

MISSISSIPPI STATE GEOLOGICAL SURVEY

WILLIAM CLIFFORD MORSE, Ph.D.
Director



BULLETIN 68

SURFACE WATERS OF MISSISSIPPI

PREPARED UNDER THE DIRECTION OF
IRVING E. ANDERSON, DISTRICT ENGINEER
THE DISTRICT OFFICE, WATER RESOURCES DIVISION

UNITED STATES GEOLOGICAL SURVEY
in cooperation with
MISSISSIPPI STATE GEOLOGICAL SURVEY

UNIVERSITY, MISSISSIPPI

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MISSISSIPPI GEOLOGICAL SURVEY
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LETTER OF TRANSMITTAL

Office of the State Geological Survey
University, Mississippi
October 7, 1950

To His Excellency,

Governor Fielding Lewis Wright, Chairman, and
Members of the Geological Commission

Gentlemen:

The records of stream flow of the Mississippi State Geological Survey and the U. S. Geological Survey have been published annually by the Federal Survey as a part of an annual Water-Supply Paper, since the beginning of the cooperation of these two agencies. To make this information more readily accessible to the citizens of Mississippi and to others, these records, although not in as much detail, are here brought together as State Geological Survey Bulletin 68, Surface Water of Mississippi.

Very sincerely yours,

William Clifford Morse
Director and State Geologist

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SURFACE WATERS OF MISSISSIPPI

IRVING E. ANDERSON

INTRODUCTION

The economic development of a region is dependent on the natural resources found within its boundaries and on the wise use of those resources. Mississippi is many times blessed with ample resources: clays, oil, fertile farm lands, forests, and water. The wise use of those resources, however, has too long been neglected. On every hand are badly eroded farm lands, cut-over timber lands, lowered ground-water tables, and some polluted streams. The general awakening of the public and the establishment of wise conservation practices will prevent further depletion of Mississippi's natural resources and will provide for their eventual restoration.

Water, both surface and underground, is our most important natural resource. It is required for the physical welfare of the human being, for recreational purposes, and for many manufacturing processes. On the other hand, water can be one of nature's most effective agents for destruction. Mississippi is periodically visited by floods causing damage measured in the millions of dollars. Traffic is interrupted by flood waters overtopping railway and highway grades and washing out bridges; people are driven from their homes, valuable topsoil is washed from the fertile fields, and lives lost.

The efficient use of water resources and proper planning of disposal of surplus waters during periods of floods require adequate knowledge of quality and quantity of available waters. There are presented in this report the results of 34 years of stream-flow investigations in Mississippi.

PURPOSE

Stream-flow data collected by the U. S. Geological Survey are published annually in a series of Water Supply Papers with each paper containing only the current year's record. Thus it is necessary for anyone using the record to consult as many publications as there are years of record. The purpose of this report is to present all available stream-flow data in Mississippi in one

volume. It is not possible, of course, to present the record in as great detail as in the Water Supply Paper, but the significant features are presented. If more detailed records are required, these can be obtained from the Water Supply Papers or the District office of the U. S. Geological Survey in Jackson.

ADMINISTRATION AND PERSONNEL

This report was prepared for and in cooperation with the Mississippi State Geological Survey, Dr. William Clifford Morse, Director, by the Water Resources Division, U. S. Geological Survey, C. G. Paulsen, Chief Hydraulic Engineer. The work incident to its preparation was done by the Jackson district office under the direction of Irving E. Anderson, District Engineer.

DESCRIPTION OF AREA

Mississippi lies in the humid region of the United States, having an average annual rainfall exceeding 50 inches. As a result, the state is traversed by many streams, all of them subject to frequent floods. A major portion of the state is, of course, drained by the Mississippi and the Tennessee. The principal Mississippi tributaries are the Yazoo, Big Black, and Homochitto Rivers, Bayou Pierre, and Buffalo Bayou. These rivers drain an area of 23,320 square miles of the state's 47,420 square miles. Other principal streams are the Tombigbee, Pascagoula, and Pearl Rivers.

Although the average annual rainfall is high, most of it occurs during the winter months with little or no benefit to agriculture, the predominant economic interest in the state. The maximum rainfall occurs during the month of March when an average of 5.92 inches falls; the minimum occurs during October with an average of 2.54 inches. Droughts are not uncommon and occur during periods of high water demand by growing crops. Severe damage sometimes results. Rainfall records for the State indicate periods of as long as a month when no rain falls.

