in lakes or reservoirs listed above.

CUMBERLAND RIVER BASIN

37

03425000 Cumberland River at Carthage, Tenn.

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

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

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.

GAGE.--Water-stage recorder. Datum of gage is 437.53 ft (133.359 m) above mean sea level. 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 miles (25.4 km) downstream from base gage at same datum.

AVERAGE DISCHARGE.--52 years, 17,390 cfs (492.5 cu m/s) 22.09 in/yr (561 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 119,700 cfs (3,390 cu m/s) Jan. 11, gage height, 40.94 ft (12.478 m); minimum daily discharge, 925 cfs (26.2 cu m/s) July 28; minimum gage height recorded, 5.86 ft (1.786 m) Aug. 15.

Period of record: Maximum discharge, 210,000 cfs (5,950 cu m/s) Dec. 30, 1926; maximum gage height, 59.8 ft (18.23 m) Dec. 30, 1926; minimum daily discharge, 366 cfs (10.4 cu m/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.

Maximum stage since at least 1793, that of Dec. 30, 1926.

REMARKS.--Records good. Flow regulated by Lake Cumberland, Dale Hollow Lake, Cordell Hull Reservoir, and Great Falls and Center Hill Lakes (see p. 57).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,370	18,900	63,100	42,000	75,500	32,000	27,800	17,100	16,800	8,490	5,580	3,280
2	11,900	21,000	58,900	48,500	75,500	32,600	34,800	21,800	27,800	13,900	9,780	4,470
3	12,400	13,300	54,800	59,700	79,900	29,400	44,800	14,300	22,600	13,300	12,000	13,100
4	12,100	3,600	54,500	76,400	75,500	30,900	62,400	14,800	30,600	4,120	4,230	8,600
5	19,300	2,300	52,800	64,600	70,000	23,200	55,800	12,300	33,700	1,920	3,780	8,780
6	18,200	2,400	53,200	57,800	66,500	29,700	40,400	13,700	28,100	4,050	1,910	18,500
7	11,300	3,200	54,600	57,000	69,100	31,400	42,300	14,300	28,100	4,040	5,840	22,100
8	7,480	7,170	41,100	57,100	70,500	32,800	46,800	15,000	30,900	2,430	3,290	10,500
9	6,550	7,100	36,900	67,700	70,000	30,000	52,000	20,000	15,300	1,740	9,350	18,000
10	8,400	8,070	37,900	83,800	63,100	25,200	48,200	23,400	12,400	1,560	12,400	20,700
11	13,400	11,000	40,300	115,000	55,800	24,500	49,300	20,800	11,200	1,700	15,700	14,300
12	13,800	13,100	30,700	82,600	53,600	24,200	50,900	13,500	17,500	4,000	6,570	15,600
13	11,300	8,060	16,400	74,400	52,500	28,500	49,300	12,900	19,800	3,780	9,210	20,500
14	11,500	7,840	15,100	77,300	48,500	33,400	40,400	12,700	18,600	958	9,060	18,600
15	11,900	6,390	18,200	77,500	47,600	32,600	31,700	18,100	19,600	1,400	7,320	8,710
16	11,200	4,700	18,000	78,000	48,000	26,900	31,100	26,400	16,100	2,180	11,000	5,350
17	9,250	8,270	23,700	80,000	49,500	33,200	29,400	23,000	13,000	2,350	9,190	5,610
18	11,000	6,320	29,400	77,000	51,500	39,100	25,100	20,700	10,400	1,960	4,640	6,970
19	12,400	6,020	24,800	75,300	50,700	29,100	17,900	20,100	12,100	5,790	9,690	9,660
20	9,860	5,340	25,100	74,500	36,900	41,900	18,500	32,100	16,100	15,200	10,400	21,400
21	8,310	2,220	24,500	74,000	32,300	45,300	13,400	29,000	21,100	2,630	5,980	21,500
22	9,670	3,560	24,900	73,500	50,800	52,800	14,500	35,600	21,600	938	8,030	11,600
23	6,930	5,240	21,100	72,000	60,100	50,900	24,500	37,900	20,300	3,950	7,290	4,900
24	6,950	5,100	16,200	72,500	58,000	48,900	23,300	30,600	19,000	3,240	4,920	7,260
25	5,490	3,100	14,300	74,000	47,000	45,600	19,600	22,400	6,640	1,680	3,600	11,700
26	5,590	2,880	37,800	75,000	41,000	45,100	17,800	14,100	2,600	1,920	5,430	18,300
27	5,930	50,900	49,000	73,000	39,100	41,900	16,000	9,880	3,570	3,400	6,880	11,900
28	4,990	63,500	40,700	74,000	31,700	41,900	21,400	9,370	6,930	925	9,870	10,000
29	8,470	58,500	31,300	80,000	-----	36,900	17,600	14,400	9,250	1,070	3,620	5,010
30	11,100	59,400	26,200	78,000	-----	31,800	15,800	20,500	10,900	2,770	9,600	7,910
31	7,400	-----	31,700	76,000	-----	29,600	-----	16,400	-----	4,070	2,350	-----
TOTAL	310,440	418,480	1,067.2M	2,248.2M	1,570.2M	1,081.3M	982,800	607,150	522,590	121,461	228,510	364,810
MEAN	10,010	13,950	34,430	72,520	56,080	34,880	32,760	19,590	17,420	3,918	7,371	12,160
MAX	19,300	63,500	63,100	115,000	79,900	52,800	62,400	37,900	33,700	15,200	15,700	22,100
MIN	4,990	2,220	14,300	42,000	31,700	23,200	13,400	9,370	2,600	925	1,910	3,280

CAL YR 1973 TOTAL 9,912,550 MEAN 27.160 MAX 77,000 MIN 2,220 MEAN† 26,610 CFSM† 2.49 IN.† 33.79
WTR YR 1974 TOTAL 9,523,141 MEAN 26,090 MAX 115,000 MIN 925 MEAN† 25,330 CFSM† 2.37 IN.† 32.17

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

NOTE.--No gage-height record June 28 to Aug. 9.

CUMBERLAND RIVER BASIN

03426500 Cumberland River below Old Hickory, Tenn.

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

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

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."

GAGE.--Water-stage recorder. Datum of gage is 380.00 ft (115.824 m) above mean sea level. See WSP 1726 for history of changes prior to Oct. 1, 1956.

AVERAGE DISCHARGE.--38 years, 18,730 cfs (530.4 cu m/s), 21.67 in/yr (550 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge unknown, maximum daily discharge 123,000 cfs (3,480 cu m/s) Jan. 11; maximum gage height 46.62 ft (12.991 m) Jan. 11; minimum daily discharge, 1,300 cfs (69.1 cu m/s) July 29; minimum gage height, 4.57 ft (1.390 m) June 26, July 5.

Period of record: Maximum discharge, 173,000 cfs (4,900 cu m/s) Jan. 29, 1937; maximum gage height, 47.40 ft (14.448 m) Jan. 29, 1937, site and datum then in use; minimum daily discharge, 86 cfs (2.44 cu m/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.

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 cfs (5,660 cu m/s).

REMARKS.--Records good. Flow regulated by Lake Cumberland, Dale Hollow Lake, Cordell Hull Reservoir, and Great Falls, Center Hill, and Old Hickory Lakes (see p. 57)

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,500	19,300	74,700	39,000	77,100	37,100	31,500	18,600	29,900	9,890	7,740	2,500
2	9,000	18,500	67,700	42,400	77,600	28,000	40,000	12,900	46,600	7,640	10,500	2,200
3	13,500	9,400	58,900	69,000	84,800	27,800	44,500	12,200	28,000	15,900	10,500	27,700
4	12,100	3,000	54,200	87,000	76,100	31,000	56,700	16,000	24,500	10,600	8,870	27,600
5	18,100	3,200	54,000	79,000	71,800	31,200	62,400	11,100	31,400	3,100	4,840	11,600
6	19,000	2,600	53,400	63,900	69,600	31,800	61,600	6,800	33,600	3,000	4,090	10,900
7	6,200	6,600	53,500	57,800	69,600	41,300	47,600	14,300	35,800	6,490	3,600	27,500
8	3,500	8,400	50,400	55,000	70,000	41,800	42,500	24,000	53,600	4,240	4,040	23,700
9	7,200	8,600	43,900	72,400	69,800	37,300	51,600	12,000	23,500	1,900	9,030	34,900
10	8,300	9,200	33,900	95,800	70,100	31,800	51,800	21,000	12,000	2,200	11,400	35,100
11	13,400	15,000	33,500	123,000	64,100	32,100	50,900	21,900	7,200	1,700	18,900	24,900
12	10,700	15,800	40,500	119,000	54,600	31,000	50,800	17,500	19,500	3,920	12,100	23,000
13	11,000	7,400	28,800	107,000	51,300	26,200	48,500	7,500	20,800	2,300	10,400	20,800
14	13,000	6,800	19,100	92,600	51,200	29,100	46,200	12,600	12,500	1,700	8,610	19,900
15	12,400	8,000	16,600	88,300	51,100	37,900	39,300	19,000	23,700	1,500	7,440	14,500
16	12,900	6,000	11,000	85,900	49,900	35,600	26,000	24,000	21,100	1,600	10,200	8,720
17	9,100	10,500	19,000	83,500	47,600	28,800	30,500	21,600	13,900	2,100	9,590	6,490
18	9,200	10,700	31,500	83,300	48,000	34,400	30,900	19,600	10,800	1,700	7,580	7,740
19	7,800	5,200	24,400	83,000	54,200	35,600	26,600	22,800	8,570	7,870	5,850	7,110
20	8,000	6,400	24,700	82,600	47,600	41,300	16,800	26,900	8,000	12,700	10,600	14,200
21	8,800	5,000	29,900	79,600	43,400	50,500	14,800	32,100	21,900	5,200	8,350	23,000
22	5,200	14,000	35,900	78,800	42,800	57,700	12,400	46,800	27,300	1,900	10,800	18,200
23	5,400	12,000	29,000	76,000	49,700	57,800	26,700	55,200	21,100	2,200	12,900	8,340
24	4,900	4,300	11,900	74,300	57,100	57,500	28,200	41,200	19,300	2,500	9,320	9,960
25	2,600	4,100	7,200	74,400	57,200	54,200	25,800	29,200	14,000	1,500	6,250	17,900
26	6,200	4,800	31,800	74,600	50,700	49,300	18,000	14,600	4,270	1,800	6,310	23,200
27	3,200	54,700	58,000	74,700	44,700	43,100	13,300	8,000	3,550	5,040	6,520	25,300
28	3,500	84,800	45,800	77,800	42,800	42,600	12,800	7,100	1,400	2,200	10,800	5,810
29	4,500	83,600	37,300	82,800	-----	40,500	9,800	12,400	6,750	1,300	3,500	4,850
30	14,000	80,400	28,000	83,000	-----	37,800	17,400	10,700	18,800	2,400	12,100	16,100
31	16,100	-----	27,000	81,500	-----	35,800	-----	26,000	-----	2,450	8,650	-----
TOTAL	281,300	528,300	1,135,5M	2,467.0M	1,644.5M	1,197.9M	1,035.9M	625,600	603,340	130,540	271,380	503,720
MEAN	9,074	17,610	36,630	79,580	58,730	38,640	34,530	20,180	20,110	4,211	8,754	16,790
MAX	19,000	84,800	74,700	123,000	84,800	57,800	62,400	55,200	53,600	15,900	18,900	35,100
MIN	2,500	2,600	7,200	39,000	42,800	26,200	9,800	6,800	1,400	1,300	3,500	2,200

CAL YR 1973 TOTAL 10,263,230 MEAN 28,120 MAX 84,800 MIN 2,500
WTR YR 1974 TOTAL 10,424,980 MEAN 28,560 MAX 123,000 MIN 1,300

Note.--No gage-height record Nov. 10-21, Dec. 23 to Jan. 12.

03426800 East Fork Stones River at Woodbury, Tenn.

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

DRAINAGE AREA.--39.1 sq mi (101.3 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 676.23 ft (206.115 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 68.1 cfs (1.929 cu m/s), 23.65 in/yr (601 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,760 cfs (135 cu m/s) Jan. 10, gage height, 12.96 ft (3.950 m); minimum 7.1 cfs (0.20 cu m/s) Aug. 6.

Period of record: Maximum discharge, 13,200 cfs (374 cu m/s) Mar. 15, 1973, gage height, 16.75 ft (5.105 m), from rating curve extended above 3,000 cfs (85.0 cu m/s) on basis of velocity-area study and contracted-opening measurement of peak flow at bridge 4.6 miles (7.4 km) downstream; minimum, 2.7 cfs (0.076 cu m/s) Oct. 30, 1963. Maximum stage since at least 1902, that of Mar. 15, 1973.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Tenn. 1967: 1963(M). WSP 2110: 1963, 1964(M), 1965.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	240	72	120	96	62	72	32	158	15	9.1	124
2	17	28	56	108	197	58	125	57	120	15	9.4	118
3	15	22	45	349	224	54	175	69	75	14	9.7	290
4	14	20	42	341	160	51	315	55	57	14	10	90
5	13	22	36	185	123	52	160	51	49	15	9.4	56
6	13	20	30	145	173	167	114	47	43	14	9.4	172
7	18	18	26	145	160	171	96	39	38	14	19	87
8	113	21	25	127	127	109	123	36	36	14	22	122
9	108	23	24	527	101	89	94	34	33	15	28	110
10	22	21	23	1,670	85	76	81	308	33	14	19	64
11	18	19	21	1,710	75	73	72	108	29	14	53	45
12	15	18	21	305	67	125	70	263	28	13	31	99
13	14	17	22	178	63	96	70	131	26	12	20	118
14	19	17	20	136	138	78	63	91	25	12	17	62
15	17	17	19	116	101	70	57	75	24	12	18	47
16	15	17	18	106	323	101	52	61	25	14	16	39
17	12	15	17	96	195	87	49	51	22	12	15	34
18	12	15	17	87	140	78	46	44	19	12	19	31
19	11	14	16	81	125	123	44	43	18	11	15	27
20	11	14	70	87	99	160	41	41	18	14	13	26
21	11	92	79	113	111	706	39	36	17	13	16	45
22	10	59	50	96	261	239	47	58	17	12	351	35
23	9.3	37	40	108	158	160	66	145	23	14	41	27
24	9.3	29	35	285	123	114	49	75	19	12	23	23
25	9.3	32	207	308	96	91	42	54	17	11	17	22
26	8.8	539	1,590	250	81	79	39	51	17	12	15	20
27	8.8	1,940	274	211	73	70	38	46	16	12	19	70
28	113	800	134	330	67	66	35	39	17	11	19	47
29	215	171	106	228	-----	69	33	36	17	11	22	36
30	116	101	97	156	-----	99	32	34	15	11	39	29
31	52	-----	132	116	-----	73	-----	39	-----	9.7	37	-----
TOTAL	1,060.5	4,398	3,364	8,820	3,742	3,646	2,339	2,249	1,051	398.7	961.0	2,115
MEAN	34.2	147	109	285	134	118	78.0	72.5	35.0	12.9	31.0	70.5
MAX	215	1,940	1,590	1,710	323	706	315	308	158	15	351	290
MIN	8.8	14	16	81	63	51	32	32	15	9.7	9.1	20
CFSM	.87	3.76	2.79	7.29	3.43	3.02	1.99	1.85	.90	.33	.79	1.80
IN.	1.01	4.18	3.20	8.39	3.56	3.47	2.23	2.14	1.00	.38	.91	2.01
CAL YR 1973	TOTAL 46,799.5	MEAN 128	MAX 3,900	MIN 8.8	CFSM 3.27	IN 44.53						
WTR YR 1974	TOTAL 34,144.2	MEAN 93.5	MAX 1,940	MIN 8.8	CFSM 2.39	IN 32.49						

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0145	12.23	3,840	01-10	1845	12.96	4,760
12-26	1030	11.83	3,570	08-22	0715	9.71	2,410

CUMBERLAND RIVER BASIN

03427500 East Fork Stones River near Lascassas, Tenn.

LOCATION.--Lat 35°55'06", long 86°20'02", Rutherford County, on left bank, 100 feet (30 m) upstream from highway bridge, 2.5 miles (4.0 km) southwest of Lascassas, 3.7 miles (6.0 km) downstream from Bradley Creek, 6.0 miles (9.7 km) northeast of the courthouse in Murfreesboro, and at mile 15.4 (24.8 km). Prior to Oct. 1, 1973, at site 100 ft downstream.

DRAINAGE AREA.--262 sq mi (679 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 507.88 ft (154.802 m) above mean sea level, Sandy Hook datum (levels by Corps of Engineers).

AVERAGE DISCHARGE.--19 years (1950-58, 1963-74), 454 cfs (12.86 cu m/s), 23.53 in/yr (598 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,500 cfs (552 cu m/s) Jan. 11, gage height, 31.36 ft (9.559 m); minimum, 8.3 cfs (0.24 cu m/s) Aug. 4, 5.

Period of record: Maximum discharge, 23,100 cfs (654 cu m/s) May 27, 1973, gage height, 34.83 ft (10.616 m); minimum, 0.2 cfs (0.006 cu m/s) Oct. 23, 1953, gage height, 2.22 ft (0.677 m); minimum daily, 0.4 cfs (0.011 cu m/s) Aug. 31, 1953. Maximum stage since at least 1902, that of May 27, 1973.

REMARKS.--Records good. Frequent diurnal fluctuations at low flow caused by small mills above station. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1910: Drainage area. WSP 2110: 1955(M), 1963(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	562	560	1,090	521	264	376	98	3,090	41	24	178
2	59	248	394	707	1,400	238	1,500	140	1,680	31	21	193
3	49	153	301	4,140	3,100	216	802	382	675	34	19	1,060
4	39	115	247	3,380	1,300	193	5,640	407	404	33	9.3	479
5	32	94	230	1,340	820	183	1,230	355	307	30	9.3	222
6	31	125	178	848	980	465	747	334	264	33	12	3,880
7	32	102	140	863	1,040	1,220	524	225	346	33	14	917
8	278	89	123	667	760	542	2,050	164	496	36	17	2,920
9	323	123	109	4,640	553	388	881	138	258	39	49	4,100
10	128	123	96	7,450	432	320	549	1,690	343	53	39	700
11	85	98	83	16,000	361	270	423	639	230	44	46	400
12	66	85	75	2,970	307	476	364	1,260	160	37	233	280
13	55	76	75	1,350	273	400	373	723	128	33	85	210
14	55	69	78	914	771	294	334	404	109	30	69	175
15	102	63	69	792	620	250	285	304	96	29	147	150
16	76	62	60	671	2,900	379	247	288	87	50	307	130
17	59	66	55	567	1,440	410	222	214	100	38	130	113
18	53	59	51	479	809	317	191	169	78	31	279	95
19	39	55	47	413	877	848	176	160	69	23	164	87
20	38	53	413	391	655	1,150	160	169	62	80	78	76
21	34	573	834	651	510	5,330	144	126	59	54	56	193
22	38	618	385	507	2,480	1,760	147	553	56	63	258	270
23	23	308	282	489	1,050	921	538	2,430	59	49	178	142
24	35	206	227	2,090	707	609	252	659	70	34	72	103
25	21	180	413	2,920	500	436	186	364	58	13	49	87
26	31	3,270	11,300	1,930	388	355	155	261	51	60	39	72
27	30	15,500	3,520	1,820	337	317	138	244	51	55	34	323
28	79	9,700	1,130	3,840	294	307	124	186	37	41	72	382
29	510	1,890	781	1,980	-----	337	113	147	42	32	56	211
30	374	914	877	1,070	-----	954	102	126	42	36	63	151
31	203	-----	2,050	728	-----	479	-----	193	-----	58	94	-----
TOTAL	3,040	35,579	25,183	67,697	26,185	20,628	18,973	13,552	9,507	1,253	2,722.6	18,299
MEAN	98.1	1,186	812	2,184	935	665	632	437	317	40.4	87.8	610
MAX	510	15,500	11,300	16,000	3,100	5,330	5,640	2,430	3,090	80	307	4,100
MIN	21	53	47	391	273	183	102	98	37	13	9.3	72
CFSM	.37	4.53	3.10	8.34	3.57	2.54	2.41	1.67	1.21	.15	.34	2.33
IN.	.43	5.05	3.58	9.61	3.72	2.93	2.69	1.92	1.35	.18	.39	2.60

CAL YR 1973 TOTAL 320,101.0 MEAN 877 MAX 20,100 MIN 21 CFSM 3.35 IN 45.45
WTR YR 1974 TOTAL 242,618.6 MEAN 665 MAX 16,000 MIN 9.3 CFSM 2.54 IN 34.45

PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	1200	29.68	17,800	03-21	1100	20.03	9,360
12-26	1730	24.80	13,300	04-04	0430	23.67	12,400
01-11	0645	31.36	19,500	09-06	Unknown	Unknown	Unknown
01-28	1515	17.67	7,570	09-08	Unknown	19.90	9,260

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REMARKS.--Records good. Water quality records for the current year are published in Part 2 of this report.

[illegible]

CUMBERLAND RIVER BASIN

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03428070 West Fork Stones River at Manson Pike, at Murfreesboro, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	368	547	751	438	226	233	43	2,100	25	8.7	22
2	8.4	165	428	530	816	205	486	72	1,130	22	8.4	22
3	12	108	349	2,380	1,680	185	390	112	470	19	7.4	35
4	11	82	307	2,020	723	166	2,540	132	319	17	7.4	37
5	8.7	70	319	865	524	157	695	111	265	16	7.8	48
6	6.7	101	261	621	667	229	462	102	274	15	8.1	744
7	6.6	88	220	634	681	332	356	82	286	15	8.7	267
8	15	77	196	502	486	243	567	68	914	21	9.4	665
9	76	88	171	2,720	399	206	407	56	414	19	9.0	843
10	50	85	157	4,300	349	182	312	139	449	19	10	369
11	44	67	140	9,340	307	168	266	137	302	28	14	259
12	32	57	126	1,770	269	182	243	500	228	46	22	190
13	24	51	132	963	237	156	299	239	176	27	20	179
14	23	46	112	709	695	139	252	139	148	22	25	148
15	80	43	101	621	502	128	205	155	126	18	39	121
16	57	40	95	525	1,830	186	178	215	205	16	56	100
17	43	37	88	462	825	215	161	122	148	13	35	87
18	37	35	80	409	524	167	144	93	108	12	47	73
19	30	33	74	367	519	321	131	78	90	12	48	63
20	24	21	208	347	423	571	119	64	79	12	44	60
21	19	274	428	527	371	2,510	107	55	69	12	33	65
22	16	293	274	391	1,600	857	105	91	62	12	56	56
23	13	157	224	397	654	524	130	872	72	13	69	48
24	11	113	198	1,390	481	390	107	266	60	12	39	42
25	9.8	104	260	1,630	376	315	89	166	52	11	32	38
26	9.0	1,220	6,550	1,260	313	269	75	131	46	15	28	34
27	8.3	7,660	1,470	1,220	279	237	62	127	39	16	24	60
28	21	6,060	674	2,610	247	216	56	105	35	12	25	70
29	327	1,270	577	1,270	-----	228	51	84	30	12	27	68
30	220	765	547	744	-----	428	46	72	26	11	25	54
31	147	-----	1,110	547	-----	278	-----	121	-----	9.7	24	-----
TOTAL	1,393.7	19,578	16,423	42,822	17,215	10,616	9,274	4,749	8,722	529.7	816.9	4,867
MFAN	45.0	653	530	1,381	615	342	309	153	291	17.1	26.4	162
MAX	327	7,660	6,550	9,340	1,830	2,510	2,540	872	2,100	46	69	843
MIN	4.2	21	74	347	237	128	46	43	26	9.7	7.4	22
CFSM	.27	3.96	3.21	8.37	3.73	2.07	1.87	.93	1.76	.10	.16	.98
IN.	.31	4.41	3.70	9.65	3.88	2.39	2.09	1.07	1.97	.12	.18	1.10

WTR YR 1974 TOTAL 137,006.3 MEAN 375 MAX 9,340 MIN 4.2 CFSM 2.27 IN 30.89

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0645	15.19	11,400	02-16	1215	8.20	4,640
12-26	1700	12.58	8,770	02-22	0530	7.22	3,660
01-03	2200	7.60	4,040	03-21	1115	9.95	6,240
01-11	0330	16.19	12,400	04-04	0730	9.66	5,980
01-28	1630	9.88	6,180	06-01	1900	9.09	5,470
02-03	0100	7.41	3,850				

CUMBERLAND RIVER BASIN

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03428200 West Fork Stones River at Murfreesboro, Tenn.

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

DRAINAGE AREA.--177 sq mi (458 sq km).

PERIOD OF RECORD.--July 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 514.95 ft (156.957 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 14,500 cfs (411 cu m/s) Jan. 11, gage height, 19.67 ft (5.995 m); minimum, 9.1 cfs (0.26 cu m/s) Oct. 7.

Period of record: Maximum discharge, 27,600 cfs (782 cu m/s) Mar. 15, 1973, gage height, 23.23 ft (7.081 m); minimum, 6.5 cfs (0.18 cu m/s) Sept. 4, 1973.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	345	516	788	450	220	216	58	1,960	32	15	31
2	11	169	420	550	775	203	471	83	1,390	29	14	31
3	15	113	347	2,160	1,770	184	382	139	530	26	13	52
4	19	87	314	2,160	709	169	2,760	150	343	23	12	57
5	15	78	335	908	504	162	737	134	277	21	12	54
6	12	102	268	645	612	212	486	119	281	20	14	1,150
7	9.8	102	225	649	667	341	374	100	270	20	15	438
8	17	92	200	527	475	243	625	82	991	24	17	759
9	65	97	178	2,570	390	203	447	71	461	28	16	1,190
10	55	102	156	4,040	328	184	332	193	482	26	16	488
11	49	83	137	10,800	283	173	270	171	333	29	26	300
12	38	68	126	1,950	243	188	243	359	252	60	39	220
13	29	59	127	1,020	213	166	290	254	199	37	28	200
14	28	57	115	731	611	148	244	148	166	28	31	170
15	69	54	103	632	484	138	200	131	142	25	113	150
16	69	52	93	535	1,700	173	175	239	202	24	102	125
17	48	47	85	470	782	220	159	132	165	21	69	100
18	42	43	78	420	490	173	144	100	124	18	74	86
19	39	42	72	370	494	277	130	86	104	17	63	75
20	30	33	167	345	414	578	117	74	92	17	61	70
21	23	216	471	530	347	2,370	106	64	80	16	48	94
22	20	325	252	400	1,570	874	106	79	73	16	59	85
23	18	167	203	410	624	538	135	939	82	19	94	78
24	15	125	179	1,490	466	404	114	298	72	19	55	72
25	14	111	184	1,740	377	317	95	172	61	17	44	67
26	15	747	5,650	1,350	320	264	84	139	56	20	38	60
27	14	7,570	1,830	1,300	277	228	76	135	51	29	34	55
28	32	6,690	799	2,800	243	210	69	117	46	21	33	96
29	284	1,330	601	1,360	-----	214	65	96	41	18	37	85
30	238	727	575	800	-----	416	60	83	35	18	38	75
31	141	-----	1,170	590	-----	271	-----	109	-----	16	34	-----
TOTAL	1,486.8	19,833	15,976	45,040	16,618	10,461	9,712	5,054	9,361	734	1,264	6,513
MEAN	48.0	661	515	1,453	594	337	324	163	312	23.7	40.8	217
MAX	284	7,570	5,650	10,800	1,770	2,370	2,760	939	1,960	60	113	1,190
MIN	9.8	33	72	345	213	138	60	58	35	16	12	31
CFSM	.27	3.73	2.91	8.21	3.36	1.90	1.83	.92	1.76	.13	.23	1.23
IN.	.31	4.17	3.36	9.47	3.49	2.20	2.04	1.06	1.97	.15	.27	1.37
CAL YR 1973	TOTAL	175,850.8	MEAN	482	MAX	15,000	MIN	7.2	CFSM	2.72	IN	36.96
WTR YR 1974	TOTAL	142,052.8	MEAN	389	MAX	10,800	MIN	9.8	CFSM	2.20	IN	29.86

PEAK DISCHARGE (BASE, CFS)

NOTE.--No gage-height record Oct. 2-3, Jan. 16 to Feb. 1, Sept. 10-30.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0830	18.61	12,200	01-28	Unknown	Unknown	Unknown
12-26	1845	16.47	8,700	02-16	1400	10.29	3,900
01-03	2315	10.08	3,780	03-21	1315	12.71	5,300
01-11	0400	19.67	14,500	06-01	2045	12.08	4,920

CUMBERLAND RIVER BASIN

03428500 West Fork Stones River near Smyrna, Tenn.

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft (152.400 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 432 cfs (12.23 cu m/s), 24.75 in/yr (629 mm/yr).

EXTREMES.--Current year: Maximum discharge, 18,300 cfs (518 cu m/s) Jan. 11, gage height, 14.74 ft (4.493 m) from rating curve extended as explained below; minimum, 19 cfs (0.54 cu m/s) Oct. 24. Minimum gage height 3.82 (1.164 m) Oct. 7, Aug. 3-6.
Period of record: Maximum discharge, 36,800 cfs (1,040 cu m/s) Mar. 15, 1973, gage height, 17.39 ft (5.300 m) from rating curve extended above 14,000 cfs (396 cu m/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 cfs (0.062 cu m/s) Nov. 6-8, 1965.

REMARKS.--Records good. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	406	1,080	1,350	726	300	390	125	2,480	65	28	44
2	32	235	852	977	1,390	258	848	144	2,160	62	26	38
3	31	155	693	3,300	2,620	229	724	288	843	58	26	55
4	52	115	606	3,690	1,220	208	4,990	273	576	54	26	66
5	46	101	594	1,660	889	200	1,640	261	447	50	23	63
6	30	116	490	1,220	1,040	244	1,090	225	433	49	23	1,770
7	26	122	413	1,160	1,170	632	842	194	699	47	26	751
8	41	111	358	961	843	378	1,410	166	2,090	50	28	1,160
9	88	113	312	3,790	674	289	1,090	149	1,030	71	27	1,920
10	86	121	274	5,160	561	248	794	357	1,150	64	27	862
11	74	101	241	14,200	477	225	645	307	798	57	29	573
12	62	86	220	3,400	398	239	563	600	568	79	52	415
13	47	80	212	1,860	340	225	653	401	419	62	44	346
14	46	81	194	1,360	752	196	563	244	328	53	44	288
15	76	77	176	1,120	726	181	454	209	274	47	101	236
16	95	74	163	946	2,260	196	390	332	419	46	138	201
17	66	66	148	816	1,190	263	347	207	323	43	107	173
18	54	59	136	708	771	204	312	168	234	40	92	153
19	54	59	128	616	834	359	280	144	196	37	82	135
20	46	59	286	553	699	861	252	127	166	36	79	123
21	33	311	857	717	576	3,420	228	112	152	34	64	152
22	28	581	467	576	2,310	1,490	231	133	135	33	64	135
23	26	261	357	530	1,060	975	268	1,120	145	35	104	115
24	21	185	300	1,360	771	738	228	464	128	35	68	102
25	22	163	273	2,400	592	579	199	274	113	32	56	93
26	31	607	7,160	1,560	469	478	180	216	104	34	50	87
27	33	9,940	3,160	1,670	398	409	166	196	92	45	47	193
28	48	8,950	1,430	3,720	340	366	152	170	82	38	44	195
29	274	2,360	1,080	2,210	-----	350	139	145	76	34	45	182
30	305	1,460	1,090	1,220	-----	696	130	128	69	32	48	155
31	181	-----	1,790	917	-----	486	-----	142	-----	30	45	-----
TOTAL	2,096	27,155	25,540	65,727	26,096	15,922	20,198	8,021	16,729	1,452	1,663	10,781
MEAN	67.6	905	824	2,120	932	514	673	259	558	46.8	53.6	359
MAX	305	9,940	7,160	14,200	2,620	3,420	4,990	1,120	2,480	79	138	1,920
MIN	21	59	128	530	340	181	130	112	69	30	23	38
CFSM	.29	3.82	3.48	8.95	3.93	2.17	2.84	1.09	2.35	.20	.23	1.51
IN.	.33	4.26	4.01	10.32	4.10	2.50	3.17	1.26	2.63	.23	.26	1.69

CAL YR 1973	TOTAL	280,666	MEAN	769	MAX	18,600	MIN	21	CFSM	3.24	IN	44.05
WTR YR 1974	TOTAL	221,380	MEAN	607	MAX	14,200	MIN	21	CFSM	2.56	IN	34.75

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1100	12.81	13,200	01-11	0800	14.74	18,300
12-26	2000	10.77	10,300				

03431000 Mill Creek near Antioch, Tenn.

LOCATION.--Lat 36°04'54", long 86°40'50", Davidson County, at downstream end of center bridge pier on Franklin Limestone Road, 900 ft (274 m) upstream from Louisville and Nashville Railroad spur track bridge, 1.6 miles (2.6 km) north of Antioch, 2.1 miles (3.4 km) downstream from Whittemore Branch, 8.2 miles (13.2 km) southeast of the State capitol in Nashville, and at mile 11.0 (17.7 km).

DRAINAGE AREA.--64.0 sq mi (166 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 472.57 ft (144.039 m) above mean sea level. Dec. 5, 1961, to Nov. 29, 1963, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--19 years (1953-61, 1963-74), 94.7 cfs (2.682 cu m/s), 20.09 in/yr (510 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,500 cfs (297 cu m/s) Nov. 27, gage height, 16.83 ft (5.130 m); minimum daily, 1.1 cfs (0.031 cu m/s) Oct. 27.

Period of record: Maximum discharge, 17,000 cfs (481 cu m/s) Mar. 21, 1955, gage height, 19.73 ft (6.014 m); no flow for one or more days each year 1953-56, 1964-65, and part of Aug. 27, 28, 1968.

Maximum stage since at least 1920, that of Mar. 21, 1955.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Minor diversion from gage pool for industrial use. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	6.4	68	170	124	71	167	30	1,470	7.7	2.3	3.5
2	2.8	5.0	52	120	617	66	840	51	342	6.8	2.0	71
3	1.6	4.1	43	2,200	332	58	297	57	172	6.0	2.7	28
4	1.6	3.8	54	780	205	49	1,230	68	117	5.3	4.6	7.0
5	1.3	17	42	300	158	164	251	103	282	8.7	2.3	12
6	1.3	7.0	35	230	350	359	182	89	157	7.7	2.0	8.0
7	2.5	5.2	29	200	225	222	142	53	1,040	65	2.0	16
8	8.0	9.2	24	160	159	154	220	41	1,040	61	2.3	35
9	2.5	6.0	21	1,300	137	123	148	35	325	17	2.3	80
10	3.7	5.2	18	3,820	114	102	118	178	413	12	3.5	170
11	2.8	4.6	15	3,000	97	92	98	73	188	8.7	11	98
12	2.2	4.5	13	526	86	109	94	63	136	6.0	9.8	44
13	2.8	4.2	12	296	76	80	87	41	102	4.6	3.1	19
14	5.6	4.0	11	222	72	69	289	33	79	5.3	4.1	8.7
15	2.8	6.4	9.8	183	64	63	129	43	65	15	4.1	8.7
16	2.5	5.4	9.2	151	107	74	98	38	65	21	11	69
17	2.9	4.5	8.6	130	87	61	86	28	46	6.8	6.8	136
18	2.3	11	8.2	109	73	54	74	22	38	5.3	6.8	178
19	2.0	7.0	9.6	95	195	95	66	22	33	4.6	3.5	211
20	1.7	19	400	173	123	127	57	19	27	5.3	2.3	205
21	1.5	120	210	221	202	762	50	16	24	7.7	3.1	275
22	1.4	28	130	156	643	265	68	577	23	4.6	31	124
23	1.9	14	9.0	129	217	190	235	319	28	6.8	26	77
24	1.6	8.8	7.8	150	162	148	77	127	21	8.7	6.0	65
25	1.4	7.2	7.6	182	126	124	59	86	17	4.6	2.0	61
26	1.2	380	1,000	249	105	107	48	69	15	5.3	1.1	57
27	1.1	4,520	600	263	93	98	41	61	12	5.3	.81	159
28	6.1	918	400	691	80	98	37	46	11	6.0	.81	169
29	10	190	250	292	-----	93	31	35	11	4.1	2.7	501
30	4.6	90	160	201	-----	163	30	30	11	3.5	4.0	207
31	13	-----	270	154	-----	98	-----	40	-----	3.1	5.8	-----
TOTAL	98.3	6,415.5	3,926.8	16,853	5,029	4,338	5,349	2,493	6,310	339.5	171.82	3,102.9
MEAN	3.17	214	127	544	180	140	178	80.4	210	11.0	5.54	103
MAX	13	4,520	1,000	3,820	643	762	1,230	577	1,470	65	31	501
MIN	1.1	3.8	7.6	95	64	49	30	16	11	3.1	.81	3.5
CFSM	.05	3.34	1.98	8.50	2.81	2.19	2.78	1.26	3.28	.17	.09	1.61
IN.	.06	3.73	2.28	9.80	2.92	2.52	3.11	1.45	3.67	.20	.10	1.80

CAL YR 1973 TOTAL 59,103.40 MEAN 162 MAX 4,520 MIN .60 CFSM 2.53 IN 34.35
WTR YR 1974 TOTAL 54,426.82 MEAN 149 MAX 4,520 MIN .81 CFSM 2.33 IN 31.64

PEAK DISCHARGE (BASE, 3,000 CFS)

NOTE.--No gage-height record Oct. 17 to Nov. 20, Nov. 29 to Jan. 9.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	1210	16.83	10,500	04-04	0250	11.94	4,130
01-10	2210	15.16	7,730	06-01	1245	12.27	4,400
04-02	0150	10.69	3,210	06-07	2215	10.43	3,030

CUMBERLAND RIVER BASIN

03431300 Browns Creek at State Fairgrounds, at Nashville, Tenn.

LOCATION.--Lat 36°07'47", long 86°45'40", Davidson County, near center of span on downstream side of bridge on access road to pit area of the race track at State Fairgrounds, 300 ft (91 m) west of Craighead Street, 0.3 mile (0.5 km) upstream from bridge on U.S. Highways 31A and 41A, and 2.8 miles (4.5 km) southeast of the State capitol in Nashville.

DRAINAGE AREA.--11.8 sq mi (30.6 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 439.81 ft (134.054 m) above mean sea level.

AVERAGE DISCHARGE.--10 years (1964-74), 16.1 cfs (0.456 cu m/s), 18.53 in/yr (471 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs (35.4 cu m/s) June 1, gage height, 6.22 ft (1.896 m); minimum, 0.65 cfs (0.018 cu m/s) Oct. 15, Nov. 21.

Period of record: Maximum discharge, 1,490 cfs (42.2 cu m/s) June 13, 1973, gage height, 6.70 ft (2.042 m); minimum, 0.15 cfs (0.004 cu m/s) Sept. 5, 1973.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.6	26	15	19	12	36	5.8	343	3.8	1.4	2.1
2	1.6	3.0	18	16	60	12	32	9.7	51	3.4	1.4	70
3	1.5	2.7	15	270	24	11	22	5.6	22	3.2	17	93
4	1.5	3.0	19	72	21	10	19	5.4	14	3.0	3.8	8.2
5	1.5	5.4	13	52	19	66	17	7.0	19	3.2	2.3	6.9
6	1.5	2.6	11	39	44	168	15	5.2	38	2.7	2.0	10
7	32	2.5	9.7	32	25	59	13	4.8	360	74	2.3	5.8
8	4.6	4.9	8.9	28	21	38	26	4.8	138	5.4	1.8	102
9	2.5	2.9	8.1	155	19	28	14	4.2	53	7.9	4.0	50
10	2.2	2.5	7.6	687	17	23	13	5.0	41	4.4	2.0	40
11	1.9	2.3	7.0	546	15	27	12	4.4	18	3.6	6.8	20
12	1.7	2.2	6.4	162	14	19	14	4.4	14	2.9	4.0	14
13	4.6	2.2	6.0	86	13	17	12	4.2	12	2.6	2.7	11
14	2.1	2.2	5.6	59	12	14	14	4.0	11	2.0	4.2	9.7
15	1.6	5.0	5.0	41	11	13	13	6.6	9.4	3.2	2.3	8.5
16	1.4	2.5	4.7	29	12	21	12	4.4	8.8	2.3	14	7.9
17	1.5	2.2	4.5	24	11	13	7.9	4.0	7.6	1.7	2.4	7.1
18	1.5	4.1	5.0	21	10	12	7.9	3.8	6.8	4.4	2.3	6.6
19	1.4	2.5	4.3	18	32	63	7.9	3.8	6.6	1.7	1.8	6.6
20	1.4	2.3	2.0	50	12	25	8.2	3.6	6.2	1.8	1.7	17
21	1.4	77	16	27	68	116	7.9	3.6	6.0	1.2	10	13
22	1.4	5.1	13	22	30	48	26	113	7.0	2.0	3.4	7.6
23	1.4	3.4	11	20	19	38	12	17	7.6	2.0	2.4	6.6
24	1.5	2.6	10	18	17	29	9.7	12	5.8	1.5	2.6	6.2
25	1.5	2.1	140	17	15	25	8.5	9.4	5.6	1.2	2.0	5.8
26	1.5	61	86	25	15	21	7.0	10	5.6	1.8	1.7	5.8
27	2.1	592	45	19	13	24	6.4	7.9	5.2	1.4	2.9	42
28	10	147	27	60	12	18	6.2	7.0	5.0	.90	2.0	15
29	5.4	57	27	27	-----	21	6.0	6.4	4.4	1.4	3.4	22
30	2.6	37	20	24	-----	21	6.2	6.0	4.0	1.1	6.2	9.0
31	12	-----	22	21	-----	16	-----	7.9	-----	1.2	2.4	-----
TOTAL	111.7	1,044.8	660.5	2,682	600	1,028	411.8	300.9	1,235.6	152.90	119.2	629.4
MEAN	3.60	34.8	21.3	86.5	21.4	33.2	13.7	9.71	41.2	4.93	3.85	21.0
MAX	32	592	140	687	68	168	36	113	360	74	17	102
MIN	1.4	2.1	4.5	15	10	10	6.0	3.6	4.0	.90	1.4	2.1
CFSM	.31	2.95	1.81	7.33	1.81	2.81	1.16	.82	3.49	.42	.33	1.78
IN.	.35	3.29	2.08	8.46	1.89	3.24	1.30	.95	3.90	.48	.38	1.98
CAL YR 1973	TOTAL 9,580.16	MEAN 26.2	MAX 592	MIN .29	CFSM 2.22	IN 30.20						
WTR YR 1974	TOTAL 8,976.80	MEAN 24.6	MAX 687	MIN .90	CFSM 2.08	IN 28.30						

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-07	1350	5.08	772	06-01	0840	6.22	1,250
11-27	0535	6.11	1,200	06-07	1810	6.19	1,240
01-10	1045	6.04	1,160	07-07	1635	5.84	1,080
03-06	1400	5.42	908				

03431600 Whites Creek at Tucker Road, near Bordeaux, Tenn.

LOCATION.--Lat 36°12'45", long 86°49'29", Davidson County, near left bank on downstream end of bridge pier on Tucker Road, 0.8 mile (1.3 km) downstream from Ewing Creek, 1.3 miles (2.1 km) north of Bordeaux, 3.9 miles (6.3 km) northwest of the State Capitol in Nashville, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--51.6 sq mi (133.6 sq km).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1962-64; October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 401.64 ft (122.420 m) above mean sea level (Turner Engineering Company benchmark).

AVERAGE DISCHARGE.--10 years, 70.1 cfs (1.985 cu m/s), 18.45 in/yr (469 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,210 cfs (148 cu m/s) Jan. 10, gage height, 14.94 ft (4.554 m), from high-water mark; minimum daily, 3.1 cfs (0.088 cu m/s) Oct. 22.

Period of record: Maximum discharge, 7,050 cfs (200 cu m/s) Feb. 11, 1965, gage height, 14.54 ft (4.432 m); maximum gage height, 14.94 ft (4.554 m) Jan. 10, 1974, from high-water mark; minimum discharge, 0.2 cfs (0.006 cu m/s) July 6, 1966, Sept. 15, 1968.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	26	60	52	77	59	275	31	1,420	9.0	3.8	33
2	9.7	21	51	56	174	54	409	48	368	8.1	3.6	144
3	5.4	18	46	1,110	138	50	290	35	143	7.6	9.7	333
4	4.5	15	50	430	97	46	381	25	88	8.7	40	65
5	4.1	38	44	180	81	110	147	44	73	15	9.1	43
6	3.7	26	38	135	235	582	104	33	58	12	6.9	36
7	4.1	20	34	110	156	251	81	26	880	18	5.9	27
8	6.9	25	31	100	122	146	596	22	650	10	5.4	200
9	5.9	22	30	700	97	109	190	20	233	26	9.1	665
10	5.0	20	28	2,200	81	90	119	23	151	17	9.7	271
11	4.5	17	25	900	71	123	92	30	86	12	8.0	109
12	4.5	15	24	300	63	107	81	22	66	9.1	9.1	81
13	5.4	13	23	200	60	85	69	16	50	7.4	6.9	67
14	9.7	15	22	150	56	72	73	13	40	5.9	63	56
15	6.4	18	21	120	49	66	63	23	38	5.9	317	46
16	5.9	15	20	100	49	101	58	19	31	8.6	81	40
17	5.4	11	19	80	46	72	56	16	26	5.9	24	37
18	5.4	17	18	68	43	66	53	14	23	5.0	79	33
19	4.1	26	18	60	114	301	49	13	20	5.4	24	30
20	3.7	13	120	96	81	210	48	13	18	8.0	18	27
21	3.7	180	78	130	270	505	46	23	16	6.4	14	36
22	3.1	30	62	110	488	242	67	2,710	16	5.9	13	31
23	3.2	20	52	82	194	165	69	662	32	13	12	25
24	3.4	15	46	91	151	135	51	197	16	10	11	24
25	3.6	17	41	118	101	111	48	95	14	8.1	9.7	23
26	4.0	184	510	155	82	99	41	63	13	8.3	9.1	377
27	5.8	2,130	250	220	73	95	38	54	12	8.3	9.1	541
28	11	591	150	450	66	95	36	44	11	6.4	10	135
29	12	119	92	190	-----	84	34	37	11	6.7	13	75
30	6.2	79	67	130	-----	77	33	32	9.9	7.5	260	54
31	30	-----	76	95	-----	67	-----	30	-----	4.4	45	-----
TOTAL	198.9	3,756	2,146	8,918	3,315	4,375	3,697	4,433	4,612.9	289.6	1,139.1	3,664
MEAN	6.42	125	69.2	288	118	141	123	143	154	9.34	36.7	122
MAX	30	2,130	510	2,200	488	582	596	2,710	1,420	26	317	665
MIN	3.1	11	18	52	43	46	33	13	9.9	4.4	3.6	23
CFSM	.12	2.42	1.34	5.58	2.29	2.73	2.38	2.77	2.98	.18	.71	2.36
IN.	.14	2.71	1.55	6.43	2.39	3.15	2.67	3.20	3.33	.21	.82	2.64

CAL YR 1973 TOTAL 38,925.1 MEAN 107 MAX 2,130 MIN 3.1 CFSM 2.07 IN 28.06
WTR YR 1974 TOTAL 40,544.5 MEAN 111 MAX 2,710 MIN 3.1 CFSM 2.15 IN 29.23

PEAK DISCHARGE (BASE, 3,000 CFS)

NOTE.--No gage-height record Dec. 20 to Jan. 30.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	1955	14.26	4,800	05-22	0540	14.58	4,990
01-10	1020	14.94	5,210	06-01	1135	14.81	5,140

CUMBERLAND RIVER BASIN

03431700 Richland Creek at Charlotte Avenue, at Nashville, Tenn.

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

DRAINAGE AREA.--24.3 sq mi (62.9 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 409.56 ft (124.834 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 32.4 cfs (0.918 cu m/s), 18.11 in/yr (460 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,920 cfs (82.7 cu m/s) Jan. 10, gage height, 8.68 ft (2.646 m); minimum, 0.50 cfs (0.014 cu m/s) Aug. 1, 28.

Period of record: Maximum discharge, 5,580 cfs (158 cu m/s) Apr. 8, 1965, gage height, 10.63 ft (3.240 m); minimum, 0.2 cfs (0.006 cu m/s) several days in October and November 1965 and July 1966, and Sept. 24, 1970.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	6.7	59	42	29	22	42	8.6	562	2.2	.79	1.1
2	2.2	4.9	45	37	118	21	85	23	180	1.9	.79	21
3	2.2	4.1	36	500	67	18	66	9.8	78	1.7	26	86
4	1.9	3.7	45	191	49	16	56	7.7	64	1.6	25	14
5	1.7	13	32	113	41	107	40	16	60	2.4	2.8	5.7
6	1.5	6.2	24	84	111	405	32	8.9	45	1.9	1.9	7.2
7	2.8	4.9	18	65	63	175	28	7.3	413	2.8	1.5	3.8
8	4.9	7.2	15	62	49	113	75	6.8	239	1.7	1.3	91
9	2.2	6.2	13	314	39	82	36	6.6	136	3.2	2.5	197
10	1.7	4.5	11	1,320	32	63	30	10	140	2.0	1.7	98
11	1.3	4.1	9.5	620	26	82	26	7.8	84	1.6	3.4	34
12	1.3	3.7	8.6	227	22	60	33	7.8	64	1.3	3.1	17
13	4.1	3.1	7.7	158	18	46	24	7.2	49	1.1	2.6	9.2
14	3.7	3.1	6.4	117	17	41	32	5.3	38	.94	2.6	6.2
15	1.9	4.5	6.1	87	14	34	22	20	31	1.5	2.5	4.9
16	2.2	3.7	5.6	65	17	69	20	6.3	32	1.8	14	3.7
17	1.3	2.5	5.2	49	12	37	17	4.5	19	1.1	2.5	3.1
18	1.3	6.7	5.0	41	10	33	15	3.7	14	.98	1.9	2.8
19	1.3	5.7	5.4	33	51	138	14	39	11	3.7	1.5	2.5
20	1.1	4.1	101	60	24	89	12	13	8.9	2.8	.98	7.2
21	1.1	147	50	51	155	236	11	22	7.3	1.3	.88	8.5
22	1.1	37	35	36	105	111	64	254	8.3	1.1	.79	5.3
23	1.9	23	30	29	67	82	48	68	16	1.9	.79	4.1
24	1.1	15	28	25	51	63	29	40	6.2	1.7	.88	3.7
25	.98	14	28	20	39	49	20	27	4.9	1.5	.71	3.7
26	.98	40	261	48	32	39	16	32	4.3	1.9	.71	2.2
27	.79	366	111	37	29	44	14	18	3.7	1.7	3.1	93
28	5.3	251	78	118	26	37	12	21	3.3	1.3	.56	36
29	5.7	120	63	63	-----	32	10	18	3.0	1.7	1.1	53
30	2.8	81	49	46	-----	41	11	16	3.3	1.5	22	21
31	11	-----	62	36	-----	26	-----	15	-----	.98	2.2	-----
TOTAL	75.05	1,796.6	1,253.5	4,694	1,313	2,411	940	750.3	2,328.2	54.80	133.08	845.9
MEAN	2.42	59.9	40.4	151	46.9	77.8	31.3	24.2	77.6	1.77	4.29	28.2
MAX	11	866	261	1,320	155	405	85	254	562	3.7	26	197
MIN	.79	2.5	5.0	20	10	16	10	3.7	3.0	.94	.56	1.1
CFSM	.10	2.47	1.66	6.21	1.93	3.20	1.29	1.00	3.19	.07	.18	1.16
IN.	.11	2.75	1.92	7.19	2.01	3.69	1.44	1.15	3.56	.08	.20	1.29
CAL YR 1973	TOTAL	18,198.89	MEAN	49.9	MAX	866	MIN	.79	CFSM	2.05	IN	27.86
WTR YR 1974	TOTAL	16,595.43	MEAN	45.5	MAX	1,320	MIN	.56	CFSM	1.87	IN	25.41

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0730	7.35	2,080	06-01	0830	8.38	2,720
01-10	0950	8.68	2,920	06-07	1845	6.84	1,790
03-06	1430	7.53	2,190				

CUMBERLAND RIVER BASIN

49

03431800 Sycamore Creek near Ashland City, Tenn.

LOCATION.--Lat 36°19'12", long 87°03'04", Cheatham County, near right bank on downstream end of pier of bridge on State Highway 49, at Sycamore, 3.2 miles (5.1 km) north of Ashland City, and 4.4 miles (7.1 km) upstream from Spring Creek.

DRAINAGE AREA.--97.2 sq mi (251.7 sq km).

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

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

AVERAGE DISCHARGE.--13 years, 129 cfs (3.653 cu m/s), 18.02 in/yr (458 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,900 cfs (450 cu m/s) May 22, gage height, 12.98 ft (3.956 m); minimum, 22 cfs (0.62 cu m/s) Oct. 13.

Period of record: Maximum discharge, 15,900 cfs (450 cu m/s) May 22, 1974, gage height, 12.98 ft (3.956 m), from high-water mark; minimum, 8.3 cfs (0.24 cu m/s) Oct. 6, 1970.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	37	700	440	160	112	106	63	3,580	46	33	62
2	43	31	500	400	200	105	208	82	874	45	33	676
3	29	28	400	300	220	100	158	107	364	44	33	1,500
4	25	27	360	920	168	94	144	73	248	43	37	225
5	23	36	320	500	146	99	124	90	215	68	36	112
6	23	35	280	420	190	262	107	100	188	50	33	86
7	23	30	260	360	203	283	99	75	1,150	51	32	67
8	29	29	225	270	176	203	754	65	1,380	77	32	165
9	34	29	210	600	150	166	286	63	482	52	186	227
10	26	27	200	2,200	129	142	182	59	1,250	69	77	215
11	24	26	185	6,800	118	171	138	55	376	50	47	132
12	23	26	170	2,300	107	206	129	52	248	46	44	73
13	24	26	160	900	103	164	115	47	180	43	37	64
14	32	26	150	450	100	138	115	44	140	41	38	58
15	27	27	140	300	92	124	102	43	150	40	173	54
16	25	29	130	218	92	213	91	43	127	55	61	50
17	23	28	115	184	85	180	91	45	100	43	54	48
18	23	31	110	166	81	156	82	37	85	40	109	47
19	23	42	100	158	142	811	75	33	74	40	68	43
20	23	35	220	186	135	535	69	31	68	45	47	41
21	23	186	440	394	170	515	64	30	63	41	39	93
22	23	88	300	265	860	349	142	4,000	62	40	37	77
23	23	52	250	213	325	259	349	1,500	82	53	37	54
24	23	42	200	174	235	200	182	480	62	49	39	46
25	23	40	250	156	178	180	129	304	57	43	35	43
26	23	121	500	176	146	148	105	238	53	46	34	40
27	23	5,540	990	274	131	135	88	203	51	44	49	3,000
28	32	3,500	700	343	122	127	76	174	49	39	51	1,300
29	36	2,000	560	307	-----	124	67	152	45	39	46	460
30	31	1,000	470	233	-----	119	61	135	46	36	98	330
31	31	-----	550	190	-----	106	-----	131	-----	33	157	-----
TOTAL	818	13,174	10,145	20,797	4,964	6,529	4,438	8,554	11,849	1,451	1,832	9,388
MEAN	26.4	439	327	671	177	211	148	276	395	46.8	59.1	313
MAX	43	5,540	990	6,800	860	811	754	4,000	3,580	77	186	3,000
MIN	23	26	100	156	81	94	61	30	45	33	32	40
CFSM	.27	4.52	3.36	6.90	1.82	2.17	1.52	2.84	4.06	.48	.61	3.22
IN.	.31	5.04	3.88	7.96	1.90	2.50	1.70	3.27	4.53	.56	.70	3.59

CAL YR 1973 TOTAL 81,608 MEAN 224 MAX 5,540 MIN 21 CFSM 2.30 IN 31.23
WTR YR 1974 TOTAL 93,939 MEAN 257 MAX 6,800 MIN 23 CFSM 2.64 IN 35.95

PEAK DISCHARGE (BASE, 3,000 CFS)

NOTE.--No gage-height record Nov. 27 to Jan. 15, May 14 to 24.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0315	10.76	8,620	06-01	1945	10.48	7,950
01-11	Unknown	Unknown	Unknown	06-07	2345	8.16	3,440
05-22	Unknown	12.98	15,900	09-27	Unknown	11.32	10,100

CUMBERLAND RIVER BASIN

03433500 Harpeth River at Bellevue, Tenn.

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

DRAINAGE AREA.--408 sq mi (1,057 sq km) includes 12 sq mi (31 sq km) without surface drainage.

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

GAGE.--Water-stage recorder. Datum of gage is 541.04 ft (164.909 m) above mean sea level (levels by Corps of Engineers). Apr. 11, 1920, to Oct. 31, 1929, Jan. 1, 1932, to Sept. 30, 1933, nonrecording gage at site 2.8 miles (4.5 km) downstream at datum 7.85 ft (2.393 m) lower.

AVERAGE DISCHARGE.--54 years, 562 cfs (15.92 cu m/s), 18.70 in/yr (475 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,200 cfs (544 cu m/s) Nov. 28, gage height, 19.59 ft (5.971 m); minimum, 22 cfs (0.62 cu m/s) Oct. 25, 26, 27-29, 30, gage height, 1.10 ft (0.335 m).
Period of record: Maximum discharge, 40,000 cfs (1,130 cu m/s) Feb. 13, 1948, gage height, 24.34 ft (7.419 m) from floodmark; no flow Oct. 5-10, 1922.
Maximum stage since at least 1897, that of Feb. 13, 1948.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 953: 1920-30, 1932-35. WSP 1386: 1948. WSP 1556: Drainage area. WSP 1910: 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	59	1,460	1,460	880	591	501	245	5,620	149	45	27
2	30	73	1,150	1,010	1,200	535	4,260	250	5,520	144	41	45
3	26	81	900	5,140	1,900	481	1,420	275	1,580	141	68	172
4	25	61	781	8,260	1,230	427	5,170	290	956	138	61	91
5	24	50	816	2,900	900	495	5,440	310	834	136	63	63
6	24	45	635	1,910	1,000	911	1,230	330	1,080	133	49	1,450
7	45	42	533	1,670	1,300	960	852	275	3,920	133	38	1,060
8	108	50	470	1,330	1,000	721	1,240	235	6,630	677	36	440
9	118	50	427	4,800	820	602	1,770	210	3,100	196	42	3,320
10	79	54	390	8,620	700	528	1,060	280	3,590	538	37	1,330
11	57	50	347	17,600	620	490	846	400	2,270	221	44	749
12	45	47	318	14,300	560	514	725	300	1,120	155	69	498
13	37	45	297	2,980	510	465	730	250	900	135	104	405
14	34	42	285	1,680	480	400	863	239	725	118	67	314
15	34	42	261	1,290	520	362	629	235	620	105	65	241
16	34	40	239	1,020	500	389	517	254	760	190	47	195
17	31	38	211	816	810	376	456	215	600	149	61	162
18	30	47	193	665	600	340	399	181	470	125	61	142
19	28	43	178	569	740	439	360	187	375	94	61	123
20	27	40	460	505	910	897	322	166	343	71	50	109
21	27	422	1,230	640	800	2,810	289	138	301	69	42	148
22	26	804	764	800	3,880	2,180	297	386	269	73	32	257
23	26	355	612	910	1,930	1,300	1,500	1,320	351	104	28	170
24	26	239	528	755	1,360	1,010	673	708	305	99	30	133
25	24	187	490	890	1,060	798	476	436	235	71	37	116
26	23	377	3,480	1,000	871	664	404	338	202	63	30	106
27	22	11,100	5,220	1,510	756	572	350	305	181	60	24	207
28	22	18,300	1,830	1,600	662	549	314	254	166	59	23	450
29	22	9,430	1,310	2,600	-----	501	283	208	158	54	24	776
30	27	2,040	1,270	1,500	-----	839	260	184	155	50	27	455
31	54	-----	1,660	1,050	-----	608	-----	360	-----	45	28	-----
TOTAL	1,159	44,253	28,745	91,780	28,499	22,754	33,636	9,764	43,336	4,495	1,434	13,754
MEAN	37.4	1,475	927	2,961	1,018	734	1,121	315	1,445	145	46.3	458
MAX	118	18,300	5,220	17,600	3,880	2,810	5,440	1,320	6,630	677	104	3,320
MIN	22	38	178	505	480	340	260	138	155	45	23	27
CFSM	.09	3.62	2.27	7.26	2.50	1.80	2.75	.77	3.54	.36	.11	1.12
IN.	.11	4.03	2.62	8.37	2.60	2.07	3.07	.89	3.95	.41	.13	1.25

CAL YR 1973 TOTAL 374,001 MEAN 1,025 MAX 18,300 MIN 22 CFSM 2.51 IN 34.10
WTR YR 1974 TOTAL 323,609 MEAN 887 MAX 18,300 MIN 22 CFSM 2.17 IN 29.51

PEAK DISCHARGE (BASE, 7,500 CFS)

NOTE.--No gage-height record Jan. 21 to Feb. 21.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1115	19.59	19,200	04-05	0430	13.72	9,110
01-04	0700	14.31	9,810	06-02	0200	13.63	9,020
01-11	1730	19.57	19,100	06-08	0545	12.18	7,560

03434500 Harpeth River near Kingston Springs, Tenn.

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, on right bank 400 ft (122 m) upstream from bridge on U.S. Highway 70, 1.7 miles (2.7 km) northeast of Kingston Springs, 3.0 miles (4.8 km) downstream from Turnbull Creek, and at mile 32.4 (52.1 km).

DRAINAGE AREA.--681 sq mi (1,764 sq km), includes 13 sq mi (34 sq km) without surface drainage.

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

GAGE.--Water-stage recorder. Datum of gage is 448.04 ft (136.563 m) above mean sea level. July 8, 1925, to Jan. 22, 1939, non-recording gage at site 150 ft (46 m) downstream at same datum.

AVERAGE DISCHARGE.--50 years, 947 cfs (26.82 cu m/s), 18.88 in/yr (480 mm/yr).

EXTREMES.--Current year: Maximum discharge, 32,200 cfs (912 cu m/s) Jan. 11, gage height, 25.46 ft (7.760 m); minimum, 85 cfs (2.41 cu m/s) Oct. 27.

Period of record: Maximum discharge, 60,000 cfs (1,700 cu m/s) Jan. 7, 1946, gage height, 32.20 ft (9.815 m) from high-water mark in gage house; minimum, 12 cfs (0.34 cu m/s) Sept. 18, 1939.

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.

REMARKS.--Records good. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M), WSP 1706: 1945(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	191	2,140	2,370	1,860	1,120	983	513	7,780	299	133	123
2	123	168	1,630	1,590	2,840	1,030	4,300	585	9,380	278	131	169
3	108	170	1,350	5,870	3,990	930	3,090	622	3,550	260	141	554
4	100	176	1,220	10,800	2,650	837	4,220	671	2,130	243	361	361
5	100	188	1,260	5,440	1,950	894	7,960	684	1,650	247	191	227
6	96	158	1,080	3,040	2,240	4,170	2,550	709	1,920	257	161	180
7	99	135	928	2,660	3,050	3,130	1,860	604	5,050	227	149	2,240
8	113	138	829	2,220	2,290	2,010	2,180	507	10,100	616	153	782
9	218	160	763	6,430	1,860	1,510	3,090	459	6,450	560	137	3,260
10	221	153	702	15,700	1,580	1,270	1,920	703	4,830	628	137	2,580
11	173	145	639	28,100	1,380	1,220	1,570	886	5,090	560	143	1,370
12	143	138	594	22,300	1,220	1,320	1,400	690	2,630	341	206	901
13	126	133	559	9,980	1,110	1,160	1,350	573	1,970	278	224	716
14	135	133	524	3,840	1,040	998	1,550	485	1,620	237	224	585
15	123	133	501	2,850	1,170	886	1,470	542	1,370	212	186	439
16	112	140	466	2,340	1,110	1,100	1,190	604	1,370	194	197	361
17	110	140	431	1,990	1,810	1,020	1,040	501	1,540	288	167	310
18	104	160	400	1,810	1,300	908	915	424	1,030	224	163	271
19	102	239	374	1,630	1,650	1,140	816	377	844	183	165	240
20	100	173	771	1,570	2,010	1,650	728	386	728	390	153	218
21	97	802	1,580	2,380	1,640	3,340	659	345	640	310	139	234
22	96	1,240	1,330	2,060	6,460	4,440	830	1,920	579	209	127	382
23	94	823	1,060	1,780	4,010	2,440	2,120	3,330	640	260	119	345
24	94	561	962	1,580	2,480	1,890	1,590	1,910	690	243	129	264
25	91	470	948	1,970	1,920	1,500	1,120	1,190	530	215	115	227
26	88	445	5,000	2,150	1,530	1,280	923	908	449	180	115	212
27	86	9,830	7,420	3,270	1,370	1,130	788	802	399	174	109	530
28	123	20,000	3,330	3,330	1,230	1,150	684	671	369	167	104	816
29	138	16,700	2,190	5,930	-----	1,050	604	554	345	159	104	1,310
30	119	3,710	1,890	3,200	-----	1,140	536	474	321	149	157	1,010
31	117	-----	1,890	2,310	-----	1,230	-----	444	-----	139	141	-----
TOTAL	3,655	57,752	44,761	162,490	58,750	48,893	54,036	24,073	75,994	8,727	4,881	21,217
MEAN	118	1,925	1,444	5,242	2,098	1,577	1,801	777	2,533	282	157	707
MAX	221	20,000	7,420	28,100	6,460	4,440	7,960	3,330	10,100	628	361	3,260
MIN	86	133	374	1,570	1,040	837	536	345	321	139	104	123
CFSM	.17	2.83	2.12	7.70	3.08	2.32	2.64	1.14	3.72	.41	.23	1.04
IN.	.20	3.15	2.45	8.88	3.21	2.67	2.95	1.32	4.15	.48	.27	1.16

CAL YR 1973 TOTAL 638,353 MEAN 1,749 MAX 22,000 MIN 82 CFSM 2.57 IN 34.87
WTR YR 1974 TOTAL 565,229 MEAN 1,549 MAX 28,100 MIN 86 CFSM 2.27 IN 30.88

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0515	21.99	22,800	06-01	1815	17.06	14,700
01-04	0145	14.88	12,100	06-08	1000	13.87	11,000
01-11	0345	25.46	32,200				

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

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

AVERAGE DISCHARGE.--20 years, 23,200 cfs (657.0 cu m/s), 22.24 in/yr (565 mm/yr), unadjusted.

Maximum stage since at least 1793, 53.5 ft (16.31 m); Jan. 5, 1937, from profile by Corps of Engineers, discharge, about 200,000 cfs (3,660 cu m/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 cfs (5,810 cu m/s).

REVISIONS.--WSP 2110: Drainage area.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,610	19,000	108,000	40,000	95,500	42,400	33,300	20,400	44,200	14,300	9,270	1,780
2	9,800	17,000	95,000	52,000	92,000	34,500	41,700	18,200	74,400	8,320	11,300	5,240
3	14,000	11,500	85,000	74,000	96,000	26,000	49,500	15,500	47,100	12,700	9,540	26,000
4	11,500	1,900	78,000	109,000	97,500	30,300	61,600	21,500	28,000	12,100	10,600	31,700
5	15,000	5,000	68,000	111,000	91,000	30,600	82,100	21,100	26,500	4,860	10,700	18,000
6	17,000	5,800	65,000	102,000	86,000	36,400	78,200	15,600	32,800	2,060	3,030	17,100
7	9,000	6,800	64,000	83,400	85,500	52,100	62,000	11,900	42,000	7,520	5,090	26,300
8	4,500	9,500	63,000	80,300	84,600	54,000	56,200	12,300	69,700	5,100	887	34,400
9	5,300	9,400	49,000	90,300	83,500	47,000	64,500	19,100	58,300	5,970	9,720	39,500
10	10,500	10,200	38,500	112,000	83,000	36,300	64,100	25,000	25,500	3,820	10,200	45,000
11	13,500	14,400	33,300	144,000	80,800	32,000	61,600	25,700	19,200	3,300	13,100	34,900
12	12,000	15,400	36,800	154,000	67,700	35,000	61,300	19,100	21,200	3,630	19,900	29,200
13	13,900	13,400	32,100	152,000	62,000	30,400	61,100	11,400	29,600	3,800	8,980	24,900
14	12,600	8,800	22,300	140,000	58,700	28,500	53,100	11,600	26,000	2,820	8,500	23,900
15	13,800	8,400	21,700	128,000	57,800	32,500	54,300	19,400	23,200	1,940	5,670	19,200
16	14,000	6,400	16,000	118,000	57,400	34,500	34,600	24,900	28,800	2,550	10,100	11,100
17	8,800	14,500	16,000	112,000	52,500	33,400	29,600	24,600	25,600	2,860	11,100	5,420
18	6,400	7,600	26,000	108,000	56,000	32,300	34,400	21,400	19,500	1,630	5,420	7,600
19	8,600	8,800	20,000	105,000	60,800	34,500	30,000	19,000	15,000	7,100	5,930	7,400
20	8,900	7,800	19,000	104,000	62,600	41,300	24,200	24,700	15,700	11,900	10,400	14,100
21	9,100	10,500	28,000	103,000	51,400	52,100	17,300	32,200	25,000	8,710	8,330	22,100
22	7,200	17,500	34,000	101,000	61,200	69,600	20,200	59,500	28,100	1,990	8,580	19,200
23	6,800	13,000	31,000	95,800	65,000	69,500	24,500	70,000	24,000	2,420	12,700	13,200
24	4,000	9,200	20,000	89,300	67,700	67,200	33,200	51,300	24,100	2,890	9,780	11,100
25	5,400	6,600	12,500	87,500	68,600	65,300	30,100	41,500	19,300	2,450	4,930	17,500
26	7,200	7,800	29,000	87,600	67,000	57,600	23,700	27,900	10,600	2,150	4,190	22,800
27	3,900	57,000	78,000	87,800	53,400	48,800	18,900	15,000	4,750	3,730	5,990	34,700
28	2,300	120,000	72,000	89,500	48,000	46,200	14,500	12,900	2,310	3,160	11,500	17,100
29	4,300	122,000	53,000	98,900	-----	44,200	12,800	10,600	5,710	2,280	5,100	5,800
30	17,000	119,000	41,000	99,500	-----	40,100	10,800	13,800	14,200	3,230	11,400	18,000
31	18,000	-----	35,000	98,300	-----	36,800	-----	25,100	-----	3,310	8,59	-----
TOTAL	296,910	684,200	1,390,2M	3,157.2M	1,993.2M	1,321.4M	1,243.4M	742,200	830,370	154,600	270,527	604,240
MEAN	9,578	22,810	44,850	101,800	71,190	42,630	41,450	23,940	27,680	4,987	8,727	20,140
MAX	18,000	122,000	108,000	154,000	97,500	69,600	82,100	70,000	74,400	14,300	19,900	45,000
MIN	2,300	1,900	12,500	40,000	48,000	26,000	10,800	10,600	2,310	1,630	887	1,780
CAL YR 1973	TOTAL 12,975,160		MEAN 35,550		MAX 131,000		MIN 1,900					
WTR YR 1974	TOTAL 12,688,447		MEAN 34,760		MAX 154,000		MIN 887					

03435030 Red River near Portland, Tenn.

LOCATION.--Lat 36°33'24", long 86°34'14", Sumner County, near left bank on downstream wingwall of county road bridge, 1.5 miles (2.4 km) upstream from Austin Branch, 2.8 miles (4.5 km) north of New Deal, 3.5 miles (5.6 km) southwest of Portland, and at mile 93.0 (149.6 km).

DRAINAGE AREA.--15.1 sq mi (39.1 sq km).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 680.74 ft (207.490 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 22.9 cfs (0.649 cu m/s), 20.59 in/yr (523 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,950 cfs (83.5 cu m/s) June 1, gage height, 10.95 ft (3.338 m); minimum daily, 2.2 cfs (0.062 cu m/s) Oct. 21-27.

Period of record: Maximum discharge, 4,460 cfs (126 cu m/s) June 23, 1969, gage height, 12.38 ft (3.773 m); minimum, 0.25 cfs (0.007 cu m/s) Sept. 10, 1972, caused by unknown diversion; minimum unaffected by diversion, 0.70 cfs (0.020 cu m/s) Aug. 27-29, 1968.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.6	35	25	24	19	27	12	540	6.8	3.0	24
2	3.5	5.4	25	22	50	18	60	15	128	6.4	2.9	31
3	2.8	4.8	20	225	42	17	37	22	72	6.1	4.5	124
4	2.6	3.8	18	78	30	16	65	15	47	5.7	5.8	26
5	2.5	4.2	19	45	26	17	32	13	56	7.1	4.3	17
6	2.4	4.6	15	39	41	47	26	14	43	6.4	3.5	13
7	2.6	4.2	12	38	34	35	22	12	485	9.0	2.9	12
8	3.5	3.8	11	33	29	27	185	10	224	7.8	4.0	18
9	5.6	3.4	9.8	129	25	23	69	10	94	9.4	18	50
10	4.5	3.1	8.8	681	22	20	45	9.8	84	7.5	8.2	49
11	3.3	2.9	8.2	311	19	27	35	9.0	41	6.1	6.4	31
12	2.6	2.8	7.2	82	18	25	27	8.2	30	7.8	5.4	21
13	2.5	2.7	6.8	53	17	20	24	7.6	23	5.7	4.5	17
14	3.3	2.7	6.4	42	16	19	22	7.0	18	5.0	4.3	15
15	3.6	2.7	5.8	35	15	18	19	8.6	30	18	4.3	13
16	3.2	3.4	5.4	30	14	30	17	8.8	64	13	3.8	12
17	2.8	4.0	5.2	27	14	22	16	7.6	30	6.8	3.8	11
18	2.5	3.8	5.0	25	13	20	14	6.6	21	5.7	4.5	10
19	2.4	5.0	4.8	23	26	56	13	6.2	17	5.4	4.0	9.4
20	2.3	8.8	41	38	19	47	12	6.0	14	5.0	3.5	8.5
21	2.2	23	28	69	27	69	15	5.8	13	4.8	3.3	18
22	2.2	12	25	43	91	42	25	35	12	4.5	3.8	12
23	2.2	8.0	22	34	46	33	48	120	15	6.8	5.0	9.9
24	2.2	5.0	21	27	35	27	34	305	11	5.4	4.8	9.0
25	2.2	3.8	21	25	27	23	26	54	9.4	4.5	3.8	8.5
26	2.2	5.0	129	33	24	21	20	35	8.5	4.2	3.5	8.2
27	2.2	510	51	37	22	20	16	29	8.2	4.0	4.0	479
28	2.5	150	34	53	20	19	14	23	7.8	3.7	4.0	92
29	5.0	66	41	42	-----	19	13	19	7.8	3.5	10	72
30	5.8	45	37	33	-----	22	12	16	7.1	3.3	31	31
31	5.0	-----	30	27	-----	17	-----	15	-----	3.2	12	-----
TOTAL	98.4	909.5	708.4	2,404	786	835	990	865.2	2,430.8	198.6	186.8	1,251.5
MEAN	3.17	30.3	22.9	77.5	28.1	26.9	33.0	27.9	81.0	6.41	6.03	41.7
MAX	6.2	510	129	681	91	69	185	305	540	18	31	479
MIN	2.2	2.7	4.8	22	13	16	12	5.8	7.1	3.2	2.9	8.2
CFSM	.21	2.01	1.52	5.13	1.86	1.78	2.19	1.85	5.36	.42	.40	2.76
IN.	.24	2.24	1.75	5.92	1.94	2.06	2.44	2.13	5.99	.49	.46	3.08
CAL YR 1973	TOTAL 10,411.9	MEAN 28.5	MAX 510	MIN 2.1	CFSM 1.89	IN 25.65						
WTR YR 1974	TOTAL 11,664.2	MEAN 32.0	MAX 681	MIN 2.2	CFSM 2.12	IN 28.74						

PEAK DISCHARGE (BASE, 900 CFS)

NOTE.--No gage-height record Nov. 9 to Dec. 14, Apr. 11 to May 31.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	Unknown	9.87	2,110	06-07	1945	9.53	1,870
01-10	1015	9.41	1,790	06-15	About 0845	9.62	1,930
05-24	Unknown	9.10	1,590	09-27	About 1130	10.27	2,390
06-01	About 1230	10.95	2,950				

CUMBERLAND RIVER BASIN

03436000 Sulphur Fork Red River near Adams, Tenn.

LOCATION.--Lat 36°30'55", long 87°03'32", Robertson County, on left bank 600 ft (183 m) downstream from county highway bridge, 2.8 miles (4.5 km) downstream from Millers Creek, 4.1 miles (6.6 km) southwest of Cedar Hill, 4.6 miles (7.4 km) south of Adams, and at mile 10.2 (16.4 km).

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

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

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

AVERAGE DISCHARGE.--36 years, 235 cfs (6.655 cu m/s), 17.16 in/yr (436 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,700 cfs (331 cu m/s) May 22, gage height, 21.25 ft (6.477 m); minimum, 17 cfs (0.48 cu m/s) Oct. 23.

Period of record: Maximum discharge, 13,700 cfs (388 cu m/s) Feb. 27, 1962, gage height, 23.2 ft (7.07 m); from floodmark in gage well; minimum, 1.8 cfs (0.051 cu m/s) Sept. 27, 1948.

Maximum stage since at least 1928, 25.1 ft (7.65 m) in June 1934, from floodmarks, discharge not determined. Flood in January 1937 reached a stage about 2.5 ft (0.76 m) lower than that of June 1934, discharge not determined.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1910: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	42	640	373	504	263	205	140	3,100	81	28	231
2	26	41	502	295	678	234	567	161	2,600	105	32	805
3	42	33	406	1,980	870	213	399	277	1,150	68	32	1,520
4	28	28	373	2,250	575	194	340	177	890	64	47	676
5	24	33	378	1,240	469	183	258	161	686	162	67	375
6	21	36	286	886	492	777	209	170	554	95	36	270
7	24	32	238	784	535	895	187	140	1,860	119	28	203
8	33	28	210	634	440	567	1,040	125	3,050	194	28	198
9	51	26	196	2,700	377	446	850	123	1,390	161	106	448
10	36	24	179	6,980	324	372	522	120	4,790	336	305	436
11	26	22	166	8,580	293	388	405	109	1,760	155	98	330
12	23	21	148	2,490	258	504	356	102	1,170	113	76	249
13	23	20	143	1,440	239	383	319	92	925	93	56	238
14	30	20	135	1,090	222	314	272	84	726	81	52	206
15	33	20	123	875	198	287	230	105	1,040	76	140	163
16	28	26	116	598	180	492	202	107	865	78	96	136
17	24	30	110	451	170	434	190	84	567	73	86	117
18	21	29	104	388	155	372	167	75	434	64	245	102
19	20	37	100	351	244	875	153	72	356	61	165	91
20	20	41	282	330	253	1,070	142	70	293	62	84	79
21	19	264	389	895	234	1,090	132	65	248	59	61	178
22	19	130	282	653	1,520	935	372	5,680	218	54	47	203
23	18	65	238	516	925	758	711	5,440	267	70	53	131
24	19	46	218	405	678	560	417	1,590	194	70	48	100
25	19	41	234	366	480	428	298	1,120	155	58	42	89
26	19	50	870	394	377	366	239	895	137	52	36	82
27	19	5,840	960	860	330	319	202	711	120	52	120	3,320
28	22	5,660	580	1,040	293	287	174	522	109	47	123	2,990
29	42	1,340	520	1,030	-----	277	153	417	98	41	166	1,170
30	45	870	628	843	-----	282	142	356	88	38	361	758
31	39	-----	484	661	-----	226	-----	314	-----	32	636	-----
TOTAL	837	14,895	10,238	42,378	12,313	14,791	9,853	19,604	29,840	2,814	3,500	15,894
MEAN	27.0	497	330	1,367	440	477	328	632	995	90.8	113	530
MAX	51	5,840	960	8,580	1,520	1,090	1,040	5,680	4,790	336	636	3,320
MIN	18	20	100	295	155	183	132	65	88	32	28	79
CFSM	.15	2.67	1.77	7.35	2.37	2.56	1.76	3.40	5.35	.49	.61	2.85
IN.	.17	2.98	2.05	8.48	2.46	2.96	1.97	3.92	5.97	.56	.70	3.18
CAL YR 1973	TOTAL 130,000	MEAN 356	MAX 5,840	MIN 17	CFSM 1.91	IN 26.00						
WTR YR 1974	TOTAL 176,957	MEAN 485	MAX 8,580	MIN 18	CFSM 2.61	IN 35.39						

PEAK DISCHARGE (BASE, 3,400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	2230	19.75	10,400	06-01	1945	14.65	6,200
01-03	1845	11.35	3,920	06-08	0230	13.21	5,190
01-11	0515	19.99	10,600	06-10	0615	16.45	7,560
05-22	2045	21.25	11,700	09-28	0230	15.90	7,140

03436100 Red River at Port Royal, Tenn.

LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, 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 sq mi (2,422 sq km), includes 437 sq mi (1,132 sq km) without surface drainage.

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

GAGE.--Water-stage recorder. Datum of gage is 376.25 ft (114.681 m) (corrected) above mean sea level. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 1,232 cfs (34.89 cu m/s), 17.89 in/yr (454 mm/yr).

EXTREMES.--Current year: Maximum discharge, 33,000 cfs (935 cu m/s) Jan. 11, gage height, 39.36 ft (11.997 m); minimum, 114 cfs (3.23 cu m/s) Oct. 26, 27, 28.

Period of record: Maximum discharge, 43,500 cfs (1,230 cu m/s) Feb. 27, 1962, gage height, 43.18 ft (13.161 m); minimum, 54 cfs (1.53 cu m/s) Sept. 17, 18, 1964.

Maximum stage since at least 1913, 44.4 ft (13.53 m) Jan. 23, 1937 (from flood profile of Corps of Engineers).

REMARKS.--Records good. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	175	3,680	1,910	2,960	1,510	1,470	993	3,260	684	316	1,280
2	157	171	2,900	1,610	2,820	1,410	2,690	986	9,030	644	310	1,470
3	159	169	2,430	3,000	3,810	1,340	3,060	1,450	4,120	608	307	4,780
4	161	167	2,150	6,750	3,170	1,260	2,800	1,540	2,630	580	295	4,220
5	146	165	2,030	4,620	2,660	1,190	2,360	1,220	2,070	656	330	2,350
6	129	163	1,740	3,400	2,480	1,580	1,860	1,120	1,820	601	336	1,780
7	129	157	1,490	2,940	2,590	2,460	1,620	996	3,300	570	293	1,470
8	211	153	1,320	2,620	2,370	2,030	2,620	887	8,980	1,190	287	1,250
9	226	157	1,200	6,030	2,140	1,680	4,310	837	6,600	1,090	310	1,420
10	223	151	1,090	15,900	1,930	1,510	3,020	811	10,400	1,420	1,710	1,840
11	193	142	990	30,500	1,770	1,460	2,420	781	9,580	1,220	933	1,870
12	165	136	900	25,000	1,640	1,770	2,120	720	5,020	1,060	577	1,490
13	153	134	842	12,200	1,560	1,740	1,940	659	3,640	757	456	1,260
14	159	134	781	7,510	1,490	1,470	1,750	607	2,920	644	420	1,130
15	159	131	713	5,710	1,380	1,350	1,590	607	2,930	587	496	979
16	155	134	659	4,650	1,290	1,650	1,420	605	4,410	560	526	865
17	149	140	611	3,970	1,230	2,140	1,310	559	2,680	660	444	778
18	140	149	570	3,440	1,150	1,760	1,210	522	2,140	536	496	716
19	134	161	537	3,140	1,210	1,990	1,130	493	1,840	484	493	656
20	129	169	828	2,900	1,410	3,670	1,050	473	1,630	468	397	608
21	127	503	1,970	3,390	1,350	3,760	972	461	1,470	441	345	664
22	124	1,220	1,460	3,520	3,620	3,670	1,540	5,070	1,350	417	304	834
23	123	734	1,200	3,080	3,990	3,050	2,740	19,200	1,340	420	287	795
24	119	610	1,090	2,770	2,770	2,630	2,220	9,650	1,260	566	276	637
25	118	733	1,110	2,520	2,280	2,200	1,700	3,840	1,100	462	268	573
26	114	927	2,030	2,440	1,910	1,940	1,460	2,820	993	450	251	539
27	114	8,220	3,940	3,420	1,720	1,760	1,310	2,280	901	429	357	2,620
28	116	23,200	2,840	3,950	1,620	1,630	1,190	1,880	829	391	357	8,480
29	129	16,400	2,330	5,160	-----	1,570	1,090	1,610	770	366	375	3,970
30	146	5,890	2,500	4,040	-----	1,820	1,010	1,420	720	351	1,530	2,750
31	165	-----	2,270	3,410	-----	1,700	-----	1,290	-----	330	2,320	-----
TOTAL	4,648	61,495	50,201	185,500	60,320	60,700	56,982	66,387	99,733	19,642	16,402	54,074
MEAN	150	2,050	1,619	5,984	2,154	1,958	1,899	2,142	3,324	634	529	1,802
MAX	226	23,200	3,940	30,500	3,990	3,760	4,310	19,200	10,400	1,420	2,320	8,480
MIN	114	131	537	1,610	1,150	1,190	972	461	720	330	251	539
CFSM	.16	2.19	1.73	6.40	2.30	2.09	2.03	2.29	3.56	.68	.57	1.93
IN.	.18	2.45	2.00	7.38	2.40	2.42	2.27	2.64	3.97	.78	.65	2.15

CAL YR 1973 TOTAL 646,024 MEAN 1,770 MAX 23,200 MIN 114 CFSM 1.89 IN 25.70
WTR YR 1974 TOTAL 736,084 MEAN 2,017 MAX 30,500 MIN 114 CFSM 2.16 IN 29.29

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1400	35.96	25,500	05-23	1200	33.49	21,300
01-11	1700	39.36	33,000	06-10	1800	26.08	13,100

CUMBERLAND RIVER BASIN

03436700 Yellow Creek near Shiloh, Tenn.

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

DRAINAGE AREA.--124 sq mi (321 sq km).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 390.13 ft (118.912 m) above mean sea level. Prior to Oct. 14, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--17 years, 176 cfs (4.984 cu m/s), 19.27 in/yr (489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,880 cfs (223 cu m/s) Jan. 10, gage height, 15.05 ft (4.587 m); minimum 30 cfs (0.85 cu m/s) Oct. 13.

Period of record: Maximum discharge, 8,190 cfs (232 cu m/s) Feb. 27, 1962, gage height, 14.4 ft (4.39 m); maximum gage height, 15.05 ft (4.587 m) Jan. 10, 1974; minimum discharge, 16 cfs (0.45 cu m/s) Aug. 21, 1962.

REMARKS.--Records poor. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1706: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	42	270	160	353	223	260	233	2,060	94	85	62
2	35	41	200	140	350	210	353	225	1,130	90	85	65
3	37	39	170	710	353	198	360	220	577	86	85	413
4	36	39	160	600	310	188	385	200	415	106	85	194
5	35	36	130	470	265	184	338	198	335	111	84	123
6	34	35	110	350	250	228	305	200	283	94	84	105
7	39	34	96	270	240	248	285	184	978	90	151	93
8	40	34	84	240	230	253	490	176	1,550	88	117	80
9	37	34	76	1,000	220	255	513	168	848	88	85	77
10	33	35	70	3,000	210	258	435	164	1,510	94	85	89
11	32	35	64	4,010	200	258	378	157	809	89	85	85
12	31	35	60	2,200	190	268	353	148	547	88	85	75
13	32	34	56	1,000	185	263	325	139	423	88	85	73
14	37	35	52	580	180	248	310	130	338	87	106	66
15	35	40	49	470	175	238	300	136	285	87	103	68
16	33	43	47	400	170	263	283	132	263	87	88	67
17	32	42	45	330	165	333	265	126	212	87	79	67
18	33	45	44	293	160	360	253	121	186	86	75	63
19	34	47	43	273	230	604	240	120	172	86	73	61
20	33	47	54	260	200	640	233	115	159	98	70	58
21	33	92	120	250	183	598	225	114	148	86	53	65
22	34	83	76	240	212	544	939	153	144	114	51	61
23	35	63	68	230	218	480	1,110	245	212	120	51	55
24	34	58	64	220	218	410	679	202	166	92	50	53
25	34	57	100	215	220	348	495	168	145	87	48	51
26	34	68	200	210	230	313	408	153	130	86	47	52
27	34	2,600	350	270	233	293	348	144	120	86	46	315
28	37	3,200	260	370	238	298	303	130	112	86	46	410
29	41	1,400	205	423	-----	293	270	121	106	86	69	318
30	39	600	220	465	-----	288	250	115	99	85	74	233
31	41	-----	208	410	-----	268	-----	135	-----	85	70	-----
TOTAL	1,086	8,993	3,751	20,059	6,388	9,853	11,691	4,972	14,462	2,837	2,400	3,597
MEAN	35.0	300	121	647	228	318	390	160	482	91.5	77.4	120
MAX	41	3,200	350	4,010	353	640	1,110	245	2,060	120	151	413
MIN	31	34	43	140	160	184	225	114	99	85	46	51
CFSM	.28	2.42	.98	5.22	1.84	2.56	3.15	1.29	3.89	.74	.62	.97
IN.	.33	2.70	1.13	6.02	1.92	2.96	3.51	1.49	4.34	.85	.72	1.08

CAL YR 1973 TOTAL 84,351 MEAN 231 MAX 3,200 MIN 28 CFSM 1.86 IN 25.31
WTR YR 1974 TOTAL 90,089 MEAN 247 MAX 4,010 MIN 31 CFSM 1.99 IN 27.03

PEAK DISCHARGE (BASE, 2,200 CFS)

NOTE.--No gage-height record Nov. 28 to Jan. 17.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0200	14.11	6,380	06-01	2000	13.02	4,820
01-10	1900	15.05	7,880				

Reservoirs in Cumberland River basin

- 03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russell County, in pylon of Wolf Creek Dam on Cumberland River and 10 miles (16 km) southwest of Jamestown, Ky. Drainage area, 5,789 sq mi (14,994 sq km). 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. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft (166.12 m) higher. Extremes for current year: Maximum contents, 2,057,300 cfs-days (5,034 cu hm) Jan. 14, elevation, 724.70 ft (220.889 m); minimum, 1,194,700 cfs-days (2,923 cu hm) Nov. 10, elevation, 686.72 ft (209.312 m). Extremes for period of record: Maximum contents, 2,673,800 cfs-days (6,543 cu hm) Apr. 15, 1962, elevation, 747.12 ft (227.722 m); minimum, after first filling, 934,400 cfs-days (2,286 cu hm) Jan. 1, 1956, elevation, 673.01 ft (205.133 m).
- Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor 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 cu hm), of which 1,056,000 cfs-days (2,584 cu hm) above elevation 723.00 ft (220.370 m), crest of spillway, are reserved for flood control and 1,080,000 cfs-days (2,643 cu hm) between elevation 673.00 ft (205.130 m), minimum power pool, and 723.00 ft (220.370 m) will be used for power production. Figures given herein represent total contents, of which 934,000 cfs-days (2,285 cu hm) 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.
- 03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, at Dale Hollow Dam on Obey River, 3 miles (5 km) east of Celina, and 7.3 miles (11.7 km) upstream from mouth. Drainage area, 936 sq mi (2,424 sq km). Period of record, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 731,200 cfs-days (1,789 cu hm) Jan. 13, elevation, 654.44 ft (199.473 m); minimum, 522,300 cfs-days (1,278 cu hm) Nov. 17, elevation, 638.76 ft (194.694 m). Extremes for period of record: Maximum contents, 805,300 cfs-days (1,971 cu hm) Mar. 1, 1962, elevation, 659.45 ft (201.000 m); minimum, after first filling, 428,000 cfs-days (1,047 cu hm) Sept. 11, 1944, elevation, 630.63 ft (192.216 m).
- 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 cu hm) of which 177,500 cfs-days (434.3 cu hm) between elevations 663.0 ft (202.08 m) and 651.00 ft (198.425 m), crest of spillway, are reserved for flood control, and 250,200 cfs-days (612.2 cu hm) 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 cu hm) 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 (water years).--WSP 1306: 1944. WSP 2110: Drainage area.
- 03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, at Cordell Hull Dam on Cumberland River, 2.7 miles (4.3 km) north of Carthage, and at mile 313.5 (504.4 km). Drainage area, 8,095 sq mi (20,966 sq km). Period of record, October 1972 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 141,300 cfs-days (345.8 cu hm) Jan. 12, elevation, 505.71 ft (154.140 m); minimum, 96,700 cfs-days (236.6 cu hm) Apr. 10, elevation, 497.65 ft (151.684 m). Extremes for period of record: Maximum contents, 141,300 cfs-days (345.8 cu hm) Jan. 12, 1974, elevation, 505.71 ft (154.140 m); minimum, after first filling to ordinary minimum pool, 96,700 cfs-days (236.6 cu hm), Apr. 18, 1974, elevation, 497.65 ft (151.684 m).
- Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with 5 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 cu hm), of which 53,400 cfs-days (130.7 cu hm) 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 cu hm) 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 cu hm) above 500.0 ft (152.40 m) is available for flood control during the winter, and 26,100 cfs-days (63.87 cu hm) 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 cu hm) below elevation 499.0 ft (152.10 m) is dead storage. Reservoir is used for navigation, power, and flood control.
- 03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, at penstock inlet on Collins River, 700 ft (213 m) southwest of powerhouse of Tennessee Valley Authority, 1.5 miles (2.4 km) northwest of Rock Island, 1.8 miles (2.9 km) upstream from mouth of Collins River, and 2.0 miles (3.2 km) upstream from Great Falls Dam on Caney Fork. Drainage area, 1,677 sq mi (4,343 sq km). Period of record, January 1917 to current year. Remote indicator gage. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 27,300 cfs-days (66.80 cu hm) Jan. 3, elevation, 806.56 ft (245.840 m); minimum, 9,300 cfs-days (22.76 cu hm) Nov. 21, elevation, 784.04 ft (238.975 m). 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 cu hm) Aug. 19, 1918, elevation, 756.3 ft (230.52 m).
- 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 cu hm), of which 23,900 cfs-days (58.48 cu hm) are controlled storage above elevation 762.0 ft (232.26 m), minimum pool. Contents of 1,500 cfs-days (3.671 cu hm) 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.
- 03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, at Center Hill Dam on Caney Fork, 10 miles (16 km) north of Smithville, 14 miles (23 km) southeast of Carthage, and at mile 26.6 (42.8 km). Drainage area, 2,174 sq mi (5,631 sq km). Period of record, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. Water-stage recorder. Datum of gage is at mean sea level, Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft (402 m) upstream at same datum. Extremes for current year: Maximum contents, 912,600 cfs-days (2,233 cu hm), Jan. 13, elevation, 672.28 ft (204.911 m); minimum 557,800 cfs-days (1,365 cu hm) Nov. 19, elevation, 635.20 ft (193.609 m). Extremes for period of record: Maximum contents 1,004,400 cfs-days (2,458 cu hm) Feb. 10, 1950, elevation, 680.6 ft (207.45 m); minimum, after first filling, 171,000 cfs-days (418.4 cu hm) Dec. 1, 2, 1949, elevation, 576.1 ft (175.60 m).
- 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 cu hm), of which 384,500 cfs-days (940.9 cu hm) 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 cu hm) 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 cu hm) 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.

Reservoirs in Cumberland River basin--Continued

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, at Old Hickory Dam on Cumberland River, 2.0 miles (3.2 km) west of Hendersonville, 10 miles (16 km) northeast of the State capitol in Nashville, and at mile 216.2 (347.9 km). Drainage area, 11,673 sq mi (30,233 sq km). Period of record, June 1954 to current year: Water-stage recorder. Datum of gage is 408.5 ft (124.51 m) above mean sea level; gage readings have been reduced to elevation above mean sea level. Prior to Apr. 4, 1957, non-recording gage at same site and datum. Extremes for current year: Maximum contents, 259,700 cfs-days (635.5 cu hm) Jan. 12, elevation, 448.90 ft (136.825 m); minimum 189,300 cfs-days (463.2 cu hm) Sept. 26, elevation, 442.94 ft (135.008 m). Extremes for period of record: Maximum contents, 269,300 cfs-days (659.0 cu hm) Mar. 1, 1962, elevation, 449.60 ft (137.038 m); minimum, after first filling to ordinary minimum pool, 179,400 cfs-days (439.0 cu hm) Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft (134.709 m).

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 cu hm) of which 63,000 cfs-days (154.2 cu hm) 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 cu hm) 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 cu hm) below elevation 442.0 ft (134.722 m), is dead storage. Reservoir is used for navigation and power. Records furnished by Corps of Engineers. Revisions.--WSP 2110: Drainage area.

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, on upstream face of J. Percy Priest Dam on Stones River, 2.6 miles (4.2 km) east of Donelson, and 6.8 miles (10.9 km) above mouth. Drainage area, 892 sq mi (2,310 sq km). Period of record, September 1967 to current year. Water-stage recorder. Datum of gage is at mean sea level. Prior to Dec. 15, 1967, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 265,200 cfs-days (648.9 cu hm) Jan. 13, elevation, 498.37 ft (151.903 m); minimum, 144,500 cfs-days (353.6 cu hm) Dec. 18, elevation 481.67 ft (146.813 m). Extremes for period of record: Maximum contents 265,900 cfs-days (650.7 cu hm) Mar. 21, 1973, elevation, 498.45 ft (151.928 m); minimum, after first filling to ordinary minimum pool, 109,500 cfs-days (267.9 cu hm) Dec. 5, 1968, elevation, 474.75 ft (144.704 m).

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 cu hm) of which 193,600 cfs-days (473.7 cu hm) 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 cu hm) 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 cu hm) above 483.0 ft (147.22 m) is available for flood control during the winter, and 131,100 cfs-days (320.8 cu hm) 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 cu hm) 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.

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

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 cu hm), of which 9,800 cfs-days (23.98 cu hm) are controlled storage. Records of contents not published herein.

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, in powerhouse of Barkley Dam on Cumberland River, 1.4 miles (2.3 km) northeast of Grand Rivers, Ky., and at mile 30.6 (49.2 km). Drainage area, 17,598 sq mi (45,579 sq km). Period of record, July 1964 to current year. Water-stage recorder. Datum of gage is at mean sea level, levels by Corps of Engineers. Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft (370 m) upstream from Barkley Dam at same datum. Extremes for current year: Maximum contents, level pool storage, 659,000 cfs-days (1,613 cu hm) June 9, elevation, 365.69 ft (111.462 m); minimum, level pool storage, 293,500 cfs-days (718.2 cu hm) Mar. 16, elevation, 353.36 ft (107.704 m). Extremes for period of record: Maximum contents, level pool storage, 790,700 cfs-days (1,935 cu hm) 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, 291,100 cfs-days (712.3 cu hm) Dec. 31, 1968, elevation, 353.25 ft (107.671 m).

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 cu hm), of which 742,000 cfs-days (1,816 cu hm) is controlled storage above 354.0 ft (107.90 m), ordinary minimum pool. Contents of 130,500 cfs-days (319.3 cu hm) 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 cu hm). Reservoir is used for navigation, flood control, power, and recreation. 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 miles (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports. Records furnished by Corps of Engineers.

CUMBERLAND RIVER BASIN

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Reservoirs in Cumberland River basin--Continued

MONTHEND ELEVATION, IN FEET, AND CONTENTS, IN CFS-DAYS, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents
	<u>03413500 Lake Cumberland</u>			<u>03416500 Dale Hollow Lake</u>		
Sept. 30.....	702.70	1,531,400	-	642.40	567,600	-
Oct. 31.....	694.50	1,353,900	-177,500	639.62	532,800	-34,800
Nov. 30.....	705.70	1,598,800	+244,900	644.54	595,100	+62,300
Dec. 31.....	707.24	1,633,900	+35,100	646.06	615,100	+20,000
CAL YR 1973.....	-	-	-330,900	-	-	-
Jan. 31.....	714.93	1,814,500	+180,600	652.05	697,000	+81,900
Feb. 28.....	696.73	1,401,200	-413,300	650.00	668,400	-28,600
Mar. 31.....	696.14	1,388,600	-12,600	649.85	666,300	-2,100
Apr. 30.....	694.16	1,346,700	-41,900	649.35	659,500	-6,800
May 31.....	694.40	1,351,800	+5,100	647.75	637,700	-21,800
June 30.....	693.44	1,331,700 ^a	-20,100	647.65	636,300	-1,400
July 31.....	691.31	1,287,600	-44,100	645.80	611,600	-24,700
Aug. 31.....	688.24	1,225,100	-62,500	642.92	574,200	-37,400
Sept. 30.....	689.31	1,246,700	+21,600	642.64	570,600	-3,600
WTR YR 1974.....	-	-	-284,700	-	-	+3,000
	<u>03418400 Cordell Hull Reservoir</u>			<u>03422000 Great Falls Lake</u>		
Sept. 30.....	504.07	131,100	-	790.56	13,300	-
Oct. 31.....	504.00	130,600	-500	787.48	11,300	-2,000
Nov. 30.....	501.71	117,400	-13,200	805.67	26,300	+15,000
Dec. 31.....	500.02	108,400	-9,000	805.34	25,900	-400
CAL YR 1973.....	-	-	+69,400	-	-	+500
Jan. 31.....	502.77	123,400	+15,000	805.80	26,400	+500
Feb. 28.....	502.62	122,500	-900	805.69	26,300	-100
Mar. 31.....	500.75	112,200	-10,300	805.69	26,300	0
Apr. 30.....	503.62	128,400	+16,200	788.30	11,800	-14,500
May 31.....	503.64	128,500	+100	802.74	23,300	+11,500
June 30.....	504.38	133,000	+4,500	795.35	16,900	-6,400
July 31.....	504.20	131,900	-1,100	800.03	20,800	+3,900
Aug. 31.....	504.18	131,700	-200	800.24	21,000	+200
Sept. 30.....	504.45	133,400	+1,700	800.29	21,000	0
WTR YR 1974.....	-	-	+2,300	-	-	+7,700
	<u>03424000 Center Hill Lake</u>			<u>03426300 Old Hickory Lake</u>		
Sept. 30.....	638.65	587,100	-	444.42	205,100	-
Oct. 31.....	635.72	562,100	-25,000	444.40	204,900	-200
Nov. 30.....	649.30	682,300	+120,200	445.50	217,400	+12,500
Dec. 31.....	650.25	691,100	+8,800	445.00	211,600	-5,800
CAL YR 1973.....	-	-	+82,500	-	-	+300
Jan. 31.....	650.35	692,100	+1,000	445.02	211,800	+200
Feb. 28.....	643.28	627,600	-64,500	443.67	197,000	-14,800
Mar. 31.....	644.20	635,800	+8,200	444.60	207,100	+10,100
Apr. 30.....	643.72	631,500	-4,300	444.11	201,700	-5,400
May 31.....	643.42	628,900	-2,600	444.54	206,400	+4,700
June 30.....	641.84	614,900	-14,000	444.25	203,200	-3,200
July 31.....	641.60	612,800	-2,100	444.62	207,300	+4,100
Aug. 31.....	639.80	597,100	-15,700	444.18	202,500	-4,800
Sept. 30.....	638.14	582,700	-14,400	445.20	213,900	+11,400
WTR YR 1974.....	-	-	-4,400	-	-	+8,800

CUMBERLAND RIVER BASIN

Reservoirs in Cumberland River basin--Continued

MONTHEND ELEVATION, IN FEET, AND CONTENTS, IN CFS-DAYS, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents
	<u>03430050 J. Percy Priest Lake</u>			<u>03438210 Lake Barkley†</u>		
Sept. 30.....	489.61	194,900	-	355.08	334,800	-
Oct. 31.....	487.34	179,300	-15,600	354.61	327,100	-7,700
Nov. 30.....	492.94	219,500	+40,200	358.25	542,800	+215,700
Dec. 31.....	487.51	180,400	-39,100	356.47	389,600	-153,200
CAL YR 1973.....	-	-	+28,400	-	-	+287,300
Jan. 31.....	484.77	162,700	-17,700	363.86	657,800	+268,200
Feb. 28.....	482.29	148,000	-14,700	354.11	336,700	-321,100
Mar. 31.....	485.85	169,500	+21,500	355.61	365,500	+28,800
Apr. 30.....	489.86	196,600	+27,100	358.68	436,100	-70,600
May 31.....	490.06	198,000	+1,400	359.48	463,800	+27,700
June 30.....	490.43	200,700	+2,700	358.08	415,200	-48,600
July 31.....	489.82	196,300	-4,400	356.85	375,300	-39,900
Aug. 31.....	489.90	196,900	+600	355.94	357,500	-17,800
Sept. 30.....	490.14	198,600	+1,700	355.47	351,600	-5,900
WTR YR 1974.....	-	-	+3,700	-	-	+16,800

† Contents based on backwater profile.

03455000 French Broad River near Newport, Tenn.

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, on left bank 15 ft (5 m) downstream from bridge on U. S. Highway 411, 1 mile (2 km) northeast of Newport city limits, 3.7 miles (6.0 km) upstream from Pigeon River, and at mile 77.5 (124.7 km).

DRAINAGE AREA.--1,858 sq mi (4,812 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft (308.339 m) above mean sea level. See WSP 1910 for history of changes prior to Mar. 31, 1934.

AVERAGE DISCHARGE.--56 years (1903-5, 1920-74), 2,936 cfs (83.15 cu m/s), 21.46 in/yr (545 mm/yr).

EXTREMES.--Current year: Maximum discharge, 39,800 cfs (1,130 cu m/s) Apr. 4, gage height, 13.49 ft (4.112 m); minimum, 1,000 cfs (28.3 cu m/s) estimated, Nov. 21, gage height, 2.62 ft (0.799 m); minimum daily, 1,100 cfs (31.2 cu m/s), estimated Nov. 20; minimum gage height, 1.97 ft (0.600 m) Aug. 3.

Period of record: Maximum discharge, 76,300 cfs (2,160 cu m/s) Aug. 30, 1940, gage height, 19.25 ft (5.867 m); minimum, 208 cfs (5.89 cu m/s) Oct. 23, 1952, gage height, 0.97 (0.296 m); minimum daily, 240 cfs (6.80 cu m/s) Sept. 9, 1925; minimum gage height, 0.91 ft (0.277 m) Sept. 20, 1968.

Floods in March 1867, February 1902, and July 1916 reached stages of about 24 ft (7.3 m), 23.0 ft (7.01 m), and 22.5 ft (6.86 m), respectively, from reports of the Tennessee Valley Authority.

REMARKS.--Records good. Diurnal fluctuation during low flow caused by powerplants above station. Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,600	1,300	4,500	19,200	4,260	4,300	5,940	3,000	5,480	2,500	1,750	2,000
2	4,800	1,250	3,000	11,800	4,710	4,070	5,240	2,960	4,810	2,200	1,580	1,900
3	4,400	1,200	2,300	10,700	12,200	3,870	5,060	3,410	4,190	2,030	1,630	1,990
4	3,700	1,200	2,200	10,200	9,760	3,700	19,500	3,190	3,720	2,360	7,820	2,910
5	2,300	1,200	5,000	9,000	7,040	3,540	24,300	4,030	3,210	2,900	9,140	2,590
6	1,800	1,200	7,440	7,200	5,720	3,740	15,500	8,310	2,980	4,650	6,680	2,230
7	1,600	1,200	6,270	6,430	5,270	4,350	11,700	5,860	3,280	4,170	6,680	2,710
8	1,600	1,150	4,660	5,700	5,970	3,940	8,760	4,560	4,640	4,170	5,990	2,710
9	1,600	1,150	3,310	6,610	6,530	3,630	8,490	3,980	3,980	4,070	6,320	2,350
10	1,600	1,150	3,020	8,460	5,590	3,430	7,590	3,680	3,810	3,730	5,520	2,170
11	1,500	1,150	2,670	8,730	4,930	3,250	6,350	3,430	3,830	3,080	5,390	2,330
12	1,450	1,150	2,410	9,060	4,470	3,190	5,610	5,720	3,210	2,970	4,690	2,520
13	1,400	1,150	2,310	6,400	4,160	3,280	8,550	8,700	2,880	2,510	4,650	3,510
14	1,350	1,150	2,620	5,220	4,350	3,110	9,880	6,850	2,630	2,230	4,510	2,990
15	1,300	1,200	2,510	4,780	5,040	2,920	8,280	5,010	2,500	2,050	4,110	2,560
16	1,300	1,200	2,370	4,440	5,320	2,960	6,690	4,280	2,840	1,930	3,570	2,150
17	1,300	1,200	2,370	4,120	7,310	3,920	5,830	3,830	3,520	1,940	3,670	2,050
18	1,250	1,150	2,150	3,850	6,330	3,560	5,240	3,680	2,710	1,980	3,140	1,960
19	1,250	1,150	2,080	3,630	5,320	3,450	4,810	3,540	2,430	2,170	3,320	1,810
20	1,200	1,100	2,120	3,470	5,060	8,700	4,490	3,360	2,320	2,300	2,840	1,690
21	1,200	2,700	5,600	3,700	4,540	10,900	4,190	3,340	2,740	1,960	2,520	1,600
22	1,200	4,640	6,560	6,140	7,070	11,200	3,980	3,210	3,020	1,790	2,460	1,670
23	1,200	4,120	4,530	5,160	11,000	7,230	4,160	5,220	2,590	1,730	2,290	1,590
24	1,150	2,690	3,580	4,230	9,440	5,370	4,190	5,860	2,390	1,750	2,290	1,570
25	1,150	2,020	3,120	4,030	7,670	4,540	3,790	4,610	2,320	2,250	2,150	1,550
26	1,150	1,800	4,510	3,940	5,670	4,140	3,520	3,790	2,300	2,540	2,070	1,540
27	1,150	3,000	16,500	4,490	4,930	3,850	3,410	4,440	2,200	3,590	1,990	1,540
28	1,250	6,000	14,200	6,350	4,560	3,650	3,280	4,830	2,870	2,820	2,530	1,750
29	1,400	7,100	12,600	6,110	-----	3,680	3,170	4,030	4,630	2,590	2,160	2,780
30	1,350	5,080	9,530	5,320	-----	7,170	3,090	4,490	3,080	2,500	2,240	2,320
31	1,300	-----	10,900	4,710	-----	7,990	-----	6,000	-----	2,230	2,340	-----
TOTAL	52,800	62,750	156,940	203,180	174,220	146,630	214,590	141,200	97,110	81,690	118,040	65,040
MEAN	1,703	2,092	5,063	6,554	6,222	4,730	7,153	4,555	3,237	2,635	3,808	2,168
MAX	4,800	7,100	16,500	19,200	12,200	11,200	24,300	8,700	5,480	4,650	9,140	3,510
MIN	1,150	1,100	2,080	3,470	4,160	2,920	3,090	2,960	2,200	1,730	1,580	1,540
CFSM	.92	1.13	2.73	3.53	3.35	2.55	3.85	2.45	1.74	1.42	2.05	1.17
IN.	1.06	1.26	3.14	4.07	3.49	2.94	4.30	2.83	1.94	1.64	2.36	1.30

CAL YR 1973 TOTAL 1,632,040 MEAN 4,471 MAX 48,000 MIN 1,100 CFSM 2.41 IN 32.68
WTR YR 1974 TOTAL 1,514,190 MEAN 4,148 MAX 24,300 MIN 1,100 CFSM 2.23 IN 30.32

PEAK DISCHARGE (BASE, 16,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-27	0300	8.90	18,800	03-21	2000	8.12	16,000
01-01	0030	10.75	26,400	04-04	0030	13.49	39,800

03461200 Cosby Creek above Cosby, Tenn.

LOCATION.--Lat 35°47'02", long 83°13'08", Cocke County, on downstream left wingwall of bridge on State Highway 32, 1,000 ft (300 m) downstream from Crying Creek, 3,000 ft (900 m) upstream from Stillhouse Branch, 2.4 miles (3.9 km) southeast of Cosby, and at mile 10.6 (17.1 km).