YAZOO RIVER BASIN

The Yazoo River Basin, draining a total of 14,000 square miles in northwest Mississippi, has physical characteristics dividing it into two principal sections; the extensive lowlands known as the Yazoo Delta and the upland hill country. The two sections are about equal in area.

The Yazoo Delta is part of the flood plain of the Mississippi River and as such has benefited by the silt deposits from the overflow of that stream making this area one of the most fertile in the world. The Delta area extends from Vicksburg to just south of Memphis, Tennessee. Agriculture is the predominant economic interest in the area with major emphasis being placed on cotton.

The Hill section lies immediately to the east of the Delta section. The area is gently rolling hill land, terminating in a bluff line at the eastern edge of the Delta. These uplands have undergone serious erosion so that much of the area is unfit for cultivation.

The principal tributaries of the Yazoo River are the Tallahatchie, Coldwater, Yocona, and Yalobusha Rivers all rising in the hill section, and the Sunflower River which flows through the Delta its entire length. The flood flows of Tallahatchie and Coldwater Rivers are almost completely controlled by Sardis and Arkabutla Reservoirs and the flood flows of Yalobusha and Yocona Rivers will be controlled by Grenada and Enid Reservoirs now under construction.

Although agriculture is the predominant economic interest in the Basin, emphasis in recent years has been on the establishment of industries in Grenada, Yazoo City, Greenville, Greenwood, and Water Valley. Other principal cities are Clarksdale, Oxford, and New Albany.

TOMBIGBEE RIVER BASIN

The Tombigbee River Basin drains about 6,000 square miles in northeast Mississippi. It is formed by the confluence of the East and West Forks about 20 miles north of Aberdeen. The Tombigbee River flows nearly due south to below Columbus where it turns southeast and flows into Alabama. Its principal tributaries are Tibbee and Noxubee Rivers on the west and Bull Mountain Creek, Luxapalila Creek, and Buttahatchee River on the east. These eastern tributaries rise in Alabama and drain a considerable part of that state.

The predominant economic interest in the Basin is agriculture with some industrial development in the cities of West Point, Tupelo, Columbus, and Amory.

PASCAGOULA RIVER BASIN

The second largest river basin in the state is the Pascagoula River Basin comprising 8,900 square miles in southeast Mississippi. The Pascagoula River is formed by the confluence of the Leaf River and Chickasawhay River just north of Merrill. Principal tributaries are Bowie and Tallahala Creeks of the Leaf and Bucatunna Creek of the Chickasawhay. Escatawpa River is the major tributary of the Pascagoula River.

The Pascagoula River Basin has seen greater concentration of industry than has any other river basin, probably because of the availability of suitable timber. Major wood pulp industries are located in Meridian, Laurel, and Pascagoula. Other industries include chemicals at Meridian, and naval stores at Hattiesburg. As a result of these industries and large amounts of domestic sewage, Tallahala and Sowashee Creeks are among the most highly polluted streams in the state. However, control measures are being undertaken and the situation is being corrected.

Agriculture, lumbering, oil production, and recreation, in addition to industry, are the predominant economic interests in the Basin.

PEARL RIVER BASIN

The Pearl River, rising in central Mississippi and flowing in a generally southerly direction, drains 7,680 square miles. Its lower 116 miles form the boundary between Mississippi and Louisiana. Its tributaries are small, the largest being the Strong River, Yokahockany River, and Bogue Chitto.

The principal economic interest is agriculture with some importance attached to lumbering and industry. One of the nation's foremost truck gardening areas is that around Crystal Springs. Annually thousands of freight cars of truck garden produce, principally cabbage and tomatoes, are shipped to the northern centers. Industry is largely concentrated in and around Jackson, the State's Capital and largest city. Smaller industries, principally textile, are located in Philadelphia, Kosciusko, Columbia, and other cities. McComb, Louisville, and Brookhaven are included among the principal cities of the Basin.

BIG BLACK RIVER BASIN

The Big Black River draining 3,500 square miles, rises in north central Mississippi and flows southwesterly to the Mississippi which it enters a short distance below Vicksburg. The Big Black River has no large tributaries. The Basin does not compare economically with the other Basins of the state, the major interest being agriculture with some lumber manufacturing at Canton, the principal city of the Basin.

MINOR RIVER BASINS

The Homochitto River-Buffalo Bayou Basin drains 1,660 square miles in southwest Mississippi. Some of the largest timber stands are in this area. However, the major economic interest is the production of oil with one of the largest fields in the state being within the Basin. The principal city is Meadville.

Streams emptying directly into the Gulf include Wolf, Tchoutacabouffa, and Biloxi Rivers. These streams drain an area in which the predominant interest is recreation, the famed Mississippi Gulf Coast being included in the area. Principal cities are Biloxi and Gulfport, in which some naval stores and chemical industries have developed.

STREAMFLOW INVESTIGATIONS IN MISSISSIPPI

Under the operation of various resolutions of Congress and appropriation acts, systematic stream-flow investigations have been carried on by the United States Geological Survey since 1888. In Mississippi the first systematic records were begun in January 1900 at Columbus on the Tombigbee River and at Yazoo City on the Yazoo River, followed by the establishment of a gaging station on the Pearl River at Jackson, in June 1901. Between 1906 and 1912 records were collected in cooperation with the Tallahatchie Drainage Commission on the Tallahatchie, Yazoo, Coldwater, and Yalobusha Rivers. Stream-gaging activities were discontinued in 1912.

The Mississippi River flood of 1927 gave impetus to flood-control studies by Federal agencies, resulting in the re-establishment of 16 stream-gaging stations; five in the Yazoo River Basin, four in the Pearl River Basin, and seven in the Tombigbee River Basin. At the same time, the Mississippi Geological Survey, real-

izing the State's need for this vital data, entered into a cooperative agreement with the United States Geological Survey to the extent of providing \$1,000 annually for stream-flow investigations. Further impetus to stream-flow investigations was provided in 1938 when the State Legislature made an appropriation of \$20,000 to the Mississippi State Geological Survey for the biennium for cooperation with the United States Geological Survey. This appropriation has been continued uninterruptedly since that date.

Other Federal agencies have also participated in the stream-gaging program throughout the entire period, either by the transfer of funds to the United States Geological Survey for investigations or by direct participation in the program. These agencies include the Corps of Engineers, Vicksburg, Miss., and Mobile, Ala., districts; the forest Service, and the Soil Conservation Service.

USE OF STREAM-FLOW DATA

The use of stream-flow data is essential in the economic and efficient design and operation of any project in which water is a factor. The principal uses in Mississippi are in pollution abatement, flood control, and transportation both by rail and highway.

There are two principal sources of stream pollution: domestic sewage and industrial wastes. The design of municipal sewage-disposal plants and of treatment plants for industrial wastes is based on stream-flow records when available. The capacity of a stream to carry raw sewage or industrial waste without creating a nuisance is fixed by its low-water flow. Consequently, the minimum degree of treatment is determined by the low-water flow. When the average flow of a stream is large enough adequately to dispose of a plant's industrial waste, treatment can be neglected. However, because of the variation in the stream's flow, disposal of waste into the stream must be on a basis of the flow in the stream at the time of disposal. As a result, many industries provide large reservoirs to store these wastes during periods of low flow to dispose of them during periods of high flow.

The control of floods is a major problem in Mississippi. Various plans are being used: proper land practices and reforestation, flood control reservoirs, levees, channel improvement, drainage ditches. All of these require adequate knowledge of the flood flows of the stream.

Interruption of traffic during floods through overtopping of grades by flood waters and by bridge and roadway washouts becomes a major economic loss. The flood-flow records of streams are a necessity for the design of roadways and of bridge openings.

Irrigation which has long been practiced in the arid west is now practiced in some areas of the State in connection with rice growing and to supplement rainfall during periods of deficiency. All irrigation water is drawn from ground-water supplies. However, if the practice becomes widespread, it might be necessary to use surface streams at a future date.

Industrial development has been emphasized in Mississippi during recent years. The importance of stream-flow records has already been indicated in connection with disposal of industrial wastes. Many industries such as chemicals, naval stores, wood-pulp, and others use water in their manufacturing processes. The need for stream-flow data becomes increasingly important as industrial activity increases to the point that groundwater supplies might be inadequate.

Mississippi is well blessed with ground water of good quality. The development of municipal water supplies has, therefore, been confined to ground-water sources except for a very few cities. However, the ever increasing per capita use of water, the increasing industrial demands, and the increasing use of air condition may require a shift to surface sources at some future date for supplemental supplies.

DATA PRESENTED

The data presented in this report cover stream-flow investigations over a period of 34 years. The data are presented in several sections: the regular gaging-station program; small area investigations; miscellaneous investigations; storage, and floods.