DRAINAGE AREA.--10.2 sq mi (26.4 sq km).

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) above mean sea level. Oct. 15, 1958 to Sept. 30, 1966, crest-stage gage at same site at datum 1.08 ft (0.329 m) lower (gage heights adjusted to present datum in WSP 2110).

AVERAGE DISCHARGE.--8 years, 29.4 cfs (0.833 cu m/s), 39.14 in/yr (994 mm/yr).

EXTREMES.--Current year: Maximum discharge, 867 cfs (24.6 cu m/s) Aug. 12, gage height, 3.18 ft (0.969 m); minimum, 4.3 cfs (0.12 cu m/s) several days in October.

Period of record: Maximum discharge, 1,720 cfs (48.7 cu m/s) Mar. 16, 1973, gage height, 4.11 ft (1.253 m); minimum, 1.4 cfs (0.040 cu m/s), Sept. 30, Oct. 1, 2, 1968.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	42	127	35	35	39	22	33	18	13	13
2	11	10	36	80	67	33	39	23	30	15	13	13
3	8.4	8.5	32	73	111	30	36	36	27	14	17	19
4	7.5	7.5	28	87	80	28	95	30	23	14	25	25
5	6.6	22	58	82	60	29	75	49	21	16	29	24
6	6.1	24	53	69	52	39	57	64	19	14	23	24
7	5.8	19	45	69	49	36	47	46	18	12	21	24
8	5.5	17	40	78	50	36	53	38	21	12	30	22
9	5.5	17	36	122	45	34	89	33	30	28	33	19
10	5.1	15	33	127	42	31	65	29	24	24	27	34
11	5.1	14	30	132	39	28	54	26	19	19	24	39
12	5.0	12	28	100	37	27	49	69	18	17	122	58
13	5.0	11	32	69	34	25	121	57	15	15	54	96
14	7.5	9.1	30	57	39	22	75	44	14	12	27	63
15	6.1	8.4	29	51	40	21	62	37	15	11	22	50
16	5.1	12	29	44	51	31	53	32	29	17	21	40
17	4.7	8.9	27	40	52	30	47	32	23	17	23	36
18	4.4	8.2	25	37	45	27	43	33	19	15	19	31
19	4.4	7.9	26	35	46	50	43	29	17	18	18	29
20	4.4	7.5	42	33	44	102	40	26	15	19	17	28
21	4.5	36	63	31	41	234	37	25	13	15	29	33
22	4.6	44	47	29	108	111	34	23	11	14	31	38
23	4.7	37	42	27	75	72	35	80	12	16	24	34
24	4.7	32	38	28	60	57	30	52	27	14	20	31
25	4.6	31	36	29	51	48	28	38	98	13	17	29
26	4.5	29	155	28	43	42	26	36	42	23	15	27
27	4.5	37	80	41	40	40	24	40	32	24	14	29
28	15	74	56	43	37	37	21	34	27	19	15	30
29	17	57	46	46	-----	40	21	34	24	15	18	27
30	9.1	43	47	42	-----	48	20	43	21	15	15	25
31	11	-----	150	38	-----	44	-----	39	-----	13	14	-----
TOTAL	209.4	673.0	1,461	1,894	1,473	1,467	1,458	1,199	737	508	790	990
MEAN	6.75	22.4	47.1	61.1	52.6	47.3	48.6	38.7	24.6	16.4	25.5	33.0
MAX	17	74	155	132	111	234	121	80	98	28	122	96
MIN	4.4	7.5	25	27	34	21	20	22	11	11	13	13
CFSM	.66	2.20	4.62	5.99	5.16	4.64	4.76	3.79	2.41	1.61	2.50	3.24
IN.	.76	2.45	5.33	6.91	5.37	5.35	5.32	4.37	2.69	1.85	2.88	3.61

CAL YR 1973 TOTAL 11,334.9 MEAN 31.1 MAX 559 MIN 4.4 CFSM 3.05 IN 41.34
 WTR YR 1974 TOTAL 12,859.4 MEAN 35.2 MAX 234 MIN 4.4 CFSM 3.45 IN 46.90

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-26	1310	2.15	366	06-25	0040	2.03	254
03-21	1245	2.49	457	08-12	1820	3.18	867

03461500 Pigeon River at Newport, Tenn.

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, on left bank 100 ft (30 m) upstream from bridge on U. S. Highway 25 and 70 at Newport, 0.6 mile (1.0 km) downstream from Morell Branch, and at mile 6.8 (10.9 km).

DRAINAGE AREA.--666 sq mi (1,725 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft (316.614 m) above mean sea level. 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 miles (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.

AVERAGE DISCHARGE.--57 years, 1,246 cfs (35.29 cu m/s).

EXTREMES.--Current year: Maximum discharge, 19,900 cfs (564 cu m/s) Jan. 1, gage height, 12.34 ft (3.761 m); minimum, 80 cfs (2.27 cu m/s) Oct. 14, gage height, 1.95 ft (0.594 m); minimum daily, 85 cfs (2.41 cu m/s) Oct. 14.
Period of record: Maximum discharge, 50,000 cfs (1,420 cu m/s) Feb. 28, 1902, gage height, 23.4 ft (7.13 m), present datum, from report of Tennessee Valley Authority; minimum, 38 cfs (1.08 cu m/s) Oct. 5, 1952, Sept. 13, 1954; minimum daily, 48 cfs (1.36 cu m/s) Sept. 21, 28, 1953; minimum gage height, 1.68 ft (0.512 m), present datum, Sept. 13, 1954.
Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft (7.0 m), present datum, discharge, 48,000 cfs (1,360 cu m/s), and flood of August 30, 1940, reached a stage of 19.3 ft (5.88 m), present datum, discharge, 36,000 cfs (1,020 cu m/s), from report of Tennessee Valley Authority.

REMARKS.--Records excellent, except those for period of no gage height record, which are 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 cu hm). The largest of these, Lake Walters, usable capacity, 10,400 cfs-days (25.45 cu hm), was completed in 1929. Mill dam 1.3 miles (2.1 km) downstream was removed in 1945. Maximum stages for floods prior to 1945 as listed in EXTREMES paragraph would be about 1.9 ft (0.58 m) lower under present conditions, from report of Tennessee Valley Authority. Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	547	230	1,060	11,200	1,690	2,430	2,180	1,280	1,690	1,040	883	154
2	1,020	551	570	4,910	1,820	2,390	2,180	1,210	961	872	750	144
3	939	481	766	4,970	4,430	1,560	2,400	1,250	1,150	1,030	684	724
4	917	376	703	5,420	3,630	1,720	4,890	790	1,440	635	1,070	464
5	336	471	2,060	4,730	3,060	1,660	8,200	1,840	1,380	618	834	660
6	200	278	2,580	3,650	2,820	1,610	4,630	3,320	1,630	1,110	1,090	1,770
7	95	505	2,120	3,310	2,790	1,690	3,500	2,790	1,230	603	891	2,320
8	129	342	1,900	2,920	2,940	1,820	3,100	2,590	1,230	666	1,170	1,670
9	336	422	1,590	4,100	2,880	1,390	4,370	1,850	1,320	1,580	2,360	288
10	691	228	1,340	5,220	2,740	1,300	3,420	1,720	1,580	1,270	1,130	528
11	245	315	1,310	5,920	2,630	1,830	2,950	1,600	1,400	946	327	880
12	285	264	1,430	5,180	2,550	1,180	2,770	2,090	1,300	865	848	1,100
13	119	261	1,100	3,520	2,490	1,480	5,050	2,770	1,280	768	1,870	849
14	85	191	1,010	2,970	2,700	1,150	4,240	2,570	751	728	1,210	688
15	638	226	772	2,800	2,690	937	3,370	2,270	502	881	1,080	464
16	290	173	712	2,690	2,980	1,080	2,910	1,880	656	659	894	493
17	464	356	1,180	2,600	3,060	1,680	2,740	1,690	993	663	1,220	676
18	501	157	1,170	2,530	2,830	1,610	2,640	1,710	1,030	775	706	582
19	352	114	1,020	2,470	2,170	1,480	2,560	985	1,200	1,010	991	853
20	800	120	716	2,430	2,300	4,150	2,510	1,560	1,310	471	663	525
21	507	796	2,280	2,400	1,930	5,560	2,450	1,650	1,130	264	1,070	359
22	924	1,100	837	2,360	2,940	4,580	2,430	1,270	1,270	557	818	255
23	885	808	1,590	2,110	3,200	3,340	2,470	2,270	744	790	1,010	209
24	316	526	996	1,300	2,890	2,490	2,350	2,400	529	884	375	333
25	390	495	1,080	1,610	2,720	2,120	1,370	1,490	1,430	991	221	180
26	350	312	2,920	1,830	2,590	2,220	1,300	1,350	1,220	522	765	158
27	349	1,270	3,660	1,990	2,510	1,960	969	2,660	1,260	343	1,340	151
28	297	2,870	2,830	2,180	2,470	1,460	1,310	1,980	959	363	985	301
29	569	2,220	2,620	2,300	-----	1,880	1,490	1,710	846	820	1,170	412
30	433	1,800	2,670	1,930	-----	2,250	1,520	1,880	588	1,070	581	563
31	599	-----	6,060	2,060	-----	1,500	-----	1,790	-----	946	221	-----
TOTAL	14,608	18,258	52,652	105,610	76,450	63,507	88,269	58,215	34,009	24,740	29,227	18,753
MEAN	471	609	1,698	3,407	2,730	2,049	2,942	1,878	1,134	798	943	625
MAX	1,020	2,870	6,060	11,200	4,430	5,560	8,200	3,320	1,690	1,580	2,360	2,320
MIN	85	114	570	1,300	1,690	937	969	790	502	264	221	144

CAL YR 1973 TOTAL 552,418 MEAN 1,513 MAX 25,700 MIN 85
WTR YR 1974 TOTAL 584,298 MEAN 1,601 MAX 11,200 MIN 85

PEAK DISCHARGE (BASE, 7,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
01-01	0115	12.34	19,900	03-21	1415	8.19	8,640
01-11	1630	8.31	8,910	04-05	0215	9.94	12,900

03465500 Nolichucky River at Embreeville, Tenn.

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, on left bank, at Embreeville, 2,000 ft (600 m) upstream from bridge on State Highway 81, 3 miles (5 km) northwest of Erwin, 5.2 miles (8.4 km) downstream from North Indian Creek, and at mile 89.0 (143.2 km).

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

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.

GAGE.--Water-stage recorder. Datum of gage is 1,519.30 ft (463.083 m) above mean sea level. Sept. 1, 1900, to May 21, 1901, non-recording gage at site 3 miles (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.

AVERAGE DISCHARGE.--55 years (1919-74), 1,340 cfs (37.95 cu m/s), 22.61 in/yr (574 mm/yr).

EXTREMES.--Current year: Maximum discharge, 29,300 cfs (830 cu m/s) Apr. 4, gage height, 9.42 ft (2.871 m); minimum, 448 cfs (12.7 cu m/s) Oct. 27, 28, gage height, 1.29 ft (0.393 m).

Period of record: Maximum discharge, 82,500 cfs (2,340 cu m/s) Aug. 13, 1940, gage height, 18.57 ft (5.660 m), from rating curve extended above 48,000 cfs (1,360 cu m/s) on basis of slope area measurement of peak flow; minimum, 85 cfs (2.41 cu m/s) Sept. 8, 9, 1925, gage height, 1.60 ft (0.488 m), site and datum then in use.

Flood of May 21, 1901, reached a stage of 24 ft (7.3 m), discharge, 120,000 cfs (3,400 cu m/s), from reports of Tennessee Valley Authority.

REMARKS.--Records excellent. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	947	674	1,570	9,030	1,710	1,790	2,750	1,380	4,080	1,530	689	784
2	2,720	677	1,290	4,690	2,860	1,710	2,700	1,350	3,130	1,310	681	768
3	1,790	595	1,120	3,740	6,940	1,630	2,590	1,630	2,430	1,180	769	1,110
4	1,120	558	1,010	3,780	4,980	1,580	16,300	1,470	2,000	1,520	2,900	1,850
5	885	706	2,690	3,550	3,360	1,540	13,500	1,700	1,750	1,660	1,790	1,310
6	772	885	3,390	2,940	2,690	2,010	5,960	2,990	1,580	2,080	1,280	1,360
7	693	740	2,120	2,930	2,590	2,150	4,300	2,100	2,610	1,870	1,230	3,340
8	761	649	1,690	2,610	2,920	2,030	3,740	1,740	2,290	2,120	1,290	2,140
9	815	644	1,590	3,740	3,010	1,840	4,670	1,650	2,140	2,330	2,020	1,620
10	736	621	1,520	4,540	2,520	1,720	3,870	1,600	2,070	1,940	1,480	1,660
11	679	584	1,290	4,300	2,260	1,590	3,280	1,510	1,980	1,630	1,460	1,720
12	620	566	1,120	4,480	1,990	1,590	2,930	3,170	1,700	1,530	1,290	1,700
13	597	558	1,170	3,230	1,850	1,920	4,010	4,270	1,520	1,270	1,210	4,200
14	590	551	1,880	2,610	1,980	1,670	3,860	2,690	1,390	1,130	1,070	2,250
15	581	548	1,600	2,370	2,070	1,470	3,320	2,210	1,360	1,030	1,110	1,640
16	546	626	1,410	2,130	2,220	1,590	2,840	1,980	2,000	959	1,250	1,370
17	513	641	1,310	1,910	2,640	2,070	2,550	1,780	2,160	951	1,220	1,230
18	491	585	1,080	1,750	2,380	1,740	2,360	1,660	1,500	1,060	1,110	1,200
19	486	556	1,060	1,640	2,240	2,490	2,190	1,540	1,290	1,330	1,170	1,060
20	490	545	1,250	1,570	2,300	6,500	2,030	1,470	1,210	1,090	988	940
21	488	846	4,160	1,920	2,070	7,550	1,890	1,410	1,500	968	890	919
22	484	3,140	2,930	2,150	4,150	6,380	1,820	1,360	1,910	859	840	939
23	481	1,500	2,180	1,790	4,350	3,890	2,020	2,330	1,590	835	844	850
24	476	1,070	1,870	1,690	3,130	2,970	1,830	2,380	1,400	860	838	793
25	473	933	1,650	1,860	2,610	2,510	1,690	1,650	1,340	843	754	773
26	464	943	3,640	1,870	2,200	2,260	1,600	1,450	1,270	926	727	760
27	453	1,080	7,060	2,100	1,990	2,050	1,540	1,910	1,180	1,400	706	739
28	478	2,490	3,600	2,270	1,870	1,960	1,490	1,680	2,380	1,060	1,260	860
29	635	3,480	2,710	2,560	-----	2,010	1,450	1,470	2,570	859	927	1,040
30	632	2,060	2,690	2,260	-----	3,390	1,410	2,980	1,910	779	897	782
31	586	-----	5,130	1,950	-----	3,390	-----	3,870	-----	726	836	-----
TOTAL	22,482	30,051	68,780	89,960	77,880	78,990	106,490	62,380	57,240	39,635	35,526	41,707
MEAN	725	1,002	2,219	2,902	2,781	2,548	3,550	2,012	1,908	1,279	1,146	1,390
MAX	2,720	3,480	7,060	9,030	6,940	7,550	16,300	4,270	4,080	2,330	2,900	4,200
MIN	453	545	1,010	1,570	1,710	1,470	1,410	1,350	1,180	726	681	739
CFSM	.90	1.24	2.76	3.61	3.45	3.17	4.41	2.50	2.37	1.59	1.42	1.73
IN.	1.04	1.39	3.18	4.16	3.60	3.65	4.92	2.88	2.65	1.83	1.64	1.93

CAL YR 1973 TOTAL 616,865 MEAN 1,690 MAX 22,800 MIN 443 CFSM 2.10 IN 28.51
WTR YR 1974 TOTAL 711,121 MEAN 1,948 MAX 16,300 MIN 453 CFSM 2.42 IN 32.86

PEAK DISCHARGE (BASE, 9,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
12-27	0200	5.51	10,900	03-21	1830	5.34	10,300
01-01	0030	5.99	12,900	04-04	1630	9.42	29,300

03469000 French Broad River below Douglas Dam, Tenn.

LOCATION.--Lat 35°57'06", long 83°33'05", Sevier County, on right bank, 1.0 mile (1.6 km) downstream from Douglas Dam, 1.7 miles (2.7 km) upstream from Milligan Creek, 5.8 miles (9.3 km) north of Sevierville, and at mile 31.3 (50.4 km).

DRAINAGE AREA.--4,543 sq mi (11,766 sq km).

PERIOD OF RECORD.--October 1918 to June 1974 (discontinued). Published as "at Dandridge" 1918-42. Records published for both sites March to December 1942. Gage-height records collected at Dandridge 1904-42 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 865.70 ft (263.865 m) above mean sea level. Oct. 1, 1918, to Oct. 7, 1923, non-recording gage at Dandridge 13 miles (21 km) upstream at datum 37.67 ft (11.482 m) higher. Oct. 8, 1923, to June 18, 1931, nonrecording gage and June 19, 1931, to Sept. 30, 1942, water-stage recorder at Dandridge at datum 37.63 ft (11.470 m) higher.

AVERAGE DISCHARGE.--55 years (1918-73), 6,663 cfs (188.7 cu m/s), 19.92 in/yr (506 mm/yr) unadjusted.

EXTREMES.--Current year: Maximum discharge, 25,200 cfs (714 cu m/s) Jan. 13, gage height, 10.71 ft (3.264 m); minimum, 25 cfs (0.71 cu m/s) Nov. 19, gage height, 1.54 ft (0.469 m), minimum daily, 37 cfs (1.05 cu m/s) Nov. 18.

Period of record: Maximum discharge, 95,600 cfs (2,707 cu m/s) Aug. 31, 1940, gage height, 20.93 ft (6.379 m) site and datum then in use; minimum, 4.7 cfs (0.13 cu m/s) Mar. 10, 1943, gage height, 1.16 ft (0.354 m), minimum daily, 5.5 cfs (0.16 cu m/s) Mar. 9, 10, 1943.

Maximum discharge since closure of Douglas Dam on Feb 19, 1943, 33,800 cfs (957 cu m/s) Dec. 23, 1961, gage height, 12.45 ft (3.795 m).

At the Dandridge site, a flood in March 1867 reached a stage of 25.2 ft (7.68 m); a flood in February 1875 reached practically the same stage; and a flood in 1901 reached a stage of about 22 ft (6.7 m) from investigations by Tennessee Valley Authority.

REMARKS.--Records good. Flow completely regulated by Douglas Lake (see sta. 03468500). Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 853: Drainage area. WSP 1306: 1920(M).

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1973 TO JUNE 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	6,890	4,300	7,930	17,500	13,700	13,500	9,700	8,980	7,020
2	8,940	3,890	5,500	17,700	9,740	10,700	9,730	5,170	8,770
3	9,510	2,240	5,950	19,200	6,290	5,600	10,200	4,420	9,190
4	10,300	2,150	7,180	20,800	12,000	7,320	7,230	2,770	9,500
5	8,550	4,950	10,100	22,900	12,800	7,830	11,700	4,920	10,200
6	4,150	4,650	10,800	23,700	16,500	7,890	17,000	8,500	9,630
7	79	4,790	12,300	23,600	16,600	7,760	16,900	6,420	6,820
8	5,120	5,570	10,500	24,300	16,500	7,500	16,900	6,970	7,490
9	5,690	5,760	11,100	18,900	16,600	7,400	17,000	7,750	6,930
10	5,800	5,540	13,900	20,300	16,500	7,390	17,100	2,910	6,500
11	6,950	5,930	15,000	14,400	16,500	7,440	17,200	2,360	6,620
12	5,450	3,440	11,300	19,900	15,100	7,330	17,100	1,440	7,470
13	3,090	6,770	11,000	25,000	13,300	10,900	17,100	5,260	7,460
14	1,870	6,390	10,800	24,900	12,800	10,100	17,100	4,920	7,840
15	5,310	6,050	10,900	24,900	11,700	6,720	17,100	5,130	8,540
16	4,570	6,200	12,400	24,900	9,240	7,470	17,100	7,000	5,830
17	5,810	7,710	11,200	24,900	15,300	13,600	14,700	7,930	9,890
18	6,560	37	12,000	23,800	16,400	11,300	11,400	8,050	10,800
19	4,460	1,990	8,100	22,700	16,400	5,260	10,700	8,340	10,200
20	1,980	3,830	9,450	21,400	16,200	90	5,100	11,200	11,700
21	1,960	3,240	9,700	19,900	13,400	47	2,010	10,500	11,200
22	6,540	1,800	8,870	19,800	12,200	4,590	5,650	7,340	10,700
23	5,990	1,390	6,460	17,600	11,500	6,970	2,910	8,170	4,410
24	6,180	3,730	6,830	16,600	12,100	13,400	6,930	6,030	9,840
25	4,880	5,790	4,580	15,700	13,100	14,100	7,950	2,720	9,540
26	5,410	6,250	122	15,800	9,350	9,850	5,300	1,370	9,810
27	3,810	1,320	1,410	15,600	13,400	7,300	4,270	4,930	8,710
28	2,370	490	1,820	15,900	13,600	6,050	2,490	7,320	9,070
29	9,460	104	40	10,700	-----	8,390	9,230	7,250	6,610
30	4,810	4,970	9,630	14,800	-----	6,350	9,710	6,270	2,410
31	5,200	-----	16,500	13,700	-----	6,170	-----	4,680	-----
TOTAL	167,689	121,271	273,372	611,800	378,820	246,317	334,510	187,020	250,700
MEAN	5,409	4,042	8,818	19,740	13,530	7,946	11,150	6,033	8,357
MAX	10,300	7,710	16,500	25,000	16,600	14,100	17,200	11,200	11,700
MIN	79	37	40	10,700	6,290	47	2,010	1,370	2,410
(†)	-77,100	+2,100	+26,200	-90,800	+53,300	+147,100	+152,800	+134,500	-32,200
MEAN†	2,922	4,112	9,664	16,810	15,430	12,690	16,240	10,370	7,283
CFSM†	.64	.91	2.13	3.70	3.40	2.79	3.57	2.28	1.60
IN†	.74	1.01	2.45	4.27	3.54	3.22	3.99	2.63	1.79

CAL YR 1973 TOTAL 3,189,498 MEAN 8,738 MAX 28,800 MIN 37 MEAN† 8,898 CFSM† 1.96 IN.† 26.59

† 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.

03470000 Little Pigeon River at Sevierville, Tenn.

LOCATION.--Lat 35°52'42", long 83°34'40", Sevier County, on left bank, 0.2 mile (0.3 km) downstream from West Prong Little Pigeon River, 0.6 mile (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.--359 sq mi (914 sq km).

PERIOD OF RECORD.--October 1920 to current year. Prior to November 1920 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 879.45 ft (268.056 m) above mean sea level. Nov. 23, 1920, to June 13, 1928, non-recording gage, and June 14, 1928, to June 1, 1966, water-stage recorder, at site 0.1 mile (0.2 km) upstream at datum 1.99 ft (0.607 m) higher. June 2, 1966, to June 5, 1967, at site 1.5 miles (2.4 km) downstream at datum 7.31 ft (2.228 m) lower.

AVERAGE DISCHARGE.--54 years, 570 cfs (16.14 cu m/s), 21.93 in/yr (557 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,600 cfs (357 cu m/s) Mar. 21, gage height, 7.84 ft (2.390 m); minimum, 77 cfs (2.18 cu m/s) Oct. 27, 28, gage height, 1.11 ft (0.338 m).

Period of record: Maximum discharge, 41,000 cfs (1,160 cu m/s) Mar. 26, 1965, gage height, 16.09 ft (4.904 m), site and datum then in use; minimum, 2.8 cfs (0.079 cu m/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 cfs (0.24 cu m/s) Sept. 9, 1925.

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

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 miles (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. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 783: 1921-34. WSP 1336: 1921(M), 1922, 1923(M), WRD Tenn. 1972: 1969(M), 1970(M), 1971(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	309	579	5,240	665	588	997	377	1,280	268	145	268
2	346	233	458	2,200	2,180	552	1,260	409	985	244	148	253
3	196	176	383	2,000	5,040	519	1,030	838	803	225	174	244
4	160	156	340	3,020	2,840	488	5,380	635	655	225	230	552
5	141	201	1,070	2,440	4,670	481	2,720	726	552	268	253	396
6	131	264	635	1,640	1,250	910	1,580	1,240	496	300	194	370
7	121	194	437	1,700	1,290	1,020	1,170	769	535	263	190	390
8	118	174	364	1,360	1,820	792	1,090	597	597	284	216	317
9	114	186	322	3,840	1,520	665	1,590	527	561	1,020	346	289
10	108	170	289	3,220	1,140	588	1,200	481	1,110	861	258	289
11	105	152	258	4,960	935	535	1,010	437	535	496	216	340
12	102	145	234	3,190	781	535	897	2,110	444	519	705	390
13	96	138	300	1,860	695	496	2,770	1,440	390	364	1,580	1,290
14	108	131	370	1,350	1,240	437	1,790	897	346	305	527	838
15	124	134	284	1,200	1,060	409	1,440	695	317	263	748	544
16	105	239	268	1,050	2,060	759	1,110	607	665	239	383	423
17	99	190	273	897	1,900	960	997	496	511	230	423	358
18	91	155	234	769	1,230	665	861	527	364	220	383	317
19	88	145	234	675	1,090	1,170	759	430	317	328	390	273
20	88	138	496	616	922	4,490	675	396	289	561	322	244
21	85	716	1,490	616	759	6,670	620	364	305	334	294	234
22	85	861	885	561	2,290	3,190	567	488	289	258	300	340
23	85	423	645	511	1,640	1,820	673	2,850	284	230	258	263
24	85	311	535	579	1,210	1,300	535	1,590	364	220	225	230
25	83	289	473	737	972	1,050	504	960	997	203	203	220
26	83	358	3,920	769	781	910	466	838	527	207	186	203
27	80	1,400	2,650	1,280	685	803	437	1,280	396	263	170	194
28	127	4,660	1,300	1,130	626	748	416	910	390	234	645	248
29	292	1,560	922	1,250	-----	873	396	769	340	190	458	225
30	180	826	1,060	985	-----	1,490	377	1,710	294	174	390	198
31	168	-----	4,710	792	-----	1,280	-----	2,240	-----	159	317	-----
TOTAL	4,075	15,034	26,418	52,437	40,291	37,193	35,317	28,633	15,938	9,955	11,277	10,740
MFAN	131	501	852	1,692	1,439	1,200	1,177	924	531	321	364	358
MAX	346	4,660	4,710	5,240	5,040	6,670	5,380	2,850	1,280	1,020	1,580	1,290
MIN	80	131	234	511	626	409	377	364	284	159	145	194
CFSM	.37	1.42	2.41	4.79	4.08	3.40	3.33	2.62	1.50	.91	1.03	1.01
IN.	.43	1.58	2.78	5.53	4.25	3.92	3.72	3.02	1.68	1.05	1.19	1.13

CAL YR 1973 TOTAL 269,187 MFAN 737 MAX 24,300 MIN 80 CFSM 2.09 IN 28.37
WTR YR 1974 TOTAL 287,308 MFAN 787 MAX 6,670 MIN 80 CFSM 2.23 IN 30.28

PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	1000	6.47	8,760	01-11	1600	6.48	8,790
12-26	1830	6.75	9,500	03-21	1330	7.84	12,600
12-31	2200	7.55	11,800				

TENNESSEE RIVER BASIN

67

03470500 French Broad River near Knoxville, Tenn.

LOCATION.--Lat 35°57'30", long 83°46'26", Knox County, on left bank, 0.7 mile (1.1 km) downstream from Johnson Hollow, 7.5 miles (12.1 km) upstream from confluence with Holston River, and 8 miles (13 km) east of Knoxville.

DRAINAGE AREA.--5,101 sq mi (13,212 sq km).

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 at mean sea level. Dec. 10, 1945 to Sept. 30, 1957, at site 200 ft (60 m) upstream on right bank at same datum.

AVERAGE DISCHARGE.--29 years, 7,794 cfs (220.7 cu m/s), 20.75 in/yr (527 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 35,000 cfs (991 cu m/s) Jan. 1, elevation, 826.07 ft (251.786 m); minimum, 283 cfs (8.01 cu m/s) Oct. 8, elevation, 814.21 ft (248.171 m); minimum daily, 786 cfs (22.3 cu m/s) Nov. 19.
Period of record: Maximum discharge, 64,300 cfs (1,820 cu m/s) Mar. 12, 1963, elevation, 832.20 ft (253.655 m), from rating curve extended above 36,000 cfs (1,020 cu m/s); minimum, 67 cfs (1.90 cu m/s) Oct. 25, 1953, elevation, 813.38 ft (247.918 m); minimum daily, 68 cfs (1.93 cu m/s) Oct. 23-26, 1953.
Flood in March 1867 reached a stage of 855.0 ft (260.60 m), from floodmarks, estimated discharge, 160,000 cfs (4,530 cu m/s), from investigations by Tennessee Valley Authority.

REMARKS.--Records good, except those for period of no gage height record which are fair. Flow regulated by Douglas Lake (see sta. 03468500), 24.6 miles (39.6 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,870	4,900	8,420	28,600	15,100	14,500	10,400	9,720	9,260	6,000	9,770	7,170
2	9,380	3,640	7,260	21,300	13,600	12,800	11,700	7,020	9,960	9,000	10,100	7,200
3	9,680	3,100	5,190	22,000	14,900	7,190	12,300	6,740	10,500	8,800	9,470	8,720
4	10,800	2,750	7,540	25,400	16,800	7,960	18,500	4,260	10,600	8,200	5,870	11,600
5	9,970	3,440	10,700	27,200	14,800	8,270	15,500	6,000	11,400	8,000	8,680	11,300
6	6,140	7,500	12,100	27,100	18,700	9,150	19,800	8,530	10,900	8,600	9,530	12,000
7	2,340	3,180	12,800	27,400	18,600	10,900	19,100	8,410	8,200	7,000	9,440	3,470
8	1,570	5,970	11,700	27,200	19,100	8,850	19,000	7,490	7,520	7,400	10,000	2,050
9	5,870	6,100	11,400	27,900	19,100	8,790	19,800	8,540	8,130	9,800	10,900	7,920
10	7,190	6,160	13,500	26,600	18,500	8,140	19,300	3,740	7,860	10,400	10,900	9,530
11	5,970	6,790	16,000	26,600	18,200	8,670	19,000	4,900	7,560	10,500	8,000	10,500
12	6,290	2,710	13,900	24,400	16,600	8,160	18,900	3,500	7,780	11,000	11,100	11,600
13	3,870	6,420	9,750	29,600	15,700	12,100	20,900	6,970	8,360	10,400	12,600	12,300
14	2,910	7,400	12,500	28,900	14,500	12,100	20,100	4,980	8,230	8,200	11,000	7,160
15	3,970	5,640	11,000	28,500	14,000	6,930	19,600	6,490	9,570	8,600	10,800	3,200
16	5,380	6,770	12,600	27,900	14,000	8,510	19,200	7,350	8,610	9,000	10,900	5,860
17	6,240	10,200	12,000	27,800	17,400	14,200	17,100	8,580	8,240	8,800	9,940	8,460
18	6,870	795	13,200	26,700	18,600	15,000	13,700	8,580	12,100	12,100	10,100	8,340
19	4,570	786	9,660	24,800	18,400	7,450	12,000	9,170	10,700	16,400	10,900	8,930
20	3,410	3,560	8,980	23,800	18,100	9,630	8,330	12,500	12,300	17,300	10,800	9,510
21	1,410	4,420	12,100	21,500	15,700	10,300	3,410	11,200	12,100	9,380	11,900	8,370
22	5,840	3,980	11,300	21,200	15,000	9,260	5,270	7,810	11,700	8,460	10,200	4,110
23	6,220	1,250	9,280	19,700	14,500	9,900	5,540	12,500	6,300	9,670	11,400	8,450
24	6,380	3,270	7,140	18,100	13,400	13,700	6,710	9,010	9,510	9,400	11,000	9,190
25	5,290	5,210	7,150	18,000	15,200	16,500	7,910	4,790	10,500	9,920	9,870	8,940
26	5,230	7,170	7,830	17,500	11,900	12,500	7,710	2,880	10,800	7,990	11,000	9,360
27	4,450	5,380	6,920	17,800	13,100	8,890	4,700	5,950	10,000	8,120	11,000	9,520
28	3,020	9,020	4,620	18,100	14,800	7,910	3,540	7,760	9,600	8,720	11,000	7,260
29	8,380	3,360	1,820	13,500	-----	8,930	7,640	8,400	8,400	9,110	10,800	5,280
30	7,290	4,900	7,930	16,300	-----	9,160	11,400	9,090	5,000	10,100	8,050	7,190
31	5,090	-----	21,100	15,100	-----	8,690	-----	8,240	-----	9,730	7,880	-----
TOTAL	176,890	145,771	317,390	726,500	448,300	315,040	398,060	231,100	281,690	296,100	314,900	244,490
MEAN	5,706	4,859	10,240	23,440	16,010	10,160	13,270	7,455	9,390	9,552	10,160	8,150
MAX	10,800	10,200	21,100	29,600	19,100	16,500	20,900	12,500	12,300	17,300	12,600	12,300
MIN	1,410	786	1,820	13,500	11,900	6,930	3,410	2,880	5,000	6,000	5,870	2,050
(†)	-77,100	+2,100	+26,200	-90,800	+53,300	+147,100	+152,800	+134,500	-32,200	-119,800	-105,100	-93,300
MEAN†	3,219	4,929	11,080	20,510	17,910	14,910	18,360	11,790	8,316	5,687	6,768	5,040
CFSM†	.63	.97	2.17	4.02	3.51	2.92	3.60	2.31	1.63	1.11	1.33	.99
IN.†	.73	1.08	2.51	4.63	3.66	3.37	4.02	2.67	1.82	1.29	1.53	1.10

CAL YR 1973 TOTAL 3,612,510 MEAN 9,897 MAX 34,600 MIN 786 MEAN† 10,060 CFSM† 2.08 IN.† 26.76
WTR YR 1974 TOTAL 3,896,231 MEAN 10,670 MAX 29,600 MIN 786 MEAN† 10,670 CFSM† 2.09 IN.† 28.39

† 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.

NOTE: No gage-height record
June 26 to July 17.

TENNESSEE RIVER BASIN

03476500 South Fork Holston River below South Holston Dam, Tenn.

LOCATION.--Lat 36°31'25", long 82°05'50", Sullivan County, on right bank 1,900 ft (600 m) downstream from South Holston Dam powerhouse, 1.0 mile (1.6 km) upstream from bridge at Bristol waterworks and from Thomas Creek, 6.7 miles (10.8 km) southeast of Bristol, and at mile 49.4 (79.5 km).

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

PERIOD OF RECORD.--July 1951 to June 1974 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,450.00 ft (441.960 m) above mean sea level.

AVERAGE DISCHARGE.--22 years (1951-73), 938 cfs (26.56 cu m/s), 18.12 in/yr (460 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,330 cfs (94.3 cu m/s) Jan. 5, gage height, 37.39 ft (11.396 m); minimum, 4.7 cfs (0.13 cu m/s) Oct. 28, gage height, 32.39 ft (9.872 m); minimum daily, 6.1 cfs (0.17 cu m/s) Mar. 10.

Period of record: Maximum discharge, 8,270 cfs (234 cu m/s) Feb. 12, 1957, gage height, 40.45 ft (12.329 m); no flow for part of day Oct. 27, 1954; minimum daily, 0.50 cfs (0.014 cu m/s) Oct. 26, 1954.

REMARKS.--Records good. Flow completely regulated by South Holston Lake (see sta. 03476000). Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1973 TO JUNE 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	1,380	992	572	1,800	2,440	1,880	1,190	1,220	1,000
2	1,450	982	77	1,940	2,080	1,670	1,110	755	8.5
3	1,550	6.6	1,520	2,040	1,970	877	1,700	412	1,430
4	1,610	7.6	1,300	1,210	1,530	1,660	1,320	7.7	1,420
5	1,660	879	2,130	2,420	2,050	1,680	2,370	1,370	1,400
6	932	1,250	2,260	3,040	2,450	1,700	2,320	1,510	1,280
7	8.5	800	2,460	3,040	2,440	1,340	2,310	1,310	1,240
8	960	657	2,410	3,040	2,430	1,620	2,350	1,620	1,110
9	980	589	1,320	3,060	2,410	85	2,370	605	63
10	1,650	1,780	2,310	3,050	1,890	6.1	2,350	1,500	1,430
11	1,560	1,400	2,570	3,020	2,430	1,240	2,340	876	1,480
12	1,700	618	1,760	3,040	2,440	1,600	2,350	12	1,250
13	76	1,570	1,270	3,040	2,470	1,440	2,360	1,620	1,510
14	8.2	779	1,570	3,050	2,470	1,750	2,350	2,240	1,450
15	838	708	1,730	2,610	2,480	1,490	2,330	2,120	989
16	537	717	1,900	3,050	2,300	1,440	2,330	2,290	11
17	219	1,530	2,220	3,030	2,780	2,350	1,580	2,000	1,680
18	603	7.8	2,390	3,010	3,010	2,260	1,450	2,270	1,500
19	469	524	1,670	3,010	3,020	815	1,260	1,540	1,250
20	469	448	1,500	3,000	3,010	722	1,050	2,490	1,600
21	35	709	2,570	3,010	2,990	1,480	7.5	2,870	2,310
22	433	497	1,710	3,060	3,020	1,280	1,000	2,350	1,450
23	430	645	1,420	3,050	3,010	1,430	1,120	1,710	10
24	6.6	24	658	3,040	2,500	1,440	1,310	1,660	1,200
25	574	8.9	426	3,040	2,470	1,540	1,290	1,450	1,210
26	6.8	596	1,160	3,050	1,580	1,370	1,170	9.8	1,120
27	6.5	742	1,540	3,090	1,800	1,030	697	1,170	1,270
28	218	1,340	1,820	3,060	1,790	1,220	145	1,430	1,320
29	1,830	1,450	1,640	3,050	-----	988	1,360	1,410	550
30	1,530	1,040	1,560	3,040	-----	8.1	1,480	1,560	10
31	1,270	-----	1,680	3,050	-----	88	-----	2,350	-----
TOTAL	24,999.6	23,296.9	51,123	88,040	67,260	39,499.2	48,369.5	45,737.5	33,551.5
MEAN	806	777	1,649	2,840	2,402	1,274	1,612	1,475	1,118
MAX	1,830	1,780	2,570	3,090	3,020	2,350	2,370	2,870	2,310
MIN	6.5	6.6	77	1,210	1,530	6.1	7.5	7.7	8.5
(†)	-10,700	+2,600	-2,000	+15,100	+5,700	+29,300	+15,600	-900	+600
MEAN†	461	863	1,585	3,327	2,606	2,219	2,132	1,446	1,138
CFSM†	.66	1.23	2.25	4.73	3.71	3.16	3.03	2.06	1.62
IN.†	.76	1.37	2.60	5.46	3.86	3.64	3.38	2.37	1.81

CAL YR 1973 TOTAL 460,401.2 MEAN 1,261 MAX 3,190 MIN 5.7 MEAN† 1,186 CFSM† 1.69 IN.† 22.90

† Change in contents, in cfs-days, in South Holston Lake, furnished by Tennessee Valley Authority.

‡ Adjusted for change in contents in lakes or reservoirs listed above.

03484000 Watauga River below Wilbur Dam, Tenn.

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

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

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.

GAGE.--Water-stage recorder. Datum of gage is 1,550.00 ft (472.440 m) above mean sea level. May 11, 1903, to Dec. 31, 1908, non-recording gage at railroad bridge 2 miles (3 km) downstream at different datum.

AVERAGE DISCHARGE.--32 years, 729 cfs (20.65 cu m/s), 21.02 in/yr (534 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 4,570 cfs (129 cu m/s) Aug. 16, gage height, 36.62 ft (11.162 m); minimum, 29 cfs (0.82 cu m/s) Sept. 29, 30, gage height, 31.33 ft (9.549 m); minimum daily, 30 cfs (0.85 cu m/s) Sept. 29.

Period of record: Maximum discharge observed, 21,500 cfs (609 cu m/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 cfs (70.8 cu m/s); minimum, 2.3 cfs (0.065 cu m/s) July 11, 1953; minimum daily, 2.4 cfs (0.068 cu m/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 cfs (191 cu m/s) Jan. 19, 1960, gage height, 38.10 ft (11.613 m).

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.

REMARKS.--Records good. Flow completely regulated by Watauga Lake since Dec. 1, 1948 (see sta. 03483500). Low-flow regulated by Wilbur Lake during period of record. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1276: 1906(M). WSP 1306: 1905(M), Drainage area at "near Elizabethton" site. WSP 1386: 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	150	463	1,570	1,310	1,090	1,050	1,360	56	1,620	1,600	1,120
2	1,570	42	116	1,850	523	710	1,620	1,050	54	1,670	2,770	923
3	1,110	41	1,080	1,640	773	56	1,790	798	642	1,470	1,820	1,140
4	1,410	39	981	1,200	1,130	1,190	1,150	421	900	1,420	999	1,340
5	1,160	376	2,220	1,190	1,070	1,400	3,000	51	1,050	1,510	641	1,320
6	83	517	2,300	1,340	1,280	1,320	3,010	1,450	934	1,580	1,490	1,700
7	51	284	2,510	1,930	1,340	1,170	3,030	522	1,380	1,230	1,360	1,130
8	49	39	2,550	1,700	1,330	1,070	3,040	394	1,120	1,850	1,470	61
9	109	462	1,330	1,680	1,470	189	3,050	1,710	58	1,540	1,410	1,480
10	1,630	629	2,370	1,610	1,030	52	3,060	1,640	868	1,710	1,280	1,680
11	650	630	2,830	1,750	1,310	893	3,100	1,320	1,080	1,860	902	1,680
12	360	47	1,270	1,500	1,490	1,270	3,050	125	1,220	2,770	1,740	1,870
13	56	312	676	1,340	1,150	1,870	3,060	1,360	1,450	2,220	2,160	1,350
14	56	41	1,350	1,580	1,400	1,700	3,060	1,190	1,530	860	1,730	475
15	337	39	1,520	1,870	1,520	788	3,070	1,370	1,020	1,820	1,610	41
16	56	38	1,840	1,680	1,530	934	3,070	1,540	177	1,540	1,730	1,200
17	56	691	2,150	1,310	1,660	2,230	2,800	1,800	1,660	1,330	1,360	1,060
18	630	40	2,450	1,430	1,870	2,470	1,650	1,630	903	1,430	1,580	1,280
19	300	38	1,410	1,360	1,800	74	1,780	1,780	1,180	2,060	1,600	1,530
20	56	101	1,130	1,410	993	60	1,140	2,730	1,820	1,340	2,070	1,280
21	69	520	2,670	1,720	1,220	1,330	54	3,020	1,760	1,330	2,040	810
22	56	416	917	1,480	1,270	1,130	1,180	2,940	1,710	1,610	1,820	70
23	56	35	54	1,520	1,520	640	1,080	1,940	286	1,300	1,670	1,130
24	650	39	50	1,600	1,180	876	1,490	1,840	1,280	1,420	1,500	1,110
25	330	39	44	1,210	1,770	1,180	1,340	1,530	1,350	1,320	1,620	2,520
26	56	673	948	1,470	1,260	657	1,350	56	1,340	1,430	1,720	1,180
27	92	741	1,530	1,290	1,210	87	1,280	990	1,310	1,250	1,520	1,020
28	58	1,510	2,040	1,040	1,270	171	884	1,490	1,380	1,240	938	115
29	1,950	1,430	1,630	1,260	-----	56	1,450	1,450	735	1,580	744	30
30	1,000	721	1,610	910	-----	55	1,740	1,390	66	1,290	748	458
31	1,260	-----	1,780	1,120	-----	87	-----	1,180	-----	378	604	-----
TOTAL	16,526	10,680	45,819	45,560	36,679	26,805	61,428	42,067	30,239	46,978	46,246	32,103
MEAN	533	356	1,478	1,470	1,310	865	2,048	1,357	1,008	1,515	1,492	1,070
MAX	1,950	1,510	2,830	1,930	1,870	2,470	3,100	3,020	1,820	2,770	2,770	2,520
MIN	49	35	44	910	523	52	54	51	54	378	604	30
(†)	-2,100	+9,300	-5,100	+8,900	+7,600	+22,000	-3,000	-4,600	+8,600	-28,300	-28,300	-6,300
MEAN†	465	666	1,314	1,757	1,581	1,574	1,948	1,209	1,295	603	579	860
CFSM†	.99	1.41	2.79	3.73	3.36	3.34	4.14	2.57	2.75	1.28	1.23	1.83
IN.†	1.14	1.58	3.22	4.30	3.50	3.85	4.61	2.96	3.07	1.47	1.42	2.04

CAL YR 1973 TOTAL 339,381 MEAN 930 MAX 3,190 MIN 33 MEAN† 914 CFSM† 1.94 IN.† 26.34
WTR YR 1974 TOTAL 441,130 MEAN 1,209 MAX 3,100 MIN 30 MEAN† 1,150 CFSM† 2.44 IN.† 33.15

† 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.

TENNESSEE RIVER BASIN

03485500 Doe River at Elizabethton, Tenn.

LOCATION.--Lat 36°20'40", long 82°12'37", Carter County, on left bank 1,500 ft (500 m) upstream from bridge on State Highway 91 at Elizabethton, and 1.0 mile (1.6 km) upstream from mouth.

DRAINAGE AREA.--137 sq mi (355 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,524.73 ft (464.738 m) above mean sea level. See WSP 1910 for history of changes prior to Feb. 1, 1934.

AVERAGE DISCHARGE.--59 years (1911-16, 1920-74), 222 cfs (6.287 cu m/s), 22.01 in/yr (559 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,750 cfs (163 cu m/s) Apr. 4, gage height, 6.26 ft (1.908 m); minimum, 82 cfs (2.32 cu m/s) Oct. 26, 27, 28, gage height, 0.72 ft (0.219 m).

Period of record: Maximum discharge, 7,940 cfs (225 cu m/s) Mar. 26, 1965, gage height, 7.35 ft (2,240 m); minimum, 17 cfs (0.48 cu m/s) Aug. 31, Sept. 7, 1925; minimum gage height, 0.18 ft (0.055 m) June 22, 1970 (result of construction upstream).

Flood of May 21, 1901 reached a stage of 10.5 ft (3.20 m), discharge, 25,000 cfs (708 cu m/s) from reports of Tennessee Valley Authority.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	212	313	1,730	309	333	668	241	1,100	320	113	115
2	336	168	259	1,040	683	302	624	235	692	271	113	123
3	182	144	227	765	1,540	286	522	285	501	247	130	204
4	149	132	207	860	1,260	272	2,940	239	388	238	218	286
5	127	255	481	753	792	297	1,950	297	324	316	199	177
6	117	255	405	611	603	513	1,070	339	288	284	148	904
7	106	204	314	644	520	465	745	281	285	262	132	783
8	292	177	269	568	543	407	658	258	278	261	163	392
9	280	185	269	879	494	367	801	255	311	244	191	289
10	188	164	239	901	449	335	670	254	277	226	183	294
11	152	150	211	988	414	311	582	239	290	210	179	256
12	133	144	196	955	370	369	526	750	236	195	152	297
13	122	138	286	697	347	423	626	700	219	175	137	603
14	132	132	390	553	395	361	544	480	204	164	122	378
15	122	127	327	481	356	331	537	398	200	156	124	281
16	110	159	296	417	489	416	467	378	358	152	134	226
17	103	134	270	368	527	458	429	321	253	146	160	222
18	98	126	240	332	470	406	394	292	211	139	169	215
19	96	123	225	308	456	664	365	295	191	147	205	182
20	94	119	354	290	444	1,400	338	265	191	146	139	164
21	92	266	874	340	387	1,680	316	249	270	131	125	172
22	90	357	606	293	607	1,370	308	241	706	124	114	179
23	88	253	447	276	562	856	390	547	411	127	108	152
24	89	214	377	278	485	639	317	409	337	139	103	142
25	86	211	338	354	423	512	296	314	291	138	98	137
26	84	214	581	344	367	455	279	286	251	176	95	133
27	82	310	718	354	334	404	267	364	296	212	93	128
28	103	668	528	369	317	387	258	279	691	146	159	140
29	161	631	423	407	-----	412	249	259	511	127	161	137
30	132	410	545	369	-----	671	241	524	392	155	159	124
31	161	-----	1,170	338	-----	850	-----	574	-----	127	121	-----
TOTAL	4,259	6,782	12,385	17,862	14,943	16,952	18,377	10,848	10,953	5,901	4,447	7,835
MEAN	137	226	400	576	534	547	613	350	365	190	143	261
MAX	336	668	1,170	1,730	1,540	1,680	2,940	750	1,100	320	218	904
MIN	82	119	196	276	309	272	241	235	191	124	93	115
CFSM	1.00	1.65	2.92	4.20	3.90	3.99	4.47	2.55	2.66	1.39	1.04	1.91
IN.	1.16	1.84	3.36	4.85	4.06	4.60	4.99	2.95	2.97	1.60	1.21	2.13

CAL YR 1973 TOTAL 102,557 MEAN 281 MAX 3,300 MIN 77 CFSM 2.05 IN 27.85
WTR YR 1974 TOTAL 131,544 MEAN 360 MAX 2,940 MIN 82 CFSM 2.63 IN 35.72

PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
12-31	2130	4.21	2,550	03-21	1615	3.74	2,010
02-03	1700	3.51	1,780	04-04	1530	6.26	5,750

03486000 Watauga River at Elizabethton, Tenn.

LOCATION.--Lat 36°21'21", long 82°12'26", Carter County, on left bank 25 ft (8 m) upstream from bridge on U. S. Highway 19E at Elizabethton, 0.6 mile (1.0 km) downstream from Doe River, and at mile 25.9 (41.7 km).

DRAINAGE AREA.--692 sq mi (1,792 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,486.23 ft (453.003 m) above mean sea level. Feb. 21 to Oct. 4, 1926, nonrecording gage on former Southern Railway bridge 10 ft (3 m) upstream at same datum.

AVERAGE DISCHARGE.--44 years (1925-48, 1953-74), 1,078 cfs (30.53 cu m/s), 21.15 in/yr (537 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 11,000 cfs (312 cu m/s) Apr. 3, 4, gage height, 9.70 ft (2.957 m); minimum, 149 cfs (4.22 cu m/s) Oct. 26, 27, 28, gage height, 2.12 ft (0.646 m); minimum daily, 159 cfs (4.50 cu m/s) Oct. 23.
Period of record: Maximum discharge, 75,100 cfs (2,130 cu m/s) Aug. 14, 1940, gage height, 20.87 ft (6.361 m), from rating curve extended above 29,000 cfs (821 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 42 cfs (1.19 cu m/s) Sept. 20, 1932; minimum daily, 85 cfs (2.41 cu m/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 cfs (411 cu m/s) Mar. 12, 1963, gage height, 10.70 ft (3.261 m).
Flood of May 21, 1901, reached a stage of about 21 ft (6.4 m), discharge, 76,000 cfs (2,150 cu m/s), from reports of Tennessee Valley Authority.

REMARKS.--Records good. Flow partly regulated by Watauga Lake 10.8 miles (17.4 km) upstream since Dec. 1, 1948 (see sta. 03483500). Low-flow regulated by Wilbur Lake 8.1 miles (13.0 km) upstream during period of record. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 758: 1932(M). WSP 823: Drainage area. WSP 1336: 1927-28(M), 1930, 1931-32(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,140	517	1,000	4,770	1,880	1,470	2,440	1,700	1,660	1,920	1,870	1,030
2	2,210	309	529	3,550	1,570	1,440	2,650	1,390	1,020	2,140	3,000	1,310
3	1,440	261	1,230	2,930	3,260	440	4,740	1,320	1,220	1,890	1,980	1,240
4	1,680	233	1,290	2,980	3,130	1,330	7,380	1,110	1,420	1,800	588	1,740
5	1,530	725	2,840	2,320	2,280	1,750	4,950	567	1,520	1,860	1,440	1,540
6	290	761	2,900	2,260	2,180	2,060	4,310	1,860	1,380	1,990	1,770	2,870
7	199	753	3,000	2,900	2,110	2,020	4,030	1,330	1,720	1,810	1,480	2,190
8	434	305	2,980	2,550	2,110	1,630	4,210	849	1,540	2,030	1,640	725
9	490	461	1,720	3,000	2,180	1,050	4,180	1,920	688	2,030	1,610	1,630
10	1,790	845	2,720	2,960	1,680	546	4,100	2,100	1,190	2,010	1,500	2,040
11	928	1,100	3,160	3,230	1,910	966	3,950	1,760	1,260	2,200	1,230	2,020
12	537	248	1,780	2,930	2,030	1,670	4,010	1,410	1,590	3,040	1,980	2,220
13	292	491	986	2,380	1,710	3,070	4,120	2,640	1,670	2,550	2,370	2,140
14	220	220	1,770	2,410	1,930	2,650	4,040	1,890	1,920	1,150	1,890	1,110
15	411	212	2,030	2,590	2,010	1,780	3,930	2,010	1,300	2,040	1,790	403
16	273	255	2,360	2,310	2,370	1,030	3,820	2,110	806	1,790	1,890	1,240
17	177	864	2,540	1,860	2,640	2,460	3,250	2,310	1,800	1,600	1,650	1,300
18	701	220	2,830	1,930	2,730	3,340	2,210	2,060	1,400	1,620	1,840	1,570
19	414	211	1,790	1,820	2,470	2,000	2,260	2,130	1,130	2,270	1,920	1,850
20	165	257	1,540	1,840	1,700	1,600	1,650	3,160	2,120	1,690	2,300	1,500
21	171	848	3,820	2,230	1,750	2,360	560	3,420	2,150	1,440	2,210	1,080
22	163	970	2,040	1,920	2,050	4,470	1,610	3,390	2,740	1,890	2,010	498
23	159	423	676	1,920	2,330	2,900	1,500	3,250	1,120	1,500	1,900	1,200
24	602	350	569	1,990	1,760	1,640	2,000	2,830	1,500	1,620	1,700	1,370
25	365	349	508	1,730	2,360	1,790	1,830	2,320	1,790	1,560	1,640	2,560
26	198	820	1,600	2,070	1,850	1,520	1,830	716	1,760	1,670	1,860	1,480
27	167	1,400	2,270	1,890	2,000	754	1,650	1,470	1,760	1,480	1,680	1,090
28	173	2,650	2,840	1,770	1,470	618	1,280	1,860	2,510	1,450	1,410	516
29	1,790	2,440	2,170	1,820	-----	940	1,800	1,940	1,730	1,770	836	215
30	1,370	1,580	2,470	1,520	-----	1,190	2,150	2,140	781	1,550	1,080	624
31	1,630	-----	3,870	1,590	-----	1,560	-----	2,070	-----	1,480	777	-----
TOTAL	22,109	21,078	63,828	73,970	59,450	54,044	92,440	61,032	46,195	56,840	52,841	42,301
MEAN	713	703	2,059	2,386	2,123	1,743	3,081	1,969	1,540	1,834	1,705	1,410
MAX	2,210	2,650	3,870	4,770	3,260	4,470	7,380	3,420	2,740	3,040	3,000	2,870
MIN	159	211	508	1,520	1,470	440	560	567	688	1,150	588	215
(†)	-2,100	+9,300	-5,100	+8,900	+7,600	+22,000	-3,000	-4,600	+8,600	-28,300	-28,300	-6,300
MEAN†	645	1,013	1,894	2,673	2,395	2,453	2,981	1,820	1,826	921	792	1,200
CFSM†	.93	1.46	2.74	3.86	3.46	3.54	4.31	2.63	2.64	1.33	1.14	1.73
IN.†	1.08	1.63	3.16	4.45	3.60	4.09	4.81	3.03	2.94	1.53	1.32	1.93

CAL YR 1973 TOTAL 490,852 MEAN 1,345 MAX 5,850 MIN 146 MEAN† 1,329 CFSM† 1.92 IN.† 26.07
WTR YR 1974 TOTAL 646,128 MEAN 1,770 MAX 7,380 MIN 159 MEAN† 1,712 CFSM† 2.47 IN.† 33.58

† 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.

TENNESSEE RIVER BASIN

03487500 South Fork Holston River at Kingsport, Tenn.

LOCATION.--Lat 36°31'51", long 82°33'29", Sullivan County, on left bank of main channel on Long Island, 1,000 ft (300 m) downstream from bridge on State Highway 93 BR, at Kingsport, 1.2 miles (1.9 km) upstream from Reedy Creek, 4.5 miles (7.2 km) downstream from Fort Patrick Henry Dam, and at mile 3.7 (6.0 km).

DRAINAGE AREA.--1,935 sq mi (5,012 sq km).

PERIOD OF RECORD.--September 1925 to current year. Separate records (unpublished) for sluice channel beginning October 1960. Separate record (unpublished) for main channel for period October 1960 to September 1965; separate record for main channel published since October 1965.

GAGE.--Water-stage recorder. Datum of gage is 1,175.84 ft (358.396 m) above mean sea level. Prior to Dec. 2, 1953, water-stage recorder at site 2 miles (3 km) upstream at datum 8.47 ft (2.582 m) higher. Since May 1, 1954, supplementary water-stage recorder on downstream side of bridge over sluice channel, 2,000 ft (600 m) south of main gage at datum 0.39 ft (0.119 m) lower.

AVERAGE DISCHARGE.--49 years, 2,590 cfs (73.35 cu m/s), 18.18 in/yr (462 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 11,400 cfs (323 cu m/s) Jan. 4; minimum daily, 751 cfs (21.3 cu m/s) Nov. 12. Period of record: Maximum discharge, 68,800 cfs (1,950 cu m/s) Aug. 14, 1940, gage height, 18.80 ft (5.730 m), site and datum then in use; minimum, 210 cfs (5.95 cu m/s) Jan. 28, 1940, gage height, -0.20 ft (-0.061 m), site and datum then in use; minimum daily, 301 cfs (8.52 cu m/s) June 13, 1954. Maximum discharge since closure of Fort Patrick Henry Dam on Oct. 27, 1953, 24,000 cfs (685 cu m/s) Mar. 12, 1963, gage height, 9.01 ft (2.746 m).

REMARKS.--Records good. Daily and maximum instantaneous discharge figures were obtained by adding discharges of main channel and sluice channel as determined from separate stage-discharge relations. Flow regulated by four reservoirs (see p. 137). Some diversion upstream by the city of Kingsport, Tennessee Eastman Corporation, and Holston Ordnance Works, Area A. Records of periodic water temperatures (in main channel only, station no. 03487499) are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1033. 1930(M). WSP 1033: 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,510	3,120	3,430	10,200	6,110	4,310	4,360	2,860	4,810	4,110	2,740	3,280
2	3,340	2,770	1,830	8,300	4,980	4,700	6,040	1,860	1,760	4,920	2,510	1,730
3	4,580	917	3,610	9,560	6,810	3,420	4,380	1,150	2,820	4,330	2,530	3,320
4	4,760	835	4,650	10,000	9,520	4,380	7,110	851	4,260	3,490	885	3,210
5	5,130	1,020	8,660	9,470	7,490	4,140	10,200	904	3,980	4,700	2,390	3,520
6	2,720	3,270	7,570	9,110	6,880	4,890	9,250	3,430	4,450	4,400	3,580	4,540
7	925	3,450	9,440	9,380	6,060	3,990	9,630	3,330	4,260	4,080	2,010	5,750
8	1,960	1,640	5,320	9,250	7,360	3,700	9,680	3,420	4,240	4,360	3,230	3,960
9	2,030	1,500	3,520	9,560	6,770	3,030	9,840	4,240	886	5,020	3,600	4,930
10	3,570	2,790	7,900	10,100	7,280	859	8,570	4,190	3,160	4,400	2,070	1,410
11	3,250	3,110	7,450	10,400	5,710	2,340	8,560	3,850	3,950	6,120	1,460	3,920
12	2,980	751	4,960	9,850	4,400	2,980	8,000	1,450	3,600	5,430	4,000	5,640
13	987	1,510	3,920	9,730	6,170	5,450	8,650	2,910	4,270	2,190	3,800	4,470
14	915	1,880	4,970	9,650	6,860	6,330	8,470	5,880	4,440	960	4,470	2,460
15	904	2,320	4,420	9,590	5,650	3,960	8,010	5,950	2,790	3,080	4,670	934
16	882	2,130	6,610	8,110	6,120	4,280	8,190	6,780	1,030	2,890	5,870	1,850
17	871	2,510	7,500	6,440	6,990	7,920	6,320	7,930	2,960	3,600	5,640	2,010
18	1,710	915	3,300	6,530	7,230	9,150	4,580	5,140	3,360	3,410	4,420	3,240
19	1,490	831	2,620	6,110	8,120	2,110	4,400	5,050	2,560	3,840	1,800	5,310
20	947	861	3,070	6,450	6,860	2,290	3,740	8,960	3,550	4,800	2,420	4,890
21	947	3,410	5,940	6,380	6,290	5,300	807	4,260	5,930	4,080	4,630	1,770
22	1,600	1,490	6,470	5,830	7,510	7,760	4,560	5,030	5,640	4,670	5,910	924
23	1,370	1,450	3,420	6,690	8,820	5,840	3,190	6,440	2,880	2,520	4,910	2,720
24	892	862	2,110	6,450	5,740	5,430	4,190	6,740	2,360	2,160	5,840	3,990
25	2,240	842	1,960	5,960	5,230	6,240	3,330	5,030	2,550	3,600	3,660	6,740
26	926	2,190	2,470	6,050	4,910	5,030	2,860	2,190	3,810	3,080	2,990	2,150
27	937	3,480	4,910	5,560	4,310	4,090	2,620	2,460	4,740	3,800	2,730	1,860
28	1,050	6,740	7,550	6,310	4,870	3,150	1,150	4,740	5,070	3,540	1,760	936
29	2,780	5,750	5,040	7,050	-----	1,840	5,480	5,940	3,030	4,770	1,300	1,090
30	3,570	5,340	5,230	7,520	-----	2,120	5,230	6,000	1,970	2,900	1,260	2,860
31	4,930	-----	6,490	6,520	-----	3,400	-----	5,330	-----	4,520	3,360	-----
TOTAL	66,703	69,684	156,380	248,110	181,050	134,429	181,397	134,295	105,116	119,770	102,445	95,414
MEAN	2,152	2,323	5,045	8,004	6,466	4,336	6,047	4,332	3,504	3,864	3,305	3,180
MAX	5,130	6,740	9,480	10,400	9,520	9,150	10,200	8,960	5,930	6,120	5,910	6,740
MIN	871	751	1,830	5,560	4,310	807	807	851	886	960	885	924

CAL YR 1973 TOTAL 1,258,573 MEAN 3,448 MAX 9,710 MIN 730 MEAN† 3,371 CFSM† 1.74 IN.† 43.03
WTR YR 1974 TOTAL 1,594,793 MEAN 4,369 MAX 10,400 MIN 751 MEAN† 4,244 CFSM† 2.19 IN.† 29.77

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

TENNESSEE RIVER BASIN

73

03487500 South Fork Holston River at Kingsport, Tenn.--Continued

Discharge, in cubic feet per second, in main channel only,
Water Year October 1973 to September 1974

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,480	2,880	3,160	8,430	5,410	3,930	3,870	2,740	4,210	3,610	2,450	2,890
2	3,020	2,650	1,740	7,060	4,480	4,270	5,190	1,790	1,660	4,270	2,380	1,680
3	4,010	900	3,330	8,000	5,860	3,210	3,930	1,020	2,620	3,830	2,360	2,940
4	4,130	823	4,270	8,260	7,970	3,930	5,910	844	3,760	3,140	870	2,990
5	4,490	999	7,330	7,930	6,510	3,810	8,480	889	3,530	4,100	2,100	3,150
6	2,620	2,970	6,480	7,660	6,000	4,440	7,760	3,150	3,900	3,850	3,100	3,910
7	911	3,150	7,930	7,850	5,370	3,630	8,050	3,090	3,760	3,630	1,930	4,850
8	1,910	1,600	4,370	7,760	6,350	3,470	8,090	3,180	3,740	3,810	2,830	3,420
9	1,970	1,420	3,120	7,810	5,890	2,820	8,210	3,840	876	4,320	3,200	4,160
10	3,130	2,650	6,660	8,330	6,280	850	7,250	3,730	2,910	3,820	1,930	1,330
11	2,930	2,780	6,230	8,360	5,080	2,260	7,250	3,460	3,550	5,160	1,440	3,370
12	2,740	740	4,480	8,170	4,000	2,830	6,810	1,240	3,250	4,610	3,400	4,790
13	966	1,480	3,550	8,120	5,460	4,820	7,280	2,670	3,770	2,070	3,260	3,820
14	900	1,840	4,440	8,070	5,980	5,540	7,160	5,140	3,890	950	3,790	2,270
15	889	2,260	3,950	8,020	5,060	3,730	6,810	5,260	2,590	2,760	3,970	920
16	867	2,050	5,630	6,900	5,370	3,870	6,890	5,900	1,010	2,700	4,940	1,740
17	856	2,240	6,300	5,660	6,050	6,740	5,540	6,730	2,760	3,230	4,690	1,900
18	1,600	902	2,930	5,750	6,250	7,660	4,190	4,450	3,060	3,000	3,730	2,920
19	1,430	820	2,470	5,410	6,920	2,040	3,980	4,370	2,410	3,400	1,640	4,450
20	933	850	2,820	5,680	5,960	2,160	3,430	7,540	3,200	4,110	2,250	4,130
21	933	3,120	5,170	5,630	5,540	4,600	799	3,820	5,080	3,530	3,660	1,710
22	1,520	1,420	5,630	5,220	6,440	6,580	4,010	4,370	4,840	4,000	4,920	910
23	1,350	1,420	3,080	5,840	7,450	5,170	2,910	5,450	2,680	2,280	4,130	2,410
24	878	850	2,020	5,680	5,100	4,860	3,750	5,690	2,260	1,960	4,940	3,440
25	2,150	830	1,870	5,300	4,710	5,480	2,970	4,390	2,400	3,160	3,150	5,700
26	911	2,140	2,190	5,370	4,390	4,580	2,640	2,110	3,410	2,700	2,750	2,040
27	922	3,180	4,250	4,950	3,930	3,770	2,520	2,370	4,140	3,290	2,570	1,800
28	1,030	5,790	6,350	5,540	4,370	3,020	1,110	4,140	4,370	3,070	1,720	920
29	2,590	5,150	4,480	6,120	-----	1,800	4,700	5,090	2,780	3,970	1,290	1,070
30	3,190	4,880	4,580	6,480	-----	2,050	4,540	5,150	1,870	2,480	1,240	2,660
31	4,230	-----	5,590	5,720	-----	3,160	-----	4,630	-----	3,770	3,020	-----
TOTAL	61,486	64,784	136,400	211,080	158,180	121,080	156,079	118,243	94,286	104,580	89,650	84,290
MEAN	1,983	2,159	4,400	6,809	5,649	3,906	5,203	3,814	3,143	3,374	2,892	2,810
MAX	4,490	5,790	7,930	8,430	7,970	7,660	8,480	7,540	5,080	5,160	4,940	5,700
MIN	856	740	1,740	4,950	3,930	850	799	844	876	950	870	910
CAL YR 1973	TOTAL	262,670.00	MEAN	720	MAX	7,930	MIN	718				
WTR YR 1974	TOTAL	1,400,138.00	MEAN	3,836	MAX	8,480	MIN	740				

TENNESSEE RIVER BASIN

03487550 Reedy Creek at Orebank, Tenn.

LOCATION.--Lat 36°33'42", long 82°27'36", Sullivan County, on upstream right bank at Anderson Bridge, 0.1 mile (0.2 km) south of U. S. Highway 11W, 0.3 mile (0.5 km) north of Orebank, 1.0 mile (1.6 km) upstream from Gaines Branch, and 9.8 miles (15.8 km) upstream from mouth.

DRAINAGE AREA.--36.3 sq mi (94.0 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 1,232.61 ft (375.700 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 45.7 cfs (1.294 cu m/s) 17.10 in/yr (434 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs (51.0 cu m/s) Dec. 31, Mar. 21, gage height, 6.87 ft (2.094 m) from rating curve extended above 1,200 cfs (34.0 cu m/s) on basis of slope-area measurement; minimum, 9.0 cfs (0.25 cu m/s) several days in October, gage height, 1.58 ft (0.482 m).

Period of record: Maximum discharge, 2,690 cfs (76.2 cu m/s) July 31, 1971, gage height, 7.37 ft (2.246 m), from rating curve extended above 1,200 cfs (34.0 cu m/s) on basis of slope-area measurement at gage height 7.27 ft (2.216 m), discharge, 2,480 cfs (70.2 cu m/s); minimum, 3.0 cfs (0.085 cu m/s) Jan. 20, 1966, gage height, 1.30 ft (0.396 m).

Flood of May 30, 1927, reached a stage of 11.4 ft (3.47 m), discharge, about 11,000 cfs (312 cu m/s), from reports of Tennessee Valley Authority.

REMARKS.--Records good. The Bloomingdale Utility District diverts an average of about 0.6 cfs (0.017 cu m/s) for water supply, 0.8 mile (1.3 km) upstream from the gage. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Tenn. 1973: 1971(M), 1972(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	55	630	80	63	69	39	66	26	12	14
2	22	21	45	205	150	57	83	48	59	24	13	13
3	16	16	39	187	270	53	73	154	50	22	16	20
4	14	15	36	470	170	50	623	83	44	22	15	16
5	12	18	88	201	130	48	202	91	40	24	13	12
6	12	16	65	151	100	52	130	117	38	22	18	15
7	11	15	48	163	90	48	103	79	37	20	16	17
8	12	14	40	132	80	45	109	63	35	21	14	12
9	11	17	38	621	70	43	118	61	33	19	13	12
10	10	15	33	323	60	41	97	53	31	18	13	29
11	9.8	14	29	1,450	55	42	84	48	29	21	13	32
12	9.8	13	27	458	50	72	77	240	28	20	12	31
13	9.8	13	31	202	60	82	133	131	26	17	12	24
14	11	13	29	153	150	62	110	85	25	16	11	17
15	10	14	27	127	113	54	99	68	21	31	12	14
16	9.8	43	26	108	261	81	84	58	41	30	16	12
17	9.8	23	25	94	196	81	78	51	27	19	16	12
18	9.8	18	23	82	132	68	69	47	24	17	22	12
19	9.8	16	22	75	114	83	64	65	23	17	27	11
20	9.8	15	24	70	95	388	58	63	27	17	17	10
21	9.4	36	43	60	80	860	53	53	27	18	14	57
22	9.4	40	36	55	252	254	52	49	89	15	13	35
23	9.4	26	32	50	143	153	90	166	41	15	12	21
24	9.4	21	30	60	111	120	67	100	31	17	11	16
25	9.0	21	28	75	93	98	58	71	27	16	11	15
26	9.4	29	538	100	79	86	53	64	30	15	10	13
27	9.4	439	192	180	71	76	48	64	32	16	9.8	13
28	23	453	102	160	67	72	45	50	48	15	9.8	13
29	23	126	95	170	-----	67	42	48	34	13	9.7	13
30	27	74	204	130	-----	91	40	110	28	16	13	12
31	28	-----	743	100	-----	79	-----	84	-----	13	12	-----
TOTAL	409.8	1,626	2,793	7,042	3,322	3,469	3,011	2,503	1,094	592	426.3	543
MEAN	13.2	54.2	90.1	227	119	112	100	80.7	36.5	19.1	13.8	18.1
MAX	28	453	743	1,450	270	860	623	240	89	31	27	57
MIN	9.0	13	22	50	50	41	40	39	23	13	9.7	10
CFSM	.36	1.49	2.48	6.25	3.28	3.09	2.75	2.22	1.01	.53	.38	.50
IN.	.42	1.67	2.86	7.22	3.40	3.56	3.09	2.57	1.12	.61	.44	.56

CAL YR 1973 TOTAL 23,068.8 MEAN 63.2 MAX 1,410 MIN 9.0 CFSM 1.74 IN 23.64
WTR YR 1974 TOTAL 26,831.1 MEAN 73.5 MAX 1,450 MIN 9.0 CFSM 2.02 IN 27.50

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	1045	5.86	812	01-11	1800	6.83	1,740
12-26	1430	5.94	856	02-22	0945	5.09	542
12-31	1830	6.87	1,800	03-21	1315	6.87	1,800
01-04	0700	5.64	714	04-04	1245	6.42	1,260

03490500 Holston River at Surgoinsville, Tenn.

LOCATION.--Lat 36°28'19", long 82°50'50", Hawkins County, on right bank 1,500 ft (500 m) upstream from Surgoinsville Creek and county bridge at Surgoinsville, 9.8 miles (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 sq mi (7,444 sq km), includes that of Surgoinsville Creek.

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) above mean sea level.

AVERAGE DISCHARGE.--34 years, 3,698 cfs (104.7 cu m/s), 17.47 in/yr (444 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 29,200 cfs (827 cu m/s) Jan. 11, gage height, 10.64 ft (3.243 m); minimum, 1,050 cfs (29.7 cu m/s), Nov. 21.

Period of record: Maximum discharge, 59,600 cfs (1,690 cu m/s) Feb. 18, 1944, gage height, 17.48 ft (5.328 m); minimum, 470 cfs (13.3 cu m/s), Oct. 21, 1941.

Maximum discharge since closure of Watauga Dam on Dec. 1, 1948, 59,300 cfs (1,680 cu m/s) Mar. 13, 1963, gage height, 17.13 ft (5.221 m).

REMARKS.--Records good, except for August, which are fair. Flow partly regulated by four reservoirs (see p. 137). Records of chemical analyses and periodic water temperatures are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	5,020	6,050	26,300	8,300	6,020	5,320	4,150	7,020	4,620	4,390	3,340
2	1,950	3,730	3,850	20,400	7,990	5,960	8,060	3,280	5,160	5,730	4,130	3,770
3	4,600	3,080	3,260	16,400	11,900	4,960	7,590	4,820	3,380	6,180	2,660	2,400
4	5,070	1,560	4,650	19,800	15,400	4,670	11,100	3,550	4,820	4,220	2,910	4,240
5	6,710	1,440	8,810	19,300	11,700	5,570	18,700	2,450	5,210	4,450	1,250	3,220
6	3,780	3,510	8,940	14,800	10,100	5,800	14,900	4,390	5,470	5,590	3,920	4,650
7	2,370	3,590	9,970	13,700	9,070	4,970	13,000	5,770	5,060	5,160	3,500	5,490
8	1,210	3,080	9,410	12,900	8,720	5,350	12,400	5,100	4,430	4,580	2,810	6,290
9	2,180	1,970	3,630	15,400	9,490	5,250	12,900	5,080	4,180	5,820	4,730	4,370
10	4,240	3,260	6,600	18,900	9,170	3,220	12,100	5,630	2,310	4,750	3,750	4,600
11	2,510	4,570	9,540	25,300	7,770	2,610	10,200	5,550	3,700	6,820	1,870	2,210
12	3,780	1,620	5,930	25,000	6,390	4,060	10,600	7,410	4,490	6,440	3,700	5,860
13	3,280	1,520	3,730	17,500	6,660	8,360	10,700	9,000	3,950	4,910	4,240	5,360
14	1,240	2,020	6,540	14,300	9,530	11,000	11,000	9,800	4,760	2,120	3,900	4,760
15	1,180	2,350	4,140	13,100	9,210	7,140	10,400	8,810	3,680	1,570	6,050	1,800
16	1,150	2,850	6,360	11,500	9,700	6,000	9,740	8,100	3,360	4,080	6,390	1,110
17	1,120	3,420	8,210	9,250	13,300	11,000	8,360	9,350	2,330	3,680	6,100	2,140
18	1,690	1,540	6,710	8,360	11,900	12,000	7,190	6,760	3,540	3,760	5,650	2,540
19	1,800	1,190	2,530	8,300	11,200	6,520	5,070	6,380	3,530	4,580	5,180	4,840
20	1,300	1,090	2,990	7,490	10,600	6,950	5,590	10,700	3,330	4,600	1,770	5,650
21	1,180	1,540	5,790	7,800	8,910	13,300	2,550	6,180	5,850	4,990	3,720	4,710
22	1,520	3,870	8,050	7,730	10,100	20,700	3,600	5,370	7,650	5,120	5,850	2,070
23	1,640	1,750	6,100	8,800	12,700	13,900	5,070	7,920	7,440	4,140	5,880	2,760
24	1,410	1,660	3,400	7,770	9,570	9,480	5,200	8,770	3,650	2,840	6,980	3,980
25	1,520	1,300	3,190	8,100	8,070	9,510	5,720	7,380	3,220	3,260	4,430	6,410
26	2,050	1,690	7,920	8,970	7,770	7,190	4,010	4,920	4,270	3,740	4,540	3,680
27	1,150	8,080	17,800	9,580	6,030	6,130	3,090	3,750	5,100	4,920	3,220	2,000
28	1,270	15,500	15,400	9,800	5,480	5,100	2,940	4,120	5,530	4,540	2,940	1,980
29	2,020	13,700	8,740	10,300	-----	4,090	4,000	6,530	8,940	5,460	1,740	1,090
30	3,970	9,540	10,500	10,700	-----	3,380	6,670	7,470	3,090	5,810	1,500	1,940
31	4,830	-----	14,700	8,880	-----	5,050	-----	7,850	-----	3,570	2,200	-----
TOTAL	74,940	111,040	223,440	416,430	266,730	225,240	247,770	196,340	138,450	142,050	121,900	109,260
MEAN	2,417	3,701	7,208	13,430	9,526	7,266	8,259	6,334	4,615	4,582	3,932	3,642
MAX	6,710	15,500	17,800	26,300	15,400	20,700	18,700	10,700	8,940	6,820	6,980	6,410
MIN	1,120	1,090	2,530	7,490	5,480	2,610	2,550	2,450	2,310	1,570	1,250	1,090

CAL YR 1973 TOTAL 1,820,420 MEAN 4,987 MAX 40,800 MIN 1,090 MEAN† 4,911 CFSM† 1.71 IN.† 23.19
WTR YR 1974 TOTAL 2,273,590 MEAN 6,229 MAX 26,300 MIN 1,090 MEAN† 6,103 CFSM† 2.12 IN.† 28.83

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

TENNESSEE RIVER BASIN

03491000 Big Creek near Rogersville, Tenn.

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, on left bank 300 ft (90 m) upstream from county road bridge, 3 miles (5 km) northeast of Rogersville, and 2.0 miles (3.2 km) upstream from mouth.

DRAINAGE AREA.--47.3 sq mi (122.5 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,128.9 ft (344.09 m) above mean sea level (city of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--24 years (1941-48, 1957-74), 60.2 cfs (1.705 cu m/s), 17.28 in/yr (439 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,810 cfs (136 cu m/s) Mar. 21, gage height, 8.47 ft (2.582 m); minimum, 6.3 cfs (0.18 cu m/s) Oct. 27, gage height, 1.50 ft (0.457 m).

Period of record: Maximum discharge, 5,760 cfs (163 cu m/s) Mar. 12, 1963, gage height, 9.40 ft (2.865 m), from rating curve extended above 3,000 cfs (85.0 cu m/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 cfs (0.037 cu m/s) Sept. 23, 1955; minimum gage height, 1.32 ft (0.402 m) Sept. 19, Oct. 2, 1941.

REMARKS.--Records fair. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1436: 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	13	85	923	88	56	84	33	132	26	9.1	9.8
2	14	16	68	255	244	51	127	86	126	24	8.9	13
3	13	12	55	341	394	47	116	741	100	22	22	11
4	11	9.9	47	568	215	44	614	197	79	20	39	9.2
5	9.9	10	51	272	153	42	274	137	65	24	21	8.2
6	8.6	11	46	193	124	48	165	196	57	21	14	8.0
7	8.0	12	38	181	108	51	123	123	66	19	12	8.3
8	7.9	10	34	152	99	47	142	90	60	17	11	8.3
9	7.8	9.6	33	1,100	88	44	203	96	54	17	11	7.5
10	7.6	9.6	30	468	77	42	142	78	48	18	11	7.0
11	7.1	9.3	27	2,860	71	41	111	77	42	18	11	7.2
12	7.1	8.6	25	533	63	54	95	779	38	37	23	7.4
13	6.8	8.2	28	279	60	61	102	260	35	19	15	8.9
14	6.8	8.2	41	207	74	52	89	156	32	16	12	14
15	7.1	8.6	34	165	69	47	80	116	28	14	9.9	10
16	7.1	17	31	136	221	115	70	93	29	16	9.9	7.9
17	6.6	20	28	113	227	151	73	76	32	15	11	7.0
18	6.4	13	24	95	139	93	66	67	27	13	10	7.2
19	6.5	11	23	84	115	170	60	145	24	13	9.6	7.2
20	6.5	10	23	74	93	399	55	190	26	15	8.7	6.6
21	6.6	47	36	69	74	1,810	50	148	150	14	8.1	29
22	6.6	69	33	60	140	397	48	97	90	13	7.9	46
23	6.5	25	31	56	128	223	70	188	60	12	7.7	16
24	6.5	18	30	59	101	165	60	141	45	12	7.6	11
25	6.3	15	29	90	85	127	53	113	35	14	7.2	9.2
26	6.4	15	1,660	122	70	105	48	89	70	13	6.8	8.5
27	6.2	1,570	428	200	63	91	44	105	60	15	6.6	8.3
28	8.0	1,380	184	164	59	83	40	77	45	14	6.6	11
29	18	222	135	184	-----	76	37	68	30	11	6.6	13
30	16	123	253	138	-----	104	35	208	27	10	6.9	12
31	12	-----	787	107	-----	101	-----	189	-----	9.8	8.7	-----
TOTAL	264.9	3,711.0	4,377	10,248	3,442	4,937	3,276	5,159	1,712	521.8	359.8	337.7
MEAN	8.55	124	141	331	123	159	109	166	57.1	16.8	11.6	11.3
MAX	18	1,570	1,660	2,860	394	1,810	614	779	150	37	39	46
MIN	6.2	8.2	23	56	59	41	35	33	24	9.8	6.6	6.6
CFSM	1.18	2.62	2.98	7.00	2.60	3.36	2.30	3.51	1.21	0.36	0.25	0.24
IN.	0.21	2.92	3.44	8.06	2.71	3.88	2.58	4.06	1.35	0.41	0.28	0.27
CAL YR 1973	TOTAL 30,504.2	MEAN 83.6	MAX 3,110	MIN 6.2	CFSM 1.77	IN 23.99						
WTR YR 1974	TOTAL 38,346.2	MEAN 105	MAX 2,860	MIN 6.2	CFSM 2.22	IN 30.16						

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
12-26	1030	6.52	2,880	03-21	1245	8.47	4,810
12-31	2330	6.66	3,020	05-03	1045	5.30	1,750
01-11	0500	8.38	4,730	11-28	0645	6.41	2,780

TENNESSEE RIVER BASIN

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03491300 Beech Creek at Kepler, Tenn.

LOCATION.--Lat 36°24'06", long 82°53'09", Hawkins County, on upstream right wingwall of county road bridge, at Kepler, 5.9 miles (9.5 km) east of intersection of U. S. Highway 11W and Burem Road, 6.6 miles (10.6 km) upstream from mouth.

DRAINAGE AREA.--47.0 sq mi (121.7 sq km).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-62, 1964-65. October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,107.83 ft (337.667 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 52.5 cfs (1.487 cu m/s), 15.17 in/yr (385 mm/yr).

EXTREMES.--Current year. Maximum discharge, 2,260 cfs (64.0 cu m/s) Dec. 31, gage height, 11.50 ft (3.505 m); minimum, 4.0 cfs (0.113 cu m/s) Oct. 16, 17, 18.

Period of record: Maximum discharge, 2,990 cfs (84.7 cu m/s) Dec. 10, 1972, gage height, 12.70 ft (3.871 m), from magnet on float tape; minimum, 1.1 cfs (0.031 cu m/s) Sept. 18, 1970.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	18	33	800	58	42	58	34	156	11	8.0	9.8
2	14	15	25	203	372	38	125	72	111	11	8.0	9.8
3	10	13	22	283	426	35	85	366	77	10	9.4	8.7
4	6.4	12	19	502	201	33	918	111	53	10	12	8.7
5	5.0	23	25	208	115	34	266	122	43	20	11	6.7
6	4.5	23	23	130	87	71	141	177	36	18	8.3	7.3
7	4.5	16	19	197	75	142	100	89	45	17	7.7	8.7
8	4.3	14	17	121	79	74	116	69	28	16	9.4	7.3
9	4.5	15	18	686	70	59	137	75	24	8.3	11	6.4
10	4.3	14	17	395	59	52	89	62	21	8.0	9.8	6.1
11	4.5	13	15	1,220	54	47	77	59	18	15	8.3	6.1
12	4.5	13	14	336	48	66	72	935	16	16	11	5.8
13	4.5	12	22	161	45	54	111	256	15	8.7	8.7	7.3
14	5.0	12	33	109	55	46	95	113	13	7.3	7.3	6.7
15	5.5	13	22	84	44	43	95	78	12	7.3	8.0	6.1
16	5.5	29	19	69	266	121	77	63	14	13	93	5.3
17	5.5	21	18	60	169	93	74	54	14	7.7	27	5.3
18	5.5	17	16	52	92	67	65	49	11	7.7	14	5.6
19	5.8	16	15	47	83	181	60	59	10	7.0	11	5.3
20	6.1	15	16	43	66	429	51	64	11	8.0	8.7	4.8
21	6.1	59	69	46	55	1,150	52	45	132	7.0	7.7	11
22	6.4	46	33	36	156	294	48	39	48	6.1	7.0	14
23	6.7	26	24	34	90	151	73	118	32	5.6	6.7	7.7
24	7.0	20	25	50	70	102	58	57	19	6.4	6.4	6.4
25	7.3	19	23	121	58	75	51	45	15	6.4	6.1	5.8
26	7.3	31	593	114	50	65	47	41	66	77	5.6	5.8
27	7.6	773	245	143	45	57	43	68	21	281	5.3	5.6
28	15	594	88	118	43	55	41	41	18	25	5.3	6.4
29	24	129	102	119	-----	54	38	45	17	14	5.3	6.7
30	14	53	420	83	-----	95	36	358	13	11	5.6	6.1
31	14	-----	1,100	68	-----	70	-----	186	-----	9.1	8.3	-----
TOTAL	234.2	2,074	3,130	6,638	3,031	3,895	3,308	3,950	1,109	675.6	360.9	213.3
MEAN	7.55	69.1	101	214	108	126	110	127	37.0	21.8	11.6	7.11
MAX	24	773	1,100	1,220	426	1,150	918	935	156	281	93	14
MIN	4.3	12	14	34	43	33	36	34	10	5.6	5.3	4.8
CFSM	.16	1.47	2.15	4.55	2.30	2.68	2.34	2.70	.79	.46	.25	.15
IN.	.19	1.64	2.48	5.25	2.40	3.08	2.62	3.13	.88	.53	.29	.17

CAL YR 1973 TOTAL 24,604.9 MFAN 67.4 MAX 2,200 MIN 2.7 CFSM 1.43 IN 19.47
WTR YR 1974 TOTAL 28,619.0 MEAN 78.4 MAX 1,220 MIN 4.3 CFSM 1.67 IN 22.65

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-31	2115	11.50	2,260	04-04	1400	10.96	1,970
01-11	1230	10.14	1,560	05-12	1845	9.61	1,340
03-21	1515	11.09	2,040	07-27	0130	9.35	1,240

TENNESSEE RIVER BASIN

03494000 Holston River near Jefferson City, Tenn.

LOCATION.--Lat 36°10'03", long 83°30'10", Jefferson County, on left bank 500 ft (150 m) upstream from bridge on State Highway 92, 0.2 mile (0.3 km) downstream from Cherokee Dam, 2.5 miles (4.0 km) upstream from Mill Spring Creek, 3 miles (5 km) north of Jefferson City, and at mile 52.0 (83.7 km).

DRAINAGE AREA.--3,429 sq mi (8,881 sq km).

PERIOD OF RECORD.--October 1936 to June 1974 (discontinued). Prior to April 1937 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft (274.320 m) above mean sea level. Apr. 20, 1937 to June 30, 1941, on right bank at datum 20.02 ft (6.102 m) higher.

AVERAGE DISCHARGE.--37 years (1936-73), 4,291 cfs (121.5 cu m/s), 16.99 in/yr (432 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 20,600 cfs (583 cu m/s) Jan. 5, 6, 22, 23, gage height, 30.40 ft (9.266 m); minimum, 47 cfs (1.33 cu m/s) Nov. 25, gage height, 19.20 ft (5.852 m); minimum daily, 52 cfs (1.47 cu m/s) Oct. 21.
Period of record: Maximum discharge, 58,700 cfs (1,660 cu m/s) Aug. 15, 1940, gage height, 41.82 ft (12.747 m), present datum; minimum, 2.2 cfs (0.062 cu m/s) Dec. 8, 1941, discharge measurement; minimum daily, 2.6 cfs (0.074 cu m/s) Dec. 25, 1941.
Maximum discharge since closure of Cherokee Dam on Dec. 5, 1941, 25,900 cfs (733 cu m/s) Feb. 11, 1957, gage height, 32.19 ft (9.812 m).

REMARKS.--Records good. Flow completely regulated by five reservoirs (see p.137). Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 923: 1939-40(M).

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1973 TO JUNE 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	5,730	2,490	5,780	6,610	13,100	5,460	7,600	6,160	5,190
2	6,710	2,180	3,880	9,800	10,300	6,160	2,790	3,190	4,760
3	6,840	1,470	5,500	16,800	6,000	5,750	3,410	2,560	7,420
4	7,340	56	4,110	17,400	11,900	5,450	1,920	1,200	6,090
5	6,290	5,830	5,180	18,700	11,700	5,460	1,600	6,120	6,220
6	3,730	6,500	8,090	20,500	12,800	5,880	4,670	8,380	6,490
7	1,640	3,770	11,600	20,500	9,370	4,470	2,320	5,160	5,140
8	5,060	3,660	11,500	20,500	9,960	4,370	7,900	2,460	4,690
9	5,400	3,570	12,700	17,600	13,300	3,440	7,600	8,440	152
10	6,680	3,840	14,800	17,300	12,800	2,250	6,540	1,600	3,680
11	6,090	5,060	15,600	14,600	14,700	5,430	7,150	87	3,780
12	5,100	2,770	12,100	16,300	14,300	5,610	7,420	79	3,650
13	1,890	4,710	11,900	18,400	12,800	9,600	5,270	5,460	3,630
14	53	4,790	11,700	20,100	11,400	8,790	3,490	2,170	3,970
15	4,990	5,290	12,500	20,100	10,700	5,300	5,160	83	4,590
16	4,140	5,050	14,000	20,000	10,100	5,050	4,820	7,680	2,060
17	2,530	6,930	13,300	20,000	11,000	14,300	5,090	6,680	7,910
18	5,890	1,550	13,800	20,100	13,400	11,600	4,060	5,920	7,690
19	3,630	1,380	9,960	20,100	12,900	3,130	4,550	5,760	7,130
20	66	2,870	12,500	20,100	14,700	71	1,430	10,100	7,380
21	52	2,680	11,800	20,000	14,100	141	70	7,230	7,160
22	4,970	1,720	9,960	20,600	13,000	2,200	4,390	8,350	6,840
23	4,050	1,640	8,190	18,800	11,200	2,050	1,480	7,520	2,140
24	3,810	306	8,480	18,000	9,670	4,220	5,080	6,870	7,120
25	3,840	3,790	6,940	16,800	9,420	7,550	4,980	2,260	7,330
26	2,580	4,060	76	15,600	7,560	6,080	5,050	92	7,310
27	297	167	764	15,500	6,370	4,600	2,660	1,080	6,940
28	2,600	1,160	2,480	15,500	5,590	3,920	74	7,720	7,290
29	11,700	427	71	14,800	-----	3,380	7,690	6,030	5,760
30	5,080	4,810	70	15,500	-----	2,100	8,180	6,330	2,070
31	6,390	-----	2,290	15,100	-----	73	-----	5,660	-----
TOTAL	135,168	94,526	261,621	541,710	314,140	153,885	134,444	148,431	161,582
MEAN	4,360	3,151	8,439	17,470	11,220	4,964	4,481	4,788	5,386
MAX	11,700	6,930	15,600	20,600	14,700	14,300	8,180	10,100	7,910
MIN	52	56	70	6,610	5,590	71	70	79	152

CAL YR 1973 TOTAL 2,133,357 MEAN 5,845 MAX 19,500 MIN 52 MEAN† 5,862 CFSM† 1.71 IN.† 23.20

† Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

03495500 Holston River near Knoxville, Tenn.

LOCATION.--Lat 36°00'56", long 83°49'54", Knox County, on right bank at bridge on U. S. Highway 70, at Knoxville city limits, and 5.5 miles (8.8 km) upstream from confluence with French Broad River.

DRAINAGE AREA.--3,747 sq mi (9,705 sq km).

PERIOD OF RECORD.--October 1930 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.

GAGE.--Water-stage recorder. Datum of gage is 815.84 ft (248.668 m) above mean sea level. Oct. 1, 1930, to June 8, 1931, non-recording gage, and June 9, 1931, to Sept. 30, 1948, water-stage recorder, at site 12 miles (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.

AVERAGE DISCHARGE.--44 years, 4,655 cfs (131.8 cu m/s), 16.87 in/yr (428 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 30,400 cfs (861 cu m/s) Jan. 11, gage height, 10.45 ft (3.185 m); minimum, 160 cfs (4.53 cu m/s) Oct. 22, gage height, 1.65 ft (0.503 m); minimum daily discharge, 530 cfs (15.0 cu m/s) Oct. 21, 22.

Period of record: Maximum discharge, 62,900 cfs (1,780 cu m/s) Mar. 28, 1935, gage height, 20.20 ft (6.157 m), site and datum then in use; minimum, 44 cfs (1.25 cu m/s) Dec. 12, 21, 22, 1941, gage height, -0.58 ft (-0.177 m), site and datum then in use; minimum daily, 44 cfs (1.25 cu m/s) Dec. 21, 22, 1941.

Maximum discharge since closure of Cherokee Dam on Dec. 5, 1941, 31,400 cfs (889 cu m/s) Mar. 22, 1963, gage height, 11.20 ft (3.414 m).

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.

REMARKS.--Records fair. Flow regulated by five reservoirs (see p.137). Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 893: 1935(M). WSP 1336: 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,710	5,480	5,690	6,210	13,200	6,030	2,070	7,350	6,990	2,820	7,770	7,260
2	6,760	2,120	5,480	9,720	14,700	6,960	7,920	5,400	6,420	7,770	7,680	7,440
3	6,700	2,120	3,450	16,700	9,090	5,220	3,400	3,470	5,790	8,670	7,410	7,410
4	7,180	1,560	4,830	20,000	11,100	5,760	5,460	2,740	7,740	6,660	5,970	10,300
5	7,240	550	5,870	19,400	12,700	6,240	4,200	2,050	6,870	7,380	4,300	10,500
6	6,340	7,420	6,820	22,500	14,200	7,680	3,560	8,250	7,230	5,670	7,110	10,900
7	3,930	4,020	9,790	22,300	11,700	5,490	3,950	7,080	7,050	6,060	7,020	6,810
8	1,820	3,700	12,700	21,900	12,000	4,630	5,030	4,700	5,490	5,280	6,870	649
9	5,280	3,390	11,500	22,600	12,100	4,600	9,510	4,100	4,950	6,630	8,310	4,550
10	6,730	3,430	13,000	20,500	12,900	3,360	9,090	7,050	888	6,870	8,220	8,840
11	5,900	6,110	16,000	26,600	14,800	3,070	6,420	1,910	3,800	6,540	6,960	8,580
12	6,080	2,690	13,200	19,300	14,200	6,510	9,090	1,220	4,050	6,960	8,190	11,100
13	5,280	3,110	10,400	19,300	15,300	11,000	6,960	1,590	3,920	7,800	8,340	10,700
14	2,210	5,540	12,600	22,400	10,700	11,700	5,430	4,830	3,820	7,080	8,310	8,040
15	580	3,330	12,400	22,100	11,700	4,200	4,200	2,380	4,180	6,390	8,980	5,310
16	4,710	4,850	14,000	21,700	12,200	4,530	7,230	1,170	4,780	7,590	8,430	2,200
17	4,850	9,060	15,300	21,400	11,700	10,800	4,250	8,160	3,070	7,680	7,530	6,060
18	4,440	2,250	14,300	21,200	13,700	16,900	5,880	6,300	8,070	9,680	8,280	5,760
19	4,370	1,450	12,300	21,100	12,400	5,080	4,150	6,240	7,770	13,100	8,340	6,270
20	2,870	1,470	11,100	21,000	15,500	4,350	3,880	9,610	7,560	13,700	8,550	6,390
21	530	3,010	13,900	20,800	15,400	5,760	1,800	7,830	7,590	8,190	11,200	6,540
22	530	3,230	9,760	21,100	13,500	4,450	816	8,010	8,010	5,850	9,580	3,310
23	4,420	1,670	9,680	20,600	14,300	3,140	4,330	10,600	6,270	7,200	9,300	1,260
24	4,530	1,500	6,820	18,100	9,650	3,900	2,960	8,100	2,820	7,320	10,100	6,480
25	3,510	773	7,750	18,000	11,100	6,840	6,030	7,080	7,260	7,950	9,090	6,900
26	3,660	3,660	11,300	16,000	10,500	8,370	5,080	2,780	7,300	7,140	9,370	6,990
27	2,230	8,830	4,160	16,600	6,900	5,730	3,630	1,140	7,560	4,880	9,400	7,020
28	685	9,120	2,850	15,600	5,030	5,340	2,660	2,300	7,440	6,870	10,200	6,630
29	5,670	3,770	2,670	15,500	-----	3,680	1,590	7,500	7,140	6,510	10,000	3,830
30	9,060	3,310	1,850	15,600	-----	3,950	8,700	7,650	6,030	7,590	7,560	3,070
31	4,760	-----	2,430	16,400	-----	2,580	-----	9,540	-----	7,230	6,810	-----
TOTAL	135,565	112,523	283,900	592,230	342,270	187,850	149,276	168,130	177,858	227,060	255,180	197,099
MEAN	4,373	3,751	9,158	19,100	12,220	6,060	4,976	5,424	5,929	7,325	8,232	6,570
MAX	9,060	9,120	16,000	26,600	15,500	16,900	9,510	10,600	8,070	13,700	11,200	11,100
MIN	530	550	1,850	6,210	5,030	2,580	816	1,140	888	2,820	4,300	649

CAL YR 1973 TOTAL 2,358,520 MEAN 6,462 MAX 20,000 MIN 411 MEAN† 6,479 CFSM† 1.73 IN.† 23.47

WTR YR 1974 TOTAL 2,828,941 MEAN 7,751 MAX 26,600 MIN 530 MEAN† 7,661 CFSM† 2.04 IN.† 27.75

† Adjusted for change in contents in South Holston, Watauga, Boone, Fort Patrick Henry, and Cherokee Lakes.

03497000 Tennessee River at Knoxville, Tenn.

LOCATION.--Lat 35°57'17", long 83°51'42", Knox County, on left bank 0.7 mile (1.1 km) downstream from confluence of French Broad and Holston Rivers, 3.5 miles (5.6 km) upstream from First Creek, 3.6 miles (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 sq mi (23,139 sq km), 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.

GAGE.--Water-stage recorder. Datum of gage is 797.38 ft (243.041 m) above mean sea level. Prior to Sept. 1, 1943, nonrecording gages or water-stage recorders at several sites within 4 miles (6 km) of present site at various datums. Since Sept. 1, 1943, auxiliary water-stage recorder 6.3 miles (10.1 km) downstream from base gage at same datum.

AVERAGE DISCHARGE.--75 years, 13,030 cfs (369.0 cu m/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 58,800 cfs (1,670 cu m/s) Jan. 11, gage height, 19.39 ft (5.910 m); minimum daily discharge, 2,840 cfs (80.4 cu m/s) Oct. 21; minimum gage height, 10.34 ft (3.152 m) Mar. 15.

Period of record: Maximum discharge observed, 195,000 cfs (5,520 cu m/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 cfs (3,680 cu m/s); minimum daily, 1,010 cfs (28.6 cu m/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 cfs (2,530 cu m/s) Mar. 12, 1963.

Maximum stage since at least 1791, 45.0 ft (13.72 m) Mar. 8, 1867, site and datum of gage at old city pumping plant, 3.2 miles (5.1 km) downstream from base gage, discharge, 290,000 cfs (8,210 cu m/s), from rating curve extended above 130,000 cfs (3,680 cu m/s), from high-water profile by Corps of Engineers and Tennessee Valley Authority.

REMARKS.--Records good. Flow regulated by many lakes above station. Records of water temperatures (at auxiliary gage, station 03497100) for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 583: 1902(M), 1904(m). WSP 853: Drainage area. WSP 1306: 1899-1918. WSP 1706: Maximum stage and discharge since at least 1791.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,020	11,800	14,600	37,300	29,900	20,500	11,100	18,100	16,800	9,070	18,400	15,700
2	16,200	5,020	15,200	33,500	29,600	19,900	19,400	13,500	16,900	17,800	18,900	15,900
3	17,100	5,300	9,150	40,500	25,000	14,700	15,800	10,900	16,500	18,100	18,000	16,100
4	18,500	4,320	12,800	46,700	27,900	13,500	24,100	7,020	18,900	15,700	14,300	20,900
5	18,300	4,030	16,800	48,400	27,700	14,600	19,400	7,780	18,600	15,900	12,900	21,300
6	13,400	16,200	20,100	51,000	35,000	15,900	22,600	16,700	18,700	15,400	17,500	22,700
7	6,130	7,980	23,600	51,300	31,500	18,000	23,300	16,400	16,300	13,700	17,700	14,200
8	3,980	9,880	26,700	50,700	32,500	14,300	23,200	13,000	13,800	13,200	17,700	3,430
9	11,300	10,100	23,900	52,500	32,700	13,600	29,000	12,200	13,400	16,700	19,400	10,400
10	14,000	10,400	27,400	49,500	33,100	12,600	28,000	12,100	9,110	17,700	20,100	18,500
11	12,000	13,400	33,700	55,200	34,400	11,800	25,000	5,640	12,100	17,800	16,400	17,000
12	12,500	7,180	29,000	46,200	32,900	14,000	27,400	4,770	12,100	18,100	19,200	21,800
13	9,910	6,610	22,200	51,000	32,800	20,200	27,900	7,500	12,800	18,400	21,000	22,500
14	5,450	13,000	26,400	52,800	25,700	25,500	25,600	10,600	12,700	15,600	19,900	18,200
15	4,360	8,340	25,500	52,400	27,000	12,000	23,700	8,990	14,100	15,700	20,800	10,000
16	11,100	11,400	28,600	51,600	26,900	13,500	25,900	7,980	14,900	17,000	20,100	7,910
17	10,600	18,600	28,800	51,300	29,800	22,600	21,900	16,600	11,000	16,300	18,600	14,900
18	10,600	7,950	29,100	50,300	34,200	33,800	20,200	15,300	20,200	21,000	19,200	15,100
19	10,400	5,800	24,900	48,400	32,600	14,700	16,400	15,300	19,000	28,000	19,000	16,000
20	5,580	4,640	21,000	47,600	35,300	15,000	12,600	21,700	19,800	29,400	20,100	16,300
21	2,840	5,810	28,200	44,900	33,100	14,600	7,400	19,600	20,200	19,600	22,100	16,000
22	6,340	8,140	23,800	44,700	29,600	15,400	7,270	15,900	19,800	15,000	20,600	8,630
23	10,800	4,740	21,400	43,300	30,900	13,400	11,000	22,900	14,700	17,500	20,600	9,260
24	11,000	6,700	15,600	38,800	23,300	15,200	8,700	18,000	12,100	17,400	21,100	16,200
25	9,420	3,730	16,400	39,200	26,900	22,600	14,300	12,300	18,100	17,800	19,600	16,700
26	9,120	11,700	21,800	36,100	23,500	21,400	13,700	5,090	18,500	17,500	20,500	16,900
27	6,030	15,700	12,800	36,900	19,300	15,400	8,410	6,090	17,900	12,400	20,800	17,000
28	4,420	19,700	9,530	36,400	20,400	13,500	5,960	9,010	17,900	16,800	21,000	15,900
29	13,400	9,470	5,180	31,700	-----	13,300	8,550	16,300	15,900	16,300	20,900	11,100
30	19,000	8,440	9,340	33,900	-----	14,200	19,500	16,200	12,100	18,400	18,200	10,200
31	10,400	-----	23,300	34,000	-----	11,900	-----	19,000	-----	18,100	15,200	-----
TOTAL	322,200	276,080	646,800	1,388,1M	823,500	511,600	547,290	402,470	474,910	537,370	589,800	456,730
MEAN	10,390	9,203	20,860	44,780	29,410	16,500	18,240	12,980	15,830	17,330	19,030	15,220
MAX	19,000	19,700	33,700	55,200	35,300	33,800	29,000	22,900	20,200	29,400	22,100	22,700
MIN	2,840	3,730	5,180	31,700	19,300	11,800	5,960	4,770	9,110	9,070	12,900	3,430

CAL YR 1973 TOTAL 6,264,380 MEAN 17,160 MAX 54,000 MIN 1,800
WTR YR 1974 TOTAL 6,976,850 MEAN 19,110 MAX 55,200 MIN 2,840

TENNESSEE RIVER BASIN

81

03497300 Little River above Townsend, Tenn.
(Hydrologic bench-mark station)

LOCATION.--Lat 35°39'52", long 83°42'41", Blount County, in Great Smoky Mountains National Park, on left bank along State Highway 73, 0.3 mile (0.5 km) above Rush Branch, 0.4 mile (0.6 km) southeast of Park entrance, 2.2 miles (3.5 km) southeast of Townsend, and at mile 35.3 (56.8 km).

DRAINAGE AREA.--106 sq mi (275 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 1,106.92 ft (337.389 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 295 cfs (8.354 cu m/s) 37.79 in/yr (960 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 cfs (156 cu m/s) Nov. 28, gage height, 7.31 ft (2.228 m); minimum, 46 cfs (1.30 cu m/s) Oct. 26, 27, 28, gage height, 1.35 ft (0.411 m).

Period of record: Maximum discharge, 16,000 cfs (453 cu m/s) Mar. 16, 1973, gage height, 12.30 ft (3.749 m); minimum, 32 cfs (0.91 cu m/s) Oct. 30, 31, 1963, Oct. 7-10, 1970; minimum gage height, 1.26 ft (0.384 m) Sept. 17, 18, 1968.

REMARKS.--Records good. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	146	396	1,980	377	320	434	223	635	104	92	106
2	141	100	315	1,070	668	301	492	221	550	98	116	110
3	94	83	267	963	1,340	283	437	285	447	103	149	144
4	83	77	243	1,390	1,030	267	1,320	238	379	108	172	192
5	77	81	475	1,140	718	265	962	293	321	143	124	142
6	72	94	333	826	610	400	688	346	293	162	115	187
7	69	78	284	745	669	331	549	302	297	154	129	187
8	66	75	252	613	715	307	559	275	248	251	146	157
9	65	91	231	1,610	640	288	688	264	243	919	173	161
10	61	82	207	1,480	544	272	587	249	239	561	140	182
11	60	75	186	2,030	468	254	514	232	205	356	123	135
12	58	71	174	1,500	404	247	472	971	184	282	266	425
13	56	70	239	925	362	227	1,170	701	171	228	410	470
14	63	68	238	707	426	211	879	500	156	199	236	282
15	66	70	208	620	383	195	711	407	153	178	218	222
16	57	133	201	535	548	270	571	344	236	160	199	194
17	54	86	191	471	601	252	525	295	169	146	209	176
18	51	77	171	415	528	222	452	271	144	193	175	160
19	51	75	170	370	501	279	404	242	132	215	176	144
20	50	72	443	336	459	485	365	225	127	256	144	130
21	49	372	719	342	400	1,870	334	226	152	193	136	160
22	49	323	494	297	881	1,170	317	212	133	166	144	172
23	48	212	399	282	714	725	358	646	157	154	126	130
24	48	172	339	293	589	556	301	430	190	146	116	118
25	47	199	301	332	488	469	280	329	169	136	108	114
26	47	234	1,920	367	412	409	264	330	146	143	104	110
27	46	655	1,420	625	364	361	251	442	133	157	108	106
28	91	2,690	767	573	335	339	236	351	133	130	152	138
29	132	902	569	573	-----	392	226	315	122	116	130	110
30	80	538	557	502	-----	528	213	666	111	107	128	100
31	84	-----	2,030	434	-----	489	-----	894	-----	98	118	-----
TOTAL	2,143	8,001	14,739	24,346	16,174	12,988	15,559	11,725	6,775	6,362	4,882	5,164
MEAN	69.1	267	475	785	578	419	519	378	226	205	157	172
MAX	141	2,690	2,030	2,030	1,340	1,870	1,320	971	635	919	410	470
MIN	46	68	170	282	335	199	213	212	111	98	92	100
CFSM	.65	2.52	4.48	7.41	5.45	3.95	4.90	3.57	2.13	1.93	1.48	1.62
IN.	.75	2.81	5.17	8.54	5.68	4.56	5.46	4.11	2.38	2.23	1.71	1.81

CAL YR 1973 TOTAL 130,389 MEAN 357 MAX 8,790 MIN 46 CFSM 3.37 IN 45.76
WTR YR 1974 TOTAL 128,858 MEAN 353 MAX 2,690 MIN 46 CFSM 3.33 IN 45.22

PEAK DISCHARGE (BASE, 3,100 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	0630	7.31	5,500	01-11	1315	5.92	3,450
12-26	1530	6.81	4,720	03-21	1030	6.28	3,940
12-31	1900	6.47	4,210				

TENNESSEE RIVER BASIN

03498500 Little River near Maryville, Tenn.

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, on right bank on downstream side of bridge on U. S. Highway 411, 0.8 mile (1.3 km) downstream from Crooked Creek, 5.0 miles (8.0 km) east of Maryville, and at mile 17.3 (27.8 km).

DRAINAGE AREA.--269 sq mi (670 sq km).

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft (259.080 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 543 cfs (15.38 cu m/s), 27.42 in/yr (696 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,300 cfs (292 cu m/s) Dec. 31, gage height, 16.15 ft (4.923 m); minimum, 101 cfs (2.86 cu m/s) Oct. 27, 28, gage height, 6.50 ft (1.981 m).
 Period of record: Maximum discharge, 32,200 cfs (912 cu m/s) Mar. 12, 1963, gage height, 24.20 ft (7.376 m) from rating curve extended above 20,000 cfs (566 cu m/s) on basis of area-velocity study and road overflow computations; minimum, 32 cfs (0.91 cu m/s) Aug. 27, 1956, minimum gage height, 6.25 ft (1.905 m) Sept. 24, 1970; minimum daily, 44 cfs (1.25 cu m/s) Sept. 19, 1954.
 Flood of Feb. 25, 1875, reached a stage of 31 ft (9.4 m), discharge, 50,000 cfs (1,420 cu m/s) and flood of Apr. 1, 1896, reached a stage of 26 ft (7.9 m), discharge, 36,000 cfs (1,020 cu m/s) from reports by Tennessee Valley Authority.

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 cfs (0.071 cu m/s) for municipal supply, 300 ft (90 m) upstream from the gage. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	193	648	5,440	742	608	856	350	1,510	191	151	164
2	350	189	523	2,240	2,400	569	1,080	380	1,020	182	161	274
3	223	155	446	1,970	4,730	544	940	857	806	183	197	196
4	189	141	403	3,010	2,680	508	4,810	441	662	197	281	256
5	174	138	597	2,440	1,570	496	2,450	422	566	203	219	212
6	166	162	493	1,650	1,210	804	1,430	525	574	250	182	238
7	155	144	422	1,610	1,310	856	1,080	452	601	265	186	289
8	152	138	380	1,260	1,450	668	1,050	413	463	326	203	228
9	148	152	350	4,140	1,290	601	1,190	397	419	1,090	287	208
10	144	148	321	3,560	1,070	557	987	377	425	683	213	246
11	141	134	295	5,620	924	520	837	358	378	477	188	203
12	138	128	274	3,590	800	520	752	1,180	349	386	180	189
13	134	125	348	1,970	728	496	1,650	997	325	318	524	676
14	144	125	427	1,450	857	438	1,320	690	306	278	308	369
15	155	121	331	1,310	798	415	1,220	574	294	250	289	283
16	138	214	317	1,130	1,880	557	908	537	391	228	267	246
17	128	177	307	992	1,710	595	826	443	346	215	276	222
18	125	144	274	868	1,160	496	721	405	281	237	249	207
19	118	134	271	770	1,090	661	644	369	260	287	256	189
20	115	131	404	706	952	2,340	584	350	247	360	207	176
21	115	461	1,160	682	812	4,840	536	323	270	290	188	175
22	112	595	770	609	1,620	2,690	506	352	259	238	195	238
23	112	335	606	574	1,350	1,500	589	2,080	253	218	180	179
24	109	264	523	700	1,080	1,110	491	1,110	289	212	167	162
25	109	245	472	978	909	917	452	643	283	198	157	158
26	106	340	3,790	865	775	812	426	582	256	248	150	152
27	103	879	3,140	1,140	696	717	405	898	234	226	144	152
28	112	5,090	1,370	1,160	641	675	383	634	237	203	182	181
29	236	1,690	972	1,260	-----	864	366	546	218	180	180	165
30	162	887	1,020	1,010	-----	1,250	350	1,640	203	169	199	146
31	144	-----	3,820	851	-----	1,040	-----	4,630	-----	159	180	-----
TOTAL	4,693	13,779	25,474	55,555	37,234	29,664	29,839	23,955	12,725	8,947	6,746	6,779
MEAN	151	459	822	1,792	1,330	957	995	773	424	289	218	226
MAX	350	5,090	3,820	5,620	4,730	4,840	4,810	4,630	1,510	1,090	524	676
MIN	103	121	271	574	641	415	350	323	203	159	144	146
CFSM	.56	1.71	3.06	6.66	4.94	3.56	3.70	2.87	1.58	1.07	.81	.84
IN.	.65	1.91	3.52	7.68	5.15	4.10	4.13	3.31	1.76	1.24	.93	.94

CAL YR 1973 TOTAL 240,711 MEAN 659 MAX 16,700 MIN 103 CFSM 2.45 IN 33.29
 WTR YR 1974 TOTAL 255,390 MEAN 700 MAX 5,620 MIN 103 CFSM 2.60 IN 35.32

PEAK DISCHARGE (BASE, 6,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	1100	14.87	8,570	03-21	1430	14.48	8,170
12-26	2030	13.97	7,410	04-04	1330	14.38	8,040
12-31	2330	16.15	10,300	05-31	0130	14.20	7,700
01-11	1700	14.98	8,820				

03518300 Little Tennessee River below Chilhowee Dam, Tennessee

LOCATION.--Lat 35°32'48", long 84°03'50", Blount County, on right bank on U. S. Highway 129, at Tallassee, 100 ft (30 m) upstream from Cochran Creek, 0.8 mile (1.3 km) downstream from Chilhowee Dam, 20 miles (32 km) south of Maryville, and at mile 32.8 (52.8 km). Records include inflow of Cochran Creek.

DRAINAGE AREA.--1,987 sq mi (5,146 sq km), including Cochran Creek.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 799.58 ft (243.712 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 4,975 cfs (140.9 cu m/s), 34.00 in/yr (864 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 19,200 cfs (544 cu m/s) Jan. 11, gage height, 13.06 ft (3.981 m); minimum, 23 cfs (0.65 cu m/s) Sept. 30, gage height, 5.48 ft (1.670 m); minimum daily, 1.560 cfs (44.2 cu m/s) Nov. 27.

Period of record: Maximum discharge, 41,500 cfs (1,180 cu m/s) May 28, 1973, gage height, 17.31 ft (5.276 m); minimum, 23 cfs (0.65 cu m/s) Sept. 30, 1974, gage height, 5.48 ft (1.670 m); minimum daily, 26 cfs (0.74 cu m/s) Aug. 30, 1964.

REMARKS.--Records excellent. Flow regulated by seven reservoirs (see sta. 03517900, 03518200, and basic data release for North Carolina). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,570	6,970	4,750	9,620	10,700	7,960	5,300	5,170	6,090	6,000	4,990	5,020
2	4,340	4,560	4,370	8,530	10,700	7,700	4,880	4,800	6,010	6,590	4,830	7,260
3	3,770	5,070	5,060	8,340	13,300	7,860	4,350	4,930	4,170	6,040	6,740	5,700
4	3,150	4,670	5,150	9,590	13,000	7,270	6,040	4,380	5,600	5,120	4,490	7,450
5	5,630	5,600	5,580	14,000	10,800	7,280	5,350	3,650	4,650	6,610	5,980	6,780
6	3,790	6,200	7,000	12,000	10,800	7,340	4,500	5,280	6,720	5,340	5,190	6,360
7	2,180	5,560	6,720	12,000	11,300	7,570	4,530	4,170	7,020	4,250	5,190	4,320
8	4,200	5,790	7,550	10,700	12,200	6,840	5,410	6,530	4,240	6,670	7,140	4,520
9	4,890	5,260	6,410	14,500	12,200	5,710	5,590	4,280	5,180	8,020	6,740	8,080
10	4,250	5,110	8,720	14,300	11,000	6,160	4,250	4,300	6,840	7,000	5,330	6,370
11	5,680	5,270	6,210	16,200	10,900	5,690	3,000	5,200	5,420	5,990	4,900	7,310
12	5,000	4,530	8,000	12,600	9,700	6,120	4,170	3,510	5,970	5,750	7,350	6,170
13	4,590	5,010	8,260	10,900	9,900	6,770	7,850	5,630	6,380	6,460	6,270	7,280
14	3,950	5,140	6,510	11,200	12,200	7,580	5,600	4,200	6,590	5,010	6,610	5,310
15	5,960	4,720	7,970	11,700	11,900	5,860	5,640	4,490	6,570	6,350	7,500	3,170
16	4,190	5,300	7,970	11,400	12,100	5,050	4,580	5,400	6,340	5,930	6,100	5,470
17	4,310	6,310	7,550	10,800	12,300	7,690	5,780	5,390	7,290	7,040	6,110	4,860
18	5,140	3,230	6,740	10,700	10,700	8,130	6,280	5,040	6,430	5,310	3,460	5,460
19	5,220	4,820	6,690	10,800	11,300	5,390	4,570	4,510	5,820	6,130	6,980	5,590
20	4,700	4,640	8,130	10,700	11,100	6,110	5,700	6,220	6,330	6,540	7,020	3,630
21	4,840	4,260	7,280	10,700	11,000	5,590	4,130	3,950	6,280	3,640	7,490	4,090
22	4,810	4,300	7,980	10,700	14,200	5,140	5,210	5,640	6,100	5,690	6,300	4,210
23	5,060	3,820	5,640	10,500	12,100	2,780	6,620	6,830	3,920	6,280	7,440	6,800
24	5,340	3,560	5,390	9,900	11,400	3,830	4,220	6,290	6,340	5,510	5,950	3,950
25	6,720	4,180	5,340	9,500	10,100	5,790	5,070	4,980	6,390	5,180	5,260	4,150
26	3,370	5,870	5,460	10,800	11,000	4,920	4,920	3,770	5,800	5,200	5,690	5,230
27	5,030	1,560	5,390	10,800	10,600	4,460	5,050	4,630	6,680	4,770	6,880	4,490
28	4,790	8,580	5,130	10,800	9,050	3,110	5,010	6,400	4,990	4,210	6,600	6,240
29	5,350	3,780	5,290	10,900	-----	1,860	5,200	5,430	4,870	5,620	7,250	5,180
30	7,420	4,400	4,130	10,900	-----	2,130	4,690	6,500	4,490	6,840	5,800	3,300
31	6,300	-----	9,680	10,800	-----	1,890	-----	11,800	-----	5,310	5,530	-----
TOTAL	147,540	148,070	202,100	346,880	317,550	177,580	153,490	163,300	175,520	180,400	189,110	163,750
MEAN	4,759	4,936	6,519	11,190	11,340	5,728	5,116	5,268	5,851	5,819	6,100	5,458
MAX	7,420	8,580	9,680	16,200	14,200	8,130	7,850	11,800	7,290	8,020	7,500	8,080
MIN	2,180	1,560	4,130	8,340	9,050	1,860	3,000	3,510	3,920	3,640	3,460	3,170
CAL YR 1973	TOTAL 2,266,630		MEAN 6,210		MAX 26,000		MIN 1,240					
WTR YR 1974	TOTAL 2,365,290		MEAN 6,480		MAX 16,200		MIN 1,560					

TENNESSEE RIVER BASIN

03518500 Tellico River at Tellico Plains, Tenn.

LOCATION.--Lat 35°21'42", long 84°16'44", Monroe County, on right bank 1,300 ft (400 m) upstream from bridge on Tellico Plains-Ballplay Road, 0.4 mile (0.6 km) downstream from Laurel Creek, 0.8 mile (1.3 km) east of Tellico Plains, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--118 sq mi (306 sq km).

PERIOD OF RECORD.--July 1925 to current year. Published as "near Tellico Plains" October 1927 to September 1930.

GAGE.--Water-stage recorder. Datum of gage is 846.64 ft (258.056 m) above mean sea level. July 20, 1925, to Sept. 30, 1927, non-recording gage at same site and datum. Oct. 1, 1927, to Sept. 30, 1930, nonrecording gage at site 0.5 mile (0.8 km) upstream at datum 8.29 ft (2.527 m) higher.

AVERAGE DISCHARGE.--49 years, 335 cfs (9.487 cu m/s) 32.80 in/yr (833 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,890 cfs (195 cu m/s) Nov. 28, gage height, 9.93 ft (3.027 m) from rating curve extended above 12,000 cfs (340 cu m/s) on basis of slope-area measurement of peak flow; minimum, 50 cfs (1.42 cu m/s) Sept. 30, gage height, 1.07 ft (0.326 m).

Period of record: Maximum discharge, 19,900 cfs (564 cu m/s) Mar. 16, 1973, gage height, 14.18 ft (4.322 m) from dross line in well; from rating curve extended above 12,000 cfs (340 cu m/s) on basis of slope-area measurement of peak flow, minimum, 13 cfs (0.37 cu m/s) Sept. 7, 1925, gage height, 0.25 ft (0.076 m).

REMARKS.--Records good. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1336: 1927-28(M), 1936, 1940, 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	135	325	1,610	377	353	450	228	361	97	66	70
2	202	92	266	935	659	329	650	242	369	96	71	80
3	111	82	232	1,450	1,080	306	650	259	284	109	125	98
4	97	78	222	2,110	868	284	1,640	228	245	152	107	130
5	90	78	510	1,280	620	266	951	222	215	140	107	87
6	85	78	333	863	573	287	654	208	222	152	75	117
7	82	74	280	819	930	245	532	196	242	137	72	119
8	80	75	245	649	1,030	228	577	183	192	269	96	87
9	80	125	218	1,620	745	215	563	186	177	189	120	79
10	78	92	199	1,610	587	205	488	284	171	205	88	75
11	77	83	177	2,220	505	196	435	222	166	137	85	71
12	74	80	163	1,520	435	189	444	492	150	127	116	67
13	72	78	202	915	393	177	982	337	150	107	85	82
14	75	77	232	803	1,040	166	724	266	137	101	77	67
15	78	77	199	884	899	158	639	273	147	96	80	64
16	72	94	183	764	1,210	232	532	287	183	92	136	63
17	69	83	168	649	1,080	183	492	232	147	90	175	60
18	66	77	150	550	745	168	440	212	127	168	105	59
19	66	75	142	484	659	365	402	192	123	97	87	57
20	66	75	353	435	545	532	369	183	116	101	76	55
21	66	573	654	448	475	1,920	341	180	118	88	72	54
22	66	295	385	373	1,180	803	341	177	120	80	80	80
23	65	158	310	369	794	523	397	674	160	78	71	58
24	65	125	273	402	620	414	321	377	152	92	67	53
25	64	174	245	427	518	373	298	276	125	99	63	53
26	64	235	2,430	453	448	329	280	306	111	85	63	53
27	62	967	1,260	559	406	302	266	582	116	109	61	52
28	109	3,130	605	587	373	313	255	365	130	96	105	72
29	147	774	462	664	-----	414	245	295	109	78	85	58
30	97	440	559	527	-----	728	235	259	101	74	88	51
31	92	-----	2,130	435	-----	550	-----	238	-----	68	77	-----
TOTAL	2,659	8,579	14,112	27,414	19,794	11,753	15,593	8,661	5,166	3,609	2,781	2,171
MEAN	85.8	286	455	884	707	379	520	279	172	116	89.7	72.4
MAX	202	3,130	2,430	2,220	1,210	1,920	1,640	674	369	269	175	130
MIN	62	74	142	369	373	158	235	177	101	68	61	51
CFSM	.73	2.42	3.86	7.49	5.99	3.21	4.41	2.36	1.46	.98	.76	.61
IN.	.84	2.70	4.45	8.64	6.24	3.71	4.92	2.73	1.63	1.14	.88	.68

CAL YR 1973 TOTAL 142,477 MEAN 390 MAX 9,990 MIN 62 CFSM 3.31 IN 44.92
WTR YR 1974 TOTAL 122,292 MEAN 335 MAX 3,130 MIN 51 CFSM 2.84 IN 38.55

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	0630	9.93	6,890	01-11	1245	8.04	4,010
12-26	1545	9.13	5,470	03-21	0945	7.91	3,870
12-31	1900	8.36	4,380				

03519640 Baker Creek near Greenback, Tenn.

LOCATION.--Lat 35°40'21", long 84°06'28", Blount County, on right bank at downstream side of county road bridge, 1.0 mile (1.6 km) upstream from Little Baker Creek, 3.4 miles (5.5 km) east of Greenback, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--16.0 sq mi (41.4 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 845.01 ft (257.559 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 33.0 cfs (0.935 cu m/s), 28.01 in/yr (711 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,900 cfs (82.1 cu m/s) May 30, gage height, 9.70 ft (2.957 m), from rating curve extended above 420 cfs (11.9 cu m/s) on basis of contracted-opening measurements of peak flow; minimum, 10 cfs (0.28 cu m/s) Nov. 20, 21. Period of record: Maximum discharge, 2,900 cfs (82.1 cu m/s) May 30, 1974, gage height, 9.70 ft (2.957 m), from rating curve extended above 420 cfs (11.9 cu m/s) on basis of contracted-opening measurements of peak flow; minimum, 3.1 cfs (0.088 cu m/s) Oct. 7, 8, 9, 1970.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	13	48	228	60	46	46	32	98	26	17	13
2	25	12	43	126	284	44	61	33	75	26	17	14
3	18	13	40	128	293	42	58	47	61	26	20	14
4	17	12	39	203	144	41	474	32	55	27	19	13
5	16	12	43	131	109	40	119	32	51	28	17	13
6	15	12	36	104	96	43	83	31	78	27	16	14
7	15	12	33	104	98	39	68	29	113	26	16	14
8	14	12	31	80	86	37	97	28	54	26	18	13
9	14	12	29	263	74	35	73	28	49	25	18	13
10	14	11	28	164	65	34	57	28	47	23	16	13
11	13	11	27	313	61	33	53	27	44	27	16	13
12	13	11	26	175	58	33	51	39	41	30	16	29
13	13	11	30	133	55	32	93	29	39	23	15	20
14	14	11	27	116	76	31	55	26	38	23	15	15
15	13	11	25	128	60	30	61	29	36	22	15	14
16	12	13	24	96	179	32	50	29	45	21	15	13
17	12	11	23	84	106	30	48	26	36	21	14	13
18	12	11	22	74	79	29	45	25	34	20	14	13
19	12	11	22	65	79	39	43	24	33	21	14	13
20	12	10	35	61	66	79	41	23	32	22	14	13
21	11	18	42	59	59	242	39	24	32	20	14	13
22	11	16	31	54	109	85	39	23	31	20	15	13
23	11	13	29	53	65	61	42	293	31	19	14	13
24	11	12	28	85	59	54	38	54	30	19	13	13
25	11	12	32	115	55	50	36	40	29	19	13	13
26	11	13	22	85	51	46	35	43	28	18	13	12
27	11	95	149	87	50	43	34	52	28	18	13	13
28	13	334	82	103	48	41	33	36	27	19	13	14
29	14	81	68	108	-----	90	33	34	27	18	13	13
30	13	55	79	78	-----	89	32	640	27	17	18	13
31	12	-----	226	66	-----	51	-----	498	-----	17	14	-----
TOTAL	441	881	1,419	3,669	2,624	1,621	2,037	2,334	1,349	694	475	420
MEAN	14.2	29.4	45.8	118	93.7	52.3	67.9	75.3	45.0	22.4	15.3	14.0
MAX	38	334	226	313	293	242	474	640	113	30	20	29
MIN	11	10	22	53	48	29	32	23	27	17	13	12
CFSM	.89	1.84	2.86	7.38	5.86	3.27	4.24	4.71	2.81	1.40	.96	.88
IN.	1.03	2.05	3.30	8.53	6.10	3.77	4.74	5.43	3.14	1.61	1.10	.98

CAL YR 1973 TOTAL 15,897 MEAN 43.6 MAX 1,050 MIN 10 CFSM 2.73 IN 36.96
WTR YR 1974 TOTAL 17,964 MEAN 49.2 MAX 640 MIN 10 CFSM 3.08 IN 41.77

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	0330	6.66	495	02-16	1520	6.09	320
12-26	1335	6.51	443	03-21	1250	6.57	464
12-31	2200	6.78	539	04-04	1015	8.10	1,250
01-09	1445	6.66	495	05-23	0610	6.64	488
02-02	1910	7.15	694	05-30	2030	9.70	2,900

03528000 Clinch River above Tazewell, Tennessee

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, on right bank 0.4 mile (0.6 km) upstream from Grissom Island, 4.6 miles (7.4 km) downstream from Big War Creek, 10 miles (16 km) east of Tazewell, and at mile 159.8 (257.1 km).

DRAINAGE AREA.--1,474 sq mi (3,818 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,060.7 ft (323.30 m) above mean sea level. Apr. 1, 1919 to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 miles (37.5 km) downstream at datum 102.7 ft (31.30 m) lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 miles (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.

AVERAGE DISCHARGE.--56 years, 2,090 cfs (59.19 cu m/s), 19.26 in/yr (489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 36,200 cfs (1,025 cu m/s) Jan. 12, gage height, 17.18 ft (5.236 m); minimum, 262 cfs (7.42 cu m/s) Oct. 27, 28, gage height, 0.79 ft (0.241 m).

Period of record: Maximum discharge, 56,700 cfs (1,610 cu m/s) Mar. 13, 1963, gage height, 22.27 ft (6.788 m); minimum, 108 cfs (3.06 cu m/s) Sept. 11, 1925; minimum gage height at present site and datum, 0.33 ft (0.101 m) Sept. 20, 1955. Maximum stage known, about 24 ft (7.3 m) in 1862, present site and datum, from information by local resident.

REMARKS.--Records good. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 803: Drainage area at site "near Tazewell". WSP 1306: Drainage area at site "near Lone Mountain". WSP 1336: 1928.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	1,440	5,670	12,500	3,650	2,490	3,820	1,380	4,140	2,330	523	400
2	406	1,730	3,610	14,100	4,040	2,270	4,090	1,450	3,580	1,740	472	536
3	557	1,510	2,710	13,300	7,960	2,070	4,150	3,700	4,240	1,390	527	769
4	603	1,190	2,230	16,400	7,840	1,900	5,990	5,150	3,750	1,160	583	634
5	544	953	2,290	15,300	5,870	1,760	11,200	3,650	2,770	1,060	900	549
6	509	843	2,290	10,600	4,500	1,700	10,100	3,710	2,200	990	798	511
7	444	927	2,250	7,030	3,760	1,970	6,140	3,860	1,930	1,030	644	475
8	396	1,060	1,930	5,230	3,280	4,180	4,700	3,360	1,740	896	563	458
9	393	938	1,690	7,550	2,970	4,580	4,780	2,850	1,540	893	526	444
10	807	804	1,540	11,500	2,640	3,510	5,070	2,500	1,380	842	514	444
11	1,050	710	1,430	25,300	2,370	2,920	4,750	2,390	1,230	813	648	429
12	782	645	1,330	34,100	2,160	2,770	3,950	3,500	1,120	791	765	498
13	600	589	1,370	20,300	2,040	3,830	3,590	9,410	1,010	721	615	676
14	504	542	1,740	9,150	2,850	7,610	3,310	8,770	916	650	522	585
15	447	516	1,970	6,110	3,970	6,520	3,170	5,470	844	596	463	495
16	400	656	2,320	4,760	4,560	4,570	3,200	3,700	885	640	464	449
17	372	693	2,110	3,820	7,160	5,340	2,890	2,870	1,300	1,050	514	410
18	352	704	1,840	3,180	8,880	6,500	2,600	2,370	1,400	676	538	384
19	334	721	1,590	2,760	6,420	5,590	2,330	2,650	1,150	584	601	359
20	317	664	1,450	2,480	4,770	4,890	2,120	4,110	975	557	957	338
21	304	898	1,570	2,300	3,830	13,900	1,930	3,130	1,310	535	680	726
22	295	1,770	1,990	2,180	4,030	23,700	1,780	2,900	1,770	544	551	1,080
23	287	1,510	3,000	2,230	5,790	17,400	1,930	3,010	5,520	531	698	695
24	282	1,240	2,630	2,250	6,030	8,560	2,340	3,600	3,980	503	568	543
25	277	1,050	2,310	2,740	4,760	5,620	2,510	3,370	2,280	524	471	454
26	270	1,200	10,100	3,970	3,840	4,230	2,170	2,580	1,680	552	417	405
27	264	13,600	25,900	5,630	3,180	3,420	1,920	2,340	1,390	516	380	382
28	299	33,000	21,000	6,140	2,750	2,960	1,740	1,960	1,520	996	353	422
29	440	27,000	9,060	6,160	-----	2,710	1,590	1,700	2,920	784	339	399
30	574	12,100	6,500	5,380	-----	2,960	1,470	3,110	3,530	611	371	363
31	902	-----	7,370	4,430	-----	3,540	-----	4,140	-----	588	366	-----
TOTAL	14,362	111,203	134,790	268,880	125,900	167,970	111,330	108,690	64,000	26,093	17,331	15,317
MEAN	463	3,707	4,348	8,674	4,496	5,418	3,711	3,506	2,133	842	559	510
MAX	1,050	33,000	25,900	34,100	8,880	23,700	11,200	9,410	5,520	2,330	957	1,080
MIN	264	516	1,330	2,180	2,040	1,700	1,470	1,380	844	503	339	338
CFSM	.31	2.51	2.95	5.88	3.05	3.68	2.52	2.38	1.45	.57	.38	.35
IN.	.36	2.81	3.40	6.79	3.18	4.24	2.81	2.74	1.62	.66	.44	.39

CAL YR 1973 TOTAL 926,481 MEAN 2,538 MAX 48,200 MIN 264 CFSM 1.72 IN 23.38
WTR YR 1974 TOTAL 1,165,861 MEAN 3,194 MAX 34,100 MIN 264 CFSM 2.17 IN 29.42

PEAK DISCHARGE (BASE, 14,000 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	Unknown	16.94*	35,400	01-12	0730	17.18	36,200
12-27	1630	14.84	28,300	03-22	1300	13.72	24,800
01-04	1030	10.79	16,600				

*Dross line in well.

03532000 Powell River near Arthur, Tenn.

CATION.--Lat 36°32'30", long 83°37'49", Claiborne County, on left bank 500 ft (150 m) upstream from bridge on U. S. Highway 25E, 2.3 miles (3.7 km) east of Arthur, 2.4 miles (3.9 km) downstream from Indian Creek, and at mile 65.4 (105.2 km).

DRAINAGE AREA.--685 sq mi (1,774 sq km).

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").

GAGE.--Water-stage recorder. Datum of gage is 1,043.84 ft (318.162 m) above mean sea level (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.

AVERAGE DISCHARGE.--55 years, 1,148 cfs (32.51 cu m/s), 22.76 in/yr (578 mm/yr).

EXTREMES.--Current year: Maximum discharge, 28,800 cfs (816 cu m/s) Nov. 28, gage height, 27.01 ft (8.233 m); minimum, 189 cfs (5.35 cu m/s) Oct. 27, gage height, 1.79 ft (0.546 m).

Period of record: Maximum discharge, 33,000 cfs (935 cu m/s) Jan. 9, 1946, gage height, 29.15 ft (8.885 m), present datum, from floodmark, from rating curve extended above 27,000 cfs (765 cu m/s) on basis of slope-area measurement of peak flow; minimum, 47 cfs (1.33 cu m/s) Jan. 6, 1940, result of freezeup; minimum daily, 60 cfs (1.70 cu m/s) Sept. 23, 1955; minimum gage height, 1.50 ft (0.457 m) Sept. 25, 26, 1972 (result of dredging).

Flood of Jan. 29, 1918, reached a stage of 29.2 ft (8.90 m) present datum, discharge, 33,000 cfs (935 cu m/s).

REMARKS.--Records good. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1336: 1920, 1921(M), 1923.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1913 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	714	3,860	3,550	2,450	1,330	1,860	797	3,340	704	230	328
2	360	779	2,540	4,230	2,860	1,220	2,190	782	3,650	622	227	467
3	416	749	1,930	5,650	5,250	1,120	2,360	1,510	5,120	559	279	532
4	528	599	1,600	7,250	5,470	1,030	3,600	3,050	3,350	510	432	519
5	484	528	1,990	6,430	3,910	966	5,350	2,630	2,090	475	931	467
6	356	501	2,210	4,690	2,830	975	4,420	2,030	1,590	475	749	449
7	298	568	1,860	3,270	2,350	1,070	2,840	1,910	1,310	821	528	404
8	309	577	1,530	2,500	2,050	1,550	2,310	1,620	1,180	734	408	364
9	392	519	1,310	3,830	1,800	1,660	2,440	1,430	1,030	941	368	340
10	528	458	1,170	6,760	1,600	1,440	2,570	1,260	892	973	416	311
11	515	412	1,040	16,800	1,430	1,260	2,200	1,110	790	1,040	336	275
12	388	372	922	21,200	1,310	1,230	1,890	2,190	709	754	744	286
13	325	344	1,130	13,300	1,210	1,450	1,740	4,060	643	604	659	408
14	298	328	1,870	5,260	1,380	1,860	1,670	3,760	590	528	488	380
15	272	321	2,160	3,550	1,870	1,780	1,840	2,300	548	445	400	416
16	254	515	1,700	2,690	2,100	1,600	2,120	1,720	1,120	400	352	362
17	244	545	1,420	2,180	2,780	1,860	1,820	1,400	1,250	372	356	319
18	230	669	1,200	1,840	3,000	2,170	1,690	1,200	1,070	360	384	283
19	220	528	1,030	1,610	2,500	2,200	1,500	1,090	741	340	424	260
20	214	454	1,060	1,440	2,160	3,550	1,350	1,210	633	332	563	242
21	208	563	1,440	1,410	1,860	8,320	1,210	1,080	699	332	617	591
22	205	1,350	1,340	1,360	2,260	12,500	1,110	1,010	1,820	328	506	733
23	201	1,760	1,220	1,340	2,930	8,690	1,200	1,000	3,700	302	428	521
24	198	1,230	1,090	1,600	3,070	4,170	1,310	1,060	3,310	305	467	437
25	195	923	1,040	2,720	2,440	2,820	1,380	1,090	1,590	294	432	332
26	192	1,430	7,040	3,940	1,990	2,150	1,220	904	1,180	294	352	283
27	189	12,200	12,700	4,470	1,670	1,800	1,100	861	968	313	305	263
28	283	26,800	9,710	4,710	1,470	1,580	998	766	931	275	275	275
29	631	24,800	4,360	4,790	-----	1,450	915	699	1,030	268	251	269
30	775	9,800	3,320	4,220	-----	1,490	845	1,470	836	275	254	268
31	730	-----	3,190	3,190	-----	1,740	-----	4,660	-----	251	258	-----
TOTAL	10,732	91,336	79,982	151,780	68,000	78,031	59,048	51,659	47,710	15,226	13,419	11,384
MEAN	346	3,045	2,580	4,896	2,429	2,517	1,968	1,666	1,590	491	433	379
MAX	775	26,800	12,700	21,200	5,470	12,500	5,350	4,660	5,120	1,040	931	733
MIN	189	321	922	1,340	1,210	966	845	699	548	251	227	242
CFSM	.51	4.45	3.77	7.15	3.55	3.67	2.87	2.43	2.32	.72	.63	.55
IN.	.58	4.96	4.34	8.24	3.69	4.24	3.21	2.81	2.59	.83	.73	.62

CAL YR 1973 TOTAL 581,310 MEAN 1,593 MAX 26,800 MIN 189 CFSM 2.33 IN 31.57
WTR YR 1974 TOTAL 678,307 MEAN 1,858 MAX 26,800 MIN 189 CFSM 2.71 IN 36.84

PEAK DISCHARGE (BASE, 9,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1230	27.01	28,800	01-12	1800	23.35	22,300
12-27	1930	18.02	14,300	03-22	1800	17.97	14,200

TENNESSEE RIVER BASIN

03533000 Clinch River below Norris Dam, Tenn.

LOCATION.--Lat 36°12'56", long 84°04'56", Anderson County, 0.5 mile (0.8 km) upstream from Clear Creek, 1.0 mile (1.6 km) downstream from Norris Dam, 1.5 miles (2.4 km) north of Norris, and at mile 78.8 (126.8 km).

DRAINAGE AREA.--2,913 sq mi (7,545 sq km).

PERIOD OF RECORD.--October 1903 to June 1974 (discontinued). Published as "at Clinton" October 1903 to September 1927, and "near Coal Creek" May 1927 to September 1937. Records published for sites "at Clinton" and "near Coal Creek" May to September 1927; for sites "near Coal Creek" and "below Norris Dam" April 1936 to September 1937. Gage-height records collected in vicinity of Clinton from 1884 to 1943 are contained in reports of U. S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 819.11 ft (249.665 m) above mean sea level. See WSP 1306 for history of changes prior to Jan. 28, 1937.

AVERAGE DISCHARGE.--70 years (1903-73), 4,295 cfs (121.6 cu m/s), 20.02 in/yr (509 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 25,100 cfs (711 cu m/s) Jan. 15, gage height, 11.36 ft (3.463 m); minimum, 54 cfs (1.53 cu m/s) Nov. 24, 25, gage height, 1.22 ft (0.372 m), minimum daily, 58 cfs (1.64 cu m/s) Nov. 18.

Period of record: Maximum discharge, 87,000 cfs (2,460 cu m/s) Mar. 5, 1917, gage height, 38.5 ft (11.73 m), from graph based on gage readings, site and datum then in use, from rating curve extended above 62,000 cfs (1,760 cu m/s); minimum, and minimum daily, 1.3 cfs (0.037 cu m/s), several days in May and June, 1936, gage height, 0.62 ft (0.189 m).

Maximum discharge since closure of Norris Dam on Mar. 4, 1936, 42,500 cfs (1,200 cu m/s) Feb. 16, 1937, gage height, 17.13 ft (5.221 m).

Flood of Mar. 11, 1826, reached a stage of 43.5 ft (13.26 m), discharge, 130,000 cfs (3,680 cu m/s); floods of Feb. 24, 1862 and Mar. 31, 1886, reached a stage of 41.3 ft (12.59 m), discharge, 117,000 cfs (3,310 cu m/s); at site 19.6 miles (31.5 km) downstream at datum 42.49 ft (12.951 m) lower, from reports of Tennessee Valley Authority.

REMARKS.--Records good. Flow completely regulated by Norris Lake (see sta. 03532500). Records of periodic water temperatures for the year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1306: Drainage area at site used 1904-27; 1936-40 (adjusted monthly runoff). WSP 1336: 1917-18, 1928. WSP 1706: 1862(M), 1886(M).

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1973 TO JUNE 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	4,620	2,760	8,370	16,900	18,900	7,580	7,210	4,570	5,430
2	4,360	2,890	8,380	19,500	18,500	7,330	8,670	4,750	2,980
3	5,170	1,800	8,380	19,300	17,500	7,370	8,700	4,790	5,830
4	4,180	1,860	8,410	18,700	16,600	7,350	7,040	4,750	6,350
5	5,750	2,790	8,410	21,200	16,600	7,390	7,060	3,760	5,590
6	3,800	4,330	8,300	22,100	17,200	7,410	7,380	5,710	5,310
7	3,380	2,750	8,250	22,100	18,700	6,980	8,180	5,210	4,070
8	4,960	3,580	8,320	22,700	19,400	5,950	9,400	6,360	4,120
9	5,340	4,390	8,300	17,900	19,400	5,290	9,440	6,550	137
10	4,490	3,490	8,280	16,800	19,300	4,220	9,460	3,890	3,160
11	5,210	3,810	8,410	17,200	18,500	4,990	9,490	3,850	3,280
12	4,850	3,470	8,500	19,800	16,500	5,080	9,540	1,900	3,330
13	3,000	4,090	8,500	22,700	13,800	6,030	9,580	6,850	3,410
14	2,200	3,350	8,500	24,100	11,300	4,630	9,610	4,620	3,990
15	4,190	3,320	8,480	24,800	9,940	4,070	9,630	6,740	4,600
16	2,980	3,510	8,470	24,700	8,590	3,660	9,670	5,850	3,160
17	3,230	4,080	8,460	24,600	8,590	6,110	9,710	6,870	5,610
18	3,930	58	8,460	24,500	8,600	5,580	9,750	5,420	6,340
19	3,960	790	8,450	24,400	8,610	2,390	8,430	6,380	5,840
20	1,760	3,680	8,280	24,300	8,610	655	8,510	8,210	6,540
21	60	2,650	8,430	24,200	8,620	72	8,550	7,840	5,580
22	3,440	1,730	8,430	24,100	8,630	888	6,100	6,910	6,900
23	3,450	1,490	8,420	23,500	8,630	5,970	5,100	6,500	3,260
24	3,070	272	8,410	23,000	8,640	8,820	4,520	5,470	4,640
25	3,650	3,370	8,400	22,900	8,640	8,970	4,810	2,140	6,650
26	2,170	3,700	4,310	22,900	8,290	7,860	5,090	72	6,260
27	1,590	196	335	22,900	7,220	5,980	5,230	3,460	6,180
28	470	86	846	22,900	7,120	6,690	4,810	5,780	6,220
29	4,810	7,600	1,350	22,800	-----	7,090	5,330	6,270	5,010
30	4,230	8,340	8,440	22,200	-----	6,110	4,670	5,230	2,880
31	3,270	-----	11,200	20,600	-----	5,320	-----	4,600	-----
TOTAL	111,570	90,232	236,481	680,300	360,930	173,835	230,670	161,302	142,657
MEAN	3,599	3,008	7,628	21,950	12,890	5,608	7,689	5,203	4,755
MAX	5,750	8,340	11,200	24,800	19,400	8,970	9,750	8,210	6,900
MIN	60	58	335	16,800	7,120	72	4,520	72	137
(†)	-80,300	+206,300	+65,900	-77,200	-88,900	+150,200	+11,300	+79,000	-1,400
MEAN†	1,009	9,884	9,754	19,450	9,715	10,450	8,066	7,752	4,709
CFSM†	.35	3.39	3.35	6.68	3.34	3.59	2.77	2.66	1.62
IN.†	.40	3.79	3.86	7.70	3.47	4.14	3.09	3.07	1.80

CAL YR 1973 TOTAL 1,923,718 MEAN 5,270 MAX 20,400 MIN 38 MEAN† 5,846 CFSM† 2.01 IN.† 27.24

† Change in contents, in cfs-days, in Norris Lake, furnished by Tennessee Valley Authority.

‡ Adjusted for change in contents in lakes or reservoirs listed above.

TENNESSEE RIVER BASIN

89

03535000 Bullrun Creek near Halls Crossroads, Tenn.

LOCATION.--Lat 36°06'52", long 83°59'16", Knox County, on left bank on downstream side of bridge on U. S. Highway 441, 2.1 miles (3.4 km) downstream from Smith Branch, 4 miles (6 km) northwest of Halls Crossroads, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--68.5 sq mi (177.4 sq km).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 854.91 ft (260.577 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 103 cfs (2.917 cu m/s), 20.42 in/yr (519 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,130 cfs (230 cu m/s) Nov. 28, gage height, 10.86 ft (3.310 m), from rating curve extended above 5,000 cfs (142 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 2.5 cfs (0.071 cu m/s), Aug. 12, caused by regulation upstream of unknown origin.

Period of record: Maximum discharge, 12,500 cfs (354 cu m/s) Mar. 16, 1973, gage height, 11.78 ft (3.591 m), from rating curve extended above 5,000 cfs (142 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 2.5 cfs (0.071 cu m/s) Aug. 12, 1974 caused by regulation upstream of unknown origin.

REMARKS.--Records good. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	41	191	672	191	133	173	81	261	30	12	9.4
2	80	30	151	348	622	125	315	87	198	23	11	85
3	46	23	127	526	820	118	226	129	165	21	21	63
4	30	20	139	799	394	112	658	90	141	23	21	23
5	23	26	451	400	372	119	345	93	126	22	17	13
6	19	38	202	285	228	156	236	111	124	21	14	14
7	14	25	151	236	212	150	192	91	127	20	12	15
8	13	21	127	191	192	139	326	84	106	19	15	12
9	13	22	112	851	168	131	305	170	97	19	16	18
10	13	18	100	711	152	124	213	118	91	19	14	12
11	12	15	89	3,100	144	117	181	104	83	17	12	8.9
12	12	14	83	944	132	122	165	808	80	16	14	8.3
13	12	13	342	446	126	114	223	295	75	13	27	13
14	13	12	195	320	128	106	183	182	71	12	11	19
15	15	12	144	256	120	102	183	151	69	12	8	12
16	13	30	121	214	543	112	159	134	69	13	36	8.0
17	12	26	106	189	341	108	152	115	62	13	26	7.1
18	11	19	93	168	228	102	137	104	58	11	11	6.7
19	12	16	85	153	222	199	129	98	54	17	8.7	6.4
20	12	13	249	143	186	455	120	112	52	23	7.3	5.9
21	11	70	356	153	158	2,010	114	316	53	16	6.1	714
22	11	90	201	135	657	740	111	302	52	12	6.3	332
23	11	50	160	142	325	335	124	980	46	12	6.8	63
24	11	37	138	227	236	240	107	333	45	70	5.5	38
25	11	30	186	380	192	193	102	208	41	38	5.9	29
26	12	202	3,300	336	165	171	110	180	39	27	5.6	23
27	9.8	3,360	1,140	344	151	156	98	207	47	24	5.4	21
28	135	3,950	402	435	141	153	90	148	48	15	6.5	59
29	111	643	313	459	-----	231	85	131	39	12	7.8	41
30	45	278	515	300	-----	244	82	401	35	14	8.7	27
31	34	-----	451	225	-----	199	-----	550	-----	12	8.3	-----
TOTAL	856.8	9,144	10,420	14,088	7,546	7,516	5,644	6,913	2,554	616	387.7	1,706.7
MEAN	27.6	305	336	454	270	242	188	223	85.1	19.9	12.5	56.9
MAX	135	3,950	3,300	3,100	820	2,010	658	980	261	70	36	714
MIN	9.8	12	83	135	120	102	82	81	35	11	5.4	5.9
CFSM	.40	4.45	4.91	6.63	3.94	3.53	2.74	3.26	1.24	.29	.18	.83
IN.	.47	4.97	5.66	7.65	4.10	4.08	3.07	3.75	1.39	.33	.21	.93
CAL YR 1973	TOTAL 67,339.0	MEAN 184	MAX 6,380	MIN 9.8	CFSM 2.69	IN 36.57						
WTR YR 1974	TOTAL 67,392.2	MEAN 185	MAX 3,950	MIN 5.4	CFSM 2.70	IN 36.60						

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	0630	10.86	8,130	03-21	1430	9.26	3,590
12-26	1130	9.98	5,250	05-23	1730	7.93	1,550
01-11	1100	9.52	4,140				

TENNESSEE RIVER BASIN

03538225 Poplar Creek near Oak Ridge, Tenn.

LOCATION.--Lat 35°59'55", long 84°20'23", Roane County, on right bank, 1,000 ft (300 m) upstream from county road bridge, 0.4 mile (0.6 km) downstream from Indian Creek, 8.2 miles (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 sq mi (213.7 sq km).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 743.50 ft (226.619 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 177 cfs (5,010 cu m/s), 29.14 in/yr (740 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,780 cfs (277 cu m/s) Nov. 28, gage height, 27.1 ft (8.26 m), from floodmarks; minimum, 8.8 cfs (0.25 cu m/s) Aug. 27.

Period of record: Maximum discharge, 9,780 cfs (277 cu m/s) Nov. 28, 1973, gage height, 27.1 ft (8.26 m) from floodmarks; minimum, 5.0 cfs (0.14 cu m/s), Oct. 27, 1963.

Flood of June 29, 1928, at site about 5.0 miles (8.0 km) upstream, drainage area, 55.9 sq mi (144.8 sq km), discharge, about 14,000 cfs (396 cu m/s) was the greatest known since at least 1900, from reports by Tennessee Valley Authority.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	59	357	637	271	157	252	61	106	20	11	53
2	80	42	266	464	716	141	399	71	136	18	11	79
3	42	34	216	868	1,100	131	337	152	90	18	13	111
4	31	30	236	923	559	121	1,050	98	73	17	19	47
5	26	38	372	588	367	125	620	87	63	17	21	27
6	23	38	275	411	357	176	356	94	137	17	15	33
7	21	34	220	349	426	214	262	71	155	16	13	40
8	20	31	187	269	342	179	375	65	93	16	13	27
9	20	34	167	1,150	269	164	399	143	73	16	16	23
10	19	33	149	1,590	222	149	284	91	63	15	15	20
11	18	30	130	3,850	195	135	233	78	56	14	13	18
12	17	29	119	1,880	170	146	207	828	52	14	18	16
13	18	29	259	623	155	135	241	429	47	13	16	21
14	20	28	210	456	178	115	191	215	44	13	14	18
15	19	29	174	395	153	109	175	170	43	12	12	16
16	18	44	156	328	633	128	153	153	49	12	18	14
17	17	45	138	278	571	118	145	115	43	12	20	13
18	16	39	122	242	346	109	130	144	41	11	14	13
19	16	37	114	215	336	272	115	238	40	13	12	12
20	16	35	264	195	277	997	109	260	39	34	11	11
21	16	113	433	201	230	2,240	99	143	38	19	9.8	183
22	16	157	300	168	748	1,490	96	122	37	14	12	119
23	16	87	241	273	512	468	128	583	33	13	12	43
24	16	67	199	580	357	320	96	306	31	42	10	30
25	16	68	251	874	271	238	86	191	29	29	9.5	24
26	16	306	4,050	916	212	200	79	168	28	19	9.2	21
27	16	3,340	2,760	986	186	177	74	211	31	20	9.5	36
28	71	7,610	698	928	169	190	70	132	28	16	11	63
29	74	2,480	470	947	-----	544	65	109	26	14	18	41
30	40	557	611	505	-----	426	62	102	22	13	40	29
31	38	-----	583	351	-----	323	-----	98	-----	12	22	-----
TOTAL	857	15,503	14,727	22,440	10,328	10,437	6,893	5,728	1,746	529	458.0	1,201
MEAN	27.6	517	475	724	369	337	230	185	58.2	17.1	14.8	40.0
MAX	80	7,610	4,050	3,850	1,100	2,240	1,050	828	155	42	40	183
MIN	16	28	114	168	153	109	62	61	22	11	9.2	11
CFSM	.33	6.27	5.76	8.78	4.47	4.08	2.79	2.24	.71	.21	.18	.48
IN.	.39	6.99	6.64	10.12	4.66	4.71	3.11	2.58	.79	.24	.21	.54

CAL YR 1973 TOTAL 112,512.0 MEAN 308 MAX 7,610 MIN 16 CFSM 3.73 IN 50.73
 WTR YR 1974 TOTAL 90,847.0 MEAN 249 MAX 7,610 MIN 9.2 CFSM 3.02 IN 40.96

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	Unknown	27.1a/	9,780	01-11	1100	21.16	4,290
12-26	1300	22.26	4,990	03-21	1830	19.27	3,240

a/ From floodmarks.

TENNESSEE RIVER BASIN

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03538250 East Fork Poplar Creek near Oak Ridge, Tenn.

LOCATION.--Lat 35°57'58", long 84°21'30", Roane County, near left bank, on upstream side of county road bridge, 0.3 mile (0.5 km) north of State Highway 95, 1.7 miles (2.7 km) upstream from Bear Creek, 5.8 miles (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 sq mi (50.5 sq km).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 754.16 ft (229.868 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 52.5 cfs (1.487 cu m/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 4,100 cfs (116 cu m/s) Nov. 28, on basis of runoff comparisons with nearby stations; gage height, 16.0 ft (4.88 m), from floodmarks, backwater from low steel on bridge; minimum daily, 15 cfs (0.42 cu m/s) July 6. Period of record: Maximum discharge, 4,100 cfs (116 cu m/s) Nov. 28, 1973 on basis of runoff comparisons with nearby stations; gage height, 16.0 ft (4.88 m) from floodmarks, backwater from low steel on bridge; minimum daily, 15 cfs (0.42 cu m/s) July 6, 1974.

Flood of Sept. 29, 1944, the greatest known since 1900, reached a discharge of about 4,600 cfs (130 cu m/s) at site 5.1 miles (8.2 km) upstream, from report of the Tennessee Valley Authority.

REMARKS.--Records good. Flow includes effect of operations of the Atomic Energy Commission's Y-12 Plant, which may add up to 20 cfs (0.57 cu m/s), and the west end sewage treatment plant of the City of Oak Ridge, which may add up to 10 cfs (0.28 cu m/s). Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	39	70	127	63	43	61	28	45	21	18	39
2	39	28	58	89	160	40	115	31	36	20	18	80
3	29	27	51	245	161	38	159	45	30	20	23	48
4	27	26	63	193	97	36	223	33	29	19	30	28
5	27	47	81	106	76	48	108	33	28	18	40	27
6	24	31	54	83	86	87	76	33	68	15	27	40
7	23	30	47	80	81	153	63	27	51	19	19	60
8	23	29	43	64	68	76	192	26	36	19	26	52
9	23	30	39	346	59	61	114	56	32	22	21	46
10	24	27	37	341	53	52	76	32	29	22	19	43
11	23	26	35	913	49	47	63	28	27	21	17	40
12	23	26	34	207	45	52	58	236	28	19	33	36
13	23	27	177	115	43	45	75	76	25	18	25	45
14	27	27	84	101	75	39	56	53	22	17	20	44
15	24	28	62	90	59	37	53	53	28	18	19	42
16	23	35	52	75	265	42	46	45	29	19	39	39
17	23	27	46	67	123	35	45	37	27	18	23	36
18	23	26	43	61	83	36	40	46	23	18	18	34
19	24	27	39	56	92	112	39	64	22	21	18	32
20	23	28	112	51	73	334	35	47	23	35	19	31
21	22	89	97	51	62	874	32	34	23	22	16	100
22	22	43	66	45	188	167	33	35	22	16	24	80
23	24	31	56	62	94	99	44	194	21	19	25	60
24	23	28	50	129	74	75	32	69	21	30	20	50
25	23	33	73	140	61	62	30	51	23	23	19	30
26	23	97	1,460	210	55	57	29	52	25	22	19	45
27	23	1,210	236	163	50	51	29	60	26	20	20	65
28	87	1,680	113	222	47	53	28	40	29	19	22	80
29	39	150	90	154	-----	128	28	35	22	19	27	65
30	30	103	116	99	-----	99	28	36	21	19	58	45
31	33	-----	119	76	-----	71	-----	38	-----	18	30	-----
TOTAL	879	4,055	3,703	4,761	2,442	3,149	2,010	1,673	871	626	752	1,462
MEAN	28.4	135	119	154	87.2	102	67.0	54.0	29.0	20.2	24.3	48.7
MAX	87	1,680	1,460	913	265	874	223	236	68	35	58	100
MIN	22	26	34	45	43	35	28	26	21	15	16	27
CAL YR 1973	TOTAL 29,212	MEAN 80.0	MAX 1,790	MIN 22								
WTR YR 1974	TOTAL 26,383	MEAN 72.3	MAX 1,680	MIN 15								

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	Unknown	16.0a/	4,100	01-11	1115	8.60	1,170
12-26	1045	12.18	2,370	03-21	1145	11.00	1,880

a/ From floodmarks.

TENNESSEE RIVER BASIN

03539800 Obed River near Lancing, Tenn.

LOCATION.--Lat 36°04'53", long 84°40'15", Morgan County, on left bank at Alley Ford, 2.9 miles (4.7 km) southwest of Lancing, 3.0 miles (4.8 km) downstream from Clear Creek, and at mile 1.5 (2.4 km).

DRAINAGE AREA.--518 sq mi (1,342 sq km).

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) above mean sea level.

AVERAGE DISCHARGE.--13 years, (1956-68, 1973-74), 1,044 cfs (29.57 cu m/s), 27.37 in/yr (695 mm/yr).

EXTREMES.--Current year: Maximum discharge, 39,400 cfs (1,120 cu m/s) Dec. 26, gage height, 19.20 ft (5.852 m), from rating curve extended above 33,000 cfs (935 cu m/s) on basis of slope-conveyance study at gage height 22.40 ft (6.828 m), and slope-area measurement of peak flow; minimum, 5.4 cfs (0.15 cu m/s) Aug. 11, gage height, 0.69 ft (0.210 m).

Period of record: Maximum discharge, 105,000 cfs (2,970 cu m/s) May 27, 1973, gage height, 29.51 ft (8.995 m), cross line in gage well, 30.5 ft (9.30 m), from floodmarks, from rating curve extended above 33,000 cfs (935 cu m/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 cfs (0.011 cu m/s) Oct. 31, 1963.

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.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	84	2,270	4,250	1,960	1,060	1,570	202	511	40	16	198
2	80	93	1,670	3,000	5,370	912	2,800	211	776	35	14	155
3	85	101	1,270	6,110	7,940	791	2,940	685	704	30	12	397
4	70	86	1,070	5,850	4,520	690	4,210	998	506	25	11	735
5	50	80	1,410	3,820	2,950	627	3,620	828	376	35	11	401
6	40	82	1,190	2,660	2,340	1,020	2,400	858	314	40	9.7	292
7	30	103	890	2,210	2,520	2,950	1,780	755	292	35	7.8	361
8	25	93	709	1,830	2,090	2,600	1,540	613	254	30	6.8	302
9	27	89	600	8,920	1,680	1,920	1,710	736	209	50	6.3	241
10	23	82	522	10,900	1,380	1,500	1,400	849	175	45	6.4	203
11	26	80	456	28,600	1,180	1,240	1,180	742	148	50	5.9	388
12	31	78	395	9,390	986	1,290	993	2,800	127	40	6.5	561
13	29	71	407	4,420	851	1,400	960	3,430	112	35	7.7	670
14	28	66	679	3,020	911	1,160	928	2,040	103	30	10	399
15	24	62	614	2,650	1,310	965	791	1,420	92	27	14	275
16	22	67	551	2,320	2,980	931	663	1,470	83	25	13	208
17	20	66	495	1,980	4,590	1,200	626	1,160	159	23	19	162
18	17	86	431	1,660	2,830	1,020	598	895	136	21	22	130
19	16	84	384	1,410	2,340	1,300	518	698	98	24	31	107
20	15	75	565	1,160	2,330	6,270	457	672	81	26	23	89
21	14	190	2,670	1,350	1,980	12,900	405	600	73	20	20	105
22	13	1,200	2,080	1,440	5,690	7,360	363	793	66	16	19	216
23	11	732	1,540	1,450	4,800	3,810	386	1,850	61	15	17	211
24	9.8	482	1,260	3,310	3,110	2,550	421	2,230	57	14	15	155
25	9.2	395	1,270	6,220	2,250	1,880	359	1,400	54	15	15	121
26	8.0	1,200	30,300	4,630	1,730	1,480	315	992	52	22	15	101
27	6.9	20,400	12,200	4,580	1,430	1,250	278	1,600	49	30	16	98
28	11	24,900	4,650	5,780	1,220	1,230	254	1,370	48	26	27	180
29	33	7,490	2,930	6,820	-----	1,260	233	983	46	21	310	262
30	86	3,510	3,030	3,830	-----	2,060	213	738	45	17	293	327
31	89	-----	3,390	2,610	-----	1,950	-----	581	-----	17	260	-----
TOTAL	1,018.9	62,127	81,898	148,180	75,268	68,576	34,911	35,199	5,807	879	1,260.1	8,050
MEAN	32.9	2,071	2,642	4,780	2,688	2,212	1,164	1,135	194	28.4	40.6	268
MAX	89	24,900	30,300	28,600	7,940	12,900	4,210	3,430	776	50	310	735
MIN	6.9	62	384	1,160	851	627	213	202	45	14	5.9	89
CFSM	.06	4.00	5.10	9.23	5.19	4.27	2.25	2.19	.37	.05	.08	.52
IN.	.07	4.46	5.88	10.64	5.41	4.92	2.51	2.53	.42	.06	.09	.58

WTR YR 1974 TOTAL 523,174.0 MEAN 1,433 MAX 30,300 MIN 5.9 CFSM 2.77 IN 37.57

PEAK DISCHARGE (BASE, 13,000 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0545	18.24	35,700	01-11	0300	18.47	36,600
12-26	1500	19.20	39,400	03-21	1330	14.16	21,400

03540500 Emory River at Oakdale, Tenn.

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, 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 sq mi (1,979 sq km).

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emory River at Harriman and October 1929 to September 1934 as Emory River at Oakdale.

GAGE.--Water-stage recorder. Datum of gage is 761.38 ft (232.069 m) above mean sea level. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 miles (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.

AVERAGE DISCHARGE.--47 years, 1,446 cfs (40.95 cu m/s), 25.70 in/yr (653 mm/yr).

EXTREMES.--Current year: Maximum discharge, 63,600 cfs (1,800 cu m/s) Dec. 26, gage height, 26.71 ft (8.141 m), from rating curve extended above 85,000 cfs (2,410 cu m/s) on basis of slope-area measurement of peak flow; minimum, 8.8 cfs (0.249 cu m/s) Aug. 10, 11, gage height, 1.48 ft (0.451 m).

Period of record: Maximum discharge, 195,000 cfs (5,520 cu m/s) Mar. 23, 1929, gage height, 41.2 ft (12.56 m), corrected, present site and datum, and 61.1 ft (18.62 m), site and datum then in use, from floodmarks and flood profiles, from rating curve extended above 85,000 cfs (2,410 cu m/s), confirmed by slope-area measurement of May 28, 1973, flood at gage height 38.68 ft (11.790 m); no flow at times in 1944, 1952-53.

Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

REMARKS.--Records good. Records of chemical analyses and periodic water temperatures for the year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	184	2,910	5,790	2,650	1,450	2,310	347	790	40	16	387
2	111	188	2,120	4,090	7,420	1,280	4,210	353	932	35	14	340
3	133	201	1,630	8,780	11,600	1,140	4,370	744	943	31	13	741
4	111	184	1,420	8,170	6,350	1,030	7,760	1,250	720	27	16	1,060
5	88	167	1,920	5,300	3,980	943	5,680	1,080	559	25	14	658
6	72	165	1,740	3,580	3,120	1,350	3,510	1,080	462	43	13	551
7	61	181	1,370	2,900	3,390	3,750	2,550	1,000	446	69	11	615
8	55	192	1,150	2,370	2,870	3,560	2,190	848	412	47	11	527
9	50	179	996	8,090	2,310	2,650	2,410	966	340	47	9.6	415
10	54	167	881	15,800	1,900	2,070	2,000	1,140	283	94	9.2	346
11	47	159	770	44,000	1,630	1,710	1,700	1,030	237	82	9.2	438
12	46	153	677	13,500	1,390	1,730	1,470	3,870	204	90	18	696
13	52	146	687	5,600	1,240	1,870	1,450	4,780	177	62	21	1,060
14	54	137	937	3,400	1,260	1,600	1,380	2,700	157	47	19	685
15	49	129	909	3,500	1,600	1,390	1,240	1,850	142	38	17	475
16	44	139	827	3,060	3,920	1,330	1,080	1,830	135	32	18	357
17	37	140	764	2,630	6,550	1,570	1,000	1,510	155	28	19	279
18	33	149	687	2,200	3,930	1,410	949	1,290	201	21	17	226
19	30	173	623	1,880	3,200	1,910	843	1,120	149	23	20	187
20	28	159	827	1,600	3,140	9,570	759	1,210	116	50	27	156
21	26	327	3,830	1,660	2,670	20,000	687	1,420	97	66	27	430
22	26	1,650	2,990	1,780	8,360	10,400	618	1,450	84	29	42	582
23	24	1,180	2,200	1,800	6,820	5,230	659	3,720	72	22	43	455
24	22	832	1,780	4,190	4,280	3,410	691	3,420	62	21	30	324
25	20	706	1,770	8,660	3,040	2,480	605	2,060	54	19	23	250
26	19	5,680	45,700	6,940	2,290	1,960	546	1,490	49	19	20	204
27	17	39,700	16,700	7,630	1,880	1,680	490	2,120	46	23	20	218
28	28	39,600	6,230	9,800	1,630	1,620	446	1,840	81	32	21	515
29	69	10,200	3,850	10,500	-----	1,760	410	1,390	62	30	276	533
30	129	4,700	4,150	5,480	-----	2,930	370	1,080	47	24	538	562
31	186	-----	4,510	3,560	-----	2,900	-----	909	-----	18	485	-----
TOTAL	1,805	107,867	117,555	208,240	104,420	97,683	54,383	50,897	8,214	1,234	1,837.0	14,272
MEAN	58.2	3,596	3,792	6,717	3,729	3,151	1,813	1,642	274	39.8	59.3	476
MAX	186	39,700	45,700	44,000	11,600	20,000	7,760	4,780	943	94	538	1,060
MIN	17	129	623	1,600	1,240	943	370	347	46	18	9.2	156
CFSM	.08	4.71	4.96	8.79	5.88	4.12	2.37	2.15	.36	.05	.08	.62
IN.	.09	5.25	5.72	10.14	4.08	4.76	2.65	2.48	.40	.06	.09	.69
CAL YR 1973	TOTAL	915,574.0	MEAN	2,508	MAX	63,200	MIN	17	CFSM	3.28	IN	44.58
WTR YR 1974	TOTAL	768,407.0	MEAN	2,105	MAX	45,700	MIN	9.2	CFSM	2.76	IN	37.41

PEAK DISCHARGE (BASE, 19,000 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0500	26.19	60,000	01-11	0400	25.94	59,600
12-26	1400	26.71	63,600	03-21	1330	20.55	32,800

TENNESSEE RIVER BASIN

03541300 Bitter Creek near Oakdale, Tenn.

LOCATION.--Lat 35°59'22", long 84°29'16", Morgan County, on left bank 0.2 mile (0.3 km) upstream from bridge on U. S. Highway 27, 3.9 miles (6.3 km) east of Oakdale and 0.3 mile (0.5 km) upstream from mouth.

DRAINAGE AREA.--12.6 sq mi (32.6 sq km).

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 760 ft (232 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 30.7 cfs (0.869 cu m/s); 33.09 in/yr (840 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,850 cfs (109 cu m/s) Nov. 28, from slope-area measurement of peak flow; gage height, 22.75 ft (6.934 m), from floodmarks, backwater from Little Emory River; minimum, less than 0.1 cfs (0.003 cu m/s) Oct. 18.

Period of record: Maximum discharge, 4,880 cfs (138 cu m/s) May 27, 1973, gage height, 22.65 ft (6.904 m), from floodmarks, from rating curve extended above 1,300 cfs (36.8 cu m/s) on basis of slope-area measurement of peak flow; minimum, less than 0.1 cfs (0.003 cu m/s) Sept. to Nov. 1968, and Oct. 18, 1973.

REMARKS.--Records fair, except those below 2 cfs (0.57 cu m/s), which are poor. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.2	31	85	36	18	37	4.4	14	.74	.23	1.8
2	3.2	1.7	23	70	121	15	67	5.3	12	.67	.25	21
3	1.6	.92	17	110	166	14	64	16	8.9	.56	.32	20
4	1.1	.54	25	180	80	12	239	8.0	6.7	.51	.38	5.6
5	.75	1.2	43	100	51	14	91	8.3	5.3	.46	.38	2.5
6	.42	1.2	37	70	47	30	53	8.9	7.2	.42	.36	17
7	.48	.75	28	50	45	61	39	7.0	7.2	.38	.34	8.0
8	.48	.54	22	45	43	49	38	6.7	7.2	.38	.34	4.2
9	.36	.75	18	150	34	39	30	15	4.9	.38	.38	2.8
10	.30	.60	14	415	28	31	25	12	4.4	.96	.42	1.8
11	.18	.48	11	761	24	25	23	9.4	3.6	.56	.42	2.5
12	.18	.48	9.7	133	19	27	22	213	3.6	.38	1.4	50
13	.12	.48	16	66	17	21	28	75	3.0	.36	1.4	30
14	.36	.48	12	52	26	17	24	41	2.7	.34	.42	11
15	.36	.60	11	48	23	16	23	32	2.2	.30	.32	5.1
16	.24	1.9	11	45	159	19	20	24	4.7	.30	.30	2.8
17	.18	1.9	9.4	39	106	15	18	19	2.8	.28	.34	2.0
18	.18	2.1	8.0	33	59	14	15	17	2.2	.27	.32	1.4
19	.30	1.9	7.5	28	51	41	13	28	1.7	3.0	.28	.96
20	.42	2.1	61	25	40	138	11	35	1.5	2.7	.27	.74
21	.54	7.4	78	23	35	473	9.7	172	1.4	.96	.23	20
22	.48	17	49	18	146	113	9.7	98	1.4	.56	.42	10
23	.48	13	37	36	80	60	12	260	1.2	.38	.51	5.3
24	.54	9.0	29	87	52	42	8.0	84	1.1	1.1	.34	3.6
25	.54	10	73	127	38	31	7.0	45	.96	.61	.28	2.8
26	.60	100	1,300	154	29	25	6.2	39	.81	.42	.27	1.7
27	.75	600	400	151	25	22	5.8	37	1.4	.36	.28	11
28	5.2	3,000	150	280	21	22	5.3	27	2.7	.36	.34	17
29	2.8	700	70	149	-----	35	4.8	21	1.5	.32	1.7	13
30	1.2	100	80	70	-----	48	4.5	18	1.1	.30	6.0	9.5
31	1.4	-----	75	47	-----	44	-----	15	-----	.27	2.8	-----
TOTAL	29.44	4,580.22	2,755.6	3,647	1,601	1,531	953.0	1,401.0	119.37	19.59	22.04	285.10
MFAN	.95	153	88.9	118	57.2	49.4	31.8	45.2	3.98	.63	.71	9.50
MAX	5.2	3,000	1,300	761	166	473	239	260	14	3.0	6.0	50
MIN	.12	.48	7.5	18	17	12	4.5	4.4	.81	.27	.23	.74
CFSM	.08	12.1	7.06	9.37	4.54	3.92	2.52	3.59	.32	.05	.06	.75
IN.	.09	13.52	8.14	10.77	4.73	4.52	2.81	4.14	.35	.06	.07	.84

CAL YR 1973 TOTAL 19,771.63 MEAN 54.2 MAX 3,000 MIN .10 CFSM 4.30 IN 58.37
WTR YR 1974 TOTAL 16,944.36 MEAN 46.4 MAX 3,000 MIN .12 CFSM 3.68 IN 50.03

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-28	Unknown	22.75a/	3,850	03-21	0805	14.68	1,490
12-26	0625	18.03	2,640	04-04	0430	10.56	561
01-11	0500	15.14	1,630	05-12	0835	10.48	549
01-28	1330	11.33	684	05-23	0555	10.01	481

a/ From floodmarks.

03543500 Sewee Creek near Decatur, Tenn.

LOCATION.--Lat 35°34'53", long 84°44'53", Meigs County, on right bank 0.3 mile (0.5 km) downstream from bridge on State Highway 58, 0.5 mile (0.8 km) downstream from Dry Fork, 5.0 miles (8.0 km) north of Decatur, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--117 sq mi (303 sq km).

PERIOD OF RECORD.--May 1934 to current year. Prior to October 1935, published as Suee Creek near Decatur.

GAGE.--Water-stage recorder. Datum of gage is 694.32 ft (211.629 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 194 cfs (5.494 cu m/s), 22.52 in/yr (572 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,000 cfs (312 cu m/s) Nov. 28, gage height, 18.36 ft (5.596 m); minimum, 24 cfs (0.68 cu m/s) Sept. 23, 24, gage height, 0.29 ft (0.088 m).

Period of record: Maximum discharge, 23,900 cfs (677 cu m/s) Jan. 7, 1946, gage height, 23.97 ft (7.306 m), from floodmarks, from rating curve extended above 11,300 cfs (320 cu m/s) on basis of slope-area measurement at gage height 22.81 ft (6.952 m); minimum, 11 cfs (0.31 cu m/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.

REMARKS.--Records excellent. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1910: 1936(M), 1939(M), 1943(M), 1946, 1948(M), 1949, 1951, 1957, 1948(P). WSP 2110: 1951 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	47	323	1,190	394	247	393	108	152	55	36	29
2	91	40	257	713	1,170	227	788	137	147	54	37	30
3	52	36	217	681	2,030	209	624	200	125	52	43	29
4	44	33	227	959	841	189	6,400	119	112	67	54	29
5	40	33	362	671	555	187	1,460	109	103	55	44	28
6	37	31	235	526	578	239	680	107	270	54	39	32
7	36	31	196	506	626	205	490	98	344	67	36	31
8	35	33	169	389	467	177	530	93	204	85	38	28
9	36	43	150	1,090	392	163	446	90	151	57	64	29
10	33	38	135	1,110	364	154	354	160	128	54	43	27
11	32	34	119	4,520	331	147	314	105	113	51	39	27
12	31	33	110	1,870	293	143	288	364	102	49	39	27
13	31	33	184	792	273	133	399	212	95	49	38	30
14	36	33	183	633	418	123	316	149	89	46	35	31
15	36	41	136	620	363	117	326	380	84	46	34	29
16	32	82	122	484	1,710	137	271	368	96	44	45	27
17	31	49	109	418	1,080	127	252	239	85	43	46	27
18	29	42	99	369	585	113	228	186	78	41	37	27
19	29	41	93	329	588	204	212	155	75	43	33	27
20	29	38	367	303	435	639	192	138	71	49	31	26
21	29	126	513	293	367	3,440	175	124	71	46	29	28
22	29	118	309	248	1,270	1,210	167	247	68	44	30	31
23	29	71	256	275	588	576	172	851	68	44	29	25
24	29	59	220	622	441	426	153	394	67	45	29	25
25	29	70	361	957	369	367	141	284	65	43	27	25
26	29	109	7,130	1,270	320	330	133	275	61	43	27	25
27	29	934	3,100	1,070	283	305	126	386	61	45	27	28
28	40	7,390	802	1,290	259	257	119	247	61	42	27	32
29	64	872	607	1,200	-----	598	113	207	61	43	28	28
30	39	419	839	647	-----	1,030	109	178	58	41	33	32
31	37	-----	1,050	479	-----	522	-----	155	-----	38	31	-----
TOTAL	1,185	10,959	18,980	26,524	17,390	12,941	16,371	6,865	3,265	1,535	1,128	849
MEAN	38.2	365	612	856	621	417	546	221	109	49.5	36.4	28.3
MAX	91	7,390	7,130	4,520	2,030	3,440	6,400	851	344	85	64	32
MIN	29	31	93	248	259	113	109	90	58	38	27	25
CFSM	.33	3.12	5.23	7.32	5.31	3.56	4.67	1.89	.93	.42	.31	.24
IN.	.38	3.48	6.03	8.43	5.53	4.11	5.21	2.18	1.04	.49	.36	.27

CAL YR 1973 TOTAL 113,835 MEAN 312 MAX 8,840 MIN 29 CFSM 2.67 IN 36.19
WTR YR 1974 TOTAL 117,992 MEAN 323 MAX 7,390 MIN 25 CFSM 2.76 IN 37.52

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1000	18.36	11,000	02-16	1900	7.33	2,730
12-26	1630	17.80	10,300	03-21	1800	11.95	5,500
01-11	1600	12.46	5,840	04-04	1330	16.92	9,430
02-03	0200	8.04	3,120				

TENNESSEE RIVER BASIN

03556500 Hiwassee River near McFarland, Tenn.

LOCATION.--Lat 35°10'48", long 84°26'36", Polk County, on left bank 0.2 mile (0.3 km) downstream from Smith Creek, 0.4 mile (0.6 km) downstream from Apalachia powerhouse of Tennessee Valley Authority, 2.8 miles (4.5 km) west of McFarland, and at mile 53.2 (85.6 km).

DRAINAGE AREA.--1,136 sq mi (2,942 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 830.56 ft (253.155 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 2,409 cfs (68.22 cu m/s), 28.80 in/yr (732 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 11,800 cfs (334 cu m/s) Jan. 9, gage height, 7.34 ft (2.237 m); minimum, 143 cfs (4.05 cu m/s) Aug. 25, Sept. 15, 22, 29, possibly lower during period of missing record, gage height, 1.53 ft (0.466 m); minimum daily, 551 cfs (15.60 cu m/s) Mar. 31.

Period of record: Maximum discharge, 47,100 cfs (1,330 cu m/s) May 28, 1973, gage height, 15.34 ft (4.676 m), from rating curve extended above 15,000 cfs (425 cu m/s) on basis of slope-area measurement of peak flow; minimum daily, 30 cfs (0.85 cu m/s) estimated Sept. 18-20, 1955.

REMARKS.--Records excellent except for June and July, which are good. Flow regulated by four reservoirs (see basic data releases for North Carolina and Georgia, 1974). Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,370	2,740	3,090	4,690	4,590	3,370	1,390	2,630	2,640	2,200	2,920	2,110
2	2,720	2,820	3,050	6,930	5,180	3,360	1,350	2,680	2,230	2,800	2,970	2,370
3	2,630	2,830	3,070	9,000	5,230	3,340	1,410	1,980	2,560	2,750	2,330	3,030
4	2,630	2,850	3,090	10,300	4,980	3,320	1,720	1,830	3,180	2,600	1,930	2,980
5	3,010	2,740	3,230	9,670	4,780	3,310	1,500	1,860	3,120	2,550	2,300	3,040
6	2,580	2,830	3,190	9,670	4,790	3,300	2,020	2,500	3,000	2,100	2,880	3,090
7	2,560	2,820	3,130	10,200	5,500	2,980	1,320	2,000	3,010	1,850	2,880	2,450
8	2,550	2,340	3,110	10,000	6,790	2,700	2,670	1,930	2,480	2,150	2,920	1,990
9	2,560	2,930	3,070	10,800	8,880	2,670	2,780	1,960	1,850	2,500	2,890	2,520
10	2,560	2,950	4,900	10,700	8,640	2,870	2,810	2,630	2,160	3,100	2,290	3,100
11	2,550	2,990	7,540	11,000	8,470	3,040	2,720	2,060	2,580	3,100	1,870	3,090
12	1,750	2,410	3,110	10,500	8,410	2,680	2,740	1,990	2,570	3,100	2,520	3,070
13	1,350	2,420	3,090	4,770	7,840	2,670	3,090	2,070	3,200	2,500	2,910	3,050
14	1,350	3,030	3,110	4,500	6,880	3,060	2,920	2,610	3,150	2,000	2,920	2,450
15	1,350	3,030	3,090	8,510	6,880	2,650	2,240	2,630	2,350	2,500	2,860	2,030
16	1,600	3,050	3,090	9,240	7,460	2,700	1,650	2,670	1,900	3,100	2,830	2,430
17	2,390	3,050	3,090	9,090	7,190	2,960	1,470	2,880	2,350	3,100	2,390	3,060
18	2,550	3,050	3,070	9,060	6,890	3,080	1,560	2,600	2,600	3,100	2,140	3,060
19	2,560	3,050	3,070	7,250	6,810	2,730	1,560	2,600	2,600	3,100	2,330	3,060
20	2,550	3,030	3,230	1,320	6,730	2,860	1,530	3,090	3,000	2,420	2,860	3,050
21	2,550	3,430	3,410	4,130	6,690	3,190	1,510	3,120	3,000	1,920	2,880	2,120
22	2,550	3,270	3,270	5,950	7,210	2,950	1,510	3,110	2,350	2,370	2,980	1,840
23	2,530	3,070	3,230	5,540	6,940	2,850	1,530	3,370	1,900	3,020	2,890	2,200
24	2,530	3,030	3,210	4,690	6,760	2,130	1,520	3,220	2,100	3,010	2,370	2,440
25	2,510	3,030	3,210	4,710	6,140	1,940	1,920	2,220	2,650	2,950	1,920	2,530
26	2,510	3,070	5,150	4,740	4,550	1,940	2,640	1,900	2,600	2,970	2,360	2,600
27	2,490	3,710	4,180	4,740	3,410	1,860	2,670	2,660	2,600	2,190	2,880	2,560
28	2,550	5,600	3,520	4,770	3,370	1,840	2,660	2,900	2,600	1,910	2,910	2,110
29	2,710	3,480	3,390	4,770	-----	1,430	2,650	3,170	2,200	2,170	2,850	1,730
30	3,010	3,190	3,410	4,690	-----	669	2,630	3,180	1,900	2,880	2,860	2,080
31	2,530	-----	4,230	4,610	-----	551	-----	3,180	-----	2,900	2,440	-----
TOTAL	74,640	91,840	108,630	220,540	177,990	81,000	61,690	79,230	76,430	80,910	81,280	77,240
MEAN	2,408	3,061	3,504	7,114	6,357	2,613	2,056	2,556	2,548	2,610	2,622	2,575
MAX	3,010	5,600	7,540	11,000	8,880	3,370	3,090	3,370	3,200	3,100	2,980	3,100
MIN	1,350	2,340	3,050	1,320	3,370	551	1,320	1,830	1,850	1,850	1,870	1,730

CAL YR 1973 TOTAL 1,112,032 MEAN 3.047 MAX 27,700 MIN 258 MEAN† 3.098 CFSM† 2.73 IN.† 37.02
WTR YR 1974 TOTAL 1,211,420 MEAN 3.319 MAX 11,000 MIN 551 MEAN† 3.192 CFSM† 2.81 IN.† 38.15

† Adjusted for change in contents in Chatuge, Hiwassee, Apalachia (North Carolina), and Nottely (Georgia) Lakes.

NOTE.--No gage-height record June 13 to July 19.

TENNESSEE RIVER BASIN

97

03560500 Davis Mill Creek at Copperhill, Tenn.

LOCATION.--Lat 34°59'43", long 84°22'56", Polk County, on right bank, 100 ft (30 m) upstream from bridge on State Highway 68, 0.4 mile (0.6 km) northwest of Louisville and Nashville Railroad station, and 0.8 mile (1.3 km) northwest of post office at Copperhill, and 0.1 mile (0.2 km) upstream from mouth.

DRAINAGE AREA.--5.16 sq mi (13.36 sq km).

PERIOD OF RECORD.--July 1940 to September 1941 (published as Mill Creek at Copperhill), December 1948 to current year.

GAGE.--Water-stage recorder and modified V-notch wier and dam. Datum of gage is 1,451.06 ft (442.283 m) above mean sea level. July 16, 1940, to Sept. 30, 1941, water-stage recorder and sharp-crested weir at site 145 ft (44.2 m) upstream and at datum 1.58 ft (0.482 m) higher.

AVERAGE DISCHARGE.--25 years (1949-74), 47.4 cfs (1.342 cu m/s).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs (32.3 cu m/s) Aug. 21, gage height, 5.73 ft (1.747 m); minimum daily, 37 cfs (1.05 cu m/s) Feb. 20, 24, 25, Mar. 1.

Period of record: Maximum discharge, 3,520 cfs (99.7 cu m/s) Oct. 6, 1949, gage height, 6.02 ft (1.835 m) in gage well, 8.5 ft (2.59 m) from floodmarks, from rating curve extended above 150 cfs (4.25 cu m/s) on basis of critical-depth measurement of peak flow; minimum daily, 3.1 cfs (0.088 cu m/s) July 30, 1940.

REMARKS.--Records poor. Flow includes an unknown amount of diversion from other drainage basins through the sulphuric acid plant of Cities Service Co. Some fluctuation due to irregular releases of wastes by Cities Service Co. just above gage.

REVISIONS.--WSP 1206: Drainage area. WSP 2110: 1949-65(M).

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	110	90	108	93	37	73	105	144	175	161	160
2	112	110	90	119	126	38	85	108	151	164	138	151
3	123	110	90	115	110	39	73	91	127	179	161	148
4	126	110	90	107	105	38	82	91	146	161	150	144
5	124	110	120	100	95	38	46	92	144	182	157	146
6	131	100	100	108	82	40	41	98	137	163	157	149
7	133	100	90	94	93	39	40	110	138	177	153	151
8	145	98	90	77	89	38	46	101	146	167	158	155
9	139	100	90	111	92	38	44	107	146	153	150	155
10	125	97	90	104	84	39	41	110	138	150	146	149
11	116	96	90	118	72	38	41	110	127	156	151	149
12	123	92	90	118	72	39	46	114	132	161	158	144
13	109	90	90	118	74	39	60	113	121	161	153	141
14	116	88	90	130	59	40	54	121	116	164	153	151
15	112	91	100	126	46	40	49	114	118	166	149	149
16	110	96	90	100	52	44	52	109	127	160	172	146
17	110	102	90	91	40	40	54	110	128	155	167	146
18	110	101	90	105	34	40	42	112	125	153	156	146
19	110	96	90	100	41	43	44	119	121	154	160	144
20	110	90	140	95	37	57	62	123	130	205	154	142
21	110	121	86	104	39	71	74	115	151	164	188	150
22	110	83	82	117	53	59	80	108	163	163	146	144
23	110	70	88	118	39	59	78	137	186	160	141	142
24	110	82	90	111	37	55	74	125	157	162	144	128
25	110	82	92	114	37	59	84	144	162	154	146	135
26	110	73	111	128	39	66	106	163	154	157	151	137
27	110	93	73	127	39	76	109	143	147	159	158	142
28	125	180	77	125	38	76	102	137	159	162	151	148
29	110	100	91	97	-----	97	102	135	168	163	153	149
30	110	90	104	111	-----	80	101	134	177	164	148	144
31	110	-----	161	111	-----	73	-----	146	-----	157	148	-----
TOTAL	3,625	2,961	2,955	3,407	1,823	1,575	1,985	3,645	4,286	5,071	4,778	4,385
MEAN	117	98.7	95.3	110	65.1	50.8	66.2	118	143	164	154	146
MAX	145	180	161	130	126	97	109	163	186	205	188	160
MIN	109	70	73	77	37	37	40	91	116	150	138	128

CAL YR 1973 TOTAL 38,259 MEAN 105 MAX 180 MIN 70
WTR YR 1974 TOTAL 40,496 MEAN 111 MAX 205 MIN 37

TENNESSEE RIVER BASIN

03563000 Ocoee River at Emf, Tenn.

LOCATION.--Lat 35°05'48", long 84°32'07", Polk County, on left bank 700 ft (210 m) downstream from Tennessee Valley Authority powerplant, 0.8 mile (1.3 km) upstream from former village of Emf, 2.0 miles (3.2 km) downstream from Goforth Creek and at mile 19.6 (31.5 km).

DRAINAGE AREA.--524 sq mi (1,357 sq km).

PERIOD OF RECORD.--October 1912 to current year. Prior to January 1913, monthly discharges only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 837.88 ft (255.386 m) above mean sea level.

AVERAGE DISCHARGE.--62 years, 1,244 cfs (35.23 cu m/s), 32.24 in/yr (819 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 10,700 cfs (303 cu m/s) Dec. 31, gage height, 8.80 ft (2.682 m); minimum, 238 cfs (6.74 cu m/s) Nov. 29, gage height, 3.18 cfs (0.969 m); minimum daily, 914 cfs (25.9 cu m/s) Sept. 13.

Period of record: Maximum discharge, 29,400 cfs (833 cu m/s) July 10, 1916, gage height, 13.7 ft (4.18 m), from rating curve extended above 17,000 cfs (481 cu m/s); minimum, 3.4 cfs (0.096 cu m/s) Sept. 20, 1962, gage height, 2.12 ft (0.646 m); minimum daily, 4.6 cfs (0.13 cu m/s) Sept. 14, 1962.

Flood of Nov. 19, 1906, discharge, 62,000 cfs (1,760 cu m/s) was the greatest known flood since at least 1840, from reports by Tennessee Valley Authority.

REMARKS.--Records excellent except for February and March, which are good. Flow regulated by Blue Ridge Lake (see sta 03558500 basic data release for Georgia, 1974), and by powerplant above station. Prior to Oct. 1, 1970, flow regulated by Ocoee No. 3 Lake. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 783: 1913-34. WSP 853: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,530	1,450	1,190	4,560	2,150	1,540	1,650	1,410	1,860	954	1,210	983
2	1,500	1,450	1,040	2,490	3,770	1,540	1,980	1,430	1,740	1,110	1,410	983
3	1,420	1,450	967	2,730	4,460	1,540	2,230	1,460	2,000	996	1,250	978
4	1,450	1,450	970	2,450	3,200	1,480	5,070	1,460	1,530	957	1,030	1,380
5	1,470	1,450	1,220	1,910	3,130	1,330	4,290	1,460	1,720	1,480	972	1,450
6	1,470	1,440	1,230	1,590	3,090	1,540	3,220	1,450	1,460	1,470	973	1,470
7	1,470	1,460	1,060	1,610	3,470	1,390	3,440	1,440	1,450	992	1,360	1,070
8	1,470	1,240	990	1,560	3,700	1,330	2,820	1,450	1,440	1,430	1,430	973
9	1,470	975	980	1,840	3,320	1,540	3,550	1,450	1,440	1,440	1,330	1,060
10	1,200	966	1,100	1,920	3,000	1,540	2,770	1,500	1,430	1,450	1,070	977
11	1,480	967	1,140	2,180	2,490	1,540	2,590	1,460	1,410	1,430	975	972
12	1,470	972	975	1,960	1,590	2,050	1,900	1,780	1,430	1,420	1,370	948
13	1,460	968	993	1,610	1,540	1,480	4,330	1,470	1,420	1,250	1,420	914
14	1,460	964	987	1,570	1,590	1,480	3,070	1,460	1,450	1,020	1,420	973
15	1,460	971	974	3,230	1,590	1,480	2,750	1,450	1,050	1,350	1,420	978
16	1,450	960	975	2,890	2,290	1,480	2,650	1,450	976	1,410	1,460	1,010
17	1,430	956	1,190	2,980	1,980	1,480	1,990	1,480	1,360	1,420	1,190	986
18	1,420	950	1,410	2,640	1,940	1,480	1,500	1,450	1,420	1,400	996	983
19	1,450	950	1,040	2,580	1,650	1,410	1,490	1,450	1,420	1,400	1,360	979
20	1,440	956	994	2,600	1,650	1,570	1,470	1,440	1,350	1,200	1,420	930
21	1,420	1,640	1,470	2,670	2,550	2,460	1,480	1,440	1,410	1,030	1,430	951
22	1,430	1,570	1,250	1,500	4,700	2,000	1,470	1,450	1,030	971	1,450	948
23	1,430	1,470	1,050	2,060	3,700	1,540	2,400	1,530	979	976	1,520	944
24	1,430	1,460	999	2,820	2,520	1,530	1,090	1,470	975	993	1,070	971
25	1,430	1,920	992	2,550	2,300	1,540	1,470	1,460	965	987	995	1,040
26	1,460	1,350	2,060	2,570	1,870	1,530	1,450	1,520	960	1,140	1,310	1,030
27	1,450	1,400	2,270	3,200	1,890	1,480	1,440	2,500	963	991	1,420	1,030
28	1,450	3,490	1,420	2,910	1,590	1,460	1,440	2,030	945	980	1,450	1,040
29	1,470	1,190	1,090	2,960	-----	1,910	1,430	1,890	949	978	1,430	1,040
30	1,460	1,010	1,060	1,570	-----	1,930	1,420	1,750	956	963	1,350	1,040
31	1,450	-----	4,500	2,300	-----	2,630	-----	1,820	-----	957	1,060	-----
TOTAL	44,850	39,445	39,586	74,010	72,720	50,230	69,850	48,260	39,488	36,545	39,551	31,031
MEAN	1,447	1,315	1,277	2,387	2,597	1,620	2,328	1,557	1,316	1,179	1,276	1,034
MAX	1,530	3,490	4,500	4,560	4,700	2,630	5,070	2,500	2,000	1,480	1,520	1,470
MIN	1,200	950	967	1,500	1,540	1,330	1,090	1,410	945	954	972	914
(†)	-24,100	-8,100	+14,700	+18,300	+17,000	+5,100	+3,800	+1,400	-3,700	-4,200	-11,000	-11,700
MEAN†	669	1,045	1,751	2,978	3,204	1,785	2,455	1,602	1,193	1,043	921	644
CFSM†	1.28	1.99	3.34	5.68	6.11	3.41	4.69	3.06	2.28	1.99	1.76	1.23
IN.†	1.47	2.22	3.85	6.55	6.37	3.93	5.23	3.52	2.54	2.30	2.03	1.37

CAL YR 1973 TOTAL 617,758 MEAN 1,692 MAX 11,200 MIN 934 MEAN† 1,657 CFSM† 3.16 IN.† 42.93
WTR YR 1974 TOTAL 585,566 MEAN 1,604 MAX 5,070 MIN 914 MEAN† 1,598 CFSM† 3.05 IN.† 41.39

† Change in contents, in cfs days, in Blue Ridge Lake (Georgia), furnished by Tennessee Valley Authority.

* Adjusted for change in contents in lakes or reservoirs listed above.

TENNESSEE RIVER BASIN

99

03564500 Ocoee River at Parksville, Tenn.

LOCATION.--Lat 35°05'48", long 84°39'15", Polk County, on right bank 0.4 mile (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 sq mi (1,541 sq km).

PERIOD OF RECORD.--January 1911 to September 1916, March 1921 to current year.

GAGE.--Water-stage recorder. Datum of gage is 716.96 ft (218.529 m) above mean sea level.

AVERAGE DISCHARGE.--58 years, 1,325 cfs (37.52 cu m/s), 30.24 in/yr (768 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 5,550 cfs (157 cu m/s) Jan. 1, gage height, 8.44 ft (2.573 m); minimum, 53 cfs (1.50 cu m/s) Dec. 16, 20, 25, gage height, 2.75 ft (0.838 m); minimum daily, 569 cfs (16.11 cu m/s) Sept. 2.

Period of record: Maximum discharge, 21,700 cfs (615 cu m/s) Mar. 29, 1951, gage height, 20.22 ft (6.163 m); minimum daily, 10 cfs (0.28 cu m/s) Oct. 28, 1925.

REMARKS.--Records good. Flow regulated by Blue Ridge Lake (see sta 03558500 basic data release for Georgia, 1974), and Lake Ocoee (sta 03564000). Prior to Oct. 1, 1970, flow regulated by Ocoee No. 3 Lake. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1306: 1916, 1921-36 (adjusted runoff). WSP 1386: 1926.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,480	1,490	1,100	4,960	2,780	1,270	2,680	1,290	1,650	1,040	706	1,140
2	1,480	1,470	1,110	3,680	2,840	1,140	2,060	1,350	1,960	1,010	1,130	569
3	1,520	1,470	1,360	4,550	4,130	1,460	2,700	1,350	2,320	878	1,600	1,060
4	1,510	1,470	1,590	4,230	4,300	1,760	2,740	1,440	1,830	1,020	1,110	1,380
5	1,550	1,480	1,590	3,970	3,570	2,300	4,570	1,430	2,270	1,090	1,040	1,150
6	1,450	1,500	1,580	3,050	3,290	1,330	4,050	1,450	1,560	1,310	1,240	1,620
7	1,450	1,480	1,870	2,760	3,600	1,490	3,550	1,140	1,440	1,700	1,380	1,880
8	1,500	1,470	2,070	2,440	4,200	1,580	3,250	1,110	1,500	1,410	1,480	887
9	1,600	1,430	1,860	2,490	3,810	1,650	3,490	1,040	1,490	1,340	2,000	912
10	1,600	1,370	1,770	2,570	3,530	1,620	3,250	1,110	1,490	1,500	1,550	823
11	1,600	1,310	1,660	2,760	3,130	1,580	2,990	1,380	1,520	1,730	835	941
12	1,550	1,150	1,130	2,850	2,810	2,060	2,810	1,390	1,520	1,880	1,250	889
13	1,550	686	1,550	2,750	2,700	1,570	3,130	1,290	1,400	1,150	1,410	892
14	1,600	1,030	1,580	2,680	1,690	1,410	4,060	2,140	1,450	1,110	1,720	1,010
15	1,550	1,020	1,580	2,760	1,980	1,410	3,400	1,540	1,180	1,290	1,500	976
16	1,500	1,060	1,180	2,740	2,740	1,380	3,240	1,900	1,200	1,460	1,130	953
17	1,550	1,060	1,340	2,780	2,710	1,390	2,880	1,440	1,430	1,050	1,090	899
18	1,600	1,060	1,040	2,820	2,040	1,480	2,740	1,110	1,120	1,590	1,040	1,040
19	1,600	1,050	827	2,840	2,560	1,430	2,730	1,120	1,270	1,57	1,230	1,050
20	1,600	1,050	732	2,850	2,740	1,880	1,810	1,580	1,410	1,170	1,320	1,040
21	1,600	1,290	1,360	2,880	2,740	2,080	1,700	1,430	1,530	1,060	1,890	980
22	1,600	1,700	1,450	2,750	2,790	2,740	1,620	1,320	1,110	1,110	1,100	1,050
23	1,550	1,530	1,100	2,740	2,770	2,240	2,410	2,440	1,090	1,130	1,540	1,050
24	1,600	1,360	1,580	2,750	2,770	2,090	1,380	1,640	1,030	1,150	992	1,000
25	1,600	1,600	1,230	2,770	2,780	1,790	799	1,420	1,010	1,010	993	900
26	1,550	1,320	1,660	2,770	2,770	1,520	815	1,440	1,060	1,230	1,320	950
27	1,460	1,670	1,900	2,790	2,740	1,400	902	2,600	1,170	1,670	1,390	900
28	1,470	4,530	1,950	2,940	1,990	1,480	1,420	2,560	1,140	1,050	1,480	1,000
29	1,520	2,480	1,770	3,300	-----	1,610	1,360	2,520	1,040	1,070	1,840	1,120
30	1,500	1,100	1,660	2,940	-----	2,150	1,260	1,850	998	848	1,670	1,100
31	1,490	-----	2,020	2,780	-----	2,500	-----	1,410	-----	923	1,520	-----
TOTAL	47,780	43,686	46,199	93,940	82,500	52,790	75,796	48,230	42,188	38,549	41,496	31,161
MEAN	1,541	1,456	1,490	3,030	2,946	1,703	2,527	1,556	1,406	1,244	1,339	1,039
MAX	1,600	4,530	2,070	4,960	4,300	2,740	4,570	2,600	2,320	1,880	2,000	1,880
MIN	1,450	686	732	2,440	1,690	1,140	799	1,040	998	848	706	569

CAL YR 1973 TOTAL 677,645 MEAN 1,857 MAX 11,500 MIN 685 MEANT 1,840 CFSMT 3.09 IN.† 41.98
WTR YR 1974 TOTAL 644,315 MEAN 1,765 MAX 4,960 MIN 569 MEANT 1,755 CFSMT 2.95 IN.† 40.05

† Adjusted for change in contents in Blue Ridge Lake (Georgia) and Lake Ocoee.

TENNESSEE RIVER BASIN

101

03565300 South Chestuee Creek near Benton, Tenn.

LOCATION.--Lat 35°10'02", long 84°42'59", Bradley County, on right bank 50 ft (15 m) downstream from relocated county highway bridge, 0.2 mile (0.3 km) downstream from Climer Branch, 2.4 miles (3.9 km) southwest of Benton Station, 2.8 miles (4.5 km) north of Ocoee, and 3.6 miles (5.8 km) west of Benton, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--31.8 sq mi (82.4 sq km).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 712.14 ft (217.060 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 53.3 cfs (1.509 cu m/s), 22.76 in/yr (578 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,280 cfs (64.6 cu m/s) Nov. 28, gage height, 8.05 ft (2.454 m); minimum, 2.7 cfs (0.076 cu m/s) Aug. 26, 27-28, Sept. 23.

Period of record: Maximum discharge, 12,000 cfs (340 cu m/s) Mar. 16, 1973, gage height, 12.11 ft (3.691 m), from rating curve extended above 3,200 cfs (90.6 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 2.1 cfs (0.059 cu m/s) Aug. 31, 1963.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	13	51	480	82	44	58	20	53	7.9	4.7	4.3
2	51	8.2	42	205	301	41	150	20	84	7.6	4.4	3.8
3	27	7.0	37	261	417	38	120	20	33	7.3	4.6	4.6
4	19	6.9	46	330	172	35	335	21	26	7.3	5.1	4.5
5	14	6.5	134	187	119	33	143	25	22	7.3	4.5	3.7
6	12	6.3	55	144	116	32	94	22	31	7.9	3.9	11
7	10	6.0	42	158	295	29	70	18	26	7.3	4.4	8.5
8	9.3	11	36	104	194	27	78	17	21	7.0	12	6.6
9	8.8	14	33	464	126	25	69	16	18	7.0	8.9	5.9
10	8.2	8.0	30	341	97	24	48	39	17	6.7	5.6	4.7
11	7.8	6.7	26	755	76	23	42	22	16	6.4	5.1	4.3
12	7.4	6.4	25	296	61	22	43	92	15	10	7.7	4.0
13	6.9	6.3	38	151	54	20	142	32	16	7.0	6.1	4.5
14	7.1	6.1	31	169	184	19	82	22	14	6.1	4.8	4.3
15	6.8	6.2	25	233	186	18	173	59	13	5.8	4.4	3.9
16	6.4	7.2	22	148	587	22	76	52	27	5.3	4.3	3.6
17	5.8	7.0	20	118	235	21	57	27	16	4.7	5.7	3.5
18	5.5	6.2	18	93	136	18	46	21	13	4.7	5.2	3.5
19	5.5	6.1	17	74	132	22	40	18	12	6.7	5.3	3.3
20	5.6	5.9	96	65	96	61	34	16	11	10	4.8	3.2
21	5.8	32	95	60	71	628	31	15	11	5.8	4.6	3.3
22	5.7	29	49	49	305	142	30	15	10	5.0	4.7	3.1
23	5.8	14	41	78	127	88	33	495	12	5.5	3.6	2.8
24	6.0	11	35	128	94	64	28	78	11	5.5	3.2	2.9
25	6.5	17	59	119	69	58	26	41	10	4.7	3.0	3.2
26	6.4	24	1,140	187	56	51	24	127	9.1	30	2.9	3.2
27	6.2	461	350	269	51	44	23	339	8.8	26	2.9	4.7
28	11	1,500	126	342	46	50	22	73	8.8	9.5	4.9	6.8
29	18	138	96	276	-----	182	20	47	8.5	7.0	5.0	4.0
30	12	69	112	143	-----	124	20	36	7.9	6.0	5.3	3.4
31	8.9	-----	658	109	-----	77	-----	31	-----	5.1	4.9	-----
TOTAL	419.4	2,446.0	3,585	6,536	4,485	2,082	2,157	1,876	581.1	250.1	156.5	133.1
MEAN	13.5	81.5	116	211	160	67.2	71.9	60.5	19.4	8.07	5.05	4.44
MAX	103	1,500	1,140	755	587	628	335	495	84	30	12	11
MIN	5.5	5.9	17	49	46	18	20	15	7.9	4.7	2.9	2.8
CFSM	.42	2.56	3.65	6.64	5.03	2.11	2.26	1.90	.61	.25	.16	.14
IN.	.49	2.86	4.19	7.65	5.25	2.44	2.52	2.19	.68	.29	.18	.16

CAL YR 1973 TOTAL 30,063.2 MEAN 82.4 MAX 5,200 MIN 5.2 CFSM 2.59 IN 35.17
WTR YR 1974 TOTAL 24,707.2 MEAN 67.7 MAX 1,500 MIN 2.8 CFSM 2.13 IN 28.90

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0445	8.05	2,280	02-16	1600	7.10	940
12-26	1615	7.54	1,510	03-21	1200	7.33	1,230
12-31	1915	7.43	1,360	05-23	1130	7.08	920
01-11	1515	7.36	1,270				

TENNESSEE RIVER BASIN

03565500 Oostanaula Creek near Sanford, Tenn.

LOCATION.--Lat 35°19'39", long 84°42'19", McMinn County, on right bank 20 ft (6 m) downstream from highway bridge, 1.3 miles (2.1 km) southeast of Sanford, and 3.5 miles (5.6 km) northeast of Calhoun, and at mile 5.7 (9.2 km).

DRAINAGE AREA.--57.0 sq mi (147.6 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 716.51 ft (218.392 m) above mean sea level.

AVERAGE DISCHARGE.--20 years, 95.0 cfs (2.690 cu m/s), 22.63 in/yr (575 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,690 cfs (47.9 cu m/s) Dec. 27, gage height, 8.23 ft (2.509 m); minimum discharge, 24 cfs (0.68 cu m/s) Oct. 27, 28, gage height, 2.33 ft (0.710 m).

Period of record: Maximum discharge, 8,000 cfs (227 cu m/s) Mar. 16, 1973, gage height, 13.43 ft (4.094 m); minimum discharge, 16 cfs (0.45 cu m/s) Oct. 13-28, 1954, Sept. 27, 1959; minimum gage height, 2.12 ft (0.646 m) Oct. 28, 1954, Aug. 14, 1969, Dec. 3, 5-6, 1969.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	29	75	813	214	153	172	91	118	55	38	30
2	124	31	66	557	204	143	242	91	117	59	38	30
3	51	28	61	336	273	137	275	101	105	57	56	30
4	38	27	76	341	494	129	816	91	95	53	90	30
5	36	27	301	344	263	123	1,180	89	90	57	51	30
6	33	27	245	273	232	129	426	89	175	55	43	35
7	32	26	108	255	322	129	265	84	208	53	41	31
8	31	26	88	224	291	116	239	81	121	56	41	29
9	33	29	79	305	231	109	325	79	105	56	46	28
10	30	29	72	491	205	105	298	82	98	52	43	27
11	29	26	67	745	188	101	209	85	92	50	40	27
12	29	27	63	1,070	173	97	190	107	88	52	40	27
13	29	27	77	551	162	98	248	113	84	50	39	28
14	29	26	80	334	285	93	235	84	81	48	39	30
15	30	27	64	332	319	89	237	98	78	47	42	29
16	29	39	60	275	452	89	200	136	77	42	48	28
17	28	38	57	236	775	96	174	90	76	36	45	27
18	26	29	54	212	369	87	162	83	71	38	36	27
19	27	28	52	195	275	92	152	73	68	43	33	27
20	27	28	78	182	286	246	142	74	66	49	31	27
21	26	31	132	174	224	472	134	70	65	50	30	28
22	27	47	86	160	301	748	128	138	60	47	30	30
23	27	36	73	150	313	271	128	496	61	43	29	28
24	26	32	68	182	225	208	119	843	62	44	29	27
25	26	33	87	312	201	184	111	218	60	44	28	27
26	26	43	1,130	333	181	169	107	173	58	59	27	27
27	26	70	1,380	340	170	153	103	275	57	55	27	27
28	26	480	560	330	161	145	101	196	57	46	27	30
29	31	332	259	413	-----	173	97	148	57	44	28	28
30	31	99	235	306	-----	255	93	131	56	42	33	30
31	28	-----	417	241	-----	219	-----	121	-----	39	30	-----
TOTAL	1,067	1,777	6,250	11,012	7,789	5,358	7,308	4,635	2,606	1,521	1,198	859
MEAN	34.4	59.2	202	355	278	173	244	150	86.9	49.1	38.6	28.6
MAX	124	480	1,380	1,070	775	748	1,180	843	208	59	90	35
MIN	26	26	52	150	161	87	93	70	56	36	27	27
CFSM	.60	1.04	3.54	6.23	4.88	3.04	4.28	2.63	1.52	.86	.68	.50
IN.	.70	1.16	4.08	7.19	5.08	3.50	4.77	3.02	1.70	.99	.78	.56

CAL YR 1973 TOTAL 52,632 MEAN 144 MAX 5,920 MIN 25 CFSM 2.53 IN 34.35
WTR YR 1974 TOTAL 51,380 MEAN 141 MAX 1,380 MIN 26 CFSM 2.47 IN 33.53

PEAK DISCHARGE (BASE, 600 CFS)

NOTE.--No gage-height record Aug. 14 to Sept. 30.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-27	0245	8.23	1,690	02-17	1300	5.67	868
01-01	1715	5.64	862	03-22	0630	5.72	881
01-12	0645	6.96	1,190	04-05	0730	8.06	1,600
02-04	1515	4.89	608	05-24	0500	6.30	1,030

TENNESSEE RIVER BASIN

103

03566000 Hiwassee River at Charleston, Tenn.

LOCATION.--Lat 35°17'16", long 84°45'07", Bradley County, at Hiwassee Packing Plant, on left bank 250 ft (80 m) upstream from Southern Railway bridge, 0.3 mile (0.5 km) upstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.9 (30.4 km).

DRAINAGE AREA.--2,298 sq mi (5,952 sq/km).

PERIOD OF RECORD.--November 1898 to April 1899, November 1899 to April 1903, October 1919 to January 1940, January 1963 to current year. Gage-height records collected at this station during the period December 1884 to December 1889 are contained in United States War Department Stages of Ohio River and Principal Tributaries, 1858-89, Part 1, and during period January 1890 to December 1943, are contained in reports of the U.S. Weather Bureau.

GAGE.--Water-stage recorder and deflection recorder. Datum of gage is 665.56 ft (202.863 m) above mean sea level. Prior to July 18, 1925, nonrecording gages; July 18, 1925, to Sept. 6, 1926, water-stage recorder at Southern Railway bridge, 250 ft (76.2 m) downstream at datum 1.50 ft (0.5 m) higher. Auxiliary nonrecording gages at several sites and datum used periodically.

AVERAGE DISCHARGE.--33 years, 4,828 cfs (136.7 cu m/s), 28.53 in/yr (725 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 21,400 cfs (606 cu m/s) Jan. 12, gage height, 19.20 ft (5.852 m); minimum daily, 3,200 cfs (90.6 cu m/s) July 28; minimum gage height, 10.54 ft (3.213 m) Mar. 11.

Period of record: Maximum discharge, 57,000 cfs (1,610 cu m/s) Mar. 17, 1973, gage height, 29.39 ft (8.958 m); minimum, 260 cfs (7.36 cu m/s) Sept. 14, 1925, gage height, -1.28 ft (-0.390 m).

Maximum stage known, 34.0 ft (10.36 m), present datum, Mar. 31, 1886, discharge about 70,000 cfs (1,980 cu m/s).