GENERAL EXPLANATION OF METHODS EMPLOYED

Basically, the collection of stream-flow records consists of recording the daily height of the water surface with respect to an unchanging reference plane, and the measurement of the rate of flow of water corresponding to any given position of the water surface. Gage heights are obtained either by direct measurements of the water surface, or by an automatic recorder that makes a continuous record of the fluctuations of the water sur-

face. Measurements of discharge are made by means of a Price current meter and accessory equipment, using methods developed and tested by the United States Geological Survey during the 71 years of its existence.

By obtaining a sufficient number of measurements corresponding to different gage heights throughout the range of stage of a stream, and plotting these measurements with elevation of water surface against rate of flow of water (stage against discharge), a curve is defined from which the discharge corresponding to any stage may be obtained. Due to the continually changing river bed, the stage-discharge relation at many gaging stations does not remain constant, and must be re-defined at intervals varying from two to three years on a stream with a fairly stable bed to weekly on sandy streams. However, even at those stations having the most constant stage-discharge relation, periodic discharge measurements must be made to verify its stability.

Computing daily discharge then becomes a task of applying the daily mean gage height as computed from the direct observations or from the continuous recorder, and obtaining from the stage-discharge curve the corresponding discharge.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet is an abbreviation of "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is one square foot in cross-sectional area and whose average velocity is one foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Runoff in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall which is usually expressed in inches.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section such as a rock shoal, a reach of the channel, or an artificial structure.

"Gage height or "stage" are synonymous terms and mean the elevation of the water surface above the arbitrary datum or zero of the gage.

"Gaging station" is a selected section in a stream channel equipped with a gage and facilities for measuring the flow of the water.

DURATION OF FLOW

The design of such engineering works as sewage disposal systems, industrial waste disposal systems, and public water supplies requires a thorough knowledge of the low-water flows of streams. The degree of treatment of domestic sewage will depend to a great extent, particularly in the smaller cities with difficult financial problems, on the capacity of the receiving stream to absorb the sewage without excessively polluting the stream. Similarly, the degree of treatment of industrial wastes will depend on the flow of the receiving stream. Another method of disposal of industrial wastes requires the use of reservoirs to provide storage of wastes during periods of insufficient stream flow. The development of a surface water supply for municipal use may require the use of a reservoir to store stream flow during periods of excess for use during periods of insufficiency.

The easiest way to develop the information for such purposes is by use of the flow-duration curve in which percent of time is plotted as the abscissa and run-off in second-feet per square mile is plotted as the ordinate on a semi-log paper. A glance at the curve gives the percent of time that the stream flow is equal to or greater than a given value. Sufficient information is given for each station so that the duration curve may be plotted (Figures 1, 2).

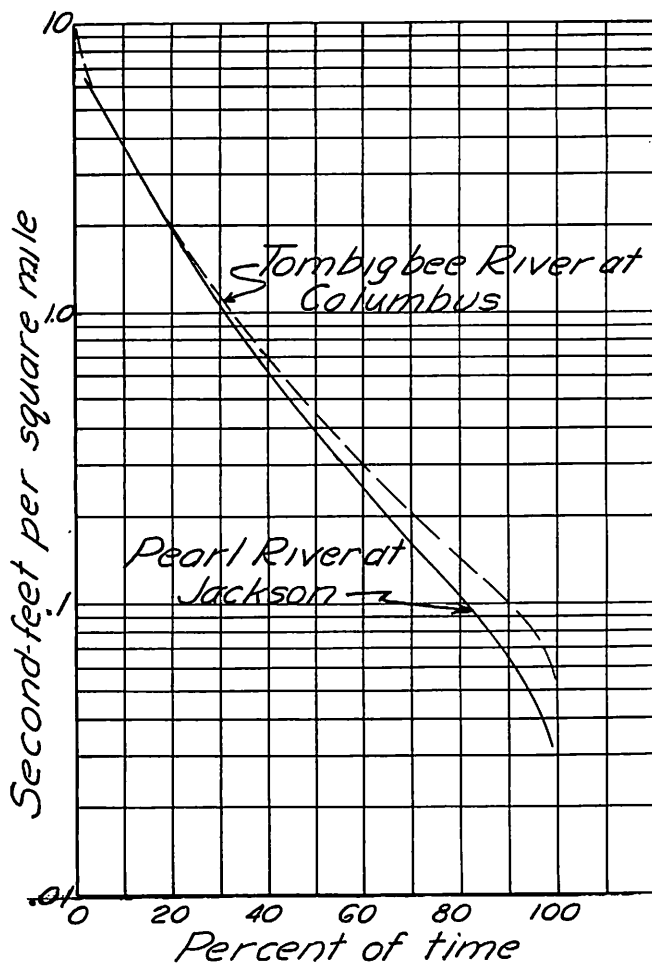


Figure 1.—Typical Flow-duration curves

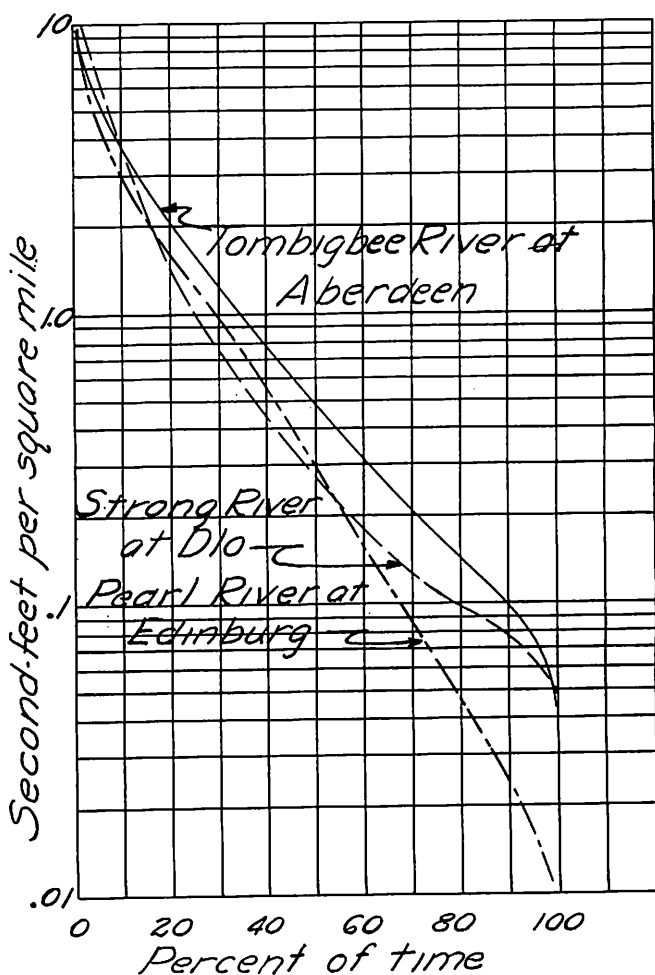


Figure 2.—Typical Flow-duration curves

For those gaging stations with records of ten years or longer, the data given are for the period of record. For gaging stations with less than ten years of record, the data as obtained from the record were extended by comparison with an index station. Since a large number of the stream-gaging stations in Mississippi were established in 1938, only a few such extensions were required. Comparisons of the 10-year flow duration curve with those for a longer period were made for some stations with periods of record longer than 10 years. These indicate that the 10-year period 1939-48, gives a fair indication of the long-term flow-duration curve (Figure 3, a comparison of the 10-year flow duration curve for