REMARKS.--Records good. Some diversions above the station for industrial and municipal water supplies. Flow regulated by five reservoirs (see p. 138, and basic data releases for Georgia and North Carolina, 1974). Daily discharge figures computed using area as determined from a stage-area curve and velocity as determined from a deflection-velocity curve. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 853: Drainage area. WSP 1436: 1902, 1922(M), 1928, 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,730	4,640	6,410	15,000	9,690	6,490	5,730	4,650	5,490	3,780	4,210	3,890
2	4,980	4,730	5,520	14,000	10,300	6,280	6,060	4,740	5,320	4,170	4,410	3,320
3	4,700	4,670	5,460	16,000	12,100	6,130	6,420	4,240	5,850	4,030	4,480	4,340
4	4,610	4,720	5,970	18,000	12,600	6,320	7,890	4,340	5,620	4,310	3,730	4,880
5	4,820	4,700	7,030	17,000	11,300	6,780	9,420	4,190	6,020	4,210	3,770	4,630
6	4,640	4,720	6,140	15,500	10,800	5,530	9,480	4,560	5,790	3,920	4,630	4,810
7	4,400	4,670	6,700	14,000	12,000	5,510	7,840	4,090	5,730	3,780	4,680	4,710
8	4,340	4,550	7,010	13,500	13,800	5,210	7,410	3,860	4,920	4,330	4,930	3,840
9	4,450	4,570	6,700	15,000	13,900	5,040	7,860	3,620	4,790	4,540	5,370	3,930
10	4,420	4,750	6,370	17,500	13,100	5,140	7,800	4,340	4,440	5,000	4,600	4,390
11	4,330	4,600	11,600	19,000	12,700	5,420	7,320	4,380	4,820	5,100	3,270	4,450
12	4,110	4,390	6,460	20,000	12,500	5,550	6,870	4,350	4,790	5,290	3,940	4,360
13	3,440	3,810	6,260	15,500	11,900	5,050	8,140	4,510	4,990	4,130	4,820	4,250
14	3,310	4,020	6,540	10,100	11,800	5,160	9,220	5,370	5,240	3,570	5,090	4,140
15	3,340	4,500	6,410	12,100	12,300	4,740	8,530	4,890	4,250	4,030	4,970	3,390
16	3,280	4,530	5,810	13,800	13,300	4,620	6,470	5,500	3,840	5,100	4,660	3,950
17	3,910	4,500	5,820	14,000	14,000	5,010	5,670	5,250	4,200	4,530	4,070	4,320
18	4,310	4,510	5,700	13,500	12,400	5,220	5,390	4,820	4,350	4,950	3,610	4,370
19	4,300	4,540	4,910	12,900	12,100	4,640	5,240	4,530	4,400	5,070	3,820	4,480
20	4,390	4,520	5,350	6,660	11,600	6,040	4,490	5,100	4,630	4,230	4,640	4,410
21	4,340	4,800	7,290	7,460	11,000	12,000	4,300	5,150	5,120	3,660	5,390	3,640
22	4,320	6,050	7,090	10,300	12,100	11,400	4,130	5,290	4,160	3,910	4,350	3,220
23	4,320	5,490	6,280	10,400	12,400	7,620	4,820	8,890	3,510	4,450	5,050	3,550
24	4,340	5,060	6,350	9,880	11,700	6,090	4,030	8,420	3,750	4,690	3,750	3,740
25	4,280	5,230	6,100	9,560	11,000	5,230	3,750	6,130	4,010	4,520	3,260	3,940
26	4,250	5,470	12,000	10,500	9,910	4,720	4,210	5,140	3,930	5,010	3,960	3,810
27	4,250	6,020	13,500	10,700	8,640	4,340	4,280	7,910	4,250	5,220	4,540	3,870
28	4,360	16,000	10,300	11,000	7,760	4,430	4,500	7,060	4,160	3,200	4,790	3,610
29	4,520	11,600	8,560	11,300	-----	5,040	4,960	6,990	3,610	3,970	4,960	3,370
30	4,840	7,090	8,200	10,700	-----	5,610	4,660	6,100	3,210	4,220	4,690	3,790
31	4,410	-----	9,270	9,940	-----	5,440	-----	5,600	-----	4,330	4,310	-----
TOTAL	133,040	163,450	223,810	404,800	328,700	181,800	186,890	164,010	139,190	135,250	136,750	121,400
MEAN	4,292	5,448	7,220	13,060	11,740	5,865	6,230	5,291	4,640	4,363	4,411	4,047
MAX	4,980	16,000	13,500	20,000	14,000	12,000	9,480	8,890	6,020	5,290	5,390	4,880
MIN	3,280	3,810	4,910	6,660	7,760	4,340	3,750	3,620	3,210	3,200	3,260	3,220
CAL YR 1973	TOTAL 2,346,990		MEAN 6,430		MAX 54,000		MIN 2,520					
WTR YR 1974	TOTAL 2,319,090		MEAN 6,354		MAX 20,000		MIN 3,200					

TENNESSEE RIVER BASIN

03566420 Wolftever Creek near Ooltewah, Tenn.

LOCATION.--Lat 35°03'43", long 85°03'59", Hamilton County, on right downstream wingwall of county road bridge, 0.6 mile (1.0 km) downstream from Southern Railway bridge, 0.9 mile (1.4 km) south of Ooltewah, 1.6 miles (2.6 km) upstream from Little Wolftever Creek, and at mile 16.1 (25.9 km).

DRAINAGE AREA.--18.8 sq mi (48.7 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 755.08 ft (230.148 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 33.5 cfs (0.949 cu m/s), 24.20 in/yr (615 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,430 cfs (40.5 cu m/s) Dec. 26, gage height, 6.99 ft (2.131 m); minimum, 3.4 cfs (0.096 cu m/s) Sept. 20, gage height, 0.60 ft (0.183 m).

Period of record: Maximum discharge, 7,300 cfs (207 cu m/s) Mar. 16, 1973, gage height, 9.75 ft (2.972 m); minimum, 1.8 cfs (0.051 cu m/s) part of each day Sept. 13-18, 1964, Oct. 10, 1969; minimum gage height, 0.60 ft (0.183 m) Sept. 20, 1974.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	16	52	187	46	26	29	10	38	6.2	4.6	4.3
2	56	11	41	146	96	25	71	11	34	6.2	4.3	4.3
3	32	10	35	162	126	23	40	11	18	6.9	5.9	4.6
4	23	9.7	100	168	70	22	49	11	15	6.2	6.9	4.3
5	17	9.6	209	110	52	20	36	11	14	7.3	5.9	4.3
6	13	8.8	69	96	69	20	27	11	15	7.3	4.9	7.3
7	11	8.7	48	98	107	19	23	9.4	14	8.0	5.2	5.9
8	11	14	38	66	79	18	28	9.0	12	6.9	50	5.2
9	11	15	32	373	56	17	22	9.4	13	6.6	32	4.6
10	9.7	10	27	157	46	16	19	14	13	6.2	8.3	5.2
11	9.3	9.6	23	432	39	16	18	10	11	6.2	8.7	5.2
12	8.9	9.3	21	137	34	15	22	30	10	5.9	23	4.9
13	8.2	9.0	27	82	30	15	70	12	9.4	5.2	11	4.9
14	8.3	8.8	21	117	107	14	32	10	9.0	5.2	8.0	4.3
15	8.1	9.0	18	121	105	14	25	28	8.7	4.9	6.9	4.6
16	7.6	11	17	76	532	16	21	18	10	4.9	6.2	4.6
17	6.8	8.8	15	61	130	14	19	12	8.7	4.6	5.9	4.3
18	6.6	8.2	14	48	76	14	17	11	8.3	4.6	5.5	4.0
19	6.6	8.0	14	41	69	18	16	9.8	8.0	5.5	5.2	4.0
20	6.3	8.0	85	38	49	25	15	9.0	7.6	5.5	4.9	3.7
21	6.2	53	62	37	41	277	14	8.7	7.6	4.9	4.9	4.3
22	6.2	28	40	30	207	56	15	9.0	7.3	4.6	4.6	4.3
23	6.2	18	35	52	67	37	16	126	8.0	5.5	4.3	4.0
24	6.2	14	29	77	51	29	13	24	7.6	5.2	4.3	4.0
25	6.0	30	76	66	41	27	12	16	7.3	5.5	4.3	4.0
26	6.0	26	988	211	35	23	12	133	6.9	17	4.3	4.3
27	5.6	228	186	128	31	23	11	110	8.7	9.4	4.0	5.5
28	12	612	102	196	29	24	11	33	8.3	6.2	4.3	4.3
29	40	119	79	117	-----	107	11	22	7.3	5.5	4.3	4.0
30	13	70	70	73	-----	52	10	18	6.9	5.2	5.9	4.0
31	14	-----	392	55	-----	35	-----	19	-----	4.6	4.6	-----
TOTAL	479.8	1,400.5	2,965	3,758	2,420	1,057	724	775.3	352.6	193.9	263.1	137.2
MEAN	15.5	46.7	95.6	121	86.4	34.1	24.1	25.0	11.8	6.25	8.49	4.57
MAX	98	612	988	432	532	277	71	133	38	17	50	7.3
MIN	5.6	8.0	14	30	29	14	10	8.7	6.9	4.6	4.0	3.7
CFSM	.82	2.48	5.09	6.44	4.60	1.81	1.28	1.33	.63	.33	.45	.24
IN.	.95	2.77	5.87	7.44	4.79	2.09	1.43	1.53	.70	.38	.52	.27

CAL YR 1973 TOTAL 22,608.6 MEAN 61.9 MAX 2,860 MIN 4.0 CFSM 3.29 IN 44.74
 WTR YR 1974 TOTAL 14,526.4 MEAN 39.8 MAX 988 MIN 3.7 CFSM 2.12 IN 28.74

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0715	6.54	1,200	01-11	1315	5.76	928
12-26	1515	6.99	1,430	02-16	1300	6.51	1,180
12-31	1830	5.33	818	03-21	0745	4.87	714
01-09	1545	5.40	835				

03567500 South Chickamauga Creek near Chickamauga, Tenn.

LOCATION.--Lat 35°00'50", long 85°12'27", Hamilton County, on right bank 0.3 mile (0.5 km) upstream from bridge on U.S. Highway 11, 1.5 miles (2.4 km) south of Chickamauga, 6.0 miles (9.7 km) east of the city hall in Chattanooga, and at mile 12.4 (20.0 km).

DRAINAGE AREA.--428 sq mi (1,109 sq km).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharges only for December 1930, published in WSP 1306. Prior to October 1937, published as Chickamauga Creek near Chickamauga.

GAGE.--Water-stage recorder. Datum of gage is 651.12 ft (198.461 m) above mean sea level. Prior to Oct. 7, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 696 cfs (19.71 cu m/s), 22.08 in/yr (561 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,000 cfs (340 cu m/s) Nov. 29, gage height, 15.51 ft (4.727 m); minimum discharge, 152 cfs (4.30 cu m/s) Sept. 23, 24, 25, 26, gage height, 0.73 ft (0.222 m).

Period of record: Maximum discharge, 30,000 cfs (850 cu m/s) Mar. 17, 1973, gage height, 21.70 ft (6.614 m); maximum gage height, 23.75 ft (7.239 m), Mar. 17, 1973, from floodmarks (backwater from Tennessee River); minimum discharge, 61 cfs (1.73 cu m/s) Oct. 8, 1941; minimum gage height, 0.24 ft (0.073 m) Oct. 5, 6, 7, 1970.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by small mills upstream. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 853: 1937. WSP 1386: 1932.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	921	303	1,790	4,590	1,290	724	664	310	1,150	206	177	172
2	864	281	1,010	3,690	2,170	679	1,300	310	1,060	202	173	172
3	575	246	809	4,870	3,020	637	1,600	315	692	202	318	178
4	404	237	836	5,120	2,360	595	1,560	350	495	216	380	180
5	332	225	2,850	4,020	1,530	562	1,960	320	419	246	224	172
6	293	217	2,230	2,700	1,360	538	1,150	313	411	288	218	198
7	271	213	1,210	2,140	2,060	508	862	295	409	283	191	204
8	258	223	904	1,740	3,180	481	799	280	422	238	220	183
9	249	236	768	2,550	2,450	454	1,190	276	388	230	340	174
10	240	229	672	4,350	1,510	433	814	298	362	220	252	194
11	230	215	589	4,440	1,220	418	673	313	330	214	335	203
12	221	209	533	4,300	1,040	410	628	410	308	208	469	196
13	216	207	581	3,040	915	403	1,590	395	293	198	315	209
14	215	206	573	2,070	1,260	388	1,700	303	280	193	254	268
15	213	208	479	2,760	2,660	375	1,030	345	268	189	298	193
16	212	248	442	2,430	3,760	380	808	353	268	186	297	176
17	205	240	409	1,770	4,650	385	691	300	254	186	254	169
18	198	217	378	1,420	3,180	368	616	274	246	180	230	165
19	196	211	359	1,190	1,920	363	556	262	240	177	204	161
20	193	211	771	1,050	1,480	403	511	252	234	184	191	160
21	191	611	1,360	1,000	1,100	1,890	469	246	230	195	183	162
22	189	1,220	871	907	2,780	1,560	448	246	226	187	178	158
23	186	719	666	939	3,010	751	445	982	228	187	175	154
24	188	450	596	1,520	2,040	604	418	757	232	189	174	154
25	183	446	660	1,500	1,210	553	388	393	226	214	169	154
26	183	616	5,080	2,200	973	526	373	600	218	328	166	155
27	181	1,020	8,520	3,120	853	490	355	2,580	214	278	187	160
28	198	7,510	5,440	3,080	778	487	345	1,170	234	232	169	166
29	427	10,300	2,900	3,370	-----	1,270	333	591	218	210	180	162
30	384	4,320	1,900	2,520	-----	1,490	320	466	210	193	192	156
31	276	-----	2,500	1,630	-----	829	-----	549	-----	184	174	-----
TOTAL	9,092	31,794	48,686	82,026	55,759	19,954	24,596	14,854	10,765	6,643	7,287	5,308
MEAN	293	1,060	1,571	2,646	1,991	644	820	479	359	214	235	177
MAX	921	10,300	8,520	5,120	4,650	1,890	1,960	2,580	1,150	328	469	268
MIN	181	206	359	907	778	363	320	246	210	177	166	154
CFSM	.68	2.48	3.67	6.18	4.65	1.50	1.92	1.12	.84	.50	.55	.41
IN.	.79	2.76	4.23	7.13	4.85	1.73	2.14	1.29	.94	.58	.63	.46

CAL YR 1973	TOTAL	408,424.00	MEAN	1,119	MAX	26,500	MIN	171	CFSM	2.61	IN	35.50
WTR YR 1974	TOTAL	316,764.00	MEAN	868	MAX	10,300	MIN	154	CFSM	2.03	IN	27.53

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-29	0530	15.51	12,000	01-03	2230	12.53	6,720
12-27	1430	14.26	9,490	02-17	0400	11.60	5,520

03568000 Tennessee River at Chattanooga, Tenn.

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, on right bank at Rivermont Golf and Country Club, 0.5 mile (0.8 km) downstream from South Chickamauga Creek, 3.0 miles (4.8 km) downstream from Chickamauga Dam, 3.5 miles (5.6 km) upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6 (752.4 km).

DRAINAGE AREA.--21,400 sq mi (55,400 sq km), 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.

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft (189.317 m) above mean sea level. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 miles (11.3 km) upstream from Chattanooga to Hales Bar Dam 33 miles (53 km) downstream at or within 0.2 ft (0.06 m) of present datum, except nonrecording gage at Bridgeport, Ala., 49.9 miles (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 miles (3.5 km) downstream from base gage.

AVERAGE DISCHARGE.--100 years, 37,130 cfs (1,052 cu m/s), 23.56 in/yr (598 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 181,000 cfs (5,130 cu m/s) Jan. 11; maximum gage height, 29.68 ft (9.046 m) Jan. 12; maximum gage height at Walnut Street, 27.81 ft (8.476 m) Jan. 12; minimum daily discharge, 8,200 cfs (232 cu m/s) Sept. 21; minimum gage height, 10.23 ft (3.118 m) Sept. 9.
Period of record: Maximum discharge observed, 410,000 cfs (11,600 cu m/s) Mar. 1, 1875, gage height, 53.8 ft (16.40 m), present datum, at Walnut Street, from rating curve extended above 250,000 cfs (7,080 cu m/s); minimum daily, 1,200 cfs (34.0 cu m/s) Nov. 1, 1953; minimum gage height, 0.0 ft (0.00 m) Sept. 11-14, 1881, Sept. 19, 1883.
Maximum stage known, 57.9 ft (17.65 m) Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 cfs (13,000 cu m/s).

REMARKS.--Records excellent. Flow regulated since 1936 by increasing number of reservoirs above station (see p.137, and basic data release for adjoining states, 1974). Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30,500	35,700	93,700	97,200	103,000	55,600	46,100	32,400	59,700	31,600	34,600	26,200
2	33,600	30,800	78,600	117,000	97,100	49,000	46,500	32,500	52,100	33,600	37,800	27,700
3	36,500	26,300	66,800	137,000	98,800	48,800	57,200	27,900	41,200	32,000	30,100	33,400
4	38,900	27,700	59,100	145,000	105,000	47,800	76,600	28,100	33,200	32,000	28,900	40,200
5	43,000	26,100	54,800	145,000	115,000	44,600	84,000	27,500	33,800	30,200	39,200	39,400
6	32,800	27,000	54,600	140,000	113,000	41,300	74,000	33,600	35,900	27,600	34,400	39,500
7	14,600	30,000	57,900	136,000	113,000	47,200	69,300	32,800	34,600	23,100	29,500	45,000
8	20,100	25,500	61,800	133,000	113,000	42,000	62,800	34,400	39,800	36,500	32,200	41,400
9	25,900	25,500	61,500	132,000	111,000	44,000	56,100	34,800	32,100	36,500	41,000	25,000
10	26,200	26,600	59,000	146,000	108,000	45,800	59,300	33,700	29,600	41,500	35,300	26,700
11	32,300	24,300	58,300	158,000	106,000	44,000	59,100	33,200	31,000	44,600	28,100	27,900
12	34,300	37,700	59,600	163,000	98,500	39,200	58,900	25,700	28,700	38,800	38,700	30,200
13	33,300	30,800	57,100	161,000	90,400	33,200	61,600	34,200	29,900	28,200	37,700	36,000
14	15,600	29,400	53,600	154,000	83,600	37,100	64,700	37,300	32,500	28,300	38,800	32,800
15	23,600	29,500	55,800	153,000	78,600	35,500	57,200	40,800	32,200	37,600	34,900	29,300
16	24,600	27,200	55,600	153,000	92,800	44,900	41,600	40,200	36,600	38,100	39,400	30,600
17	26,000	26,700	57,100	151,000	107,000	39,400	39,200	39,100	40,300	39,900	34,400	30,500
18	27,300	25,900	57,500	145,000	106,000	46,100	37,500	39,500	40,900	41,200	31,000	31,800
19	28,200	25,300	54,300	127,000	99,100	47,600	32,600	36,500	36,500	42,700	38,600	33,400
20	23,400	23,100	51,900	114,000	90,300	47,700	34,100	39,600	36,400	41,600	44,500	29,200
21	16,300	27,100	51,700	110,000	87,100	68,800	34,300	44,900	40,000	33,500	42,400	8,200
22	21,300	29,100	55,300	104,000	87,300	91,900	36,900	45,200	33,600	37,000	37,500	10,700
23	24,200	29,000	55,300	99,800	91,100	90,000	43,100	55,900	26,100	35,900	38,900	26,400
24	26,200	34,800	54,200	98,700	92,700	87,500	30,900	61,700	35,900	33,700	40,500	35,100
25	28,400	30,200	52,300	102,000	85,000	78,900	27,900	57,400	33,800	35,800	30,100	26,800
26	29,700	34,500	98,900	103,000	78,400	58,700	26,600	43,600	33,900	37,600	38,600	26,200
27	20,500	48,000	143,000	106,000	69,900	42,200	26,600	36,100	36,300	40,600	38,500	29,300
28	15,100	120,000	129,000	107,000	58,800	42,400	23,000	38,700	34,200	27,000	40,200	27,500
29	30,500	141,000	106,000	109,000	-----	44,600	27,700	42,400	30,200	30,800	38,200	31,100
30	34,300	122,000	88,800	109,000	-----	42,800	28,300	39,800	24,900	32,700	34,100	32,300
31	34,900	-----	82,700	108,000	-----	43,600	-----	48,600	-----	33,900	37,200	-----
TOTAL	852,100	1,176.8M	2,125.8M	3,963.7M	2,679.5M	1,572.2M	1,423.7M	1,198.1M	1,065.9M	1,084.1M	1,125.3M	909,800
MEAN	27,490	39,230	68,570	127,900	95,700	50,720	47,460	38,650	35,530	34,970	36,300	30,330
MAX	43,000	141,000	143,000	163,000	115,000	91,900	84,000	61,700	59,700	44,600	44,500	45,000
MIN	14,600	23,100	51,700	97,200	58,800	33,200	23,000	25,700	24,900	23,100	28,100	8,200

CAL YR 1973 TOTAL 17,993,900 MEAN 49,300 MAX 251,000 MIN 10,600
WTR YR 1974 TOTAL 19,177,000 MEAN 52,540 MAX 163,000 MIN 8,200

M Expressed in thousands.

TENNESSEE RIVER BASIN

107

03568500 Chattanooga Creek near Flintstone, Ga.

LOCATION.--Lat 34°58'20", long 85°19'40", Walker County, on right bank 0.8 mile (1.3 km) south of Georgia-Tennessee State line and 2.3 miles (3.7 km) northeast of Flintstone, and at mile 10.3 (16.6 km).

DRAINAGE AREA.--50.6 sq mi (131.0 sq km).

PERIOD OF RECORD.--October 1950 to September 1974 (discontinued). Prior to December 1950 monthly discharges only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 649.18 ft (197.870 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 86.5 cfs (2.450 cu m/s), 23.21 in/yr (590 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,950 cfs (112 cu m/s) Nov. 28, gage height, 11.85 ft (3.612 m); minimum, unknown.
Period of record: Maximum discharge, 6,300 cfs (178 cu m/s) Mar. 16, 1973, gage height, 13.59 ft (4.142 m); minimum, 1.0 cfs (0.028 cu m/s) Sept. 8, 9, 1954.

REMARKS.--Records fair. Some diurnal fluctuation at low flow caused by bleachery above station. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1910: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	33	199	633	181	117	110	40	139	16	11	8.0
2	106	26	158	339	285	106	229	40	119	15	10	8.0
3	66	21	131	331	365	97	226	42	89	14	11	8.0
4	47	20	134	313	278	89	223	36	73	13	16	8.0
5	39	20	350	283	221	83	189	35	63	15	13	8.0
6	36	18	250	243	202	79	158	37	61	35	10	9.0
7	42	16	200	251	245	67	135	32	59	25	9.8	9.5
8	44	18	150	214	260	60	130	29	54	20	13	8.0
9	42	23	125	519	216	60	118	28	48	19	15	8.0
10	21	21	110	678	182	55	100	35	42	17	13	8.0
11	18	19	94	751	159	55	89	32	37	16	22	9.0
12	15	19	84	606	138	50	90	77	34	16	45	9.0
13	14	18	96	330	124	50	371	53	32	16	28	9.0
14	14	18	95	278	177	50	274	43	29	14	20	12
15	14	18	84	327	310	50	204	47	27	15	17	9.0
16	14	21	78	276	712	50	161	57	27	16	12	8.0
17	13	19	73	233	527	50	137	47	24	14	10	8.0
18	13	17	67	196	307	45	117	38	22	11	10	7.5
19	13	15	63	169	247	50	104	33	21	12	9.5	7.5
20	13	12	117	154	196	55	91	33	19	11	9.0	7.5
21	12	340	198	155	165	250	82	28	18	11	8.5	7.0
22	12	303	160	136	534	150	76	27	18	10	8.0	7.0
23	12	143	138	142	329	100	74	109	20	11	8.0	7.0
24	12	100	120	186	247	80	64	86	22	12	8.0	7.0
25	12	98	126	200	196	70	58	59	20	13	7.5	7.0
26	11	124	1,980	256	165	65	53	95	20	63	8.5	7.0
27	11	205	1,050	350	145	60	50	392	19	46	8.0	7.0
28	15	2,360	391	322	129	100	46	192	18	22	8.0	8.0
29	35	588	278	366	-----	150	42	120	17	16	9.0	7.0
30	27	277	241	275	-----	200	40	87	17	14	8.0	7.0
31	21	-----	330	217	-----	120	-----	78	-----	12	8.0	-----
TOTAL	893	4,930	7,670	9,729	7,242	2,663	3,841	2,087	1,208	560	393.8	240.0
MEAN	28.8	164	247	314	259	85.9	128	67.3	40.3	18.1	12.7	8.00
MAX	129	2,360	1,980	751	712	250	371	392	139	63	45	12
MIN	11	12	63	136	124	45	40	27	17	10	7.5	7.0
CFSM	.57	3.24	4.88	6.21	5.12	1.70	2.53	1.33	.80	.36	.25	.16
IN.	.66	3.62	5.64	7.15	5.32	1.96	2.82	1.53	.89	.41	.29	.18

CAL YR 1973	TOTAL	54,471.3	MEAN	149	MAX	4,760	MIN	8.4	CFSM	2.94	IN	40.05
WTR YR 1974	TOTAL	41,456.8	MEAN	114	MAX	2,360	MIN	7.0	CFSM	2.25	IN	30.48

PEAK DISCHARGE (BASE, 1,100 CFS)

NOTE.--No gage-height record Aug. 16 to Sept. 30.

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0630	11.85	3,950	01-11	1730	8.73	1,160
12-26	1615	11.22	3,240	02-16	1545	8.63	1,110

03571000 Sequatchie River near Whitwell, Tenn.

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, on right bank 15 ft (5 m) downstream from county road bridge 1.5 miles (2.4 km) east of Whitwell, 3.0 miles (4.8 km) upstream from bridge on State Highway 27, 4.5 miles (7.2 km) downstream from Griffith Creek, and at mile 25.1 (40.4 km).

DRAINAGE AREA.--402 sq mi (1,041 sq km), includes 18 sq mi (47 sq km) without surface drainage.

PERIOD OF RECORD.--October 1920 to current year. Prior to December 1920 monthly discharges only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 632.73 ft (192.856 m) above mean sea level (levels by Tennessee Valley Authority). 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.

AVERAGE DISCHARGE.--54 years, 742 cfs (21.01 cu m/s), 25.07 in/yr (637 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,100 cfs (541 cu m/s) Dec. 26, gage height, 16.14 ft (4.919 m); minimum, 62 cfs (1.76 cu m/s) Sept. 25, 26, 27, gage height, 1.15 ft (0.351 m).

Period of record: Maximum discharge, 29,600 cfs (838 cu m/s) Mar. 16, 1973, gage height, 17.65 ft (5.380 m); minimum, 16 cfs (0.45 cu m/s) Sept. 6-21, 27, 28, 1925.

Floods in March 1867 reached a stage of about 19 ft (5.8 m) from reports of Tennessee Valley Authority.

REMARKS.--Records excellent. Prior to 1950 some diurnal fluctuation caused by small mills above station. Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FER	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	268	3,640	3,080	2,160	963	1,520	373	604	153	108	101
2	210	255	1,900	2,590	1,820	883	2,570	373	649	148	104	97
3	196	236	1,540	2,140	3,860	819	2,850	370	583	146	133	101
4	186	223	1,470	2,360	4,800	760	8,110	373	517	146	165	107
5	168	208	1,570	2,410	3,350	714	6,800	532	463	153	123	107
6	154	194	1,360	1,980	2,110	702	3,660	472	433	165	112	120
7	141	182	1,100	1,720	1,940	796	2,170	412	406	157	105	115
8	135	184	945	1,510	1,730	827	1,810	382	388	151	108	107
9	127	188	847	2,750	1,500	821	1,880	358	364	163	112	100
10	122	192	773	5,430	1,290	756	1,640	403	338	174	114	95
11	119	190	683	10,700	1,140	709	1,350	460	315	174	118	95
12	116	186	622	13,200	1,020	680	1,170	992	295	163	128	95
13	112	182	740	9,060	928	642	1,190	1,380	283	150	132	98
14	112	178	696	5,200	1,260	599	1,130	991	265	140	132	98
15	111	174	646	3,150	1,590	566	1,110	859	253	133	124	102
16	108	218	596	2,560	3,440	547	985	1,660	243	125	117	93
17	105	218	545	2,070	5,410	539	895	1,260	243	119	109	89
18	102	208	500	1,690	3,500	516	814	916	238	114	113	84
19	100	198	463	1,400	2,400	526	745	790	243	111	105	78
20	97	192	525	1,250	1,830	1,410	685	811	224	110	101	74
21	97	1,120	730	1,170	1,520	5,580	634	649	212	107	97	72
22	93	2,130	866	1,060	3,530	7,300	604	544	202	104	90	71
23	92	1,250	853	1,020	3,560	4,700	592	1,000	194	110	91	68
24	91	860	757	1,880	2,590	2,550	556	1,460	190	108	88	64
25	91	667	876	3,920	1,800	1,720	520	1,210	184	120	86	63
26	90	676	12,200	3,400	1,390	1,330	487	928	176	460	80	63
27	88	4,570	13,800	3,600	1,180	1,120	463	1,230	170	226	81	77
28	112	12,600	8,900	4,300	1,050	1,010	439	1,080	165	165	90	91
29	210	11,800	5,740	7,510	-----	1,110	415	868	163	140	86	85
30	248	8,050	3,320	6,060	-----	1,780	394	718	157	125	98	82
31	253	-----	2,900	3,660	-----	1,820	-----	619	-----	116	106	-----
TOTAL	4,182	47,797	72,103	113,830	63,698	44,795	48,188	24,473	9,160	4,676	3,356	2,692
MEAN	135	1,593	2,326	3,672	2,275	1,445	1,606	789	305	151	108	89.7
MAX	253	12,600	13,800	13,200	5,410	7,300	8,110	1,660	649	460	165	120
MIN	88	174	463	1,020	928	516	394	358	157	104	80	63
CFSM	.34	3.96	5.79	9.13	5.66	3.59	4.00	1.96	.76	.38	.27	.22
IN.	.39	4.42	6.67	10.53	5.89	4.15	4.46	2.26	.85	.43	.31	.25

CAL YP 1973 TOTAL 475,626 MEAN 1,303 MAX 20,500 MIN 88 CFSM 3.24 IN 44.01
WTR YR 1974 TOTAL 438,950 MEAN 1,203 MAX 13,800 MIN 63 CFSM 2.99 IN 40.62

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	1730	15.50	15,200	02-17	0700	13.19	5,900
12-26	1930	16.14	19,100	03-22	0030	14.16	8,360
01-11	2200	15.64	16,000	04-04	1600	14.63	10,200
01-29	1230	14.07	8,060				

03571850 Tennessee River at South Pittsburg, Tenn. .

LOCATION.--Lat 35°00'41", long 85°41'51", Marion County on right bank at South Pittsburg Ferry landing on Tennessee State Highway 156, 0.5 mile (0.8 km) downstream from Battle Creek, 0.5 mile (0.8 km) east of South Pittsburg, 4.6 miles (7.4 km) downstream from Sequatchie River, 6.5 miles (10.5 km) downstream from Nickajack Dam, and at mile 418.2 (672.9 km).

DRAINAGE AREA.--22,640 sq mi (58,600 sq km), approximately.

PERIOD OF RECORD.--July 1930 to current year. Published as "at Hales Bar, near Chattanooga", July 1930 to July 1966. Records for both sites published August 1965 to July 1966.

GAGE.--Water-stage recorder. Datum of gage is 581.01 ft (177.092 m) above mean sea level. Prior to Feb. 13, 1932, at site 12.9 miles (20.8 km) upstream at datum 7.85 ft (2.393 m) higher. Feb. 13, 1932, to July 17, 1966, at site 11.5 miles (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 miles (17.1 km) downstream.

AVERAGE DISCHARGE.--44 years, 36,900 cfs (1,045 cu m/s), 22.13 in/yr (562 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 205,000 cfs (5,810 cu m/s) Jan. 12; gage height, 28.34 ft (8.638 m); minimum daily, 12,800 cfs (362 cu m/s) Sept. 21; minimum gage height, 12.31 ft (3.752 m) Aug. 11.
Period of record: Maximum discharge, 315,000 cfs (8,920 cu m/s) Mar. 18, 1973, gage height, 34.33 ft (10.464 m); minimum daily, 2,900 cfs (82.1 cu m/s) Nov. 1, 15, 1953; minimum gage height, 1.21 ft (0.369 m) Oct. 27, 1931, site and datum used 1932-65.
Maximum stage known, 44.6 ft (13.59 m) in 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 cfs (9,060 cu m/s), from rating curve extended above 225,000 cfs (6,370 cu m/s).

REMARKS.--Records fair. Since 1936, flow regulated by increasing number of reservoirs above station (see p. 137 and basic data releases for adjoining states). Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 853: Drainage area. WSP 973: 1942. WSP 1306: 1936 (monthly runoff). WSP 1386: 1932-34.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33,100	40,300	120,000	112,000	120,000	66,200	53,600	37,600	69,200	36,600	40,400	29,900
2	39,200	36,100	94,800	135,000	113,000	57,800	59,000	37,400	58,900	37,600	40,700	30,400
3	40,100	32,000	78,000	150,000	116,000	59,800	80,000	33,300	50,400	36,200	38,700	36,100
4	44,400	32,900	71,300	165,000	119,000	58,500	100,000	31,800	40,200	38,600	36,600	42,000
5	45,900	29,100	64,000	165,000	131,000	50,500	115,000	32,500	40,600	34,200	41,600	43,000
6	37,800	30,500	66,400	150,000	128,000	45,000	95,900	37,100	42,100	34,600	36,700	47,600
7	20,700	34,400	65,800	150,000	127,000	47,000	83,800	37,300	41,700	29,900	36,800	51,500
8	24,900	30,100	71,600	147,000	126,000	46,900	77,600	38,600	44,600	38,900	36,000	51,800
9	28,400	28,000	71,400	152,000	125,000	48,500	67,300	38,800	39,100	41,300	45,800	28,500
10	27,400	24,200	69,100	168,000	119,000	53,100	71,500	38,600	38,700	46,000	42,400	30,200
11	35,700	29,100	66,100	190,000	119,000	55,000	69,700	39,400	37,300	49,100	34,800	31,800
12	36,900	39,500	65,900	199,000	113,000	41,000	70,300	34,000	34,500	46,300	43,400	33,400
13	36,300	35,400	68,000	191,000	102,000	38,000	72,200	41,400	33,000	36,900	41,900	39,600
14	22,500	32,500	61,300	182,000	98,500	40,000	77,800	41,200	38,000	32,500	43,000	38,300
15	28,700	34,500	63,400	172,000	94,500	45,000	69,900	49,400	39,700	40,900	37,900	32,100
16	27,300	32,700	63,200	171,000	108,000	45,500	47,800	51,100	43,400	42,700	44,700	35,700
17	27,700	30,600	64,200	167,000	129,000	42,000	46,300	43,900	44,600	43,900	41,500	33,000
18	30,000	28,500	67,400	163,000	124,000	53,000	43,200	47,000	45,200	45,500	39,100	34,800
19	30,100	30,600	61,800	148,000	120,000	56,300	39,400	41,200	42,300	48,700	41,500	36,900
20	28,700	27,100	60,000	127,000	108,000	60,600	39,700	46,900	41,300	48,500	48,600	32,800
21	20,800	33,200	59,400	123,000	102,000	87,300	39,400	49,900	45,900	41,100	49,100	12,800
22	24,000	38,600	65,100	116,000	106,000	116,000	41,000	50,900	40,700	40,700	42,500	13,700
23	26,000	37,700	63,900	113,000	110,000	110,000	51,200	68,900	32,200	38,600	42,600	32,500
24	28,700	41,800	63,700	115,000	108,000	103,000	39,300	73,600	39,300	36,600	48,500	39,400
25	30,400	39,600	61,800	122,000	102,000	93,900	33,600	65,100	38,600	39,100	37,100	30,300
26	33,100	39,800	130,000	121,000	89,500	70,600	30,700	51,300	37,500	49,100	42,200	29,800
27	24,200	61,800	187,000	123,000	83,900	50,400	31,300	43,500	39,500	47,800	41,700	32,100
28	19,000	137,000	170,000	126,000	68,700	48,600	28,100	47,300	39,000	31,000	42,700	32,200
29	33,600	170,000	137,000	131,000	-----	48,900	31,000	51,100	36,300	35,200	43,600	35,200
30	38,600	155,000	113,000	131,000	-----	53,300	32,700	48,800	30,400	35,400	43,500	36,000
31	39,700	-----	101,000	125,000	-----	53,200	-----	58,700	-----	37,500	37,200	-----
TOTAL	961,900	1,392,6M	2,565,6M	4,550,0M	3,108,1M	1,844,9M	1,738,7M	1,407,6M	1,244,2M	1,241,0M	1,282,8M	1,033,4M
MFAN	31,030	46,420	82,760	146,800	111,000	59,510	57,960	45,410	41,470	40,030	41,380	34,450
MAX	45,900	170,000	187,000	199,000	131,000	116,000	115,000	73,600	69,200	49,100	49,100	51,800
MIN	19,000	24,200	59,400	112,000	68,700	38,000	28,100	31,800	30,400	29,900	34,800	12,800

CAL YR 1973 TOTAL 21,219,600 MEAN 58,140 MAX 312,000 MIN 19,000
WTR YR 1974 TOTAL 22,370,800 MEAN 61,290 MAX 199,000 MIN 12,800

M Expressed in thousands.

TENNESSEE RIVER BASIN

03578000 Elk River near Pelham, Tenn.

LOCATION.--Lat 35°17'48", long 85°52'12", Grundy County, on right bank at downstream side of bridge on U.S. Highway 41, 1.1 miles (1.8 km) southeast of Pelham, 1.8 miles (2.9 km) upstream from Caldwell Creek, and at mile 194.2 (312.5 km).

DRAINAGE AREA.--65.6 sq mi (169.9 sq km).

PERIOD OF RECORD.--October 1951 to current year. Prior to November 1951 monthly discharges only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 981.62 ft (299.198 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 140 cfs (3.965 cu m/s), 28.98 in/yr (736 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,060 cfs (172 cu m/s) Dec. 26, gage height, 12.42 ft (3.786 m); minimum, 4.0 cfs (0.11 cu m/s) Sept. 26, 27.
Period of record: Maximum discharge, 15,800 cfs (447 cu m/s) Mar. 16, 1973, gage height, 14.08 ft (4.292 m); minimum, 1.0 cfs (0.028 cu m/s) Sept. 27, 28, 1954.

REMARKS.--Records good. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Tenn. 1973: 1963(P), 1965(M), 1966(P), 1969(M), 1970-71(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	58	245	472	217	125	145	44	266	9.2	13	8.0
2	11	58	168	323	281	110	497	43	235	8.4	11	9.6
3	13	42	133	358	728	100	409	84	154	7.7	10	30
4	11	33	116	452	577	90	456	77	108	7.1	9.2	32
5	9.9	27	117	362	333	84	367	69	87	16	8.0	20
6	8.5	25	99	265	270	117	221	67	88	14	7.4	22
7	8.0	24	82	299	393	233	161	59	80	33	6.8	21
8	8.2	23	72	238	311	168	210	52	70	39	6.8	19
9	7.8	37	65	1,030	222	138	299	49	61	35	6.5	18
10	7.6	45	59	1,840	171	120	212	103	52	45	6.2	17
11	7.8	37	53	4,380	144	106	162	140	52	29	6.8	14
12	7.6	31	49	1,540	123	103	135	403	42	21	13	11
13	7.4	28	63	665	110	90	156	497	48	16	15	10
14	8.0	25	79	427	420	77	139	199	41	13	13	9.2
15	7.6	23	63	460	607	69	120	250	33	10	11	8.0
16	7.8	31	56	392	1,110	86	104	491	30	9.6	12	7.4
17	8.0	56	51	318	1,000	107	94	242	31	8.4	22	6.8
18	7.8	46	47	250	484	88	84	143	26	7.7	22	6.5
19	7.8	39	44	208	352	88	75	104	22	7.1	16	5.9
20	7.4	33	102	168	287	322	67	83	20	22	12	5.6
21	7.2	224	226	164	219	1,600	60	66	18	10	9.6	5.3
22	7.0	454	156	146	769	1,060	56	62	17	8.0	8.4	5.0
23	7.2	218	128	243	582	460	64	143	16	7.7	7.1	4.6
24	7.2	138	110	636	332	262	60	104	16	7.1	5.9	4.6
25	7.2	121	278	1,090	216	180	51	75	15	6.2	5.6	4.6
26	7.2	149	4,180	717	161	148	46	92	14	64	5.0	4.4
27	7.0	1,430	1,940	712	139	129	43	298	13	61	4.6	5.3
28	18	3,860	703	880	124	123	43	160	12	36	4.6	5.6
29	45	1,180	412	1,140	-----	137	48	108	10	24	5.3	5.6
30	88	469	595	564	-----	224	46	87	9.6	19	7.7	5.9
31	53	-----	488	321	-----	178	-----	111	-----	16	7.7	-----
TOTAL	426.1	8,964	10,979	21,060	10,682	6,922	4,630	4,505	1,686.6	617.2	299.2	331.9
MEAN	13.7	299	354	679	382	223	154	145	56.2	19.9	9.65	11.1
MAX	88	3,860	4,180	4,380	1,110	1,600	497	497	266	64	22	32
MIN	7.0	23	44	146	110	69	43	43	9.6	6.2	4.6	4.4
CFSM	.21	4.56	5.40	10.4	5.82	3.40	2.35	2.21	.86	.30	.15	.17
IN.	.24	5.08	6.23	11.94	6.06	3.93	2.63	2.55	.96	.35	.17	.19

CAL YR 1973 TOTAL 77,260.1 MEAN 212 MAX 8,800 MIN 5.8 CFSM 3.23 IN 43.81
WTR YR 1974 TOTAL 71,103.0 MEAN 195 MAX 4,380 MIN 4.4 CFSM 2.97 IN 40.32

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0630	12.37	5,910	01-28	2300	9.71	1,610
12-26	1500	12.42	6,060	02-16	1900	9.82	1,720
01-11	1030	12.13	5,260	03-21	1430	10.44	2,360

TENNESSEE RIVER BASIN

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03579100 Elk River near Estill Springs, Tenn.

LOCATION.--Lat 35°17'08", long 86°06'20", Franklin County, on left bank at bridge on Corn Mill Road, 1.7 miles (2.7 km) northeast of Estill Springs, 2.7 miles (4.3 km) downstream from Elk River Dam, 4.0 miles (6.4 km) upstream from U.S. Highway 41A bridge, and at mile 167.3 (269.2 km).

DRAINAGE AREA.--275 sq mi (712 sq km).

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."

GAGE.--Water-stage recorder. Datum of gage is 886.43 ft (270.184 m) above mean sea level. Prior to Oct. 1, 1926, nonrecording gage, and Oct. 1, 1926, to Dec. 31, 1966, water-stage recorder at site 4.0 miles (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.

AVERAGE DISCHARGE.--54 years, 486 cfs (13.76 cu m/s), 24.00 in/yr (610 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,000 cfs (538 cu m/s) Jan. 11, gage height, 16.47 ft (5.020 m); minimum, 38 cfs (1.08 cu m/s) Sept. 24, 25, 26, 27, gage height, 1.42 ft (0.433 m).

Period of record: Maximum discharge, 38,100 cfs (1,080 cu m/s) Mar. 16, 1973, gage height, 20.33 ft (6.197 m); minimum, 10 cfs (0.28 cu m/s) Oct. 9, 10, 1925.

REMARKS.--Records good. Flow regulated by Woods Reservoir 2.7 miles (4.3 km) upstream. (See sta 03579000.) Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 803: 1929(M), 1934-35. WSP 1306: 1922(M).

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	272	973	1,980	889	713	744	109	743	59	52	83
2	67	205	392	1,440	1,450	550	1,270	263	1,180	58	53	81
3	65	173	392	1,730	2,720	550	1,610	416	694	61	54	85
4	67	170	389	1,700	2,060	505	1,840	309	518	62	55	87
5	105	527	389	1,540	1,570	463	1,500	290	566	62	56	84
6	161	1,310	385	1,200	1,200	589	1,100	237	260	63	54	133
7	161	476	381	1,180	1,210	704	668	197	134	66	54	222
8	165	249	381	1,080	1,200	693	660	120	323	73	55	219
9	163	170	381	3,500	1,190	579	391	117	455	747	57	165
10	163	74	381	6,610	857	757	335	390	338	562	63	78
11	103	73	332	16,600	766	490	247	862	118	148	75	78
12	70	75	239	6,770	570	294	250	1,440	128	354	219	79
13	70	74	309	2,780	506	354	245	1,540	234	1,240	310	82
14	126	74	374	2,020	1,220	392	241	616	273	1,230	83	82
15	134	76	374	1,640	2,050	392	204	294	266	515	83	82
16	71	215	339	1,550	3,980	392	169	688	259	47	85	78
17	70	309	264	1,310	3,460	389	373	571	157	46	88	75
18	70	190	170	1,090	2,050	389	355	600	103	45	92	74
19	70	122	208	877	1,310	678	310	588	103	45	92	73
20	70	75	514	1,160	1,120	1,210	312	375	105	49	88	71
21	70	666	463	1,560	1,120	3,710	312	232	106	46	86	70
22	70	814	463	1,040	2,230	3,590	312	238	109	46	87	72
23	70	814	463	1,190	2,130	2,100	312	829	112	46	83	70
24	70	568	463	3,060	1,450	1,510	312	697	110	46	81	51
25	70	315	1,130	3,620	932	869	311	520	97	47	82	38
26	70	267	8,850	3,010	836	609	308	515	55	48	82	38
27	71	2,410	10,300	2,600	751	600	302	969	55	52	77	41
28	467	8,820	2,750	2,860	637	600	230	757	55	43	74	44
29	480	4,520	1,840	3,440	-----	703	146	494	56	47	75	46
30	305	1,460	1,600	2,170	-----	743	108	419	59	50	81	47
31	309	-----	2,010	1,540	-----	742	-----	465	-----	52	83	-----
TOTAL	4,088	25,563	37,899	83,847	41,364	26,859	15,477	16,157	7,771	6,055	2,659	2,528
MEAN	132	852	1,223	2,705	1,477	866	516	521	259	195	85.8	84.3
MAX	480	8,820	10,300	16,600	3,880	3,710	1,840	1,540	1,180	1,240	310	222
MIN	65	73	170	877	506	294	108	109	55	43	52	38
(†)	-1,700	-1,800	+1,100	-300	-500	+100	+3,400	-100	-100	-400	+500	-100
MEAN#	77.0	792	1,258	2,695	1,459	870	629	518	256	182	102	80.9
CFSM#	.28	2.88	4.57	9.80	5.31	3.16	2.29	1.88	.93	.66	.37	.29
IN.#	.32	3.21	5.27	11.30	5.53	3.65	2.55	2.17	1.04	.76	.43	.33

CAL YR 1973 TOTAL 299,743 MEAN 821 MAX 26,100 MIN 47 MEAN# 821 CFSM# 2.99 IN.# 40.51
WTR YR 1974 TOTAL 270,267 MEAN 740 MAX 16,600 MIN 38 MEAN# 741 CFSM# 2.69 IN.# 36.56

† Change in contents, in cfs days, in Woods Reservoir.

Adjusted for change in contents in lakes or reservoirs listed above.

TENNESSEE RIVER BASIN

03580750 Elk River below Tims Ford Dam, Tenn.

LOCATION.--Lat 35°11'32", long 86°16'52", Franklin County, on right bank 150 ft (50 m) upstream from bridge on State Highway 50, 0.3 mile (0.5 km) downstream from Tims Ford Dam, 3.6 miles (6.0 km) north of Lexie Crossroads, 9.5 miles (15.3 km) west of Winchester, and at mile 133 (214 km).

DRAINAGE AREA.--534 sq mi (1,383 sq km).

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level. Dec. 1, 1970, to May 12, 1971, water-stage recorder at site 2.4 miles (3.9 km) downstream at datum 2.26 ft (0.689 m) lower.

AVERAGE DISCHARGE.--8 years, 980 cfs (27.75 cu m/s), 24.92 in/yr (633 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 9,580 cfs (271 cu m/s) Jan. 13, gage height, 55.06 ft (16.782 m); minimum, 19 cfs (0.54 cu m/s) May 1; minimum daily, 25 cfs (0.71 cu m/s) Apr. 20, 21, 26-29, May 2, 5.
Period of record: Maximum discharge, 18,600 cfs (527 cu m/s) Mar. 18, 19, 1973, gage height, 60.25 ft (18.364 m); minimum, 3.2 cfs (0.091 cu m/s) Dec. 7, 8, 9, 1970; minimum daily, 3.5 cfs (0.099 cu m/s) Dec. 6, 8, 9, 1970.

REMARKS.--Records good. Flow regulated by Woods Reservoir (see sta 03579000) and Tims Ford Lake (see sta 03580740). Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	1,190	3,290	3,200	3,290	3,290	2,000	278	664	425	860	300
2	22	850	3,320	4,500	3,290	3,320	2,340	25	272	425	436	292
3	220	1,120	2,720	3,170	3,280	3,300	2,100	294	271	425	292	433
4	1,200	1,120	3,290	4,300	3,270	3,300	1,430	26	394	375	292	301
5	978	1,120	3,280	8,020	3,260	3,020	1,330	25	403	400	435	300
6	986	1,120	3,290	8,110	3,280	3,120	1,860	286	408	280	430	296
7	568	1,120	3,300	8,100	3,300	3,320	1,140	283	405	280	433	298
8	1,130	1,090	3,310	7,730	3,260	3,320	2,060	281	401	425	436	297
9	994	1,150	3,310	2,060	3,260	3,340	2,070	286	262	425	435	292
10	1,170	1,110	3,310	790	3,260	3,300	2,080	278	263	431	288	442
11	1,220	1,130	3,310	766	3,300	3,330	2,080	846	30	422	291	439
12	1,150	1,110	2,740	6,150	3,260	2,810	1,390	283	600	422	439	439
13	842	1,410	2,610	9,190	3,260	2,050	762	837	300	284	440	445
14	320	1,430	2,470	9,200	3,370	2,020	1,130	820	280	284	435	301
15	1,120	1,520	2,480	7,300	3,310	770	1,220	808	280	421	425	299
16	1,160	1,410	2,150	7,280	3,450	421	695	421	280	408	422	441
17	1,120	1,370	2,200	7,250	3,340	428	410	422	425	412	293	442
18	1,120	1,400	2,170	5,790	3,310	560	27	402	425	419	290	436
19	1,140	1,400	1,650	4,070	3,320	850	26	28	425	412	429	752
20	826	1,450	1,660	3,250	3,270	902	25	820	425	282	422	439
21	318	1,390	1,800	5,060	2,690	1,860	25	1,080	425	294	431	290
22	846	1,350	1,720	6,300	3,350	3,280	560	1,110	280	428	430	290
23	842	1,510	44	5,450	3,270	3,300	29	30	280	461	431	302
24	862	1,390	1,790	3,080	3,300	3,270	560	1,490	440	424	290	300
25	818	1,350	1,060	2,210	3,300	3,270	424	27	425	426	288	301
26	846	1,430	333	3,910	3,300	2,530	25	33	425	421	437	294
27	571	1,500	2,430	5,350	3,320	2,220	25	33	425	291	518	293
28	313	728	3,210	3,840	3,300	2,040	25	1,350	400	288	475	299
29	1,140	3,330	3,210	3,360	-----	2,130	25	1,370	280	430	444	299
30	1,150	3,310	3,200	3,310	-----	813	270	673	280	431	442	294
31	938	-----	3,200	3,290	-----	856	-----	668	-----	430	290	-----
TOTAL	26,244	41,908	77,857	155,386	91,770	72,340	28,143	15,613	10,873	11,981	12,699	10,646
MEAN	847	1,397	2,512	5,012	3,278	2,334	938	504	362	386	410	355
MAX	1,220	3,330	3,320	9,200	3,450	3,340	2,340	1,490	664	461	860	752
MIN	107	728	44	766	2,690	421	25	25	30	280	288	290

CAL YR 1973 TOTAL 543,294 MEAN 1,488 MAX 18,200 MIN 24 MEAN† 1,583 CFSM† 2.96 IN.† 40.25
WTR YR 1974 TOTAL 555,460 MEAN 1,522 MAX 9,200 MIN 25 MEAN† 1,506 CFSM† 2.82 IN.† 38.28

† Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

TENNESSEE RIVER BASIN

113

03580990 Jack Daniel Spring at Lynchburg, Tenn.

LOCATION.--Lat 35°17'01", long 86°21'58", Moore County, at mouth of Jack Daniel Cave at Jack Daniel Distillery, 0.5 mile (0.8 km) east of Lynchburg.

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 805.35 ft (245.471 m) above mean sea level (Tennessee Valley Authority bench mark).

EXTREMES.--Current year: Maximum discharge, 90 cfs (2.55 cu m/s) Jan. 11, gage height, 3.08 ft (0.939 m); minimum, 0.65 cfs (0.018 cu m/s) Sept. 23-30, gage height, 1.30 ft (0.396 m).

Period of record: Maximum discharge, 184 cfs (5.21 cu m/s) Mar. 16, 1973, gage height, 3.69 ft (1.125 m); no flow for part of Sept. 12, 1971, caused by drainage of reservoir; minimum discharge unaffected by regulation, 0.45 cfs (0.013 cu m/s) several days in September and October 1970.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.96	3.6	4.3	5.2	3.5	2.7	1.6	2.3	1.0	.81	.79
2	.82	.94	3.1	4.3	5.3	3.4	2.7	1.5	3.3	1.0	.82	.77
3	.82	.90	2.8	6.3	9.9	3.0	2.7	1.5	3.4	1.0	.82	.80
4	.81	.88	2.6	7.6	8.6	2.9	2.7	1.5	3.1	1.0	.80	.77
5	.82	.87	2.4	7.0	6.9	2.6	2.6	1.5	2.9	1.0	.77	.77
6	.82	.82	2.0	6.0	6.2	2.6	2.5	1.4	2.7	1.0	.77	.77
7	.82	.82	1.8	5.0	6.3	2.7	2.4	1.3	2.5	1.0	.77	.76
8	.92	.87	1.8	4.5	6.2	2.7	2.7	1.3	2.3	1.0	.79	.89
9	.93	.94	1.6	12	5.4	2.7	2.7	1.3	2.2	1.0	.82	.91
10	.88	.94	1.5	30	4.8	2.6	2.6	1.4	2.1	1.0	.82	.81
11	.83	.90	1.4	58	4.3	2.6	2.6	1.5	1.9	1.0	.77	.77
12	.82	.88	1.3	18	4.0	2.5	2.5	2.3	1.8	.94	.86	.77
13	.82	.88	1.4	11	3.4	2.4	2.4	1.9	1.7	.94	.94	.73
14	.82	.88	1.3	7.6	6.7	2.3	2.4	1.8	1.6	.94	.94	.71
15	.82	.90	1.3	6.3	10	2.3	2.3	2.4	1.5	.89	.94	.71
16	.81	1.0	1.1	5.3	18	2.2	2.2	2.9	1.5	.88	.94	.71
17	.76	.99	1.1	4.9	13	2.1	2.1	2.6	1.4	.88	.94	.71
18	.76	.94	1.1	4.5	9.0	2.1	2.1	2.3	1.4	.88	.86	.71
19	.76	.94	1.1	4.1	7.3	2.4	2.1	2.1	1.3	.88	.82	.71
20	.76	.94	1.5	4.1	5.4	16	1.9	1.9	1.3	.88	.77	.71
21	.76	1.5	2.1	4.7	4.8	23	1.9	1.8	1.3	.87	.77	.71
22	.76	1.5	2.0	4.9	8.8	13	1.9	1.8	1.2	.82	.77	.70
23	.76	1.4	2.0	5.9	7.3	8.0	1.9	1.9	1.2	.86	.77	.65
24	.71	1.3	1.8	10	6.1	5.7	1.8	1.8	1.2	.88	.77	.65
25	.70	1.3	3.6	14	4.8	4.8	1.8	1.7	1.2	.85	.77	.65
26	.70	1.5	30	12	4.4	4.3	1.7	1.9	1.1	.90	.77	.65
27	.70	7.0	16	12	4.1	3.8	1.6	2.4	1.1	.91	.74	.65
28	.92	16	8.6	11	3.8	3.8	1.6	2.3	1.1	.86	.77	.65
29	1.0	6.5	6.3	10	-----	3.6	1.6	2.1	1.1	.84	.72	.65
30	.97	4.5	5.0	7.8	-----	3.4	1.6	2.1	1.1	.82	.78	.65
31	.95	-----	4.5	6.3	-----	2.9	-----	1.9	-----	.81	.77	-----
TOTAL	25.35	60.64	117.7	309.4	190.4	141.9	66.3	57.7	53.8	28.53	25.17	21.89
MEAN	.82	2.02	3.80	9.98	6.80	4.58	2.21	1.86	1.79	.92	.81	.73
MAX	1.0	16	30	58	18	23	2.7	2.9	3.4	1.0	.94	.91
MIN	.70	.82	1.1	4.1	3.4	2.1	1.6	1.3	1.1	.81	.72	.65
CAL YR 1973	TOTAL 1,220.94		MEAN 3.35	MAX 103	MIN .70							
WTR YR 1974	TOTAL 1,098.83		MEAN 3.01	MAX 58	MIN .65							

PEAK DISCHARGE (BASE, 10 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0200	2.47	28	02-03	1500	1.81	11
12-26	1300	2.94	71	02-16	1130	2.34	24
01-11	0800	3.08	90	03-21	0800	2.61	36
01-25	0200	2.03	16				

TENNESSEE RIVER BASIN

03582000 Elk River above Fayetteville, Tenn.

LOCATION.--Lat 35°08'04", long 86°32'23", Lincoln County, on right bank 100 ft (30 m) downstream from highway bridge, 1.8 miles (2.9 km) southeast of Fayetteville, 4.0 miles (6.4 km) upstream from Norris Creek, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--827 sq mi (2,142 sq km).

PERIOD OF RECORD.--August 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 650.58 ft (198.297 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 1,430 cfs (40.50 cu m/s), 23.48 in/yr (596 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 20,000 cfs (566 cu m/s) Jan. 11, gage height, 21.98 ft (6.700 m); minimum, 136 cfs (3.85 cu m/s) Sept. 24, gage height, 1.18 ft (0.360 m).

Period of record: Maximum discharge, 41,600 cfs (1,180 cu m/s) Mar. 16, 1973, gage height, 28.63 ft (8.726 m); minimum, 67 cfs (1.90 cu m/s) Dec. 9, 10, 11, 1970, gage height, 0.75 ft (0.229 m).

REMARKS.--Records good. Prior to August 1949, diurnal fluctuation at low flow caused by powerplants upstream. Flow regulated by Woods Reservoir since 1952 (see sta 03579000), and Tims Ford Lake since December 1970 (see sta 03580740). Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	1,360	3,770	4,660	3,880	3,540	1,300	464	2,000	410	503	423
2	384	1,290	3,610	4,270	4,680	3,490	3,460	517	2,100	510	874	409
3	346	859	3,480	6,030	5,690	3,470	3,160	324	1,120	527	534	412
4	313	1,250	3,120	4,520	4,650	3,440	4,790	469	880	524	385	550
5	1,170	1,180	3,510	6,680	4,100	3,400	2,600	245	874	471	368	407
6	1,060	1,290	3,430	8,600	4,050	3,380	2,320	275	834	525	491	396
7	1,050	1,230	3,400	8,760	4,200	3,400	2,130	469	779	428	499	375
8	960	1,350	3,380	8,570	4,000	3,450	2,410	464	783	502	593	826
9	1,290	1,430	3,360	11,100	3,810	3,420	2,880	468	748	540	580	663
10	1,130	1,340	3,350	11,300	3,690	3,410	2,620	529	588	578	538	475
11	1,240	1,310	3,330	18,000	3,620	3,370	2,540	649	553	562	429	558
12	1,260	1,280	2,890	11,100	3,570	3,450	2,480	1,410	292	610	663	635
13	1,200	1,280	3,010	8,250	3,500	2,320	1,880	895	766	550	685	594
14	989	1,530	2,780	9,880	6,100	2,310	1,350	1,090	507	406	576	558
15	463	1,500	2,770	10,400	6,350	2,180	1,530	1,950	482	392	549	415
16	1,160	1,720	2,370	8,580	8,580	1,040	1,530	1,500	481	507	530	395
17	1,210	1,530	2,410	7,880	7,540	823	1,000	875	472	504	521	513
18	1,160	1,500	2,420	7,630	4,590	886	649	669	576	506	431	520
19	1,390	1,510	2,220	5,630	4,270	956	424	696	578	504	412	742
20	1,160	1,500	2,490	4,170	3,970	5,310	388	298	569	498	516	609
21	660	2,210	2,670	5,280	3,790	10,200	363	988	569	379	511	522
22	616	2,070	2,330	6,330	6,390	6,210	448	1,260	566	378	509	382
23	912	1,760	1,950	7,960	4,590	4,330	762	1,760	722	504	508	364
24	883	1,770	665	8,940	4,070	3,950	537	531	470	553	506	387
25	888	1,650	3,690	7,150	3,810	3,730	714	1,680	566	510	370	387
26	905	1,790	14,600	5,710	3,670	3,000	551	727	551	530	360	371
27	695	5,541	12,500	6,730	3,620	2,880	293	1,640	545	577	485	382
28	738	12,500	4,910	7,600	3,570	2,570	271	776	549	398	602	384
29	854	4,930	4,290	6,780	-----	2,620	255	1,750	549	378	542	377
30	1,370	4,110	4,390	4,630	-----	2,610	241	1,690	399	496	719	370
31	1,160	-----	4,680	4,130	-----	1,430	-----	1,210	-----	501	583	-----
TOTAL	28,835	65,569	117,775	237,250	128,350	100,575	45,876	28,268	21,468	15,258	16,372	14,401
MEAN	930	2,186	3,799	7,653	4,584	3,244	1,529	912	716	492	528	480
MAX	1,390	12,500	14,600	18,000	8,580	10,200	4,790	1,950	2,100	610	874	826
MIN	219	859	665	4,130	3,500	823	241	245	292	378	360	364

CAL YR 1973 TOTAL 849,024 MEAN 2,326 MAX 31,300 MIN 115 MEAN† 2,421 CFSM† 2.93 IN.† 39.74
WTR YR 1974 TOTAL 819,997 MEAN 2,247 MAX 18,000 MIN 219 MEAN† 2,231 CFSM† 2.70 IN.† 36.61

† Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03584000 Richland Creek near Pulaski, Tenn.

LOCATION.--Lat 35°12'51", long 87°06'05", Giles County, on right bank 1,200 ft (400 m) upstream from bridge on U.S. Highway 64, 1.0 mile (1.6 km) downstream from Weakley Creek, 4.0 miles (6.4 km) west of Pulaski, and at mile 30.1 (48.4 km).

DRAINAGE AREA.--366 sq mi (948 sq km).

PERIOD OF RECORD.--April 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 642.54/ft (195.846 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 609 cfs (17.25 cu m/s), 22.60 in/yr (574 mm/yr).

EXTREMES.--Current year: Maximum discharge, 44,800 cfs (1,270 cu m/s) Jan. 11, gage height, 23.34 ft (7.114 m); minimum, 54 cfs (1.53 cu m/s) Oct. 25, 26, 27, gage height, 0.84 ft (0.256 m).

Period of record: Maximum discharge, 75,000 cfs (2,120 cu m/s) Mar. 21, 1955, gage height, 27.49 ft (8.379 m), from rating curve extended above 32,000 cfs (906 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 7.9 cfs (0.22 cu m/s) Sept. 11, 1954, gage height, 0.52 ft (0.158 m).

Flood in March 1902, discharge, about 100,000 cfs (2,830 cu m/s) exceeded all known floods, including those of 1842 and 1865, from reports by Tennessee Valley Authority.

REMARKS.--Records excellent. Records of periodic water temperatures for current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: 1935-36(M), drainage area. WSP 1386: 1935-36, 1938, 1944, 1945-46(M), 1948, 1950-51(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	161	1,180	1,630	1,360	709	450	241	3,370	174	74	75
2	85	152	888	1,300	2,330	638	767	289	5,770	164	71	73
3	87	122	706	2,710	3,020	579	605	548	2,030	154	81	100
4	72	110	722	4,990	2,170	527	6,880	809	1,240	147	79	98
5	64	116	747	2,760	1,620	502	2,660	451	1,790	146	75	93
6	61	120	579	1,820	1,390	934	1,450	374	6,330	145	68	689
7	57	112	486	1,430	1,220	1,650	1,090	315	2,350	158	93	252
8	89	126	430	1,150	1,050	1,060	1,770	282	3,770	200	111	895
9	113	150	392	4,060	906	872	1,430	279	2,640	245	141	1,220
10	82	142	357	11,000	795	752	1,120	698	1,710	167	171	552
11	69	125	321	34,100	711	734	927	706	1,180	150	145	359
12	61	116	300	7,830	637	800	1,050	739	943	150	253	278
13	58	108	445	3,120	593	659	2,030	655	756	131	185	258
14	134	103	474	2,110	2,660	576	1,540	498	606	120	141	218
15	142	100	368	1,690	3,160	526	1,200	1,320	513	112	116	197
16	104	104	322	1,380	3,530	550	964	1,580	513	107	410	172
17	84	98	289	1,190	3,130	503	804	991	411	101	237	156
18	74	93	266	1,070	2,070	460	677	719	357	97	151	144
19	68	90	248	968	1,820	531	594	557	322	94	122	132
20	65	88	500	1,060	1,400	1,260	521	447	294	177	106	122
21	62	984	983	1,700	1,390	4,010	461	377	271	144	94	122
22	59	834	766	1,460	3,910	3,460	445	402	255	113	89	122
23	56	439	649	1,420	2,380	1,840	426	1,830	661	109	95	111
24	56	316	556	2,520	1,680	1,300	372	1,120	345	106	86	104
25	54	269	914	4,670	1,260	994	337	768	274	100	78	102
26	54	519	7,600	3,550	1,020	834	314	636	244	96	74	102
27	54	9,720	7,580	3,970	883	728	295	733	225	177	69	121
28	110	24,800	2,600	5,050	787	667	277	560	209	116	68	139
29	155	4,630	1,660	5,930	-----	620	260	461	195	97	79	178
30	132	1,750	1,270	2,670	-----	565	246	402	183	87	87	164
31	122	-----	1,900	1,790	-----	483	-----	414	-----	79	80	-----
TOTAL	2,548	46,597	36,498	122,098	48,882	30,323	31,962	20,201	39,757	4,163	3,729	7,348
MEAN	82.2	1,553	1,177	3,939	1,746	978	1,065	652	1,325	134	120	245
MAX	155	24,800	7,600	34,100	3,910	4,010	6,880	1,830	6,330	245	410	1,220
MIN	54	88	248	968	593	460	246	241	183	79	68	73
CFSM	.22	4.24	3.22	10.8	4.77	2.67	2.91	1.78	3.62	.37	.33	.67
IN.	.26	4.74	3.71	12.41	4.97	3.08	3.25	2.05	4.04	.42	.38	.75

CAL YR 1973 TOTAL 404,978 MEAN 1,110 MAX 30,000 MIN 45 CFSM 3.03 IN 41.16
WTR YR 1974 TOTAL 394,106 MEAN 1,080 MAX 34,100 MIN 54 CFSM 2.95 IN 40.06

PEAK DISCHARGE (BASE, 6,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0400	21.97	34,700	04-04	1330	16.58	9,150
12-26	2400	17.47	11,700	06-02	0900	14.90	6,840
01-11	0600	23.34	44,800	06-06	0400	16.91	9,860
01-29	0200	15.72	7,920				

TENNESSEE RIVER BASIN

03584500 Elk River near Prospect, Tenn.

LOCATION.--Lat 35°01'39", long 86°56'52", Giles County, on right bank 50 ft (15 m) upstream from county road bridge, 1.1 miles (1.8 km) downstream from Richland Creek, 3.2 miles (5.1 km) east of Prospect, 5.4 miles (8.7 km) upstream from Ford Creek, 7.9 miles (12.7 km) upstream from Tennessee-Alabama State line, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--1,784 sq mi (4,621 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 563.29 ft (171.691 m) above mean sea level. July 1, 1904, to Feb. 2, 1908, and Jan. 20, 1919, to Mar. 31, 1934, nonrecording gage 11.9 miles (19.1 km) downstream at datum 13.52 ft (4.121 m) lower.

AVERAGE DISCHARGE.--58 years (1904-7, 1919-74), 3,045 cfs (86.23 cu m/s), 23.18 in/yr (589 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 79,600 cfs (2,250 cu m/s) Jan. 11, gage height, 36.43 ft (11.104 m), from rating curve extended above 63,000 cfs (1,780 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 337 cfs (9.54 cu m/s) Oct. 1, gage height, 1.56 ft (0.475 m).

Period of record: Maximum discharge, 117,000 cfs (3,310 cu m/s) Mar. 17, 1973, gage height, 40.12 ft (12.229 m), from rating curve extended above 63,000 cfs (1,780 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 78 cfs (2.21 cu m/s) Sept. 29, 1961 (caused by highway construction upstream).

Flood in March 1902 reached a stage of 40.9 ft (12.47 m), discharge, 130,000 cfs (3,680 cu m/s), and may have been equaled by a flood in March 1897, from reports by Tennessee Valley Authority.

REMARKS.--Records good. Flow regulated by Woods Reservoir since May 1952 (see sta 03579000), and by Tims Ford Lake since December 1970 (see sta 03580740). Records of chemical analyses and periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 523: 1904-8, 1919-20. WSP 823: Drainage area. WSP 1436: 1920-22, 1923(M), 1924, 1927, 1929, 1931-32(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FER	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	1,780	6,760	8,940	7,270	5,440	2,570	901	7,430	906	766	876
2	558	1,930	5,730	7,570	8,520	5,060	5,550	1,130	12,200	888	763	698
3	824	1,670	5,190	9,680	13,800	4,910	5,530	1,390	7,900	962	1,120	727
4	611	1,210	4,700	13,900	11,500	4,760	7,680	1,980	3,930	969	826	756
5	536	1,590	5,190	11,700	8,510	4,700	11,200	1,580	3,530	957	634	875
6	1,300	1,560	4,920	11,300	7,490	4,590	5,170	1,200	8,370	906	596	1,000
7	1,240	1,610	4,630	11,700	7,670	6,300	4,600	1,070	7,340	986	734	1,100
8	1,310	1,770	4,470	11,200	7,060	5,440	5,930	1,180	7,800	1,060	785	1,470
9	1,300	2,130	4,370	16,900	6,440	5,110	6,810	1,180	6,940	1,210	905	3,290
10	1,600	1,980	4,290	25,400	5,970	4,910	5,380	1,870	4,450	1,220	1,160	1,920
11	1,460	1,800	4,190	62,700	5,630	4,780	4,710	2,130	3,260	1,110	964	1,360
12	1,390	1,710	4,120	65,000	5,370	5,050	4,460	3,760	2,640	1,040	1,380	1,240
13	1,370	1,660	4,450	35,400	5,180	4,810	6,330	3,490	2,140	1,030	1,610	1,240
14	1,490	1,710	4,690	19,300	7,580	3,540	4,780	2,480	2,180	950	1,250	1,170
15	1,320	1,870	3,940	13,900	16,600	3,480	3,960	4,840	1,790	777	1,010	1,080
16	822	1,940	3,800	13,400	16,500	2,940	3,570	7,100	1,720	732	928	903
17	1,470	1,970	3,250	11,500	18,300	2,100	3,030	3,780	1,580	823	1,300	833
18	1,420	1,830	3,280	10,300	16,200	1,880	2,430	2,710	1,430	827	1,030	917
19	1,380	1,810	3,230	9,670	9,600	2,030	1,950	2,150	1,440	818	841	911
20	1,740	1,800	3,780	7,690	8,140	8,100	1,680	1,840	1,380	825	757	1,060
21	1,270	4,370	5,750	9,370	7,000	17,900	1,530	1,430	1,320	937	813	1,010
22	804	5,310	4,680	9,150	9,850	19,800	1,440	2,050	1,270	741	799	881
23	788	3,350	4,020	13,000	14,100	12,600	1,660	5,740	1,640	699	785	712
24	1,060	2,760	2,810	16,300	10,200	7,610	1,550	4,770	1,700	817	788	672
25	1,040	2,590	4,160	19,900	7,730	6,420	1,500	2,900	1,240	868	772	691
26	1,030	3,080	21,200	17,500	6,660	5,790	1,520	3,170	1,230	890	618	761
27	1,050	12,000	29,400	15,200	6,020	4,730	1,290	4,300	1,170	1,010	587	698
28	1,090	28,900	30,400	15,900	5,660	4,490	1,060	3,450	1,130	1,030	697	730
29	1,350	34,400	14,600	18,800	-----	4,180	990	2,730	1,100	741	824	751
30	1,640	18,200	7,510	14,900	-----	4,110	937	3,100	1,080	670	870	788
31	1,810	-----	8,020	8,800	-----	3,390	-----	2,520	-----	759	991	-----
TOTAL	36,432	150,290	221,530	535,970	260,550	180,950	110,797	83,931	102,330	28,158	27,903	31,120
MEAN	1,175	5,010	7,146	17,290	9,305	5,837	3,693	2,707	3,411	908	900	1,037
MAX	1,810	34,400	30,400	65,000	18,300	19,800	11,200	7,100	12,200	1,220	1,610	3,290
MIN	359	1,210	2,810	7,570	5,180	1,880	937	901	1,080	670	587	672

CAL YR 1973 TOTAL 1,863,188 MEAN 5,105 MAX 105,000 MIN 196 MEAN† 5,199 CFSMT 2.91 IN.† 39.56
 WTR YR 1974 TOTAL 1,769,961 MEAN 4,849 MAX 65,000 MIN 359 MEAN† 4,833 CFSMT 2.71 IN.† 36.78

† Adjusted for change in contents in Woods Reservoir and Tims Ford Lake.

03588000 Shoal Creek at Lawrenceburg, Tenn.

LOCATION.--Lat 35°14'40", long 87°21'02", Lawrence County, on left bank, at Lawrenceburg municipal water-supply intake, 500 ft (152 m) downstream from Little Shoal Creek, 0.5 mile (0.8 km) upstream from Crowson Creek, 0.9 mile (1.4 km) west of courthouse in Lawrenceburg, and at mile 55.9 (89.9 km). Prior to Oct. 1, 1970, at site 1,300 ft (396 m) downstream.

DRAINAGE AREA.--55.4 sq mi (143.5 sq km).

PERIOD OF RECORD.--June 1932 to March 1934, March 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 784.41 ft (239.088 m) above mean sea level. June 7, 1932, to Mar. 31, 1934, non-recording 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.

AVERAGE DISCHARGE.--7 years, 109 cfs (3.087 cu m/s), 26.72 in/yr (679 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,700 cfs (331 cu m/s) Nov. 27, gage height, 14.73 ft (4.490 m), from rating curve extended as explained below; minimum daily, 26 cfs (0.74 cu m/s) Oct. 25, 26.

Period of record: Maximum discharge, 15,200 cfs (430 cu m/s) Mar. 15, 1973, gage height, 18.71 ft (5.703 m), from rating curve extended above 6,700 cfs (190 cu m/s) on basis of computation of peak flow over dam; minimum daily, 22 cfs (0.62 cu m/s) Oct. 6, 1970

Maximum stage since 1846, 20.0 ft (6.10 m) present site and datum, Mar. 28, 1902, discharge, 23,000 cfs (651 cu m/s); flood of Mar. 21, 1955, reached a stage of 17.2 ft (5.24 m), present site and datum, discharge 18,000 cfs (510 cu m/s), from report of Tennessee Valley Authority.

REMARKS.--Records good except those for period of no gage-height record, which are fair. About 5 cfs (0.14 cu m/s) was diverted by Lawrenceburg water plant, some of which was returned to stream through sewage treatment plant 0.6 mile (1.0 km) downstream. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1306: Drainage area. WSP 2110: 1933.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	29	81	155	162	105	76	62	672	65	41	38
2	36	28	70	141	524	100	80	70	134	63	42	39
3	30	30	61	985	370	94	150	82	79	61	45	68
4	32	35	134	370	196	90	1,000	112	66	61	43	38
5	32	29	90	185	162	86	470	94	130	61	40	39
6	32	27	70	157	178	126	250	80	236	60	40	46
7	33	27	68	150	162	200	160	60	738	320	41	38
8	31	36	66	141	141	115	280	52	609	253	41	229
9	29	28	63	1,020	130	100	155	56	178	129	93	74
10	29	28	58	3,820	121	92	126	64	157	77	47	58
11	29	29	55	2,340	113	90	111	180	115	65	113	47
12	28	28	60	346	109	100	218	140	101	60	88	45
13	37	28	53	215	105	85	262	120	92	57	42	43
14	49	27	50	210	1,040	75	146	93	84	57	42	46
15	29	29	50	196	350	70	126	126	81	55	41	43
16	28	28	47	165	619	74	117	109	119	54	121	42
17	28	28	43	148	246	70	109	90	79	53	52	41
18	28	29	42	141	183	68	101	81	74	51	47	41
19	28	28	43	132	316	76	99	75	70	52	41	39
20	29	27	113	378	180	135	93	70	66	53	40	39
21	29	132	84	255	386	450	90	68	65	52	39	43
22	28	42	63	162	573	350	92	99	86	67	43	42
23	28	37	60	178	191	220	86	111	394	56	40	41
24	27	35	58	766	160	160	81	70	88	49	39	39
25	26	36	121	370	143	135	79	56	81	47	39	41
26	26	350	991	789	132	118	77	66	75	48	38	39
27	28	4,210	213	390	120	105	75	58	74	46	37	92
28	49	1,140	132	1,530	113	96	77	49	70	47	36	45
29	29	204	115	374	-----	90	72	47	66	45	38	66
30	27	99	109	193	-----	85	70	45	66	42	38	43
31	39	-----	524	175	-----	80	-----	47	-----	41	38	-----
TOTAL	963	6,863	3,787	16,577	7,225	3,834	4,928	2,532	4,945	2,247	1,525	1,584
MEAN	31.1	229	122	535	258	124	164	81.7	165	72.5	49.2	52.8
MAX	49	4,210	991	3,820	1,040	450	1,000	180	738	320	121	229
MIN	26	27	42	132	105	68	70	45	65	41	36	38
CFSM	.56	4.13	2.20	9.66	4.66	2.24	2.96	1.47	2.98	1.31	.89	.95
IN.	.65	4.61	2.54	11.13	4.85	2.57	3.31	1.70	3.32	1.51	1.02	1.06

CAL YR 1973 TOTAL 63,184 MEAN 173 MAX 5,910 MIN 26 CFSM 3.12 IN 42.43
WTR YR 1974 TOTAL 57,010 MEAN 156 MAX 4,210 MIN 26 CFSM 2.82 IN 38.28

PEAK DISCHARGE (BASE, 1,800 CFS)

NOTE.--No gage-height record March 5 to April 8.

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-27	2215	14.73	11,700	02-14	0700	5.76	2,280
12-26	1030	5.87	2,380	02-21	2315	5.52	2,080
01-10	1815	12.71	9,710	06-01	1200	5.40	1,980
01-26	1730	5.47	2,040	06-07	0130	5.72	2,250
01-28	1015	8.10	4,710				

TENNESSEE RIVER BASIN

03588400 Chisholm Creek at Westpoint, Tenn.

LOCATION.--Lat 35°08'04", long 87°31'45", Lawrence County, on left bank at downstream side of pier of county road bridge 0.3 mile (0.5 km) northeast of Westpoint, and at mile 1.2 (1.9 km).

DRAINAGE AREA.--43.0 sq mi (111.4 sq km).

PERIOD OF RECORD.--July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft (182.947 m) above mean sea level (Tennessee State Highway Department bench mark).

AVERAGE DISCHARGE.--12 years, 79.9 cfs (2.263 cu m/s), 25.23 in/yr (641 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,900 cfs (252 cu m/s) Nov. 27, gage height, 12.26 ft (3.737 m), from rating curve extended above 4,100 cfs (116 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 23 cfs (0.65 cu m/s) Sept. 24.

Period of record: Maximum discharge, 17,900 cfs (507 cu m/s) Mar. 15, 1973, gage height, 14.74 ft (4.493 m), rating curve extended above 4,100 cfs (116 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 8.4 cfs (0.24 cu m/s) July 28, 29, 1966.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	40	88	113	150	83	63	54	800	40	30	30
2	33	32	70	94	220	77	67	58	542	39	30	30
3	28	30	60	719	333	72	116	60	217	38	31	40
4	27	31	77	677	230	68	617	72	139	38	31	32
5	27	41	71	248	140	67	169	118	114	45	29	31
6	27	34	61	150	120	116	116	101	103	42	29	35
7	27	31	54	120	100	121	95	90	167	42	30	32
8	45	39	50	102	80	107	250	64	343	41	32	95
9	32	42	47	650	70	98	178	62	220	52	32	83
10	28	34	43	2,290	64	89	137	50	160	62	33	44
11	27	31	40	2,080	60	86	114	100	116	44	35	36
12	26	30	38	429	56	81	131	184	96	41	38	33
13	27	30	39	220	52	73	171	150	81	38	41	35
14	48	29	35	190	456	68	151	120	71	37	31	33
15	33	30	34	160	570	66	127	104	68	36	31	31
16	29	35	32	130	460	73	120	110	62	36	39	29
17	27	30	31	110	296	66	106	92	57	35	36	28
18	27	29	30	100	198	62	96	80	52	35	33	27
19	26	29	30	90	200	67	88	72	50	35	31	26
20	26	29	58	120	145	80	84	68	48	35	30	25
21	26	187	56	160	169	290	78	64	46	35	28	26
22	26	79	51	130	409	206	80	110	45	35	28	26
23	26	56	49	110	238	153	74	183	143	43	29	24
24	26	49	47	350	173	119	70	133	61	37	28	24
25	26	46	56	520	133	100	66	98	51	35	28	25
26	26	195	393	380	110	89	65	93	48	38	28	26
27	26	2,570	330	323	98	84	64	84	45	37	27	31
28	41	1,930	162	900	90	79	68	69	43	35	28	33
29	36	287	113	454	-----	74	64	63	42	33	28	37
30	31	131	92	200	-----	72	60	60	41	32	32	33
31	34	-----	161	175	-----	64	-----	57	-----	31	31	-----
TOTAL	922	6,186	2,498	12,494	5,420	2,950	3,685	2,823	4,071	1,202	967	1,040
MEAN	29.7	206	80.6	403	194	95.2	123	91.1	136	38.8	31.2	34.7
MAX	48	2,570	393	2,290	570	290	617	184	800	62	41	95
MIN	26	29	30	90	52	62	60	50	41	31	27	24
CFSM	.69	4.79	1.87	9.37	4.51	2.21	2.86	2.12	3.16	.90	.73	.81
IN.	.80	5.35	2.16	10.81	4.69	2.55	3.19	2.44	3.52	1.04	.84	.90

CAL YR 1973 TOTAL 59,508 MEAN 163 MAX 5,490 MIN 25 CFSM 3.79 IN 51.48
WTR YR 1974 TOTAL 44,258 MEAN 121 MAX 2,570 MIN 24 CFSM 2.81 IN 38.29

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	2345	12.26	8,900	01-28	1300	7.36	1,580
01-03	2045	7.05	1,390	04-04	0130	7.31	1,550
01-10	2015	11.39	6,870	06-01	1700	7.64	1,780

03588500 Shoal Creek at Iron City, Tenn.

LOCATION.--Lat 35°01'27", long 87°34'44", Lawrence County, 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) (revised).

DRAINAGE AREA.--348 sq mi (901 sq km).

PERIOD OF RECORD.--July 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 534.22 ft (162.830 m) above mean sea level. 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.

AVERAGE DISCHARGE.--49 years, 634 cfs (17.95 cu m/s), 24.74 in/yr (628 mm/yr).

EXTREMES.--Current year: Maximum discharge, 39,000 cfs (1,100 cu m/s) Jan. 11, gage height, 21.81 ft (6.648 m); minimum, 162 cfs (4.59 cu m/s) Oct. 24, 25, 26, 27.

Period of record: Maximum discharge, 132,000 cfs (3,740 cu m/s) Mar. 21, 1955, gage height, 27.25 ft (8.306 m), site and datum then in use, from rating curve extended above 32,000 cfs (906 cu m/s) on basis of contracted-opening measurement at gage height 22.9 ft (6.98 m) and a slope-area measurement at gage height 27.25 ft (8.306 m); minimum, 38 cfs (1.08 cu m/s) Aug. 31, 1943.

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.

REMARKS.--Records good. Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg. Records of chemical analyses and periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 113: 1927(M). WSP 1436: 1926(M), 1927-29, 1930(M), 1932, 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	262	1,080	1,610	1,410	742	508	370	2,860	321	201	219
2	240	219	796	1,230	1,790	675	560	496	4,320	312	201	213
3	209	199	635	3,320	2,360	630	645	540	1,760	300	204	312
4	184	193	718	5,610	1,850	588	7,190	874	1,210	291	213	300
5	184	226	928	2,370	1,470	572	2,320	1,340	1,030	309	234	237
6	181	221	665	1,670	1,320	610	1,430	1,060	1,260	321	252	288
7	178	199	560	1,350	1,230	1,320	1,090	826	2,170	400	264	261
8	216	203	500	1,080	1,050	832	2,120	680	3,750	1,130	300	452
9	209	258	460	4,040	922	724	1,920	610	2,420	736	330	1,140
10	184	220	416	9,190	820	660	1,420	1,230	1,770	556	464	511
11	175	204	372	26,600	736	625	1,150	1,350	1,310	556	249	370
12	171	195	351	5,390	670	640	1,160	2,100	1,050	404	491	312
13	167	192	368	2,510	635	576	1,890	1,730	862	333	389	303
14	282	188	339	1,970	2,100	536	1,600	1,280	712	303	264	282
15	264	186	315	1,790	3,970	512	1,420	1,170	645	261	243	279
16	201	202	297	1,560	3,270	540	1,200	1,190	610	273	270	252
17	183	199	285	1,360	2,720	520	1,130	958	576	261	560	237
18	173	186	276	1,210	1,870	484	900	802	496	249	330	228
19	171	184	270	1,080	1,830	520	810	706	464	243	282	219
20	170	183	508	1,220	1,560	754	740	615	436	255	249	210
21	170	716	630	2,140	1,390	2,520	690	556	408	252	228	222
22	168	601	528	1,650	3,670	2,110	630	772	388	237	219	243
23	165	353	484	1,470	2,160	1,460	610	1,830	1,480	355	222	207
24	165	299	452	2,250	1,630	1,110	570	1,180	790	303	216	195
25	164	273	564	4,610	1,270	886	520	838	512	255	204	201
26	164	347	3,780	3,160	1,040	760	480	712	436	264	198	210
27	163	7,710	3,540	4,510	910	685	440	700	396	279	189	276
28	228	20,100	1,770	5,830	820	645	410	568	368	246	195	351
29	261	3,070	1,310	5,720	-----	610	390	508	351	228	207	282
30	210	1,590	1,060	2,460	-----	580	360	476	333	216	246	279
31	205	-----	2,010	1,770	-----	528	-----	452	-----	207	231	-----
TOTAL	6,001	39,178	26,267	111,730	46,473	24,954	36,303	28,519	35,173	10,656	8,345	9,091
MEAN	194	1,306	847	3,604	1,660	805	1,210	920	1,172	344	269	303
MAX	282	20,100	3,780	26,600	3,970	2,520	7,190	2,100	4,320	1,130	560	1,140
MIN	163	183	270	1,080	635	484	360	370	333	207	189	195
CFSM	.56	3.75	2.43	10.4	4.77	2.31	3.48	2.64	3.37	.99	.77	.87
IN.	.64	4.19	2.81	11.94	4.97	2.67	3.88	3.05	3.76	1.14	.89	.97

CAL YR 1973 TOTAL 392,752 MEAN 1.076 MAX 27,800 MIN 163 CFSM 3.09 IN 41.98
WTR YR 1974 TOTAL 382,690 MEAN 1.048 MAX 26,600 MIN 163 CFSM 3.01 IN 40.91

PEAK DISCHARGE (BASE, 6,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0600	20.65	33,200	01-28	2215	13.96	10,400
12-26	2200	10.91	6,500	04-04	1400	13.56	9,690
01-04	0200	12.29	8,020	06-02	0100	11.83	7,510
01-11	0330	21.81	39,000				

TENNESSEE RIVER BASIN

03593500 Tennessee River at Savannah, Tenn.

LOCATION.--Lat 35° 13' 29", long 88° 15' 36", Hardin County, on left bank pier of bridge on U.S. Highway 64, at Savannah, 16.8 miles (27.0 km) downstream from Pickwick Landing Dam and at mile 189.9 (305.5 km).

DRAINAGE AREA.--33,140 sq mi (85,830 sq km), 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.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft (91.440 m) above mean sea level, datum of 1929, unadjusted. Prior to Apr. 7, 1945, at datum 41.61 ft (12.683 m) higher. Since Oct. 1, 1948, auxiliary water-stage recorder on downstream end of lock wall in lower pool at Pickwick Landing Dam, 16.8 miles (27.0 km) upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 miles (6.4 km) downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 miles (6.9 km) downstream from base gage at same datum.

AVERAGE DISCHARGE.--44 years, 54,260 cfs (1,537 cu m/s), 22.23 in/yr (565 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 328,000 cfs (9,290 cu m/s) Jan. 12, maximum gage height, 89.00 ft (27.127 m) Jan. 14; minimum daily discharge, 19,700 cfs (558 cu m/s) Oct. 28, minimum gage height, 54.27 ft (16.541 m) Nov. 18.

Period of record: Maximum discharge, 585,000 cfs (16,600 cu m/s) Mar. 17, 1973, from Pickwick Landing Dam release furnished by Tennessee Valley Authority; maximum gage height, 96.11 ft (29.294 m) Mar. 20, 1973; minimum discharge 60 cfs (1.70 cu m/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.

Maximum stage since 1867, 101.2 ft (30.846 m) Mar. 21, 1897, present datum, from floodmarks, discharge, 450,000 cfs (12,700 cu m/s), from rating curve extended above 320,000 cfs (9,060 cu m/s). Flood of Jan. 2, 1927, reached a stage of 92.7 ft (28.255 m), present datum, discharge, 349,000 cfs (9,880 cu m/s). Minimum stage since 1905, 38.8 ft (11.83 m) present datum, Sept. 8, 1925.

REMARKS.--Records fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p. and basic data releases for adjoining states, 1974). Flow now almost completely regulated.

REVISIONS(WATER YEARS).--WSP 853: 1937, drainage area. WSP 1306: 1936 (monthly runoff). WSP 2110: 1966. Revised figures of discharge, in cubic feet per second, for low water period in water year 1973, superseding figures published in WRD Tennessee 1973, are given below.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1973		1973-Con.		1973-Con.		1973-Con.		1973-Con.	
Aug. 23	39,100	Aug. 30	35,400	Sept. 7	46,900	Sept. 15	43,000	Sept. 23	17,800
24	43,200	31	33,500	8	35,500	16	19,300	24	28,000
25	52,700	Sept. 1	32,000	9	25,500	17	28,800	25	39,300
26	36,400	2	29,800	10	34,600	18	29,000	26	40,900
27	44,200	3	29,600	11	41,600	19	34,300	27	44,600
28	42,800	4	44,500	12	38,000	20	37,300	28	45,800
29	42,700	5	47,700	13	31,400	21	36,200	29	36,900
		6	49,800	14	46,800	22	32,500	30	25,500

Month	Cfs-days	Maximum	Minimum	Mean
August 1973.....	1,381,000	58,500	31,500	44,550
September 1973.....	1,072,900	49,800	17,800	35,760

TENNESSEE RIVER BASIN

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03593500 Tennessee River at Savannah, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34,700	42,300	146,000	189,000	172,000	104,000	73,100	37,000	80,600	32,900	37,700	24,300
2	43,000	37,400	149,000	191,000	164,000	78,700	74,600	35,900	81,900	34,500	36,000	27,900
3	41,400	36,200	150,000	199,000	169,000	77,600	83,500	29,100	83,600	28,700	49,100	34,300
4	40,700	28,000	152,000	203,000	174,000	77,600	101,000	34,500	67,600	20,100	37,200	39,900
5	44,000	34,900	141,000	201,000	195,000	74,800	110,000	40,100	66,000	39,900	52,000	41,000
6	39,200	33,300	127,000	200,000	200,000	66,200	114,000	47,300	65,600	43,800	45,100	45,800
7	25,300	35,800	110,000	200,000	205,000	67,700	117,000	48,800	64,100	37,400	37,200	60,400
8	28,700	31,700	93,400	200,000	188,000	63,400	119,000	43,200	56,300	40,700	46,000	52,600
9	31,200	33,400	40,100	204,000	165,000	57,400	111,000	44,000	60,900	42,400	30,800	55,600
10	34,500	29,800	86,300	229,000	162,000	56,900	102,000	48,000	60,700	42,800	45,400	31,600
11	39,000	32,000	81,300	294,000	160,000	62,300	95,200	62,400	52,600	48,100	45,800	35,300
12	35,900	32,700	70,200	326,000	149,000	56,400	101,000	57,600	53,200	48,000	41,300	35,400
13	32,300	31,300	75,200	320,000	142,000	46,400	109,000	63,500	54,400	47,500	44,900	37,700
14	20,400	30,600	65,300	309,000	139,000	35,900	114,000	60,400	62,100	49,400	43,700	38,400
15	29,100	30,000	64,300	302,000	146,000	46,500	94,400	63,900	64,300	41,000	43,600	27,300
16	31,600	30,500	67,400	287,000	168,000	51,300	57,800	68,400	58,600	37,000	46,800	37,500
17	30,300	30,600	59,800	268,000	186,000	47,700	46,400	69,800	55,200	42,600	50,600	35,000
18	32,300	27,300	62,100	234,000	191,000	46,400	43,100	69,000	53,100	51,700	49,600	34,400
19	30,500	32,800	62,400	214,000	195,000	46,500	43,800	69,600	44,600	53,400	44,300	35,600
20	25,200	27,100	64,900	199,000	195,000	57,000	43,700	61,000	47,000	40,000	45,300	31,900
21	23,600	42,400	65,400	183,000	185,000	94,700	41,900	61,600	53,200	29,400	41,000	30,100
22	26,000	45,900	59,700	177,000	165,000	118,000	57,800	58,600	54,100	37,900	36,700	19,800
23	28,500	42,700	67,200	173,000	149,000	123,000	60,000	59,100	22,000	49,200	39,500	30,800
24	27,400	57,300	63,200	175,000	144,000	126,000	50,700	70,900	33,500	45,700	57,000	33,800
25	28,800	48,500	74,800	183,000	142,000	127,000	33,100	77,400	42,600	44,100	45,400	35,700
26	30,900	45,700	111,000	195,000	141,000	127,000	29,600	75,300	39,000	45,900	41,800	34,500
27	26,200	71,400	177,000	203,000	140,000	117,000	30,200	74,800	40,700	60,100	37,000	36,800
28	19,700	112,000	198,000	209,000	129,000	92,200	23,500	80,700	41,200	58,700	37,700	41,100
29	38,600	146,000	199,000	226,000	-----	74,600	32,200	83,300	46,600	44,800	36,000	36,400
30	39,600	147,000	200,000	226,000	-----	73,100	29,700	76,700	32,800	39,700	41,000	38,400
31	37,800	-----	196,000	198,000	-----	57,600	-----	76,600	-----	37,900	25,100	-----
TOTAL	996,400	1,406.6M	3,339.0M	6,917.0M	4,660.0M	2,350.9M	2,142.3M	1,848.5M	1,638.1M	1,315.3M	1,310.6M	1,099.3M
MEAN	32,140	46,840	107,700	223,100	166,400	75,840	71,410	59,630	54,600	42,430	42,280	36,640
MAX	44,000	147,000	200,000	326,000	205,000	127,000	119,000	83,300	83,600	60,100	57,000	60,400
MIN	19,700	27,100	59,800	173,000	129,000	35,900	23,500	29,100	22,000	20,100	25,100	19,800

CAL YR 1973 TOTAL 28,944,900 MEAN 79,300 MAX 554,000 MIN 17,800
WTR YR 1974 TOTAL 29,024,000 MEAN 79,520 MAX 326,000 MIN 19,700

M Expressed in thousands.

TENNESSEE RIVER BASIN

03596000 Duck River below Manchester, Tenn.

LOCATION.--Lat 35°28'15", long 86°07'18", Coffee County, on right bank 50 ft (15 m) downstream from Powers Bridge, 2.0 miles (3.2 km) southwest of Manchester, 3.2 miles (5.1 km) downstream from Little Duck River, 7.0 miles (11.3 km) upstream from Crumpton Creek, and at mile 265.4 (427.0 km).

DRAINAGE AREA.--107 sq mi (277 sq km).

PERIOD OF RECORD.--April 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.23 ft (267.685 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 185 cfs (5.239 cu m/s), 23.48 in/yr (596 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,400 cfs (436 cu m/s) Jan 11, gage height, 15.71 ft (4.788 m); minimum, 28 cfs (0.79 cu m/s) Oct. 27, Sept. 23, 24; minimum gage height, 0.51 ft (0.155 m) Oct. 27.

Period of record: Maximum discharge, 38,000 cfs (1,080 cu m/s) May 27, 1973, gage height, 20.95 ft (6.386 m), from rating curve extended above 12,000 cfs (340 cu m/s) on basis of 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 cfs (0.23 cu m/s) Aug. 12, 1934.

Flood of March 1929 reached a stage of 23.2 ft (7.07 m) from floodmarks by Tennessee Valley Authority (discharge, about 50,000 cfs (1,420 cu m/s)). Flood of March 1902 reached approximately same stage.

REMARKS.--Records excellent. Occasional regulation for short periods during low flow by small reservoirs above station. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1436: 1946-47.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	55	253	681	291	210	156	54	348	37	33	32
2	50	53	202	383	1,330	187	712	60	789	36	32	36
3	38	45	173	1,020	1,490	172	372	67	265	36	33	53
4	34	42	163	959	633	158	495	64	166	36	32	48
5	32	46	188	518	410	156	336	61	127	76	30	40
6	31	44	149	385	389	262	200	59	139	46	29	44
7	31	45	122	530	405	410	162	55	125	80	146	43
8	35	45	107	366	312	260	354	51	118	74	255	49
9	37	48	99	2,780	257	199	435	51	119	72	83	70
10	36	49	92	4,940	219	173	225	64	100	121	55	54
11	33	44	84	9,930	198	162	172	69	93	76	64	43
12	31	42	82	1,420	181	194	150	449	74	58	74	39
13	30	41	369	600	184	168	186	278	66	47	58	41
14	40	39	315	440	529	150	174	125	61	41	48	48
15	34	40	189	480	455	130	139	387	56	39	44	39
16	33	41	150	411	1,700	146	118	568	60	40	40	36
17	31	40	124	349	692	182	109	210	58	40	45	34
18	30	39	105	307	402	144	100	125	53	36	46	32
19	30	39	94	281	406	186	93	98	50	35	40	31
20	30	38	289	289	350	1,090	85	101	52	47	35	30
21	30	86	509	745	288	2,290	79	79	47	36	34	32
22	29	110	253	420	1,110	867	77	83	44	33	52	29
23	29	73	198	916	522	420	80	399	50	37	49	28
24	29	61	177	1,440	342	288	79	220	46	35	37	28
25	29	57	715	1,450	262	220	69	150	43	33	33	29
26	29	136	6,080	1,150	213	188	65	162	42	55	31	29
27	29	1,510	1,960	969	198	170	61	369	40	83	31	32
28	49	3,950	608	1,220	193	174	59	198	40	49	31	42
29	63	769	429	933	-----	182	56	127	40	40	36	43
30	66	360	531	473	-----	288	56	96	38	37	38	36
31	55	-----	851	348	-----	202	-----	100	-----	34	33	-----
TOTAL	1,125	7,987	15,660	37,133	13,961	10,028	5,454	4,979	3,349	1,545	1,627	1,170
MEAN	36.3	266	505	1,198	499	323	182	161	112	49.8	52.5	39.0
MAX	66	3,950	6,080	9,930	1,700	2,290	712	568	789	121	255	70
MIN	29	38	82	281	181	130	56	51	38	33	29	28
CFSM	.34	2.49	4.72	11.2	4.66	3.02	1.70	1.50	1.05	.47	.49	.36
IN.	.39	2.78	5.44	12.91	4.85	3.49	1.90	1.73	1.16	.54	.57	.41

CAL YR 1973 TOTAL 135,618 MEAN 372 MAX 15,000 MIN 29 CFSM 3.48 IN 47.14
WTR YR 1974 TOTAL 104,018 MEAN 285 MAX 9,930 MIN 28 CFSM 2.66 IN 36.16

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0700	10.91	5,680	01-11	0445	15.71	15,400
12-26	1530	13.17	8,630	03-21	1500	8.06	3,270

TENNESSEE RIVER BASIN

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03596500 Duck River at Normandy, Tenn.

LOCATION.--Lat 35°27'26", long 86°15'25", Bedford County, on right bank 50 ft (15 m) downstream from county road bridge, 0.5 mile (0.8 km) north of Normandy, 1.7 miles (2.7 km) downstream from Normandy Dam, 3.3 miles (5.3 km) upstream from L & N Railroad bridge, 7.5 miles (12.1 km) upstream from Garrison Fork, and at mile 246.9 (397.3 km).

DRAINAGE AREA.--208 sq mi (539 sq km).

PERIOD OF RECORD.--December 1920 to September 1931, May 1970 to May 1972 (discharge measurements only), May 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 782.65 ft (238.552 m) above mean sea level. Dec. 10, 1920, to Sept. 30, 1931, non-recording gage at present site and at datum 3.0 ft (0.91 m) higher. May 26, 1970, to May 17, 1972, operated as a low-flow partial-record station.

AVERAGE DISCHARGE.--13 years, 411 cfs (11.64 cu m/s), 26.83 in/yr (681 mm/yr).

EXTREMES.--Current year: Maximum discharge, 23,700 cfs (671 cu m/s) Jan. 11; gage height, 17.38 ft (5.297 m) recorded; 17.80 ft (5.425 m) from floodmarks; minimum, 71 cfs (2.01 cu m/s) Aug. 22, gage height, 3.47 ft (1.058 m).

Period of record: Maximum discharge, 60,000 cfs (1,700 cu m/s) Mar. 23, 1929, gage height, 21.1 ft (6.43 m), present datum, from rating curve extended above 30,000 cfs (850 cu m/s); minimum, 15 cfs (0.42 cu m/s) caused by regulation upstream Aug. 22, 1972, gage height, 2.73 ft (0.832 m); minimum daily, 40 cfs (1.13 cu m/s) Sept. 30, 1931.

REMARKS.--Records good. Occasional regulation caused by construction of Normandy Dam. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1436: Drainage area, 1922-23(M), 1927, 1928(M), 1929.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	142	499	1,410	650	374	332	151	419	94	117	94
2	117	135	364	851	1,240	354	922	156	1,230	91	112	95
3	117	120	299	1,350	2,910	323	960	161	765	89	108	125
4	98	110	271	1,770	1,740	299	751	159	391	88	107	129
5	92	112	266	1,200	999	288	811	154	282	137	100	114
6	89	112	251	818	783	388	468	152	251	144	95	112
7	88	107	213	847	840	844	354	145	251	127	458	109
8	102	130	194	769	703	625	451	140	222	186	608	130
9	97	114	182	3,120	567	437	851	140	219	692	282	143
10	95	112	174	8,210	472	357	553	163	203	987	180	147
11	94	110	165	19,000	412	326	388	163	186	297	159	129
12	89	107	157	5,320	367	342	325	434	172	266	207	116
13	86	102	274	1,580	339	332	329	685	161	182	182	109
14	100	100	570	1,030	553	291	348	302	151	156	156	115
15	103	98	320	964	1,050	271	297	451	144	140	140	115
16	92	103	241	870	2,130	266	258	1,100	144	132	129	105
17	89	98	209	741	2,420	297	238	587	140	127	115	100
18	86	97	190	632	1,100	279	226	308	134	122	127	97
19	83	98	176	553	838	364	215	228	127	114	120	93
20	83	97	251	517	772	1,330	205	211	122	167	107	90
21	83	139	744	1,070	622	3,380	194	194	122	147	102	90
22	81	190	521	964	1,560	2,720	192	180	115	120	100	90
23	80	176	335	1,110	1,400	1,110	188	395	119	124	118	86
24	80	147	282	2,270	815	720	184	517	119	117	109	84
25	80	137	591	3,060	597	538	178	288	112	108	99	84
26	80	238	8,540	2,010	465	430	171	269	107	357	94	85
27	78	1,080	6,430	2,150	402	371	165	556	102	584	91	90
28	112	5,690	1,550	1,720	371	351	159	479	100	211	90	93
29	151	2,560	900	2,270	-----	351	156	288	98	159	92	113
30	142	836	873	1,210	-----	416	152	226	97	140	106	104
31	139	-----	1,070	833	-----	423	-----	222	-----	124	100	-----
TOTAL	3,008	13,397	27,102	70,219	27,117	19,197	11,025	9,604	6,805	6,529	4,710	3,186
MEAN	97.0	447	874	2,265	968	619	368	310	227	211	152	106
MAX	151	5,690	8,540	19,000	2,910	3,380	960	1,100	1,230	987	608	147
MIN	78	97	157	517	339	266	152	140	97	88	90	84
CFSM	.47	2.15	4.20	10.9	4.65	2.98	1.77	1.49	1.09	1.01	.73	.51
IN.	.54	2.40	4.85	12.56	4.85	3.43	1.97	1.72	1.22	1.17	.84	.57

CAL YR 1973 TOTAL 257,465 MEAN 705 MAX 23,800 MIN 78 CFSM 3.39 IN 46.05
WTR YR 1974 TOTAL 201,899 MEAN 553 MAX 19,000 MIN 78 CFSM 2.66 IN 36.11

TENNESSEE RIVER BASIN

03597500 Wartrace Creek at Bell Buckle, Tenn.

LOCATION.--Lat 35°35'16", long 86°20'22", Bedford County, near right bank on downstream wingwall of bridge on State Highway 82, 0.2 mile (0.3 km) downstream from Kelly Creek, 0.9 mile (1.4 km) east of Bell Buckle, 4.0 miles (6.4 km) northeast of Fairfield, and at mile 7.7 (12.4 km).

DRAINAGE AREA.--16.3 sq mi (42.2 sq km).

PERIOD OF RECORD.--October 1953 to September 1961. Annual maximums, water years 1962-66. January 1966 to current year. Prior to November 1953 monthly discharge only published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 822.44 ft (250.680 m) above mean sea level. Oct. 4, 1961, to Jan. 11, 1966, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--16 years (1953-61, 1966-74), 29.6 cfs (0.838 cu m/s), 24.66 in/yr (626 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,370 cfs (124 cu m/s), Nov. 27, gage height, 9.62 ft (2.932 m), from rating extended as explained below; minimum, 0.11 cfs (0.003 cu m/s) Aug. 1.

Period of record: Maximum discharge, 8,240 cfs (233 cu m/s) Mar. 21, 1955, gage height, 11.25 ft (3.429 m), from rating curve extended above 1,200 cfs (34.0 cu m/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days 1954-57, 1966-69.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	29	30	41	28	14	20	4.0	274	.59	.11	.23
2	2.7	15	22	77	227	13	50	5.8	81	.51	.12	.23
3	1.4	11	17	211	98	11	28	5.4	36	.44	.13	.99
4	.81	8.1	24	109	58	10	245	4.3	22	.33	.14	.44
5	.52	17	20	58	40	11	47	4.3	22	.44	.15	.28
6	.44	14	15	46	59	39	31	3.8	18	.38	.15	.99
7	.43	11	12	49	42	22	23	3.3	13	.44	.33	.99
8	3.5	14	11	55	34	16	46	3.1	17	5.0	.77	28
9	3.5	15	10	373	26	14	23	3.1	12	26	.27	12
10	1.8	11	8.9	938	21	12	18	8.0	14	7.7	.27	4.8
11	1.2	9.3	7.8	753	18	13	15	5.1	9.3	3.5	.24	1.9
12	.76	7.6	7.4	129	16	15	21	47	7.6	2.1	.27	1.1
13	.52	6.1	10	69	14	11	31	12	6.1	1.1	.25	.77
14	14	5.4	7.6	50	118	10	18	7.6	5.1	.74	.24	.51
15	8.1	5.1	6.8	40	40	9.7	15	116	4.5	.51	.24	.44
16	4.5	5.4	6.1	35	327	29	12	28	4.5	.58	.21	.27
17	3.1	4.0	5.3	31	81	16	11	15	3.8	.33	.21	.24
18	2.1	3.5	4.9	27	47	14	9.7	11	3.1	.27	2.1	.20
19	1.7	3.3	4.7	24	43	133	8.8	8.4	2.6	.25	.51	.19
20	1.4	3.3	68	41	29	69	8.0	6.8	2.4	.27	.24	.17
21	1.1	107	34	45	103	392	6.8	5.4	1.9	.23	.20	.18
22	1.1	35	21	32	124	84	7.2	107	1.9	.19	.19	.18
23	.99	20	17	82	47	47	7.6	109	3.8	.24	.17	.17
24	.88	15	14	253	34	31	5.8	33	2.4	.23	.16	.14
25	.68	16	205	140	25	23	5.4	20	1.9	.17	.17	.14
26	.59	786	664	166	20	19	4.8	20	1.6	.23	.17	.14
27	.51	1,630	117	102	17	17	4.5	16	1.3	.25	.16	1.9
28	18	328	57	237	16	15	4.5	11	1.1	.17	.14	.77
29	60	88	37	91	-----	32	4.3	8.8	.99	.17	.15	.28
30	19	47	26	55	-----	45	4.0	7.6	.88	.15	.17	.21
31	31	-----	74	37	-----	20	-----	46	-----	.13	.17	-----
TOTAL	188.83	3,270.1	1,564.5	4,396	1,752	1,206.7	735.4	685.8	575.77	53.64	8.80	58.85
MEAN	6.09	109	50.5	142	62.6	38.9	24.5	22.1	19.2	1.73	.28	1.96
MAX	60	1,630	664	938	327	392	245	116	274	26	2.1	28
MIN	.43	3.3	4.7	24	14	9.7	4.0	3.1	.88	.13	.11	.14
CFSM	.37	6.69	3.10	8.71	3.84	2.39	1.50	1.36	1.18	.11	.02	.12
IN.	.43	7.46	3.57	10.03	4.00	2.75	1.68	1.57	1.31	.12	.02	.13
CAL YR 1973	TOTAL	21,083.80	MEAN	57.8	MAX	1,750	MIN	.16	CFSM	3.55	IN	48.12
WTR YR 1974	TOTAL	14,496.39	MEAN	39.7	MAX	1,630	MIN	.11	CFSM	2.44	IN	33.08

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0015	9.62	4,370	01-10	1815	8.97	3,110

03598000 Duck River near Shelbyville, Tenn.

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, on right bank 150 ft (50 m) downstream from Sims Bridge, 2.1 miles (3.4 km) upstream from Sugar Creek, 2.2 miles (3.5 km) west of Shelbyville, 2.9 miles (4.7 km) downstream from Flat Creek, and at mile 216.2 (347.9 km).