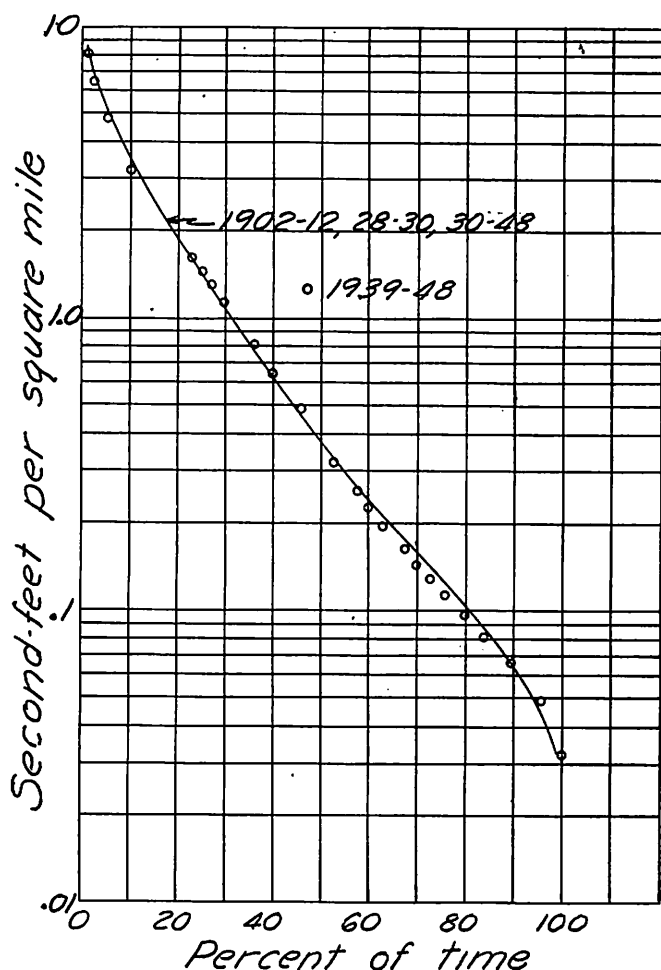


Figure 3.—Flow-duration curve for Pearl River at Jackson

Pearl River at Jackson with the 31-year flow-duration curve). This extension is based on the assumption that the long-term distribution of flow for a gaging station where only a short period of record is available bears the same relationship to the long term distribution of flow for a gaging station where a long-term period of record is available as do the distribution relations of the short-term records for the same stations. This assumption was tested on gaging stations having long-term records and was in general substantially verified (Figure 4, the relationship between 1-year, 5-year, and 10-year duration curves for Bowie creek near