DRAINAGE AREA.--481 sq mi (1,246 sq km).

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934 monthly discharge only, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 683.51 ft (208.334 m) above mean sea level. Prior to Sept. 2, 1966, at datum 2.0 ft (0.6 m) higher.

AVERAGE DISCHARGE.--41 years, 819 cfs (23.19 cu m/s), 23.12 in/yr (587 mm/yr).

EXTREMES.--Current year: Maximum discharge, 32,300 cfs (915 cu m/s) Jan. 11, gage height, 32.24 ft (9.827 m); minimum, 110 cfs (3.12 cu m/s) Oct. 26, 27, gage height, 2.08 ft (0.634 m).

Period of record: Maximum discharge, 62,900 cfs (1,780 cu m/s) Feb. 13, 1948, gage height, 38.40 ft (11.704 m), present datum, from floodmarks, from rating curve extended above 35,000 cfs (991 cu m/s) on basis of slope-area measurement of peak flow; minimum, 5.0 cfs (0.14 cu m/s) Aug. 23, 1936; minimum daily, 20 cfs (0.57 cu m/s) Sept. 2, 1945.

Flood of March 1929 reached a stage of 39.6 ft (12.07 m) present datum, discharge, about 70,000 cfs (1,980 cu m/s), from high water profile by Tennessee Valley Authority. Flood of March 1902 reached a stage about 2.0 ft (0.610 m) higher than that of March 1929, from information by local residents.

REMARKS.--Records good. Prior to 1948 diurnal fluctuation caused by powerplant upstream. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 783: 1934. WSP 853: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	541	1,330	2,470	1,410	791	680	258	2,890	166	158	139
2	230	420	972	1,890	3,080	756	1,660	270	3,460	160	152	155
3	200	330	777	2,580	5,090	698	1,590	301	2,010	158	148	212
4	165	270	722	3,940	3,860	644	2,260	289	1,140	152	146	215
5	153	260	767	2,860	2,220	621	1,550	278	824	156	140	180
6	138	278	634	1,880	1,680	1,090	1,130	265	748	213	135	173
7	131	240	529	1,690	1,630	1,610	864	250	617	194	295	182
8	238	238	463	1,560	1,410	1,220	1,310	238	659	250	1,380	648
9	285	312	420	5,840	1,170	948	1,400	235	568	418	631	785
10	210	285	382	11,500	1,000	808	1,190	385	498	1,120	328	359
11	170	248	348	28,200	885	762	904	337	432	579	243	255
12	149	225	323	21,200	799	837	780	1,490	367	432	313	200
13	138	208	878	5,010	739	748	908	1,140	328	325	334	178
14	172	195	961	2,390	1,640	663	776	740	295	235	250	178
15	225	190	806	1,970	1,960	608	677	1,350	270	198	213	171
16	180	195	601	1,730	5,370	672	582	1,610	260	182	198	161
17	151	188	493	1,480	4,870	710	523	1,220	255	176	178	151
18	138	172	423	1,300	2,630	656	477	736	238	168	172	146
19	131	163	376	1,180	1,860	775	446	526	225	162	180	141
20	127	161	915	1,160	1,530	3,170	418	519	215	158	164	136
21	123	996	1,680	1,920	1,320	7,210	388	397	208	215	142	136
22	121	969	1,330	1,910	3,660	5,790	373	382	200	176	144	135
23	118	617	950	2,580	2,830	2,650	376	1,700	220	166	144	132
24	114	475	770	4,400	1,800	1,640	349	1,170	215	168	154	129
25	114	397	1,290	5,940	1,330	1,210	328	816	200	158	145	126
26	112	654	11,600	4,660	1,070	1,000	310	670	187	162	137	124
27	112	9,960	16,100	4,290	923	864	298	1,050	180	684	135	141
28	320	14,600	5,860	4,660	841	792	286	984	176	394	131	167
29	946	7,700	2,120	4,410	-----	780	273	696	174	240	131	171
30	677	2,300	1,760	2,880	-----	836	263	530	170	191	135	178
31	445	-----	2,220	1,860	-----	812	-----	635	-----	170	146	-----
TOTAL	6,696	43,787	58,800	141,340	58,607	42,371	23,369	21,467	18,229	8,326	7,302	6,204
MFAN	216	1,460	1,897	4,559	2,093	1,367	779	692	608	269	236	207
MAX	946	14,600	16,100	28,200	5,370	7,210	2,260	1,700	3,460	1,120	1,380	785
MIN	112	161	323	1,160	739	608	263	235	170	152	131	124
CFSM	.45	3.04	3.94	9.48	4.35	2.84	1.62	1.44	1.26	.56	.49	.43
IN.	.52	3.39	4.55	10.93	4.53	3.28	1.81	1.66	1.41	.64	.56	.48
CAL YR 1973	TOTAL 576,691	MFAN 1,580	MAX 32,500	MIN 110	CFSM 3.28	IN 44.60						
WTR YR 1974	TOTAL 436,498	MFAN 1,196	MAX 28,200	MIN 112	CFSM 2.49	IN 33.76						

PEAK DISCHARGE (BASE, 8,000 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0030	24.39	15,800	01-11	1900	32.24	32,300
12-27	0630	25.60	17,700	03-21	1730	18.16	9,160

TENNESSEE RIVER BASIN

03599500 Duck River at Columbia, Tenn.

LOCATION.--Lat 35°37'05", long 87°01'56", Maury County, on right bank 4 ft (1 m) downstream from bridge on former U.S. Highway 31, 2 blocks north of public square at Columbia, 0.7 mile (1.1 km) downstream from Columbia hydroelectric plant, 2.4 miles (3.9 km) upstream from Rutherford Creek, and at mile 132.8 (213.7 km).

DRAINAGE AREA.--1,208 sq mi (3,129 sq km).

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 and 1911 (fragmentary), and since 1947, are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 535.33 ft (163.169 m) above mean sea level. Prior to Jan. 1925, nonrecording gages near this site; all gages at datum 2.37 ft (0.722 m) higher prior to Oct. 1, 1933.

AVERAGE DISCHARGE.--58 years, 1904-8, 1920-74, 1,976 cfs (55.96 cu m/s), 22.21 in/yr (564 mm/yr).

EXTREMES.--Current year: Maximum discharge, 40,500 cfs (1,150 cu m/s) Jan. 12, gage height, 42.38 ft (12.917 m); minimum, 126 cfs (3.57 cu m/s) Oct. 1.

Period of record: Maximum discharge, 61,500 cfs (1,740 cu m/s) Mar. 17, 1973; maximum gage height, 51.75 ft (15.773 m); no flow Oct. 22, 1922.

Flood of Mar. 30, 1902, reached a stage of 48.0 ft (14.63 m), present datum, discharge, 50,700 cfs (1,440 cu m/s).

REMARKS.--Records good. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	1,120	10,800	6,120	4,280	1,780	1,460	498	8,200	282	242	140
2	182	1,270	3,920	5,060	4,340	1,610	1,460	526	15,000	261	204	176
3	225	995	3,070	9,290	8,600	1,480	3,160	598	10,300	239	185	382
4	260	762	2,430	14,700	9,530	1,360	15,900	674	4,980	225	179	270
5	278	614	2,090	10,300	6,810	1,240	9,920	650	3,690	214	158	354
6	253	562	2,040	6,600	4,800	1,240	4,510	610	3,270	211	149	3,940
7	294	606	1,710	4,790	4,420	2,450	3,080	562	4,910	218	191	2,140
8	985	558	1,440	4,110	3,640	3,180	3,660	506	7,110	267	494	1,720
9	586	506	1,260	7,510	3,060	2,290	3,780	466	5,960	290	886	5,040
10	518	534	1,130	18,800	2,590	1,810	3,210	1,470	4,350	318	1,060	3,600
11	438	594	990	37,000	2,160	1,500	2,590	1,490	3,240	734	694	1,680
12	334	522	910	39,800	1,850	1,410	2,050	1,570	2,230	1,020	710	1,040
13	263	450	846	39,600	1,630	1,660	2,610	3,310	1,640	662	526	794
14	263	406	1,050	31,000	2,470	1,420	2,990	2,170	1,330	530	526	630
15	298	370	1,590	11,500	4,740	1,230	2,160	2,550	1,130	410	478	538
16	406	346	1,340	5,030	6,420	1,150	1,740	4,090	942	310	366	474
17	398	346	1,060	4,140	11,800	1,230	1,460	3,490	826	260	402	406
18	314	350	878	3,540	9,010	1,350	1,270	2,370	726	225	366	354
19	242	334	774	3,090	5,790	1,330	1,120	1,590	654	214	282	306
20	207	306	1,030	2,940	4,360	2,770	1,010	1,180	582	253	232	270
21	185	1,700	2,980	3,570	3,640	9,560	914	960	530	204	214	253
22	170	3,540	3,570	4,080	7,220	14,600	862	934	490	191	249	235
23	161	2,880	2,640	3,700	8,300	10,500	826	3,060	526	214	204	214
24	152	1,620	2,020	5,460	5,620	5,410	798	4,190	474	225	173	204
25	143	1,180	1,660	11,800	3,950	3,410	746	2,620	446	191	161	194
26	137	2,250	11,000	12,400	3,040	2,560	682	1,820	418	188	167	185
27	132	19,100	21,400	11,500	2,340	2,080	634	1,530	374	263	207	267
28	188	32,700	22,500	13,200	2,020	1,800	598	1,850	342	518	167	302
29	338	33,700	16,100	15,600	-----	1,620	558	1,660	314	738	173	278
30	1,220	27,400	5,670	10,300	-----	1,510	526	1,350	298	474	155	306
31	1,360	-----	5,310	6,330	-----	1,630	-----	1,520	-----	314	146	-----
TOTAL	11,059	137,621	135,208	362,860	138,430	88,170	76,284	51,864	85,282	10,663	10,346	26,692
MEAN	357	4,587	4,362	11,710	4,944	2,844	2,543	1,673	2,843	344	334	890
MAX	1,360	33,700	22,500	39,800	11,800	14,600	15,900	4,190	15,000	1,020	1,060	5,040
MIN	129	306	774	2,940	1,630	1,150	526	466	298	188	146	140
CFSM	.30	3.80	3.61	9.69	4.09	2.35	2.11	1.38	2.35	.28	.28	.74
IN.	.34	4.24	4.16	11.17	4.26	2.72	2.35	1.60	2.63	.33	.32	.82

CAL YR 1973 TOTAL 1,445,935 MEAN 3,961 MAX 61,100 MIN 118 CFSM 3.28 IN 44.53
WTR YR 1974 TOTAL 1,134,479 MEAN 3,108 MAX 39,800 MIN 129 CFSM 2.57 IN 34.94

PEAK DISCHARGE (BASE, 16,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-29	1100	39.52	34,700	01-29	1100	24.37	16,200
12-28	0500	31.69	23,200	04-04	1100	26.48	18,100
01-12	2000	42.38	40,500				

03600500 Big Bigby Creek at Sandy Hook, Tenn.

LOCATION.--Lat 35°29'19", long 87°13'59", Maury County, on right bank 45 ft (14 m) west of Louisville and Nashville Railroad track, 0.2 mile (0.3 km) downstream from bridge on U.S. Highway 43, 0.4 mile (0.6 km) northeast of Sandy Hook, 0.5 mile (0.8 km) upstream from Dry Creek, 3.5 miles (5.6 km) southwest of Mount Pleasant, and at mile 17.9 (28.8 km).

DRAINAGE AREA.--17.5 sq mi (45.3 sq km).

PERIOD OF RECORD.--September 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 670.44 ft (204.350 m) above mean sea level.

AVERAGE DISCHARGE.--21 years, 26.8 cfs (0.759) cu m/s, 20.80 in/yr (528 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,400 cfs (96.3 cu m/s) Jan. 10, gage height, 8.92 ft (2.719 m), from rating curve extended above 1,400 cfs (39.6 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 3.9 cfs (0.11 cu m/s) Aug. 28, 29.

Period of record: Maximum discharge, 7,700 cfs (218 cu m/s) Mar. 15, 1973, gage height, 11.55 ft (3.520 m), from rating curve extended above 1,400 cfs (39.6 cu m/s) on basis of contracted-opening measurement of peak flow; minimum, 1.0 cfs (0.028 cu m/s) Sept. 10, 1958, and July 9, 1959, caused by removal of gravel from channel 0.2 mile (0.3 km) upstream; minimum natural discharge, 1.5 cfs (0.042 cu m/s) Sept. 4-7, 1954.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge	Gage height (feet)	WSP	Water year	Date	Discharge	Gage height (feet)
1336,1676,1726	1954	Jan. 20, 1954	2,970	8.56	1910	1965	Mar. 29, 1965	1,770	7.20
1386,1676,1726	1955	Mar. 21, 1955	7,040	11.22	2110	1966	May 1, 1966	1,360	6.52
1436,1676,1726	1956	Feb. 17, 1956	3,390	8.91	2110	1967	May 13, 1967	4,600	9.81
1506,1676,1726	1957	May 22, 1957	1,620	6.98	2110	1968	May 16, 1968	1,800	7.25
1556,1676,1726	1958	Nov. 17, 1957	1,430	6.66	2110	1969	Apr. 10, 1969	1,950	7.44
1910	1961	Mar. 8, 1961	2,590	8.19	2110	1970	Apr. 19, 1970	3,120	8.68
1910	1962	Apr. 11, 1962	3,890	9.32	WRD,TENN.1971	1971	Feb. 20, 1971	878	5.54
1910	1963	Mar. 11, 1963	3,320	8.85	WRD,TENN.1972	1972	Apr. 22, 1972	2,330	7.91
1910	1964	Apr. 23, 1964	1,470	6.74					

REMARKS.--Records good.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for high-water period in water year 1955, superseding the figure in WSP 1386, are given below.

Mar. 21, 1955 2,600

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
March 1955	3,831	2,600	13	124	7.09	8.14
Water year 1954-55	9,734.7	2,600	2.2	26.7	1.53	20.69
Calendar year 1955	9,744.9	2,600	3.1	26.7	1.53	20.71

REVISED PEAK DISCHARGE.--1954: Jan. 20 (1830) 2,970 cfs (8.56 ft); Feb. 20 (0700) 1,420 cfs (6.65 ft); Apr. 16 (1000) 1,340 cfs (6.48 ft).

1955: Feb. 22 (0100) 1,390 cfs (6.58 ft); Mar. 21 (1630) 7,040 cfs (11.22 ft); Apr. 6 (0800) 2,230 cfs (7.79 ft); May 22 (0230) 792 cfs (5.33 ft).

1956: Feb. 4 (0600) 1,260 cfs (6.32 ft); Feb. 17 (2300) 3,390 cfs (8.91 ft); Apr. 6 (0800) 1,500 cfs (6.79 ft).

1957: Dec. 12 (2030) 1,560 cfs (6.88 ft); Jan. 27 (2300) 1,360 cfs (6.51 ft); May 22 (1100) 1,620 cfs (6.98 ft); June 9 (1830) 1,480 cfs (6.75 ft).

1962: Feb. 26 (1100) 2,530 cfs (8.13 ft); Apr. 11 (0730) 3,890 cfs (9.32 ft).

1963: Mar. 5 (0700) 1,660 cfs (7.04 ft); Mar. 11 (1900) 3,320 cfs (8.85 ft).

1964: Apr. 13 (0900) 1,440 cfs (6.67 ft); Apr. 23 (1800) 1,470 cfs (6.74 ft); May 2 (1630) 1,330 cfs (6.46 ft).

1965: Mar. 26 (0500) 1,740 cfs (7.15 ft); Mar. 29 (1430) 1,770 cfs (7.20 ft).

1967: Mar. 6 (1630) 1,950 cfs (7.44 ft); May 13 (1015) 4,600 cfs (9.81 ft).

1968: Mar. 11 (2345) 1,140 cfs (6.08 ft); May 16 (0545) 1,800 cfs (7.25 ft).

1970: Dec. 30 (0330) 1,830 cfs (7.29 ft); Apr. 2 (0115) 1,750 cfs (7.17 ft); Apr. 19 (1745) 3,120 cfs (8.68 ft); Apr. 26 (0715) 1,880 cfs (7.35 ft).

1972: Jan. 2 (0115) 1,260 cfs (6.31 ft); Apr. 22 (0115) 2,330 cfs (7.91 ft).

1973: Dec. 10 (0545) 784 cfs (5.31 ft); Feb. 8 (0630) 724 cfs (5.16 ft).

TENNESSEE RIVER BASIN

03600500 Big Bigby Creek at Sandy Hook, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	10	37	46	30	16	8.2	16	241	10	5.8	5.4
2	6.7	8.5	33	42	32	15	8.8	32	149	10	5.8	6.1
3	6.4	7.7	31	328	27	13	87	28	80	9.3	6.9	11
4	6.1	7.7	36	153	19	11	293	38	51	9.3	7.5	6.9
5	6.4	11	35	71	16	12	87	36	42	12	5.8	6.8
6	6.1	8.9	32	50	23	20	56	30	35	11	5.8	9.3
7	7.7	7.7	30	35	21	24	43	25	55	23	6.4	6.6
8	12	9.3	29	40	18	18	83	23	103	16	6.4	41
9	7.4	8.9	28	180	14	16	62	21	75	13	7.5	25
10	6.7	7.7	27	1,210	12	14	51	49	54	11	7.5	15
11	6.4	6.7	26	676	10	14	42	38	39	10	7.5	10
12	6.1	6.4	26	115	8.8	13	49	46	32	9.3	39	8.7
13	6.4	5.8	26	49	8.2	10	57	33	28	8.7	8.0	8.1
14	11	6.1	26	33	62	9.4	49	28	24	8.1	7.3	8.1
15	7.7	6.1	25	24	70	8.8	42	203	23	8.1	7.1	7.5
16	7.0	6.7	24	17	123	13	37	113	28	8.1	8.2	6.9
17	6.7	7.0	24	13	83	10	32	65	20	7.5	8.1	6.4
18	6.4	6.7	24	11	52	9.4	28	52	19	6.9	8.0	6.4
19	6.4	7.0	23	8.8	56	59	27	41	17	6.9	6.7	5.8
20	6.1	7.0	40	41	37	72	24	30	16	9.3	5.9	5.8
21	6.1	32	39	56	67	215	23	37	15	8.1	5.7	8.1
22	6.1	16	35	33	135	90	27	48	14	7.5	6.5	6.9
23	6.1	12	33	21	68	52	24	88	15	8.7	5.6	6.4
24	6.1	10	32	125	49	32	21	62	14	8.1	5.1	5.8
25	6.1	10	32	123	34	23	20	46	13	7.5	4.9	5.8
26	6.1	147	273	189	25	18	19	42	13	7.5	4.6	6.4
27	6.1	1,090	94	141	21	15	18	37	12	7.5	4.3	12
28	10	235	57	452	18	14	18	33	12	6.9	4.3	8.7
29	10	60	47	143	-----	13	17	29	11	6.4	4.7	12
30	8.1	43	43	68	-----	10	16	27	10	6.4	6.8	8.1
31	10	-----	53	42	-----	9.4	-----	26	-----	5.8	6.5	-----
TOTAL	222.9	1,807.9	1,320	4,535.8	1,139.0	869.0	1,369.0	1,422	1,260	287.9	230.2	287.0
MEAN	7.19	60.3	42.6	146	40.7	28.0	45.6	45.9	42.0	9.29	7.43	9.57
MAX	12	1,090	273	1,210	135	215	293	203	241	23	39	41
MIN	6.1	5.8	23	8.8	8.2	8.8	8.2	16	10	5.8	4.3	5.4
CFSM	.41	3.45	2.43	8.34	2.33	1.60	2.61	2.62	2.40	.53	.42	.55
IN.	.47	3.84	2.81	9.64	2.42	1.85	2.91	3.02	2.68	.61	.49	.61
CAL YR 1973	TOTAL	19,309.4	MEAN	52.9	MAX	2,020	MIN	5.4	CFSM	3.02	IN	41.05
WTR YR 1974	TOTAL	14,750.7	MEAN	40.4	MAX	1,210	MIN	4.3	CFSM	2.31	IN	31.36

PEAK DISCHARGE (BASE, 600 CFS)

NOTE.--No gage-height record May 17 to June 12.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	1945	8.86	3,320	01-10	1645	8.92	3,400
12-26	1000	4.80	668	01-28	0845	6.66	1,440
01-03	1445	4.57	599	04-03	2345	6.45	1,330
				06-01	Unknown	7.60	2,080

03602500 Piney River at Vernon, Tenn.

LOCATION.--Lat 35°52'16", long 87°30'05", Hickman County, on right bank at county highway bridge, 40 ft (12 m) upstream from Pretty Creek, 0.2 mile (0.3 km) northwest of Vernon, 2.3 miles (3.7 km) downstream from Mill Creek, 6.5 miles (10.5 km) north of Centerville, and 8.3 miles (13.4 km) upstream from mouth. Prior to Oct. 1, 1970, at site 350 ft (107 m) upstream.

DRAINAGE AREA.--202 sq mi (523 sq km).

PERIOD OF RECORD.--July 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 461.72 ft (140.732 m) above mean sea level. 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 mile (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 (0.966 m) higher, and 2.17 ft (0.661 m) higher thereafter.

AVERAGE DISCHARGE.--49 years, 303 cfs (8.581 cu m/s), 20.37 in/yr (517 mm/yr).

EXTREMES.--Current year: Maximum discharge, 17,400 cfs (493 cu m/s) Jan. 10, gage height, 16.69 ft (5.087 m); minimum, 90 cfs (2.549 cu m/s) Oct. 25, 26, 27.

Period of record: Maximum discharge, 32,500 cfs (920 cu m/s) Dec. 21, 1926, gage height, 16.5 ft (5.03 m), site and datum then in use; minimum, 35 cfs (0.991 cu m/s) Sept. 19, 20, 1936.

Flood of March 1897 reached a stage of 17.5 ft (5.33 m), original site and datum, discharge, 37,000 cfs (1,050 cu m/s), from reports by Tennessee Valley Authority.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	127	673	377	521	424	326	295	5,220	185	224	160
2	195	113	534	326	715	385	716	322	2,260	175	224	280
3	131	107	442	2,090	878	351	576	291	1,220	170	258	560
4	120	105	406	2,090	652	322	530	294	869	210	440	400
5	111	116	350	1,190	557	319	448	286	714	220	247	280
6	108	110	289	890	733	910	397	294	599	190	229	230
7	115	105	243	789	794	1,280	363	267	2,560	180	250	205
8	136	110	216	670	709	857	745	253	2,980	177	368	182
9	117	110	198	2,020	612	679	653	247	1,700	173	256	170
10	112	105	180	8,420	532	572	542	520	2,950	200	232	195
11	109	102	164	9,670	468	551	479	447	1,710	190	263	178
12	107	102	153	2,260	416	601	480	408	1,180	180	249	163
13	106	105	145	1,440	380	518	449	341	897	175	253	150
14	116	105	132	1,140	348	467	510	305	781	170	230	140
15	107	107	123	951	305	435	527	348	615	166	210	150
16	104	107	112	791	308	553	466	322	623	318	190	145
17	101	105	105	680	273	525	420	280	477	258	180	148
18	100	127	100	620	249	500	376	260	410	254	160	135
19	99	175	97	559	436	554	344	246	365	252	150	130
20	97	151	187	539	420	553	313	229	334	283	180	127
21	95	769	211	567	508	756	293	217	311	268	160	141
22	93	485	191	517	1,990	770	463	769	296	259	140	133
23	94	348	185	484	1,260	701	776	1,440	420	294	135	124
24	93	294	182	441	951	606	666	914	330	266	127	120
25	93	273	201	401	734	517	568	679	285	252	120	117
26	92	413	671	418	605	462	497	564	260	253	114	180
27	95	6,370	904	536	534	423	438	490	240	250	110	364
28	120	6,300	662	682	478	416	387	431	225	239	123	380
29	119	1,450	562	726	-----	385	345	389	210	236	150	460
30	109	920	532	651	-----	360	312	354	200	231	173	294
31	117	-----	453	584	-----	324	-----	387	-----	226	145	-----
TOTAL	3,427	19,916	9,603	43,519	17,366	17,076	14,405	12,889	31,241	6,900	6,290	6,441
MFAN	111	664	310	1,404	620	551	480	416	1,041	223	203	215
MAX	195	6,370	904	9,670	1,990	1,280	776	1,440	5,220	318	440	560
MIN	92	102	97	326	249	319	293	217	200	166	110	117
CFSM	.55	3.29	1.53	6.95	3.07	2.73	2.38	2.06	5.15	1.10	1.01	1.06
IN.	.63	3.67	1.77	8.01	3.20	3.14	2.65	2.37	5.75	1.27	1.16	1.19

CAL YR 1973 TOTAL 183,549 MFAN 503 MAX 7,480 MIN 90 CFSM 2.49 IN 33.80
WTR YR 1974 TOTAL 189,073 MEAN 518 MAX 9,670 MIN 92 CFSM 2.56 IN 34.82

PEAK DISCHARGE (BASE, 4,000 CFS)

NOTE.--No gage-height record Aug. 20 to Sept. 25.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0230	15.32	13,500	06-01	1730	15.05	12,800
01-03	1930	9.88	4,090	06-10	1115	10.23	4,430
01-10	1945	16.69	17,400				

LOCATION.--Lat 35°55'48", long 87°44'35", Humphreys County, on left bank 0.4 mile (0.6 km) downstream from Tumbling Creek, 1.3 miles (2.1 km) upstream from bridge on State Highway 13, 3.6 miles (5.8 km) southeast of Hurricane Mills, and at mile 26.0 (41.8 km).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1951, published as "near Hurricane Mills."

GAGE.--Water-stage recorder. Datum of gage is 370.53 ft (112.938 m) above mean sea level. Prior to Feb. 21, 1934, nonrecording gage and Feb. 21, 1934, to Sept. 30, 1951, water-stage recorder at bridge 5.6 miles (9.0 km) downstream at datum 8.80 ft (2.682 m) lower.

EXTREMES.--Current year: Maximum discharge, 62,100 cfs (1,759 cu m/s) Jan. 12, gage height, 24.72 ft (7.535 m); minimum, 832 cfs (23.6 cu m/s) Oct. 27.

Period of record: Maximum discharge, 122,000 cfs (3,460 cu m/s) Feb. 14, 1948, gage height, 30.70 ft (9.357 m), from floodmark in gage house, present site and datum ; minimum, 185 cfs (5.24 cu m/s) Sept. 11, 12, 1925.

REMARKS.--Records good. Occasional minor fluctuations at low flow from small dams upstream. Prior to about 1953, fluctuation and regulation were more pronounced. Minor diversions for irrigation. Records of chemical analyses and periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 803: 1935. WSP 823: 1927(M). WSP 853: Drainage area. WSP 1436: 1926-28, 1938(M).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	894	2,040	40,000	9,360	12,000	5,560	4,300	2,060	9,880	1,680	1,190	1,000
2	940	2,140	35,300	9,470	9,140	5,020	5,220	2,040	22,800	1,680	1,040	936
3	951	1,970	11,900	10,600	10,100	4,600	6,450	2,090	23,900	1,470	1,010	1,050
4	909	1,950	6,660	20,900	12,100	4,270	6,610	2,240	19,700	1,270	1,140	1,260
5	954	1,740	5,560	26,600	13,800	3,990	17,700	2,360	11,100	1,320	1,050	1,310
6	965	1,510	4,900	21,300	11,600	4,020	17,600	2,410	7,810	1,280	956	1,150
7	1,010	1,350	4,430	13,500	9,800	5,020	9,290	2,260	12,700	1,240	885	2,440
8	1,060	1,260	3,950	10,200	9,020	5,610	7,140	2,140	23,800	1,330	920	4,480
9	1,400	1,270	3,430	10,900	7,870	6,390	8,540	2,040	22,300	1,350	956	3,840
10	1,800	1,250	3,060	22,600	6,800	5,540	8,200	2,430	19,700	1,720	1,260	7,070
11	1,450	1,190	2,750	47,500	5,920	4,850	7,060	4,130	17,100	1,700	2,010	6,460
12	1,330	1,180	2,510	61,200	5,190	4,500	6,020	4,370	11,100	1,430	2,010	4,170
13	1,230	1,250	2,360	56,800	4,610	4,230	5,390	4,010	7,900	1,820	1,840	2,980
14	1,180	1,210	2,200	49,300	4,220	4,170	5,350	4,490	6,140	1,980	1,850	2,520
15	1,110	1,170	2,110	45,700	5,050	4,030	5,840	4,820	5,010	1,660	1,490	2,060
16	1,080	1,170	2,690	39,600	7,420	3,890	5,070	5,630	4,400	1,490	1,380	1,750
17	1,050	1,150	2,730	16,500	10,300	3,870	4,310	6,720	3,840	1,320	1,530	1,550
18	1,100	1,160	2,440	8,720	14,400	3,730	3,780	6,590	3,260	1,200	1,450	1,390
19	1,120	1,190	2,150	7,410	14,400	3,950	3,380	4,990	2,860	1,150	1,310	1,290
20	1,070	1,190	2,150	6,490	11,100	4,110	3,070	3,980	2,580	1,120	1,220	1,200
21	1,000	1,770	2,580	6,270	8,850	5,490	2,830	3,130	2,350	1,150	1,090	1,260
22	951	2,570	4,200	7,100	11,300	13,300	2,860	3,080	2,170	1,160	999	1,360
23	910	4,680	5,760	7,320	15,200	18,500	3,460	5,360	2,270	1,120	956	1,290
24	881	5,050	5,000	6,870	14,900	17,500	3,770	6,330	2,220	1,100	1,050	1,150
25	861	3,720	4,330	8,040	11,600	11,100	3,280	7,270	2,030	1,070	1,010	1,050
26	842	2,950	3,970	14,300	8,670	7,810	2,960	5,970	1,800	1,070	906	1,010
27	832	10,500	13,700	17,300	7,330	6,290	2,700	4,610	1,700	1,030	864	1,110
28	892	35,700	23,200	17,900	6,280	5,500	2,490	3,820	1,680	1,010	857	1,470
29	948	45,500	27,000	19,300	-----	5,110	2,280	3,580	1,680	1,010	920	1,800
30	954	42,700	27,500	22,600	-----	5,000	2,130	3,510	1,680	1,200	1,070	1,980
31	1,080	-----	14,500	18,700	-----	4,600	-----	3,220	-----	1,		

CAL YR 1973	TOTAL	2,782,248	MEAN	7,623	MAX	80,800	MIN	832	CFSM	2.98	IN	40.48
WTR YR 1974	TOTAL	2,282,413	MEAN	6,253	MAX	61,200	MIN	832	CFSM	2.45	IN	33.21

03604000 Buffalo River near Flat Woods, Tenn.
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, on right bank 0.5 mile (0.8 km) downstream from Little Opossum Creek and bridge on State Highway 13, 1.3 miles (2.1 km) north of Flat Woods, 3.9 miles (6.3 km) upstream from Sinking Creek, and at mile 58.7 (94.4 km).

DRAINAGE AREA.--447 sq mi (1,158 sq km).

PERIOD OF RECORD.--May 1920 to current year.

GAGE.--Water-stage recorder. Datum of gage is 513.58 ft (156.539 m) above mean sea level. Prior to May 27, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--54 years, 735 cfs (20.82 cu m/s), 22.33 in/yr (567 mm/yr).

EXTREMES.--Current year: Maximum discharge, 43,900 cfs (1,240 cu m/s) Nov. 28, gage height, 27.16 ft (8.278 m); minimum, 237 cfs (6.71 cu m/s) Aug. 29.

Period of record: Maximum discharge, 90,000 cfs (2,550 cu m/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 cfs (1,420 cu m/s) on basis of slope-area and contracted-opening measurements of peak flow and rainfall-runoff study; minimum, 65 cfs (1.84 cu m/s) Sept. 9, 1925.

Maximum stage since at least 1897, that of Feb. 13, 1948.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 758: 1933. WSP 803: 1935. WSP 823: Drainage area. WSP 1436: 1921(M), 1922-24, 1925(M), 1927(M), 1934(M), WRD Tenn. 1971: 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312	391	1,720	1,190	1,570	892	718	538	2,530	424	280	269
2	322	387	1,310	1,040	1,450	837	840	584	4,880	408	270	260
3	309	340	1,060	2,240	1,610	777	805	657	2,700	391	290	305
4	296	329	949	7,180	1,440	703	831	1,040	1,740	387	340	326
5	290	387	970	3,870	1,190	667	2,010	1,480	1,570	445	310	290
6	284	433	878	2,220	1,080	662	1,040	1,300	1,830	467	300	272
7	290	375	754	1,740	1,070	999	830	1,090	2,880	424	280	278
8	305	350	678	1,420	975	1,050	1,090	930	6,530	412	270	281
9	329	357	630	2,820	868	884	1,540	847	4,450	420	280	620
10	312	350	589	6,460	790	819	1,220	1,380	2,680	400	290	749
11	293	329	548	30,900	723	784	1,050	2,310	2,030	420	310	454
12	284	326	514	14,000	664	796	1,010	2,030	1,560	400	390	350
13	284	326	494	3,260	604	724	1,130	1,890	1,340	370	460	424
14	329	322	480	2,200	863	664	1,160	1,510	1,130	350	380	494
15	391	326	458	1,820	1,980	625	1,060	1,800	1,010	340	340	387
16	340	343	441	1,620	2,180	642	961	2,860	1,070	330	305	340
17	309	354	424	1,470	2,400	660	877	2,020	1,110	320	333	305
18	293	336	399	1,330	1,850	615	801	1,520	906	310	347	302
19	290	329	340	1,190	1,620	677	738	1,230	791	300	309	322
20	290	329	387	1,100	1,570	1,190	685	1,090	695	295	284	322
21	287	664	533	1,320	1,410	2,010	639	939	634	310	269	340
22	284	878	494	1,430	2,350	3,150	725	1,000	587	320	272	368
23	281	578	445	1,230	2,710	2,060	970	2,010	668	370	269	347
24	278	437	437	1,260	1,910	1,570	853	1,950	800	360	260	329
25	281	403	467	2,420	1,540	1,280	771	1,310	649	350	251	322
26	281	688	1,230	2,460	1,290	1,100	724	1,050	563	340	242	333
27	281	10,700	3,290	2,720	1,110	962	675	1,000	523	360	248	379
28	299	34,400	2,230	3,040	983	905	636	904	490	340	240	420
29	347	9,770	1,550	4,930	-----	845	596	792	467	320	237	494
30	357	2,510	1,320	2,950	-----	814	559	705	450	300	263	514
31	340	-----	1,200	2,030	-----	745	-----	646	-----	290	278	-----
TOTAL	9,468	68,047	27,219	114,860	39,800	31,108	27,544	40,412	49,267	11,273	9,197	11,196
MEAN	305	2,268	878	3,705	1,421	1,003	918	1,304	1,642	364	297	373
MAX	391	34,400	3,290	30,900	2,710	3,150	2,010	2,860	6,530	467	460	749
MIN	278	322	340	1,040	604	615	559	538	450	290	237	260
CFSM	.68	5.07	1.96	8.29	3.18	2.24	2.05	2.92	3.67	.81	.66	.83
IN.	.79	5.66	2.27	9.56	3.31	2.59	2.29	3.36	4.10	.94	.77	.93
CAL YR 1973	TOTAL	535,737	MEAN	1,468	MAX	40,100	MIN	270	CFSM	3.28	IN	44.58
WTR YR 1974	TOTAL	439,391	MEAN	1,204	MAX	34,400	MIN	237	CFSM	2.69	IN	36.57

PEAK DISCHARGE (BASE, 4,500 CFS)

NOTE.--No gage-height record July 9 to Aug. 14.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1000	27.16	43,900	06-02	0500	11.60	5,370
01-04	1200	14.46	8,150	06-08	1400	14.04	7,660
01-11	1500	26.46	39,800				

TENNESSEE RIVER BASIN

03604100 Coon Creek near Hohenwald, Tenn.

LOCATION.--Lat 35°36'23", long 87°42'43", Perry County, on downstream right wingwall of bridge of private drive 150 ft (46 m) south of State Highway 20, 0.1 mile (0.2 km) upstream from Edwards Branch, 7.1 miles (11.4 km) east of Linden, and 11 miles (17.7 km) northwest of Hohenwald.

DRAINAGE AREA.--10.1 sq mi (26.2 sq km).

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 573 ft (174.7 m), from topographic map.

AVERAGE DISCHARGE.--7 years, 14.2 cfs (0.402 cu m/s), 19.09 in/yr (485 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,640 cfs (46.4 cu m/s) Nov. 27, gage height, 6.63 ft (2.021 m), from rating curve extended as explained below; minimum daily, 4.1 cfs (0.12 cu m/s) Oct. 2-6, 11, 12, 16, Dec. 17, 18.
Period of record: Maximum discharge, 4,870 cfs (138 cu m/s) Dec. 10, 1972, gage height, 9.82 ft (2.993 m) from floodmarks, from rating curve extended above 365 cfs (10.3 cu m/s) on basis of contracted-opening measurements at gage heights 5.30 ft (1.615 m) and 6.02 ft (1.835 m) and slope-area measurement at gage height 9.82 ft (2.993 m); minimum, 0.50 cfs (0.014 cu m/s) Feb. 14, 1968, caused by construction 0.5 mile (0.8 km) upstream.

REMARKS.--Records fair. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.6	13	10	17	11	17	9.2	319	6.1	4.7	4.8
2	4.1	4.9	11	9.6	15	9.6	31	12	61	6.1	5.3	5.1
3	4.1	4.9	8.8	92	14	9.2	29	11	27	5.1	5.9	6.8
4	4.1	4.9	9.6	67	12	8.5	26	16	19	7.1	5.6	5.1
5	4.1	7.7	6.9	37	11	9.2	21	15	17	6.1	4.8	4.8
6	4.1	5.3	5.9	28	14	12	17	14	18	6.3	4.7	4.7
7	20	5.3	5.3	24	12	11	15	12	163	6.1	4.7	4.6
8	5.9	5.3	4.9	22	12	10	23	11	206	5.9	4.8	8.8
9	4.3	4.9	4.9	94	11	10	18	10	46	5.9	4.7	7.6
10	4.3	4.6	4.9	377	11	9.6	18	18	129	5.8	4.7	5.5
11	4.1	4.6	4.9	202	10	11	16	17	45	5.6	5.9	5.0
12	4.1	4.6	4.9	43	9.6	10	18	18	30	5.5	7.2	4.8
13	4.9	4.6	4.6	27	9.2	8.5	17	16	27	5.3	5.3	5.1
14	5.6	4.6	4.3	22	16	8.5	16	14	18	5.3	5.0	4.8
15	4.3	5.6	4.3	18	13	8.1	15	31	17	5.1	5.0	4.8
16	4.1	5.9	4.3	16	21	11	14	30	16	5.1	5.6	4.6
17	4.3	4.9	4.1	14	22	8.5	12	24	14	5.1	5.1	4.5
18	4.3	4.9	4.1	13	21	8.5	11	18	12	5.1	5.6	4.5
19	4.3	4.9	4.6	12	26	11	10	14	10	5.0	4.7	4.5
20	4.6	5.3	13	14	21	10	9.2	12	8.1	5.0	4.6	4.4
21	4.6	31	6.6	14	27	26	8.8	11	7.7	5.0	4.6	5.0
22	4.3	8.5	5.9	13	39	23	22	20	7.6	5.5	4.6	4.6
23	4.3	6.6	5.6	13	31	20	32	17	7.9	5.8	4.6	4.5
24	4.3	5.6	6.6	14	24	16	27	14	7.2	5.3	4.5	4.4
25	4.3	6.6	9.2	14	19	14	21	12	7.0	5.0	4.5	4.4
26	4.3	35	31	16	16	12	17	12	6.8	5.6	5.6	4.4
27	4.3	584	29	16	14	12	14	10	6.6	5.5	5.0	9.4
28	6.6	89	22	30	12	11	12	8.5	6.6	5.0	4.7	5.8
29	5.9	29	18	31	-----	11	11	7.3	6.4	4.8	5.8	6.4
30	4.6	18	14	26	-----	12	10	6.6	6.3	4.7	6.6	5.0
31	6.2	-----	14	21	-----	11	-----	36	-----	4.7	5.3	-----
TOTAL	158.9	916.6	290.2	1,349.6	479.8	363.2	528.0	476.6	1,272.2	170.2	159.7	158.7
MEAN	5.13	30.6	9.36	43.5	17.1	11.7	17.6	15.4	42.4	5.49	5.15	5.29
MAX	20	584	31	377	39	26	32	36	319	7.0	7.2	9.4
MIN	4.1	4.6	4.1	9.6	9.2	8.1	8.8	6.6	6.3	4.7	4.5	4.4
CFSM	.51	3.03	.93	4.31	1.69	1.16	1.74	1.52	4.20	.54	.51	.52
IN.	.59	3.38	1.07	4.97	1.77	1.34	1.94	1.76	4.69	.63	.59	.58
CAL YR 1973	TOTAL 6,881.3		MEAN 18.9		MAX 584	MIN 3.6	CFSM 1.87	IN 25.34				
WTR YR 1974	TOTAL 6,323.7		MEAN 17.3		MAX 584	MIN 4.1	CFSM 1.71	IN 23.29				

PEAK DISCHARGE (BASE, 750 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-27	0630	6.63	1,640	06-01	0815	6.51	1,550
01-10	1415	5.38	917				

03604500 Buffalo River near Lobelville, Tenn.

LOCATION.--Lat 35°48'46", long 87°47'51", Perry County, on right bank 30 ft (9 m) upstream from Standing Rock Bridge, 1.4 miles (2.3 km) downstream from bridge on State Highway 13, 3 miles (5 km) north of Lobelville, 13 miles (21 km) downstream from Cane Creek, and at mile 17.7 (28.5 km).

DRAINAGE AREA.--707 sq mi (1,831 sq km).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 403.02 ft (122.840 m) above mean sea level. Nov. 1, 1927, to May 31, 1934, non-recording gage 40 ft (12 m) downstream at same datum.

AVERAGE DISCHARGE.--47 years, 1,153 cfs (32.65 cu m/s), 22.15 in/yr (563 mm/yr).

EXTREMES.--Current year: Maximum discharge, 32,600 cfs (923 cu m/s) Nov. 29, gage height, 18.04 ft (5.499 m); minimum, 385 cfs (10.9 cu m/s) Oct. 27.

Period of record: Maximum discharge, 100,000 cfs (2,830 cu m/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 cfs (1,130 cu m/s) on basis of slope-area measurement of peak flow; minimum, 135 cfs (3.82 cu m/s) Aug. 18, 1953, caused by regulation upstream at unknown location; minimum discharge unaffected by regulation, 142 cfs (4.02 cu m/s) Oct. 1-8, 1931.

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.

REMARKS.--Records good. Records of chemical analyses and periodic temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 803: 1935. WSP 823: Drainage area. WSP 853: 1928-37. WSP 1436: 1932(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	506	3,870	1,720	2,980	1,580	1,230	1,050	4,490	779	531	509
2	475	518	2,510	1,610	2,480	1,440	1,460	1,050	8,970	749	523	497
3	460	534	1,960	2,330	2,300	1,340	1,650	1,080	7,060	722	541	522
4	440	502	1,630	6,930	2,330	1,260	1,690	1,140	4,120	706	654	552
5	433	498	1,460	8,940	2,130	1,190	1,710	1,490	2,790	881	617	557
6	422	526	1,370	6,130	1,960	1,160	2,390	1,870	2,510	842	570	526
7	412	562	1,270	3,410	1,910	1,170	1,690	1,760	5,890	794	530	497
8	447	546	1,160	2,720	1,810	1,360	1,630	1,550	8,680	756	513	505
9	466	522	1,070	3,610	1,680	1,410	1,880	1,390	9,910	723	513	628
10	454	502	1,010	8,150	1,530	1,290	2,120	1,530	9,710	717	531	821
11	450	494	951	20,200	1,410	1,250	1,870	2,440	6,690	796	543	916
12	422	482	905	28,500	1,320	1,240	1,700	3,110	3,770	764	758	754
13	405	474	869	15,400	1,250	1,220	1,690	2,730	2,800	696	946	645
14	429	470	832	5,600	1,250	1,160	1,720	2,360	2,280	656	821	667
15	458	470	807	3,510	1,600	1,110	1,700	2,260	1,960	630	714	714
16	494	490	776	3,000	2,590	1,140	1,580	3,260	1,830	615	654	636
17	482	494	750	2,560	3,060	1,140	1,460	3,770	1,770	594	623	582
18	443	514	728	2,320	3,150	1,140	1,360	2,890	1,640	579	672	544
19	422	502	705	2,110	2,900	1,140	1,270	2,260	1,410	567	649	514
20	412	486	750	1,930	2,740	1,240	1,200	1,870	1,270	566	586	518
21	408	755	807	1,850	2,650	1,820	1,140	1,630	1,180	585	544	557
22	401	1,040	853	1,930	3,870	2,970	1,190	1,700	1,100	589	509	552
23	398	1,160	843	2,060	4,140	3,770	1,620	2,640	1,050	718	493	561
24	394	987	807	1,870	3,850	2,800	1,840	3,120	1,070	691	489	539
25	394	848	848	1,860	2,910	2,250	1,610	2,770	1,120	669	473	518
26	391	812	1,110	2,750	2,390	1,900	1,440	2,100	1,020	640	462	505
27	391	3,570	2,580	3,210	2,040	1,670	1,330	1,770	946	673	458	582
28	422	19,800	3,880	3,400	1,780	1,510	1,240	1,570	893	648	462	695
29	462	28,700	2,980	4,200	-----	1,410	1,160	1,410	849	613	447	749
30	474	13,200	2,240	5,860	-----	1,380	1,110	1,280	814	580	481	739
31	498	-----	1,920	4,420	-----	1,300	-----	1,220	-----	553	518	-----
TOTAL	13,517	80,964	44,251	164,090	66,010	47,760	46,680	62,070	99,592	21,091	17,825	18,101
MEAN	436	2,699	1,427	5,293	2,358	1,541	1,556	2,002	3,320	680	575	603
MAX	498	28,700	3,880	28,500	4,140	3,770	2,390	3,770	9,910	881	946	916
MIN	391	470	705	1,610	1,250	1,110	1,110	1,050	814	553	447	497
CFSM	.62	3.82	2.02	7.49	3.34	2.18	2.20	2.83	4.70	.96	.81	.85
IN.	.71	4.26	2.33	8.63	3.47	2.51	2.46	3.27	5.24	1.11	.94	.95
CAL YR 1973	TOTAL 753,197	MEAN 2,064	MAX 39,500	MIN 391	CFSM 2.92	IN 39.63						
WTR YR 1974	TOTAL 681,951	MEAN 1,868	MAX 28,700	MIN 391	CFSM 2.64	IN 35.88						

PEAK DISCHARGE (BASE, 5,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-29	0700	18.04	32,600	01-30	2000	11.09	6,670
01-04	0800	18.02	32,400	06-02	0600	13.03	10,000
01-10	1000	18.01	32,400	06-09	1400	13.07	10,100

TENNESSEE RIVER BASIN

03605555 Trace Creek above Denver, Tenn.
(Prior to Jan. 1, 1973, 03605550 Trace Creek near Denver, Tenn.)

LOCATION.--Lat 36°03'08", long 87°54'27", Humphreys County, on left bank at bridge on U.S. Highway 70, 1.0 mile (1.6 km) east of Denver, 3.9 miles (6.3 km) northeast of New Johnsonville, and at mile 4.2 (6.8 km). Prior to Jan. 1, 1973, at site 1.1 miles (1.8 km) upstream.

DRAINAGE AREA.--31.9 sq mi (82.6 sq km). Prior to Jan. 1, 1973, 30.4 sq mi (78.7 sq km).

PERIOD OF RECORD.--October 1963 to current year. Published as "near Denver" prior to October 1972.

GAGE.--Water-stage recorder. Datum of gage is 377.05 ft (114.925 m) above mean sea level. Prior to Jan. 1, 1973, at site 1.1 miles (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.

AVERAGE DISCHARGE.--11 years, 47.6 cfs (1.348 cu m/s), 20.26 in/yr (515 mm/yr).

EXTREMES.--Current year: Maximum discharge 2,640 cfs (74.8 cu m/s) Jan. 10, gage height, 10.65 ft (3.246 m), from rating curve extended above 2,200 cfs (62.3 cu m/s); minimum daily, 9.3 cfs (0.26 cu m/s) Oct. 18-20.
Period of record: Maximum discharge, 3,640 cfs (103 cu m/s) May 13, 1967, gage height, 9.08 ft (2.768 m), site and datum then in use, from rating curve extended above 2,600 cfs (73.6 cu m/s); maximum gage height, 12.43 ft (3.789 m) Apr. 19, 1973: minimum discharge, 3.0 cfs (0.085 cu m/s) Aug. 9, 13, 1969.
Maximum stage since 1886, 14 ft (4.3 m) January 1937, discharge, 5,500 cfs (156 cu m/s) from reports of Tennessee Valley Authority.

REMARKS.--Records poor. Records of periodic temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	11	84	46	38	26	30	35	720	16	21	34
2	11	10	67	37	50	23	80	33	203	15	20	48
3	10	11	54	448	47	20	60	39	97	14	23	196
4	9.6	11	43	259	33	18	77	31	68	17	27	78
5	10	12	27	135	28	20	59	38	80	27	23	58
6	10	11	23	96	39	64	49	48	72	20	20	48
7	11	12	19	94	45	63	45	35	553	18	21	41
8	11	12	17	87	34	46	125	29	466	17	33	33
9	10	11	15	610	29	38	93	28	162	17	30	28
10	10	11	14	1,620	26	32	71	80	340	18	39	31
11	9.9	11	13	910	23	50	61	60	135	18	46	27
12	9.6	11	12	206	20	72	62	56	82	20	121	23
13	10	11	12	118	19	49	68	46	61	18	70	21
14	9.9	11	11	87	17	38	61	39	47	19	41	20
15	9.9	11	10	75	16	33	56	47	45	19	31	25
16	9.6	12	9.9	64	16	86	49	46	56	29	31	19
17	9.6	11	9.9	53	16	65	46	37	37	25	25	18
18	9.3	14	9.6	45	14	51	41	31	30	23	33	17
19	9.3	18	9.6	38	37	60	39	27	26	24	25	17
20	9.3	16	15	37	45	71	34	25	23	25	21	16
21	9.4	37	19	53	45	87	32	24	20	25	19	18
22	9.6	25	16	42	312	76	494	84	19	25	16	16
23	9.6	18	16	34	99	65	272	121	37	38	17	15
24	9.9	15	17	29	69	56	139	64	23	30	21	15
25	9.9	14	32	26	52	49	97	47	19	26	19	16
26	9.9	20	151	25	41	45	78	40	16	32	18	16
27	10	100	125	47	34	41	64	37	15	35	18	99
28	11	340	78	127	30	41	53	31	13	28	17	70
29	12	170	71	85	-----	38	46	27	14	23	24	60
30	12	110	73	59	-----	35	38	26	16	24	43	45
31	12	-----	57	48	-----	32	-----	47	-----	26	44	-----
TOTAL	313.9	1,087	1,130.0	5,640	1,274	1,490	2,519	1,358	3,495	711	957	1,168
MEAN	10.1	36.2	36.5	182	45.5	48.1	84.0	43.8	117	22.9	30.9	38.9
MAX	12	340	151	1,620	312	87	494	121	720	38	121	196
MIN	9.3	10	9.6	25	14	18	30	24	13	14	16	15
CFSM	.32	1.13	1.14	5.71	1.43	1.51	2.63	1.37	3.67	.72	.97	1.22
IN.	.37	1.27	1.32	6.58	1.49	1.74	2.94	1.58	4.08	.83	1.12	1.36

CAL YR 1973 TOTAL 24,580.1 MEAN 67.3 MAX 1,620 MIN 8.0 CFSM 2.11 IN 28.66
WTR YR 1974 TOTAL 21,142.9 MEAN 57.9 MAX 1,620 MIN 9.3 CFSM 1.82 IN 24.66

PEAK DISCHARGE (BASE, 1,850 CFS)

NOTE.--No gage-height record Oct. 6 to Nov. 6.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
01-10	1530	10.65	2,640	06-01	1445	8.65	1,880

03606500 Big Sandy River at Bruceton, Tenn.

LOCATION.--36°02'19", long 88°13'42", Carroll County, 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 mile (1.0 km) upstream from Cherry Creek, 0.9 mile (1.4 km) east of Bruceton, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--205 sq mi (531 sq km).

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 380.58 ft (116.001 m) above mean sea level. Prior to Mar. 1, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--45 years, 283 cfs (8.015 cu m/s), 18.75 in/yr (476 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,620 cfs (244 cu m/s) Jan. 11, gage height, 15.03 ft (4.581 m); minimum, 99 cfs (2.80 cu m/s) Oct. 6.

Period of record: Maximum discharge, 17,000 cfs (481 cu m/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 cfs (261 cu m/s); minimum, 28 cfs (0.79 cu m/s) Aug. 17-19, 22, Sept. 1, 1943.

Flood in March 1897 reached a stage of 18 ft (5.5 m), discharge, 25,000 cfs (708 cu m/s), and flood in March 1919 reached a stage of 17 ft (5.2 m), discharge, 21,000 cfs (595 cu m/s), from reports by Tennessee Valley Authority.

REMARKS.--Records good. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 853: Drainage area. WSP 923: 1929-35.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	176	893	214	244	225	243	235	1,910	126	126	663
2	214	133	324	179	431	221	871	251	2,240	123	136	498
3	130	125	258	536	574	218	898	281	2,150	120	558	1,060
4	116	135	327	672	378	208	962	367	1,890	186	476	513
5	106	317	335	644	233	293	594	506	887	641	291	310
6	100	210	235	572	337	657	281	467	562	299	160	211
7	129	126	207	475	397	659	231	273	2,000	185	137	183
8	227	128	198	522	329	501	532	211	2,260	168	130	165
9	141	142	198	1,640	227	327	581	210	2,690	209	146	192
10	120	117	193	2,710	186	260	581	479	2,550	252	325	232
11	109	113	182	7,590	165	450	342	814	2,090	188	983	184
12	104	115	187	5,830	151	702	327	1,110	1,940	146	1,120	161
13	114	120	191	2,870	149	645	356	815	1,510	135	1,080	151
14	196	123	178	1,800	159	378	632	308	533	127	1,120	146
15	136	131	169	740	213	253	512	429	330	122	1,060	140
16	116	157	162	472	327	631	333	539	426	180	840	135
17	107	140	158	388	364	542	247	637	404	136	480	133
18	105	244	153	348	289	408	216	556	271	122	553	131
19	106	371	153	315	551	438	202	252	213	204	285	130
20	105	214	335	358	551	478	195	185	192	140	194	127
21	105	816	247	453	556	521	257	176	175	141	161	175
22	103	652	167	361	1,040	441	2,390	672	163	133	147	245
23	103	453	181	291	820	332	3,060	1,010	239	445	143	161
24	103	252	252	246	749	263	2,980	765	204	321	145	138
25	104	321	605	230	383	225	2,080	553	162	219	138	135
26	104	709	930	313	259	212	852	283	149	1,030	133	135
27	105	2,050	985	501	249	216	359	268	141	843	130	435
28	116	4,380	797	696	233	290	274	213	137	462	130	470
29	125	4,060	402	648	-----	256	233	183	133	231	178	658
30	118	2,560	291	524	-----	223	213	172	130	159	407	533
31	136	-----	258	342	-----	193	-----	288	-----	136	527	-----
TOTAL	3,825	19,590	10,151	33,480	10,544	11,666	21,834	13,508	28,681	7,929	12,439	8,550
MEAN	123	653	327	1,080	377	376	728	436	956	256	401	285
MAX	227	4,380	985	7,590	1,040	702	3,060	1,110	2,690	1,030	1,120	1,060
MIN	100	113	153	179	149	193	195	172	130	120	126	127
CFSM	.60	3.19	1.60	5.27	1.84	1.83	3.55	2.13	4.66	1.25	1.96	1.39
IN.	.69	3.55	1.84	6.08	1.91	2.12	3.96	2.45	5.20	1.44	2.26	1.55
CAL YR 1973	TOTAL 178,663	MEAN 489	MAX 6,290	MIN 100	CFSM 2.39	IN 32.42						
WTR YR 1974	TOTAL 182,197	MEAN 499	MAX 7,590	MIN 100	CFSM 2.43	IN 33.06						

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	1915	13.97	5,040	06-01	2230	12.40	2,520
01-11	1515	15.03	8,620	06-09	1245	12.74	2,860
04-24	0015	13.21	3,430				

TENNESSEE RIVER BASIN

03609500 Tennessee River near Paducah, Ky.
(International Hydrological Decade River Station)

LOCATION.--Lat 37°01'11", long 88°16'50", Marshall County, on left bank at Gilbertsville, 4,000 ft (1,200 m) downstream from Kentucky Dam, 2.3 miles (3.7 km) upstream from Shadie Creek, 16 miles (26 km) east of Paducah, and at mile 21.6 (34.8 km).

DRAINAGE AREA.--40,200 sq mi (104,100 sq km), 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."

GAGE.--Water-stage recorder. Datum of gage is 286.35 ft (87.279 m) above mean sea level. Prior to October 1939, various types of gages between 75 and 80 miles (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 miles (26.4 km) downstream at present datum. Auxiliary water stage recorder 16.4 miles (26.4 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).

AVERAGE DISCHARGE.--76 years (1889-1965, prior to opening of Barkley-Kentucky Canal), 64 060 cfs (1,814 cu m/s), unadjusted; 9 years (1965-74, since opening of Barkley-Kentucky Canal), 65,480 cfs (1,854 cu m/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 400,000 cfs (11,300 cu m/s) Jan. 14; maximum gage height, 51.57 ft (15.719 m) Jan. 16; minimum daily, 17,900 cfs (507 cu m/s) June 7; minimum gage height, 12.59 ft (3.837 m) July 15.

Period of record: Maximum discharge, 500,000 cfs (14,200 cu m/s) Feb. 17, 1948; maximum gage height, 62.43 ft (19.029 m) Feb. 2, 1937, at Gilbertsville, present datum; minimum daily discharge, 60 cfs (1.70 cu m/s) May 16, 1961.

Maximum discharge since closure of Kentucky Dam on Aug. 30, 1944, 500,000 cfs (14,200 cu m/s) Feb. 17, 1948.

Maximum discharge since opening of Barkley-Kentucky Canal in June 1966, 400,000 cfs (11,300 cu m/s) Jan. 14, 1974.

REMARKS.--Records good. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station (see p.137 and basic data release for adjoining states, 1973). Flow now almost completely regulated and, since the opening of Barkley-Kentucky Canal in June 1966, interchange of water between Cumberland River basin and Tennessee River basin can occur.

REVISIONS (WATER YEARS).--WSP 1306. 1936 (monthly runoff).

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43,800	42,600	168,000	201,000	203,000	127,000	97,200	42,300	131,000	43,800	35,900	29,300
2	35,900	44,400	170,000	188,000	218,000	118,000	91,300	40,900	133,000	45,900	39,100	28,800
3	44,700	32,100	164,000	192,000	231,000	116,000	96,600	39,000	109,000	46,000	39,100	39,700
4	44,000	33,400	162,000	220,000	241,000	108,000	120,000	31,200	55,200	46,600	35,800	54,000
5	49,900	28,600	163,000	229,000	253,000	72,900	133,000	34,500	24,500	42,200	40,200	48,400
6	48,800	26,100	145,000	236,000	266,000	56,600	141,000	40,900	20,000	39,800	40,200	43,400
7	30,700	31,700	125,000	238,000	271,000	67,400	143,000	42,000	17,900	32,900	35,800	53,400
8	35,100	31,700	123,000	236,000	278,000	42,400	142,000	43,000	80,900	39,200	35,900	43,700
9	29,500	31,300	130,000	239,000	272,000	42,200	143,000	43,500	146,000	38,400	35,400	46,500
10	37,500	32,200	139,000	256,000	258,000	46,300	132,000	47,000	160,000	37,600	37,400	54,900
11	43,000	32,300	142,000	307,000	241,000	90,900	111,000	51,500	163,000	38,300	42,900	56,200
12	42,400	31,900	144,000	356,000	230,000	45,600	101,000	53,100	135,000	43,000	42,900	56,200
13	36,900	33,200	131,000	340,000	210,000	63,300	98,000	56,200	145,000	43,200	48,900	55,500
14	32,200	32,300	105,000	395,000	166,000	54,200	95,200	60,900	148,000	37,600	54,000	54,200
15	37,700	33,300	90,700	396,000	79,600	54,200	92,200	63,400	144,000	34,400	51,700	50,700
16	35,800	33,500	87,400	383,000	169,000	56,100	79,000	66,700	135,000	38,400	42,800	42,900
17	30,200	32,700	72,300	367,000	196,000	50,300	57,000	66,000	123,000	38,300	43,100	45,100
18	29,800	27,000	55,500	335,000	207,000	46,900	49,600	61,800	95,100	35,600	44,100	41,000
19	29,300	26,900	54,700	285,000	219,000	50,100	51,500	54,700	67,800	37,200	44,000	36,700
20	29,700	25,600	54,900	250,000	234,000	50,200	49,700	50,800	59,500	38,100	43,600	35,800
21	30,600	32,300	56,100	230,000	238,000	57,000	50,300	48,900	57,600	38,600	42,300	31,500
22	27,400	30,700	55,400	208,000	224,000	64,600	59,100	52,700	57,400	39,300	42,000	34,500
23	28,900	30,100	54,700	186,000	213,000	91,400	73,700	54,900	58,000	39,100	42,100	38,100
24	28,800	47,900	53,300	173,000	208,000	118,000	66,000	62,000	56,100	39,100	41,900	40,200
25	31,200	53,800	53,000	175,000	195,000	149,000	51,800	56,700	54,200	39,700	39,100	40,700
26	33,800	50,900	65,200	184,000	184,000	163,000	47,200	45,000	44,700	39,300	40,100	40,700
27	27,000	76,300	105,000	206,000	169,000	160,000	45,900	43,400	39,400	40,200	39,600	40,900
28	27,500	133,000	157,000	239,000	150,000	157,000	37,100	58,800	36,800	39,800	40,100	37,100
29	30,600	153,000	190,000	236,000	-----	138,000	36,300	73,500	37,100	39,700	40,700	41,100
30	36,100	167,000	210,000	217,000	-----	116,000	35,700	89,100	37,200	39,600	41,300	40,800
31	37,100	-----	209,000	202,000	-----	98,100	-----	108,000	-----	39,100	39,300	-----
TOTAL	1,085.9M	1,417.8M	3,635.2M	7,945.0M	6,028.6M	2,830.7M	2,526.4M	1,682.4M	2,571.4M	1,230.0M	1,281.3M	1,302.0M
MEAN	35,030	47,260	117,300	256,300	215,300	91,310	84,210	54,270	85,710	39,680	41,330	43,400
MAX	49,900	167,000	210,000	396,000	278,000	163,000	143,000	108,000	163,000	46,600	54,000	56,200
MIN	27,000	25,600	53,000	173,000	79,600	46,900	35,700	31,200	17,900	32,900	35,400	28,800

CAL YR 1973 TOTAL 34,483,300 MEAN 94,470 MAX 334,000 MIN 25,600
WTR YR 1974 TOTAL 33,536,700 MEAN 91,880 MAX 396,000 MIN 17,900

M Expressed in thousands.

Reservoirs in Tennessee River basin

- 03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, at Douglas Dam on French Broad River, 6.5 miles (10.5 km) north of Sevierville, and at mile 32.3 (52.0 km). Drainage area, 4,541 sq mi (11,761 sq km). Period of record, February 1943 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 657,500 cfs-days (1,609 cu hm) June 12, elevation, 996.59 ft (303.761 m); minimum, 133,300 cfs-days (326.2 cu hm) Dec. 21, elevation, 943.86 ft (287.689 m). Extremes for period of record: Maximum contents, 760,000 cfs-days (1,860 cu hm) July 25, 1949, elevation, 1,001.79 ft (305.346 m); minimum after first filling, 1,000 cfs-days (2,447 cu hm) Jan. 16, 1956, elevation, 883.7 ft (269.35 m), estimated. Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gates, 32 ft (10 m) high by 40 ft (12 m) wide and 8 sluice gates 10 ft (3 m) high by 5.67 ft (2 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 cu hm), of which 703,100 cfs-days (1,720 cu hm) 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.
- 03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, 470 ft (140 m) upstream from South Holston Dam on South Fork Holston River, 7.0 miles (11.3 km) southeast of Bristol, Virginia-Tennessee, and at mile 49.8 (80.1 km). Drainage area, 703 sq mi (1,821 sq km). Period of record, November 1950 to current year. Water-stage recorder. Datum of gage is at mean sea level. Prior to May 11, 1951, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 323,800 cfs-days (792.3 cu hm) May 14, elevation, 1,727.04 ft (526.402 m); minimum, 238,500 cfs-days (583.6 cu hm) Sept. 30, elevation, 1,701.89 ft (518.736 m). Extremes for period of record: Maximum contents, 345,200 cfs-days (844.7 cu hm) May 25, 1972, elevation, 1,732.35 ft (528.020 m); minimum after first filling, 57,700 cfs-days (140.7 cu hm) Jan. 13, 1956, elevation, 1,614.15 ft (491.993 m). Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft (40 m) in diameter with six piers 3 ft (1 m) wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft (10 m) in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft (530.962 m), spillway crest, is 385,200 cfs-days (942.6 cu hm), of which 324,200 cfs-days (793.3 cu hm) 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.
- 03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, at Watauga Dam on Watauga River, 5 miles (8 km) east of Elizabethton, and at mile 36.7 (59.0 km). Drainage area, 468 sq mi (1,212 sq km). Period of record, December 1948 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 293,300 cfs-days (717.7 cu hm) Apr. 6, elevation, 1,961.07 ft (597.734 m); minimum, 213,600 cfs-days (522.7 cu hm) Sept. 27, elevation, 1,934.57 ft (589.657 m). Extremes for period of record: Maximum contents, 293,300 cfs-days (717.7 cu hm) Apr. 6, 1974, elevation, 1,961.07 ft (597.734 m); minimum after first filling, 25,100 cfs-days (61.42 cu hm) Jan. 13, 1956, elevation, 1,813.47 ft (552.746 m). 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 cu hm), of which 315,000 cfs-days (770.8 cu hm) 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.
- 03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, at Boone Dam on South Fork Holston River, 0.7 mile (1.1 km) northeast of Spurgeon, 1.3 miles (2.1 km) downstream from Watauga River, and at mile 18.6 (29.9 km). Drainage area, 1,840 sq mi (4,766 sq km). Period of record, December 1952 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 95,200 cfs-days (233.0 cu hm) June 26, elevation, 1,383.91 ft (421.816 m); minimum, 46,500 cfs-days (113.8 cu hm) Dec. 17, elevation, 1,354.16 ft (412.748 m). Extremes for period of record: Maximum contents, 99,100 cfs-days (242.5 cu hm) May 19, 1964, elevation, 1,384.99 ft (422.145 m); minimum after first filling, 21,300 cfs-days (52.12 cu hm) Jan. 23, 1956, elevation, 1,327.06 ft (404.488 m). Reservoir is formed by gravity nonoverflow 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 cu hm), of which 74,800 cfs-days (183.0 cu hm) 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.
- 03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mile (0.3 km) upstream from bridge on U.S. Highway 23, 4.5 miles (7.2 km) southeast of Kingsport, and at mile 8.2 (13.2 km). Drainage area, 1,903 sq mi (4,929 sq km). Period of record, October 1953 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 13,700 cfs-days (33.52 cu hm) July 16, elevation, 1,263.40 ft (385.084 m); minimum, 11,400 cfs-days (27.90 cu hm) Dec. 3, elevation, 1,258.00 ft (383.438 m). Extremes for period of record: Maximum contents, 14,000 cfs-days (34.26 cu hm) Feb. 11, 1954, elevation, 1,263.80 ft (385.206 m), minimum after first filling, 9,300 cfs-days (22.76 cu hm) Mar. 16, 1954, elevation, 1,252.32 ft (381.707 m). Reservoir is formed by gravity nonoverflow 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 cu hm), of which 2,200 cfs-days (5.383 cu hm) 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.
- 03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, at Cherokee Dam on Holston River, 0.3 mile (0.5 km) upstream from bridge on State Highway 92, 2.7 miles (4.3 km) upstream from Mill Spring Creek, 2.8 miles (4.5 km) north of Jefferson City, and at mile 52.3 (84.2 km). Drainage area, 3,428 sq mi (8,881 sq km). Period of record, December 1941 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 732,200 cfs-days (1,792 cu hm) June 15, elevation, 1,071.88 ft (326.709 m); minimum, 298,000 cfs-days (729.2 cu hm) Dec. 25, elevation, 1,033.87 ft (315.124 m). Extremes for period of record: Maximum contents, 779,400 cfs-days (1,907 cu hm) 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 cu hm) Jan. 7, 1954, elevation, 980.77 ft (298.939 m). 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 cu hm), of which 736,200 cfs-days (1,801 cu hm) 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.

Reservoirs in Tennessee River basin--Continued

- 03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, at Fort Loudoun Dam on Tennessee River, 1 mile (2 km) northeast of Lenoir City, and at mile 602.3 (969.1 km). Drainage area, 9,550 sq mi (24,730 sq km). Period of record, July 1943 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 185,000 cfs-days (452.7 cu hm) May 30; maximum elevation, 813.35 ft (247,909 m) May 31; minimum midnight contents, 143,000 cfs-days (349.9 cu hm) Dec. 19; minimum elevation, 806.90 ft (245,943 m) Jan. 8. 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.
- 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. 1, 1971. Total level pool capacity at elevation 815.00 ft (248,412 m), top of gates, is 198,100 cfs-days (484.8 cu hm), of which 55,900 cfs-days (136.8 cu hm) 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.
- 03518200 CHILHOWEE LAKE.--Lat 35°32'43", long 84°03'02", Monroe County, at Chilhowee Dam on Little Tennessee River, 2.4 miles (3.9 km) southwest of Chilhowee, 2.6 miles (4.2 km) upstream from Citico Creek, 10.1 miles (16.2 km) downstream from Calderwood Dam, and at mile 33.6 (54.1 km). Drainage area, 1,977 sq mi (5,120 sq km). Period of record, August 1957 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 25,000 cfs-days (61.18 cu hm) May 30, elevation, 874.25 ft (266,471 m); minimum, 21,900 cfs-days (53.59 cu hm) June 2, elevation, 870.58 ft (265,353 m). Extremes for period of record: Maximum contents, 25,400 cfs-days (62.15 cu hm) May 28, 1973, elevation, 874.60 ft (266,578 m); minimum after first filling, 18,100 cfs-days (44.29 cu hm) May 18, 1963, elevation, 865.94 ft (263,938 m).
- Reservoir is formed by concrete dam with rockfill and 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 above spillway crest, elevation, 836.0 ft (254.81 m) 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 cu hm), of which 3,400 cfs-days (8.320 cu hm) 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.
- 03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, at Norris Dam on Clinch River, 2.5 miles (4.0 km) northwest of Norris, and at mile 79.8 (128.4 km). Drainage area, 2,912 sq mi (7,542 sq km). Period of record, June 1935 to current year. Water-stage recorder. Datum of gage is 0.11 ft (0.034 m) above mean sea level. Gage readings have been reduced to elevations above mean sea level. Extremes for current year: Maximum contents, 1,012,200 cfs-days (2,477 cu hm) Jan. 14, elevation, 1,019.15 ft (310.637 m); minimum, 560,200 cfs-days (1,371 cu hm) Nov. 20, elevation, 986.58 ft (300,710 m). Extremes for period of record: Maximum contents, 1,236,700 cfs-days (3,026 cu hm) Feb. 11, 1937, elevation, 1,031.21 ft (314,313 m); minimum after first filling, 75,500 cfs-days (184.7 cu hm) Jan. 24, 1956, elevation, 909.46 ft (277,203 m).
- 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 cu hm), of which 1,140,400 cfs-days (2,791 cu hm) 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.
- 03535900 MELTON HILL LAKE.--Lat 35°53'04", long 84°18'01", Loudon-Roane County line, 9 miles (14 km) southwest of Oak Ridge, 19 miles (31 km) west of Knoxville, at river mile 23.1 (37.2 km) and 57 miles (92 km) downstream from Norris Dam. Drainage area, 3,343 sq mi (8,658 sq km). Period of record, August 1962 to current year. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 63,800 cfs-days (156.1 cu hm) Nov. 28, elevation, 796.10 ft (242,651 m); minimum, 49,000 cfs-days (119.9 cu hm) July 11, elevation, 790.66 ft (240,993 m). Extremes for period of record: Maximum contents, 64,900 cfs-days (158.8 cu hm), Mar. 16, 1973, elevation, 796.45 ft (242,758 m); minimum after first filling, 3,900 cfs-days (9.543 cu hm) Apr. 13, 1963, elevation, 754.81 ft (230,066 m).
- 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 in May 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity of elevation 796 ft (242.6 m), top of gates, is 63,500 cfs-days (155.4 cu hm), of which 16,100 cfs-days (39.40 cu hm) 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.
- 03543000 WATTS BAR LAKE.--Lat 35°37'13", long 84°47'00", Rhea County, at Watts Bar Dam on Tennessee River, 6.5 miles (10.4 km) south-east of Spring City, 72.4 miles (116.5 km) downstream from Fort Loudoun Dam, and at mile 529.9 (852.6 km). Drainage area, 17,310 sq mi (44,830 sq km), approximately. Period of record, October 1941 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 539,000 cfs-days (1,319 cu hm) Nov. 28; maximum elevation, 742.70 ft (226,375 m) Nov. 28; minimum midnight contents, 406,000 cfs-days (993.5 cu hm) Mar. 11; minimum elevation, 734.89 ft (223,994 m) Dec. 20. 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.
- 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 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 (1,445 cu hm), of which 191,100 cfs-days (467.6 cu hm) 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.
- 03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, at Parksville Dam on Ocoee River at Parksville, 13.8 miles (22.2 km) east of Cleveland, and at mile 11.9 (19.1 km). Drainage area, 595 sq mi (1,541 sq km). 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." Nonrecording gage. Datum of gage is 6.89 ft (2.100 m) above mean sea level. Gage readings have been reduced to elevations above mean sea level. Extremes for current year: Maximum contents observed, 42,600 cfs-days (104.2 cu hm) Nov. 28, elevation, 836.6 ft (254,996 m); minimum observed, 34,700 cfs-days (84.91 cu hm) Feb. 20, elevation, 828.1 ft (252,405 m). Extremes for period of record: Maximum midnight contents observed, 53,300 cfs-days (130.4 cu hm) July 9, 1916; maximum midnight elevation observed, 840.2 ft (256.09 m) Feb. 10, 1946; minimum contents observed, 27,300 cfs-days (66.80 cu hm) Jan. 27, 1956, elevation, 817.7 ft (249.23 m); minimum midnight elevation observed, 814.8 ft (248.35 m) Dec. 14, 1934.
- 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 is 1.0 ft (0.3 m) lower under gates. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 837.55 ft (255,285 m), about top of flashboards is 43,500 cfs-days (106.4 cu hm), of which 16,900 cfs-days (41.35 cu hm) is controlled storage above elevation 816.9 ft (248.99 m) minimum pool. Reservoir is used for power. Records furnished by Tennessee Valley Authority.

Reservoirs in Tennessee River basin--Continued

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, at Chickamauga Dam on Tennessee River, 5.8 miles (9.3 km) northeast of Chattanooga, 58.9 miles (94.8 km) downstream from Watts Bar Dam, and at mile 471.0 (757.8 km). Drainage area, 20,790 sq mi (53,850 sq km), approximately. Period of record, October 1939 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 324,000 cfs-days (792.8 cu hm) June 12; maximum elevation, 683.02 ft (208.184 m) June 11; minimum midnight contents, 205,000 cfs-days (501.6 cu hm) Mar. 12; minimum elevation, 675.00 ft (205.740 m) Mar. 12. 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.

Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates 40.44 ft (12 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 cu hm), of which 175,000 cfs-days (428.2 cu hm) 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.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, at Nickajack Dam on Tennessee River, 5 miles (8 km) south of Jasper, 2 miles (3 km) upstream from Sequatchie River, 46.3 miles (74.5 km) downstream from Chickamauga Dam, and at mile 424.7 (683.3 km). Drainage area, 21,870 sq mi (56,640 sq km), approximately. Period of record, December 1967 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 145,000 cfs-days (354.8 cu hm) Jan. 11; maximum elevation, 634.43 ft (193.374 m) Aug. 11; minimum midnight contents, 114,000 cfs-days (279.0 cu hm) Oct. 27; minimum elevation, 632.00 ft (192.634 m) Oct. 4. 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.

Reservoir is formed by a concrete dam with earth embankments on each side. The spillway, with crest at 595.0 ft (181.36 m) is equipped with 10 radial gates, each 40 ft (12 m) by 40 ft (12 m). A trash gate, 5.5 ft (2 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 cu hm), of which 16,200 cfs-days (39.64 cu hm) is useful 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.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, at Elk River Dam on Elk River, 1.2 miles (1.9 km) upstream from Spring Creek, 2.5 miles (4.0 km) northeast of Estill Springs, 6.8 miles (10.9 km) upstream from bridge on U.S. Highway 41-A, and at mile 170.0 (273.5 km). Drainage area, 263 sq mi (681 sq km). Period of record, May 1952 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 39,600 cfs-days (96.90 cu hm) May 18, elevation, 959.68 ft (292.510); minimum, 35,100 cfs-days (85.89 cu hm) Nov. 25, elevation, 957.28 ft (291.799 m). Extremes for period of record: Maximum contents, 42,300 cfs-days (103.5 cu hm) Apr. 21, 22, 1956, elevation, 960.98 ft (292.907 m); minimum after first filling, 26,300 cfs-days (64.36 cu hm) Nov. 8-11, 1953, elevation, 951.93 ft (290.148 m).

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) 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 cu hm), of which 9,900 cfs-days (24.22 cu hm) is controlled storage above elevation 957.0 ft (291.69 m) minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes. Records furnished by U.S. Air Force.

03580740 TIMS FORD LAKE.--Lat 35°11'51", long 86°16'41", Franklin County, in intake tower near left bank, 0.4 mile (0.6 km) upstream from bridge on State Highway 50, 9.5 miles (15.3 km) west of Winchester, and at mile 133.4 (214.6 km). Drainage area, 529 sq mi (1,370 sq km). Period of record, December 1970 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum contents, 266,500 cfs-days (652.1 cu hm) Jan. 12, elevation, 887.86 ft (270.620 m); minimum, 199,000 cfs-days (487.0 cu hm) Dec. 22, elevation, 873.76 ft (266.322 m). Extremes for period of record: Maximum contents, 296,300 cfs-days (725.0 cu hm) Mar. 17, 1973, elevation, 893.24 ft (272.260 m); minimum after first filling 154,000 cfs-days (376.8 cu hm) October 15, 1972, elevation, 862.24 ft (262.811 m).

Reservoir formed by concrete 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 cu hm), of which 160,300 cfs-days (392.2 cu hm) 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.

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, at Pickwick Landing Dam on Tennessee River, 1.5 miles (2.4 km) north of town of Pickwick Dam, 6.1 miles (9.8 km) upstream from Lick Creek, 52.7 miles (84.8 km) downstream from Wilson Dam, and at mile 206.7 (332.6 km). Drainage area, 38,820 sq mi (85,000 sq km), approximately. Period of record, October 1937 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 594,000 cfs-days (1,454 cu hm) Jan. 11; maximum elevation, 418.05 ft (127.422 m) Jan. 11; minimum midnight contents, 358,000 cfs-days (876.0 cu hm) Mar. 9; minimum elevation, 407.98 ft (124.352 m) Nov. 25. 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.

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 cu hm), of which 210,200 cfs-days (514.4 cu hm) 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.

Reservoirs in Tennessee River basin--Continued

03609000 KENTUCKY LAKE.--Lat 37°00'49", long 88°16'06", Marshall County, Ky., at Kentucky Dam on Tennessee River at Gilbertsville, and at mile 22.4 (36.0 km). Drainage area, 40,200 sq mi (104,100 sq km), approximately. Period of record, July 1944 to current year. Water-stage recorder. Datum of gage is at mean sea level. Extremes for current year: Maximum midnight contents, 2,421,000 cfs-days (5,924 cu hm) Jan. 14; maximum elevation, 365.03 ft (111.261 m) June 9; minimum midnight contents, 1,062,000 cfs-days (2,599 cu hm) Mar. 14; minimum elevation, 353.36 ft (107.704 m) Mar. 16. 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.

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 cu hm), of which 2,020,700 cfs-days (4,945 cu hm) 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 miles (3.5 km) upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

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, Tenn., with a total capacity of 1,300 cfs-days (3.181 cu hm), of which 900 cfs-days (2.202 cu hm) is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, Tenn., with a total capacity of 20,800 cfs-days (50.90 cu hm) of which 2,060 cfs-days (5.041 cu hm) 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, Tenn., with a total capacity of 2,040 cfs-days (4.992 cu hm), of which 1,900 cfs-days (4.649 cu hm) is controlled storage. Records of contents previous to 1971 water year published.

Reservoirs in Tennessee River basin--Continued

MONTHEND ELEVATION, IN FEET, AND CONTENTS, IN CFS-DAYS, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents
<u>03468500 Douglas Lake</u>				<u>03476000 South Holston Lake</u>			<u>03483500 Watauga Lake</u>		
Sept. 30.....	965.48	294,500	-	1,709.30	262,000	-	1,942.30	235,500	-
Oct. 31.....	956.43	217,400	-77,100	1,705.97	251,300	-10,700	1,941.60	233,400	-2,100
Nov. 30.....	956.70	219,500	+2,100	1,706.81	253,900	+2,600	1,944.80	242,700	+9,300
Dec. 31.....	959.90	245,700	+26,200	1,706.16	251,900	-2,000	1,943.05	237,600	-5,100
CAL YR 1973	-	-	+58,200	-	-	-27,600	-	-	-5,800
Jan. 31.....	947.45	154,900	-90,800	1,710.84	267,000	+15,100	1,946.10	246,500	+8,900
Feb. 28.....	955.22	208,200	+53,300	1,712.54	272,700	+5,700	1,948.67	254,100	+7,600
Mar. 31.....	971.80	355,300	+147,100	1,721.01	302,000	+29,300	1,955.69	276,100	+22,000
Apr. 30.....	985.33	508,100	+152,800	1,725.37	317,600	+15,600	1,954.76	273,100	-3,000
May 31.....	995.54	642,600	+134,500	1,725.14	316,700	-900	1,953.30	268,500	-4,600
June 30.....	993.18	610,400	-32,200	1,725.29	317,300	+600	1,956.01	277,100	+8,600
July 31.....	983.91	490,600	-119,800	1,718.96	294,800	-22,500	1,946.90	248,800	-28,300
Aug. 31.....	974.70	385,500	-105,100	1,708.40	259,000	-35,800	1,937.03	220,500	-28,300
Sept. 30.....	965.23	292,200	-93,300	1,701.89	238,500	-20,500	1,934.77	214,200	-6,300
WTR YR 1974	-	-	-2,300	-	-	-23,500	-	-	-21,300
<u>03486800 Boone Lake</u>				<u>03487000 Fort Patrick Henry Lake</u>			<u>03493500 Cherokee Lake</u>		
Sept. 30.....	1,377.58	82,100	-	1,260.16	12,300	-	1,047.23	420,600	-
Oct. 31.....	1,371.46	71,100	-11,000	1,261.84	13,000	+700	1,041.11	360,900	-59,700
Nov. 30.....	1,367.04	63,800	-7,300	1,259.62	12,100	-900	1,045.60	403,900	+43,000
Dec. 31.....	1,362.59	57,000	-6,800	1,260.11	12,300	+200	1,044.76	395,500	-8,400
CAL YR 1973	-	-	+6,000	-	-	-600	-	-	+34,200
Jan. 31.....	1,362.09	56,400	-600	1,260.45	12,500	+200	1,040.01	351,000	-44,500
Feb. 28.....	1,365.92	62,100	+5,700	1,260.03	12,300	-200	1,039.52	346,600	-4,400
Mar. 31.....	1,374.22	75,900	+13,800	1,258.99	11,900	-400	1,052.14	474,000	+127,400
Apr. 30.....	1,376.66	80,400	+4,500	1,261.40	12,900	+1,000	1,064.42	626,800	+152,800
May 31.....	1,381.66	90,300	+9,900	1,259.50	12,100	-800	1,071.08	720,600	+93,800
June 30.....	1,382.90	93,000	+2,700	1,260.98	12,700	+600	1,070.60	713,600	-7,000
July 31.....	1,379.17	85,200	-7,800	1,261.06	12,700	0	1,064.98	634,400	-79,200
Aug. 31.....	1,381.03	89,000	+3,800	1,260.96	12,700	0	1,055.07	508,100	-126,300
Sept. 30.....	1,377.17	81,300	-7,700	1,259.38	12,000	-700	1,048.48	433,700	-74,400
WTR YR 1974	-	-	-800	-	-	-300	-	-	+13,100
<u>03499500 Fort Loudoun Lake†</u>				<u>03518200 Chilhowee Lake</u>			<u>03532500 Norris Lake</u>		
Sept. 30.....	812.00	176,000	-	873.36	24,300	-	995.91	670,900	-
Oct. 31.....	811.99	176,000	0	872.53	23,500	-800	989.26	590,600	-80,300
Nov. 30.....	808.88	154,000	-22,000	873.21	24,100	+600	1,005.29	796,900	+206,300
Dec. 31.....	808.80	156,000	+2,000	873.34	24,300	+200	1,009.79	862,800	+65,900
CAL YR 1973	-	-	+10,000	-	-	+500	-	-	+210,000
Jan. 31.....	807.51	147,000	-9,000	873.52	24,400	+100	1,004.49	785,600	-77,200
Feb. 28.....	807.27	145,000	-2,000	873.13	24,100	-300	997.92	696,700	-88,900
Mar. 31.....	807.78	147,000	+2,000	873.58	24,500	+400	1,008.73	846,900	+150,200
Apr. 30.....	812.64	181,000	+34,000	873.90	24,700	+200	1,009.48	858,200	+11,300
May 31.....	812.28	178,000	-3,000	871.72	22,900	-1,800	1,014.58	937,200	+79,000
June 30.....	812.24	178,000	0	873.66	24,500	+1,600	1,014.49	935,800	-1,400
July 31.....	812.10	177,000	-1,000	872.59	23,600	-900	1,005.41	798,600	-137,200
Aug. 31.....	812.10	177,000	0	873.14	24,100	+500	995.36	664,000	-134,600
Sept. 30.....	811.85	175,000	-2,000	873.28	24,200	+100	989.04	588,000	-76,000
WTR YR 1974	-	-	-1,000	-	-	-100	-	-	-82,900

† Contents based on backwater profile.

TENNESSEE RIVER BASIN

Reservoirs in Tennessee River basin--Continued

MONTHEND ELEVATION, IN FEET, AND CONTENTS, IN CFS-DAYS, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents	Elevation	Contents	Change in contents
03535900 Melton Hill Lake				03543000 Watts Bar Lake†			03564000 Lake Ocoee		
Sept. 30.....	792.61	53,900	-	740.75	505,000	-	831.3	41,300	-
Oct. 31.....	792.93	54,700	+800	738.76	467,000	-38,000	834.8	40,800	-500
Nov. 30.....	792.43	53,400	-1,300	738.84	471,000	+4,000	835.4	41,400	+600
Dec. 31.....	793.80	57,100	+3,700	736.40	437,000	-34,000	835.5	41,500	+100
CAL YR 1973	-	-	+4,200	-	-	+41,000	-	-	+6,900
Jan. 31.....	793.24	55,600	-1,500	738.90	476,000	+39,000	831.0	37,300	-4,200
Feb. 28.....	793.52	56,300	+700	735.32	412,000	-64,000	828.6	35,100	-2,200
Mar. 31.....	793.55	56,400	+100	736.37	428,000	+16,000	830.4	36,700	+1,600
Apr. 30.....	793.67	56,700	+300	740.64	505,000	+77,000	831.3	37,500	+800
May 31.....	793.81	57,100	+400	741.55	526,000	+21,000	834.8	40,800	+3,300
June 30.....	792.95	54,800	-2,300	740.29	496,000	-30,000	834.4	40,400	-400
July 31.....	793.05	55,100	+300	740.90	508,000	+12,000	834.5	40,500	+100
Aug. 31.....	793.56	56,400	+1,300	740.68	503,000	-5,000	833.9	39,900	-600
Sept. 30.....	794.15	58,100	+1,700	740.78	505,000	+2,000	834.1	40,100	+200
WTR YR 1974	-	-	+4,200	-	-	0	-	-	-1,200
03566500 Chickamauga Lake†				03570520 Nickajack Lake†			03579000 Woods Reservoir		
Sept. 30.....	680.75	286,000	-	632.20	115,000	-	959.42	39,100	-
Oct. 31.....	678.55	252,000	-34,000	632.09	116,000	+1,000	958.55	37,400	-1,700
Nov. 30.....	680.25	285,000	+33,000	632.18	129,000	+13,000	957.55	35,600	-1,800
Dec. 31.....	676.61	231,000	-54,000	632.28	125,000	-4,000	958.16	36,700	+1,100
CAL YR 1973	-	-	+19,000	-	-	-2,000	-	-	-200
Jan. 31.....	678.57	265,000	+34,000	632.23	130,000	+5,000	957.98	36,400	-300
Feb. 28.....	675.35	212,000	-53,000	632.30	120,000	-10,000	957.73	35,900	-500
Mar. 31.....	676.45	223,000	+11,000	633.30	122,000	+2,000	957.79	36,000	+100
Apr. 30.....	682.38	315,000	+92,000	633.62	123,000	+1,000	959.55	39,400	+3,400
May 31.....	682.25	317,000	+2,000	632.36	120,000	-3,000	959.53	39,300	-100
June 30.....	682.52	318,000	+1,000	633.05	121,000	+1,000	959.46	39,200	-100
July 31.....	680.92	290,000	-28,000	633.70	123,000	+2,000	959.26	38,800	-400
Aug. 31.....	680.80	288,000	-2,000	633.64	123,000	0	959.53	39,300	+500
Sept. 30.....	680.38	281,000	-7,000	632.22	116,000	-7,000	959.45	39,200	-100
WTR YR 1974	-	-	-5,000	-	-	+1,000	-	-	+100
03580740 Tims Ford Lake				03593000 Pickwick Lake†			03609000 Kentucky Lake†		
Sept. 30.....	885.18	252,400	-	410.90	402,000	-	355.09	1,132,000	-
Oct. 31.....	881.88	235,900	-16,500	410.18	388,000	-14,000	354.69	1,114,000	-18,000
Nov. 30.....	882.58	239,300	+3,400	414.92	500,000	+112,000	358.22	1,545,000	+431,000
Dec. 31.....	881.86	235,800	-3,500	416.12	530,000	+30,000	356.46	1,549,000	+4,000
CAL YR 1973	-	-	+34,800	-	-	+151,000	-	-	+326,000
Jan. 31.....	884.21	247,500	+11,700	411.68	441,000	-89,000	363.80	2,142,000	+593,000
Feb. 28.....	883.03	241,600	-5,900	409.50	388,000	-53,000	354.11	1,200,000	-942,000
Mar. 31.....	880.48	229,200	-12,400	411.70	419,000	+31,000	355.62	1,198,000	-2,000
Apr. 30.....	882.12	237,100	+7,900	413.68	460,000	+41,000	358.68	1,401,000	+203,000
May 31.....	885.14	252,200	+15,100	413.07	451,000	-9,000	359.46	1,510,000	+109,000
June 30.....	885.95	256,400	+4,200	412.98	444,000	-7,000	357.92	1,342,000	-168,000
July 31.....	885.62	254,700	-1,700	412.56	436,000	-8,000	356.89	1,264,000	-78,000
Aug. 31.....	884.76	250,300	-4,400	411.60	417,000	-19,000	355.92	1,185,000	-79,000
Sept. 30.....	884.02	246,500	-3,800	411.17	408,000	-9,000	355.40	1,178,000	-7,000
WTR YR 1974	-	-	-5,900	-	-	+6,000	-	-	+46,000

† Contents based on backwater profile.

07024300 Beaver Creek at Huntingdon, Tenn.

LOCATION.--Lat 35°59'56", long 88°26'01", Carroll County, on left bank on downstream end of pier of bridge on U.S. Highway 70, 0.3 mile (0.5 km) southwest of Huntingdon, 0.6 mile (1.0 km) downstream from Brier Creek, and 5.6 miles (9.0 km) upstream from mouth.

DRAINAGE AREA.--55.5 sq mi. (143.7 sq km).

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.

GAGE.--Water-stage recorder. Datum of gage is 364.20 ft (111.008 m) above sea level (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.

AVERAGE DISCHARGE.--12 years, 108 cfs (3.059 cu m/s), 26.43 in/yr (671 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,740 cfs (134 cu m/s) Jan. 11, gage height, 12.50 ft (3.810); minimum, 26 cfs (0.74 cu m/s) Jul. 3.

Period of record: Maximum discharge, 8,350 cfs (236 cu m/s) Sept. 9, 1970, gage height, 13.96 ft (4.255 m) from rating curve extended above 3,600 cfs (102 cu m/s) on basis of contracted opening measurement of peak flow; minimum, 19 cfs (0.54 cu m/s) May 17, 1965.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1920: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	50	72	68	74	63	96	56	1,180	29	37	55
2	41	44	64	58	168	63	454	84	1,560	28	46	87
3	36	43	117	230	141	62	269	74	369	28	189	332
4	35	56	211	206	81	59	87	93	78	58	64	110
5	34	82	72	103	71	120	63	158	122	207	42	53
6	33	45	60	107	141	239	57	96	101	53	38	48
7	55	38	53	167	104	139	55	59	1,000	40	36	44
8	51	42	52	209	82	89	131	52	1,540	44	36	43
9	40	40	51	897	72	75	80	55	425	51	45	49
10	38	36	50	2,500	66	67	64	224	575	78	56	46
11	38	35	49	3,520	62	200	57	113	350	40	179	44
12	38	37	57	1,050	59	203	101	89	93	37	274	43
13	50	37	52	225	59	90	78	57	62	35	665	43
14	58	39	54	110	71	72	257	49	53	33	612	41
15	41	39	48	105	88	70	224	229	116	32	197	38
16	38	41	46	90	195	286	85	134	64	32	69	37
17	39	38	45	83	116	127	67	65	48	32	70	37
18	38	115	46	78	84	84	59	51	41	31	112	37
19	38	82	49	71	334	165	54	44	40	42	57	37
20	39	154	141	108	205	123	52	42	38	33	45	36
21	37	394	66	133	169	184	131	42	36	33	42	51
22	38	139	52	86	477	104	2,870	260	35	38	40	42
23	39	70	59	80	257	83	2,100	220	55	197	39	37
24	38	84	101	69	99	71	468	75	37	68	38	36
25	39	181	267	64	72	63	110	54	36	42	37	37
26	39	382	327	166	66	60	75	54	34	261	36	38
27	39	1,560	486	319	67	70	63	53	33	312	43	152
28	44	2,530	151	332	63	86	55	45	33	73	44	87
29	43	653	139	301	-----	74	50	43	31	50	62	237
30	43	114	104	115	-----	60	47	43	30	42	186	67
31	55	-----	87	87	-----	54	-----	154	-----	38	94	-----
TOTAL	1,273	7,200	3,228	11,737	3,543	3,305	8,359	2,867	8,215	2,117	3,530	2,044
MFAN	41.1	240	104	379	127	107	279	92.5	274	68.3	114	68.1
MAX	58	2,530	486	3,520	477	286	2,870	260	1,560	312	665	332
MIN	33	35	45	58	59	54	47	42	30	28	36	36
CFSM	.74	4.32	1.87	6.83	2.29	1.93	5.03	1.67	4.94	1.23	2.05	1.23
IN.	.85	4.83	2.16	7.87	2.37	2.22	5.60	1.92	5.51	1.42	2.37	1.37

CAL YR 1973 TOTAL 54,182 MEAN 148 MAX 3,110 MIN 30 CFSM 2.67 IN 36.32
WTR YR 1974 TOTAL 57,418 MEAN 157 MAX 3,520 MIN 28 CFSM 2.83 IN 38.49

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-28	0245	11.61	2,990	06-02	0300	10.91	2,060
01-11	0200	12.50	4,740	06-08	0130	10.82	1,970
04-22	1700	12.34	4,380				

OBION RIVER BASIN

07024500 South Fork Obion River near Greenfield, Tenn.

LOCATION.--Lat 36° 07' 05", long 88° 48' 39", Weakley County, on left bank 75 ft (23 m) downstream from bridge on U.S. Highway 45E, 1.1 miles (1.8 km) downstream from Mosley Branch, 2.5 miles (4.0 km) south of Greenfield, and 9.7 miles (15.6 km) upstream from confluence with Middle Fork.

DRAINAGE AREA.--383 sq mi (992 sq km).

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 300.36 ft (91.550 m) above mean sea level. Prior to June 22, 1939, nonrecording gage at site 75 ft (23 m) upstream at same datum.

AVERAGE DISCHARGE.--45 years, 571 cfs (16.17 cu m/s), 20.25 in/yr (514 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,500 cfs (326 cu m/s) Jan. 12, gage height, 16.89 ft (5.166 m); minimum 163 cfs (4.62 cu m/s) Oct. 26, 27.

Period of record: Maximum discharge, 25,600 cfs (725 cu m/s) Jan. 22, 1937, gage height, 17.82 ft (5.432 m), from floodmarks, from rating curve extended above 14,000 cfs (396 cu m/s); minimum, 61 cfs (1.73 cu m/s) Aug. 21, 1944.

REMARKS.--Records poor. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS(WATER YEARS).--WSP 1311: 1936(M). WSP 1920: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	216	4,640	856	1,010	340	369	415	1,000	183	357	670
2	229	217	3,100	583	794	361	406	920	1,500	180	255	700
3	206	207	2,120	545	665	348	529	1,260	1,400	178	269	1,800
4	187	215	1,410	549	644	334	653	942	1,200	204	311	1,100
5	175	308	802	615	565	342	565	1,060	1,100	886	336	850
6	167	323	571	657	521	648	444	1,020	1,000	820	302	670
7	289	299	465	642	501	725	354	821	1,500	1,000	230	550
8	485	261	398	770	498	793	363	631	2,500	900	209	450
9	404	237	354	1,780	470	753	371	494	3,000	638	226	400
10	365	217	326	3,230	434	593	373	1,260	2,700	450	452	337
11	278	205	304	7,600	405	1,090	338	1,050	2,300	620	959	299
12	222	200	293	11,200	374	1,060	756	896	2,000	540	850	325
13	194	198	283	7,690	348	860	510	654	1,500	450	2,000	345
14	221	196	271	4,450	337	783	849	482	1,300	380	4,000	264
15	228	200	271	3,030	351	636	661	722	1,100	316	3,800	250
16	208	210	268	2,130	411	818	654	638	1,000	267	3,500	232
17	189	210	258	1,440	433	759	568	625	700	238	2,710	221
18	179	366	253	918	468	793	452	524	500	216	2,440	213
19	174	450	254	682	826	1,040	369	406	370	206	1,640	205
20	174	502	479	854	777	923	317	326	300	200	894	200
21	183	1,350	438	1,050	971	1,170	664	282	262	193	574	201
22	169	1,210	414	922	1,220	1,040	3,030	1,110	236	191	424	210
23	165	1,170	382	881	1,120	860	4,150	1,350	385	500	363	212
24	166	1,120	430	739	1,150	664	6,540	1,210	295	1,100	310	205
25	165	858	592	597	1,040	530	5,790	1,140	248	800	261	202
26	164	1,230	1,080	808	689	444	3,860	894	223	717	233	196
27	164	2,020	1,480	1,020	504	402	2,640	571	209	659	310	603
28	173	4,170	1,450	1,350	423	420	1,610	398	198	658	278	533
29	180	6,490	1,490	1,400	-----	430	773	311	192	745	630	868
30	180	6,590	1,510	1,370	-----	435	469	297	187	803	1,680	759
31	188	-----	1,300	1,320	-----	406	-----	350	-----	572	1,000	-----
TOTAL	6,727	31,445	27,686	61,678	17,949	20,840	39,427	23,052	30,405	15,810	31,803	14,070
MEAN	217	1,048	893	1,990	641	672	1,314	744	1,014	510	1,026	469
MAX	485	6,590	4,640	11,200	1,220	1,170	6,540	1,350	3,000	1,100	4,000	1,800
MIN	164	196	253	545	337	334	317	282	187	178	209	196
CFSM	.57	2.74	2.33	5.20	1.67	1.75	3.43	1.94	2.65	1.33	2.68	1.22
IN.	.65	3.05	2.69	5.99	1.74	2.02	3.83	2.24	2.95	1.54	3.09	1.37

CAL YR 1973 TOTAL 319,196 MEAN 875 MAX 7,460 MIN 138 CFSM 2.28 IN 31.00
WTR YR 1974 TOTAL 320,892 MEAN 879 MAX 11,200 MIN 164 CFSM 2.30 IN 31.17

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-29	2200	16.38	7,480	04-24	1800	16.31	7,090
01-12	1530	16.89	11,500	06-09	Unknown	16.14*	6,220

* From recorded range in stage.

OBION RIVER BASIN

145

07026000 Obion River at Obion, Tenn.

LOCATION.--Lat 36°15'04", long 89°11'33", Obion County, near left bank on downstream end of pier of bridge on U.S. Highway 51, 0.5 mile (0.8 km) upstream from Richland Creek, 0.6 mile (1.0 km) south of Obion, and 14.5 miles (23.3 km) downstream from North Fork.

DRAINAGE AREA.--1,852 sq mi (4,797 sq km).

PERIOD OF RECORD.--July 1929 to September 1958, October 1966 to current year. Gage height and discharge records collected at this site since 1964 are in reports of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 246.48 ft (75.127 m) above mean sea level (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. 30, 1958, water-stage recorder at present site at datum 15.00 ft (4.572 m) higher.

AVERAGE DISCHARGE.--37 years (1929-58, 1966-74), 2,625 cfs (74.34 cu m/s), 19.25 in/yr (489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 38,700 cfs (1,096 cu m/s) Jan. 14, gage height, 33.37 ft (10.171 m); minimum, 546 cfs (15.5 cu m/s) Oct. 31.

Period of record: Maximum discharge, 99,500 cfs (2,820 cu m/s) Jan. 24, 1937, gage height, 40.4 ft (12.31 m), present datum; minimum, under conditions of no backwater, 230 cfs (6.51 cu m/s) Oct. 7-9, 12, 1943; minimum daily discharge, 15 cfs (0.42 cu m/s), backwater from Mississippi River, Feb. 4, 1937; reverse flow of 57 cfs (1.61 cu m/s) measured by current meter on that date.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Twenty-two discharge measurements furnished by Corps of Engineers.

REVISIONS(WATER YEARS).--WSP 1211: 1930, 1943. WRD Tenn. 1968: Drainage area. WRD Tenn. 1971: 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	660	17,400	3,450	4,100	1,270	1,340	2,400	6,930	829	900	4,320
2	740	700	15,500	2,730	3,850	1,200	5,270	2,200	9,200	817	755	3,470
3	740	620	12,400	1,780	4,250	1,160	6,620	4,000	8,540	800	1,230	8,660
4	670	690	10,000	1,860	3,750	1,130	5,070	3,490	6,800	787	1,940	8,090
5	645	935	8,000	1,700	3,150	1,130	2,300	3,150	5,940	2,530	1,030	5,240
6	610	965	6,400	1,610	2,650	2,600	1,520	3,090	5,940	1,670	828	3,020
7	690	845	5,150	1,670	2,550	3,850	1,280	2,180	11,900	1,610	741	1,990
8	1,440	750	3,900	2,040	2,400	2,410	6,680	1,670	16,700	2,420	1,210	1,500
9	1,110	700	2,950	8,850	2,200	1,910	8,180	1,450	17,100	2,760	1,450	1,250
10	910	665	2,200	16,600	2,050	1,640	5,440	4,800	14,700	1,800	3,010	1,850
11	805	610	1,640	24,300	1,900	4,010	2,490	5,940	10,700	2,410	3,170	2,750
12	700	600	1,470	30,400	1,790	7,180	3,150	3,720	5,700	1,560	3,870	1,890
13	655	640	1,340	36,000	1,660	4,600	5,020	2,210	3,850	1,270	5,610	1,460
14	715	660	1,230	38,200	1,550	2,820	3,890	1,650	3,150	990	7,730	1,120
15	780	660	1,140	34,300	1,500	1,770	3,930	3,010	2,850	829	6,390	960
16	700	680	1,120	24,400	1,520	3,430	2,550	3,460	2,950	855	4,880	877
17	650	710	1,030	14,200	1,780	3,710	1,900	2,020	2,150	758	3,680	829
18	615	1,420	972	9,100	1,480	2,380	1,590	1,590	1,400	670	4,630	804
19	596	2,200	962	7,050	3,040	3,790	1,380	1,350	1,100	634	4,350	778
20	596	1,380	1,980	6,200	3,920	6,460	1,250	1,190	1,000	625	3,100	757
21	591	5,010	2,290	8,700	3,170	5,530	1,730	1,480	950	616	2,030	752
22	587	4,750	1,370	7,200	9,080	4,970	13,700	3,040	930	608	1,380	834
23	573	2,790	1,170	5,950	7,420	3,300	17,700	6,300	2,600	2,170	1,100	791
24	573	11,200	1,750	4,850	4,460	2,330	19,400	4,480	2,080	2,370	1,440	736
25	569	14,100	6,500	3,950	2,870	1,830	20,700	2,580	1,240	1,740	1,210	722
26	569	16,400	7,940	3,620	2,090	1,570	20,900	2,040	1,030	1,430	1,090	716
27	569	18,000	12,500	7,180	1,630	1,430	18,400	1,650	949	1,640	1,180	1,560
28	564	18,700	11,300	8,860	1,450	1,500	13,900	1,370	908	1,390	1,340	2,460
29	605	18,000	7,300	10,800	-----	1,490	7,600	1,180	877	1,290	1,970	2,780
30	587	17,500	6,100	8,000	-----	1,740	3,350	1,090	851	1,310	6,480	2,340
31	573	-----	4,700	5,100	-----	1,470	-----	1,380	-----	1,160	6,490	-----
TOTAL	21,552	143,540	159,704	340,650	83,260	85,610	208,230	81,160	151,015	42,348	86,214	65,306
MEAN	695	4,785	5,152	10,990	2,974	2,762	6,941	2,618	5,034	1,366	2,781	2,177
MAX	1,440	18,700	17,400	38,200	9,080	7,180	20,900	6,300	17,100	2,760	7,730	8,660
MIN	564	600	962	1,610	1,450	1,130	1,250	1,090	851	608	741	716
CFSM	.38	2.58	2.78	5.93	1.61	1.49	3.75	1.41	2.72	.74	1.50	1.18
IN.	.43	2.88	3.21	6.84	1.67	1.72	4.18	1.63	3.03	.85	1.73	1.31

CAL YR 1973 TOTAL 1,671,537 MEAN 4.580 MAX 38,800 MIN 542 CFSM 2.47 IN 33.58
WTR YR 1974 TOTAL 1,468,589 MEAN 4.024 MAX 38,200 MIN 564 CFSM 2.17 IN 29.50

OBION RIVER BASIN

07027000 Reelfoot Lake near Tiptonville, Tenn.

LOCATION.--Lat 36° 21'09", long 89° 25'07", Lake County, at Middle Landing in Reelfoot Lake State Park, 0.4 mile (0.6 km) east of Blue Bank, 0.8 mile (1.3 km) west of the spillway and 3.3 miles (5.3 km) southeast of Tiptonville.

DRAINAGE AREA.--240 sq mi (622 sq km).

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.22 ft (82.363 m) above mean sea level.

EXTREMES.--Current year: Maximum gage height, 13.86 ft (4.225 m) Nov. 28; minimum, 11.02 ft (3.359 m) Nov. 15.

Period of record: Maximum gage height, 15.65 ft (4.770 m), from recorded range in stage, about Apr. 26, 1973; minimum, 11.02 ft (3.359 m) Nov. 15, 1973.

Flood of January 1937 reached a stage of about 17.0 ft (5.19 m), at spillway, present datum, from information by local resident.

REMARKS.--Records fair.

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.34	11.15	13.54	12.68	12.26	12.11		12.38	12.16	11.93	11.58	12.11
2	11.33	11.20	13.39	12.52	12.37			12.30	12.15	11.90	11.55	12.35
3	11.32	11.18	13.26	12.42	12.28			12.27	12.14	11.88		12.29
4	11.38	11.32	13.11	12.30	12.24			12.24	12.11	11.95		12.30
5	11.33	11.27	13.18	12.20	12.14			12.22	12.10	11.97		12.29
6	11.30	11.23	13.15	12.10	12.22			12.20	12.20	11.93	11.75	12.25
7	11.30	11.22	13.02	12.04	12.19			12.11	12.39	11.91	11.75	12.21
8	11.30	11.28	12.88	12.02	12.10			12.16	12.50	11.90	11.75	12.17
9	11.29	11.28	12.77	12.08	12.08			12.24	12.52	11.90	11.74	12.13
10	11.28	11.18	12.64	12.32	12.04			12.26	12.50	11.87	11.77	12.06
11	11.24	11.16	12.49	12.54	12.08			12.25	12.41	11.87	11.83	12.07
12	11.24	11.15	12.30	12.64	12.07			12.22	12.35	11.86	11.85	12.09
13	11.31	11.12	12.27	12.62	12.13			12.12	12.23	11.84	12.09	12.18
14	11.29	11.10	12.23	12.58	12.25	12.25		12.14	12.16	11.81	12.16	12.15
15	11.28	11.17	12.23	12.52	12.24	12.27		12.19	12.23	11.84	12.22	12.13
16	11.28	11.16	12.21	12.45	12.22	12.19		12.14	12.23	11.82	12.23	12.14
17	11.24	11.12	12.09	12.40	12.20	12.15		12.19	12.18	11.78	12.32	12.10
18	11.23	11.26	12.08	12.32	12.20	12.06		12.22	12.15	11.75	12.20	12.10
19	11.22	11.30	12.27	12.23	12.26	12.19		12.23	12.15	11.72	12.09	12.09
20	11.23	11.40	12.30	12.20	12.22	12.22	12.10	12.22	12.15	11.72	12.10	12.11
21	11.22	11.43	12.25	12.20	12.21	12.15	12.36	12.24	12.12	11.70	12.10	12.10
22	11.19	11.51	12.25	12.15	12.24	12.12	12.77	12.24	12.18	11.67	12.08	12.10
23	11.18	12.03	12.28	12.15	12.33	12.24	13.09	12.21	12.17	11.68	12.08	12.07
24	11.17	12.39	12.42	12.07	12.40	12.17	13.05	12.19	12.13	11.66	12.09	12.03
25	11.17	13.02	12.55	12.09	12.32	12.12	12.98	12.16	12.08	11.63	12.07	12.03
26	11.16	13.53	12.72	12.11	12.25	12.13	12.89	12.11	12.07	11.66	12.08	12.04
27	11.20	13.78	12.80	12.23	12.15	12.12	12.77	12.07	12.05	11.67	12.05	12.03
28	11.17	13.83	12.76	12.34	12.12	12.12	12.65	12.04	12.02	11.65	12.06	12.01
29	11.15	13.70	12.87	12.39	-----	12.16	12.55	12.05	11.96	11.66	12.09	12.03
30	11.14	13.66	12.86	12.35	-----	12.17	12.50	12.04	11.94	11.63	12.10	12.03
31	11.17	-----	12.82	12.40	-----	-----	-----	12.18	-----	11.61	12.12	-----
MAX	11.38	13.83	13.54	12.68	12.40			12.38	12.52	11.97		12.35
MIN	11.14	11.10	12.08	12.02	12.04			12.04	11.94	11.61		12.01

NOTE.--No gage-height record Mar. 2-13, Mar. 31 to Apr. 19, Aug. 3-5.

HATCHIE RIVER BASIN

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07029500 Hatchie River at Bolivar, Tenn.

LOCATION.—Lat 35°16'31", long 88°58'36", Hardeman County, on left bank on upstream end of bridge pier on State Highway 18, 250 ft (76 m) upstream from Illinois Central Railroad bridge, 0.6 mile (1.0 km) downstream from Spring Creek, and 1.5 miles (2.4 km) northeast of Bolivar.

DRAINAGE AREA.—1,480 sq mi (3,833 sq km).

PERIOD OF RECORD.—July 1929 to current year.

GAGE.—Water-stage recorder. Datum of gage is 323.49 ft (98.600 m) above sea level. July 24, 1929, to Feb. 6, 1939, and Aug. 20, 1959, to Sept. 26, 1960, nonrecording gage at site in this vicinity at same datum.

AVERAGE DISCHARGE.—45 years, 2,330 cfs (65.99 cu m/s), 21.38 in/yr (543 mm/yr).

EXTREMES.—Current year: Maximum discharge, 47,000 cfs (1,330 cu m/s) Jan. 13, gage height, 20.66 ft (6.297 m), from rating curve extended above 32,000 cfs (906 cu m/s); minimum, 443 cfs (12.5 cu m/s) Oct. 27.

Period of record: Maximum discharge, 61,600 cfs (1,740 cu m/s) Mar. 18, 1973, gage height, 21.66 ft (6.602 m), from rating curve extended above 32,000 cfs (906 cu m/s); minimum, 78 cfs (2.21 cu m/s) Sept. 2, 1943.

REMARKS.—Records poor. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS(WATER YEARS).—WSP 1211: 1937. WSP 1920: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	492	600	29,300	7,920	8,080	5,850	2,540	1,390	4,640	701	980	1,070
2	646	598	22,500	7,230	7,580	5,280	2,300	1,360	4,900	663	726	1,180
3	618	606	15,900	7,320	6,930	4,760	2,010	1,550	4,480	624	740	1,040
4	519	600	12,500	8,460	6,300	4,250	1,890	2,250	4,290	597	1,080	891
5	475	633	10,100	8,100	5,740	3,720	1,820	3,520	4,870	597	1,070	927
6	441	672	8,310	8,840	5,440	3,110	1,740	3,780	7,120	640	858	887
7	436	703	7,100	11,300	4,990	2,780	1,620	3,680	11,300	691	699	734
8	526	715	6,280	11,800	4,550	2,840	1,710	3,550	11,500	790	683	651
9	685	715	5,560	12,600	4,140	3,000	1,900	3,480	11,400	773	558	779
10	1,150	722	4,870	14,600	3,730	2,930	2,040	3,410	11,800	745	581	1,070
11	1,310	712	4,200	26,300	3,300	3,090	2,130	3,240	11,200	871	832	1,270
12	1,170	665	3,320	36,800	2,830	3,080	2,220	2,820	10,300	993	1,160	1,300
13	892	621	2,320	46,000	2,520	2,620	2,390	2,490	10,000	1,130	1,310	1,200
14	739	598	1,810	41,900	3,290	2,470	2,560	2,120	9,290	1,250	1,630	978
15	713	591	1,560	30,200	4,550	2,230	2,650	2,160	8,610	1,160	2,120	821
16	720	602	1,420	20,100	5,100	2,040	2,650	2,770	8,000	1,000	2,330	780
17	691	627	1,280	14,500	5,280	1,950	2,650	3,100	7,090	961	2,240	803
18	628	676	1,170	11,500	5,260	1,920	2,600	3,320	6,110	941	1,950	728
19	574	716	1,090	9,640	6,210	1,880	2,470	3,100	5,110	754	1,580	642
20	539	735	1,140	8,520	7,090	1,830	2,200	3,070	4,390	624	1,180	580
21	516	1,380	1,340	7,720	7,820	1,940	1,890	3,120	3,740	663	836	556
22	503	1,790	1,620	6,990	9,400	2,370	2,000	3,500	3,120	829	668	572
23	492	2,130	1,730	6,370	8,820	2,650	2,820	3,780	2,740	990	592	626
24	481	2,210	1,750	5,830	8,350	2,730	2,960	3,760	2,060	1,100	551	646
25	471	2,080	2,150	5,450	7,920	2,780	3,040	3,650	1,660	1,380	518	602
26	460	2,110	3,430	5,280	7,490	2,940	2,820	3,480	1,350	1,540	495	586
27	450	6,420	4,730	5,500	6,960	3,140	2,590	3,460	1,110	1,850	482	876
28	466	15,000	4,990	6,120	6,410	3,270	2,200	3,450	936	2,050	456	1,520
29	515	16,500	5,450	7,070	-----	3,270	1,820	3,390	824	2,080	445	1,880
30	577	28,300	6,790	7,820	-----	3,170	1,570	3,220	747	1,820	513	2,120
31	606	-----	8,120	8,360	-----	2,820	-----	2,990	-----	1,420	666	-----
TOTAL	19,501	91,027	183,830	416,140	166,080	92,710	67,800	93,960	174,687	32,227	30,529	28,315
MEAN	629	3,034	5,930	13,420	5,931	2,991	2,260	3,031	5,823	1,040	985	944
MAX	1,310	28,300	29,300	46,000	9,400	5,850	3,040	3,780	11,800	2,080	2,330	2,120
MIN	436	591	1,090	5,280	2,520	1,830	1,570	1,360	747	597	445	556
CFSM	.43	2.05	4.01	9.07	4.01	2.02	1.53	2.05	3.93	.70	.67	.64
IN.	.49	2.29	4.62	10.46	4.17	2.33	1.70	2.36	4.39	.81	.77	.71
CAL YR 1973	TOTAL	1,607,464	MEAN	4.404	MAX	59,300	MIN	366	CFSM	2.98	IN	40.40
WTR YR 1974	TOTAL	1,396,806	MEAN	3.827	MAX	46,000	MIN	436	CFSM	2.59	IN	35.11

PEAK DISCHARGE (BASE, 8,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-30	2400	19.20	30,900	02-22	0800	15.65	9,210
01-13	1700	20.66	47,000	06-10	1500	16.28	12,100

LOOSAHATCHIE RIVER BASIN

07030240 Loosahatchie River near Arlington, Tenn.

LOCATION.--Lat 35°18'37", long 89°38'23", Shelby County, on left bank 20 ft (6 m) downstream from bridge on U. S. Highways 70 and 79, 1.5 miles (2.4 km) upstream from Beaver Creek, 1.5 miles (2.4 km) northeast of Arlington, and at mile 30.4 (48.9 km), revised.

DRAINAGE AREA.--262 sq mi (679 sq km).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 248 ft (76 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 399 cfs (11.30 cu m/s), 20.68 in/yr (525 mm/yr).

EXTREMES.--Maximum and minimum discharges for the water years 1971-74 are contained in the following table:

Water year	Maximum			Minimum	
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)
1971	Feb. 22, 1971	8,720	22.41	Oct. 23, 24, 31, 1970	75
1972	Apr. 29, 1972	4,400	20.72	Nov. 17, 1971	71
1973	Apr. 20, 1973	20,200	24.53	Oct. 24, 25, 26, 1972	70
1974	Jun. 7, 1974	15,600	23.93	Apr. 6, 7, 1974	66

Period of record: Maximum discharge, 20,200 cfs (572 cu m/s) Apr. 20, 1973, gage height, 24.53 ft (7.477 m); minimum, 66 cfs (1.87 cu m/s) Apr. 6, 7, 1974.

REMARKS.--Records poor. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	76	84	136	116	170	551	102	91	79	90	113
2	80	77	84	106	114	162	2,320	99	90	79	91	92
3	79	77	83	93	114	180	433	96	87	78	181	90
4	79	78	82	1,370	188	180	208	93	86	77	758	89
5	79	78	83	358	790	159	160	93	86	77	520	88
6	79	78	85	167	268	236	137	136	88	216	179	88
7	80	78	85	126	180	374	126	285	89	108	117	87
8	84	77	85	115	153	186	116	141	214	83	122	86
9	190	91	84	112	136	150	110	103	418	81	115	85
10	92	91	83	110	126	196	104	94	108	166	271	84
11	78	85	82	108	131	173	100	285	93	134	118	84
12	121	79	82	106	1,640	149	98	373	91	216	107	83
13	2,510	79	82	103	3,490	259	95	2,610	139	89	102	83
14	1,540	150	81	109	1,080	282	93	558	13	84	99	83
15	170	124	83	112	414	324	91	191	16	85	99	84
16	92	93	253	103	285	205	91	134	134	89	96	233
17	82	87	153	102	229	137	90	114	101	81	96	167
18	79	85	108	101	197	112	89	104	81	81	95	92
19	83	85	96	98	896	153	88	99	80	81	102	88
20	84	474	125	94	1,520	129	87	94	80	81	94	100
21	78	162	705	94	2,370	108	90	92	80	79	101	88
22	76	115	900	104	6,980	101	90	91	80	79	94	84
23	75	99	1,610	225	4,170	94	3,110	91	80	79	104	83
24	80	94	738	296	643	90	1,310	252	80	94	95	82
25	80	93	160	259	250	503	243	1,400	80	96	92	87
26	78	91	110	185	242	700	162	249	79	274	91	1,300
27	77	89	95	144	222	209	135	117	79	143	91	2,510
28	77	87	87	131	183	152	121	102	82	150	89	264
29	78	85	84	126	-----	474	109	96	79	156	89	131
30	77	85	80	125	-----	225	107	95	78	286	88	104
31	75	-----	110	122	-----	137	-----	93	-----	104	106	-----
TOTAL	6,612	3,142	6,662	5,540	27,131	6,709	10,664	8,482	3,255	3,605	4,492	6,732
MEAN	213	105	215	179	969	216	355	274	109	116	145	224
MAX	2,510	474	1,610	1,370	6,980	700	3,110	2,610	418	286	758	2,510
MIN	75	76	80	93	114	90	87	91	78	77	88	82
CFSM	.81	.40	.82	.68	3.70	.82	1.36	1.05	.42	.44	.55	.86
IN.	.94	.45	.95	.79	3.85	.95	1.51	1.20	.46	.51	.64	.96
CAL YR 1970	TOTAL 95.367	MEAN 261	MAX 7.330	MIN 70	CFSM 1.00	IN 13.54						
WTR YR 1971	TOTAL 93.026	MEAN 255	MAX 6.980	MIN 75	CFSM .97	IN 13.21						

PEAK DISCHARGE (BASE, 5,500 CFS) (REVISED)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
02-22	2200	22.41	8,720				

LOOSAHATCHIE RIVER BASIN

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07030240 Loosahatchie River near Arlington, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	72	78	252	180	199	170	2,630	92	80	84	78
2	91	72	77	1,910	170	886	146	810	88	82	170	110
3	89	72	93	455	166	443	152	544	87	94	86	107
4	87	75	89	1,130	157	253	654	285	85	178	81	81
5	85	73	81	725	139	394	228	207	84	106	81	80
6	84	75	81	269	1,090	199	167	163	84	81	81	78
7	83	78	81	207	1,140	155	157	130	84	80	83	78
8	82	77	80	186	301	139	306	787	84	80	81	77
9	82	77	1,010	1,070	209	118	173	249	83	80	80	77
10	81	75	1,440	862	175	112	134	149	82	79	80	77
11	81	75	518	306	155	106	123	124	82	79	79	77
12	80	73	131	214	150	102	115	118	82	78	84	77
13	79	72	102	190	196	100	110	131	82	78	330	76
14	79	72	94	167	166	102	106	109	82	77	95	76
15	79	72	682	150	140	102	102	98	94	77	82	76
16	78	72	303	145	123	1,970	225	89	115	80	79	76
17	77	71	143	144	114	671	134	95	84	122	78	76
18	79	73	113	144	104	260	107	91	80	82	76	75
19	77	82	103	150	99	200	101	85	80	77	76	75
20	77	81	102	218	96	172	99	84	81	76	76	75
21	76	78	96	1,200	95	156	108	83	80	75	76	80
22	76	77	91	780	98	159	107	82	79	75	175	166
23	76	77	89	324	100	150	98	81	79	75	1,960	83
24	76	77	88	252	100	137	95	108	75	75	526	80
25	76	77	86	420	100	250	93	204	82	75	82	79
26	75	77	86	236	178	220	93	96	82	75	81	83
27	73	77	85	187	146	338	93	87	81	75	80	152
28	73	78	85	1,380	120	269	1,120	86	139	75	79	136
29	73	81	85	580	109	1,270	3,600	86	102	94	78	250
30	72	80	525	266	-----	447	1,700	217	82	271	78	1,540
31	72	-----	313	198	-----	213	-----	132	-----	93	78	-----
TOTAL	2,463	2,268	7,030	14,717	6,117	10,292	10,616	8,240	2,600	2,824	5,255	4,251
MEAN	79.5	75.6	227	475	211	332	354	266	86.7	91.1	170	142
MAX	95	82	1,440	1,910	1,140	1,970	3,600	2,630	139	271	1,960	1,540
MIN	72	71	77	144	95	100	93	81	79	75	76	75
CFSM	.30	.29	.87	1.81	.81	1.27	1.35	1.02	.33	.35	.65	.54
IN.	.35	.32	1.00	2.09	.87	1.46	1.51	1.17	.37	.40	.75	.60

CAL YR 1971 TOTAL 88,371 MEAN 242 MAX 6,980 MIN 71 CFSM .92 IN 12.55
WTR YR 1972 TOTAL 76,673 MEAN 209 MAX 3,600 MIN 71 CFSM .80 IN 10.89

PEAK DISCHARGE (BASE, 5,500 CFS).--No peak above base.

LOOSAHATCHIE RIVER BASIN

07030240 Loosahatchie River near Arlington, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	153	123	397	1,750	120	445	400	114	150	288	88
2	89	709	107	199	869	148	197	4,410	106	205	106	89
3	83	192	100	1,070	315	307	156	4,970	101	93	91	89
4	78	101	96	1,700	233	176	141	1,560	95	204	86	89
5	76	88	96	348	211	170	125	321	94	101	85	90
6	76	184	1,600	242	264	221	116	226	91	88	86	136
7	75	4,340	485	187	438	3,490	265	2,520	89	94	85	106
8	75	3,990	2,890	170	4,480	1,640	657	3,040	89	94	89	100
9	73	1,160	7,730	156	3,440	327	516	489	87	85	94	93
10	73	205	9,620	141	627	236	319	236	87	83	86	92
11	71	144	7,920	126	292	3,520	176	192	89	155	83	93
12	71	123	2,820	116	253	2,650	141	186	139	89	107	94
13	71	394	2,970	109	1,140	354	124	136	255	84	157	92
14	77	410	866	113	2,140	525	112	120	207	84	117	91
15	75	164	3,660	149	654	1,680	106	110	110	84	92	91
16	72	123	1,610	141	310	4,190	169	104	90	218	86	92
17	72	112	343	126	229	3,280	160	101	87	226	85	92
18	72	121	233	217	208	641	1,210	98	84	99	84	92
19	77	2,100	268	801	194	322	2,720	95	83	98	85	93
20	75	789	359	243	180	269	12,500	961	87	88	85	93
21	73	218	247	3,390	164	226	8,820	332	98	85	85	93
22	73	141	191	8,650	156	190	1,780	122	85	84	84	92
23	73	116	157	3,450	152	172	4,600	137	83	83	83	94
24	72	103	139	508	144	164	7,270	120	82	144	83	130
25	70	627	125	312	136	282	3,320	99	83	549	83	99
26	70	440	120	738	131	333	677	91	83	727	85	100
27	85	186	114	614	126	204	587	2,630	86	264	85	101
28	83	459	109	1,190	123	162	354	2,640	628	103	85	93
29	77	236	106	1,150	-----	153	260	269	140	90	102	95
30	176	153	855	371	-----	169	220	163	93	224	100	100
31	774	-----	2,170	281	-----	1,260	-----	129	-----	170	90	-----
TOTAL	3,193	18,281	48,229	27,405	19,359	27,581	48,243	27,007	3,645	4,945	3,042	2,892
MEAN	103	609	1,556	884	691	890	1,608	871	122	160	98.1	96.4
MAX	774	4,340	9,620	8,650	4,480	4,190	12,500	4,970	628	727	288	136
MIN	70	88	96	109	123	120	106	91	82	83	83	88
CFSM	.39	2.32	5.94	3.37	2.64	3.40	6.14	3.32	.47	.61	.37	.37
IN.	.45	2.60	6.85	3.89	2.75	3.92	6.85	3.83	.52	.70	.43	.41

CAL YR 1972 TOTAL 134,615.00 MEAN 368 MAX 9,620 MIN 0 CFSM 1.40 IN 19.11
 WTR YR 1973 TOTAL 233,822.00 MEAN 641 MAX 12,500 MIN 70 CFSM 2.45 IN 33.20

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-08	0230	21.46	5,810	04-20	2000	24.53	20,200
12-10	0515	22.96	10,800	04-24	0345	22.42	8,750
01-22	1500	22.87	10,400	05-02	2230	21.58	6,130
02-08	2345	21.49	5,890				

LOOSAHATCHIE RIVER BASIN

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07030240 Loosahatchie River near Arlington, Tenn.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	82	164	125	200	112	136	124	4,200	99	91	303
2	115	84	136	118	188	107	632	192	3,890	98	91	204
3	96	100	124	282	175	101	187	163	764	98	1,720	493
4	93	120	1,440	361	155	98	103	940	193	95	2,860	159
5	91	140	781	221	145	102	78	1,050	1,440	98	307	106
6	92	150	198	252	410	137	67	259	1,930	95	160	98
7	130	140	135	680	338	148	66	148	10,600	95	131	93
8	120	130	117	773	207	113	1,260	122	10,700	94	121	91
9	115	93	112	4,520	173	98	378	563	2,900	95	110	94
10	110	83	109	7,140	150	88	143	181	3,530	94	415	99
11	110	81	106	12,200	139	1,560	109	117	1,880	222	3,380	152
12	110	81	104	7,370	131	1,290	4,060	108	335	110	951	106
13	115	81	103	1,430	130	255	3,720	93	237	96	294	240
14	130	81	100	618	3,110	148	902	87	180	92	299	113
15	120	81	98	721	3,080	117	221	1,020	1,750	92	630	98
16	110	83	96	467	3,170	202	152	723	1,260	91	520	95
17	100	83	94	374	1,380	159	124	172	273	90	122	95
18	95	100	94	327	358	115	109	112	184	89	705	93
19	91	118	95	293	2,270	101	110	99	162	90	180	91
20	88	198	148	1,040	707	90	94	91	137	90	98	91
21	86	1,490	126	1,300	1,160	799	92	86	126	91	83	246
22	84	222	106	420	3,140	307	4,160	129	122	91	79	156
23	82	120	104	281	852	152	5,780	255	627	2,690	75	99
24	82	107	530	232	249	114	1,900	116	196	4,830	72	91
25	82	192	1,570	213	167	93	269	98	124	1,850	71	94
26	82	1,170	2,430	333	135	85	191	89	114	321	69	89
27	82	3,860	2,230	692	128	85	160	92	107	222	76	145
28	82	4,410	369	1,610	118	103	135	81	104	128	75	145
29	82	2,260	200	875	-----	102	124	78	101	110	91	800
30	82	270	162	327	-----	113	120	75	100	101	1,350	200
31	82	-----	137	242	-----	95	-----	817	-----	94	920	-----
TOTAL	3,053	16,210	12,358	45,837	22,565	7,149	25,582	8,280	48,266	12,551	16,146	4,979
MEAN	98.5	540	399	1,479	806	232	853	267	1,604	405	521	166
MAX	130	4,410	2,430	12,200	3,170	1,560	5,780	1,050	10,700	4,830	3,380	800
MIN	82	81	94	118	118	85	66	75	100	89	69	89
CFS-M	.38	2.06	1.52	5.65	3.04	.89	3.26	1.02	6.14	1.55	1.99	.63
IN.	.43	2.30	1.75	6.51	3.20	1.02	3.63	1.18	6.85	1.78	2.29	.71
CAL YR 1973	TOTAL 195,740	MEAN 536	MAX 12,500	MIN 81	CFS-M 2.05	IN 27.79						
YR 1974	TOTAL 223,016	MEAN 611	MAX 12,200	MIN 66	CFS-M 2.33	IN 31.66						

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-28	0645	21.34	5,500	04-23	0645	22.20	8,020
01-11	1800	23.70	14,300	06-07	2215	23.93	15,600
04-13	0215	21.38	5,600	07-24	1500	21.64	6,300

WOLF RIVER BASIN

07031650 Wolf River near Germantown, Tenn.

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, on left bank at bridge on Germantown Road, 2.1 miles (3.4 km) north of Germantown, 3.6 miles (5.8 km) downstream from Grays Creek, 6.4 miles (10.3 km) upstream from Fletcher Creek, and at mile 18.9 (30.4 km).

DRAINAGE AREA.--699 sq mi (1,810 sq km).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 235.76 ft (71.860 m) above mean sea level (levels by Soil Conservation Service).

AVERAGE DISCHARGE.--5 years, 969 cfs (27.44 cu m/s), 18.83 in/yr (478 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,100 cfs (456 cu m/s) Nov. 30, gage height, 21.92 ft (6.681 m); minimum, 279 cfs (7.90 cu m/s) Jul. 22.

Period of record: Maximum discharge, 18,100 cfs (513 cu m/s) Apr. 22, 1973, gage height, 23.04 ft (7.023 m); minimum, 190 cfs (5.38 cu m/s) Sept. 15, 1972.

REMARKS.--Records fair. Records of periodic water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	343	6,700	1,110	1,790	773	427	450	3,450	315	600	641
2	320	348	3,900	745	1,580	633	518	500	2,040	309	516	564
3	328	349	2,540	916	1,250	564	422	460	2,250	304	534	489
4	328	378	2,630	779	928	522	410	1,000	1,920	302	604	441
5	324	345	1,400	696	707	522	393	2,000	2,720	299	593	415
6	321	368	1,010	854	744	530	376	1,000	2,700	295	544	405
7	413	366	828	1,270	685	534	363	850	5,610	295	534	398
8	387	377	723	1,900	614	576	816	700	4,650	299	373	390
9	372	372	671	4,930	566	634	453	1,000	3,240	300	393	386
10	366	363	642	8,420	514	632	450	1,400	5,990	307	380	404
11	377	362	585	14,000	474	1,550	422	1,000	4,020	302	576	462
12	378	359	526	15,400	459	1,410	4,820	800	3,400	318	652	448
13	389	364	488	14,500	445	1,280	2,240	750	2,560	366	734	447
14	410	368	463	9,720	2,290	929	2,090	700	2,190	387	752	428
15	398	372	469	5,440	2,120	701	1,150	2,200	2,310	396	805	442
16	381	367	433	3,560	3,300	591	768	1,870	1,830	387	800	416
17	361	357	419	2,640	2,490	549	649	2,190	1,470	357	820	390
18	348	403	408	2,080	2,310	520	616	2,250	1,130	324	1,070	373
19	343	405	407	1,690	2,820	495	567	1,970	1,030	304	1,040	362
20	342	491	447	1,870	2,200	466	497	1,700	809	289	845	356
21	340	1,530	457	1,760	3,100	1,030	439	1,380	644	282	628	358
22	336	602	456	1,540	3,500	876	4,460	1,080	557	296	484	349
23	331	531	466	1,200	2,880	876	2,160	903	483	1,630	412	345
24	331	526	924	940	1,080	744	2,070	826	435	1,560	380	343
25	327	537	1,470	803	1,670	614	1,400	837	406	2,250	360	353
26	327	1,430	2,200	945	1,500	564	942	932	382	3,750	356	366
27	327	3,430	1,710	1,180	1,270	549	747	1,030	365	3,550	346	391
28	330	2,250	1,700	1,980	1,030	533	704	976	346	2,670	342	411
29	330	3,320	1,610	1,630	-----	499	637	818	332	2,000	385	623
30	331	8,100	1,480	1,730	-----	467	532	623	323	1,310	810	486
31	341	-----	1,370	1,860	-----	435	-----	1,100	-----	780	725	-----
TOTAL	10,850	29,763	39,582	108,628	44,823	21,603	32,538	35,295	59,592	26,533	18,393	12,682
MEAN	350	992	1,277	3,504	1,601	697	1,085	1,139	1,986	856	593	423
MAX	413	8,100	6,700	15,400	3,500	1,550	4,820	2,250	5,990	3,750	1,070	641
MIN	313	343	407	696	445	435	363	450	323	282	342	343
CFSM	.50	1.42	1.83	5.01	2.29	1.00	1.55	1.63	2.84	1.22	.85	.61
IN.	.58	1.58	2.11	5.78	2.39	1.15	1.73	1.88	3.17	1.41	.98	.67

CAL YR 1973 TOTAL 499,354 MEAN 1,368 MAX 16,300 MIN 296 CFSM 1.96 IN 26.58
 WTR YR 1974 TOTAL 440,282 MEAN 1,206 MAX 15,400 MIN 282 CFSM 1.73 IN 23.43

PEAK DISCHARGE (BASE, 7,000 CFS)(REVISED)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-30	1500	17.03	9,030	04-22	1445	14.88	7,200
01-12	1630	21.92	16,100	06-10	0845	15.72	8,030
04-12	1345	15.37	7,670				

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LOCATION.--Lat 35°07'37", long 90°04'25", Shelby County, 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, 70 mi (113 km) upstream from St. Francis River, and at mile 734.8 (1,182.3 km).

PERIOD OF RECORD.--Discharge: January 1933 to September 1973. Monthly discharge only for some periods, published in WSP 1311. Gage heights: October 1934 to September 1951 and October 1952 to September 1973 in reports of Geological Survey. Since November 1871, at Beale Street gage, in reports of Mississippi River Commission, December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at nonrecording gage 1,000 ft (305 m) downstream, and since December 1934 at water-stage recorder at present site, in reports of National Weather Service.

AVERAGE DISCHARGE.—40 years, 462,100 ft³/s (13,100 m³/s), 334,800,000 acre-ft/yr (413 km³/yr).

Period of record: Maximum discharge, 1,980,000 ft³/s (56,100 m³/s) Feb. 8, 1937; maximum gage height, 48.69 ft (14.841 m) Feb. 10, 1937; minimum discharge, 79,200 ft³/s (2,240 m³/s) Aug. 26, 1936; minimum gage height, -5.35 ft (-1.631 m) Jan. 24, 1956.

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.

COOPERATION.--Records furnished by Corps of Engineers.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	329	384	783	1,020	885	504	1,630	1,440	944	576	550	260
2	336	406	769	1,050	879	490	1,630	1,490	947	568	525	254
3	357	426	757	1,040	872	478	1,620	1,510	952	573	479	254
4	379	458	754	1,040	867	477	1,620	1,520	953	572	445	254
5	385	504	755	1,030	866	483	1,610	1,540	967	564	418	239
6	396	553	753	1,030	868	492	1,590	1,540	984	545	386	229
7	386	627	739	1,030	877	508	1,570	1,560	998	522	360	232
8	419	667	730	1,020	917	527	1,540	1,570	997	504	337	234
9	422	694	740	1,010	938	576	1,520	1,540	992	500	322	230
10	415	716	747	995	964	650	1,480	1,550	983	516	313	229
11	397	718	770	978	992	756	1,480	1,560	974	531	302	225
12	387	715	823	955	1,010	838	1,480	1,540	963	523	285	217
13	386	720	881	922	1,030	890	1,460	1,520	954	496	285	227
14	386	731	920	870	1,040	949	1,430	1,490	943	463	301	243
15	379	742	966	810	1,030	992	1,410	1,470	926	443	317	245
16	355	748	994	739	1,010	1,050	1,390	1,430	899	433	338	235
17	340	767	1,020	667	985	1,070	1,360	1,390	860	424	373	235
18	334	789	1,050	595	967	1,090	1,350	1,370	816	410	381	233
19	330	805	1,070	544	955	1,120	1,340	1,340	774	400	379	224
20	326	800	1,100	507	947	1,150	1,370	1,320	741	379	378	223
21	327	808	1,110	516	933	1,200	1,360	1,300	716	359	374	224
22	332	819	1,120	549	903	1,260	1,370	1,240	701	345	356	220
23	336	823	1,130	610	865	1,330	1,390	1,210	695	339	345	213
24	341	823	1,140	696	808	1,400	1,380	1,140	699	338	330	216
25	348	825	1,140	766	737	1,460	1,390	1,080	706	362	322	219
26	345	825	1,140	815	656	1,510	1,410	1,010	709	400	314	218
27	344	819	1,130	849	583	1,530	1,430	967	702	482	307	219
28	344	813	1,120	876	531	1,550	1,440	931	681	548	294	223
29	345	802	1,110	894	-----	1,580	1,440	918	644	578	285	229
30	352	791	1,090	897	-----	1,610	1,440	925	607	580	275	244
31	370	-----	1,080	891	-----	1,620	-----	940	-----	567	267	-----
TOTAL	11,228	21,118	29,431	26,211	24,915	31,140	43,930	41,351	25,427	14,840	10,943	6,947
MEAN	362	704	949	846	890	1,005	1,464	1,334	848	479	353	232
MAX	422	825	1,140	1,050	1,040	1,620	1,630	1,570	998	580	550	260
MIN	326	384	730	507	531	477	1,340	918	607	338		

CAL YR 1972	TOTAL 214,821	MEAN 587	MAX 1,150	MIN 257.0	AC-FT 426,100
WTR YR 1973	TOTAL 287,481	MEAN 788	MAX 1,630	MIN 213.0	AC-FT 570,200

NONCONNAH CREEK BASIN

07032200 Nonconnah Creek near Germantown, Tenn.

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, on left bank at downstream side of bridge on Winchester Road, 2.6 miles (4.2 km) south of Germantown, and 17.3 miles (27.8 km) upstream from mouth.

DRAINAGE AREA.--68.2 sq mi (176.6 sq km).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969; October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft (80.138 m) above mean sea level (levels by Soil Conservation Service).

AVERAGE DISCHARGE.--5 years, 104.5 cfs (2.96 cu m/s), 20.81 in/yr (529 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,170 cfs (203 cu m/s), Jan. 10, gage height, 23.28 ft (7.096 m); minimum, .04 cfs (.001 cu m/s) Oct. 2.

Period of record: Maximum discharge, 8,260 cfs (234 cu m/s) Apr. 20, 1973; gage height, 25.08 ft (7.644 m); no flow at times most years.

REMARKS.--Records poor. Records of periodic water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WRD Tenn. 1962: Drainage area. WRD Tenn. 1974: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	2.6	23	6.3	27	12	5.0	7.1	2,050	.68	3.6	11
2	.09	1.1	15	3.3	30	11	4.9	107	309	.68	3.1	3.6
3	.12	.55	11	392	22	11	4.8	15	33	.60	135	4.1
4	.09	4.7	667	129	15	9.9	4.6	157	9.5	.68	24	2.3
5	6.7	8.1	81	40	13	10	4.5	57	462	1.2	3.8	1.2
6	.15	1.5	21	281	171	11	4.1	14	269	1.2	1.7	2.3
7	350	.68	10	546	55	11	3.9	7.7	769	3.1	1.2	.76
8	248	142	6.0	501	26	11	13	5.1	1,000	3.1	.85	.60
9	17	16	4.7	1,740	20	12	6.0	25	380	1.5	.65	.68
10	5.6	4.6	4.0	4,950	15	11	4.5	12	2,660	3.3	15	.68
11	2.8	1.5	3.6	2,610	13	507	4.0	6.4	310	1.9	45	.46
12	1.7	.81	2.9	469	11	99	2,080	5.9	35	1.7	8.2	2.1
13	4.6	.46	2.5	164	11	22	487	3.9	13	1.5	6.7	17
14	12	.33	1.9	377	273	11	108	3.0	8.8	1.2	2.7	4.1
15	3.2	.73	1.7	300	427	8.5	51	1,400	274	.76	1.9	2.1
16	1.8	2.4	1.4	150	1,120	8.2	37	540	341	.60	1.2	1.1
17	1.1	2.3	1.0	110	156	6.1	30	65	29	.53	1.9	.85
18	.86	104	.92	91	76	5.6	25	23	11	.46	16	.68
19	.55	39	2.7	73	847	5.4	23	13	7.6	.46	4.6	.53
20	.40	254	26	676	120	5.1	21	9.9	6.4	.46	2.1	.60
21	.40	1,140	9.4	417	1,200	396	20	12	4.3	.46	1.4	.76
22	.39	54	5.9	134	788	57	2,500	80	3.3	2.9	1.1	.85
23	.25	18	4.8	83	104	18	500	88	2.7	596	.96	.76
24	.21	9.3	689	69	44	11	150	22	2.3	127	.76	.68
25	.45	9.4	789	72	23	8.7	100	11	1.7	10	.68	2.1
26	.50	1,170	1,230	479	18	7.5	40	8.1	.85	1,290	3.1	2.9
27	.50	2,020	335	337	15	9.4	20	6.3	.85	74	5.6	6.1
28	1.7	874	57	860	13	8.5	11	5.4	.85	11	2.5	4.1
29	1.3	122	28	269	-----	7.6	8.9	4.9	.85	6.7	14	10
30	.55	36	16	84	-----	6.6	7.7	4.5	.76	5.1	159	2.7
31	1.1	-----	11	45	-----	5.7	-----	5.0	-----	4.3	326	-----
TOTAL	664.21	6,040.06	4,062.42	16,457.6	5,653	1,323.8	6,278.9	2,724.2	8,995.76	2,153.07	794.30	87.69
MEAN	21.4	201	131	531	202	42.7	209	87.9	300	69.5	25.6	2.92
MAX	350	2,020	1,230	4,950	1,200	507	2,500	1,400	2,660	1,290	326	17
MIN	.09	.33	.92	3.3	11	5.1	3.9	3.0	.76	.46	.65	.46
CFSM	.31	2.95	1.92	7.79	2.96	.63	3.06	1.29	4.40	1.02	.38	.04
IN.	.36	3.29	2.22	8.98	3.08	.72	3.42	1.49	4.91	1.17	.43	.05

CAL YR 1973 TOTAL 54,725.42 MEAN 150 MAX 4,080 MIN 0 CFSM 2.20 IN 29.85
WTR YR 1974 TOTAL 55,235.01 MEAN 151 MAX 4,950 MIN .09 CFSM 2.21 IN 30.13

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-21	0130	14.10	2,650	02-21	1730	16.62	3,680
11-26	1815	14.91	2,960	06-01	0800	16.21	3,500
12-26	1230	14.21	2,690	06-10	0130	21.48	6,120
01-10	1445	23.28	7,170	07-26	0800	14.87	2,950

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 time of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first table is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. Other measurements, made for seepage investigations, are listed in subsequent tables.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1974

Discharge measurements made at low-flow partial-record stations during water year 1974						
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Cumberland River basin						
03418180	Blackburn Fork near Dobson Branch, Tenn.	Lat 36°20'53", long 85°34'00", Jackson County, at bridge on State Highway 135, 3.1 miles northwest of Dobson Branch, and at mile 0.24.	61.0	1974	8-21-74	17
03426880	Brawleys Fork near Readyville, Tenn.	Lat 35°48'06", long 86°09'04", Cannon County, at county road bridge, 2.2 miles southeast of Readyville, and at mile 0.2.	24.0	1966-68 1974	7-24-74 7-31-74	7.0 6.2
03426900	East Fork Stones River below Readyville, Tenn.	Lat 35°50'16", long 86°11'21", Rutherford County, at county road bridge, 1.0 mile northwest of Readyville, and at mile 34.7.	125	1966-69 1974	7-23-74 7-31-74	24 30
03426920	McKnight Branch near Halls Hill, Tenn.	Lat 35°52'01", long 86°11'57", at first bridge upstream from mouth, 2.0 miles east of Halls Hill, and at mile 0.4.	10.9	1966-68 1974	7-24-74	a.004
03426960	Cripple Creek near Sharpsville, Tenn.	Lat 35°52'27", long 86°16'05", at county road bridge, 0.7 mile east of Sharpsville and at mile 0.7.	48.2	1966-68 1974	7-23-74	3.5
03427000	Bradley Creek at Lascassas, Tenn.	Lat 35°55'39", long 86°17'25", at county road bridge at Lascassas, and at mile 2.0.	37.0	1954-61† 1962-74 ^b 1964, 1974	7-23-74	2.2
03427800	West Fork Stones River at Barfield, Tenn.	Lat 35°47'13", long 86°25'20", at county road bridge at Barfield and at mile 24.0.	56.3	1966-68 1974	6-24-74	14
03428000	West Fork Stones River near Murfreesboro, Tenn.	Lat 35°49'20", long 86°25'03", at bridge on State Highway 99, 2.2 miles southwest of the courthouse in Murfreesboro, and at mile 21.0.	128	1931-69† 1972, 1974	6-24-74	28
03428400	Overall Creek near Murfreesboro, Tenn.	Lat 35°54'22", long 86°27'41", at bridge on former U.S. Highways 41 and 70-S, 5.5 miles northwest of Murfreesboro, and at mile 1.7.	49.9	1951-52, 1966-68, 1973-74	6-24-74	33
03430120	McCrory Creek at Donelson, Tenn.	Lat 36°09'27", long 86°38'10", Davidson County, at bridge on Stewart Ferry Pike, 1.6 miles southeast of Donelson, and at mile 1.5.	8.64	1974	7-31-74	.56
03430140	Stoners Creek near Green Hill, Tenn.	Lat 36°12'00", long 86°34'56", Davidson County, at bridge on Chandler Road, upstream from Louisville & Nashville Railroad bridge, 2.4 miles east of Hermitage, 3.5 miles southwest of Green Hill, and at mile 5.2.	15.0	1974	7-31-74	.06
03431570	Whites Creek near Jordonia, Tenn.	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	7-31-74	2.6

See footnotes at end of table, page 157.

Discharge measurements made at low-flow partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Cumberland River basin--Continued						
03431578	Ewing Creek near Jordonia, Tenn.	Lat 36°13'58", long 86°47'32", Davidson County, at bridge on county road, 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	7-31-74	^a 10
03433610	Harpeth River near Pegram, Tenn.	Lat 36°05'10", long 87°01'30", Davidson County, at bridge on McCrory Lane, 2.0 miles southeast of Pegram, and at mile 49.6.	437	1974	7-31-74	47
03433660	South Harpeth River at Fernvale, Tenn.	Lat 35°57'15", long 87°04'43", Williamson County, at new county road bridge, at Fernvale, 3.0 miles southeast of Fairview and at mile 14.0.	27.6	1974	7-31-74	16
03433810	Brush Creek near Kingston Springs, Tenn.	Lat 36°04'38", long 87°04'50", Cheatham County, at new county road bridge, 2.5 miles southeast of Kingston Springs.	27.2	1974	7-31-74	12
03433910	Turnbull Creek near New Hope, Tenn.	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	7-31-74	30
03434560	Trace Creek near White Bluff, Tenn.	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	7-31-74	1.8
03434580	Harpeth River near Petway, Tenn.	Lat 36°11'33", long 87°10'04", Cheatham County, at bridge on Ashland City Road, 1.8 miles southwest of Petway and at mile 14.2.	727	1941-42, 1949-50, 1974	7-31-74	164
03434590	Jones Creek near Burns, Tenn.	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	7-31-74	2.2
03434620	Town Branch near Charlotte, Tenn.	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	7-31-74	2.2
03435007	Hurricane Creek near Salem, Tenn.	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 Organs Crossroads, and 3.6 miles north of Southside.	11.2	1964, 1974	7-31-74	3.6
03435044	Red River near Orlinda, Tenn.	Lat 36°38'36", long 86°40'46", Robertson County, at ford on county road, 3.6 miles northeast of Orlinda.	78.4	1974	7-31-74	13
03435110	South Fork Red River at Cross Plains, Tenn.	Lat 36°33'30", long 86°41'32", Robertson County, at county road bridge, 0.7 miles north of Cross Plains and at mile 24.4.	19.7	1974	7-31-74	2.5
03435120	South Fork Red River near Orlinda, Tenn.	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	7-31-74	12
03435637	Sulphur Fork Red River near Greenbrier, Tenn.	Lat 36°29'05", long 86°47'33", Robertson County, at bridge on State Highway 76, 4.0 miles north of Greenbrier.	34.9	1974	7-31-74	5.3
03436070	Brush Creek near Adams, Tenn.	Lat 36°30'49", long 87°05'34", Robertson County, at county road bridge, 4.9 miles south of Adams.	12.4	1974	7-31-74	1.7
03436130	Passenger Creek near Sango, Tenn.	Lat 36°32'07", long 87°11'50", Montgomery County, at county road bridge, 2.4 miles northeast of Sango.	20.5	1964, 1974	7-31-74	5.2

See footnotes at end of table, page 157.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1974--Continued

Discharge measurements made at low-flow partial-record stations during water year 1974						
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Cumberland River basin--Continued						
03436460	Little West Fork Red River near New Providence, Tenn.	Lat 36°35'31", long 87°23'23", Montgomery County, at bridge on Peachers Mill Road, 3.0 miles north of New Providence	179	1964, 1974	7-31-74	74
03436655	Yellow Creek near Ruskin, Tenn.	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	7-31-74	23
Tennessee River basin						
03466700	Little Chucky Creek at Warrensburg, Tenn.	Lat 36°07'28", long 83°05'37", Greene County, at bridge on blacktop county highway 0.2 mile south of Warrensburg, 1.0 mile upstream from mouth.	40.4	1966 1968-70, 1972 1974	10-11-73	4.6

‡ Operated as a continuous-record station.

a Estimated.

b Operated as a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 discharge measurements made by indirect measurements of peak flow or by current meter. 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, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are 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 1974

Annual maximum discharge at crest-stage partial-record stations during water year 9/4					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Discharge (cfs)
Mobile River basin							
02384000	Conasauga River near Tennega, Ga.	Lat 35°00'34", long 84°44'02", Polk County, Tenn., at bridge on U.S. Highway 411, at Conasauga, 1.5 miles north of Tennega, and 3 miles upstream from Mill Creek. Datum of gage is 755.78 ft above mean sea level.	108	1930-31†, 1938, 1940-43, 1944-47†, 1951-74	12-26-73	14.76	8,020
02384900	Coahulla Creek near Cleveland, Tenn.	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 above mean sea level.	4.35	1955-74	1- 3-74	6.67	620
Green River basin							
03313600	West Fork Drakes Creek tributary near Fountain Head, Tenn.	Lat 36°33'34", long 86°27'26", Sumner County, at culvert under county road, 2.3 miles north-east of Fountain Head, and 0.4 mile upstream from mouth.	.95	1967-74	11-10-66 3-12-68 6-23-69 4- 1-70 11-27-73	2.70 4.18 9.28 6.00 5.40	b23 b96 a518 b220 178
03313620	West Prong Caney Fork Creek near Oak Grove, Tenn.	Lat 36°32'36", long 86°23'29", Sumner County, at culvert under county road, 2.0 miles southwest of Oak Grove.	3.03	1967-74	4- 4-68 6-23-69 4- 1-70 4- 3-74	3.23 3.76 3.89 3.80	a280 a660 b790 700
Cumberland River basin							
03409000	White Oak Creek at Sunbright, Tenn.	Lat 36°14'38", long 84°40'14", Morgan County, at bridge on U.S. Highway 27 in Sunbright, Datum of gage is 1294.05 ft above mean sea level.	13.5	1933†, 1955-74	3-21-55 11-18-57 3-11-63 12-30-69 1- 4-71 5-27-73 1-11-74	14.29 13.61 13.36 13.76 8.55 17.24 10.42	a3,540 a3,130 a2,990 a3,220 a980 b5,560 (†)
03414700	Puncheon Camp Creek at Allred, Tenn.	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	1955-74	11-27-73	9.96	(†)
03415700	Big Eagle Creek near Livingston, Tenn.	Lat 36°26'57", long 85°16'27", Overton County, at bridge on county road, 0.8 mile north of intersection with State Highway 42, 4.7 miles northeast of Livingston.	c7.98	1955-74	11-27-73	4.85	925
03417700	Mathews Branch tributary near Livingston, Tenn.	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.	.49	1955-74	6-23-69 11-27-73	6.73 5.57	b376 275
03418900	Raccoon Creek near Old Winesap, Tenn.	Lat 35°47'12", long 85°08'40", Cumberland County, at culvert under county road, 1.2 miles south-east of Old Winesap.	1.52	1973-74	5-27-73 11-27-73	11.69 8.16	b882 206
03420360	Mud Creek tributary No. 2 near Summitville, Tenn.	Lat 35°36'10", long 86°01'33", Coffee County, at culvert under county road, 3.5 miles northwest of Summitville, and 0.7 miles upstream from mouth.	2.28	1967-74	5-27-73 12-26-73	5.60 4.10	b1,760 170

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Cumberland River basin							
03420380	Mud Creek tributary near Summitville, Tenn.	Lat 35°36'20", long 86°00'24", Coffee County, at culvert under county road, 3.3 miles northwest of Summitville.	1.03	1967-74	5-13-67 3-12-68 4- 9-69 12-29-69 5-13-71 1- 2-72 5-27-73 1- 9-74	3.75 5.80 4.50 6.00 4.85 4.25 6.95 5.20	b73 b310 b139 b370 b170 b118 a745 202
03420500	Barren Fork near Trousdale, Tenn.	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 above mean sea level.	126	1933-57† 1958-74	1-11-74	12.81	14,000
03420600	Owen Branch near Centertown, Tenn.	Lat 35°42'30", long 85°53'05", Warren County, at bridge on U.S. Highway 70-S, 2.4 miles southeast of Centertown.	4.60	1955-74	1-30-56 1- -57 11- -57 9- 1-59 5- 7-60 4-11-62 3-12-63 3-15-64 1-10-65 8-17-66 3- 7-67 3-12-68 5-19-69 6-21-70 5-13-71 3- 3-72 1-11-74	3.21 2.64 3.54 3.00 3.48 3.67 4.45 4.12 3.72 4.14 3.68 4.30 3.69 4.71 4.20 3.81 4.68	b160 b40 b320 b95 b293 b390 b875 b660 b420 b670 b400 b775 b407 b1,060 b710 b472 1,040
03421100	Sink tributary at McMinnville, Tenn.	Lat 35°41'47", long 85°46'47", Warren County, at culvert under State Highway 56 at northwest city limits of McMinnville.	.47	1955-74	11-28-73	5.04	269
03421200	Charles Creek near McMinnville, Tenn.	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	1955-74	1-11-74	(p)	(†)
03425500	Spring Creek near Lebanon, Tenn.	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 above mean sea level.	35.3	1955-61† 1962-74	11-27-73	10.25	8,250
03425700	Spencer Creek near Lebanon, Tenn.	Lat 36°14'20", long 86°24'03", Wilson County, at bridge on county road, 100 ft north of junction of county road and U.S. Highway 70, 6.5 miles west of square in Lebanon.	3.32	1955-74	7-13-61 12- 9-66 4-15-69 12-30-69 12-21-70 1- 2-72 11-27-73	5.13 5.78 4.70 4.71 4.54 4.47 7.06	b430 b595 b345 b348 b315 b305 1,140
03425800	Cedar Creek tributary at Green Hill, Tenn.	Lat 36°13'52", long 86°31'40", Wilson County at culvert under U.S. Highway 70, 0.2 mile east of Green Hill.	.86	1955-57, 1959-74	9- 9- '4	4.68	265
03426000	Drakes Creek above Hendersonville, Tenn.	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 above mean sea level.	19.2	1955-61† 1962-74	11-27-73	10.61	(†)
*03427000	Bradley Creek at Lascassas, Tenn.	Lat 35°55'39", long 86°17'25", Rutherford County, at bridge on county road, 900 ft south of Lascassas. Datum of gage is 548.24 ft above mean sea level.	37.0	1955-61† 1962-74	4- 3-74	10.27	11,700
03427830	Short Creek tributary near Christiana, Tenn.	Lat 35°40'37", long 86°21'47", Rutherford County, at culvert under county road, 3.6 miles southeast of Christiana.	.17	1966-74	4- 3-74	4.70	42

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Cumberland River basin--Continued							
03429500	Stewart Creek near Smyrna, Tenn.	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 above mean sea level.	69.7	1953-58† 1959-63, 1965-74	1-11-74	e14.3	5,640
03430400	Mill Creek at Nolensville, Tenn.	Lat 35°57'32", long 86°40'31", Williamson County, at bridge on Sunset Road, 0.6 mile northwest of Nolensville.	12.0	1965-74	3-25-65 8-30-66 5-15-67 3-11-68 12-28-68 12-21-70 8- 9-72 11-27-73	6.95 5.35 6.55 6.90 4.85 5.50 6.75 7.78	b4,040 b2,040 b3,520 b3,970 b1,500 b2,200 b3,780 5,190
03430600	Mill Creek at Hobson Pike, near Antioch, Tenn.	Lat 36°01'14", long 86°40'51", Davidson County, at bridge on Hobson Pike, 450 ft upstream from Indian Creek, and 2.8 miles south of Antioch.	43.0	1965-74	11-27-73	11.67	5,270
03431040	Sevenmile Creek at Blackman Road, at Nashville, Tenn.	Lat 36°04'21", long 86°44'00", Davidson County, at bridge on Blackman Road, 7.0 miles southeast of State capitol in Nashville.	12.2	1965-74	6-27-74	6.25	(†)
03431060	Mill Creek at Thompson Lane, near Woodbine, Tenn.	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 above mean sea level.	93.4	1965-74	1-10-74	14.83	11,700
03431080	Sims Branch at Elm Hill Pike, near Donelson, Tenn.	Lat 36°09'09", long 86°41'02", Davidson County, at bridge on McGavock Pike, 1.5 miles southwest of intersection of Donelson Pike and Lebanon Road (U.S. Highway 70) in Donelson. Datum of gage is 413.82 ft above mean sea level.	3.98	1965-74	4- 8-65 7-28-67 12- 2-67 7-28-69 6-21-70 8-18-71 9-26-72 7- 1-73 8-15-74	8.95 8.90 4.75 6.80 6.60 4.75 4.95 12.02 7.50	b1,140 b1,120 b252 b620 b580 b252 b282 b2,060 775
03431120	West Fork Browns Creek at General Bates Drive, at Nashville, Tenn.	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 above mean sea level.	3.30	1965-74	4- 8-65 5- 1-66 6-28-67 3-11-68 9- 8-69 6-21-70 8- 3-71 8- 9-72 1-10-74	5.85 3.70 4.50 5.60 6.25 5.60 6.15 3.55 5.35	b1,240 b305 b550 b1,090 b1,540 b1,090 b1,460 b270 955
03431240	East Fork Browns Creek at Baird-Ward Printing Company, at Nashville, Tenn.	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 above mean sea level.	1.58	1965-74	4- 8-65 5- 1-66 6-28-67 3-11-68 9- 8-69 6-21-70 8- 3-71 7-27-72 6-13-73 6- 7-74	3.15 2.75 3.10 3.25 3.20 3.40 3.05 3.20 5.10 3.26	b195 b141 b187 b211 b203 b235 b180 b203 b610 213
03431340	Browns Creek at Factory Street, at Nashville, Tenn.	Lat 36°08'26", long 86°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 above mean sea level.	13.2	1965-74	4- 8-65 5- 1-66 6-28-67 3-11-68 9- 8-69 6-21-70 8- 3-71 7-27-72 6- 7-74	7.40 6.10 7.40 6.50 7.40 6.80 7.00 7.70 7.14	a2,120 a1,060 a2,120 a1,330 a2,120 a1,560 a1,720 a2,420 1,860

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Cumberland River basin--Continued							
03431520	Claylick Creek at Lickton, Tenn.	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	1965-74	3-17-65 4-26-66 5-13-67 3-11-68 4-18-69 4- 1-70 2-21-71 8- 6-72 3-15-73 5-22-74	4.45 5.70 5.70 3.95 4.90 5.20 4.10 4.10 5.60 8.19	b520 b1,100 b1,100 b335 b700 b850 b380 b380 b1,050 2,700
03431550	Earthman Fork at Whites Creek, Tenn.	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	1965-74	2-11-65 8-18-66 5-15-67 3-11-68 4-18-69 12-29-69 2-22-71 8-12-72 7-22-73 5-22-74	5.40 5.10 5.95 4.95 5.10 5.50 4.95 5.00 6.50 9.12	b840 b610 b1,280 b525 b610 b920 b525 b550 b1,720 5,600
03431560	Whites Creek at Whites Creek Pike, at Whites Creek, Tenn.	Lat 36°15'03", long 86°49'43", Davidson County, at bridge on Whites Creek Pike, 0.8 mile downstream from Earthman Fork, 1 mile south of town of Whites Creek. Datum of gage is 440.31 ft above mean sea level.	28.9	1965-74	5-22-74	9.91	(†)
03431580	Ewing Creek at Knight Road, near Bordeaux, Tenn.	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 above mean sea level.	13.3	1965-74	1-10-74	9.50	3,300
03431610	Eaton Creek at Cato Road, near Bordeaux, Tenn.	Lat 36°12'45", long 86°51'57", Davidson County, at bridge on Cato Road, 0.3 mile upstream from State Highway 12, 2.3 miles NW of Bordeaux.	5.29	1965-74	5-22-74	8.76	(†)
03431650	Vaughns Gap Branch at Percy Warner Blvd., at Belle Meade, Tenn.	Lat 36°05'43", long 86°52'38", Davidson County, at bridge on Percy Warner Blvd., 0.5 mile southwest of junction of U.S. Highway 70-S and State Highway 100, and 1 mile west of Belle Meade Country Club in Belle Meade. Datum of gage is 515.65 ft above mean sea level.	2.66	1965-74	3-29-65 5- 1-66 6-28-67 3-11-68 11-28-68 6-21-70 3-15-71 7-27-72 4-19-73 6- 1-74	5.90 4.90 6.35 5.00 5.00 6.10 4.95 5.55 5.90 5.23	b670 b310 b910 b340 b340 b770 b325 b520 b670 409
03431670	Richland Creek at Fransworth Drive, at Belle Meade, Tenn.	Lat 36°07'12", long 86°51'25", Davidson County, at bridge on Fransworth Drive, 650 ft northwest of intersection of U.S. Highway 70-S and Belle Meade Blvd. in Belle Meade, and 0.5 mile upstream from Sugartree Creek. Datum of gage is 456.44 ft above mean sea level.	12.4	1965-74	4- 8-65 5- 1-66 6-28-67 3-11-68 11-28-68 6-21-70 8- 3-71 7-28-72 4-19-73 6- 1-74	7.50 5.65 7.90 7.00 7.30 7.40 6.50 6.95 7.50 7.33	b1,960 b755 b2,360 b1,560 b1,800 b1,880 b1,260 b1,530 b1,960 1,820
0342500	West Harpeth River near Leipers Fork, Tenn.	Lat 35°53'56", long 86°58'01", Williamson County, at bridge on former State Highway 96, 1.8 miles east of Leipers Fork. Datum of gage is 634.10 ft above mean sea level.	66.9	1955-61† 1962-74	1-11-74	14.38	14,200
03435600	Sulphur Fork Red River tributary near White House, Tenn.	Lat 36°26'52", long 86°42'53", Robertson County, at bridge on county road, 3.7 miles southwest of White House.	3.50	1967-74	5-14-67 4- 4-68 6-23-69 4- 1-70 1-14-71 9-27-72 5-22-74	3.97 3.61 4.36 5.08 5.34 4.07 6.90	a331 a232 b448 b672 b776 b361 1,400

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin							
03461230	Caney Creek near Cosby, Tenn.	Lat 35°47'03", long 83°12'11", Cocke County, at culvert under State Highway 32, 3.3 miles southeast of Cosby.	1.62	1967-69h 1967-74	2- 2-69 12-30-69 6- 8-71 3-16-73 3-21-74	3.53 3.38 3.60 6.05 3.70	b38 b27 b44 b240 52
03461260	Caney Creek at Cosby, Tenn.	Lat 35°48'09", long 83°14'18", Cocke County, at culvert under county road, 700 ft upstream from mouth, and 1.1 miles southeast of Cosby.	5.22	1967-69h 1967-74	3-16-73 12-31-73	14.82 11.67	b901 286
03465000	North Indian Creek near Unicoi, Tenn.	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 above mean sea level.	15.9	1945-57† 1959-74	4- 4-74	3.54	360
03467500	Nolichucky River near Morristown, Tenn.	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 above mean sea level.	1,679	1921-57† 1959-74	4- 4-74	17.66	31,400
03469110	Ramsey Creek near Pittman Center, Tenn.	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	1967-69h 1967-74	9-12-74	5.48	160
03469130	Little Pigeon River near Sevierville, Tenn.	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 above mean sea level.	110	1954-74	1974	(i)	(†)
03469160	East Fork Little Pigeon River near Sevierville, Tenn.	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 above mean sea level.	64.1	1954-74	1-21-54 2-23-55 5- 7-58 3-27-59 11-28-59 4- 7-64 3- 6-67 2- 2-69 3-21-74	11.83 9.20 10.87 11.01 a11.00 11.00 8.63 10.56 10.27	b2,880 b1,890 b2,480 b2,560 b2,550 b2,550 b1,710 b2,370 2,270
03469500	West Prong Little Pigeon River near Pigeon Forge, Tenn.]	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 above mean sea level.	76.2	1946-49† 1954-74	12-26-73	9.95	5,570
03481600	Corn Creek at Mountain City, Tenn.	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, 1963-74	4- 4-74	3.83	(†)
03482000	Roan Creek near Neva, Tenn.	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 above mean sea level.	102	1943-55† 1959-74	4- 4-74	7.41	(†)
03486225	Powder Branch near Johnson City, Tenn.	Lat 36°19'03", long 82°16'40", Carter County, at culvert under county road, 4.0 miles east of Johnson City, 4.3 southwest of Elizabethton, and at mile 0.2.	4.88	1973-74	4- 4-74	9.78	189
03491200	Big Creek tributary near Rogersville, Tenn.	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	1955-74	3-21-74	6.54	285
03498700	Nails Creek near Knoxville, Tenn.	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.	.36	1955-74	3-21-74	5.82	201

See footnotes at end of table, p. 170.

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03519600	Island Creek at Vonore, Tenn.	Lat 35°35'38", long 84°14'58", Monroe County, at bridge on State Highway 72, 0.5 mile north-west of Vonore.	11.2	1954-74	1-21-54 4- -55 1- -56 1-31-57 5- 6-58 3-27-59 8-11-60 3- 8-61 12-18-61 3-12-63 4- 7-64 3-26-65 2-13-66 7- 6-67 11- 2-67 2- 2-69 12-30-69 2- 5-71 9-30-72 3-16-73 4- 4-74	9.44 8.34 9.20 9.04 9.71 10.19 8.05 9.49 9.56 13.9 10.69 10.00 9.43 9.14 8.82 8.25 9.27 8.18 8.12 10.68 8.73	a700 a374 a610 a570 a800 a1,030 a317 a720 a740 a4,850 a1,300 a940 a700 a600 a500 a350 a640 a335 a325 a1,300 475
03519610	Baker Creek tributary near Binfield, Tenn.	Lat 35°41'56", long 84°02'46", Blount County, at culvert under county road, 1.5 miles east of Binfield.	2.10	1966-74	11-12-66 12-22-67 6-24-69 12-30-69 7-19-71 6-29-72 3-16-73 5-30-74	4.35 3.51 4.49 4.13 7.07 3.60 7.07 6.85	b168 b55 b188 b137 b685 b65 a685 580
03519620	Baker Creek at Binfield, Tenn.	Lat 35°41'57", long 84°04'01", Blount County, at culvert under county road, 0.6 mile south-east of Binfield.	7.07	1966-74	4- 4-74	5.95	(†)
03519630	Griffitts Branch near Greenback, Tenn.	Lat 35°41'53", long 84°06'16", Blount County, at culvert under county road, 2.1 miles south-west of Binfield.	1.46	1966-74	7-30-66 7- 1-67 5-26-68 6-24-69 12-30-69 7-19-71 8- 9-72 3-16-73 5-30-74	4.85 5.40 4.45 4.72 4.85 7.38 4.01 5.92 9.84	b113 b149 b90 b105 b113 b337 b68 a190 930
03519650	Little Baker Creek near Greenback, Tenn.	Lat 35°39'21", long 84°06'13", Blount County, at culvert under county road, 3.8 miles east of Greenback.	3.65	1966-74	3-16-73 5-30-74	7.55 8.65	b622 2,220
03519700	Bat Creek near Vonore, Tenn.	Lat 35°38'36", long 84°15'12", Loudon County, at bridge on State Highway 72, 4.5 miles north of Vonore.	30.7	1954-74	4- 4-74	10.84	1,760
03520100	Sweetwater Creek near Loudon, Tenn.	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 above mean sea level.	62.2	1954-74	5-30-74	10.77	2,830
03534000	Coal Creek at Lake City, Tenn.	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 above mean sea level.	24.5	1933† 1955-74	12-18-67 6-23-69 12-30-69 5-13-71 3- 2-72 11-27-73	4.73 m3.46 7.97 4.88 4.82 8.70	a2,880 a1,510 b6,120 a2,620 b2,440 6,000
03534500	Buffalo Creek at Norris, Tenn.	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 above mean sea level.	k9.92	1948-50† 1955-74	2-16-64 11-27-73	10.07 9.37	b1,460 1,230

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03535140	South Fork Beaver Creek at Harbison, Tenn.	Lat 36°06'51", long 83°51'15", Knox County, at culvert under Tazewell Pike, 0.4 mile south of Harbison. Datum of gage is 1,076.35 ft above mean sea level.	1.23	1967-74	7-29-67 12-18-67 4-12-72 12-10-72 3-21-74	4.75 3.47 5.26 5.25 4.88	b348 b152 b514 b510 384
03535180	Willow Fork near Halls Crossroads, Tenn.	Lat 36°05'59", long 83°54'27", Knox County, at culvert under Quarry Road, 1.7 miles north-east of Halls Crossroads. Datum of gage is 1,027.82 ft above mean sea level.	3.23	1967-74	3-21-74	7.55	692
03538130	Caney Creek near Kingston, Tenn.	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.	3.32	1962-74	12-18-61 3-12-63 4- 7-64 3-26-65 2-13-66 7- 6-67 12-18-67 2- 2-69 4-28-70 1-23-71 3- 3-72 11-28-73	6.27 6.56 6.01 6.55 5.93 7.23 5.94 5.73 7.28 6.51 6.44 7.74	b810 b960 b680 b960 b640 b1,530 b640 b550 b1,570 b940 b900 1,880
03538200	Poplar Creek near Oliver Springs, Tenn.	Lat 36°01'20", long 84°18'37", Anderson County, at bridge on State Highway 61, 0.9 mile down-stream from Brushy Fork, 2.5 miles southeast of Oliver Springs, 4 miles upstream from Indian Creek.	55.9	1954-74	1- 1-54 3-21-55 4-16-56 2- -57 11-17-57 1-22-59 8-10-60 3- 8-61 12-18-61 3-12-63 4- 7-64 3-26-65 2-13-66 12-22-67 2- 2-69 5-13-71 12- 7-71 12-10-72 11-28-73	12.11 14.76 13.64 12.66 15.16 15.15 13.27 14.49 15.71 16.31 13.25 14.16 12.86 13.16 10.23 13.72 13.10 18.54 20.22	b2,010 b3,600 b2,850 b2,300 b3,850 b3,850 b2,650 b3,380 b4,300 b4,750 b2,640 b3,150 b2,420 b2,540 b1,250 b2,900 b2,530 b7,000 (†)
03538275	Bear Creek near Oak Ridge, Tenn.	Lat 35°56'50", long 84°21'48", Roane County, at bridge on county road, 200 ft west of State Highway 95, and 3.9 miles southwest of inter-section of State Highway 95 and Anderson County line in Oak Ridge. Datum of gage is 753.92 ft above mean sea level.	7.15	1960-64† 1965-74	11-28-73	8.15	(†)
03538500	Emory River near Wartburg, Tenn.	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 above mean sea level.	83.2	1935-57† 1958-66, 1967-68† 1969-74	1-11-74	17.22	7,730
03538600	Obed River at Cross-ville, Tenn.	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 north-west of Crossville.	12.0	1955-74	6-23-69 1-23-71 1- 2-72 11-28-73	5.27 5.92 5.98 8.47	b413 b500 b378 885
03538900	Self Creek near Big Lick, Tenn.	Lat 35°47'54", long 85°02'33", Cumberland County, at culvert under county road, 1.3 miles southwest of Big Lick.	3.80	1968-74	3-12-68 2- 2-69 12-30-69 2- 5-71 12- 7-71 5-27-73 11-28-73	4.92 3.50 6.02 4.03 4.18 11.52 5.68	b347 b128 b523 b205 b229 b1,760 469
03538950	Lick Creek at Big Lick, Tenn.	Lat 35°48'38", long 85°01'13", Cumberland County, at bridge on U.S. Highway 127, 0.3 mile northeast of Big Lick.	8.58	1967-74	12- 6-73	10.60	(†)

See footnotes at end of table, p. 170.

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued.

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Tennessee River basin--Continued							
03539100	Byrd Creek near Crossville, Tenn.	Lat 35°53'40", long 85°03'38", Cumberland County, at culvert under county road, 4.0 miles southwest of Crossville.	1.10	1967-74	5-27-73 11-26-73	11.53 10.50	b590 175
03541100	Bitter Creek near Camp Austin, Tenn.	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	1967-74	7-29-67 12-18-67 6-24-69 12-30-69 2- 8-71 4-22-72 5-27-73 11-26-73	5.64 5.59 4.84 8.29 5.65 4.95 m8.40 8.76	b848 b814 b416 b3,240 b855 b460 a3,350 3,710
03541200	Forked Creek near Oakdale, Tenn.	Lat 36°00'12", long 84°30'45", Morgan County, at culvert under U.S. Highway 27, 2.8 miles northeast of Oakdale.	2.44	1967-74	3- 6-67 12-18-67 6-24-69 12-30-69 5-13-71 3- 2-72 11-26-73	4.68 3.99 4.18 5.93 4.52 3.94 8.61	b450 b186 b264 b861 b390 b162 903
03541500	Whites Creek near Glen Alice, Tenn.	Lat 35°47'49", long 84°45'37", Roane County, 2,200 ft above Southern Railway bridge, 1.2 miles southwest of Glen Alice. Datum of gage is 758.62 ft above mean sea level.	108	1935-55† 1956-74	11-27-73	21.3	29,000
03542500	Piney River at Spring City, Tenn.	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 above mean sea level.	95.9	1928-30† 1955-74	11-27-73	16.30	(†)
03544500	Richland Creek near Dayton, Tenn.	Lat 35°30'17", long 85°01'20", Rhea County, 0.4 mile above bridge on State Highway 30, 1.0 mile northwest of Dayton. Datum of gage is 728.59 ft above mean sea level.	50.2	1928-31† 1935-55† 1956-74	12-26-73	10.12	10,800
03561900	Belcher Creek near Ducktown, Tenn.	Lat 35°04'27", long 84°23'09", Polk County, at culvert under State Highway 68, 2.8 miles north of Ducktown. Datum of gage is 1,647.00 ft above mean sea level.	1.37	1967-74	12-22-67 2- 2-69 6-28-71 5-27-73 8- 1-74	1.76 1.89 1.72 2.86 3.71	b46 b53 b44 b135 250
03566200	Brymer Creek near McDonald, Tenn.	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	1955-74	12- -54 2- -56 9- -57 11-17-57 1-21-59 3- 3-60 2-22-61 12-18-61 3-12-63 5- 2-64 3-26-65 2-14-66 7- 7-67 12-18-67 2- 2-69 4- 2-70 2- 5-71 5-13-72 12-26-73	6.02 5.10 6.34 5.60 5.42 5.21 5.40 6.50 6.03 6.14 5.88 4.97 6.01 5.53 5.54 6.04 5.78 5.83 5.89	b945 a565 b1,120 a760 a680 a605 a680 b1,220 b955 b1,020 b875 a525 b940 a725 a730 b960 b830 b860 875
03567200	West Chickamauga Creek near Kensington, Ga.	Lat 34°48'10", long 85°20'52", Walker County, Ga., at bridge on State Highway 143, 2.5 miles northeast of Kensington.	73.0	1950-74	11-28-73	13.18	2,970

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03570800	Little Brush Creek near Dunlap, Tenn.	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	1959-74	11- -57 1-21-59 9-18-60 3- 8-61 12-17-61 3-12-63 4-28-64 3-26-65 5- 1-66 3- 6-67 12-18-67 2- 2-69 12-30-69 2- 5-71 12- 7-71 3-16-73 12-26-73	8.6 6.23 7.39 6.57 6.22 9.62 6.38 6.76 5.50 6.59 8.64 6.35 8.36 7.01 5.82 10.3 9.6	a2,560 a1,490 a2,000 a1,620 a1,490 a3,070 a1,550 a1,720 a1,200 a1,650 a2,580 a1,530 a2,450 a1,830 a1,320 a3,420 3,060
03571600	Brown Spring Branch near Sequatchie, Tenn.	Lat 35°08'55", long 85°33'28", Marion County, at culvert under State Highway 27, 2.1 miles northeast of bridge over Little Sequatchie River, 3.1 miles northeast of Sequatchie.	0.67	1955-74	12-26-63	6.72	164
03571800	Battle Creek near Monteagle, Tenn.	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 above mean sea level.	50.4	1955-74	3-22-55 2- 3-56 2- 1-57 11-18-57 1-22-59 12-18-59 2-22-61 12-17-61 3-15-64 3-26-65 2-14-66 1967 12-18-67 5-19-69 12-30-69 1971 12- 7-71 3-16-73 12-26-73	7.15 8.29 7.74 9.09 7.33 7.59 7.36 7.65 7.58 7.91 7.89 <7.02 9.31 7.26 9.73 <7.02 8.54 10.64 10.17	a2,780 a3,830 a3,280 a4,750 a2,910 a3,150 a2,950 a3,200 a3,130 a3,450 a3,440 a<2,700 a5,030 a2,880 a5,550 a<2,700 a4,100 a7,000 6,250
03574700	Big Huckleberry Creek near Belvidere, Tenn.	Lat 35°04'00", long 86°21'29", Lincoln County, at culvert under U.S. Highway 64, 1.3 miles southeast of intersection of U.S. Highway 64 and State Highway 121, 11 miles southwest of Belvidere.	2.18	1955-74	3-21-74	5.30	535
03578500	Bradley Creek near Prairie Plains, Tenn.	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 above mean sea level.	41.3	1952-59† 1960-74	1-11-74	12.50	3,990
03579800	Miller Creek near Cowan, Tenn.	Lat 35°10'17", long 85°59'00", Franklin County, at bridge on U.S. Highway 64, 1.8 miles east of Cowan.	4.30	1955-74	12-26-73	7.30	(†)
03579900	Boiling Fork Creek at Cowan, Tenn.	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.	17.0	1955-74	3-17-73 12-26-73	10.84 8.59	b4,370 2,400
03581500	West Fork Mulberry Creek at Mulberry, Tenn.	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 above mean sea level.	41.2	1954-62† 1963-66, 1967-68† 1969-74	1-11-74	12.51	6,260

See footnotes at end of table, p. 170.

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03582200	Norris Creek tributary near Belleville, Tenn.	Lat 35°13'55", long 86°33'50", Lincoln County, at culvert under U.S. Highway 231, 0.4 mile north of first crossing of Norris Creek from Fayetteville, 3.1 miles south of Belleville.	.034	1955-74	5-15-74	5.17	40
0358230	Norris Creek near Fayetteville, Tenn.	Lat 35°09'53", long 86°32'43", Lincoln County, at bridge on old State Highway 50, 2.0 miles northeast of Fayetteville. Datum of gage is 666.27 ft above mean sea level.	42.6	1954-74	1-11-74	9.80	5,350
03583200	Chicken Creek at McBurn, Tenn.	Lat 35°11'03", long 86°48'47", Lincoln County, at bridge on county highway R7374 in McBurn.	7.66	1955-74	12-26-73	6.42	3,290
03583300	Richland Creek near Cornersville, Tenn.	Lat 35°19'10", long 86°52'20", Marshall County, at bridge on U.S. Highway 31-A, 3.4 miles miles southwest of Cornersville. Datum of gage is 754.28 ft above mean sea level.	47.5	1962-68† 1969-74	12-30-69 11-27-73	14.08 15.61	a7,440 9,880
03587200	Bluewater Creek tributary near Leoma, Tenn.	Lat 35°08'29", long 87°22'05", Lawrence County, at culvert under U.S. Highway 43, 1.8 miles southeast of Leoma.	.49	1955-74	3-21-55 1-29-56 12-13-56 11- -57 3-27-59 12-18-59 3- 8-61 12-17-61 3-12-63 3-15-64 1-10-65 5- 1-60 5-13-67 12-18-67 4-10-69 4- 2-70 2-21-71 1- 2-72 11-27-73	4.87 2.45 2.68 2.52 2.42 2.62 3.61 1.66 2.72 3.38 3.00 2.61 3.24 3.16 3.33 2.69 3.79 2.15 6.23	b369 b135 b155 b140 b132 b148 b235 b70 b105 b145 b120 b97 b137 b131 b144 b103 b170 b55 364
03587500	Shoal Creek above Little Shoal Creek at Lawrenceburg, Tenn.	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† 1955-74	3-21-55 1-29-56 2- 1-57 11-17-57 9-10-59 12-28-59 3- 8-61 12-17-61 3-12-63 3-15-64 3-26-65 8-19-66 5-13-67 5-16-68 4-10-69 4-19-70 2-21-71 7-28-72 3-15-73 11-27-73	17.27 9.98 8.42 9.20 5.89 7.42 16.86 8.16 9.19 6.77 8.49 10.45 10.26 9.27 7.60 9.64 8.07 5.25 17.5 n14.5	a10,600 a3,580 a2,530 a3,030 a1,250 a1,980 a10,200 a2,380 a3,020 a1,640 a2,580 a3,900 a3,770 a3,090 a2,070 a3,320 a2,350 b995 b10,900 7,600
03594200	Eagle Creek near Clifton Junction, Tenn.	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	1955-74	11-27-73	6.10	2,620
03594300	Cypress Creek tributary near Pope, Tenn.	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.	.75	1955-74	6- 1-74	4.00	(†)
03597000	Garrison Fork at Fairfield, Tenn.	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 above mean sea level.	66.3	1954-58† 1959-66, 1967-68† 1970-74	1-10-74	16.64	8,300
03597300	Wartrace Creek above Bell Buckle, Tenn.	Lat 35°37'45", long 86°21'22", Bedford County, at culvert under county road, 2.7 miles north of Bell Buckle.	4.99	1966-74	11-27-73	9.60	1,860

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03597450	Kelly Creek tributary near Bell Buckle, Tenn.	Lat 35°36'34", long 86°19'11", Bedford County, at bridge on county road, 3.0 miles northeast of Bell Buckle.	0.73	1966-74	11-26-73	3.69	484
03597550	Muse Branch near Bell Buckle, Tenn.	Lat 35°34'03", long 86°19'28", Bedford County, at bridge on county road, 2.3 miles southeast of Bell Buckle.	1.86	1966-74	11-26-73	5.12	820
03598200	Weakly Creek near Rover, Tenn.	Lat 35°38'05", long 86°33'03", Bedford County, at culvert under county road, 3.7 miles south-east of intersection of county road with U.S. Highway 41-A at Rover.	9.46	1955-74	8-29-63 5- 2-64 3-26-65 8-14-66 12- 9-66 3-12-68 5-24-69 4- 6-70 2-21-71 1- 2-72 11-27-73	5.43 4.95 4.73 4.97 4.93 4.80 4.12 5.02 3.91 4.73 5.04	b2,000 b1,040 b750 b1,050 b1,010 b820 b330 b1,100 b260 b750 1,150
03599200	East Rock Creek at Farmington, Tenn.	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	1954-74	1- -54 3-21-55 1-30-56 12-14-56 11- -57 3-26-59 12-18-59 3- 8-61 4-11-62 8-29-63 5- 2-64 11-25-64 2-13-66 12- 9-66 3-11-68 4-10-69 12-30-69 2-21-71 12- 6-71 11-27-73	10.84 11.68 10.69 13.43 10.82 9.93 10.22 14.11 10.98 13.00 11.43 9.17 6.47 15.5 11.68 9.91 13.40 8.64 9.21 13.02	a4,150 a5,320 a3,950 a8,580 a4,120 a3,130 a3,440 b10,000 a4,330 b7,700 b4,950 b2,390 a850 b13,700 b5,320 b3,100 b8,500 b1,950 b2,430 7,740
03599400	Little Flat Creek tributary near Rally Hill, Tenn.	Lat 35°41'15", long 86°49'46", Maury County, at culvert under U.S. Highway 431 and State Highway 106, 1.5 miles north of crossing of Flat Creek in Rally Hill.	0.63	1955-74	4- 3-74	7.34	530
03600000	Rutherford Creek near Carters Creek, Tenn.	Lat 35°40'23", long 86°58'42", Maury County, at bridge on county road, 2.5 miles south of Neapolis, 3.2 miles south of town of Carters Creek.	68.8	1954-58† 1959-74	1-11-74	16.61	(†)
03602100	Moss Spring Hollow at Centerville, Tenn.	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	1954-74	4-27-74	3.94	(†)
03603800	Chalk Creek near Waynesboro, Tenn.	Lat 35°14'51", long 87°46'03", Wayne County, at bridge on State Highway 13, 5.0 miles south of Waynesboro.	4.88	1955-57 1960-74	1-12-74	6.61	(†)
03604070	Coon Creek tributary near Hohenwald, Tenn.	Lat 35°34'07", long 87°40'02", Perry County, at culvert under State Highway 20, 7 miles north-west of Hohenwald.	.51	1967-74	5-13-67 5-16-68 4-10-69 12-30-69 7-15-71 7-16-72 12-10-72 11-27-73	2.85 2.55 3.00 3.25 2.75 3.70 4.90 5.20	b27 b14 b35 b50 b22 b77 a156 180
03604080	Hugh Hollow Branch near Hohenwald, Tenn.	Lat 35°34'59", long 87°40'36", Perry County, at culvert under State Highway 20, 8 miles northwest of Hohenwald.	1.52	1967-74	12-10-72 11-27-73	m4.09 4.15	b790 850

See footnotes at end of table, p. 170.

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Tennessee River basin--Continued							
03604090	Coon Creek above Chop Hollow near Hohenwald, Tenn.	Lat 35°35'19", long 87°41'09", Perry County, at bridge on State Highway 20, 9 miles north-west of Hohenwald.	6.02	1967-74	3- 6-67 5-16-68 4-10-69 4- 2-70 2-22-71 7-16-72 12- 9-72 11-27-73	5.15 4.26 4.67 3.35 3.41 4.50 6.80 6.13	b1,110 b550 b772 a195 a213 b670 b3,150 2,160
03604200	Cane Creek at Farmers Exchange, Tenn.	Lat 35°38'53", long 87°39'39", Hickman County, at county road bridge 0.5 mile north of Farmers Exchange.	45.1	1955-74	6- 1-74	7.06	(†)
03605700	Deer Creek tributary near Waverly, Tenn.	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	1955-74	1-12-74	3.40	(†)
Obion River basin							
07025220	Cane Creek near Martin, Tenn.	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 above mean sea level.	6.79	1955-74	11-27-73	11.86	(†)
07025225	Cane Creek tributary near Martin, Tenn.	Lat 36°18'42", long 88°50'50", Weakley County, at culvert under U.S. Highway 45-E, 2.3 miles south of Martin. Datum of gage is 379.23 ft above mean sea level.	.76	1955-74	11-27-73	3.89	(†)
07028600	Cain Creek tributary near Trenton, Tenn.	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.	.95	1955-57, 1959-74	11-27-73	8.02	648
07028700	Cain Creek near Trenton, Tenn.	Lat 35°57'56", long 88°57'14", Gibson County, at bridge on U.S. Highway 54, 1.6 miles south-west of Trenton.	14.4	1954-74	11-27-73	11.42	2,210
07028900	Middle Fork Forked Deer River near Spring Creek, Tenn.	Lat 35°48'37", long 88°37'03", Carroll County, at bridge on U.S. Highway 70, 0.7 mile below Griffin Creek, 4.6 miles northeast of Spring Creek, and at mile 44.9.	88.2	1954-57, 1959-61h 1963-64h 1959-74	1- -54 3-18-55 1-29-56 1-29-57 2-13-59 3- 8-60 6- 8-61 3- 5-63 3-23-64 3-25-65 12- 3-67 1- 10-74	9.10 9.81 12.22 10.2 8.16 6.65 8.39 8.30 10.75 10.99 8.62 10.38	b2,320 b3,620 b15,000 b4,900 a1,380 a780 a1,540 a1,460 b6,850 b7,700 a1,760 5,480
07028930	Turkey Creek at Medina, Tenn.	Lat 35°48'26", long 88°48'07", Gibson County, at bridge on State Highway 152, 1.6 miles west of junction of said highway and U.S. Highway 45-E at Medina.	4.75	1967-74	3-21-68 11-28-68 9- 5-70 2-21-71 7-16-72 4-19-73 6-15-74	9.19 7.35 14.66 8.47 14.56 14.78 11.25	b1,200 b810 b2,650 a1,030 b2,620 b2,680 1,710
07028935	Turkey Creek trib-utary near Medina, Tenn.	Lat 35°47'34", long 88°47'26", Madison County, at culvert under U.S. Highway 45-E, 1.0 mile southwest of junction of said highway and State Highway 152 at Medina.	1.08	1967-74	5-16-68 6-14-69 m6-18-70 2-21-71 7-16-72 4-19-73 8-13-74	13.40 13.30 14.00 14.37 16.66 17.03 15.83	b160 b137 b310 b402 b899 b965 746

See footnotes at end of table, p. 170.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1974--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Obion River basin--Continued							
07028940	Turkey Creek near Medina, Tenn.	Lat°35 47'39", long 88°48'37", Gibson County, at county road (Lewis Road) bridge, 1.7 miles southwest of Medina.	7.87	1967-74	3-11-68 11-28-68 9- 5-70 9- 3-71 7-16-72 4-19-73 6-15-74	11.22 9.25 13.88 11.09 15.98 16.13 13.91	b2,200 b1,620 b3,010 b2,180 b3,740 b3,800 3,020
07029050	Nash Creek near Tigrett, Tenn.	Lat 35°57'38", long 89°17'07", Dyer County, at bridge on former State Highway 20, 2.3 miles west of Tigrett.	7.23	1955-74	3-18-55 1-29-56 4- 4-57 11-17-57 12- 2-58 3- 8-60 11-10-60 2-26-62 3-11-63 3- 9-64 3-25-65 2-10-66 5-13-67 4- 9-69 9- 5-70 2-21-71 7-16-72 4-21-73 11-27-73	8.56 9.60 9.57 9.72 8.90 7.11 8.87 9.60 8.74 9.38 9.16 8.68 9.47 9.28 11.23 10.09 10.78 9.90 (p)	b665 b1,100 b1,080 b1,160 b790 b360 b775 b1,100 b725 b995 b895 b705 b1,040 b950 b2,030 b1,350 b1,750 b1,250 (†)
07029090	Lewis Creek near Dyersburg, Tenn.	Lat 36°03'14", long 89°21'42", Dyer County, at bridge on U.S. Highway 51, 2.1 miles north-east of square in Dyersburg. Datum of gage is 276.52 ft above mean sea level.	25.5	1955-74	9-30-55 2-17-56 5- -57 11-17-57 2-13-59 6-27-60 3- 5-61 12- 9-61 3-11-63 3- 9-64 3-25-65 2-10-66 5-13-67 1-30-69 12-29-69 2-21-71 7-16-72 12- 9-72 4-21-74	14.73 16.58 19.05 17.26 17.38 16.48 17.75 18.95 18.48 19.31 18.18 17.90 19.24 18.23 16.78 17.71 18.30 17.59 17.54	b1,120 b1,770 b4,700 b2,100 b2,180 b1,740 b2,440 b4,450 b3,420 b5,450 b2,900 b2,560 b5,240 b3,000 b1,870 b2,400 b3,100 b2,310 2,290
Loosahatchie River basin							
07030270	Clear Creek near Arlington, Tenn.q	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 above mean sea level.	60.5	1954-56, 1959-74	1-10-74	15.64	4,100

* Also a low-flow partial-record station.

† Discharge not determined.

‡ Operated as a continuous-record gaging station.

a Revised.

b Not previously published.

c Includes 3.21 sq mi without surface drainage.

d Published as station no. 3-4213, Bybee Branch at McMinnville prior to 1961.

e Furnished by Corps of Engineers, Nashville District.

f Result of dam failure upstream.

g Published as Dunham Springs Road prior to 1966.

h Operated as a low-flow partial-record station.

i Peak stage did not reach bottom of gage.

j Published as West Fork Little Pigeon River prior to 1966.

k Includes 2.10 sq mi without surface drainage.

m Corrected.

n From flood marks.

p Not determined.

q Published as Cypress Creek prior to 1968.

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are 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 1974

Stream and Site Number	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Cumberland River basin						
Brimstone Creek 03408200	New River	Lat 36°20'43", long 84°32'22", Scott County, at Walker Bridge on rural road S-2342-1, 3.0 miles east of Robbins and at mile 3.1.	48.7	1955-71, ^a 1971	5-27-73 ^b	†6,540
Clear Fork 03409500	South Fork Cumberland River	Lat 36°23'18", long 84°37'49", Scott County 300 ft downstream from Burnt Mill Bridge, 3.3 miles northwest of Robbins, Tenn., and at mile 3.7.	272	1931-71†	5-27-73 ^b	35,700 ^c
Roaring River 03418188	Cumberland River	Lat 36°21'08", long 85°35'01", Jackson County, 1.1 miles upstream from Morrison Creek, 4.2 miles east of Gainesboro, and at mile 6.5.	276	-	8-16-73 ^b 9-26-73 ^b 10- 4-73 11-27-73 11-29-73	*165 *66 *63 21,300 1,640
Rocky River 03420110	Caney Fork	Lat 35°39'50", long 85°34'52", Van Buren County, at county bridge, 0.7 mile northwest of White Hill.	53.3	-	7-31-74	*0
Mud Creek 03420400	Liberty Creek to South Prong Barren Fork to Barren Fork to Collins River	Lat 35°37'23", long 86°00'00", Coffee County, at bridge on county road, 4.2 miles north of Summitville, and at mile 2.2.	7.30	1967-73 ^a	5-27-73 ^b	6,300
Smith Fork 03424600	Caney Fork	Lat 35°59'04", long 86°04'27", Wilson County, at bridge on county road 6161, 0.3 mile upstream from Saunders Fork and 2.7 miles north of Auburntown.	31.1	1968-69 ^d	4- 3-74	†22,100
Carson Fork 03426860	East Fork Stones River	Lat 35°48'14", long 86°09'02", Cannon County, 2.2 miles southeast of Readyville, and at mile 0.6.	28.5	1966	7-31-74	*0
Jones Creek 03434640	Harpeth River	Lat 36°13'50", long 87°10'39", Cheatham County, 1.8 miles northwest of Petway, and at mile 0.2.	107	1951	7-31-74	*38
Pole Bridge Branch 03435630	Long Branch	Lat 36°24'50", long 86°46'02", Robertson County, 1.2 miles north of Ridgetop, and 2.2 miles southeast of Greenbrier.	1.34	-	6-11-74	3.7
Antioch Creek 03436524	Budds Creek to Cumberland River	Lat 36°26'56", long 87°25'40", Montgomery County, 100 feet upstream from Powells Spring outflow, 1.1 miles northeast of Hackberry.	9.49	-	4-11-74	*13
do 03436526	do	Lat 36°26'57", long 87°25'43", Montgomery County, 75 feet downstream from Powells Spring outflow, 1.1 miles northeast of Hackberry.	9.64	-	4-11-74	*20
Balthrop Branch 03436660	Yellow Creek	Lat 35°12'30", long 87°32'02", Dickson County, 3.4 miles north of Ruskin, and at mile 0.3.	3.10	-	7-31-74	*0
Tennessee River basin						
Nolichucky River 03464650	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, Tenn., and at mile 95.9.	639	1966, 1972	10-12-73	*563
South Indian Creek 03464815	Nolichucky River	Lat 36°07'38", long 82°26'45", Unicoi County, 200 ft above mouth, 2.0 miles southwest of Erwin, Tenn.	81.0	1972	10-12-73	*23
Martin Creek 03464915	do	Lat 36°08'01", long 82°25'55", Unicoi County, 300 ft above mouth, 1.2 southwest of Erwin, Tenn.	6.32	1972	10-12-73	*4.9
Nolichucky River 03466500	French Broad River	Lat 36°03'59", long 82°52'18", Greene County, 0.3 mile downstream from State Highway 70 and Nolichucky Dam, 7.0 miles south of Greeneville, Tenn., and at mile 45.7.	1,184	1903- 9‡ 1919-26‡ 1946-73‡	4-15-74 5-8-74	4,490 2,550

See footnotes at end of table, page 173.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream and Site Number	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Measurements Discharge (cfs)
Tennessee River basin--Continued						
Nolichucky River 03467900	French Broad River	Lat 36°07'47", long 83°13'12", Hamblen County, at county road bridge (Hale Bridge), 2 miles southwest of Lowland, Tenn., and at mile 5.3.	1,711	1966, 1973	10-11-73 11- 7-73 3- 6-74 4-17-74 5-15-74 7-10-74	1,190 1,520 3,620 4,560 5,850 2,930
Webb Creek 03469112	Little Pigeon River	Lat 35°45'39", long 83°21'20", Sevier County, just downstream from Darky Branch, 3.0 miles above mouth, 3 miles east of Pittman Center, Tenn.	11.2	1972	10-12-73	*5.6
Watauga River 03486650	South Fork Holston River	Lat 36°23'02", long 82°19'11", Washington County, at county road bridge (Gibson Bridge) at lower end of Saylor Island, 4.7 miles northeast of Johnson City, Tenn., and at mile 15.6.	797	1973	10-11-73 11- 8-73 2-13-74 3- 7-74 4-18-74 5-16-74	327 452 2,250 3,560 2,340 924
Clark Branch tributary 03487558	Clark Branch to Reedy Creek	Lat 36°34'21", long 82°29'44", Sullivan County, at Cherokee Rod & Gun Club, 800 ft above dam, 1.3 miles north of U.S. Highway 11-E, 3.8 miles northeast of Kingsport, Tenn.	.45	1972	10-11-73	*.16
South Fork Holston River 03487640	Holston River	Lat 36°32'59", long 82°35'29", Sullivan County, at county road bridge, (Ridgefields Bridge), just below sluice channel at Kingsport, Tenn., and at mile 1.2.	2,047	1973	10-11-73 11- 8-73	3,800 3,720
Holston River 03490350	Tennessee River	Lat 36°31'02", long 82°43'22", Hawkins County, at county road bridge at Church Hill, Tenn., 0.4 mile downstream from Alexander Creek, and at mile 131.5.	2,819		2-13-74 3- 7-74 4-18-74 5-16-74	9,340 2,800 6,040 6,310
Holston River 03490900	do	Lat 36°25'05", long 86°56'02", Hawkins County, at county road bridge (Jenkins Bridge), 0.8 mile upstream from Big Creek, 3.4 miles east of Rogersville, Tenn., and at mile 109.9.	2,899	1973	10-11-73 11- 8-73 2-13-74 3- 7-74 4-18-74 5-16-74 7-11-74 8- 8-74	2,420 3,200 7,480 5,850 8,400 8,110 8,330 3,940
Clift Creek 03494955	Holston River	Lat 36°08'48", long 83°42'44", Knox County, 20 ft downstream from U.S. Highway 11-E, 1.5 miles north of Trentville, Tenn.		1972	10-11-73	*1.2
Lyon Creek 03494965	do	Lat 36°02'52", long 83°43'25", Knox County, 800 ft upstream from mouth, near Johnson cemetery, 1.4 miles north of Trentville, Tenn.	6.84	1972	10-11-73	*2.2
Gallagher Creek 03499410	Tennessee River	Lat 35°45'33", long 84°08'08", Blount County, at Louisville & Nashville Railroad bridge at Friendsville, Tenn.	10.6	-	5-30-74	†4,040
Beaver Creek 03535187	Clinch River	Lat 36°03'31", long 83°58'25", Knox County, at bridge on Dry Gap Road, 500 ft upstream from unnamed tributary, 2.5 miles northeast of Dante, Tenn.	36.4	1972	10-11-73	*8.2
Emory River 03538297	Clinch River	Lat 36°07'36", long 84°36'43", Morgan County, 1,700 ft upstream from U.S. Highway 27, 2,000 ft upstream from Rock Creek, 1.9 miles north of Wartburg, Tenn., and at mile 35.6.	49.2	-	5-28-73 ^a	†15,500
Crumpton Creek 03596090	Duck River	Lat 35°25'18", long 86°08'09", Coffee County, 300 ft upstream from Wiley Creek, 0.1 mile north of town of Rutledge Falls, and at mile 3.1.	22.8	-	9-20-74 9-26-74	*4.5 *3.5
do 03596100	do	Lat 35°25'19", long 86°08'12", Coffee County, 50 ft upstream from Rutledge Falls, 100 ft downstream from county bridge, 150 ft downstream from Wiley Creek, at town of Rutledge Falls, and at mile 3.0.	28.1	1953-54, 1957, 1964	9-20-74 9-26-74	*8.3 *7.5

See footnotes at end of table, page 173.

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Discharge measurements made at miscellaneous sites during water year 1974--Continued						
Stream and Site Number	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Measurements Discharge (cfs)
Tennessee River basin--Continued						
Crumpton Creek 03596130	Duck River	Lat 35°26'11", long 86°09'57", Coffee County, at bridge on Mountain View Road, 400 ft upstream from mouth, and 4.0 miles north of Tullahoma.	30.6	1972	9-20-74 9-26-74	*19 *20
Duck River 03596400	Tennessee River	Lat 35°28'04", long 86°13'04", Coffee County, at Hiles Bridge at Riley Creek, just upstream from Fuller Branch and at mile 251.2.	179	1971-72	10-19-73	*72
do 03596470	do	Lat 35°27'39", long 86°14'43", Bedford-Coffee Counties, at Huffman Bridge, 0.3 miles downstream from Normandy Dam site, just east of Normandy and at mile 248.3.	196	1971-72	10-19-73	*73
Obion River basin						
Bond Creek 07027495	South Fork Forked Deer River	Lat 35°34'29", long 88°48'46", Madison County, at bridge on Herron Grove Road, 200 ft east of U.S. Highway 45 and 0.5 mile east of Bemis.	4.85	1968	10-20-71 ^b 11-14-73	*.15 *.33
South Fork Forked Deer River 07027500	Forked Deer River	Lat 35°35'38", long 88°48'52", Madison County, on right bank, 20 ft downstream from bridge on U.S. Highway 45, 0.6 mile downstream from Meridian Creek, and 1.4 miles south of the post office in Jackson.	495	1929-73†	11-14-73	*233
Turkey Creek 07028950	Middle Fork Forked Deer	Lat 35°46'07", long 88°49'59", Madison County, at bridge on U.S. Highway 45-E, 0.6 mile northeast of Fairview.	13.3	1967-73 ^a	7-16-72 ^b	†6,350

† Operated as a continuous-record station.

a Operated as a crest-stage partial-record station.

b Not previously published.

c Gage height, 18.92 ft, from floodmark; from rating curve extended above 14,000 cfs on basis of slope-area measurement of 34,000 cfs.

d Operated as a low-flow, partial-record station.

In 1931, a minor drought year, a study was made of large springs in east Tennessee and the results published in WSP 713. From 1950 to 1954, a more detailed study, including some of those springs, was carried on in cooperation with the Ground Water Branch in connection with an investigation of the ground-water resources of the region. This study was made on a roving basis, the discharge of one group of springs being measured monthly for one year and then measurements made on another group for a year. During a round of measurements in June 1954, measurements were made at many springs where regular monthly measurements had previously been discontinued. The results of measurements made were published annually in WSP 1173, 1206, 1236, 1276, and 1336. As some of the springs were measured during the drought year 1931, comparisons might be made to determine probable minimum flow of springs which were not measured in 1931. Many of these springs are used for municipal or industrial water supplies. Others do not have well sustained flow during the dry season. Daily mean discharges for Mossy Spring near Jefferson City for water years 1951-59 and Mill Spring near Jefferson City for water years 1952-59 are published in annual WSP's. Daily mean discharges for Jack Daniel Spring at Lynchburg since 1970 have been published in the annual State report. Daily mean discharges or results of the discharge measurements show the characteristics of the springs and give good indication of the variation of the flow.

During the water years 1955-71, and 1974 measurements were made at several springs, some of which were measured during the 1950-54 study. The results of discharge measurements during the 1974 water year, showing the yield, water temperature, and in some instances, specific conductance, hardness, and pH, are given in the following table.

Discharge measurements of springs in Tennessee during water year 1974

Spring - Station No.	Location	Tributary to--	Date	Dis- charge (gpm)	Temp. (°C) Water	Specific conduct- ance (micro- mhos at 25°C)	pH	Hard- ness ppm	Pumpage during measure- ment (gpm)
Bradley County									
Hardwick Clothes 03566098	Lat 35°09'08", long 84°52'30", in spring pond at northwest corner of King Edward Avenue and 9th Street in Cleveland.	Unnamed stream to South Mouse Creek to Hiwassee River.	6-12-74	250	18.5	300	-	-	0
			6-12-74	250	-	-	-	0	
Cannon County									
Hopewell 03426868	Lat 35°42'53", long 86°10'32", 120 ft downstream from county road bridge over Brawleys Fork and 1.8 miles southwest of Bradyville.	Brawleys Fork to Carson Fork to East Fork Stones River.	7-23-74	1,460	14.3	-	-	-	-
Hamilton County									
Anderson 03566440	Lat 35°14'16", long 85°00'41", 500 ft east of State Highway 58, 4.5 miles northeast of Snow Hill and 5.0 miles south- west of Georgetown.	Long Savannah Creek to Wolftever Creek to Tennessee River.	6-11-74	1,910	14.5	200	-	-	-
			6-13-74	1,800	15	200	-	-	-
			6-15-74	1,480	14.5	200	-	-	-
			6-15-74	1,640	14.5	200	-	-	-
Jackson County									
The Boils 03418184	Lat 36°21'00", long 85°33'48", 5.5 miles east of Gainesboro.	Roaring River	8-21-74	23,000	-	240	-	-	-
Montgomery County									
Hampton 03436278	Lat 36°36'46", long 87°13'22", 300 ft southeast of county roads junction and Louisville and Nashville railroad track, 400 ft southwest of Spring Creek tributary at Hampton Station.	Hampton Branch to Spring Creek to West Fork Red River.	4-12-74	1,570	12.5	175	-	-	-
			8-22-74	78	14.0	260	-	-	-
Powells 03436525	Lat 36°26'58", long 87°25'40" 0.2 mile west of State Highway 149, 1.1 miles northeast of Hackberry, and 3.1 mile north- east of Palmyra.	Antioch Creek to Budds Creek to Cumberland River.	4-11-74	2,920	15.5	300	-	-	-
			8-22-74	1,290	17.0	375	-	-	-
Rutherford County									
Asbury Pike 03428390	Lat 35°53'17", long 86°28'06", 10 ft downstream from spring 100 ft upstream from conflu- ence with Overall Creek, 1.5 miles west of Mt. Olive.	Overall Creek to West Fork Stones River.	6-24-74	2,010	15.4	-	-	-	-
Big 03427816	Lat 35°42'39", long 86°16'22", 50 ft downstream from mouth of spring at Big Springs.	Big Springs Creek to Hurricane Creek to Middle Fork Stones River.	6-24-74	110	14.2	-	-	-	-

East Fork Stones River seepage investigations--Headwaters to mouth

Discharge measurements were made July 23 and 24, 1974, on the East Fork Stones River and tributaries. The reach is 51.2 miles in length. These streamflow measurements were made during a period of base flow to identify reaches of ground water discharge to streams as well as river gains and losses. The data will be used as partial criteria for locating test drilling sites for municipal wells. Tributary flow was considered a contribution and not a gain. A seepage run on part of this stream was made on Sept. 11, 1969.

East Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second			East Fork Stones River Gain or Loss
				Meas. disch.	Tributary Gain or Loss		
51.2	East Fork Stones River 03426560	Lat 35°50'07", long 85°59'20", Cannon County, beside county road, 2.9 miles southwest of Short Mountain.	5.09	2.1	-		-
50.9	East Fork Stones River tributary No. 9 03426565	Lat 35°50'08", long 85°59'37", Cannon County, at bridge at mouth, 3.1 miles southwest of Short Mountain, and 4.5 miles east of Woodbury.	1.14	0	-		-
50.1	East Fork Stones River tributary No. 10 03426569	Lat 35°49'49", long 86°00'22", Cannon County, at bridge at mouth, 3.8 miles east of Woodbury.	.53	0	-		-
50.0	East Fork Stones River 03426570	Lat 35°49'48", long 86°00'29", Cannon County, at private road bridge, 1.3 miles upstream from Parchcorn Hollow Branch, and 3.6 miles east of Woodbury.	10.1	8.7	-		+6.6
49.7	East Fork Stones River tributary No. 11 03426572	Lat 35°49'41", long 86°00'45", Cannon County, at bridge at mouth, 3.4 miles east of Woodbury.	.12	0	-		-
49.3	East Fork Stones River tributary No. 12 03426574	Lat 35°49'42", long 86°01'08", Cannon County, at mouth, 3.0 miles east of Woodbury.	.10	0	-		-
48.7	Parchcorn Hollow Branch 03426577	Lat 35°49'39", long 86°01'42", Cannon County, at county road bridge at mouth, 2.5 miles east of Woodbury.	4.30	0	-		-
48.2	East Fork Stones River 03426580	Lat 35°49'56", long 86°02'07", Cannon County, at State Highway 53 bridge, 2.0 miles east of Woodbury.	21.2	12.8	-		+4.1
47.6	Cavender Branch 03426595	Lat 35°50'00", long 86°02'44", Cannon County, at first bridge upstream from mouth, 1.5 miles east of Woodbury.	2.91	1.0	-		-
47.2	East Fork Stones River tributary No. 13 03426640	Lat 35°49'52", long 86°03'03", Cannon County, at mouth, 1.3 miles east of Woodbury.	.10	0	-		-
47.0	East Fork Stones River 03426650	Lat 35°49'49", long 86°03'16", Cannon County, at private road bridge, 0.3 mile upstream from Hill Creek, and 1.1 miles east of Woodbury.	25.8	13.7	-		+0.9
46.7	Hill Creek 03426660	Lat 35°48'22", long 86°02'23", Cannon County, at private road bridge, 2.4 miles southeast of Woodbury, and at mile 2.2.	4.09	3.3	-		-
46.7	Hill Creek tributary No. 1 03426670	Lat 35°48'28", long 86°02'28", Cannon County, at bridge near mouth, 2.3 miles southeast of Woodbury.	.23	0	-		-
46.7	Hill Creek tributary No. 2 03426680	Lat 35°48'43", long 86°02'36", Cannon County, at bridge near mouth, 2.0 miles southeast of Woodbury.	.12	0	-		-
46.7	Hill Creek tributary No. 3 03426690	Lat 35°48'47", long 86°02'38", Cannon County, at bridge at mouth, 1.9 miles southeast of Woodbury.	.06	0	-		-
46.7	Hill Creek tributary No. 4 03426701	Lat 35°49'01", long 86°02'50", Cannon County, at bridge on county road, 1.6 miles southeast of Woodbury.	.20	0	-		-
46.7	Hill Creek 03426702	Lat 35°49'34", long 86°03'31", Cannon County, at US Highway 70-S bridge, 0.7 mile east of Woodbury, and at mile 0.3.	8.22	.36	-2.94		-

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second		Tributary Gain or Loss	East Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.		
46.7	Hill Creek tributary No. 5 03426710	Lat 35°49'36", long 86°03'37", Cannon County, at bridge on US Highway 70-S, 0.6 mile east of Woodbury.	.15	0	-	-
46.0	Doolittle Branch 03426740	Lat 35°49'55", long 86°04'09", Cannon County, at first bridge upstream from mouth, 0.3 mile north of Woodbury.	3.78	0	-	-
45.9	East Fork Stones River 03426799	Lat 35°49'46", long 86°04'25", Cannon County, at Doolittle Street bridge, at Woodbury.	38.8	14.4	-	+7
44.6	Rush Creek 03426802	Lat 35°50'39", long 86°05'41", Cannon County, at bridge on State Highway 145, 1.6 miles northwest of Woodbury and at mile 1.7.	2.14	.49	-	-
44.6	Rush Creek tributary No. 1 03426804	Lat 35°50'11", long 86°05'25", Cannon County, at State Highway 145 bridge, 1.1 miles northwest of Woodbury.	.04	0	-	-
44.6	Rush Creek tributary No. 2 03426805	Lat 35°49'55", long 86°05'11", Cannon County, at bridge on State Highway 145, 0.8 mile northwest of Woodbury.	.32	0	-	-
44.6	Rush Creek 03426807	Lat 35°49'33", long 86°05'16", Cannon County, at bridge on US Highway 70-S, 0.8 mile west of Woodbury, and at mile 0.2.	3.28	.55	+0.6	-
43.8	East Fork Stones River 03426808	Lat 35°49'15", long 86°06'08", Cannon County, at private bridge, 0.8 mile downstream from Rush Creek, and 1.7 miles west of Woodbury.	46.5	21.3	-	+6.9
42.4	do 03426812	Lat 35°49'13", long 86°06'53", Cannon County, at county road bridge, 1.1 miles upstream from Hollis Creek, 2.4 miles west of Woodbury.	48.5	19.7	-	-1.6
41.3	Hollis Creek 03426815	Lat 35°46'55", long 86°04'25", Cannon County, at ford on county road, 2.3 miles northwest of Sheybogan, and 3.1 miles south of Woodbury.	1.42	.32	-	-
41.3	Hollis Creek tributary No. 6 03426816	Lat 35°46'59", long 86°04'28", Cannon County, at bridge at mouth, 2.4 miles northwest of Sheybogan, and 3.1 miles south of Woodbury.	.09	0	-	-
41.3	Davenport Hollow Branch 03426817	Lat 35°47'06", long 86°04'35", Cannon County, at bridge at mouth, 2.9 miles south of Woodbury.	.89	0	-	-
41.3	Tenpenny Hollow Branch 03426818	Lat 35°47'14", long 86°04'51", Cannon County, at mouth, 2.8 miles south of Woodbury.	.50	0	-	-
41.3	Preston Hollow Branch 03426819	Lat 35°47'22", long 86°04'55", Cannon County, at bridge upstream from mouth, 2.7 miles south of Woodbury.	.79	0	-	-
41.3	Hollis Creek 03426820	Lat 35°47'28", long 86°05'15", Cannon County, at private road bridge, 2.1 miles south of Woodbury.	4.29	.58	+2.6	-
41.3	Reed Hollow Branch 03426822	Lat 35°47'43", long 86°06'13", Cannon County, at mouth, 2.8 miles south- west of Woodbury.	1.08	0	-	-
41.3	Hollis Creek tributary No. 5 03426823	Lat 35°47'53", long 86°06'22", Cannon County, at bridge on county road, upstream from mouth, 2.7 miles southwest of Woodbury.	.13	0	-	-
41.3	Hollis Creek tributary No. 4 03426824	Lat 35°47'59", long 86°06'41", Cannon County, at mouth, 2.1 miles south- east of Culpepper, and 2.8 miles southwest of Woodbury.	.40	0	-	-

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second		Tributary Gain or Loss	East Fork Stones River Gain or Loss
				Meas. disch.			
41.3	Hollis Creek 03426825	Lat 35°48'00", long 86°06'41", Cannon County, at county road bridge, downstream from tributary No. 4, 2.1 miles southeast of Culpepper, and 2.8 miles southwest of Woodbury.	7.12	.98		+1.40	-
41.3	Hollis Creek tributary No. 3 03426826	Lat 35°48'17", long 86°06'48", Cannon County, at bridge at mouth, 1.8 miles southeast of Culpepper.	.20	0		-	-
41.3	Hollis Creek tributary No. 2 03426827	Lat 35°48'29", long 86°06'57", Cannon County, at bridge at mouth, 1.5 miles southeast of Culpepper.	.40	0		-	-
41.3	Hollis Creek tributary No. 1 03426828	Lat 35°48'41", long 86°07'06", Cannon County, at bridge upstream from mouth, 1.3 miles southeast of Culpepper.	.09	0		-	-
41.3	Hollis Creek 03426829	Lat 35°48'52", long 86°07'34", Cannon County, at first bridge upstream from mouth, 0.9 mile southeast of Culpepper.	8.70	1.14		+1.16	-
41.0	East Fork Stones River 03426830	Lat 35°49'14", long 86°07'57", Cannon County, at Highway 70-S bridge, 0.6 mile east of Culpepper, and 2.5 miles east of Readyville.	58.0	19.8		-	+1.1
39.2	Locke Creek 03426840	Lat 35°49'04", long 86°08'33", Cannon County, at US Highway 70-S bridge west of Culpepper, and at mile 0.1.	5.42	.31		-	-
38.6	East Fork Stones River 03426842	Lat 35°48'49", long 86°09'06", Cannon County, at county road bridge, 0.3 mile south of US Highway 70-S, and 0.6 mile southwest of Culpepper.	65.2	12.3		-	-7.5
38.2	Haws Spring Fork 03426843	Lat 35°45'42", long 86°05'35", Cannon County, beside county road, 2.2 miles west of Sheybogan.	1.54	1.08		-	-
38.2	Haws Spring Fork tributary No. 1 03426844	Lat 35°45'41", long 86°05'37", Cannon County, at mouth, 2.3 miles west of Sheybogan, and 4.7 miles south of Woodbury.	.12	0		-	-
38.2	Haws Spring Fork tributary No. 2 03426845	Lat 35°45'42", long 86°05'38", Cannon County, at county road bridge at mouth, 2.3 miles west of Sheybogan, and 4.7 miles south of Woodbury.	.75	0		-	-
38.2	Haws Spring Fork 03426846	Lat 35°45'41", long 86°06'53", Cannon County, at bridge upstream from Smith Branch, 1.0 mile east of Burt.	3.25	1.07		-0.01	-
38.2	Smith Branch 03426847	Lat 35°45'40", long 86°06'56", Cannon County, at mouth, 1.0 mile east of Burt.	4.78	0		-	-
38.2	Carson Fork 03426849	Lat 35°46'01", long 86°07'55", Cannon County, at bridge downstream from Haws Spring Fork, 0.2 mile south of Burt and at mile 4.2.	23.8	3.40		-	-
38.2	do 03426860	Lat 35°48'14", long 86°09'02", Cannon County, at county road bridge, 600 ft upstream from Brawleys Fork, 2.2 miles southeast of Readyville, and at mile 0.6.	28.5	.01		-3.39	-
38.2	Brawleys Fork 03426862	Lat 35°40'24", long 86°08'34", Cannon County, at private road bridge, 1.4 miles west of Hollow Springs, and at mile 11.6.	2.36	0		-	-
38.2	do 03426863	Lat 35°41'09", long 86°09'25", Cannon County, at county road bridge, 2.3 miles west of Hollow Springs, 3.4 miles northeast of Hoodoo, and at mile 10.3.	3.69	0		0	-

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second				East Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss		
38.2	Brawleys Fork 03426865	Lat 35°41'43", long 86°09'59", Cannon County, at private road bridge, 2.9 miles northwest of Hollow Springs, 3.6 miles northeast of Gossburg, and at mile 9.4.	4.31	0	0		-
38.2	do 03426867	Lat 35°42'51", long 86°10'32", Cannon County, at county road bridge, 1.8 miles southwest of Bradyville, and at mile 7.9.	7.16	0	0		-
38.2	Hopewell Spring 03426868	Lat 35°42'53", long 86°10'32", Cannon County, 120 feet downstream from county road bridge over Brawleys Fork, 1.8 miles southwest of Bradyville.	-	3.26	-		-
38.2	Brawleys Fork 03426870	Lat 35°43'42", long 86°10'25", Cannon County, at county road bridge, 0.9 mile southwest of Bradyville, and at mile 6.9.	7.70	2.03	+2.03		-
38.2	do 03426871	Lat 35°44'09", long 86°10'22", Cannon County, at private road bridge, 0.5 mile west of Bradyville, and at mile 6.3.	7.86	0	-2.03		-
38.2	Dug Hollow Branch 03426873	Lat 35°43'37", long 86°11'05", Cannon County, at county road bridge, 1.5 miles southwest of Bradyville.	2.15	.15*	-		-
38.2	Brawleys Fork 03426874	Lat 35°44'44", long 86°10'14", Cannon County, at county road bridge, 0.5 mile northwest of Bradyville, and at mile 5.6.	15.4	0	0		-
38.2	do 03426875	Lat 35°45'50", long 86°10'07", Cannon County, at county road bridge, 2.2 miles west of Burt, and at mile 3.7.	18.2	3.36	+3.36		-
38.2	Brawleys Fork tributary No. 2 03426876	Lat 35°46'00", long 86°09'52", Cannon County, at county road bridge, 0.8 mile south of Curlee.	.73	0	-		-
38.2	Brawleys Fork tributary No. 1 03426877	Lat 35°46'36", long 86°09'34", Cannon County, at county road bridge at Curlee.	.29	0	-		-
38.2	Brawleys Fork 03426878	Lat 35°46'42", long 86°09'42", Cannon County, at county road bridge, 0.1 mile west of Curlee, and at mile 2.4.	20.6	3.13	-2.23		-
38.2	do 03426879	Lat 35°47'07", long 86°09'47", Cannon County, at county road bridge, 0.5 mile north of Curlee and at mile 1.8.	21.8	2.89	-2.24		-
38.2	do 03426880	Lat 35°48'06", long 86°09'04", Cannon County, at county road bridge 2.2 miles southeast of Readyville, and at mile 0.2.	24.0	6.96	+4.07		-
35.6	East Fork Stones River 03426890	Lat 35°49'54", long 86°10'39", Rutherford County, downstream from mill run at Readyville.	124	20.8	-		+8.5
34.7	do 03426900	Lat 35°50'16", long 86°11'21", Rutherford County, at bridge on county road, 1.0 mile northwest of Readyville.	125	23.6	-		+2.8
32.3	do 03426910	Lat 35°51'37", long 86°12'06", Rutherford County, at county road bridge, 600 feet upstream of McKnight Branch, 2.3 miles east of Halls Hill.	135	22.6	-		-1.0
32.0	McKnight Branch 03426912	Lat 35°53'48", long 86°09'56", Rutherford County, at county road bridge, 1.2 miles north of Porterfield and at mile 4.3.	1.47	.07*	-		-
32.0	McKnight Branch tributary No. 2 03426913	Lat 35°53'44", long 86°09'36", Rutherford County, at county road bridge, 1.1 miles north of Porterfield.	.38	0	-		-

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second			East Fork Stones River Gain or Loss
				Meas. disch.	Tributary Gain or Loss		
32.0	McKnight Branch tributary No. 1 03426914	Lat 35°53'22", long 86°09'14", Cannon County, at county road bridge, 0.8 mile northeast of Porterfield.	1.21	.07*	-		-
32.0	McKnight Branch tributary No. 1 03426915	Lat 35°53'04", long 86°09'37", Rutherford County, at county road bridge, 0.4 mile north of Porterfield.	1.45	.02*	-.05		-
32.0	McKnight Branch tributary No. 3 03426916	Lat 35°52'48", long 86°09'44", Cannon County, 150 feet upstream from county road bridge at Porterfield.	.03	.22*	-		-
32.0	McKnight Branch 03436917	Lat 35°52'47", long 86°09'44", Cannon County, at county road bridge at Porterfield, and at mile 3.0.	4.14	.27	+2.20		-
32.0	Northcutt Branch 03426918	Lat 35°52'43", long 86°09'43", Cannon County, at county road bridge, at mouth, at Porterfield.	2.27	.04*	-		-
32.0	McKnight Branch 03426920	Lat 35°52'01", long 86°11'57", Rutherford County, at first bridge upstream of mouth, 2.0 miles east of Halls Hill, and at mile 0.4.	10.9	.004*	-.27		-
30.8	East Fork Stones River 03426922	Lat 35°51'44", long 86°11'57", Rutherford County, beside county road, 1.1 miles southeast of Halls Hill.	147	30.4	-		+7.8
30.2	do 03426924	Lat 35°52'18", long 86°13'13", Rutherford County, at ford, 0.8 mile east of Halls Hill.	148	22.4	-		-8.0
28.7	Trimble Branch 03426925	Lat 35°52'51", long 86°13'36", Rutherford County, 0.8 mile northeast of Halls Hill.	3.11	0	-		-
28.6	East Fork Stones River tributary No. 7 03426927	Lat 35°53'39", long 86°13'28", Rutherford County, at county road bridge, 1.7 miles north of Halls Hill and 3.5 miles southwest of Milton.	.32	0	-		-
28.6	do 03426928	Lat 35°52'59", long 86°13'39", Rutherford County, 0.9 mile north of Halls Hill.	.99	0	0		-
28.1	East Fork Stones River 03426930	Lat 35°52'33", long 86°14'07", Rutherford County, at county road bridge, 0.4 mile north of Halls Hill.	153	20.4	-		-2.0
27.9	East Fork Stones River tributary No. 8 03426931	Lat 35°52'14", long 86°14'08", Rutherford County, at county road bridge at Halls Hill.	.96	0	-		-
27.1	East Fork Stones River tributary No. 6 03426934	Lat 35°53'55", long 86°14'13", Rutherford County, at bridge on county road, 3.8 miles southwest of Milton.	.24	0	-		-
27.1	East Fork Stones River tributary No. 6 03426935	Lat 35°53'20", long 86°14'55", Rutherford County, 1.5 miles north of Halls Hill.	.87	0	0		-
25.4	East Fork Stones River 03426940	Lat 35°52'50", long 86°15'44", Rutherford County, at ford, 0.1 mile upstream of Cripple Creek and 2.0 miles northwest of Halls Hill.	157	24.0	-		+3.6
25.3	Cripple Creek 034269405	Lat 35°44'01", long 86°14'09", Rutherford County, at county road bridge, 1.2 miles southwest of Donnellys and at mile 14.2.	.85	.18*	-		-
25.3	Taylor Hollow Branch 034269408	Lat 35°44'51", long 86°13'54", Rutherford County, at county road bridge, 0.6 mile west of Donnellys.	.77	.05*	-		-
25.3	Cripple Creek 03426941	Lat 35°46'50", long 86°13'31", Rutherford County, at Bradyville Pike bridge at Donnellys, and at mile 13.1.	2.78	.33*	+1.15		-

* Estimated discharge.

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second			
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss	East Fork Stones River Gain or Loss
25.3	Cripple Creek 034269415	Lat 35°45'48", long 86°13'07", Rutherford County, at Lyons Road bridge, 3.5 miles west of Curlee, and at mile 11.8.	4.11	.50*	+17	-
25.3	Reed Creek 03426942	Lat 35°43'36", long 86°12'46", Rutherford County, at county road bridge, 1.4 miles south of Donnels, and 2.8 miles southwest of Bradyville.	1.92	0	-	-
25.3	Armstrong Hollow Branch 034269422	Lat 35°44'05", long 86°13'01", Rutherford County, at county road bridge, 0.9 mile south of Donnels.	.54	0	-	-
25.3	Reed Creek 034269425	Lat 35°44'49", long 86°12'29", Rutherford County, at Bradyville Pike bridge, 0.7 mile east of Donnels.	3.55	.53*	+53	-
25.3	do 03426943	Lat 35°46'48", long 86°12'30", Rutherford County, at bridge upstream from mouth, 2.7 miles west of Curlee.	5.97	0	-.53	-
25.3	Cripple Creek 034269432	Lat 35°47'06", long 86°12'38", Rutherford County, at bridge on Cripple Creek Road, 2.9 miles west of Curlee, and at mile 10.0.	12.4	0	-.50	-
25.3	do 034269435	Lat 35°48'06", long 86°12'43", Rutherford County, at county road bridge, 2.8 miles southwest of Readyville, and at mile 8.6.	15.0	0	0	-
25.3	do 03426944	Lat 35°48'50", long 86°14'23", Rutherford County, at county road bridge, 0.8 mile southeast of Kittrell, and at mile 6.6.	16.8	0	0	-
25.3	Cripple Creek tributary No. 1 034269442	Lat 35°48'53", long 86°14'23", Rutherford County, at bridge upstream of mouth, 0.8 mile southeast of Kittrell.	1.45	0	-	-
25.3	McElroy Branch 034269445	Lat 35°46'25", long 86°14'31", Rutherford County, at bridge on county road, 1.7 miles southeast of Floraton.	1.20	0	-	-
25.3	do 03426945	Lat 35°47'03", long 86°14'32", Rutherford County, at county road bridge, 0.8 mile southeast of Floraton.	1.86	0	0	-
25.3	do 034269455	Lat 35°48'05", long 86°14'56", Rutherford County, at county road bridge, 1.5 miles south of Kittrell.	3.14	0	0	-
25.3	Murray Branch 03426946	Lat 35°45'34", long 86°15'50", Rutherford County, at Bradyville Pike bridge, 2.5 miles northwest of Donnels.	.59	.40*	-	-
25.3	do 034269465	Lat 35°46'12", long 86°15'48", Rutherford County, at private road bridge, 1.6 miles south of Floraton.	1.14	0	0	-
25.3	Murray Branch tributary No. 2 034269468	Lat 35°46'04", long 86°16'16", Rutherford County, at county road bridge, 1.9 miles southwest of Floraton.	.50	.03*	-	-
25.3	Murray Branch tributary No. 3 03426947	Lat 35°46'05", long 86°16'30", Rutherford County, at county road bridge, 1.9 miles southwest of Floraton.	.30	.05*	-	-
25.3	Murray Branch 034269472	Lat 35°46'40", long 86°15'44", Rutherford County, at private road bridge, 1.1 miles southwest of Floraton.	2.89	0	0	-
25.3	Murray Branch tributary No. 1 034269475	Lat 35°46'28", long 86°16'42", Rutherford County, at county road bridge, 1.8 miles southwest of Floraton.	.33	.01*	-	-
25.3	do 034269478	Lat 35°47'07", long 86°15'52", Rutherford County, at county road bridge, 0.7 mile southeast of Floraton.	.83	0	-.01	-

* Estimated discharge.

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second		Tributary Gain or Loss	East Fork Stones River Gain or Loss
				Meas. disch.			
25.3	Murray Branch tributary No. 1 03426948	Lat 35°47'18", long 86°15'39", Rutherford County, at county road bridge, 0.4 mile southeast of Floraton.	2.27	0		0	-
25.3	Murray Branch 034269485	Lat 35°47'32", long 86°15'17", Rutherford County, at county road bridge at Floraton.	6.38	.05*		+0.05	-
25.3	McElroy Branch 03426949	Lat 35°48'32", long 86°15'00", Rutherford County, at county road bridge, 1.0 miles south of Kittrell.	11.2	0		0	-
25.3	Cripple Creek 034269495	Lat 35°49'12", long 86°14'52", Rutherford County, at county road bridge, 100 feet downstream from McElroy Branch, and 0.3 mile southwest of Kittrell, and at mile 6.0.	30.6	0		0	-
25.3	do 03426950	Lat 35°49'36", long 86°15'07", Rutherford County, at US Highway 70-S bridge, 0.4 mile northwest of Kittrell, and at mile 5.4.	30.7	.05*		+0.05	-
25.3	do 03426952	Lat 35°50'56", long 86°15'42", Rutherford County, at county road bridge, 2.0 miles southeast of Sharpsville, and at mile 3.1.	34.5	.01		-.04	-
25.3	Cripple Creek tributary No. 2 03426953	Lat 35°50'04", long 86°15'18", Rutherford County, at county road bridge, 0.9 mile northwest of Kittrell.	1.92	0		-	-
25.3	do 03426954	Lat 35°50'53", long 86°15'42", Rutherford County, at county road bridge, 2.0 miles southeast of Sharpsville.	2.61	0		0	-
25.3	Dry Branch 03426956	Lat 35°49'12", long 86°17'29", Rutherford County, at county road bridge, 2.2 miles northeast of Dillton.	1.07	0		-	-
25.3	Dry Branch 03426957	Lat 35°49'47", long 86°17'23", Rutherford County, at US Highway 70-S bridge, 2.5 miles west of Kittrell.	4.30	0		0	-
25.3	Cripple Creek 03426960	Lat 35°52'27", long 86°16'05", Rutherford County, at county road bridge, 0.7 mile east of Sharpsville and at mile 0.7.	48.2	3.48		+3.47	-
24.3	East Fork Stones River 03426970	Lat 35°52'57", long 86°16'22", Rutherford County, at county road bridge, 0.5 mile north of Sharpsville.	208	27.5		-	+3.5
21.9	do 03426980	Lat 35°54'08", long 86°16'51", Rutherford County, 100 feet downstream from dam at Browns Mill, 2.0 miles south of Lascassas.	212	32.7		-	+5.2
19.0	Bradley Creek 03426981	Lat 35°57'12", long 86°10'38", Rutherford County, at county road bridge, 1.6 miles north of Milton, and at mile 10.9.	2.00	.11		-	-
19.0	do 03426982	Lat 35°57'22", long 86°11'46", Rutherford County, at county road bridge, 2.0 miles northwest of Milton, and at mile 9.7.	7.46	.50		+0.39	-
19.0	do 03426983	Lat 35°57'22", long 86°17'37", Rutherford County, at county road bridge, 3.0 miles south of Greenville, and at mile 8.8.	8.31	.46		-.04	-
19.0	do 03426984	Lat 35°57'04", long 86°13'08", Rutherford County, at county road bridge, 2.5 miles southeast of Cainsville, and at mile 8.2.	12.0	.56		+0.10	-
19.0	Bradley Creek tributary No. 2 03426985	Lat 35°56'38", long 86°13'18", Rutherford County, at county road bridge, 2.4 miles northwest of Milton.	.68	0		-	-

* Estimated discharge.

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second				East Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss		
19.0	Bradley Creek 03426986	Lat 35°56'37", long 86°13'57", Rutherford County, at county road bridge, 3.0 miles southeast of Cainsville, and at mile 7.1.	13.6	.98	+42		-
19.0	Dry Fork 03426987	Lat 35°55'44", long 86°10'49", Rutherford County, at county road bridge, 400 feet southeast of Milton.	.81	.01*	-		-
19.0	do 03426988	Lat 35°55'19", long 86°11'16", Rutherford County, at bridge on county road, 0.6 mile southwest of Milton.	3.15	.18	+17		-
19.0	Dry Fork tributary No. 2 03426989	Lat 35°55'52", long 86°12'17", Rutherford County, at bridge on county road, 1.3 miles west of Milton.	.63	0	-		-
19.0	do 03426990	Lat 35°55'32", long 86°12'33", Rutherford County, at bridge on State Highway 96, 1.6 miles west of Milton.	1.00	0	0		-
19.0	Dry Fork 03426991	Lat 35°55'33", long 86°12'54", Rutherford County, at county road bridge, 1.9 miles west of Milton.	6.77	0	-18		-
19.0	do 03426992	Lat 35°55'22", long 86°13'20", Rutherford County, at county road bridge, 2.4 miles west of Milton, and 3.7 miles north at Halls Hill.	7.47	0	0		-
19.0	Dry Fork tributary No. 1 03426993	Lat 35°55'21", long 86°13'47", Rutherford County, at mouth, 2.75 miles west of Milton.	1.53	0	-		-
19.0	Dry Fork 03426994	Lat 35°55'22", long 86°13'47", Rutherford County, at county road bridge, downstream from unnamed tributary, and 2.5 miles east of Lofton.	9.53	.92	+92		-
19.0	do 03426995	Lat 35°58'48", long 86°14'16", Rutherford County, at bridge on State Highway 96, 2.0 miles east of Lofton.	10.3	0	-92		-
19.0	Bradley Creek tributary No. 1 03426996	Lat 35°56'19", long 86°15'24", Rutherford County, at Rhodes Lane bridge, 1.2 miles northeast of Lofton.	2.39	0	-		-
19.0	Bradley Creek 03426997	Lat 35°56'00", long 86°15'56", Rutherford County, beside Cainsville Road, south of intersection with Rhodes Lane, 0.5 mile northeast of Lofton, and at mile 4.3.	29.8	1.64	+66		-
19.0	do 03426998	Lat 35°55'43", long 86°16'19", Rutherford County, at State Highway 96 bridge, at Lofton, and at mile 3.8.	30.1	1.99	+35		-
19.0	Jarman Branch 03426999	Lat 35°55'46", long 86°16'48", Rutherford County, at State Highway 96 bridge, 0.6 mile east of Lofton.	4.50	.02	-		-
19.0	Bradley Creek 03427000	Crest-stage gage at Lascassas and at mile 2.0.	37.0	2.25	+26		-
18.8	East Fork Stones River 03427200	Lat 35°55'18", long 86°18'18", Rutherford County, at State Highway 96 bridge, 0.9 mile southwest of Lascassas.	257	37.0	-		+4.3
17.2	do 03427300	Lat 35°55'37", long 86°19'29", Rutherford County, at northern point of 180° bend, 2.0 miles west of Lascassas.	259	38.3	-		+1.3
16.0	East Fork Stones River tributary No. 5 03427400	Lat 35°54'31", long 86°19'33", Rutherford County, at State Highway 96 bridge, 0.3 mile northeast of Compton and 2.5 miles southwest of Lascassas.	.64	.34	-		-
15.4	East Fork Stones River 03427500	Gaging station near Lascassas.	262	31.5	-		-6.8

* Estimated discharge.

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second				East Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss		
14.5	Double Springs Branch 03427650	Lat 35°50'07", long 86°20'13", Rutherford County, at culvert under county road, 300 feet south of US Highway 70-S, at west edge of Double Springs.	.97	0	-		-
14.5	Bushman Creek 03427680	Lat 35°52'45", long 86°20'49", Rutherford County, at State Highway 96 bridge, 2.0 miles southwest of Compton, and at mile 3.5.	5.52	1.83	-		-
14.5	do 03427690	Lat 35°53'08", long 86°20'47", Rutherford County, at ford on Pitts Lane, 1.6 miles southwest of Compton, and at mile 3.0.	9.67	1.87	+0.04		-
14.5	do 03427700	Lat 35°53'44", long 86°20'53", Rutherford County, at bridge on county road, 4.2 miles northeast of Murfreesboro, and at mile 2.0.	10.5	1.92	+0.05		-
14.5	do 03427701	Lat 35°54'22", long 86°21'00", Rutherford County, at bridge on Veterans Hospital Road, 1.2 miles west of Compton, and 3.7 miles southwest of Lascassas, and at mile 1.2.	11.0	2.46	+0.54		-
14.5	do 03427702	Lat 35°54'46", long 86°21'01", Rutherford County, beside county road, 0.7 mile upstream from mouth, 3.5 miles southwest of Lascassas.	11.2	2.01	-.45		-
12.1	Dry Branch 03427704	Lat 35°54'33", long 86°22'16", Rutherford County, at bridge on Veterans Hospital Road, 2.7 miles southeast of Walterhill.	1.09	.006*	-		-
12.1	Bear Branch 03427705	Lat 35°53'12", long 86°21'50", Rutherford County, at culvert on Bushman Creek Road, and 3.0 miles northeast of Murfreesboro.	1.80	0	-		-
12.1	do 03427706	Lat 35°53'48", long 86°21'27", Rutherford County, at culvert on Osborne Road, 1.7 miles southwest of Compton.	2.26	0	0		-
12.1	do 03427707	Lat 35°54'27", long 86°21'29", Rutherford County, at bridge on Veterans Hospital Road, 4.2 miles southwest of Lascassas.	2.87	0	0		-
12.1	Dry Branch 03427708	Lat 35°55'11", long 86°22'08", Rutherford County, 0.3 mile upstream from mouth, 2.0 miles southeast of Walterhill.	4.96	.13	+0.124		-
10.2	Wades Branch 03427714	Lat 35°57'47", long 86°19'47", Rutherford County, beside county highway, 0.7 mile southwest of Valleyview and 3.0 miles east of Walterhill.	2.36	0	-		-
10.2	Wades Branch tributary 03427715	Lat 35°57'38", long 86°19'48", Rutherford County, at county road bridge, 0.1 mile upstream of the mouth, and 3.0 miles northwest of Lascassas.	3.23	0	-		-
10.2	Wades Branch 03427717	Lat 35°57'40", long 86°20'13", Rutherford County, at county road bridge, 3.3 miles northwest of Lascassas.	5.88	0	0		-
9.9	East Fork Stones River 03427730	Lat 35°56'30", long 86°22'41", Rutherford County, at bridge on US Highway 231, 0.6 mile south of Walterhill.	298	49.0	-		+17.5
9.6	East Fork Stones River tributary No. 2 03427731	Lat 35°56'17", long 86°22'57", Rutherford County, at county road bridge, 0.25 mile west of US Highway 231, and 0.9 mile south of Walterhill.	1.78	.03*	-		-
9.0	East Fork Stones River 03427732	Lat 35°56'48", long 86°23'25", Rutherford County, 0.7 mile west of Walterhill.	300	51.1	-		+2.1
7.8	do 03427733	Lat 35°57'41", long 86°23'22", Rutherford County, 1.0 mile northwest of Walterhill.	301	42.5	-		-8.6

* Estimated discharge.

East Fork Stones River seepage investigations--Headwaters to mouth--Continued

East Fork Stones River mile	Stream and Site Number	Location	<u>Discharge, in cubic feet per second</u>		Tributary Gain or Loss	East Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.		
6.2	East Fork Stones River tributary No. 3 03427735	Lat 35°58'20", long 86°23'57", Rutherford County, at State Highway 102 bridge, 2.0 miles northwest of Waltherhill.	2.61	0	-	-
5.7	East Fork Stones River tributary No. 4 03427737	Lat 35°57'34", long 86°24'38", Rutherford County, at county road bridge, 1.8 miles west of Waltherhill.	1.85	0	-	-
Overall Net Gain or Loss						+40.4

West Fork Stones River seepage investigations--Headwaters to mouth

Discharge measurements were made June 24 and 25, 1974, on West Fork Stones River and tributaries to identify sections of river gains and losses. The reach is 39.6 miles in length. Streamflow measurements were made during a period of base flow to identify reaches of ground water discharge to streams as well as river gains and losses. The data will be used as partial criteria for locating test drilling sites for municipal wells. Tributary flow was considered a contribution and not a gain. Seepage runs on various parts of this river reach have been made on Oct. 29 and Nov. 3, 4, 1971.

Discharge, in cubic feet per second						
West Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss	West Fork Stones River Gain or Loss
37.6	West Fork Stones River 03427740	Lat 35°39'24", long 86°27'28", Rutherford County, at county road bridge, 1.6 miles southeast of Midland.	1.26	0	-	-
35.9	do 03427743	Lat 35°40'10", long 86°28'33", Rutherford County, at county road bridge, east of Midland.	3.73	.47	-	+4.7
34.8	West Fork Stones River tributary No. 4 03427746	Lat 35°40'10", long 86°28'13", Rutherford County, at county road bridge at Midland School, 0.6 mile east of Midland.	.62	0	-	-
34.3	West Fork Stones River tributary No. 5 03427748	Lat 35°41'06", long 86°29'03", Rutherford County, at county road bridge, 1.0 mile north of Midland.	.46	.015	-	-
34.3	West Fork Stones River tributary No. 6 03427750	Lat 35°41'15", long 86°29'04", Rutherford County, at county road bridge, 1.2 miles north of Midland.	.20	0	-	-
33.8	West Fork Stones River tributary No. 7 03427752	Lat 35°41'29", long 86°29'03", Rutherford County, at county road bridge, 1.5 miles north of Midland.	.88	0	-	-
33.4	West Fork Stones River 03427755	Lat 35°41'48", long 86°28'22", Rutherford County, 300 feet downstream from county road bridge, 0.5 mile southeast of Rock Springs.	12.1	2.21	-	+1.74
32.3	do 03427758	Lat 35°42'10", long 86°27'51", Rutherford County, 600 feet downstream from county road bridge, 0.7 mile east of Rock Springs.	13.1	2.61	-	+4.40
30.9	Dry Fork Creek 03427761	Lat 35°38'10", long 86°23'53", Rutherford County, 150 feet downstream from county road bridge, 1.25 miles south of Fosterville.	2.05	.17	-	-
30.9	do 03427764	Lat 35°39'00", long 86°24'23", Rutherford County, at county road bridge, 0.3 mile south of Fosterville.	3.63	0	-17	-
30.9	Dry Fork Creek tributary 03427767	Lat 35°39'09", long 86°24'19", Rutherford County, at county road bridge at Fosterville.	.63	0	-	-
30.9	Dry Fork Creek 03427770	Lat 35°39'22", long 86°24'28", Rutherford County, at county road bridge, 0.2 mile west of Fosterville.	4.41	0	0	-
30.9	do 03427773	Lat 35°39'57", long 86°25'16", Rutherford County, at bridge on US Highway 231, 1.2 miles northwest of Fosterville.	5.11	0	0	-
30.9	do 03427776	Lat 35°41'46", long 86°26'52", Rutherford County, 50 feet downstream from county road bridge, 1.7 miles east of Rock Springs.	10.7	.034	+0.34	-
30.9	do 03427770	Lat 35°42'59", long 86°26'57", Rutherford County, 600 feet upstream from mouth, 1.8 miles northeast of Rock Springs.	11.8	.25	+22	-
30.4	West Fork Stones River 03427782	Lat 35°43'20", long 86°26'44", Rutherford County, at county road bridge, 2.2 miles northeast of Rock Springs.	26.0	3.61	-	+1.00
29.2	do 03427785	Lat 35°44'02", long 86°26'05", Rutherford County, at ford on county road, 2.8 miles northwest of Christiana.	29.6	6.07	-	+2.46
27.8	do 03427788	Lat 35°44'59", long 86°25'41", Rutherford County, 400 feet upstream from county road bridge, 0.8 mile east of Crescent.	36.2	6.43	-	+3.36

West Fork Stones River seepage investigations--Headwaters to mouth--Continued

West Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second			West Fork Stones River Gain or Loss
				Meas. disch.	Tributary Gain or Loss		
27.5	Christmas Creek 03427791	Lat 35°43'49", long 86°24'43", Rutherford County, 20 feet upstream from county road bridge, west of US Highway 231, 1.8 miles northwest of Christiana.	5.82	.12	-		-
27.5	Lytle Creek tributary 03427794	Lat 35°43'59", long 86°26'00", Rutherford County, at county road bridge, 2.4 miles northwest of Christiana.	2.44	0	-		-
27.5	Lytle Creek 03427797	Lat 35°44'55", long 86°25'22", Rutherford County, 20 feet upstream from mouth, downstream from tributary, 3.0 miles northwest of Christiana.	10.3	2.76	+2.64		-
24.0	West Fork Stones River 03427800	Lat 35°47'13", long 86°25'20", Rutherford County, 200 feet downstream from county road bridge at Barfield.	56.3	14.0	-		+7.57
23.3	do 03427801	Lat 35°47'48", long 86°35'33", Rutherford County, 50 feet upstream from county road bridge, 0.7 mile north of Barfield.	57.2	14.0	-		0
22.4	do 03427802	Lat 35°48'19", long 86°25'30", Rutherford County, at county road bridge, 1.3 miles north of Barfield.	58.8	14.4	-		+4.4
21.8	Eaton Hollow Branch 03427804	Lat 35°38'46", long 86°15'16", Rutherford County, 100 feet upstream from mouth, 100 feet west of Interstate 24, 1.7 miles northwest of Beechgrove.	.74	.10	-		-
21.8	Middle Fork Stones River 03427805	Lat 35°38'51", long 86°15'16", Rutherford County, beside Interstate 24 frontage road, 1.8 miles northwest of Beechgrove.	2.04	.46	-		-
21.8	do 03427807	Lat 35°40'09", long 86°16'38", Rutherford County, 500 feet downstream from county road bridge, at Hoovers Gap.	5.97	.98	+5.52		-
21.8	do 03427809	Lat 35°41'24", long 86°18'02", Rutherford County, at county road ford, 2.1 miles southwest of Big Springs.	11.8	0	-.98		-
21.8	do 03427810	Lat 35°41'58", long 86°19'05", Rutherford County, at county road bridge, 1.5 miles east of Plainview.	14.9	0	0		-
21.8	do 03427811	Lat 35°42'48", long 86°19'54", Rutherford County, at county road bridge, 1.3 miles southwest of Buchanan School.	16.2	.025	+0.25		-
21.8	Middle Fork Stones River tributary 03427812	Lat 35°42'45", long 86°19'59", Rutherford County, 500 feet upstream from mouth, 1.4 miles southwest of Buchanan School.	4.78	0	-		-
21.8	Middle Fork Stones River 03427813	Lat 35°43'12", long 86°20'01", Rutherford County, 0.7 mile west of interchange of Buchanan Road and Interstate 24, 1.0 mile southwest of Buchanan School.	21.3	.10	+0.075		-
21.8	Big Springs Creek 03427815	Lat 35°42'39", long 86°16'21", Rutherford County, at county road bridge, 100 feet upstream from spring outflow, at Big Springs.	4.50	.18	-		-
21.8	Big Spring 03427816	Lat 35°42'39", long 86°16'22", Rutherford County, 50 feet downstream from mouth of spring, at Big Springs.	-	.24	-		-
21.8	Hurricane Creek 03427818	Lat 35°43'24", long 86°17'38", Rutherford County, at county road bridge, 1.5 miles northwest of Big Springs.	8.53	1.02	+0.84		-
21.8	Hurricane Creek 03427820	Lat 35°43'58", long 86°19'04", Rutherford County, at bridge on US Highway 41, 10 miles southeast of Murfreesboro.	12.4	1.03	+0.01		-
21.8	Middle Fork Stones River 03427825	Lat 35°44'24", long 86°20'19", Rutherford County, at river mile 9.2, 1.1 miles southwest of Gum.	38.5	3.54	+3.44		-

West Fork Stones River seepage investigations--Headwaters to mouth--Continued

West Fork Stones River mile	Stream and Site Number	Location	Drainage Area (sq mi)	Discharge, in cubic feet per second			West Fork Stones River Gain or Loss
				Meas. disch.	Tributary Gain or Loss		
21.8	Middle Fork Stones River 03427850	Lat 35°45'36", long 86°22'11", Rutherford County, at county road bridge, 1.0 mile northeast of Rucker.	57.9	5.36	+1.82		
21.8	do 03427860	Lat 35°46'02", long 86°22'34", Rutherford County, 150 feet downstream from new county road bridge, 1.1 miles north of Rucker.	59.5	7.86	+2.50		-
21.0	West Fork Stones River 03428000	Former gaging station near Murfreesboro.	128	28.2	-		+13.8
20.6	West Fork Stones River tributary 03428002	Lat 35°48'10", long 86°27'38", Rutherford County, at county road bridge, 1.0 mile southeast of Salem.	1.11	0	-		-
20.6	do 03428004	Lat 35°48'37", long 86°26'43", Rutherford County, at county road bridge, 1100 feet south of Eagleville Pike, 3.9 miles southwest of Murfreesboro.	1.99	.56	+5.56		-
20.6	do 03428006	Lat 35°49'02", long 86°25'39", Rutherford County, at Eagleville Pike bridge, 3.3 miles southwest of Murfreesboro.	4.46	2.67	+2.11		-
18.3	West Fork Stones River 03428010	Lat 35°50'35", long 86°24'51", Rutherford County, at State Highway 96 bridge, at Murfreesboro.	136	39.6	-		+11.4
16.2	Lytle Creek 03428015	Lat 35°44'50", long 86°16'55", Rutherford County, at county road bridge, 3.3 miles west of Donnellis.	.72	0	-		-
16.2	do 03428018	Lat 35°44'58", long 86°17'32", Rutherford County, at county road bridge, 2.0 miles northeast of Buchanan.	1.33	0	0		-
16.2	do 03428020	Lat 35°45'05", long 86°18'16", Rutherford County, at county road bridge, 1.3 miles northeast of Gum.	1.70	0	0		-
16.2	Lytle Creek tributary No. 1 03428022	Lat 35°45'20", long 86°18'02", Rutherford County, 100 feet downstream from county road bridge, 1.7 miles northeast of Gum.	.97	.11	-		-
16.2	Lytle Creek tributary No. 2 03428025	Lat 35°46'36", long 86°18'56", Rutherford County, upstream from mouth, 1.7 miles south of Dillton.	1.00	0	-		-
16.2	Lytle Creek 03428026	Lat 35°46'42", long 86°19'00", Rutherford County, at private bridge, 1.6 miles south of Dillton.	5.95	.22	+2.22		-
16.2	do 03428029	Lat 35°47'18", long 86°19'36", Rutherford County, at county road bridge, 0.9 mile south of Dillton.	7.07	.22	0		-
16.2	do 03428041	Lat 35°48'21", long 86°22'14", Rutherford County, 100 feet upstream from Elam Road bridge, 3.0 miles south of Murfreesboro.	15.8	1.38	+1.16		-
16.2	do 03428044	Lat 35°50'06", long 86°23'35", Rutherford County, 75 feet downstream from US Highway 231 bridge at Murfreesboro.	18.0	2.85	+1.47		-
16.2	do 03428050	Lat 35°50'47", long 86°23'45", Rutherford County, 75 feet upstream from Main Street bridge at Murfreesboro.	24.5	9.74	+6.89		-
16.2	do 03428060	Lat 35°51'15", long 86°24'45", Rutherford County, at mouth, 1.25 miles northwest of courthouse in Murfreesboro.	26.2	9.97	+2.23		-
16.1	West Fork Stones River 03428070	Gaging station at Manson Pike at Murfreesboro.	165	57.6*	-		+18.0

* Discharge computed from stage record.

West Fork Stones River seepage investigations--Headwaters to mouth--Continued

West Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second				West Fork Stones River Gain or Loss
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss		
14.0	West Fork Stones River 03428120	Lat 35°52'31", long 86°25'22", Rutherford County, 0.5 mile downstream from US Highways 41 and 70-S bridge, at Murfreesboro.	166	63.0	-		+5.4
13.4	do 03428125	Lat 35°53'19", long 86°25'26", Rutherford County, 150 feet downstream from Thompson Lane bridge, 3.5 miles northwest of the courthouse in Murfreesboro.	167	46.6	-		-16.4
11.5	do 03428180	Lat 35°53'56", long 86°25'32", Rutherford County, 150 feet downstream from bridge at Murfreesboro sewage treatment plant at Murfreesboro.	170	50.7	-		+4.1
11.2	Sinking Creek 03428183	Lat 35°51'54", long 86°23'21", Rutherford County, 0.25 mile downstream from US Highway 231 bridge, at Murfreesboro.	2.24	3.60	-		-
11.2	do 03428186	Lat 35°52'59", long 86°23'57", Rutherford County, at Sulphur Springs Road bridge, 2.6 miles north of courthouse in Murfreesboro.	4.35	2.44	-1.16		-
11.2	do 03428189	Lat 35°54'00", long 86°25'14", Rutherford County, 100 feet upstream from culvert at Thompson Lane, 1.5 miles northeast of Mt. Olive.	5.72	2.97	+5.3		-
10.7	West Fork Stones River 03428200	Gaging station at sewage treatment plant at Murfreesboro.	177	59.6*	-		+8.9
7.9	Overall Creek 03428280	Lat 35°47'27", long 86°32'37", Rutherford County, at private drive, 1000 feet northeast of Snail Shell Cave Road, 1.0 mile southeast of Windrow.	.26	0	-		-
7.9	do 03428290	Lat 35°48'10", long 86°31'28", Rutherford County, at unimproved road 2000 feet south of Salem Road, upstream from Overall Spring, 3.1 miles north of Rockvale.	2.07	0	0		-
7.9	do 03428305	Lat 35°48'34", long 86°30'57", Rutherford County, 100 feet south of Salem Road, 1500 feet west of intersection of Salem Road and Kingwood Lane, 2.2 miles west of Salem, and 3.7 miles north of Rockvale.	11.0	4.34	+4.34		-
7.9	do 03428310	Lat 35°48'42", long 86°30'35", Rutherford County, 30 feet upstream from county road bridge, 1.8 miles west of Salem.	11.8	4.67	+3.3		-
7.9	do 03428315	Lat 35°49'43", long 86°29'07", Rutherford County, 100 feet upstream from ford, 0.5 mile west of Rucker Road, 1.4 miles north of Salem.	15.5	.16	-4.51		-
7.9	do 03428320	Lat 35°50'36", long 86°29'24", Rutherford County, 30 feet upstream from bridge on State Highway 96, 5.5 miles west of Murfreesboro.	17.7	10.6	+10.4		-
7.9	Overall Creek tributary 03428330	Lat 35°51'49", long 86°29'02", Rutherford County, at culvert on Brinkley Road, 0.65 mile south of intersection with Manson Pike, 5.25 miles west of Murfreesboro.	4.53	0	-		-
7.9	Armstrong Branch 03428335	Lat 35°45'38", long 86°28'32", Rutherford County, 2.2 miles northwest of Crescent 3.2 miles east of Rockvale.	1.83	0	-		-
7.9	do 03428340	Lat 35°46'19", long 86°28'28", Rutherford County, 2.5 miles northwest of Crescent.	2.71	0	0		-
7.9	do 03428345	Lat 35°47'02", long 86°28'23", Rutherford County, 1.8 miles south of Salem.	6.17	0	0		-

* Discharge computed from stage record.

West Fork Stones River seepage investigations--Headwaters to mouth--Continued

West Fork Stones River mile	Stream and Site Number	Location	Discharge, in cubic feet per second			
			Drainage Area (sq mi)	Meas. disch.	Tributary Gain or Loss	West Fork Stones River Gain or Loss
7.9	Armstrong Branch 03428350	Lat 35°47'22", long 86°28'25", Rutherford County, 1.4 miles south of Salem.	6.46	0	0	-
7.9	do 03428355	Lat 35°47'48", long 86°28'22", Rutherford County, at Armstrong Valley Road, 0.9 mile south of Salem.	7.22	0	0	-
7.9	Puckett Creek 03428360	Lat 35°48'32", long 86°28'12", Rutherford County, at State Highway 99 bridge, at Salem.	11.3	0	-	-
7.9	do 03428365	Lat 35°50'41", long 86°27'37", Rutherford County, at State Highway 96 bridge, 3.8 miles west of Murfreesboro.	14.9	1.67	+1.67	-
7.9	Overall Creek 03428375	Lat 35°52'15", long 86°28'06", Rutherford County, 150 feet upstream from Manson Pike bridge, 4.6 miles northwest of Murfreesboro.	41.2	7.73	-2.87	-
7.9	do 03428380	Lat 35°52'20", long 86°27'46", Rutherford County, at Interstate 24 bridge, 4.4 miles northwest of Murfreesboro.	42.2	8.38	+6.5	-
7.9	do 03428385	Lat 35°53'10", long 86°27'48", Rutherford County, at Asbury Pike bridge, 1.2 miles west of Mt. Olive.	43.6	31.0	+22.62	-
7.9	Asbury Pike Spring 03428390	Lat 35°53'17", long 86°28'06", Rutherford County, 10 feet downstream from spring, 100 feet upstream from confluence with Overall Creek, 1.5 miles west of Mt. Olive.	-	4.48	-	-
7.9	Overall Creek 03428400	Lat 35°54'22", long 86°27'41", Rutherford County, at Old US Highway 41 and 70-S bridge, 5.5 miles northwest of Murfreesboro.	49.9	33.5	+2.5	-
7.9	do 03428410	Lat 35°54'56", long 86°27'35", Rutherford County, at US Highway 41 and 70-S bridge, 5.7 miles southeast of Smyrna.	51.3	35.6	+2.1	-
6.6	West Fork Stones River tributary No. 3 03428480	Lat 35°55'59", long 86°28'33", Rutherford County, 100 feet northeast of US Highways 41 and 70-S, 1.1 miles north of Florence.	2.15	.17	-	-
6.6	do 03428490	Lat 35°56'10", long 86°27'59", Rutherford County, 40 feet east of Florence Road, 700 feet upstream from mouth, 4.2 miles southeast of Smyrna.	2.58	.66	+4.9	-
6.4	West Fork Stones River 03428500	Gaging station near Smyrna.	237	111	-	+51.4
5.4	West Fork Stones River tributary No. 8 03428510	Lat 35°56'52", long 86°28'19", Rutherford County, at Florence Road, north of intersection with Silver Springs Road, 1.4 miles west of Leanna.	.75	.10	-	-
3.8	West Fork Stones River tributary No. 9 03428520	Lat 35°57'37", long 86°26'56", Rutherford County, at county road bridge, 1.8 miles northwest of Leanna.	1.01	0	-	-
Overall net gain or loss						110.53

PART 2. WATER QUALITY RECORDS

CUMBERLAND RIVER BASIN

03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TENN.

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

DRAINAGE AREA.--165 sq mi (427 sq km).

PERIOD OF RECORD: Chemical analyses: July 1973 to September 1974.

Water temperatures: July 1973 to September 1974.

REMARKS.--Record of hourly values available in district office at Nashville. Chemical analyses and water temperature record missing March to September 1974.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JULY 1973 TO SEPTEMBER 1973

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	318	312	314	330	318	323
2	---	---	---	---	---	---	319	315	318	334	314	324
3	---	---	---	---	---	---	322	317	320	331	313	323
4	---	---	---	---	---	---	324	316	321	---	---	---
5	---	---	---	---	---	---	319	313	317	---	---	---
6	---	---	---	---	---	---	315	310	313	---	---	---
7	---	---	---	---	---	---	315	310	312	337	305	321
8	---	---	---	---	---	---	312	304	308	327	300	318
9	---	---	---	---	---	---	312	307	310	---	---	---
10	---	---	---	---	---	---	317	289	309	---	---	---
11	---	---	---	339	326	332	302	246	287	---	---	---
12	---	---	---	341	287	315	286	251	267	336	317	324
13	---	---	---	292	283	286	275	239	254	325	295	318
14	---	---	---	299	289	293	279	261	268	324	304	317
15	---	---	---	310	295	299	309	304	306	319	310	315
16	---	---	---	313	230	269	314	307	311	312	299	304
17	---	---	---	262	232	247	317	309	314	296	274	286
18	---	---	---	308	261	284	321	311	317	296	279	287
19	---	---	---	340	304	316	316	304	312	283	260	272
20	---	---	---	346	285	312	309	302	305	271	246	263
21	---	---	---	299	282	287	318	304	312	256	243	249
22	---	---	---	313	298	305	330	318	324	264	246	255
23	---	---	---	319	312	317	328	318	328	268	253	260
24	---	---	---	317	312	314	321	313	319	273	259	265
25	---	---	---	313	294	304	317	305	311	270	264	268
26	---	---	---	311	292	304	312	295	303	275	271	272
27	---	---	---	332	294	320	302	290	297	277	271	274
28	---	---	---	329	325	327	309	300	304	279	273	276
29	---	---	---	325	320	323	323	310	315	279	273	276
30	---	---	---	323	318	321	324	310	318	279	272	277
31	---	---	---	321	314	318	326	318	323	---	---	---
MONTH	---	---	---	---	---	---	330	239	308	337	243	290

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

PH (UNITS), JULY 1973 TO SEPTEMBER 1973

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITRE, JULY 1973 TO SEPTEMBER 1973

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.2	4.1	5.3
2	---	---	---	---	---	---	---	---	---	7.2	3.8	5.0
3	---	---	---	---	---	---	---	---	---	7.2	3.8	5.0
4	---	---	---	---	---	---	---	---	---	9.8	3.6	6.1
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	8.4	2.9	5.0
8	---	---	---	---	---	---	---	---	---	9.1	2.6	4.9
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	7.5	5.0	6.2	---	---	---
11	---	---	---	7.2	6.7	6.9	7.3	5.0	5.9	---	---	---
12	---	---	---	7.1	6.7	6.9	6.4	5.4	5.8	7.7	5.1	6.4
13	---	---	---	7.6	6.5	6.9	5.8	5.2	5.5	6.2	4.6	5.1
14	---	---	---	7.4	6.4	6.8	6.4	5.6	6.0	6.6	4.3	5.6
15	---	---	---	8.0	6.2	7.0	7.3	6.1	6.6	6.7	6.3	6.6
16	---	---	---	7.5	6.6	7.1	7.9	6.7	7.2	7.0	6.2	6.6
17	---	---	---	7.1	6.7	7.0	8.6	7.2	7.8	7.5	6.4	6.7
18	---	---	---	7.0	6.6	6.7	8.8	7.2	7.9	7.6	4.6	6.8
19	---	---	---	7.2	6.5	6.9	9.1	7.4	8.2	8.0	6.9	7.4
20	---	---	---	7.0	6.4	6.7	8.9	7.4	8.1	7.8	6.9	7.4
21	---	---	---	7.0	6.2	6.6	8.8	6.9	7.8	9.6	7.3	8.3
22	---	---	---	7.3	6.2	6.7	8.8	6.3	7.3	10.1	7.8	8.7
23	---	---	---	7.6	6.2	6.7	8.9	6.2	7.3	9.6	7.6	8.4
24	---	---	---	---	---	---	9.1	6.3	7.3	8.9	7.3	7.9
25	---	---	---	---	---	---	9.3	6.2	7.4	8.4	6.9	7.6
26	---	---	---	---	---	---	9.8	6.1	7.6	8.0	6.4	7.1
27	---	---	---	---	---	---	9.9	6.4	7.7	7.7	5.9	6.7
28	---	---	---	---	---	---	9.6	5.8	7.2	7.7	5.8	6.6
29	---	---	---	---	---	---	9.1	5.3	6.8	6.5	5.5	6.0
30	---	---	---	---	---	---	5.5	1.3	2.4	6.5	5.2	5.8
31	---	---	---	---	---	---	7.0	2.2	4.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	10.1	2.6	6.5

CUMBERLAND RIVER BASIN

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

TEMPERATURE (°C) OF WATER, JULY 1973 TO SEPTEMBER 1973

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C). WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH (UNITS) • WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

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

PH (UNITS) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

PH (UNITS) • WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITRE , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.5	23.5	24.5	---	---	---	---	---	---	10.5	8.0	9.0
2	26.0	23.0	24.5	---	---	---	---	---	---	8.5	7.5	8.0
3	25.5	23.5	24.5	15.5	15.0	15.0	---	---	---	8.5	6.5	7.5
4	26.0	23.5	24.5	16.0	15.5	15.5	---	---	---	8.5	7.5	8.0
5	24.5	23.0	24.0	16.0	14.0	15.0	---	---	---	10.0	8.5	9.0
6	24.5	21.5	23.0	14.0	12.0	13.0	---	---	---	11.0	9.5	10.5
7	24.5	22.5	23.5	12.5	10.0	12.0	10.5	8.5	9.5	12.0	10.5	11.5
8	23.5	22.5	23.0	12.0	12.0	12.0	9.5	8.0	9.0	10.5	8.5	10.0
9	23.5	22.5	23.0	12.5	11.5	12.0	9.0	8.0	8.5	11.5	10.0	11.0
10	24.0	22.5	23.0	11.0	9.0	10.5	8.5	7.0	8.0	14.0	10.5	12.5
11	24.0	22.5	23.0	10.0	8.5	9.0	7.0	6.0	6.5	14.0	10.5	12.0
12	24.0	22.5	23.0	10.0	8.0	9.0	8.0	6.5	7.0	10.5	9.0	9.5
13	23.0	22.0	22.5	11.5	9.0	10.0	9.5	8.0	9.0	---	---	---
14	23.5	22.0	22.5	13.0	10.5	12.0	9.0	8.5	9.0	---	---	---
15	22.0	21.0	21.5	15.0	13.0	14.0	8.5	7.5	8.0	12.0	10.5	11.0
16	21.5	20.0	20.5	---	---	---	7.5	6.0	7.0	14.0	12.0	13.0
17	19.5	18.0	19.0	---	---	---	6.0	4.5	5.0	15.5	13.5	14.5
18	19.0	17.0	18.0	---	---	---	5.0	4.0	4.5	15.5	15.0	15.0
19	18.5	16.5	17.0	---	---	---	6.0	4.5	5.5	16.5	15.0	15.5
20	19.0	16.5	17.5	---	---	---	6.5	5.0	6.0	16.0	15.5	15.5
21	18.5	16.5	17.5	---	---	---	5.0	4.0	4.5	16.0	14.5	15.0
22	19.0	16.5	17.5	14.5	13.5	14.0	4.5	3.0	4.0	15.5	13.5	14.5
23	18.5	16.0	17.5	15.5	13.5	14.5	6.0	4.0	5.0	15.0	13.0	14.0
24	18.5	16.0	17.0	17.0	15.5	16.5	7.5	6.0	6.5	13.0	10.5	11.5
25	19.0	16.0	17.0	17.5	17.0	17.0	10.5	7.5	9.0	11.5	10.5	11.0
26	18.5	16.0	17.5	18.0	16.5	17.0	13.0	10.5	12.5	14.5	11.5	13.5
27	18.0	15.5	17.0	---	---	---	12.5	10.5	11.5	16.0	14.5	15.0
28	17.5	15.5	16.5	---	---	---	10.5	9.5	10.0	15.0	14.5	14.5
29	15.5	13.5	14.5	---	---	---	11.5	10.0	10.5	15.0	13.5	14.0
30	13.5	12.5	12.5	---	---	---	11.0	10.0	10.5	14.5	12.5	13.5
31	12.5	12.0	12.0	---	---	---	11.5	10.5	11.0	15.0	12.5	13.5
MONTH	26.5	12.0	20.0	---	---	---	13.0	3.0	8.0	16.5	6.5	12.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974--CONTINUED

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

TENNESSEE RIVER BASIN

03470000 LITTLE PIGEON RIVER AT SEVIERVILLE, TENN.

LOCATION.--Lat 35°52'42", long 83°34'40", Sevier County, temperature recorder at gaging station, on left bank, 0.2 mile (0.3 km) downstream from West Prong Little Pigeon River, 0.6 mile (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 sq mi (914 sq km).

PERIOD OF RECORD.--Water temperatures: November 1968 to May 1974 (discontinued).

EXTREMES.--Oct. 1973 to May 1974:

Water temperatures: Maximum, 28.0°C Oct. 4; minimum, 3.0°C Feb. 26.

Period of record:

Water temperatures: Maximum, 34.0°C July 5, 19, 1969; minimum, freezing point, Jan. 7-10, 1969; Jan. 20, 21, 1971.

REMARKS.--Miscellaneous samples of chemical data published for the water year 1968, 1970.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.0	23.0	13.5	10.5	10.5	9.0	9.0	8.5	11.0	10.5	10.5	5.5
2	24.0	21.5	14.5	10.5	10.5	8.5	8.5	8.0	11.0	10.5	12.0	10.0
3	25.5	21.0	15.5	11.0	10.0	9.0	8.5	8.0	11.0	10.0	14.0	11.5
4	28.0	23.0	16.5	12.0	10.0	9.0	8.5	8.5	11.0	8.0	15.0	12.0
5	24.5	21.5	14.5	13.5	13.0	10.0	8.5	8.5	8.0	6.5	13.5	13.0
6	25.5	21.0	14.5	9.0	12.0	9.5	8.5	8.5	6.5	6.5	13.0	11.5
7	25.5	21.5	9.5	9.0	9.5	8.0	8.5	8.5	7.0	6.5	14.5	13.0
8	25.0	21.5	10.0	9.0	8.0	6.5	8.5	8.0	7.0	6.5	15.0	14.0
9	25.0	20.5	11.0	8.0	9.0	6.5	9.5	8.0	6.5	5.5	15.5	14.0
10	25.0	20.5	10.5	6.5	8.0	6.0	11.5	9.0	5.5	5.0	15.5	14.5
11	25.0	19.5	9.5	4.5	6.5	5.0	11.5	11.5	6.5	5.5	15.0	14.5
12	24.5	19.5	9.5	4.5	6.0	5.0	11.5	11.5	6.5	5.0	15.5	14.5
13	23.5	19.0	11.0	5.0	8.5	5.5	9.0	8.0	7.0	6.0	15.0	12.0
14	24.0	20.5	13.0	7.0	8.5	8.0	10.5	9.0	10.0	7.0	13.5	11.0
15	24.0	18.5	15.0	9.5	8.0	7.0	10.5	10.5	10.0	10.0	12.0	11.0
16	21.5	17.0	13.5	11.0	7.0	6.0	11.0	8.0	10.0	9.0	11.0	11.0
17	20.0	15.0	13.5	9.5	6.0	4.0	13.0	11.0	9.0	8.0	11.0	9.0
18	19.0	13.5	12.0	8.5	5.0	3.5	12.0	11.5	8.0	6.5	9.0	8.0
19	19.0	13.5	13.0	9.0	5.5	3.5	12.0	11.5	8.5	8.0	11.5	8.0
20	19.5	13.5	13.5	10.0	7.0	4.0	12.0	11.5	9.0	8.0	11.5	11.0
21	20.0	14.5	13.0	12.0	7.0	5.0	13.0	12.0	8.5	7.0	11.5	10.0
22	20.0	14.5	12.0	10.5	5.0	4.0	12.0	11.0	9.0	8.0	10.5	9.0
23	20.0	15.0	12.0	10.5	5.0	4.0	11.0	10.5	8.0	6.5	11.0	9.0
24	20.0	14.5	14.5	11.5	6.5	5.0	11.0	10.5	7.0	6.5	11.0	10.0
25	19.5	14.0	14.0	13.0	8.5	6.5	10.5	10.5	6.5	4.5	10.0	8.5
26	19.5	14.0	14.0	13.5	9.5	8.5	11.0	10.5	4.5	3.0	10.5	9.0
27	19.5	14.0	14.0	13.5	10.0	9.5	11.5	11.0	5.5	3.5	10.5	10.5
28	16.0	14.5	14.0	12.0	9.5	8.5	11.5	11.0	5.5	5.0	13.5	10.0
29	14.5	12.0	12.0	10.0	8.5	8.0	11.0	11.0	---	---	13.5	12.0
30	12.0	11.5	10.0	8.5	8.5	8.0	11.0	11.0	---	---	13.5	12.0
31	11.5	11.0	---	---	9.0	8.0	11.0	10.5	---	---	13.0	10.5
MONTH	28.0	11.0	16.5	4.5	13.0	3.5	13.0	8.0	11.0	3.0	15.5	5.5

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

[illegible]

TENNESSEE RIVER BASIN

03482100 ROAN CREEK NEAR DOEVILLE, TENN.

LOCATION.--Lat 36°22'59", long 81°55'20", Johnson County, on right bank just downstream from private bridge, 300 ft (90 m) upstream from Williams Island, 2.5 miles (4.0 km) east of Doeville, and at mile 6.47 (10.41 km).

DRAINAGE AREA.--110 sq mi (285 sq km).

PERIOD OF RECORD.--Water temperatures: September 1971 to September 1974 (discontinued).

EXTREMES.--1973-74:

Water temperatures: Maximum, 25.0°C July 28; minimum, freezing point, several days during winter period.

Period of record:

Water temperatures: Maximum, 27.0°C July 20, 1972; minimum, freezing point, several days during winter periods.

REMARKS.--Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	19.0	11.5	8.5	9.0	7.0	9.0	6.5	9.5	5.5	11.0	6.5
2	19.5	16.0	11.5	9.0	9.0	6.5	8.0	5.5	10.5	9.0	12.0	8.5
3	19.0	16.5	14.5	11.5	8.0	5.5	10.0	7.0	10.0	8.0	13.5	9.0
4	19.0	16.0	15.0	13.5	10.0	8.0	9.5	8.5	8.0	4.5	14.0	10.0
5	19.0	17.0	14.5	13.0	11.5	10.0	9.5	8.5	6.5	2.0	13.0	10.5
6	18.0	15.5	13.0	9.5	11.0	8.0	8.5	8.5	8.0	5.0	13.0	10.0
7	17.0	15.5	9.5	8.0	8.0	5.5	8.5	5.5	9.0	8.0	16.0	11.5
8	17.0	16.5	11.0	8.5	6.5	5.5	6.5	5.0	8.5	4.0	15.5	11.5
9	18.0	15.5	11.0	8.5	5.5	4.5	9.5	6.5	4.0	2.0	15.5	11.0
10	18.0	15.5	8.5	5.0	5.0	4.5	11.0	8.5	5.0	1.0	14.5	13.0
11	17.0	15.5	5.0	3.0	4.5	2.0	11.0	8.5	5.0	3.0	13.0	11.5
12	16.5	14.0	5.0	4.0	3.0	1.5	8.5	4.0	6.0	1.0	13.5	10.0
13	16.0	14.0	6.5	5.0	5.5	3.0	5.0	4.0	8.5	3.0	11.0	8.0
14	17.0	16.0	8.5	6.5	5.5	5.0	6.5	5.0	9.0	8.0	10.0	4.0
15	17.0	14.0	10.5	8.0	5.5	5.0	9.0	6.5	10.0	8.0	10.5	4.5
16	16.0	14.0	10.5	9.5	5.5	4.5	11.5	9.0	9.0	5.0	9.5	5.5
17	14.5	11.0	9.5	7.0	4.5	2.0	11.5	10.0	6.5	4.0	5.5	4.5
18	12.0	9.0	7.0	5.5	2.0	0.0	10.5	9.5	8.0	3.0	7.0	3.0
19	12.0	9.0	9.5	6.5	3.0	1.0	10.0	9.5	8.5	6.0	11.0	7.0
20	13.0	9.5	10.0	8.5	5.0	3.0	10.5	9.0	8.5	6.0	11.5	9.5
21	14.0	11.0	10.5	10.0	5.5	2.0	11.0	9.0	9.5	4.0	10.0	6.5
22	14.0	11.0	10.0	9.0	2.0	0.0	4.5	7.0	10.0	5.5	10.5	5.5
23	14.0	11.5	10.0	8.5	3.5	1.5	10.0	7.0	7.0	3.5	11.0	5.5
24	14.0	11.5	11.5	9.0	5.5	3.5	11.0	10.0	8.0	3.0	9.5	6.5
25	14.0	10.0	11.5	11.5	6.5	5.5	11.5	10.5	6.5	1.0	9.0	5.0
26	13.5	10.5	12.0	10.5	9.0	6.5	12.0	11.0	4.0	0.0	9.0	6.5
27	13.5	10.0	14.0	12.0	9.0	8.0	13.0	10.0	5.5	0.0	10.0	7.0
28	13.5	12.0	13.5	10.0	8.5	5.0	10.5	9.0	6.0	0.0	12.0	9.5
29	12.0	10.0	10.0	8.0	5.5	5.0	11.0	9.0	---	---	10.5	9.5
30	10.0	8.5	8.5	6.0	7.0	5.5	10.0	7.0	---	---	10.5	7.0
31	8.5	8.0	---	---	8.5	6.5	9.0	6.0	---	---	12.0	6.0
MONTH	20.0	8.0	15.0	3.0	11.5	0.0	13.0	4.0	10.5	0.0	16.0	3.0

03482100 ROAN CREEK NEAR DOEVILLE, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03491000 BIG CREEK NEAR ROGERSVILLE, TENN.

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, temperature recorder at gaging station on left bank 300 ft (90 m) upstream from county bridge, 2.0 miles (3.2 km) upstream from mouth, and 3 miles (5 km) northeast of Rogersville.

DRAINAGE AREA.--47.3 sq mi (122.5 sq km).

PERIOD OF RECORD.--Water temperatures: October 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 23.0°C several days in August; minimum, 3.5°C Dec. 26.

Period of record:

Water temperatures: Maximum, 26.5°C sometime between July 25 and Aug. 6, 1972; minimum, 2.0°C Jan. 13, 14, 15, 1973.

REMARKS.--Missing record May 9 through July 22.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

03491000 BIG CREEK NEAR ROGERSVILLE, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03491500 HOLSTON RIVER NEAR ROGERSVILLE, TENN.

LOCATION.--Lat 36°22'13", long 82°59'58", Hawkins County, temperature recorder at site of former gaging station, 0.4 mile (0.6 km) upstream from Southern Railway bridge, 0.5 mile (0.8 km) downstream from Dodson Creek, 0.8 mile (1.3 km) upstream from bridge on State Highways 66 and 70, 3 miles (5 km) south of Rogersville, and at mile 104.2 (167.7 km).

DRAINAGE AREA.--3,035 sq mi (7,860 sq km).

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1974 (discontinued).

EXTREMES.--1973-74:

Water temperatures: Maximum, 28.0°C July 17, Aug. 20-21; minimum, 5.0°C Dec. 22, 23, 24, Feb. 26.

Period of record:

Water temperatures: Maximum, 32.0°C July 6, 1969; minimum, 0.5°C Jan. 9, 1970.

REMARKS.--Missing record Oct. 1-5, Oct. 12 to Nov. 2. Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	10.5	10.0	8.0	8.0	10.0	9.5	9.0	6.5
2	---	---	---	---	10.5	10.0	8.0	7.0	10.5	10.0	10.5	9.0
3	---	---	15.0	14.5	11.0	10.0	8.0	7.0	10.0	9.5	11.0	10.5
4	---	---	16.0	14.5	11.5	10.0	8.0	8.0	9.5	8.0	12.0	10.5
5	---	---	15.5	14.5	12.0	11.5	8.0	8.0	8.0	7.0	13.0	11.5
6	20.5	18.5	15.0	14.0	11.5	10.5	8.5	8.0	8.5	8.0	11.5	10.5
7	22.0	18.5	14.0	13.5	10.5	10.0	8.5	8.0	8.5	8.0	11.5	11.0
8	25.5	22.0	13.5	12.0	10.0	9.5	8.5	8.0	9.5	8.0	14.0	11.5
9	24.0	20.0	13.5	12.0	10.5	9.5	8.0	8.0	8.0	6.5	14.0	13.0
10	24.0	20.0	12.0	11.0	9.5	8.5	9.0	8.0	6.5	6.0	14.5	13.5
11	23.0	20.5	11.0	10.0	9.0	8.0	10.0	9.0	7.0	6.5	14.0	13.0
12	---	---	12.0	10.5	8.0	8.0	9.5	8.5	8.0	6.5	14.5	13.5
13	---	---	14.0	11.5	9.0	8.0	8.5	7.0	8.5	7.0	14.0	11.0
14	---	---	13.0	10.0	9.0	8.5	7.0	7.0	9.0	8.5	11.0	10.0
15	---	---	13.0	10.0	8.5	8.0	8.0	7.0	9.0	8.5	10.0	9.0
16	---	---	13.5	12.0	8.5	8.0	9.5	8.0	9.0	8.5	10.0	9.5
17	---	---	13.5	11.0	8.0	6.0	10.0	9.5	8.5	7.0	9.5	8.5
18	---	---	11.5	11.0	6.0	6.0	10.5	10.0	8.0	7.0	8.5	8.0
19	---	---	13.0	11.0	6.0	6.0	10.5	10.0	8.0	7.0	9.0	8.5
20	---	---	13.0	11.0	6.5	5.5	10.5	10.0	8.5	8.0	10.5	9.0
21	---	---	12.0	11.0	7.0	6.0	10.5	10.0	9.0	8.0	10.5	9.5
22	---	---	13.5	11.0	6.0	5.0	10.5	10.0	9.0	8.5	9.5	9.0
23	---	---	14.0	13.0	5.5	5.0	10.0	9.5	8.5	7.0	10.0	9.0
24	---	---	13.0	12.0	6.0	5.0	9.5	9.5	8.5	7.0	10.0	9.5
25	---	---	14.5	13.0	6.5	6.0	10.0	9.5	7.0	5.5	10.0	9.0
26	---	---	14.5	13.5	9.0	6.5	10.5	10.0	6.0	5.0	10.0	9.5
27	---	---	15.0	14.5	9.0	8.5	11.5	10.5	6.5	5.5	10.0	9.5
28	---	---	14.5	13.0	9.0	8.0	11.0	10.5	6.5	6.5	11.0	10.0
29	---	---	14.0	10.5	8.5	6.5	10.5	10.0	---	---	12.0	11.0
30	---	---	10.5	10.0	7.0	6.5	10.5	10.0	---	---	12.0	11.5
31	---	---	---	---	8.5	7.0	10.0	9.5	---	---	12.0	11.0
MONTH	---	---	16.0	10.0	12.0	5.0	11.5	7.0	10.5	5.0	14.5	6.5

03491500 HOLSTON RIVER NEAR ROGERSVILLE, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	11.5	19.5	16.0	20.0	18.0	23.5	19.5	26.0	21.5	24.0	23.0
2	14.5	13.0	19.5	17.0	19.5	18.0	24.0	21.0	25.5	20.5	23.0	21.0
3	14.5	13.5	18.5	16.0	19.0	18.0	24.0	20.5	25.5	23.5	22.0	20.5
4	15.0	14.0	18.0	17.0	22.0	19.0	23.5	20.5	24.0	22.0	21.0	20.0
5	14.5	11.5	18.0	16.5	23.0	19.5	25.0	21.0	24.0	23.5	20.0	19.0
6	11.5	10.5	16.5	15.5	21.0	19.0	25.0	21.0	27.0	22.0	20.0	19.0
7	12.0	10.0	16.5	15.0	21.0	18.5	23.5	20.0	26.0	21.5	20.0	19.0
8	12.0	11.0	16.0	15.0	22.0	20.0	24.5	21.0	23.5	21.0	20.0	18.5
9	11.5	10.5	18.0	15.5	22.0	20.0	24.5	21.0	24.0	21.0	20.5	18.5
10	11.5	10.0	18.0	16.0	22.0	21.0	23.5	21.0	23.5	21.0	21.5	19.5
11	12.0	11.0	18.0	15.0	24.0	21.5	24.5	21.0	23.0	21.5	23.0	19.5
12	12.0	12.0	18.0	16.0	26.0	21.0	23.5	20.5	25.0	21.5	24.0	20.5
13	13.5	12.0	17.0	16.0	23.0	19.5	22.0	20.5	27.0	21.5	21.5	20.0
14	14.0	13.0	17.0	16.0	23.0	20.0	22.0	20.5	26.0	20.5	21.5	20.0
15	14.0	13.5	16.5	16.0	23.0	20.0	22.0	20.5	24.5	20.5	20.5	18.5
16	13.5	12.0	17.0	16.0	21.0	19.0	26.5	21.5	23.0	20.0	21.5	18.5
17	13.5	11.5	18.5	17.0	22.0	20.0	28.0	23.5	21.0	19.5	20.5	20.0
18	12.0	11.5	19.5	17.0	22.0	19.5	25.5	23.5	22.0	19.0	22.0	20.0
19	13.5	12.0	21.0	18.0	22.0	20.0	26.0	23.5	25.0	19.0	22.0	20.5
20	14.5	13.5	20.0	18.0	23.5	20.5	25.0	21.0	28.0	21.5	21.5	20.0
21	15.5	14.0	19.0	18.0	23.0	20.5	24.5	21.0	28.0	20.5	20.5	19.5
22	16.0	14.5	21.5	17.0	21.5	19.0	25.0	20.5	25.0	20.5	19.5	18.0
23	16.5	14.5	21.0	18.0	20.5	18.5	25.0	20.5	23.0	19.5	19.5	17.0
24	15.5	14.0	19.0	18.0	20.0	18.5	23.0	20.0	22.0	19.5	18.5	18.0
25	15.0	13.5	19.0	17.0	20.5	19.5	25.0	21.0	21.5	19.5	18.0	16.5
26	16.0	14.0	19.5	18.0	21.0	20.0	25.5	22.0	25.0	20.0	18.5	17.0
27	16.5	15.0	18.5	15.5	21.0	19.5	25.5	21.0	24.0	21.0	18.5	17.0
28	17.0	15.5	20.5	17.0	20.5	18.5	25.5	21.5	24.5	21.5	19.5	18.0
29	19.0	17.0	21.0	19.0	19.5	18.0	25.5	21.0	24.0	22.0	20.5	19.0
30	20.0	16.5	19.0	17.0	19.5	18.5	25.5	21.0	23.5	22.0	20.5	18.5
31	---	---	19.0	16.5	---	---	26.0	20.5	24.0	22.0	---	---
MONTH	20.0	10.0	21.5	15.0	26.0	18.0	28.0	19.5	28.0	19.0	24.0	16.5

TENNESSEE RIVER BASIN

03497100 TENNESSEE RIVER BELOW KNOXVILLE, TENN.

LOCATION.--Lat 35°56'46", long 83°56'48", Knox County, on left bank, under bridge on State Highway 73, 7.0 miles (11.3 km) downstream from confluence of French Broad and Holston Rivers, near auxiliary gage for gaging station 03497000, and at mile 645.1 (1038.0 km).

DRAINAGE AREA.--8,963 sq mi (23,214 sq km).

PERIOD OF RECORD.--Water temperatures: December 1969 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 25.0°C Oct. 1, 11, and several days in August and September; minimum, 6.5°C Jan. 2.

Period of record:

Water temperatures: Maximum, 29.0°C sometime between Aug. 3-6, 1970; minimum, 1.0°C Jan. 21, 1970.

REMARKS.--Missing record Sept. 1-5. Miscellaneous samples of chemical data published (as Tennessee River at Knoxville, 03497000) for the water years 1967, 1968. Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	25.0	24.5	18.0	18.0	12.0	10.5	8.5	7.0	11.0	10.5	9.5	8.5
2	24.5	24.5	18.0	18.0	13.0	12.0	7.0	6.5	11.5	11.0	10.0	9.5
3	24.5	24.5	18.0	17.0	13.5	13.0	8.0	7.0	11.5	11.5	11.0	10.0
4	24.5	24.5	18.0	18.0	13.5	12.0	8.5	8.0	11.5	10.0	11.5	11.0
5	24.5	24.5	18.5	18.0	13.5	13.5	8.0	8.0	10.0	9.5	11.5	10.5
6	24.5	24.5	18.5	16.5	13.5	12.0	8.5	8.0	10.5	10.0	11.0	10.0
7	24.5	24.5	16.5	16.5	13.0	12.0	8.5	8.0	10.5	10.5	12.0	10.5
8	24.5	24.5	16.5	16.0	12.0	12.0	8.0	8.0	10.5	9.5	13.0	11.5
9	24.5	24.5	16.0	16.0	12.0	11.5	8.5	8.0	9.5	9.0	13.0	11.5
10	24.5	24.5	16.0	15.0	12.0	11.0	9.0	8.5	9.5	9.0	13.0	11.5
11	25.0	24.5	15.0	14.0	11.0	10.5	9.5	9.0	9.0	8.5	13.0	11.5
12	24.5	24.5	14.5	14.0	11.5	11.0	9.5	8.5	9.0	8.5	13.0	11.5
13	24.5	24.5	14.5	14.0	12.0	11.0	8.5	8.5	9.5	9.0	12.0	10.5
14	24.5	24.0	15.0	14.5	11.5	10.5	8.5	8.5	10.0	9.5	11.0	10.0
15	24.0	23.0	15.5	15.0	11.0	10.5	8.5	8.5	10.0	9.5	12.0	10.5
16	24.0	23.0	15.5	15.5	10.5	10.0	9.0	8.5	9.5	9.0	13.0	11.0
17	23.0	22.0	15.5	14.5	10.0	9.5	9.0	9.0	9.0	8.5	11.0	9.5
18	22.0	21.5	14.5	14.5	9.5	9.0	9.5	9.0	9.0	8.5	10.0	9.5
19	21.5	21.0	15.0	14.5	10.0	9.5	9.5	9.5	9.5	9.0	11.5	10.0
20	21.5	21.5	15.0	15.0	10.0	9.0	9.5	9.5	9.0	8.5	12.0	11.0
21	21.5	21.5	15.0	15.0	9.5	8.5	9.5	9.5	10.0	8.5	13.0	11.5
22	21.5	21.5	15.0	15.0	8.5	7.0	9.5	9.5	10.0	8.5	11.5	11.0
23	21.5	21.5	15.0	14.5	9.0	7.0	10.0	9.5	9.0	8.0	12.0	10.5
24	21.5	21.5	15.0	14.5	9.0	7.0	10.0	10.0	9.0	8.0	12.0	11.0
25	21.5	21.5	15.0	14.5	9.5	8.5	10.0	10.5	8.0	7.0	11.5	10.5
26	21.5	21.0	15.0	15.0	10.0	9.5	11.0	10.5	8.0	7.0	12.0	11.5
27	21.5	21.0	15.5	15.0	10.5	9.5	11.0	10.5	8.5	7.0	12.0	11.5
28	21.0	21.0	15.5	15.0	10.5	9.5	10.5	10.5	8.5	8.0	13.0	11.5
29	21.0	19.0	15.0	14.0	10.0	9.5	11.0	10.5	---	---	13.5	13.0
30	19.0	18.0	14.0	11.5	9.5	8.5	11.0	10.5	---	---	14.0	12.0
31	19.0	---	---	---	8.5	7.0	11.0	10.5	---	---	14.5	12.0
MONTH	25.0	18.0	18.5	11.5	13.5	7.0	11.0	6.5	11.5	7.0	14.5	8.5

03497100 TENNESSEE RIVER BELOW KNOXVILLE, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	12.0	16.5	16.5	19.0	18.5	21.0	20.5	24.0	23.5	---	---
2	15.0	14.0	16.5	16.0	19.0	19.0	23.0	20.5	24.5	24.0	---	---
3	14.5	14.0	16.5	16.0	18.5	18.0	21.0	20.5	24.0	23.5	---	---
4	14.5	14.0	17.0	16.5	18.5	18.0	20.5	20.5	23.5	23.5	---	---
5	14.5	13.5	17.0	17.0	18.0	18.0	21.0	20.5	24.0	23.5	---	---
6	13.5	12.0	17.0	15.5	18.0	18.0	20.5	20.5	24.0	24.0	24.0	24.0
7	13.0	12.0	15.5	15.5	18.0	18.0	21.0	20.5	24.0	23.5	24.0	24.0
8	13.0	13.0	16.0	15.5	19.0	18.0	21.0	21.0	23.5	23.5	25.0	24.0
9	13.0	13.0	16.0	16.0	19.5	19.0	21.5	21.0	24.0	23.5	25.0	24.5
10	13.0	12.0	16.0	16.0	20.0	19.0	21.5	21.5	24.0	24.0	24.5	24.5
11	13.5	13.0	16.5	16.0	20.0	20.0	21.5	21.5	24.5	24.0	25.0	24.5
12	13.5	13.5	18.5	16.5	20.0	20.0	21.5	21.5	24.5	24.5	25.0	25.0
13	14.5	13.5	19.0	18.5	20.0	19.5	22.0	21.5	24.5	24.0	25.0	25.0
14	15.0	14.5	19.5	19.0	20.0	19.5	22.0	22.0	24.5	24.0	25.0	24.5
15	15.0	14.5	19.0	18.5	20.0	19.5	23.0	22.0	24.5	24.5	24.5	24.0
16	14.5	14.5	18.5	18.5	20.0	20.0	23.0	22.0	24.5	24.5	24.0	23.5
17	14.5	14.5	18.5	18.5	20.0	20.0	23.5	22.0	24.5	24.5	23.5	23.5
18	14.5	14.0	18.5	18.5	20.0	19.0	23.5	23.0	24.5	24.5	23.5	23.5
19	14.5	14.5	18.5	18.5	19.0	19.0	23.0	22.0	24.5	24.5	24.0	23.5
20	15.5	14.5	18.5	18.5	19.5	19.0	22.0	22.0	24.5	24.5	24.0	24.0
21	16.0	15.0	18.5	18.0	19.5	19.5	22.0	22.0	24.5	24.5	24.0	24.0
22	16.5	16.0	18.0	17.0	20.5	19.5	23.5	22.0	24.5	24.5	24.0	23.0
23	16.5	16.5	18.5	18.0	20.5	20.0	24.0	23.0	24.5	24.5	23.0	22.0
24	16.5	15.5	18.5	18.5	20.5	20.0	23.0	23.0	24.5	24.5	22.0	21.5
25	15.5	15.0	18.5	18.5	20.0	19.0	24.0	23.5	25.0	25.0	22.0	21.5
26	15.0	15.0	18.5	18.5	19.5	19.0	24.0	23.5	25.0	25.0	23.0	22.0
27	16.5	15.0	18.5	18.5	20.0	19.5	24.5	23.5	25.0	25.0	23.0	22.0
28	18.0	16.0	18.5	18.5	19.5	19.0	24.5	24.0	25.0	25.0	23.0	23.0
29	18.0	17.0	18.5	18.5	19.5	19.0	24.5	24.0	25.0	25.0	23.0	23.0
30	18.0	16.5	18.5	18.5	20.5	19.0	24.5	24.0	25.0	25.0	---	---
31	---	---	18.5	18.5	---	---	24.0	24.0	---	---	---	---
MONTH	18.0	12.0	19.5	15.5	20.5	18.0	24.5	20.5	25.0	23.5	25.0	21.5

TENNESSEE RIVER BASIN

03497300 LITTLE RIVER ABOVE TOWNSEND, TENN.
(Hydrologic bench-mark station)

LOCATION.--Lat 35°39'52", long 83°42'41", Blount County, temperature recorder at gaging station on left bank along State Highway 73, in Great Smoky Mountains National Park, 0.3 mile (0.5 km) upstream from Rush Branch, 0.4 mile (0.6 km) southeast of Park entrance, 2.2 miles (3.5 km) southeast of Townsend, and at mile 35.3 (56.8 km).

DRAINAGE AREA.--106 sq mi (275 sq km).

PERIOD OF RECORD.--Water temperatures: October 1963 to September 1974.

EXTREMES, 1973-74:

Water temperatures: Maximum, 21.0°C several days in July and August; minimum, 3.0°C Dec. 18, 19, Feb. 26.

Period of record:

Water temperatures: Maximum, 26.0°C June 23, 1964, July 3, 1970; minimum, freezing point several times during winter period in 1965, 1966, 1969, and 1971.

REMARKS.--Miscellaneous samples of chemical data published for the water years, 1964-71.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

03497300 LITTLE RIVER ABOVE TOWNSEND, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03518300 LITTLE TENNESSEE RIVER BELOW CHILHOWEE DAM, TENN.

LOCATION.--Lat 35°32'48", long 84°03'50", Blount County, temperature recorder at gaging station on right bank, on U. S. Highway 129 at Tallassee, 100 ft (30 m) upstream from Cochran Creek, 0.6 mile (1.0 km) downstream from Chilhowee Dam, 20 miles (32 km) south of Maryville, and at mile 33.0 (53.1 km).

DRAINAGE AREA.--1,987 sq mi (5,146 sq km), including Cochran Creek.

PERIOD OF RECORD.--Water temperatures: October 1963 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 19.5°C Oct. 3, 4; minimum, 8.5°C several days in February and March.

Period of record:

Water temperatures: Maximum, 28.0°C Aug. 29, 1964; minimum, 2.5°C Feb. 27, 1970.

REMARKS.--Miscellaneous samples of chemical data published for water year 1973. Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTERRER 1974

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

03518300 LITTLE TENNESSEE RIVER BELOW CHILHOWEE DAM, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	9.5	13.0	11.0	15.5	14.0	15.5	14.0	17.0	15.5	18.5	18.0
2	11.0	10.0	13.0	11.0	14.5	14.0	16.0	14.0	16.5	15.5	19.0	18.0
3	11.5	11.0	12.0	11.5	15.0	13.5	15.0	14.0	16.5	15.5	18.0	18.0
4	11.0	10.5	12.0	11.0	15.0	13.5	15.0	14.0	16.5	15.5	19.0	17.0
5	11.5	10.5	13.0	11.0	15.0	13.5	15.0	14.0	16.5	15.5	18.5	17.0
6	12.0	10.5	13.0	11.0	14.5	13.5	15.0	14.0	16.5	15.5	18.5	17.0
7	11.5	10.5	13.5	10.5	15.0	14.0	16.0	14.0	16.0	15.5	18.0	17.0
8	11.5	10.5	13.5	11.0	15.0	13.5	15.0	14.0	16.5	15.5	18.5	17.0
9	11.5	10.5	13.0	11.0	15.0	13.5	15.0	14.0	16.5	15.5	18.0	17.0
10	11.5	10.0	13.0	11.0	14.5	13.5	15.0	14.0	16.5	15.5	19.0	17.0
11	12.0	10.5	13.0	11.5	15.0	13.5	15.0	14.0	16.5	15.5	19.5	18.0
12	11.5	10.5	12.0	11.0	14.5	13.5	15.5	14.0	16.5	15.5	19.5	18.0
13	11.5	11.0	13.5	11.0	14.5	13.0	15.5	14.5	16.5	15.5	19.5	18.5
14	11.0	10.0	13.5	11.0	14.5	13.0	16.0	14.5	16.5	15.5	19.0	18.0
15	11.0	10.0	12.0	11.5	14.5	13.5	15.5	14.5	17.0	16.0	19.0	18.0
16	11.5	10.0	13.5	12.0	14.5	13.5	16.0	14.5	17.0	16.0	19.5	18.0
17	11.0	10.5	13.5	11.5	14.5	13.0	16.0	15.0	17.0	16.0	19.0	18.0
18	11.5	11.0	13.5	11.5	14.5	13.5	16.0	15.0	17.0	16.0	19.5	18.0
19	12.0	10.0	13.5	11.5	15.0	13.0	15.5	15.0	17.0	16.0	19.5	18.0
20	12.0	10.5	13.5	11.5	14.5	13.5	16.0	15.0	18.0	16.0	19.5	18.0
21	12.0	10.5	13.5	12.0	14.5	13.5	16.5	15.0	18.0	16.5	19.0	18.5
22	11.5	10.5	13.5	12.0	15.0	13.5	16.0	15.0	18.0	16.5	19.5	18.0
23	11.5	11.0	13.5	13.0	14.5	13.5	15.5	15.5	18.5	16.5	19.5	18.5
24	12.0	10.5	14.0	12.0	15.0	14.0	16.0	15.0	18.5	16.5	19.0	18.0
25	12.0	11.0	14.0	12.0	15.0	13.5	16.5	15.0	18.5	16.5	19.0	18.0
26	13.0	11.0	13.0	13.0	15.0	13.5	16.0	15.0	18.5	17.0	19.5	18.0
27	13.0	11.0	14.0	13.0	15.0	13.5	16.5	15.5	18.5	17.0	19.0	18.0
28	13.0	11.0	14.5	12.0	14.5	14.0	17.0	15.0	18.5	17.0	19.0	18.0
29	13.0	11.0	14.0	13.0	15.0	13.5	16.0	15.0	18.5	17.0	19.0	18.5
30	13.0	11.0	16.0	13.0	15.5	13.5	16.5	15.5	18.5	17.0	19.5	18.5
31	---	---	16.0	14.5	---	---	16.5	15.5	18.5	18.0	---	---
MONTH	13.0	9.5	16.0	10.5	15.5	13.0	17.0	14.0	18.5	15.5	19.5	17.0

TENNESSEE RIVER BASIN

03518500 TELlico RIVER AT TELlico PLAINS, TENN.

LOCATION.--Lat 35°21'42", long 84°16'44", Monroe County, temperature recorder at gaging station on right bank, 1,300 ft (400 m) upstream from bridge on Tellico Plains-Ballplay Road, 0.4 mile (0.6 km) downstream from Laurel Creek, 0.8 mile (1.3 km) east of Tellico Plains, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--118 sq mi (306 sq km).

PERIOD OF RECORD.--Water temperatures: July 1964 to March 1972, January 1973 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 28.0°C several days in July; minimum, freezing point, Dec. 18.

Period of record:

Water temperatures: Maximum, 31.0°C July 31, Aug. 2, 1964; minimum, freezing point, many days during winter months, 1964-69, Dec. 18, 1974.

REMARKS.--Miscellaneous samples of chemical data published for the water years 1969, 1970, 1973. Records furnished by Tennessee Valley Authority.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINIT AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
JAN. 15...	1245	173	200	230	20	2.0	.6	3	<1.0
FEB. 25...	1200	518	--	670	20	2.0	.9	4	1.0
MAR. 25...	1115	385	--	140	10	2.0	.6	7	<1.0
APR. 23...	1100	393	--	370	20	2.0	.7	7	3.0
MAY 14...	1050	266	--	260	20	2.0	.6	6	1.0
JUNE 10...	1145	171	--	270	20	2.0	.6	6	2.0
JULY 09...	1120	225	--	690	40	2.5	.7	6	1.0
AUG. 14...	1130	75	--	180	30	3.0	.7	6	1.0
SEP. 17...	1155	61	--	190	70	3.0	.8	6	1.0

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
JAN. 15...	1.0	.0	<.05	.02	<.03	.01	10	.01	4.67
FEB. 25...	3.0	.0	.15	.01	.15	.02	10	.01	14.0
MAR. 25...	1.0	.0	.57	.05	.15	<.01	20	.03	20.8
APR. 23...	2.0	.0	<.05	.01	.09	.01	20	.03	21.2
MAY 14...	2.0	.0	<.05	.02	.08	.01	20	.03	14.4
JUNE 10...	2.0	.0	<.05	.02	.04	.01	24	.03	11.1
JULY 09...	1.0	.0	.07	.01	.09	.01	20	.03	12.1
AUG. 14...	1.0	<.0	<.01	<.01	.11	.02	20	.03	4.05
SEP. 17...	2.0	.0	<.01	.03	.71	.03	20	.03	3.29

03518500 TELLICO RIVER AT TELLICO PLAINS, TENN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
JAN. 15...	4	7	17	5.7	9.4	5	1	10.8	--
FEB. 25...	6	9	21	6.0	4.4	10	9	11.0	8
MAR. 25...	3	8	19	6.5	6.7	<5	1	11.7	2
APR. 23...	6	8	23	6.3	12.2	10	3	11.4	8
MAY 14...	7	7	19	6.6	15.0	5	1	9.7	6
JUNE 10...	10	7	19	6.6	21.1	5	2	9.5	3
JULY 09...	17	65	21	6.1	20.0	15	5	8.1	6
AUG. 14...	28	10	26	6.9	22.2	5	4	10.0	2
SEP. 17...	2	11.	26	6.7	18.9	<5	4	9.7	8

03518500 TELlico RIVER AT TELlico PLAINS, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	21.0	20.0	12.0	9.0	9.0	7.0	11.0	8.0	10.0	8.5	9.5	6.0
2	21.0	19.0	13.0	9.0	9.0	7.0	8.5	7.0	11.5	10.0	11.5	9.5
3	22.0	18.5	14.5	10.5	10.0	7.0	12.0	8.5	11.5	10.5	14.0	10.5
4	22.0	18.5	15.5	12.0	13.0	9.5	11.0	10.0	10.5	7.0	15.0	12.0
5	21.5	18.5	15.0	13.0	13.0	10.5	10.0	9.5	7.0	5.5	13.5	13.0
6	22.0	18.5	13.0	10.0	10.5	7.0	10.5	10.0	9.5	6.5	15.0	13.0
7	21.5	18.5	10.5	9.0	7.0	5.5	10.5	7.0	10.0	9.5	16.5	14.0
8	21.0	19.0	10.5	9.5	5.5	4.5	9.0	7.0	9.5	6.5	16.0	13.5
9	21.0	18.0	11.5	9.5	6.0	4.5	11.5	9.5	6.5	5.0	16.5	13.0
10	21.0	17.0	9.5	6.5	5.5	4.0	13.5	11.5	5.5	4.5	17.0	13.5
11	20.0	17.0	7.0	4.5	4.0	1.5	13.5	10.0	6.5	5.5	16.0	14.5
12	20.0	16.5	7.0	3.5	4.0	1.5	10.0	6.5	6.0	4.5	16.5	14.0
13	19.5	16.0	8.0	4.0	7.0	4.0	7.0	5.5	8.0	5.5	14.5	11.0
14	20.0	16.0	9.5	6.0	7.0	6.0	9.0	7.0	10.5	8.0	12.0	9.0
15	19.0	15.0	11.5	8.0	6.0	5.5	11.0	9.0	11.0	10.0	12.0	8.5
16	18.0	14.5	12.0	9.5	5.5	4.0	11.5	11.0	10.5	9.5	11.0	9.5
17	16.0	11.5	10.0	7.0	4.0	0.5	12.0	11.5	9.5	8.0	9.5	6.5
18	14.5	10.0	9.0	6.0	1.5	0.0	11.5	10.5	8.0	6.0	7.0	5.5
19	14.5	10.0	11.0	8.0	3.5	0.5	12.0	11.0	9.0	8.0	11.0	7.0
20	14.5	10.5	13.0	9.5	7.0	3.5	13.0	11.5	9.0	8.0	12.0	11.0
21	15.5	11.5	13.5	11.5	6.5	2.0	13.0	10.0	9.5	6.5	13.0	9.5
22	16.0	12.0	11.5	9.5	2.0	1.0	10.5	9.5	10.5	8.0	10.0	8.0
23	16.0	12.0	11.5	9.0	4.0	1.0	11.0	10.0	8.0	6.0	11.0	8.5
24	15.5	11.5	14.5	11.0	5.5	4.0	11.0	11.0	8.0	6.0	11.0	9.0
25	15.5	11.5	15.0	13.5	9.5	5.5	12.0	11.0	7.0	2.0	9.0	6.5
26	16.0	12.0	15.5	13.5	11.5	9.5	14.0	12.0	4.0	1.0	11.0	8.5
27	15.5	11.5	16.0	15.5	10.5	8.0	13.5	11.0	5.0	2.0	10.5	10.0
28	14.5	13.0	15.5	11.5	8.0	6.0	12.0	11.0	6.0	4.5	13.5	10.5
29	13.0	10.5	11.5	8.5	8.5	6.0	11.5	10.0	---	---	14.5	11.5
30	10.5	10.0	8.5	6.5	9.0	8.5	10.5	8.5	---	---	13.5	11.5
31	10.5	9.5	---	---	11.0	8.5	9.5	8.5	---	---	13.0	9.5
MONTH	22.0	9.5	16.0	3.5	13.0	0.0	14.0	5.5	11.5	1.0	17.0	5.5

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

03528000 CLINCH RIVER ABOVE TAZEWEEL, TENN.

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, temperature recorder at gaging station on right bank 0.4 mile (0.6 km) upstream from Grissom Island, 4.6 miles (7.4 km) downstream from Big War Creek, 10 miles (16 km) east of Tazewell, and at mile 159.8 (257.1 km).

DRAINAGE AREA.--1,474 sq mi (3,818 sq km).

PERIOD OF RECORD.--Water temperatures: April 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 26.5°C several days in July; minimum, 2.0°C Dec. 22.

Period of record:

Water temperatures: Maximum, 30.0°C July 22, 23, 24, 1972, Aug. 29, 30, 31, 1973; minimum, 1.0°C Jan. 13, 14, 1973.

REMARKS.--Water temperatures, March 1962 to March 1966 are published in reports of Tennessee Valley Authority. Miscellaneous samples of chemical data published for the water years 1971, 1972, 1973. Records furnished by Tennessee Valley Authority.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANFOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 26...	1330	960	500	510	30	41	11	110	22
JAN. 14...	1130	8900	3200	2200	110	31	8.0	80	19
FEB. 05...	1330	5720	--	1400	60	33	8.6	86	15
MAR. 05...	1200	1760	--	510	20	37	12	81	20
APR. 03...	1030	4170	--	1400	50	33	8.5	79	20
MAY 07...	1040	3420	--	790	40	31	7.4	88	<1.0
JUNE 04...	1515	3540	--	3600	160	35	8.6	100	22
JULY 08...	1115	896	--	760	50	34	11	120	16
AUG. 06...	1200	779	--	850	60	38	13	120	20
SEP. 10...	1350	442	--	720	40	34	13	92	25

TENNESSEE RIVER BASIN

03528000 CLINCH RIVER ABOVE TAZEWEILL, TENN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV. 26...	6.0	.0	.31	.01	.25	--	150	.20	389
JAN. 14...	3.0	.0	.92	.03	.24	.02	120	.16	2880
FEB. 05...	2.0	.0	.73	.06	R.27	.03	130	.18	2010
MAR. 05...	3.0	.0	.73	.02	.19	.02	140	.19	665
APR. 03...	3.0	.0	.60	.02	.15	.04	130	.18	1460
MAY 07...	3.0	.0	.79	.01	.15	.02	110	.15	1160
JUNE 04...	3.0	.0	.64	.06	.47	.06	150	.20	1430
JULY 08...	4.0	.0	.61	.05	.67	.04	160	.22	387
AUG. 06...	4.0	.0	.31	.02	.43	.04	170	.23	358
SEP. 10...	4.0	.0	.21	.02	.12	.02	160	.22	191

DATE	TOTAL NON-FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV. 26...	9	150	280	7.8	13.0	5	10	9.1	--
JAN. 14...	46	81	190	7.0	7.2	15	30	11.5	--
FEB. 05...	32	120	220	7.8	8.9	5	22	11.4	11
MAR. 05...	13	140	270	7.6	12.2	5	4	10.1	3
APR. 03...	31	120	240	7.6	15.0	5	30	9.3	5
MAY 07...	13	120	210	7.7	14.4	<5	10	9.8	3
JUNE 04...	100	120	240	7.5	19.4	10	64	8.6	8
JULY 08...	27	130	48	7.9	24.4	5	14	8.3	8
AUG. 06...	14	150	180	7.7	23.9	10	13	8.4	8
SEP. 10...	13	140	280	7.5	23.3	10	12	7.8	4

03528000 CLINCH RIVER ABOVE TAZEWEEL, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03532000 POWELL RIVER NEAR ARTHUR, TENN.

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, temperature recorder at gaging station on left bank 500 ft (150 m) upstream from bridge on U. S. Highway 25E, 2.3 miles (3.7 km) east of Arthur, 2.4 miles (3.9 km) downstream from Indian Creek, and at mile 65.4 (105.2 km).

DRAINAGE AREA.--685 sq mi (1,774 sq km).

PERIOD OF RECORD.--Water temperatures: April 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 25.5°C July 28; minimum, 3.0°C Dec. 22.

Period of record:

Water temperatures: Maximum, 29.0°C July 20, 22, 23, 24, 1972; minimum, freezing point, Jan. 16, 1972, Jan. 13, 1973.

REMARKS.--Water temperatures August 1962 to February 1966 are published in reports of Tennessee Valley Authority. Miscellaneous samples of chemical data published for the water year 1972. Records furnished by Tennessee Valley Authority.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO ₃ (MG/L)	DIS-SOLVED SULFATE (SO ₄) (CL) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEV.												
12...	1000	--	400	380	20	32	11	100	17	2.0	.0	.76
12...	1100	1310	--	--	--	--	--	--	--	--	--	--
MAY												
13...	1115	3910	4700	3300	170	36	9.2	110	14	2.0	.0	.49
AUG.												
14...	1400	475	4200	2500	60	35	12	81	25	3.0	.0	.73

DATE	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
FEV.											
12...	.01	.09	.03	140	.19	--	6	130	230	7.6	5.6
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	.08	.65	.06	140	.19	1480	130	130	47	7.4	15.6
AUG.											
14...	.05	.33	.06	160	.22	205	56	140	290	7.2	23.3

DATE	COLOP (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL PERYL-LIUM (BE) (UG/L)
FEV.											
12...	<5	?	12.1	4	--	--	--	1.5	<5	<100	<10
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	10	75	9.8	9	4.0	9800	2980	6.5	<5	<100	<10
AUG.											
14...	10	52	8.2	6	1.5	--	--	2.9	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FEV.											
12...	<100	<1	<5	<10	<10	<10	<.2	50	<2	<10	<10
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	<100	<1	<5	30	10	<10	.2	<50	<2	<10	60
AUG.											
14...	<100	<1	<5	<10	<10	<10	<.2	<50	<2	<10	20

03532000 POWELL RIVER NEAR ARTHUR, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03535000 BULLRUN CREEK NEAR HALLS CROSSROADS, TENN.

LOCATION.--Lat 36°06'52", long 83°59'16", Knox County, temperature recorder at gaging station on left bank on downstream side of bridge, on U. S. Highway 441, 2.1 miles (3.4 km) downstream from Smith Branch, 4.0 miles (6.4 km) northwest of Halls Crossroads, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--68.5 sq mi (177.4 sq km).

PERIOD OF RECORD.--Water temperatures: October 1966 to June 1974 (discontinued).

EXTREMES.--October 1973 to June 1974:

Water temperatures: Maximum, 21.0°C several days in October; minimum, 5.0°C several days during winter period.

Period of record:

Water temperatures: Maximum, 27.0°C Aug. 7, 8, 9, 10, 1968; minimum, freezing point several days during January 1969, February 1971.

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

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

03579100 ELK RIVER NEAR ESTILL SPRINGS, TENN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
DEC. 04...	10	4.0	.0	.22	.06	.20	--	--	10	.01	10.5
JAN. 29...	10	4.0	.0	.59	.04	.20	.02	--	80	.11	659
FEB. 13...	8.0	3.0	.0	.54	.04	.11	.02	--	100	.14	142
MAR. 13...	8.0	3.0	.0	.56	.04	.10	.02	--	70	.10	55.4
APR. 10...	10	3.0	.0	.58	.06	.33	.03	--	90	.12	94.8
MAY 07...	8.0	4.0	.0	.46	.02	.09	.01	--	80	.11	51.2
JUNE 11...	7.0	3.0	.0	.36	.02	.12	<.01	--	80	.11	25.5
27...	5.0	3.0	.0	.29	.02	.07	.01	<.01	80	.11	11.7
JULY 31...	7.0	3.0	.0	.17	.02	.16	.04	<.01	70	.10	10.0
AUG. 28...	6.0	3.0	.0	.08	.02	.16	<.01	<.01	80	.11	16.0
SEP. 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L)
DEC. 04...	14	62	120	7.1	14.4	25	20	9.1	--	--	--
JAN. 29...	12	61	110	6.6	11.0	60	22	9.5	--	--	--
FEB. 13...	4	69	140	7.8	10.5	25	8	11.7	10	--	--
MAR. 13...	5	64	130	9.0	12.0	15	7	13.5	6	--	--
APR. 10...	4	71	140	8.9	15.0	10	5	7.1	4	--	--
MAY 07...	4	70	150	7.9	15.0	10	4	9.4	3	--	--
JUNE 11...	2	76	140	8.0	20.0	5	2	7.8	6	--	--
27...	3	70	140	--	21.0	<5	2	9.8	6	.9	.4
JULY 31...	7	73	140	7.3	25.0	5	2	7.6	4	.8	.8
AUG. 28...	3	--	150	7.8	27.2	5	1	7.9	1	7.7	.7
SEP. 24...	--	--	--	6.5	20.0	--	--	8.2	--	--	--

TENNESSEE RIVER BASIN

03579100 ELK RIVER NEAR ESTILL SPRINGS, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

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03580750 ELK RIVER BELOW TIMS FORD DAM, TENN.

LOCATION.--Lat 35°11'32", long 86°16'52", Franklin County, temperature recorder at gaging station on right bank 150 ft (50 m) upstream from bridge on State Highway 50, 0.3 mile (0.5 km) downstream from Tims Ford Dam, 3.6 miles (5.8 km) north of Lexie Crossroads, 9.5 miles (15.3 km) west of Winchester, and at mile 133 (214 km).

DRAINAGE AREA.--534 sq mi (1,383 sq km).

PERIOD OF RECORD.--Water temperatures: May 1971 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 21.0°C Oct. 7, 14; minimum, 8.5°C Jan. 10, 15.

Period of record:

Water temperatures: Maximum, 25.0°C June 24, 25, 1971, July 23, 1972; minimum, 3.5°C Feb. 19, 1972.

REMARKS.--Miscellaneous samples of chemical data published for the water year 1973. Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03580750 ELK RIVER BELOW TIMS FORD DAM, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	9.0	13.5	9.5	15.0	10.0	19.0	12.0	18.0	10.5	17.0	13.0
2	13.0	9.0	15.5	11.5	17.0	10.0	20.0	13.0	15.0	10.5	17.0	13.0
3	12.0	9.0	15.0	9.5	18.0	10.0	20.5	12.0	15.5	10.5	15.0	12.0
4	9.5	9.0	14.5	11.5	16.0	10.0	19.5	13.0	18.0	11.0	14.5	12.0
5	9.5	9.5	13.5	11.0	14.5	10.0	17.0	12.0	18.0	11.0	15.0	11.5
6	11.0	9.5	15.5	10.0	16.0	10.0	19.5	12.0	18.5	11.0	18.0	11.5
7	12.0	9.0	16.0	9.5	16.5	10.0	18.5	12.0	15.5	11.0	16.5	11.5
8	12.0	9.5	14.0	9.5	15.0	10.0	19.5	12.0	16.5	11.0	15.5	11.5
9	11.0	10.0	14.5	9.5	17.0	10.0	20.0	12.0	16.5	11.0	16.5	11.5
10	10.5	9.5	15.5	9.5	18.0	10.5	20.0	13.0	18.0	11.0	17.0	13.0
11	11.0	9.5	14.0	9.5	18.0	13.0	18.5	13.0	18.0	11.0	19.0	13.0
12	12.0	9.5	15.5	9.5	15.5	10.0	20.5	13.0	18.0	11.0	18.0	13.0
13	14.0	9.5	13.5	9.5	17.0	10.0	20.5	13.0	18.0	10.5	17.0	13.0
14	14.0	9.5	13.5	10.0	18.0	10.0	20.5	13.0	15.0	10.5	15.5	13.0
15	12.0	9.5	13.5	9.5	17.0	10.5	20.5	13.0	17.0	10.5	18.5	13.0
16	14.5	9.0	16.0	9.5	19.5	10.5	20.0	11.5	18.0	11.0	18.0	13.0
17	14.0	9.0	16.5	9.5	17.0	10.5	19.5	11.5	18.5	11.0	16.0	13.0
18	14.5	10.5	15.0	9.5	17.0	11.5	18.0	11.5	17.0	11.0	18.5	13.0
19	16.0	10.5	18.0	12.0	19.0	11.5	19.5	11.5	18.5	11.0	18.0	12.0
20	16.0	11.0	18.0	9.5	19.0	11.5	20.0	12.0	19.5	12.0	17.0	12.0
21	15.5	11.5	15.5	10.0	20.0	11.5	20.0	12.0	18.0	12.0	15.5	13.0
22	13.0	9.5	14.0	10.0	19.5	11.5	19.5	12.0	17.0	12.0	17.0	13.0
23	16.0	10.0	16.5	12.0	16.0	11.5	15.5	11.0	19.0	12.0	17.0	13.0
24	15.0	9.0	13.5	9.5	18.0	12.0	18.0	11.0	18.5	12.0	16.0	13.0
25	15.0	9.0	18.0	11.5	18.5	11.5	17.0	11.0	18.5	12.0	16.5	13.0
26	16.0	10.5	14.5	12.0	19.0	11.5	16.0	11.0	20.0	12.0	17.0	13.0
27	15.5	11.0	17.0	13.0	19.5	11.5	18.5	11.0	18.5	12.0	16.5	13.0
28	16.0	11.5	13.0	10.0	18.0	11.5	18.5	11.0	18.5	13.0	18.5	13.0
29	16.0	11.5	14.0	10.0	19.0	11.5	18.0	11.0	18.0	13.0	18.0	13.0
30	16.5	9.5	17.0	10.0	19.0	12.0	18.5	11.0	17.0	12.0	18.5	13.0
31	---	---	15.0	10.0	---	---	18.0	10.5	16.5	12.0	---	---
MONTH	16.5	9.0	18.0	9.5	20.0	10.0	20.5	10.5	20.0	10.5	19.0	11.5

03596500 DUCK RIVER AT NORMANDY, TENN.

LOCATION.--Lat 35°27'25", long 86°15'23", Bedford County, temperature recorder at gaging station, at county road bridge at Normandy, 3.3 miles (5.3 km) upstream from railroad bridge, and at mile 246.9 (397.3 km).

DRAINAGE AREA.--208 sq mi (539 sq km).

PERIOD OF RECORD.--Water temperatures: April 1968 to March 1972, December 1972 to September 1974.

EXTREMES, 1973-74:

Water temperatures: Maximum, 24.0°C several days in July and August; minimum, 4.5°C Dec. 22, 23.

Period of record:

Water temperatures: Maximum, 27.0°C July 15, 16, 1970; minimum, freezing point, Jan. 8-11, 1970.