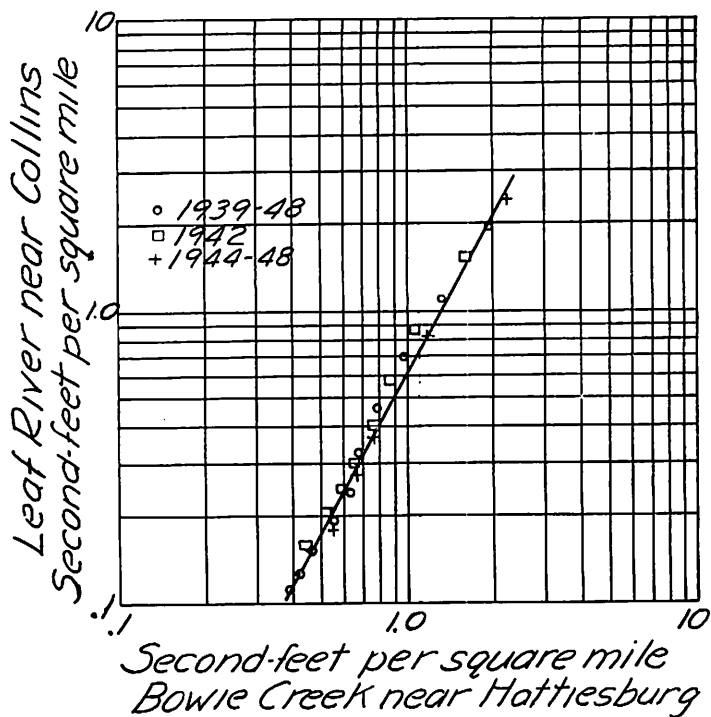


Figure 4.—Relation between short-and long-term flow duration curves

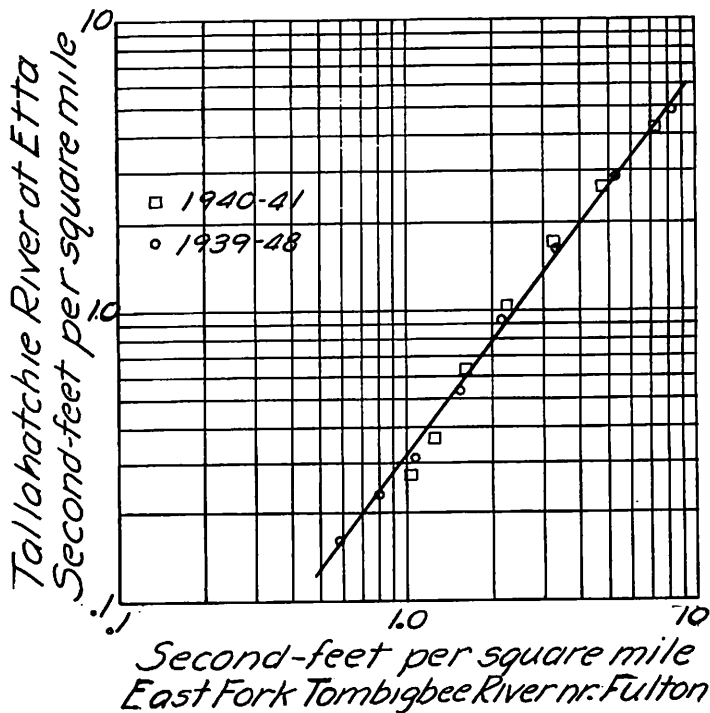


Figure 5.—Relation between short-and long-term flow duration curves

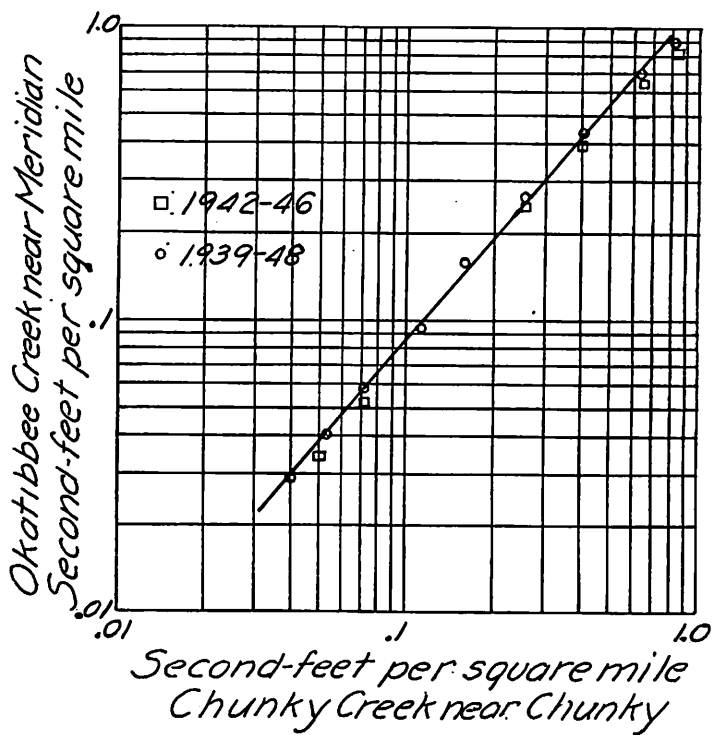


Figure 6.—Relation between short-and long-term flow duration curves

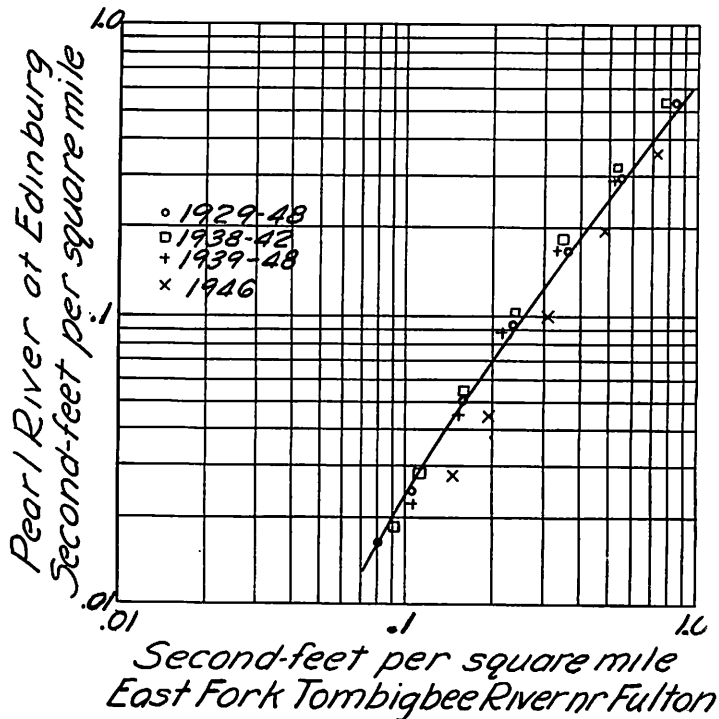


Figure 7.—Relation between short-and long-term flow duration curves

Hattiesburg and Leaf River near Collins; Figure 5, the relationship between the 2-year and 10-year duration curves for Tallahatchie River at Etta and East Fork Tombigbee River near Fulton; Figure 6, the relationship between the 5-year and 10-year duration