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03596500 DUCK RIVER AT NORMANDY, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	18.0	17.0	19.0	18.5	21.0	19.5	22.0	20.5	23.0	21.5
2	16.5	15.5	18.0	17.0	19.0	18.0	21.5	20.0	22.0	21.0	23.0	22.0
3	18.0	16.0	18.0	17.0	19.0	18.0	22.0	20.5	21.5	21.0	23.0	20.5
4	18.0	16.5	18.0	17.0	19.0	18.0	23.0	21.0	22.0	21.0	20.5	19.0
5	16.5	14.5	17.0	16.0	19.0	18.5	23.0	21.0	22.0	20.5	19.0	18.5
6	14.5	13.0	16.0	15.0	19.0	18.5	21.5	20.5	22.0	20.5	20.0	18.5
7	14.0	13.0	16.0	15.0	20.0	18.5	21.0	20.5	22.0	20.0	20.0	19.0
8	14.5	14.0	16.0	15.0	20.0	19.5	21.0	20.0	20.5	20.0	20.0	19.5
9	14.5	12.0	16.0	15.5	19.5	19.0	20.5	19.5	21.0	20.5	20.5	19.5
10	13.5	11.5	17.0	16.0	20.5	19.5	21.0	20.0	21.5	20.5	21.0	20.0
11	13.5	12.0	17.0	17.0	20.5	19.5	21.0	20.5	21.5	21.0	22.0	20.5
12	14.0	13.5	17.0	16.5	20.0	19.5	22.0	20.5	21.5	20.5	22.0	21.0
13	15.0	13.5	18.0	16.5	20.0	19.0	22.0	20.5	22.0	21.0	22.0	21.0
14	16.5	15.0	18.0	16.5	20.0	19.0	22.0	21.0	22.0	21.0	22.0	20.5
15	16.5	15.0	18.0	16.5	20.0	19.5	23.0	21.0	22.0	20.5	20.5	19.5
16	15.5	14.0	18.0	16.0	20.5	19.5	23.5	21.5	22.0	21.0	20.0	19.0
17	14.5	13.5	18.0	17.0	20.0	19.0	23.5	21.5	22.0	21.0	20.0	19.0
18	14.0	13.0	17.0	16.5	20.0	18.5	23.5	21.5	22.0	21.5	20.0	19.0
19	14.5	13.5	18.5	17.0	20.0	18.5	24.0	22.0	23.0	21.5	20.0	19.0
20	15.5	14.5	20.0	18.0	20.5	19.5	24.0	23.0	23.5	21.5	20.5	19.5
21	16.0	15.5	20.0	19.0	21.5	20.0	24.0	22.0	23.5	21.5	20.5	19.5
22	16.0	15.5	20.0	19.0	23.0	20.5	24.0	22.0	23.0	21.5	19.5	18.5
23	16.0	15.0	19.0	18.0	22.0	20.0	24.0	22.0	23.0	21.0	18.5	17.0
24	16.0	15.0	19.0	18.5	20.0	19.0	23.5	21.5	23.5	21.0	18.0	16.5
25	15.0	14.0	19.0	18.5	19.5	18.5	23.5	21.5	24.0	21.5	16.5	16.0
26	15.5	14.0	19.0	17.0	19.5	18.0	23.5	21.0	24.0	22.0	17.0	16.0
27	16.0	15.0	17.0	16.0	19.5	18.0	21.5	21.0	24.0	23.0	17.0	16.5
28	17.0	15.5	18.0	16.5	19.5	18.5	22.0	21.0	24.0	23.0	18.5	17.0
29	18.0	16.0	18.5	17.0	20.0	18.5	23.0	21.5	24.0	23.0	18.5	18.0
30	18.0	16.5	19.5	18.5	20.0	18.5	23.0	21.5	23.5	22.0	18.5	17.0
31	---	---	19.5	19.0	---	---	23.0	21.0	22.0	21.5	---	---
MONTH	18.0	11.5	20.0	15.0	23.0	18.0	24.0	19.5	24.0	20.0	23.0	16.0

03604000 BUFFALO RIVER NEAR FLAT WOODS, TENN.
(Hydrologic bench-mark station)

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, temperature recorder at gaging station on right bank, 0.5 mile (0.8 km) downstream from Little Opossum Creek and bridge on State Highway 13, 1.3 miles (2.1 km) north of Flat Woods, 3.9 miles (6.3 km) upstream from Sinking Creek, and at mile 58.7 (94.4 km).

DRAINAGE AREA.--447 sq mi (1,158 sq km).

PERIOD OF RECORD.--Water temperatures: June 1964 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 27.0°C July 19; minimum, 3.0°C Dec. 22.

Period of record:

Water temperatures: Maximum, 31.0°C July 13, 14, 15, 1966; minimum, freezing point, Jan. 9, 10, 11, 1970.

REMARKS.--Thermograph record furnished by Tennessee Valley Authority. Miscellaneous samples of chemical data published for the water years 1967-73.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
DEC.											
03...a	1345	1040	--	400	410	20	14	--	1.8	--	--
JAN.											
22...a	1355	1490	--	2200	1400	100	10	--	1.7	--	--
FEB.											
04...a	1345	1510	--	--	910	20	9.0	--	1.7	--	--
MAR.											
04...a	1115	703	--	--	230	10	10	--	1.5	--	--
24...a	1200	915	4.4	--	290	0	--	10	--	1.4	1.1
APR.											
02...a	1045	814	--	--	840	40	11	--	1.7	--	--
23...a	1130	1000	5.0	--	--	--	--	11	--	1.6	.8
23...a	1400	1000	--	--	--	--	--	--	--	--	--
MAY											
06...a	0915	1340	--	--	330	<10	10	--	1.5	--	--
30...a	1230	698	6.5	--	--	--	--	13	--	1.7	.9
JUNE											
20...a	1200	698	7.2	--	--	--	--	14	--	2.1	.8
JULY											
15...a	0945	300	--	--	80	<10	14	--	2.0	--	--
AUG.											
13...a	1300	460	--	--	890	30	14	--	1.9	--	--
SEP.											
16...a	1000	340	--	--	420	200	7.0	--	1.7	--	--
16...a	1330	336	--	--	380	40	14	--	2.0	--	--
20...a	0945	322	6.6	--	--	--	--	13	--	1.8	1.1
20...a	1200	319	--	--	--	--	--	--	--	--	--

a Analysis by Tennessee Valley Authority.

TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TENN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAH- RONATE (HCO3) (MG/L)	CAR- RONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)
DEC.											
03... ^a	--	--	--	31	5.0	4.0	.0	--	.48	.01	.05
JAN.											
22... ^a	--	--	--	22	10	4.0	.0	--	.33	.02	.40
FEB.											
04... ^a	--	--	--	23	8.0	3.0	.0	--	.31	.03	.21
MAR.											
04... ^a	--	--	--	55	3.0	2.0	.0	--	.19	.04	.06
28... ^a	.6	33	0	27	3.8	1.9	--	1.4	.11	--	--
APR.											
02... ^a	--	--	--	53	5.0	3.0	.0	--	.07	.04	.32
23... ^a	1.4	40	0	33	3.0	.2	--	.1	.10	--	--
23... ^a	--	--	--	--	--	--	--	--	--	--	--
MAY											
06... ^a	--	--	--	39	4.0	3.0	.0	--	.18	.01	.09
30... ^a	.7	41	--	34	4.6	1.0	--	.1	.22	--	--
JUNE											
20... ^a	.8	44	--	36	3.2	1.5	--	.1	.23	--	--
JULY											
15... ^a	--	--	--	46	3.0	2.0	.0	--	.15	<.01	.08
AUG.											
13... ^a	--	--	--	40	2.0	2.0	.0	--	.23	.01	.22
SEP.											
16... ^a	--	--	--	48	2.0	3.0	.0	--	.03	.08	.68
16... ^a	--	--	--	35	3.0	3.0	.0	--	.21	.07	.53
20... ^a	.8	52	--	43	2.8	2.8	--	.1	.19	--	--
20... ^a	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- RONATE HARD- NESS (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
DEC.											
03... ^a	--	50	--	.07	140	4	42	--	--	--	81
JAN.											
22... ^a	.04	40	--	.05	161	9	32	--	--	--	74
FEB.											
04... ^a	.04	50	--	.07	204	15	29	--	--	--	67
MAR.											
04... ^a	.01	40	--	.05	75.9	2	31	--	--	--	74
28... ^a	.01	38	41	.05	93.9	--	31	4	7	.1	84
APR.											
02... ^a	.04	50	--	.07	110	15	34	--	--	--	83
23... ^a	.02	217	43	.30	586	--	34	1	5	.1	85
23... ^a	--	--	--	--	--	--	--	--	--	--	--
MAY											
06... ^a	.02	50	--	.07	181	4	31	--	--	--	77
30... ^a	.00	68	49	.09	128	--	39	6	5	.1	85
JUNE											
20... ^a	.03	46	51	.06	86.7	--	44	8	4	.1	90
JULY											
15... ^a	.02	40	--	.05	32.4	2	43	--	--	--	87
AUG.											
13... ^a	.05	50	--	.07	62.1	9	43	--	--	--	85
SEP.											
16... ^a	.02	50	--	.07	45.9	4	24	--	--	--	67
16... ^a	.03	60	--	.08	54.4	2	43	--	--	--	98
20... ^a	.02	61	55	.08	53.0	--	40	0	6	.1	110
20... ^a	--	--	--	--	--	--	--	--	--	--	--

^a Analysis by Tennessee Valley Authority.

03604000 BUFFALO RIVER NEAR FLAT WOODS, TENN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	ALDRIN (UG/L)
DEC.											
03...a	6.5	13.5	5	10	9.7	--	--	--	--	--	--
JAN.											
22...a	6.8	12.2	35	20	10.2	--	--	--	--	--	--
FEB.											
04...a	7.5	10.0	25	18	10.9	8	--	--	--	--	--
MAR.											
04...a	7.6	13.9	<5	2	10.4	2	--	--	--	--	--
28...a	7.8	13.5	--	--	9.6	--	8	39	31	11	--
APR.											
07...a	8.9	16.1	10	15	9.5	6	--	--	--	--	--
23...a	7.2	16.2	--	--	9.8	--	4.0	90	350	230	--
23...a	--	16.0	--	--	--	--	--	--	--	--	.00
MAY											
06...a	8.2	15.6	<5	4	9.9	2	--	--	--	--	--
30...a	6.9	20.8	--	--	8.8	--	8.3	30	--	11	--
JUNE											
20...a	6.9	21.0	--	--	8.4	--	8.9	310	95	46	--
JULY											
15...a	7.9	23.3	5	1	7.8	2	--	--	--	--	--
AUG.											
13...a	7.2	22.8	15	14	7.1	5	--	--	--	--	--
SEP.											
16...a	7.1	24.4	10	6	5.3	--	--	--	--	--	--
16...a	7.1	20.6	5	5	9.3	10	--	--	--	--	--
20...a	7.3	21.5	--	--	8.2	--	3.7	160	25	81	--
20...a	--	21.5	--	--	--	--	--	--	--	--	--

a Analysis by Tennessee Valley Authority.

03604000 BUFFALO RIVER NEAR FLAT WOODS, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

TENNESSEE RIVER BASIN

03606500 BIG SANDY RIVER AT BRUCETON, TENN.

LOCATION.--Lat 36°02'19", long 88°13'42", Carroll County, temperature recorder at gaging station on right bank on downstream end of abutment of county bridge, 700 ft (200 m) downstream from bridge on U. S. Highway 70, 0.6 mile (1.0 km) upstream from Cherry Creek, 0.9 mile (1.4 km) east of Bruceton, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--205 sq mi (531 sq km).

PERIOD OF RECORD.--Water temperatures: October 1970 to September 1974.

EXTREMES.--1973-74:

Water temperatures: Maximum, 24.0°C July 22, 27, 28, 29; minimum, 1.5°C Jan. 4, 5.

Period of record:

Water temperatures: Maximum, 26.0°C, July 25, 26, 1973; minimum, 1.0°C Feb. 10, 14, 1971.

REMARKS.--Missing record Apr. 21 through June 4. Miscellaneous samples of chemical data published for the water years 1968, 1970-72. Records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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

03606500 BIG SANDY RIVER AT BRUCETON, TENN.--Continued

TEMPERATURE (DEG. C) OF WATER . WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	16.0	---	---	---	---	21.0	20.0	21.5	20.0	23.5	22.0
2	18.5	15.0	---	---	---	---	22.0	20.5	21.5	20.5	23.0	21.5
3	20.0	16.5	---	---	---	---	23.0	21.0	21.0	20.5	21.5	19.5
4	20.0	17.0	---	---	---	---	22.0	21.5	21.5	21.0	19.5	17.0
5	17.0	13.0	---	---	23.0	19.5	21.5	21.0	21.5	20.5	18.5	16.5
6	14.0	11.0	---	---	22.0	19.5	23.0	21.5	20.5	19.5	18.5	17.0
7	14.0	13.0	---	---	21.5	19.5	23.0	22.0	20.5	19.5	19.0	18.5
8	14.0	12.0	---	---	21.0	20.5	23.0	21.5	21.5	20.5	19.0	18.5
9	13.5	10.0	---	---	22.0	20.5	23.0	21.5	21.5	21.0	19.5	19.0
10	15.0	11.5	---	---	23.0	22.0	23.0	21.5	23.0	21.0	20.5	19.5
11	16.0	14.5	---	---	23.0	21.0	23.0	21.5	23.5	21.5	21.5	20.0
12	16.5	15.5	---	---	22.0	21.0	23.0	21.5	23.5	22.0	22.0	21.0
13	16.5	15.5	---	---	22.0	20.0	23.0	21.5	23.0	21.5	21.5	20.0
14	19.5	16.5	---	---	21.5	19.5	22.0	21.0	23.5	22.0	20.0	18.5
15	18.5	15.5	---	---	20.5	20.0	23.0	21.0	24.0	22.0	18.5	17.0
16	15.5	13.5	---	---	21.0	20.0	22.0	21.0	24.0	22.0	18.0	17.0
17	15.5	13.0	---	---	21.0	19.5	23.0	21.5	24.0	23.0	18.5	17.0
18	16.0	13.5	---	---	20.0	19.0	23.0	21.5	23.5	22.0	18.5	17.0
19	17.0	14.0	---	---	20.5	19.0	23.5	22.0	23.0	21.5	19.0	18.0
20	18.5	15.5	---	---	21.5	20.0	23.5	23.0	23.0	21.5	19.5	18.5
21	---	---	---	---	23.0	21.0	23.5	22.0	22.0	21.0	19.5	19.0
22	---	---	---	---	23.5	21.5	24.0	21.5	21.5	21.0	19.0	16.5
23	---	---	---	---	22.0	20.5	21.5	21.5	21.5	20.5	16.5	15.0
24	---	---	---	---	20.5	18.5	23.0	21.5	21.5	20.5	15.5	14.5
25	---	---	---	---	18.5	17.0	23.5	23.0	22.0	21.0	16.0	15.5
26	---	---	---	---	18.5	16.5	23.5	22.0	22.0	21.5	16.5	15.5
27	---	---	---	---	18.5	17.0	24.0	23.0	23.0	22.0	18.5	16.5
28	---	---	---	---	19.0	18.0	24.0	23.5	23.0	21.5	20.0	18.0
29	---	---	---	---	19.5	18.0	24.0	23.0	23.0	22.0	20.0	19.0
30	---	---	---	---	20.5	19.0	23.0	21.5	23.0	21.5	19.5	16.5
31	---	---	---	---	---	---	21.5	20.5	23.0	22.0	---	---
MONTH	---	---	---	---	23.5	16.5	24.0	20.0	24.0	19.5	23.5	14.5

CUMBERLAND RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	HARD- NESS (CA,MG) (MG/L)
03427776 - DRY FORK CREEK NEAR ROCK SPRINGS, TENN (LAT 35 41 46 LONG 086 26 52)									
JUNE, 1974									
24...	1130	.03	0	50	55	4.0	.7	1.7	150
03427782 - WEST FORK STONES RIVER NEAR ROCK SPRINGS, TENN (LAT 35 43 20 LONG 086 26 44)									
JUNE, 1974									
24...	1220	3.6	0	17	78	5.1	.8	1.1	220
03428006 - WF STONES R TRIB AT EAGLEVILLE PK NR MURFBORO TN (LAT 35 49 02 LONG 086 25 39)									
JUNE, 1974									
24...	0945	2.7	0	17	65	4.2	.7	1.4	180
03428060 - LYTLE CREEK AT MOUTH, AT MURFREESBORO, TENN (LAT 35 51 15 LONG 086 24 45)									
JUNE, 1974									
24...	1010	10	0	1100	67	4.9	4.9	1.8	190
03428120 - WF STONES R AT US HWYS 41 & 70S NR MURFBORO TENN (LAT 35 52 31 LONG 086 25 22)									
JUNE, 1974									
24...	1343	63	0	50	66	4.2	4.2	1.9	180
03428320 - OVERALL CR AT ST HWY 96, NEAR MURFREESBORO, TENN (LAT 35 50 36 LONG 086 29 24)									
JUNE, 1974									
24...	1550	11	0	33	82	4.0	.6	1.0	220
03428365 - PUCKETT CREEK NEAR MURFREESBORO, TENN (LAT 35 50 41 LONG 086 27 37)									
JUNE, 1974									
24...	1430	1.7	0	17	72	3.8	.7	1.2	200
03428375 - OVERALL CR AT MANSON PIKE, NR MURFREESBORO, TENN (LAT 35 52 15 LONG 086 28 06)									
JUNE, 1974									
25...	0955	7.7	0	17	73	4.0	.6	.8	200
03428390 - ASBURY PIKE SPRING NEAR MT OLIVE, TENN (LAT 35 53 17 LONG 086 28 06)									
JUNE, 1974									
24...	0950	4.5	0	17	75	4.2	.3	1.0	200

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED BARIUM (BA) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
03427776 - DRY FORK CREEK NEAR ROCK SPRINGS, TENN (LAT 35 41 46 LONG 086 26 52)								
JUNE, 1974 24...	1	.0	240	7.9	19.5	0	140	4
03427782 - WEST FORK STONES RIVER NEAR ROCK SPRINGS, TENN (LAT 35 43 20 LONG 086 26 44)								
JUNE, 1974 24...	1	.0	315	8.0	20.0	0	210	4
03428006 - WF STONES R TRIB AT EAGLEVILLE PK NR MURFBORO TN (LAT 35 49 02 LONG 086 25 39)								
JUNE, 1974 24...	1	.0	280	8.0	17.5	0	140	8
03428060 - LYTLE CREEK AT MOUTH, AT MURFREESBORO, TENN (LAT 35 51 15 LONG 086 24 45)								
JUNE, 1974 24...	5	.2	290	8.0	18.5	0	140	8
03428120 - WF STONES R AT US HWYS 41 & 70S NR MURFBORO TENN (LAT 35 52 31 LONG 086 25 22)								
JUNE, 1974 24...	5	.1	290	7.8	22.5	0	140	4
03428320 - OVERALL CR AT ST HWY 96, NEAR MURFREESBORO, TENN (LAT 35 50 36 LONG 086 29 24)								
JUNE, 1974 24...	1	.0	360	7.9	18.0	0	140	4
03428365 - PUCKETT CREEK NEAR MURFREESBORO, TENN (LAT 35 50 41 LONG 086 27 37)								
JUNE, 1974 24...	1	.0	310	8.0	20.5	0	140	4
03428375 - OVERALL CR AT MANSON PIKE, NR MURFREESBORO, TENN (LAT 35 52 15 LONG 086 28 06)								
JUNE, 1974 25...	1	.0	300	8.0	17.5	0	140	4
03428390 - ASBURY PIKE SPRING NEAR MT OLIVE, TENN (LAT 35 53 17 LONG 086 28 06)								
JUNE, 1974 24...	0	.0	380	7.3	15.5	0	140	8

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

07455000 - FRENCH BROAD RIVER NEAR NEWPORT, TENN. (LAT 35 58 54 LONG 083 09 40)

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)
JAN. 31...	1250	4660	4600	2400	150	430	70	10	6.0	2.2
FEB. 11...	1120	4810	1400	940	--	--	60	--	5.0	2.0
APR. 22...	1305	3960	2200	1700	160	260	40	20	6.0	2.0
22...	1306	3960	--	--	--	--	--	--	--	--
MAY 23...	0935	4300	--	--	--	--	--	--	--	--
23...	0936	4300	--	--	--	--	--	--	--	--
JUNE 17...	1530	3320	--	--	--	--	--	--	--	--
JULY 23...	0815	1710	1800	1500	130	250	50	<10	8.0	2.0
AUG. 20...	1348	2760	11000	7200	80	270	130	<10	6.0	2.4
SEP. 24...	1545	1580	--	--	--	--	--	--	--	--

DATE	ALKAL- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
JAN. 31...	--	9.0	4.0	.0	.48	.06	8.27	.22	.02	50
FEB. 11...	15	14	4.0	.0	.54	.14	.26	.03	--	40
APR. 22...	25	16	4.0	.0	.40	.06	.11	.06	.02	50
22...	--	--	--	--	--	--	--	--	--	--
MAY 23...	17	--	--	--	--	--	--	--	--	--
23...	16	--	--	--	--	--	--	--	--	--
JUNE 17...	15	--	--	--	--	--	--	--	--	--
JULY 23...	--	24	4.0	.0	.39	.01	.36	.10	.06	90
AUG. 20...	17	18	4.0	.0	.51	.01	.19	.15	.10	60
SEP. 24...	28	--	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED SOLIDS PER AC-FT	DIS- SOLVED SOLIDS TONS PER DAY	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA.MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
JAN. 31...	.07	629	27	24	78	--	--	20	20	--
FEB. 11...	.05	514	20	21	77	6.8	7.2	15	17	11.8
APR. 22...	.07	535	28	23	69	6.8	16.2	10	22	--
22...	--	--	--	--	--	--	--	--	--	9.0
MAY 23...	--	--	--	--	--	6.0	20.0	--	--	8.0
23...	--	--	--	--	--	6.0	20.0	--	--	8.1
JUNE 17...	--	--	--	--	--	6.6	22.5	--	--	8.3
JULY 23...	.12	416	22	24	120	--	--	15	13	--
AUG. 20...	.08	447	110	25	90	7.5	23.3	40	110	7.8
SEP. 24...	--	--	--	--	--	7.4	17.5	--	--	9.2

(Analyses furnished by Tennessee Valley Authority)

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TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03461500 - PIGEON RIVER AT NEWPORT, TENN. (LAT 35 57 38 LONG 083 10 28)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)
FFR.										
11...	1000	2610	600	560	--	--	70	--	11	2.0
APR.										
22...	1050	2410	--	830	160	340	70	40	15	2.0
22...	1051	2410	--	810	120	310	60	40	15	2.0
22...	1052	2410	--	--	--	--	--	--	--	--
22...	1053	2410	--	--	--	--	--	--	--	--
MAY										
23...	1015	1370	--	--	--	--	--	--	--	--
JUNE										
17...	1505	577	--	--	--	--	--	--	--	--
17...	1506	577	--	--	--	--	--	--	--	--
JULY										
23...	0720	419	700	610	180	330	80	40	34	2.5
AUG.										
20...	1330	281	800	550	150	240	40	20	26	2.3
SEP.										
24...	1510	189	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
FFR.										
11...	19	12	20	.0	.49	.14	.54	.06	--	60
APR.										
22...	13	13	29	.0	.47	.10	.32	.10	.06	100
22...	12	13	29	.0	.42	.10	.32	.10	.06	110
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	78	--	--	--	--	--	--	--	--	--
JUNE										
17...	28	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
JULY										
23...	--	23	66	.0	.72	.17	.47	.16	.14	260
AUG.										
20...	36	17	58	.0	.61	.43	.29	.24	.18	210
SEP.										
24...	48	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
FFR.										
11...	.08	423	12	36	140	6.2	7.2	45	12	11.9
APR.										
22...	.14	651	12	46	170	5.9	14.0	35	10	--
22...	.15	716	10	46	180	6.1	14.0	35	11	--
22...	--	--	--	--	--	--	--	--	--	9.5
22...	--	--	--	--	--	--	--	--	--	9.3
MAY										
23...	--	--	--	--	--	9.8	18.5	--	--	7.6
JUNE										
17...	--	--	--	--	--	6.8	21.0	--	--	--
17...	--	--	--	--	--	--	--	--	--	9.6
JULY										
23...	.35	294	13	96	340	--	--	60	4	--
AUG.										
20...	.29	159	11	74	340	7.2	22.8	60	7	7.8
SEP.										
24...	--	--	--	--	--	7.7	17.0	--	--	8.5

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03464500 - NOLICHUCKY RIVER BELOW NOLICHUCKY DAM, TENN. (LAT 36 03 59 LONG 082 52 18)

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	DIS-SOLVED IRON (FF) (UG/L)	FEROUS IRON (FF) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
NOV. 07...	1320	900	820	130	170	50	20	17	3.3	--	5.0	5.0
FER. 11...	1255	1200	1100	--	--	140	--	18	3.9	58	6.0	4.0
MAY 13...	1430	1800	1600	--	--	160	--	12	2.5	93	6.0	2.0
AUG. 13...	1350	2500	2000	--	--	100	--	14	3.2	87	4.0	2.0

DATE	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITIC PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 07...	.8	.37	.04	.18	--	80	.11	11	56	120	--	--
FER. 11...	.1	.82	.06	.30	.04	70	.10	24	61	130	7.4	7.2
MAY 13...	.1	.36	.06	.63	.08	60	.08	77	40	74	7.2	17.2
AUG. 13...	.2	.51	.23	.16	.09	60	.08	38	48	100	7.0	22.8

DATE	COLOR (PLATINUM-COALTY UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMF-DIATE COLIFORM PER 100 ML	FECAL COLIFORM PER 100 ML	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL RERYLIUM (BE) (UG/L)
NOV. 07...	10	15	--	9	1.4	1800	820	1.7	<5	<100	<10
FER. 11...	15	16	12.8	3	1.1	<10	<10	2.9	<5	<100	<10
MAY 13...	25	65	9.5	11	4.7	9800	3320	4.9	<5	<100	<10
AUG. 13...	10	32	8.4	6	<1.0	640	220	2.0	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV. 07...	<1000	2	<5	<10	<10	<10	<.2	<50	<1	<10	10
FER. 11...	<100	<1	<5	<10	11	<10	.2	<50	<2	<10	30
MAY 13...	<100	<1	<5	<10	<10	<10	.2	<50	<2	<10	280
AUG. 13...	<100	<1	<5	<10	<10	<10	<.2	<50	<2	<10	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03490350 - HOLSTON RIVER AT CHURCH HILL, TENN (LAT 36 31 02 LONG 082 43 22)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	TOTAL SUL- FIDE (S) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 28...	1540	1400	860	60	60	70	35	7.4	--	--	11	16
APR. 10...	1040	--	910	--	--	150	30	6.6	77	--	20	9.0
10...	1045	--	880	--	--	110	30	6.6	86	--	18	15
MAY 08...	1635	--	690	--	--	120	28	6.2	81	--	14	17
08...	1645	--	650	--	--	100	28	6.0	80	--	14	17
JUNE 12...	1020	--	140	--	--	190	27	5.9	79	--	15	8.0
12...	1040	--	120	--	--	60	27	6.2	76	--	13	12
JULY 10...	1510	600	260	--	--	90	30	6.9	76	.0	17	19
10...	1530	1200	520	--	--	120	32	7.2	75	.0	13	22
AUG. 07...	1530	300	150	--	--	80	26	6.4	74	--	19	10

DATE	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TOMS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JAN. 28...	.0	.78	.06	.18	.04	130	.18	18	120	260	--	--
APR. 10...	.0	.85	.30	.21	.07	130	.18	24	100	230	7.6	14.4
10...	.0	.85	.22	.24	.06	140	.19	20	100	250	7.8	12.2
MAY 08...	.0	.67	.20	.18	.08	120	.16	16	95	230	7.7	16.7
08...	.0	.73	.14	.20	.06	150	.20	16	95	250	7.7	16.7
JUNE 12...	.0	.68	.54	.06	.06	120	.16	5	92	220	7.8	18.3
12...	.0	.73	.43	.06	.06	130	.18	3	93	240	8.1	18.9
JULY 10...	.0	.81	.27	.29	.06	170	.23	8	100	310	8.1	21.1
10...	.0	.82	.32	.28	.06	150	.20	13	110	320	8.4	21.1
AUG. 07...	.0	.82	.27	.29	.08	130	.18	2	91	230	8.5	22.8

DATE	COLOR (PLAT- INUM- CORALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)
JAN. 28...	15	16	--	9	1.1	490	200	--	--	<5	<100	<10
APR. 10...	10	37	9.4	6	--	--	--	--	--	--	--	--
10...	10	25	10.0	6	--	--	--	--	--	--	--	--
MAY 08...	5	16	8.9	5	--	--	--	--	--	--	--	--
08...	5	14	8.9	6	--	--	--	--	--	--	--	--
JUNE 12...	10	4	8.2	8	--	--	--	--	--	--	--	--
12...	10	4	8.8	8	--	--	--	--	--	--	--	--
JULY 10...	10	6	9.5	6	1.8	60	<10	2.4	17	<5	<100	<10
10...	10	12	9.3	5	2.2	140	20	3.7	6	<5	<100	<10
AUG. 07...	5	6	10.0	8	2.1	720	20	2.1	--	--	<100	<10

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03490350 - HOLSTON RIVER AT CHURCH HILL, TENN (LAT 36 31 02 LONG 082 43 22)--Continued

DATE	TOTAL BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN. 28...	<100	2	<5	10	<10	--	<.2	<50	2	<10	30
APR. 10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
JUNE 12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JULY 10...	<100	<1	<5	<10	<10	<10	--	<50	<2	<10	20
10...	<100	<1	<5	<10	10	<10	--	<50	<2	<10	10
AUG. 07...	--	<1	<5	<10	10	<10	--	<50	--	<10	20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03490500 - HOLSTON RIVER AT SURGOINSVILLE, TENN. (LAT 36 28 19 LONG 082 50 50)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)
JAN.										
28...	1450	10900	3000	1900	60	120	700	50	36	7.6
APR.										
10...	1000	11200	--	930	--	--	120	--	29	6.8
MAY										
08...	1455	4470	--	180	--	--	30	--	31	6.2
08...	1530	4600	--	330	--	--	70	--	30	6.2
JUNE										
12...	1240	2130	--	160	--	--	30	--	26	5.9
12...	1300	2050	--	160	--	--	40	--	25	5.9
JULY										
10...	1355	2050	500	320	--	--	40	--	25	6.2
10...	1415	1980	500	370	--	--	40	--	25	6.2
AUG.										
07...	1415	1780	1000	510	--	--	80	--	25	6.2
07...	1440	1710	1100	530	--	--	80	--	24	6.4
SFP.										
11...	1620	1270	--	210	--	--	50	--	31	8.4
11...	1621	1270	--	150	--	--	60	--	31	8.5
16...	0720	1120	800	170	--	--	40	--	23	6.7
17...	0725	3510	1200	380	--	--	100	--	33	8.9
18...	1335	1820	300	190	--	--	80	--	27	8.1
19...	1310	1760	200	190	--	--	50	--	20	6.0
20...	1345	2430	<200	150	--	--	50	--	21	5.8
21...	1610	1760	400	130	--	--	40	--	23	6.2
22...	1615	1520	800	450	--	--	70	--	29	7.5
23...	1340	1240	400	170	--	--	30	--	38	8.9
24...	1340	1750	500	230	--	--	30	--	23	6.1
25...	1335	8770	1700	850	--	--	230	--	25	7.1
26...	1345	2280	600	270	--	--	50	--	23	6.1
27...	1320	1870	400	220	--	--	40	--	28	7.7
28...	1635	1240	300	240	--	--	70	--	31	8.3

DATE	ALKA- LINIT AS CAC03 (MG/L)	TOTAL SUL- FIDE (S) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
JAN.										
28...	--	--	19	11	.0	.78	.19	.20	.07	120
APR.										
10...	85	--	16	10	.0	.84	.26	.18	.08	110
MAY										
08...	85	--	14	16	.0	.75	.20	.20	.06	140
08...	82	--	18	16	.0	.70	.17	.19	.06	140
JUNE										
12...	77	--	14	9.0	.0	.67	.19	.14	.05	120
12...	76	--	14	8.0	.0	.68	.20	.14	.06	120
JULY										
10...	68	.0	11	9.0	.0	.81	.13	.14	.05	120
10...	70	.0	13	8.0	.0	.81	.14	.18	.04	100
AUG.										
07...	69	--	21	10	.1	.76	.36	.28	.34	120
07...	68	--	20	9.0	.0	.75	.37	.32	.35	120
SFP.										
11...	90	--	24	28	.0	.83	.27	.31	.08	180
11...	83	--	23	28	.0	.84	.52	.11	.10	180
16...	--	--	19	11	.0	.92	.20	.19	.08	120
17...	--	--	40	40	.1	.86	.99	.53	.16	220
18...	--	--	38	21	.0	.75	.79	.35	.14	--
19...	--	--	20	8.0	.0	.73	.24	.20	.09	120
20...	--	--	16	10	.0	.66	.10	.26	.06	120
21...	--	--	18	12	.0	.69	.14	.24	.10	120
22...	--	--	28	24	.1	.72	.40	.28	.14	190
23...	--	--	31	37	.1	.85	.22	.34	.10	220
24...	--	--	16	8.0	.0	.75	.20	.88	.09	100
25...	--	--	27	14	.0	.77	.32	.34	.11	140
26...	--	--	12	9.0	.0	.80	.11	.13	.06	110
27...	--	--	33	18	.0	.82	1.2	.26	1.2	160
28...	--	--	40	24	.0	.80	.49	.29	.13	180

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03490500 - HOLSTON RIVER AT SURGOINSVILLE, TENN. (LAT 36 28 19 LONG 082 50 50)--Continued

DATE	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA.MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
JAN.										
28...	.16	3530	23	120	260	--	--	15	18	--
APR.										
10...	.15	3330	21	100	240	7.8	12.2	15	34	9.3
MAY										
08...	.19	1690	7	100	260	7.9	17.8	5	10	9.5
08...	.19	1740	4	100	250	8.0	17.2	5	12	9.6
JUNE										
12...	.16	690	6	89	220	8.1	19.1	10	6	8.5
12...	.16	664	6	87	210	8.1	19.1	10	6	8.7
JULY										
10...	.16	664	9	88	220	8.1	21.1	10	9	9.6
10...	.14	535	9	88	250	8.0	21.1	10	10	9.7
AUG.										
07...	.16	577	6	88	250	8.1	22.2	10	13	9.3
07...	.16	554	8	86	250	8.1	22.2	10	13	9.3
SEP.										
11...	.24	617	5	110	330	7.2	23.9	15	8	10.5
11...	.24	617	4	110	320	6.9	23.9	15	8	10.4
16...	.16	363	4	85	--	--	19.0	10	5	--
17...	.30	2090	13	120	--	--	23.0	20	11	--
18...	--	--	--	100	--	--	--	15	7	--
19...	.16	570	4	75	--	--	22.0	10	7	--
20...	.16	787	2	76	--	--	21.0	5	3	--
21...	.16	570	3	83	--	--	20.0	10	6	--
22...	.26	780	7	100	--	--	23.0	15	6	--
23...	.30	737	4	130	--	--	20.0	15	6	--
24...	.14	472	7	83	--	--	18.0	10	9	--
25...	.19	3320	21	92	--	--	19.0	10	3	--
26...	.15	677	7	83	--	--	20.0	5	3	--
27...	.22	808	8	100	--	--	22.0	20	3	--
28...	.24	603	6	110	--	--	23.0	20	4	--

[illegible]

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03490500 - HOLSTON RIVER AT SURGOINSVILLE, TENN. (LAT 36 28 19 LONG 082 50 50)--Continued

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHPO- MIUM (CP) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN. 28...	1	<5	70	10	--	.7	<50	3	<10	180
APR. 10...	--	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
JUNE 12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
JULY 10...	<1	<5	<10	<10	<10	--	<50	<2	<10	40
10...	<1	<5	<10	<10	<10	--	<50	<2	<10	30
AUG. 07...	<1	<5	<10	14	<10	--	<50	--	<10	30
07...	<1	<5	10	32	<10	--	<50	--	<10	30
SEPT. 11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
16...	3	--	<10	<10	--	<.2	--	--	--	10
17...	2	--	<10	28	--	<.2	--	--	--	20
18...	<1	--	20	13	--	<.2	--	--	--	20
19...	<1	--	<10	14	--	<.2	--	--	--	20
20...	1	--	<10	20	--	<.2	--	--	--	30
21...	2	--	<10	13	--	<.2	--	--	--	20
22...	<1	--	90	11	--	.4	--	--	--	20
23...	3	--	<10	12	--	<.2	--	--	--	<10
24...	<1	--	<10	<10	--	<.2	--	--	--	40
25...	1	--	10	10	--	.6	--	--	--	60
26...	1	--	<10	11	--	<.2	--	--	--	<10
27...	2	--	30	10	--	<.2	--	--	--	10
28...	5	--	30	10	--	<.2	--	--	--	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03494550 - HOLSTON RIVER AT INDIAN CAVE, TENN (LAT 36 09 35 LONG 083 36 01)

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV. 29...	1000	5200	3600	290	34	19	140	8.0
JAN. 15...	1050	1700	690	70	28	8.1	82	22
FEB. 05...	1530	--	310	100	30	8.2	86	12
MAR. 04...	1535	--	370	80	34	11	110	15
APR. 01...	1530	--	500	60	34	8.8	93	17
30...	1625	--	280	20	33	8.1	100	16
JUNE 05...	1015	--	150	30	35	18	150	4.0
JULY 10...	0935	--	130	160	35	14	140	10
AUG. 05...	1525	--	220	370	33	7.5	95	16
SEP. 11...	1000	--	130	80	28	9.7	98	17

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
NOV. 29...	5.0	.0	1.3	<.01	.14	--	150	.20	64
JAN. 15...	9.0	.0	.87	.24	.10	.05	130	.18	8
FEB. 05...	8.0	.0	.97	.20	.85	.04	130	.18	7
MAR. 04...	8.0	.0	.91	.12	.33	.03	140	.19	9
APR. 01...	10	.0	.99	.31	.25	.05	150	.20	18
30...	10	.0	.81	.10	.15	.02	140	.19	5
JUNE 05...	2.0	.0	1.0	.03	.09	.01	160	.22	4
JULY 10...	6.0	.0	.83	.06	.34	.03	180	.24	3
AUG. 05...	11	.0	.44	.24	.44	.05	140	.19	6
SEP. 11...	11	.0	.52	.12	.24	.04	140	.19	4

DATE	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-CORAL) (UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV. 29...	160	270	7.5	14.1	10	55	9.7	--
JAN. 15...	100	230	6.5	9.4	10	12	10.7	--
FEB. 05...	110	230	7.6	8.3	<5	2	10.7	9
MAR. 04...	130	270	7.6	11.7	10	2	11.3	5
APR. 01...	120	260	7.5	13.3	5	2	10.8	6
30...	120	260	7.6	11.7	10	3	10.7	4
JUNE 05...	160	290	6.4	16.7	5	3	11.5	6
JULY 10...	140	300	7.2	16.1	<5	2	7.3	5
AUG. 05...	110	83	7.3	21.7	10	3	4.8	8
SEP. 11...	110	260	7.5	22.2	5	3	5.1	13

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03527420 - CLINCH RIVER AT KYLES FORD, TENN (TVA) (LAT 36 34 10 LONG 083 02 29)

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV.								
26...	1100	700	660	30	40	11	110	25
JAN.								
14...	1400	2900	1800	80	32	8.4	80	20
FEB.								
05...	1130	--	1300	60	34	8.5	78	15
MAR.								
05...	1430	--	410	40	36	11	82	20
APR.								
03...	1230	--	1100	60	32	8.4	84	20
MAY								
07...	1320	--	680	50	30	7.5	86	19
JUNE								
04...	1300	--	2700	140	34	8.0	97	19
JULY								
08...	1355	--	420	50	38	11	140	19
AUG.								
06...	1320	--	970	80	34	12	110	27
SEP.								
10...	1130	--	850	70	34	14	87	20

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
NOV.									
26...	6.0	.0	.35	<.01	.18	--	150	.20	11
JAN.									
14...	3.0	.1	1.0	.04	.20	.04	120	.16	37
FEB.									
05...	3.0	.0	.81	.02	.12	.03	130	.18	30
MAR.									
05...	3.0	.0	.66	.02	.19	.02	140	.19	9
APR.									
03...	3.0	.0	.60	.02	.20	.03	130	.18	24
MAY									
07...	4.0	.0	.31	.02	.26	.02	110	.15	12
JUNE									
04...	3.0	.0	.60	.12	.99	.06	140	.19	51
JULY									
08...	4.0	.0	.44	.06	.86	.03	160	.22	15
AUG.									
06...	4.0	.0	.30	.03	.29	.03	160	.22	14
SEP.									
10...	4.0	.0	.20	.37	.84	.06	170	.23	21

DATE	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV.								
26...	150	280	7.9	12.5	5	10	9.5	--
JAN.								
14...	110	210	6.9	7.2	15	26	11.6	--
FEB.								
05...	120	220	7.4	7.2	10	23	11.3	11
MAR.								
05...	140	270	7.4	11.7	10	2	10.3	3
APR.								
03...	110	240	7.5	16.1	5	17	9.4	5
MAY								
07...	110	210	7.4	15.0	5	8	9.7	2
JUNE								
04...	120	230	7.6	18.3	10	35	8.5	19
JULY								
08...	140	280	8.3	24.4	20	8	10.4	12
AUG.								
06...	130	260	8.0	23.9	10	14	9.0	8
SEP.								
10...	140	290	7.8	22.2	15	16	8.0	6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03532190 - OLLIS CREEK AT IVYDELL, TENN (LAT 36.23 34 LONG 084 07 53)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.								
11...	1400	1600	150	3600	14	15	0	--
NOV.								
27...	1330	3300	2500	1200	18	2.2	0	38
DEC.								
20...	1130	2000	920	2000	11	8.2	3	40
JAN.								
08...	1445	1700	120	1100	7.0	7.8	0	48
FEB.								
04...	1400	--	370	1400	8.0	8.0	3	55
MAR.								
04...	1330	--	310	1200	6.0	7.2	4	56
APR.								
01...	1300	--	260	1300	6.0	7.2	0	52
30...	1305	--	220	1100	7.0	6.7	3	64
JUNE								
05...	1415	--	170	890	6.0	5.0	7	39
JULY								
10...	1230	--	80	90	8.0	4.4	6	26

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.									
11...	2.0	--	.70	.02	.16	<.01	--	--	--
NOV.									
27...	3.0	.0	<.05	.05	.46	.03	70	.10	57
DEC.									
20...	3.0	.0	.09	.07	.23	.01	100	.14	12
JAN.									
08...	2.0	.1	<.05	.07	.43	<.01	90	.12	3
FEB.									
04...	6.0	.1	.06	.08	.35	.01	110	.15	5
MAR.									
04...	2.0	.0	.05	.04	.10	<.01	80	.11	2
APR.									
01...	2.0	.0	.05	.06	.29	.02	100	.14	3
30...	3.0	.0	.05	.12	.12	.01	80	.11	2
JUNE									
05...	1.0	.0	<.05	.04	.28	.01	80	.11	4
JULY									
10...	2.0	.1	.08	.06	.31	.03	90	.12	1

DATE	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORAL T UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT.								
11...	41	--	3.9	22.2	--	--	--	--
NOV.								
27...	54	110	5.0	14.0	5	40	--	--
DEC.								
20...	61	160	5.4	4.4	<5	12	12.8	--
JAN.								
08...	49	140	4.2	6.7	<5	4	18.8	--
FEB.								
04...	53	110	4.9	8.9	<5	4	11.1	8
MAR.								
04...	45	130	4.9	11.1	<5	1	10.4	2
APR.								
01...	45	150	4.5	12.8	<5	1	10.6	5
30...	45	150	4.9	20.6	<5	1	9.8	4
JUNE								
05...	36	110	5.1	20.0	<5	3	9.7	7
JULY								
10...	38	100	5.1	23.9	<5	1	8.5	5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534100 - CLINCH RIVER NEAR CLINTON, TN. (LAT 36 07 22 LONG 084 06 52)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NF- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV.								
19...	1410	400	130	80	33	11	96	19
DEC.								
12...	1345	600	520	100	33	9.6	99	24
JAN.								
10...	1345	1200	480	40	27	8.4	85	15
FEB.								
06...	1300	--	860	190	28	7.3	81	18
MAR.								
06...	1355	--	390	20	27	8.0	81	16
APR.								
02...	1100	--	1300	60	32	8.2	88	16
MAY								
06...	1230	--	290	30	30	7.5	81	14
JUNE								
10...	1020	--	120	10	31	7.9	110	14
JULY								
04...	1220	--	110	60	29	8.0	85	14
AUG.								
07...	1125	--	90	20	31	7.8	120	15
SEP.								
11...	1230	--	200	370	35	8.0	98	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.									
19...	4.0	.0	.19	.04	.64	--	130	.18	4
DEC.									
12...	3.0	.0	.26	.04	.30	--	80	.11	9
JAN.									
10...	3.0	.0	.42	.04	.23	.02	60	.08	6
FEB.									
06...	3.0	.0	.68	.12	.66	.05	120	.16	8
MAR.									
06...	2.0	.0	.64	.06	.09	.01	110	.15	3
APR.									
02...	3.0	.0	.56	.02	.20	.02	120	.16	25
MAY									
06...	3.0	.0	.57	.02	.16	.01	120	.16	4
JUNE									
10...	3.0	.0	.34	.02	.54	.04	120	.16	6
JULY									
04...	2.0	.0	.52	.02	.26	<.01	150	.20	3
AUG.									
07...	3.0	--	.46	.02	.42	.01	150	.20	1
SEP.									
11...	2.0	.0	.36	.12	.51	.02	140	.19	4

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534100 - CLINCH RIVER NEAR CLINTON, TN. (LAT 36 07 22 LONG 084 06 52)--Continued

DATE	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV. 19...	130	240	8.0	17.0	5	4	9.7	--
DEC. 12...	120	210	7.6	13.5	<5	10	8.8	--
JAN. 10...	100	220	6.4	10.6	5	10	16.9	--
FFH. 06...	100	210	7.8	9.4	10	14	11.3	11
MAR. 06...	71	210	7.1	10.0	10	5	10.6	3
APR. 02...	110	240	7.6	10.6	5	27	10.1	6
MAY 06...	110	220	7.7	13.3	<5	8	11.4	3
JUNE 10...	110	220	8.6	20.0	5	3	11.6	12
JULY 09...	76	220	7.4	16.1	5	3	8.9	5
AUG. 07...	110	230	7.8	16.7	5	1	7.9	6
SEP. 11...	120	250	7.7	17.8	5	4	5.2	14

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534612 - CLINCH RIVER AT CLINTON, TENN (TVA) (LAT 36 05 45 LONG 084 07 57)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV.								
19...	1500	500	370	120	33	9.7	93	17
DEC.								
12...	1445	1100	690	140	33	10	98	22
JAN.								
10...	1415	1400	610	40	27	8.3	86	16
FEB.								
06...	1410	--	910	60	29	7.6	78	18
MAR.								
06...	1500	--	400	60	28	7.9	82	16
APR.								
02...	1300	--	650	80	30	8.0	90	16
MAY								
06...	1305	--	260	10	30	7.6	97	15
JUNE								
10...	1125	--	490	1000	31	7.5	93	14
JULY								
09...	1315	--	150	80	29	7.8	86	11
AUG.								
07...	1230	--	190	50	31	8.0	96	16
SEP.								
11...	1400	--	350	310	36	8.6	100	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PFR AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.									
19...	4.0	.0	.14	.06	.42	--	130	.18	6
DEC.									
12...	4.0	.0	.27	.04	.38	--	130	.18	6
JAN.									
10...	3.0	.1	.46	.02	.19	.05	70	.10	10
FEB.									
06...	3.0	.0	.70	.15	.18	.07	120	.16	7
MAR.									
06...	2.0	.0	.64	.03	.17	.01	110	.15	4
APR.									
02...	3.0	.0	.54	.02	.18	.02	120	.16	12
MAY									
06...	3.0	.0	.56	<.01	.10	<.01	120	.16	3
JUNE									
10...	3.0	.0	.52	.04	.22	.02	120	.16	13
JULY									
09...	2.0	.0	.55	.06	.42	<.01	130	.18	3
AUG.									
07...	3.0	--	.47	.01	.19	.02	150	.20	2
SEP.									
11...	3.0	.0	.35	.08	.26	.02	140	.19	4

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534612 - CLINCH RIVER AT CLINTON, TENN (TVA) (LAT 36 05 45 LONG 084 07 57)--Continued

DATE	HARD- NESS (CA.MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV. 19...	120	240	7.9	18.0	5	6	7.4	--
DEC. 12...	120	240	7.5	13.1	<5	6	8.9	--
JAN. 10...	100	220	6.5	10.6	5	11	16.7	--
FEB. 06...	100	220	7.6	9.4	10	14	10.9	6
MAR. 06...	100	210	7.2	10.0	10	4	10.5	5
APR. 02...	110	230	7.5	11.1	5	10	10.2	6
MAY 06...	110	210	7.3	12.8	<5	10	9.8	1
JUNE 10...	110	220	7.6	18.3	5	7	9.7	6
JULY 09...	100	230	6.9	16.1	5	2	7.2	7
AUG. 07...	110	230	6.9	16.7	<5	2	5.9	4
SEP. 11...	130	250	7.2	18.3	5	5	4.6	7

TENNESSEE RIVER BASIN

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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534900 - CLINCH RIVER AT FOGEMOOR, TENN (TVA) (LAT 36 01 32 LONG 084 10 03)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
NOV.											
19...	1300	600	380	220	32	9.5	94	18	6.0	.0	.18
DEC.											
12...	1215	1000	640	130	34	10	95	22	3.0	.0	.26
JAN.											
10...	1105	2100	630	330	26	8.3	90	15	3.0	.0	.41
15...	1000	900	1000	100	27	8.4	90	14	4.0	.0	.46
FEB.											
06...	1130	--	1000	140	28	7.3	91	18	2.0	.0	.68
MAR.											
06...	1130	--	500	40	27	7.7	86	15	3.0	.0	.65
APR.											
02...	1420	--	510	50	28	7.7	89	17	2.0	.0	.51
22...	0815	200	410	30	28	7.7	85	16	3.0	.0	.35
MAY											
06...	1030	--	560	60	30	7.6	87	15	3.0	.0	.50
JUNE											
10...	1400	--	380	130	31	7.5	93	15	3.0	.0	.51
JULY											
09...	1040	--	220	80	30	7.9	95	11	2.0	.0	.51
16...	0800	400	570	50	26	7.8	94	13	3.0	.0	.54
AUG.											
07...	1310	--	250	60	31	7.8	110	16	2.0	--	.48
07...	1340	--	270	70	31	8.0	120	15	2.0	--	.47
SEP.											
11...	1500	--	310	140	34	8.7	110	13	2.0	.0	.38

DATE	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
NOV.											
19...	.10	.76	--	140	.19	5	120	240	7.8	20.5	5
DEC.											
12...	.04	.14	--	140	.19	7	130	250	7.4	13.0	<5
JAN.											
10...	.02	.13	.02	60	.08	8	99	210	6.6	11.1	5
15...	.01	.05	<.01	130	.18	13	100	150	7.9	14.0	10
FEB.											
06...	.09	.57	.05	120	.16	13	100	210	7.6	9.4	10
MAR.											
06...	.07	.39	.01	110	.15	8	99	210	7.0	10.0	10
APR.											
02...	.02	.06	.02	120	.16	9	100	230	7.5	11.7	5
22...	<.01	.08	.02	120	.16	8	100	200	7.8	13.0	5
MAY											
06...	.02	.09	.02	120	.16	10	110	130	7.5	14.4	<5
JUNE											
10...	.04	.18	.04	120	.16	9	110	220	7.8	22.8	5
JULY											
09...	.05	.37	.01	120	.16	2	110	220	7.3	16.1	5
16...	.01	.07	.01	120	.16	10	97	220	7.2	15.0	<5
AUG.											
07...	.01	.23	<.01	130	.18	3	110	230	8.1	16.7	<5
07...	.01	.25	.01	140	.19	3	110	220	8.1	16.7	<5
SEP.											
11...	.04	.37	.06	140	.19	4	120	260	7.7	20.6	5

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(Analyses furnished by Tennessee Valley Authority)

03534900 - CLINCH RIVER AT EDGEWOOD, TENN (TVA) (LAT 36 01 32 LONG 084 10 03)--Continued

[illegible][illegible]

TENNESSEE RIVER BASIN

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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03534840 - ORED RIVER AT ADAMS BRIDGE, NEAR CROSSVILLE TENN (LAT 36 03 42 LONG 084 57 42)

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV.								
05...	1300	500	660	100	13	1.6	0	9.0
DEC.								
10...	1100	300	290	10	6.0	1.0	6	9.0
JAN.								
15...	1330	600	440	30	5.0	.9	5	8.0
FEB.								
05...	1300	--	350	20	4.0	1.0	1	6.0
MAR.								
04...	1400	--	270	10	4.0	.8	7	5.0
APR.								
01...	1100	--	320	10	4.0	.9	7	6.0
MAY								
06...	1130	--	520	40	4.0	.8	10	6.0
JUNE								
05...	1500	--	420	20	4.0	.9	7	6.0
JULY								
08...	1400	--	190	50	10	1.5	24	--
AUG.								
05...	0715	--	340	180	14	1.7	51	11
05...	0830	--	270	170	14	1.7	53	12
SEP.								
04...	1100	--	1000	80	14	1.5	37	10

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV.									
05...	10	--	<.05	.01	.33	--	50	.07	9
DEC.									
10...	4.0	.0	.29	<.01	.14	--	20	.03	2
JAN.									
15...	4.0	.0	.34	.02	<.03	<.01	30	.04	4
FEB.									
05...	3.0	.0	.82	.11	<.03	.03	30	.04	5
MAR.									
04...	4.0	.0	.25	<.01	.21	.06	20	.03	2
APR.									
01...	3.0	.0	.20	<.01	.10	.02	30	.04	2
MAY									
06...	4.0	.0	.25	.05	.40	.05	30	.04	8
JUNE									
05...	4.0	.0	.23	.02	.11	.04	30	.04	2
JULY									
08...	14	.1	1.4	.03	.41	.29	80	.11	2
AUG.									
05...	11	.1	.08	.01	.24	.05	80	.11	8
05...	11	.1	.08	.02	.24	.04	80	.11	9
SEP.									
04...	6.0	.1	.38	.06	.54	.15	70	.10	11

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

0353H840 - ORED RIVER AT ADAMS BRIDGE, NEAR CROSSVILLE TENN (LAT 36 03 42 LONG 084 57 42)--Continued

DATE	HARD- NESS (CA.MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORAL) (UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
NOV.								
05...	39	110	5.1	12.2	35	4	12.4	--
DEC.								
10...	19	54	5.5	5.6	5	8	9.5	--
JAN.								
15...	16	40	5.5	8.9	10	5	10.3	--
FEB.								
05...	14	36	5.8	6.1	<5	3	11.6	3
MAR.								
04...	13	45	6.4	16.7	10	1	10.0	4
APR.								
01...	14	46	5.2	13.6	5	1	10.3	8
MAY								
06...	13	39	6.3	13.9	15	10	9.9	4
JUNE								
05...	14	40	6.3	20.0	5	2	8.7	8
JULY								
08...	31	130	7.0	25.0	20	3	7.6	8
AUG.								
05...	42	130	6.3	18.9	15	3	7.0	12
05...	42	130	6.5	18.9	15	2	7.1	14
SEP.								
04...	41	120	5.8	16.7	25	12	7.5	16

TENNESSEE RIVER BASIN

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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03540500 - EMORY RIVER AT OAKDALE, TENN. (LAT 35 58 59 LONG 084 33 29)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FER. 11...	1330	1620	300	240	90	4.0	1.6	4	11	3.0	.0	.39
MAY 13...	1100	4790	2200	1300	100	5.0	1.6	8	8.0	3.0	.0	.15
AUG. 13...	1100	20	300	350	50	12	3.6	29	23	4.0	--	.03

DATE	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
FER. 11...	.10	<.03	<.01	20	.03	87.5	1	17	38	6.5	5.6
MAY 13...	.03	.17	.03	40	.05	517	25	19	42	5.5	16.1
AUG. 13...	.02	.20	.01	60	.08	3.24	4	45	120	6.7	25.6

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	CHL- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMMF- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)
FER. 11...	<5	3	12.3	3	<1.0	<10	<10	2.6	<5	<100	<10
MAY 13...	10	24	9.9	5	1.1	410	210	3.0	<5	<100	<10
AUG. 13...	5	5	7.0	5	1.3	100	80	1.6	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PR) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FER. 11...	<100	<1	<5	<10	<10	<10	.2	<50	<2	<10	<10
MAY 13...	<100	<1	<5	20	<10	<10	1.4	<50	<2	<10	30
AUG. 13...	<100	1	<5	<10	<10	<10	<.2	<50	<2	<10	90

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03555700 - HIWASSEE RIVER AT APALACHIA, TENN (LAT 35 10 05 LONG 084 19 01)

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
JAN. 15...	1030	1900	960	30	2.0	.8	5	5.0
FEB. 25...	1015	--	670	10	2.0	.8	6	1.0
MAR. 19...	1000	--	160	10	1.0	.6	8	1.0
APR. 23...	0930	--	230	10	2.0	.7	6	3.0
MAY 14...	0930	--	220	20	2.0	.7	5	2.0
JUNE 10...	1040	--	300	40	2.0	.6	5	2.0
JULY 09...	1010	--	880	40	2.0	.8	6	2.0
AUG. 14...	1020	--	520	40	3.0	.7	6	1.0
SEP. 17...	1000	--	290	40	2.0	.7	6	<1.0

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
JAN. 15...	2.0	.0	.11	.06	.10	.02	20	.03	8
FEB. 25...	2.0	.0	.15	.01	.11	<.01	10	.01	5
MAR. 19...	2.0	.0	<.05	.01	.05	.01	30	.04	2
APR. 23...	2.0	.0	<.05	.01	.10	.01	30	.04	2
MAY 14...	2.0	.0	.13	.01	.05	.01	20	.03	2
JUNE 10...	2.0	.0	<.05	.02	.14	.01	24	.03	4
JULY 09...	2.0	.0	<.05	.02	.11	.01	20	.03	5
AUG. 14...	1.0	.0	<.01	<.01	.10	.02	30	.04	3
SEP. 17...	1.0	.0	<.01	<.01	.08	.02	30	.04	2

DATE	HARDNESS (CA, MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
JAN. 15...	8	33	5.2	8.9	20	14	11.4	--
FEB. 25...	8	22	5.9	3.3	15	9	11.8	4
MAR. 19...	5	20	6.8	12.2	<5	1	--	2
APR. 23...	8	20	6.0	16.1	<5	5	10.1	7
MAY 14...	8	20	5.7	17.8	10	1	9.3	4
JUNE 10...	7	23	5.5	22.2	10	3	9.0	4
JULY 09...	8	24	6.1	22.2	20	12	8.1	6
AUG. 14...	10	23	6.3	23.3	20	5	8.2	2
SEP. 17...	8	26	6.2	20.0	15	6	8.1	7

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
 (Analyses furnished by Tennessee Valley Authority)

03557050 - HIWASSEE RIVER NEAR WETMORE, TENN (LAT 35 14 24 LONG 084 33 49)

		TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FF) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NF- SIUM (MG) (MG/L)	ALKA- LITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	
DATE	TIME								
JAN.									
15...	1410	1800	1100	50	2.0	.9	7	2.0	
FEB.									
25...	1455	--	170	<10	1.0	.6	7	<1.0	
MAR.									
25...	1315	--	360	30	2.0	.9	9	1.0	
APR.									
23...	1315	--	360	20	3.0	1.0	9	3.0	
MAY									
14...	1230	--	320	20	3.0	.9	9	2.0	
JUNE									
10...	1400	--	270	<10	2.0	.7	8	2.0	
JULY									
09...	1335	--	350	30	2.5	.9	8	2.0	
09...	1336	--	360	40	2.5	.9	8	1.0	
AUG.									
14...	1345	--	230	40	3.0	.8	8	<1.0	
SEP.									
17...	1400	--	140	50	3.0	.8	8	2.0	
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
JAN.									
15...	2.0	.1	.11	.04	.06	.02	20	.03	11
FEB.									
25...	2.0	.0	.05	.03	.21	.02	10	.01	2
MAR.									
25...	1.0	.0	.12	<.01	.05	<.01	30	.04	4
APR.									
23...	1.0	.0	.12	<.01	.03	.01	30	.04	3
MAY									
14...	2.0	.0	.13	<.01	.08	.01	20	.03	3
JUNE									
10...	2.0	.0	.12	<.01	.07	.01	20	.03	4
JULY									
09...	2.0	.0	.15	.02	.12	.01	10	.01	6
09...	2.0	.0	.14	.01	.07	.02	20	.03	5
AUG.									
14...	2.0	.0	.17	<.01	.20	.02	20	.03	4
SEP.									
17...	2.0	.0	.17	.11	.01	<.01	30	.04	21
DATE	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	
JAN.									
15...	9	25	6.1	10.6	15	15	10.8	--	
FEB.									
25...	5	16	6.3	5.0	<5	<1	10.9	10	
MAR.									
25...	9	31	6.7	7.8	<5	3	11.5	2	
APR.									
23...	12	20	6.5	14.4	<5	4	11.3	6	
MAY									
14...	11	23	6.3	14.4	5	4	10.3	2	
JUNE									
10...	8	25	6.2	18.3	5	7	10.1	2	
JULY									
09...	66	28	6.5	19.4	5	5	10.2	1	
09...	66	26	6.5	19.4	5	4	10.2	<1	
AUG.									
14...	11	27	6.7	19.4	5	2	10.2	2	
SEP.									
17...	11	42	6.5	20.0	5	4	10.0	4	

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03571000 - SEQUATCHIE RIVER NEAR WHITWELL, TENN. (LAT 35 12 22 LONG 085 29 48)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)
FER. 14...	1025	1260	10000	4400	90	150	260	40	21	3.7
MAY 17...	1030	1260	4500	2500	80	130	160	<10	17	2.4
AUG. 16...	1035	117	1900	1200	50	50	100	30	34	6.1
DATE	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
FER. 14...	48	11	3.0	.0	.56	.05	.43	.13	.03	90
MAY 17...	40	9.0	2.0	.0	.33	.03	.17	.04	.01	50
AUG. 16...	94	9.0	4.0	.0	.58	.07	.47	.06	.02	110
DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTRABLE RESIDUE (MG/L)	HARDNESS (CA.MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
FER. 14...	.12	306	130	68	140	6.8	10.9	25	96	10.2
MAY 17...	.07	170	46	53	100	7.5	20.7	15	33	8.5
AUG. 16...	.15	34.7	24	110	230	7.6	23.3	5	8	7.2
DATE	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
FER. 14...	10	2.0	3200	960	4.2	<5	<100	<10	<100	2
MAY 17...	4	<1.0	4200	2000	2.7	<5	<100	<10	<100	<1
AUG. 16...	10	5.5	3000	2400	4.8	<5	<100	<10	<100	6
DATE	TOTAL CHROMIUM (CP) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SF) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	
FER. 14...	<5	40	21	<10	.2	50	2	<10	40	
MAY 17...	<5	<10	32	<10	<.2	<50	<2	<10	20	
AUG. 16...	<5	10	<10	<10	<.2	<50	<2	<10	60	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

03571850 - TENNESSEE RIVER AT SOUTH PITTSBURG, TENN. (LAT 35 00 41 LONG 085 41 51)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)
OCT. 24...	0930	23500	110	3	3.0	<.4	3.2	<.4	2.6	<.4	.02	.21
DEC. 03...	1315	37800	80	17	<1.0	1.1	3.6	1.3	2.9	1.1	.02	.21
JAN. 07...	1000	151000	83	52	<.9	2.7	2.4	3.5	1.9	3.0	.03	.06
FEB. 26...	1215	89800	75	18	<1.0	1.2	3.5	1.5	2.8	1.3	.03	.12
MAR. 27...	1100	50200	83	13	<.9	.8	2.9	1.2	2.3	1.1	.03	.13
APR. 19...	1345	40700	87	14	1.3	1.0	3.3	1.2	2.6	1.0	.04	.13
MAY 30...	1310	50500	82	13	3.5	1.6	4.1	1.2	3.3	1.1	.06	.21
JUNE 17...	1015	46400	90	24	<1.1	1.4	3.2	.9	2.6	.8	.04	.32
JULY 10...	1400	48100	88	11	<1.1	.6	3.4	.6	2.7	.5	.04	.15
AUG. 19...	0830	--	100	4	<1.4	<.4	4.0	<.4	3.2	<.4	.04	.12

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03582000 - ELK RIVER ABOVE FAYETTEVILLE, TENN. (LAT 35 08 04 LONG 086 32 23)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
NOV. 12...	1525	958	400	730	160	60	450	220	30	3.4	--	6.0
DEC. 11...	0930	3330	--	850	<50	--	420	10	--	--	--	--
JAN. 29...	0930	7400	4000	1700	--	--	190	--	30	3.8	39	9.0
FEB. 13...	1030	3510	--	580	--	--	100	--	25	3.6	62	7.0
MAR. 13...	1000	2380	--	600	--	--	80	--	25	3.1	63	7.0
APR. 10...	1330	1810	--	520	--	--	50	--	28	3.6	72	8.0
MAY 07...	1230	311	--	370	--	--	80	--	36	4.1	95	7.0
JUNE 11...	1330	721	--	620	--	--	90	--	34	3.6	79	7.0
11...	1430	645	--	650	--	--	90	--	34	3.6	80	7.0
JULY 10...	1400	740	--	740	--	--	150	--	25	3.5	70	6.0
AUG. 22...	1010	1130	--	980	--	--	310	--	28	3.5	73	6.0
SEP. 17...	0945	1110	--	1300	--	--	410	--	31	3.9	81	6.0

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)
NOV. 12...	4.0	.0	.17	.10	.26	--	100	.14	259	2	89	200
DEC. 11...	--	--	--	--	--	--	--	--	--	--	--	--
JAN. 29...	4.0	.0	.53	.08	.24	.08	100	.14	2000	29	91	120
FEB. 13...	3.0	.0	.54	.02	.06	.03	110	.15	1040	6	77	160
MAR. 13...	3.0	.0	.61	<.01	.12	.04	90	.12	578	5	75	150
APR. 10...	4.0	.0	1.1	.07	.45	.05	70	.10	342	15	85	170
MAY 07...	4.0	.0	.66	.01	.11	.03	110	.15	92.4	6	110	210
JUNE 11...	3.0	.0	.52	.02	.14	.05	100	.14	195	17	100	160
11...	3.0	.0	.54	.01	.11	.04	100	.14	174	14	100	160
JULY 10...	3.0	.0	.48	.04	.44	.06	120	.16	240	11	77	160
AUG. 22...	3.0	.0	.37	<.01	.02	.03	90	.12	275	29	84	160
SEP. 17...	3.0	.0	.40	.04	.48	.09	110	.15	330	46	93	190

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(Analyses furnished by Tennessee Valley Authority)

03582000 - ELK RIVER ABOVE FAYETTEVILLE, TENN. (LAT 35 08 04 LONG 086 32 23)

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV. 12...	--	--	10	5	--	6	1.6	50	<10	<.01	<1	<5
DEC. 11...	--	11.7	--	--	--	--	--	--	--	--	--	--
JAN. 29...	6.8	8.0	40	27	9.2	--	--	--	--	--	--	--
FEB. 13...	8.0	10.0	10	5	10.1	3	--	--	--	--	--	--
MAR. 13...	8.6	11.0	10	5	10.0	6	--	--	--	--	--	--
APR. 10...	7.9	12.0	10	10	7.1	5	--	--	--	--	--	--
MAY 07...	7.9	16.0	5	5	9.0	1	--	--	--	--	--	--
JUNE 11...	8.0	19.0	5	11	8.1	7	--	--	--	--	--	--
11...	7.9	20.0	5	12	8.1	7	--	--	--	--	--	--
JULY 10...	7.9	18.0	<5	7	8.2	6	--	--	--	--	--	--
AUG. 22...	7.8	18.0	5	10	7.6	5	--	--	--	--	--	--
SEP. 17...	7.7	15.0	10	18	8.2	16	--	--	--	--	--	--

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TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03584500 - ELK RIVER NEAR PROSPECT, TENN. (LAT 35 01 39 LONG 086 56 52)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CaCO_3 (MG/L)	DIS-SOLVED SULFATE (SO_4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEB. 12...	1400	5350	500	650	90	33	4.0	79	7.0	4.0	.0	.70
MAY 13...	1315	3060	5000	3100	240	41	4.7	99	9.0	2.0	.0	2.1
AUG. 13...	1400	1930	5200	3200	230	31	3.7	75	10	3.0	.1	.53

DATE	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (Ca, Mg) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
FEB. 12...	.01	.11	.08	110	.15	1590	15	99	180	8.2	9.0
MAY 13...	.10	.56	.39	140	.19	1160	90	82	83	7.6	18.0
AUG. 13...	.16	.10	.49	110	.15	573	68	93	180	7.7	23.3

DATE	COLOR (PLATINUM-COHALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)
FEB. 12...	5	5	10.8	3	1.9	180	10	3.8	<5	<100	<10
MAY 13...	30	74	8.0	11	2.3	8900	4260	5.8	<5	<100	<10
AUG. 13...	20	58	6.8	13	1.6	640	590	3.7	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FEB. 12...	<100	<1	<5	10	<10	<10	.9	<50	4	<10	20
MAY 13...	<100	<1	<5	10	<10	<10	110	<50	<2	<10	30
AUG. 13...	<100	<1	<5	<10	19	<10	<.2	<50	<2	<10	20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
 (Analyses furnished by Tennessee Valley Authority)

03588500 - SHOAL CREEK AT IRON CITY, TENN. (LAT 35 01 27 LONG 087 34 44)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)
FER. 12...	1100	685	900	330	--	--	20	--	13	2.0
MAR. 14...	1120	556	--	540	120	40	60	30	18	2.6
MAY 13...	1030	1760	1200	660	--	--	40	--	14	2.0
AUG. 13...	1100	389	3400	2100	--	--	100	--	19	2.4

DATE	ALKA-LINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
FER. 12...	39	4.0	4.0	.0	--	--	--	--	--	50
MAR. 14...	44	3.0	4.0	.0	.40	.06	1.0	.07	.04	60
MAY 13...	29	6.0	2.0	.0	.38	.02	.16	.04	--	60
AUG. 13...	45	11	4.0	--	.65	.08	.08	.12	--	80

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA, MG) (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
FER. 12...	.07	92.5	9	41	84	8.5	7.0	<5	3	11.1
MAR. 14...	.08	90.1	6	56	110	7.4	12.4	10	10	10.1
MAY 13...	.08	285	13	43	92	7.8	15.5	10	21	8.3
AUG. 13...	.11	84.0	46	57	140	7.9	22.5	15	42	7.2

DATE	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
FER. 12...	4	1.6	<10	<10	3.5	<5	<100	<10	<100	<1
MAR. 14...	5	<1.0	160	10	--	--	--	--	--	--
MAY 13...	4	1.1	2100	400	1.2	<5	<100	<10	<100	<1
AUG. 13...	9	1.7	1300	1260	2.2	<5	<100	<10	<100	<1

DATE	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FER. 12...	<5	<10	10	<10	<.2	<50	6	<10	20
MAR. 14...	--	--	--	--	--	--	--	--	--
MAY 13...	5	20	<10	<10	<.2	<50	<2	<10	<10
AUG. 13...	38	<10	<10	<10	62	<50	<2	<10	20

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

(Analyses furnished by Tennessee Valley Authority)

03594415 - BEFCH RIVER NEAR LEXINGTON TENN (TVA) (LAT 35 39 34 LONG 088 25 01)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
DEC. 03...	0830	--	2000	1300	130	4.0	1.4	18	4.0
JAN. 22...	1600	--	5000	2200	160	20	1.5	10	7.0
FEB. 04...	0900	--	--	1900	140	3.0	1.4	16	6.0
MAR. 04...	1515	20	--	1700	150	3.0	1.2	25	6.0
APR. 02...	1500	40	--	1100	120	3.0	1.2	21	4.0
MAY 06...	1300	36	--	300	60	3.0	1.1	45	<1.0
JULY 15...	1315	--	--	120	60	5.0	1.4	30	2.0
AUG. 13...	0800	--	--	360	420	5.0	1.5	17	2.0
SEP. 16...	0930	--	--	430	200	7.0	1.7	21	2.0

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
DEC. 03...	4.0	.0	.08	.18	.34	--	30	.04	--
JAN. 22...	3.0	.0	.12	.05	.40	.03	30	.04	--
FEB. 04...	3.0	.0	.14	.02	.25	.03	40	.05	--
MAR. 04...	3.0	.0	.05	.01	.49	.04	30	.04	1.62
APR. 02...	3.0	.0	<.05	.04	.57	.04	40	.05	4.32
MAY 06...	4.0	.0	<.05	.01	.45	.03	30	.04	2.92
JULY 15...	3.0	.0	<.05	.03	.35	.02	20	.03	--
AUG. 13...	2.0	.0	<.01	.01	.66	.02	30	.04	--
SEP. 16...	3.0	.0	.02	.04	.22	.02	40	.05	--

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
DEC. 03...	13	16	51	8.6	13.5	10	15	9.4	--
JAN. 22...	14	56	39	6.6	8.9	60	28	11.7	--
FEB. 04...	16	81	39	7.9	8.9	30	25	8.6	13
MAR. 04...	16	12	41	7.4	11.1	45	18	11.1	10
APR. 02...	14	12	47	8.3	15.6	25	12	10.2	11
MAY 06...	8	12	40	7.7	21.1	15	6	8.7	10
JULY 15...	5	18	47	8.1	31.1	10	3	7.1	13
AUG. 13...	8	19	47	6.3	26.7	10	5	7.5	12
SEP. 16...	4	24	62	6.9	24.4	10	9	5.7	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
 (Analyses furnished by Tennessee Valley Authority)

03603000 - DUCK RIVER ABOVE HURRICANE MILLS, TENN. (LAT 35 55 48 LONG 087 44 35)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	ALKALINITY AS CAC03 (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
NOV. 27...	0940	6360	--	--	--	--	--	99	--	--	--	--
FEB. 25...	1020	11700	5900	2900	120	36	3.6	88	9.0	4.0	.1	.45
MAY 20...	1030	4030	2300	1500	100	42	4.8	34	8.0	3.0	.1	.66
AUG. 13...	0945	1790	1300	890	40	32	3.7	95	11	4.0	.2	.51

DATE	AMMONIA NITROGEN (N) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
NOV. 27...	--	--	--	--	--	--	--	--	--	7.1	16.0
FEB. 25...	.03	.24	.24	110	.15	3480	54	100	190	7.2	8.3
MAY 20...	.02	.48	.26	130	.18	1420	39	120	230	6.8	21.7
AUG. 13...	.04	.40	.30	120	.16	580	21	95	210	7.6	25.0

DATE	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)
NOV. 27...	--	--	8.5	--	--	--	--	--	--	--	--
FEB. 25...	40	48	10.1	9	1.9	110	80	3.2	<5	<100	<10
MAY 20...	15	30	7.3	11	1.2	580	130	3.0	<5	<100	<10
AUG. 13...	50	19	6.8	6	1.8	10	10	2.9	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV. 27...	--	--	--	--	--	--	--	--	--	--	--
FEB. 25...	<100	<1	<5	10	10	<10	<.2	<50	2	<10	20
MAY 20...	<100	1	<5	20	33	<10	<.2	70	<2	<10	20
AUG. 13...	<100	<1	<5	<10	<10	<10	<.2	<50	<2	<10	60

TENNESSEE RIVER BASIN

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
 (Analyses furnished by Tennessee Valley Authority)

03604500 - BUFFALO RIVER NEAR LOHELVILLE, TENN. (LAT 35 48 46 LONG 087 47 51)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
NOV. 27...	0840	770	--	--	--	--	--	43	--	--	--	--
FEB. 25...	1230	2870	1000	660	30	11	1.6	47	6.0	3.0	.0	.26
MAY 20...	0915	1900	800	520	40	16	2.0	94	4.0	4.0	.0	.27
AUG. 13...	1100	910	5600	3400	110	17	2.1	50	4.0	2.0	.0	.37

DATE	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 27...	--	--	--	--	--	--	--	--	--	7.3	16.3
FEB. 25...	.02	.10	.02	40	.05	310	11	34	60	5.6	7.2
MAY 20...	.08	.76	.04	60	.08	308	15	48	90	7.6	20.6
AUG. 13...	.03	.30	.15	60	.08	147	56	51	98	7.2	22.8

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)
NOV. 27...	--	--	8.2	--	--	--	--	--	--	--	--
FEB. 25...	15	10	11.3	4	1.2	10	<10	.9	<5	<100	<10
MAY 20...	10	16	7.5	4	1.0	700	60	1.4	<5	<100	<10
AUG. 13...	35	66	6.6	7	1.3	600	390	3.0	<5	<100	<10

DATE	TOTAL BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PR) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV. 27...	--	--	--	--	--	--	--	--	--	--	--
FEB. 25...	<100	<1	<5	<10	10	<10	<.2	<50	<2	<10	10
MAY 20...	<100	<1	5	30	<10	<10	.3	<50	<2	<10	<10
AUG. 13...	<100	<1	<5	<10	<10	<10	<.2	<50	<2	<10	30

WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

CUMBERLAND RIVER BASIN

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
03408500 NEW RIVER AT NEW RIVER, TENN. (LAT 36 23 08 LONG 084 33 17)				03428070 WEST FORK STONES RIVER AT MANSON PIKE, AT MURFREESBORO, TENN. (LAT 35 51 25 LONG 086 24 43)			
Nov. 15, 1973	1530	54	15.0	May 8, 1974	1055	68	17.0
Dec. 13, 1973	1500	265	5.0	July 12, 1974	1045	42	26.5
Apr. 2, 1974	1800	4,450	16.5	Aug. 15, 1974	1300	34	26.0
July 3, 1974	1230	36	27.0	Sept. 20, 1974	1200	58	21.0
03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TENN. (LAT 36 24 58 LONG 085 01 35)				03428200 WEST FORK STONES RIVER AT MURFREESBORO, TENN. (LAT 35 54 10 LONG 086 25 48)			
Oct. 2, 1973	1045	21	21.0	Mar. 28, 1974	0925	207	14.0
Feb. 20, 1974	1430	695	10.5	May 8, 1974	1340	81	17.0
Apr. 10, 1974	1325	952	11.5	July 12, 1974	1400	54	26.0
May 15, 1974	1635	442	15.3	Aug. 15, 1974	1020	67	24.0
July 2, 1974	1520	23	24.1	Sept. 20, 1974	1035	75	21.0
Aug. 14, 1974	1255	60	20.5	03431000 MILL CREEK NEAR ANTIOCH, TENN. (LAT 36 04 54 LONG 086 40 50)			
03416000 WOLF RIVER NEAR BYRDSTOWN, TENN. (LAT 36 33 37 LONG 085 04 23)				Oct. 26, 1973	1300	.95	17.0
Oct. 2, 1973	0830	16	21.5	Jan. 31, 1974	1155	162	10.0
Feb. 20, 1974	1140	255	9.5	Feb. 28, 1974	1205	76	8.0
Apr. 10, 1974	1635	506	14.0	Mar. 22, 1974	1255	255	7.5
May 15, 1974	1235	153	16.2	Apr. 19, 1974	1205	56	14.0
July 2, 1974	1225	22	24.9	May 16, 1974	0950	38	19.0
Aug. 14, 1974	0910	19	24.0	June 28, 1974	0915	12	20.0
03417500 CUMBERLAND RIVER AT CELINA, TENN. (LAT 36 33 15 LONG 085 30 52)				July 17, 1974	1215	7.6	26.0
May 16, 1974	1330	18,500	13.3	Aug. 14, 1974	1300	2.6	26.0
03418000 ROARING RIVER NEAR HILHAM, TENN. (LAT 36 20 27 LONG 085 25 35)				Sept. 10, 1974	1315	155	21.0
Oct. 1, 1973	1310	13	22.5	03431300 BROWNS CREEK AT STATE FAIRGROUNDS AT NASHVILLE, TENN. (LAT 36 07 47 LONG 086 45 40)			
Feb. 19, 1974	1450	138	10.5	Oct. 26, 1973	0910	1.4	16.0
Feb. 21, 1974	1505	99	10.0	Jan. 8, 1974	1030	26	10.0
Apr. 9, 1974	1715	462	13.0	Jan. 31, 1974	0915	21	11.0
May 14, 1974	1310	100	18.0	Feb. 28, 1974	0950	12	10.0
July 1, 1974	1515	21	23.8	Mar. 22, 1974	0940	47	10.0
Aug. 13, 1974	1320	24	23.5	Apr. 17, 1974	1400	10	16.0
Sept. 25, 1974	1255	63	15.5	May 14, 1974	1200	4.2	22.5
03421000 COLLINS RIVER NEAR MCINNISVILLE, TENN. (LAT 35 42 32 LONG 085 43 46)				June 26, 1974	1440	5.4	24.5
Dec. 6, 1973	1030	1,330	11.0	July 17, 1974	0935	1.6	23.0
Mar. 14, 1974	1430	827	15.0	Aug. 14, 1974	0940	2.6	24.0
June 13, 1974	1100	463	23.0	Sept. 10, 1974	0925	35	20.0
03426800 EAST FORK STONES RIVER AT WOODBURY, TENN. (LAT 35 49 41 LONG 086 04 36)				03431600 WHITES CREEK AT TUCKER ROAD NEAR BORDEAUX, TENN. (LAT 36 12 45 LONG 086 49 29)			
Nov. 1, 1973	1120	41	13.5	Nov. 11, 1973	0930	17	14.0
Jan. 10, 1974	1130	1,180	13.0	Nov. 27, 1973	1215	1,280	18.0
Apr. 3, 1974	1310	101	17.0	Jan. 30, 1974	1035	120	7.5
May 7, 1974	1320	38	18.0	Feb. 27, 1974	1010	69	5.0
July 9, 1974	1110	13	21.5	Mar. 21, 1974	1110	459	9.0
July 23, 1974	1020	14	21.5	Apr. 17, 1974	0955	57	11.0
Aug. 14, 1974	1245	15	21.5	May 13, 1974	1050	16	19.5
Sept. 18, 1974	1330	30	20.5	June 26, 1974	1105	13	20.0
03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TENN. (LAT 35 55 07 LONG 086 20 01)				July 16, 1974	0945	9.4	23.0
Mar. 27, 1974	1330	320	13.5	Aug. 13, 1974	1030	6.1	24.5
May 6, 1974	1400	314	12.0	Sept. 9, 1974	1105	180	19.5
July 9, 1974	1415	34	25.5	03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TENN. (LAT 36 09 04 LONG 086 51 16)			
July 24, 1974	0915	32	24.0	Nov. 20, 1973	1150	4.2	13.5
Aug. 14, 1974	1015	55	24.5	Jan. 8, 1974	1225	50	9.0
Sept. 18, 1974	1045	102	18.0	Jan. 30, 1974	1315	47	11.0
				Feb. 27, 1974	1320	29	9.5
				Apr. 17, 1974	1130	18	12.0
				May 14, 1974	0930	5.4	18.5
				June 25, 1974	1430	4.9	19.5
				July 16, 1974	1345	1.7	25.0
				Aug. 13, 1974	1320	2.6	26.5
				Sept. 13, 1974	1350	8.6	22.0

PERIODIC DETERMINATIONS OF WATER TEMPERATURES

WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

CUMBERLAND RIVER BASIN--Continued

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24HR)	DISCHARGE (CFS)	TEMP. (°C)
03431800 SYCAMORE CREEK NEAR ASHLAND CITY, TENN. (LAT 36 19 12 LONG 087 03 04)				03436000 SULPHUR FORK RED RIVER NEAR ADAMS, TENN. (LAT 36 30 55 LONG 087 03 32)			
Oct. 5, 1973	1340	24	21.0	Oct. 4, 1973	1400	28	20.0
Jan. 15, 1974	1325	253	8.5	Jan. 16, 1974	1230	654	10.5
May 14, 1974	1315	46	20.5	Apr. 10, 1974	1315	521	12.5
June 27, 1974	1300	50	19.5	May 16, 1974	1320	105	19.5
Aug. 14, 1974	1315	38	25.5	July 2, 1974	0825	77	21.5
Sept. 17, 1974	1205	51	17.5	Aug. 21, 1974	1025	55	23.0
Sept. 18, 1974	1340	47	18.0	Sept. 20, 1974	1440	77	19.5
03433500 HARPETH RIVER AT BELLEVUE, TENN. (LAT 36 03 16 LONG 086 55 42)				03436100 RED RIVER AT PORT ROYAL, TENN. (LAT 36 33 17 LONG 087 08 31)			
Nov. 16, 1973	1310	41	12.8	Apr. 12, 1974	1015	1,980	13.5
Apr. 9, 1974	1040	2,010	13.0	May 16, 1974	1125	615	20.0
May 13, 1974	1110	288	16.5	July 2, 1974	1050	649	22.0
July 8, 1974	1450	529	22.4	Aug. 21, 1974	1315	344	25.0
Aug. 14, 1974	0850	67	24.7	Sept. 20, 1974	1145	604	19.0
Sept. 23, 1974	1420	172	16.5	03436700 YELLOW CREEK NEAR SHILOH, TENN. (LAT 36 20 55 LONG 087 32 20)			
03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TENN. (LAT 36 07 19 LONG 087 05 56)				Oct. 2, 1973	1215	32	21.0
Nov. 8, 1973	1050	133	10.3	Jan. 17, 1974	1230	337	12.5
Apr. 9, 1974	1320	3,630	12.0	Apr. 11, 1974	1300	375	13.0
May 13, 1974	1305	555	19.0	May 14, 1974	1035	126	17.0
Aug. 14, 1974	1105	209	24.5	July 1, 1974	1250	94	21.0
Sept. 26, 1974	0915	210	17.0	Aug. 20, 1974	1235	56	22.5
03435030 RED RIVER NEAR PORTLAND, TENN. (LAT 36 33 24 LONG 086 34 14)				Sept. 17, 1974	1255	69	17.8
Oct. 3, 1973	1055	2.8	22.0				
Nov. 9, 1973	1000	3.4	12.0				
Dec. 14, 1973	1105	6.3	8.0				
Jan. 17, 1974	1050	27	12.0				
Feb. 19, 1974	1110	27	8.5				
Mar. 14, 1974	1045	18	9.0				
Apr. 11, 1974	1050	35	13.0				
May 17, 1974	1020	7.5	21.0				
June 11, 1974	1115	41	19.0				
July 10, 1974	1115	7.5	24.0				
Aug. 8, 1974	1150	4.0	22.0				
Sept. 5, 1974	1340	16	19.5				

WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

TENNESSEE RIVER BASIN

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
03455000 FRENCH BROAD RIVER NEAR NEWPORT, TENN. (LAT 35 58 54 LONG 083 09 40)				03487550 REEDY CREEK AT OREBANK, TENN. (LAT 36 33 42 LONG 082 27 36)			
Dec. 18, 1973	1130	2,160	0.5	Dec. 10, 1973	1630	32	11.0
Jan. 8, 1974	1200	5,450	8.0	Mar. 17, 1974	1630	48	17.0
Feb. 20, 1974	1100	5,220	8.0	Apr. 16, 1974	1630	80	16.5
03461200 COSBY CREEK ABOVE COSBY, TENN. (LAT 35 47 02 LONG 083 13 08)				May 28, 1974	1700	49	18.5
Oct. 10, 1973	1415	5.2	12.0	July 8, 1974	1700	21	23.0
Jan. 7, 1974	1530	69	8.0	03490500 HOLSTON RIVER AT SURGOINSVILLE, TENN. (LAT 36 28 19 LONG 082 50 50)			
Feb. 19, 1974	1430	46	10.0	Oct. 11, 1973	1300	1,440	20.0
Apr. 29, 1974	1800	21	15.0	Dec. 10, 1973	1430	3,960	9.5
June 17, 1974	1400	22	14.0	Jan. 21, 1974	1720	7,680	9.0
Aug. 20, 1974	1430	19	17.0	July 8, 1974	1400	1,600	21.0
03461500 PIGEON RIVER AT NEWPORT, TENN. (LAT 35 57 38 LONG 083 10 28)				Aug. 20, 1974	1300	1,230	31.0
Jan. 8, 1974	1000	2,940	8.0	03491300 BEECH CREEK AT KEPLER, TENN. (LAT 36 24 06 LONG 082 53 09)			
03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TENN. (LAT 36 10 35 LONG 082 27 27)				Oct. 11, 1973	1200	4.4	19.0
Oct. 12, 1973	1430	606	19.0	Dec. 10, 1973	1300	15	5.5
Dec. 12, 1973	1500	1,030	4.5	Jan. 21, 1974	1630	41	12.0
Jan. 23, 1974	1630	1,690	9.0	Mar. 6, 1974	1500	74	13.0
Mar. 6, 1974	1300	2,030	12.0	Apr. 15, 1974	1715	8.8	16.0
Apr. 24, 1974	1100	1,900	10.5	July 8, 1974	1315	9.0	24.0
July 10, 1974	1100	1,890	22.0	Aug. 16, 1974	1145	14	23.0
Aug. 22, 1974	1400	846	21.0	03494000 HOLSTON RIVER NEAR JEFFERSON CITY, TENN. (LAT 36 10 03 LONG 083 30 10)			
03469000 FRENCH BROAD RIVER BELOW DOUGLAS DAM, TENN. (LAT 35 57 06 LONG 083 33 05)				Nov. 20, 1973	1345	3,960	16.5
Feb. 6, 1974	1100	17,300	11.00	03495500 HOLSTON RIVER NEAR KNOXVILLE, TENN. (LAT 36 00 56 LONG 083 49 54)			
03476500 SOUTH FORK HOLSTON RIVER BELOW SOUTH HOLSTON DAM, TENN. (LAT 36 31 25 LONG 082 05 50)				Nov. 5, 1973	0945	511	17.0
Dec. 11, 1973	1230	2,650	9.5	03498500 LITTLE RIVER NEAR MARYVILLE, TENN. (LAT 35 47 10 LONG 083 53 04)			
Mar. 8, 1974	1000	2,480	9.5	Nov. 6, 1973	1000	163	12.5
03484000 WATAUGA RIVER BELOW WILBUR DAM, TENN. (LAT 36 20 39 LONG 082 07 46)				Jan. 8, 1974	1400	1,230	9.0
Dec. 11, 1973	1600	2,840	8.0	Apr. 11, 1974	0900	923	12.0
03485500 DOE RIVER AT ELIZABETHTON, TENN. (LAT 36 20 40 LONG 082 12 37)				May 8, 1974	1000	431	14.0
Dec. 12, 1973	0900	188	3.0	June 24, 1974	1415	284	19.0
Jan. 23, 1974	1000	288	8.0	Aug. 5, 1974	1000	221	23.0
Mar. 7, 1974	1115	447	11.0	03519640 BAKER CREEK NEAR GREENBACK, TENN. (LAT 35 40 21 LONG 084 06 28)			
Apr. 23, 1974	1300	431	16.0	Feb. 4, 1974	1300	135	8.0
May 29, 1974	1500	248	21.5	Apr. 8, 1974	1145	66	15.5
Aug. 22, 1974	1115	114	19.0	Apr. 22, 1974	1605	42	16.5
03486000 WATAUGA RIVER AT ELIZABETHTON, TENN. (LAT 36 21 21 LONG 082 13 26)				Aug. 7, 1974	1355	16	17.5
July 10, 1974	0800	416	19.0	03533000 CLINCH RIVER BELOW NORRIS DAM, TENN. (LAT 36 12 56 LONG 084 04 56)			
Aug. 22, 1974	1030	223	18.0	Nov. 20, 1973	1000	5,050	13.5
03487499 SOUTH FORK HOLSTON RIVER AT KINGSFORD, TENN. (MAIN CHANNEL ONLY) (LAT 36 31 51 LONG 082 33 29)				Feb. 22, 1974	1030	8,710	10.0
Nov. 8, 1973	1000	2,960	16.0	03538225 POPLAR CREEK NEAR OAK RIDGE, TENN. (LAT 35 59 55 LONG 084 20 23)			
Dec. 11, 1973	0830	7,570	8.5	Oct. 15, 1973	1100	19	17.5
Mar. 7, 1974	1115	3,360	12.0	Feb. 27, 1974	1130	198	5.0
Apr. 16, 1974	0915	6,930	13.5	July 2, 1974	0900	18	21.0
				Aug. 6, 1974	1300	14	20.0

PERIODIC DETERMINATIONS OF WATER TEMPERATURES

WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

TENNESSEE RIVER BASIN--Continued

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
03538250 EAST FORK POPLAR CREEK NEAR OAK RIDGE, TENN. (LAT 35 57 58 LONG 084 21 30)				03565500 OOSTANAULA CREEK NEAR SANFORD, TENN. (LAT 35 19 39 LONG 084 42 19)			
Oct. 15, 1973	1400	22	19.5	Oct. 18, 1973	1030	26	12.0
Nov. 30, 1973	1330	93	13.0	Dec. 17, 1973	1130	59	6.0
Feb. 27, 1974	1330	47	10.0	Mar. 29, 1974	1320	166	14.0
Mar. 27, 1974	1200	48	12.5	May 31, 1974	1500	113	20.5
Aug. 6, 1974	1000	19	20.0	July 2, 1974	1115	59	18.5
				Aug. 9, 1974	1220	48	21.0
03539800 OBED RIVER NEAR LANCING, TENN. (LAT 36 04 53 LONG 084 40 15)				03566000 HIWASSEE RIVER AT CHARLESTON, TENN. (LAT 35 17 16 LONG 084 45 07)			
Oct. 9, 1973	1300	29	22.0	Oct. 18, 1973	1640	4,380	19.0
June 5, 1974	1100	398	21.5	May 31, 1974	1340	4,110	19.5
July 16, 1974	1130	24	29.0	Aug. 14, 1974	1545	3,520	23.5
03540500 EMORY RIVER AT OAKDALE, TENN. (LAT 35 58 59 LONG 084 33 29)				03566420 WOLFEVER CREEK NEAR OOLTEWAH, TENN. (LAT 35 03 43 LONG 085 03 59)			
Dec. 27, 1973	1030	15,800	10.0	Oct. 25, 1973	1315	6.2	15.0
Feb. 27, 1974	0900	1,890	2.5	Nov. 20, 1973	1020	7.6	13.0
Mar. 27, 1974	0800	1,720	9.5	Dec. 17, 1973	1700	14	5.0
Apr. 29, 1974	1000	396	20.0	Jan. 8, 1974	1530	63	8.5
May 30, 1974	1000	1,070	19.0	Jan. 22, 1974	1700	29	12.0
July 31, 1974	0930	18	26.0	Mar. 15, 1974	1415	14	13.0
Aug. 29, 1974	1030	66	25.5	Mar. 29, 1974	1610	143	14.5
03541300 BITTER CREEK NEAR OAKDALE, TENN. (LAT 35 59 22 LONG 084 29 16)				Apr. 29, 1974	1515	11	19.5
Oct. 19, 1973	1435	30	16.0	June 13, 1974	1115	9.9	18.5
Feb. 8, 1974	1230	42	6.0	July 29, 1974	1055	5.6	22.0
June 24, 1974	1600	1.1	15.0	Sept. 26, 1974	1035	4.3	11.0
03543500 SEWEE CREEK NEAR DECATUR, TENN. (LAT 35 34 53 LONG 084 44 53)				03567500 SOUTH CHICKAMAUGA CREEK NEAR CHICKAMAUGA, TENN. (LAT 35 00 50 LONG 085 12 27)			
Oct. 1, 1973	1440	62	20.0	Nov. 28, 1973	1430	9,000	16.0
Jan. 9, 1974	1250	1,380	6.0	Mar. 15, 1974	1630	377	14.5
Mar. 11, 1974	1215	146	15.5	May 14, 1974	1400	306	19.0
Apr. 1, 1974	1120	401	13.0	July 3, 1974	1125	197	21.5
July 1, 1974	1220	53	21.5	Aug. 15, 1974	1415	215	23.0
Aug. 12, 1974	1125	37	21.0	Sept. 26, 1974	1520	161	16.0
03556500 HIWASSEE RIVER NEAR MCFARLAND, TENN. (LAT 35 10 48 LONG 084 26 36)				03568000 TENNESSEE RIVER AT CHATTANOOGA, TENN. (LAT 35 05 12 LONG 085 16 43)			
Mar. 18, 1974	1515	3,100	8.5	May 7, 1974	1400	34,300	19.5
June 3, 1974	1350	3,120	16.5	03568500 CHATTANOOGA CREEK NEAR FLINTSTONE, GA. (LAT 34 58 20 LONG 085 19 40)			
03563000 OCOEE RIVER AT EMF, TENN. (LAT 35 05 48 LONG 084 32 07)				Oct. 25, 1973	0950	11	13.0
Oct. 26, 1973	1145	1,450	17.5	Nov. 20, 1973	1300	12	13.0
Mar. 26, 1974	1215	1,520	10.0	Mar. 1, 1974	1130	112	8.5
May 24, 1974	1325	1,500	20.0	May 22, 1974	1135	24	19.5
03564500 OCOEE RIVER AT PARKSVILLE, TENN. (LAT 35 05 48 LONG 084 39 15)				July 3, 1974	1430	12	20.0
Dec. 17, 1973	1605	1,710	8.5	03571000 SEQUATCHIE RIVER NEAR WHITWELL, TENN. (LAT 35 12 22 LONG 085 29 48)			
May 24, 1974	1030	2,550	19.0	Oct. 24, 1973	1320	88	14.5
03565000 HIWASSEE RIVER ABOVE CHARLESTON, TENN. (LAT 35 12 33 LONG 084 39 31)				Jan. 9, 1974	1540	3,190	6.0
Oct. 24, 1973	1345	3,970	18.0	Feb. 26, 1974	1030	1,450	6.5
Dec. 17, 1973	1245	4,840	8.0	May 21, 1974	1405	628	19.0
June 4, 1973	1220	4,920	16.0	July 10, 1974	1150	173	22.5
July 19, 1974	1200	3,660	23.0	Aug. 12, 1974	1440	122	25.0
03565300 SOUTH CHESTUEE CREEK NEAR BENTON, TENN. (LAT 35 10 02 LONG 084 42 59)				03571850 TENNESSEE RIVER AT SOUTH PITTSBURG, TENN. (LAT 35 00 41 LONG 085 41 51)			
Oct. 26, 1973	1420	6.5	14.0	Jan. 7, 1974	1520	150,000	8.5
Dec. 17, 1973	1445	19	3.5	June 17, 1974	1345	45,800	24.0
Jan. 31, 1974	1530	100	10.0	Aug. 19, 1974	1415	43,100	27.0
Mar. 27, 1974	1510	42	11.5				
Apr. 25, 1974	1440	26	12.5				
June 3, 1974	1550	34	18.5				
July 26, 1974	1305	29	22.0				

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FENNESSEE RIVER BASIN--Continued

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
03578000 ELK RIVER NEAR PELHAM, TENN. (LAT 35 17 48 LONG 085 52 12)				03597500 WARTRACE CREEK AT BELL BUCKLE, TENN. (LAT 35 35 16 LONG 086 20 22)			
Oct. 4, 1973	1350	11	20.0	Nov. 19, 1973	1420	3.01	14.0
Nov. 20, 1973	1340	33	14.5	Jan. 8, 1974	1130	32.0	7.5
Dec. 12, 1973	1045	48	8.0	Mar. 5, 1974	1550	12.0	15.0
Apr. 18, 1974	1240	86	13.0	Mar. 26, 1974	1415	18.6	14.0
May 21, 1974	1040	66	16.0	Apr. 23, 1974	1300	7.47	16.0
July 5, 1974	1315	17	20.5	May 28, 1974	1520	9.59	20.0
Aug. 20, 1974	1035	11	19.0	July 1, 1974	1415	.61	23.0
Aug. 21, 1974	1005	9.5	20.0	Aug. 1, 1974	1545	.11	29.0
				Sept. 11, 1974	1540	2.08	24.5
03582000 ELK RIVER ABOVE FAYETTEVILLE, TENN. (LAT 35 08 04 LONG 086 32 23)				03598000 DUCK RIVER NEAR SHELBYVILLE, TENN. (LAT 35 28 49 LONG 086 29 57)			
Oct. 1, 1973	0850	220	22.0	Oct. 3, 1973	1435	203	23.0
Jan. 10, 1974	0950	9,690	12.5	Dec. 12, 1973	1335	324	5.5
03584000 RICHLAND CREEK NEAR PULASKI, TENN. (LAT 35 12 51 LONG 087 06 05)				Jan. 11, 1974	1200	30,500	12.0
Oct. 1, 1973	1400	64	21.0	Apr. 9, 1974	1120	1,410	13.5
Nov. 7, 1973	1230	109	11.0	May 16, 1974	1440	1,610	20.0
Dec. 13, 1973	1330	429	10.0	July 24, 1974	1335	165	26.0
Jan. 10, 1974	1745	9,870	13.0	Aug. 21, 1974	1635	141	26.5
May 30, 1974	0835	424	19.0	03599500 DUCK RIVER AT COLUMBIA, TENN. (LAT 35 37 05 LONG 087 01 56)			
July 11, 1974	0935	151	24.0	July 5, 1974	1250	218	26.5
Aug. 21, 1974	1210	98	22.5	Sept. 23, 1974	1330	207	20.8
03584500 ELK RIVER NEAR PROSPECT, TENN. (LAT 35 01 39 LONG 086 56 52)				03600500 BIG BIGBY CREEK AT SANDY HOOK, TENN. (LAT 35 29 19 LONG 087 13 59)			
Oct. 1, 1973	1145	354	22.5	Nov. 13, 1973	1115	6.03	10.0
Feb. 7, 1974	1140	7,960	9.5	Jan. 7, 1974	1350	40.1	8.2
July 11, 1974	1310	1,100	24.0	Apr. 8, 1974	1145	92.7	15.0
03588000 SHOAL CREEK AT LAWRENCEBURG, TENN. (LAT 35 14 40 LONG 087 21 02)				July 1, 1974	1440	9.80	26.5
Nov. 15, 1973	0820	25.5	14.5	Aug. 12, 1974	1340	9.86	25.6
Jan. 7, 1974	1705	141	9.0	Sept. 23, 1974	1400	6.51	19.5
Apr. 8, 1974	1610	312	14.0	03602500 PINEY RIVER AT VERNON, TENN. (LAT 35 52 16 LONG 087 30 05)			
May 14, 1974	1100	92.4	17.0	Oct. 3, 1973	1230	136	21.0
July 1, 1974	1230	65.0	19.0	Nov. 8, 1973	1455	115	12.0
July 11, 1974	1155	68.2	19.0	Jan. 11, 1974	1155	13,800	13.0
Aug. 12, 1974	1655	52.7	20.0	July 9, 1974	1035	173	19.6
Sept. 23, 1974	1235	39.0	14.5	Aug. 16, 1974	1105	192	19.8
03588400 CHISHOLM CREEK AT WESTPOINT, TENN. (LAT 35 08 04 LONG 087 31 45)				Sept. 25, 1974	0950	117	14.5
Nov. 14, 1973	1005	29.5	11.0	03603000 DUCK RIVER ABOVE HURRICANE MILLS, TENN. (LAT 35 55 48 LONG 087 44 35)			
Jan. 8, 1974	1540	112	7.9	Nov. 9, 1973	1040	1,270	10.0
Apr. 9, 1974	1520	158	12.8	Apr. 12, 1974	1125	6,160	14.5
May 23, 1974	1225	199	17.8	July 3, 1974	1240	1,260	25.0
July 15, 1974	1140	37.1	20.5	Aug. 15, 1974	1515	1,540	25.0
Aug. 13, 1974	1325	33.2	21.0	Sept. 26, 1974	1100	1,050	17.0
Sept. 24, 1974	1215	23.2	14.5	03604100 COON CREEK NEAR HOHENWALD, TENN. (LAT 35 36 23 LONG 087 42 43)			
03588500 SHOAL CREEK AT IRON CITY, TENN. (LAT 35 01 27 LONG 087 34 44)				Oct. 2, 1973	1220	4.08	23.0
Nov. 14, 1973	0830	186	10.5	Nov. 7, 1973	1155	4.79	11.5
Jan. 8, 1974	1220	1,110	8.2	Dec. 13, 1973	1300	4.60	10.0
Apr. 9, 1974	1140	2,010	12.2	Jan. 21, 1974	1240	13.5	12.0
May 23, 1974	1000	2,000	18.0	Feb. 14, 1974	0855	18.1	10.5
July 15, 1974	1350	290	23.0	Mar. 18, 1974	1340	8.90	10.5
Aug. 13, 1974	1115	383	22.0	Apr. 16, 1974	1325	13.3	12.5
Sept. 24, 1974	1335	192	15.5	May 20, 1974	1350	11.2	23.0
03596000 DUCK RIVER BELOW MANCHESTER, TENN. (LAT 35 28 15 LONG 086 07 18)				June 10, 1974	1500	118	18.0
Oct. 3, 1973	1100	38	21.5	July 5, 1974	1235	5.82	25.0
Dec. 12, 1973	1405	75	5.5	Aug. 8, 1974	1325	4.84	23.5
Feb. 21, 1974	1620	260	10.0	Sept. 17, 1974	1240	4.43	19.0
Apr. 9, 1974	1330	396	12.5				
May 17, 1974	1115	210	18.0				
July 10, 1974	1030	124	22.0				
Aug. 22, 1974	1300	37	23.0				

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WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

TENNESSEE RIVER BASIN--Continued

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
03604500 BUFFALO RIVER NEAR LOBELVILLE, TENN. (LAT 35 48 46 LONG 087 47 51)				03609500 TENNESSEE RIVER NEAR PADUCAH, KY. (LAT 37 01 11 LONG 088 16 50)			
Oct. 5, 1973	1325	442	22.0	Oct. 25, 1973	1015	43,800	21.0
Jan. 9, 1974	1630	4,100	9.0	Nov. 28, 1973	0940	127,000	14.0
Apr. 10, 1974	1535	2,040	13.5	Jan. 30, 1974	1245	245,000	10.0
Aug. 14, 1974	1520	804	22.4	Mar. 8, 1974	1245	83,300	13.0
Sept. 26, 1974	1330	505	18.0	May 14, 1974	1100	60,600	20.0
03605555 TRACE CREEK ABOVE DENVER, TENN. (LAT 36 03 08 LONG 087 54 27)				June 21, 1974	1210	58,100	25.0
Nov. 8, 1973	1015	11.4	12.5	Aug. 23, 1974	1100	47,900	27.0
Jan. 10, 1974	1155	2,078	6.4				
Jan. 10, 1974	1515	2,160	6.4				
Apr. 11, 1974	1445	59.8	15.5				
July 8, 1974	1310	17.5	24.5				
Aug. 15, 1974	1125	32.2	22.7				
Sept. 24, 1974	1245	14.4	17.0				

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OBION RIVER BASIN

DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)	DATE	TIME (24 HR)	DISCHARGE (CFS)	TEMP. (°C)
07024300 BEAVER CREEK AT HUNTINGDON, TENN. (LAT 35 59 56 LONG 088 26 01)				07026000 OBION RIVER AT OBION, TENN. (LAT 36 15 04 LONG 089 11 33)			
Nov. 15, 1973	1310	38.2	15.0	Oct. 4, 1973	0730	671	21.0
Jan. 15, 1974	1530	104	8.5	Oct. 12, 1973	1200	716	21.0
Mar. 13, 1974	1620	81.9	12.5	Nov. 8, 1973	0830	761	10.0
May 7, 1974	1410	57.7	14.5	Nov. 29, 1973	0830	17400	12.0
June 18, 1974	1120	43.5	17.0	Jan. 31, 1974	0830	5290	9.0
Aug. 7, 1974	1440	36.0	16.5				
07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TENN. (LAT 36 07 05 LONG 088 48 39)							
Nov. 16, 1973	1000	210	15.5				
Jan. 16, 1974	1030	2230	9.0				
Mar. 14, 1974	1430	799	11.5				

HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TENN. (LAT 36 15 31 LONG 088 58 36)				07031650 WOLF RIVER NEAR GERMANTOWN, TENN. (LAT 35 06 59 LONG 089 48 05)			
Nov. 14, 1973	1315	595	11.0	Nov. 8, 1973	1600	373	13.5
Mar. 13, 1974	0925	2630	14.0	Mar. 11, 1974	1600	2390	17.5
Aug. 8, 1974	0900	608	23.0	June 26, 1974	1215	389	21.5

LOOSAHATCHIE RIVER BASIN

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TENN. (LAT 35 18 37 LONG 089 38 23)				07032200 NONCONNAH CREEK NEAR GERMANTOWN, TENN. (LAT 35 02 59 LONG 089 49 08)			
Oct. 29, 1973	1230	81.6	12.0	Nov. 1, 1973	1615	2.42	13.5
Nov. 8, 1973	1200	130	13.5	Nov. 9, 1973	1215	12.3	12.5
May 10, 1974	1030	172	17.0	Mar. 12, 1974	1015	103	16.5
June 27, 1974	1100	106	18.5	Apr. 22, 1974	0830	3940	17.0
Aug. 9, 1974	1140	110	20.0	June 26, 1974	1600	0.89	25.0
				Aug. 9, 1974	1545	0.60	30.5

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