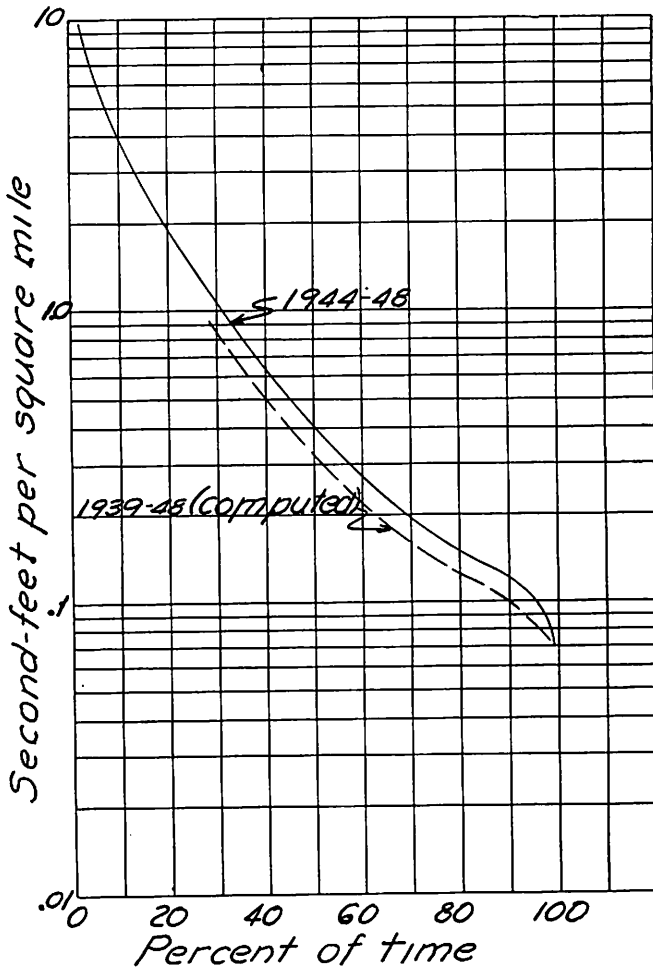


Figure 8.—Flow-duration curve for Oakohay Creek at Mize

curves for Okatibbee Creek near Meridian and Chunky Creek near Chunky; Figure 7, the relationship between the 1-year, 5-year, 10-year, and 20-year duration curves for Pearl River at Edinburg and East Fork Tombigbee River near Fulton). With this principle established it is a relatively simple task to deter-

mine the short-term relationship between any gaging station with a short-term record and its index station and then extend the short-term duration curve to the period of record of the index station (Figure 8, a comparison of actual short-term duration curves with the long-term computed curve).

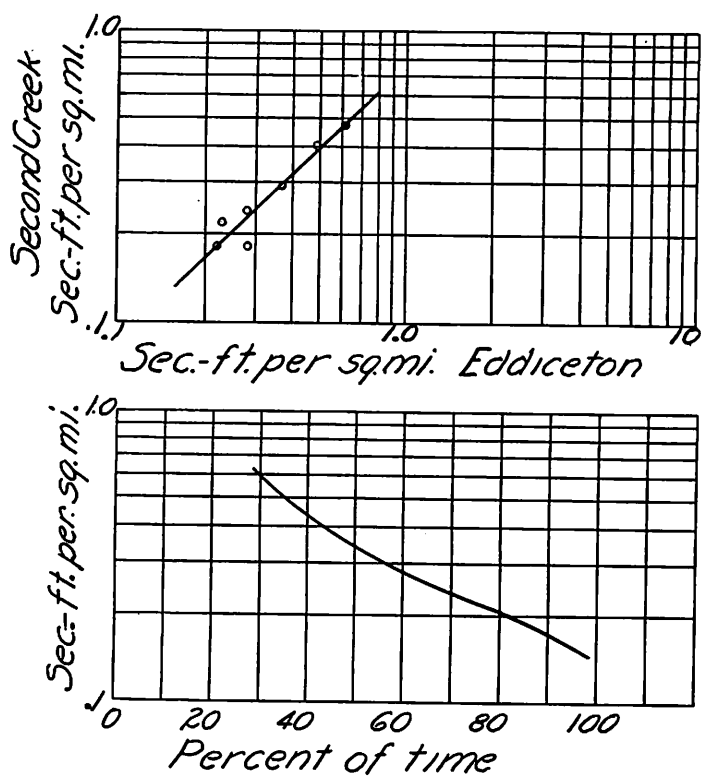


Figure 9a.—Base-flow relation

Figure 9b.—Flow-duration curve for Second Creek at Sibley

It will be noted that the 1-year relationship departs somewhat from the long-term. This is due to the shortness of the period, but in spite of that departure, some duration curves were extended on basis of a 1-year record since the relatively small inaccuracies involved are probably less than the allowable limits to which the computed flow-duration curve will be used in actual practice.

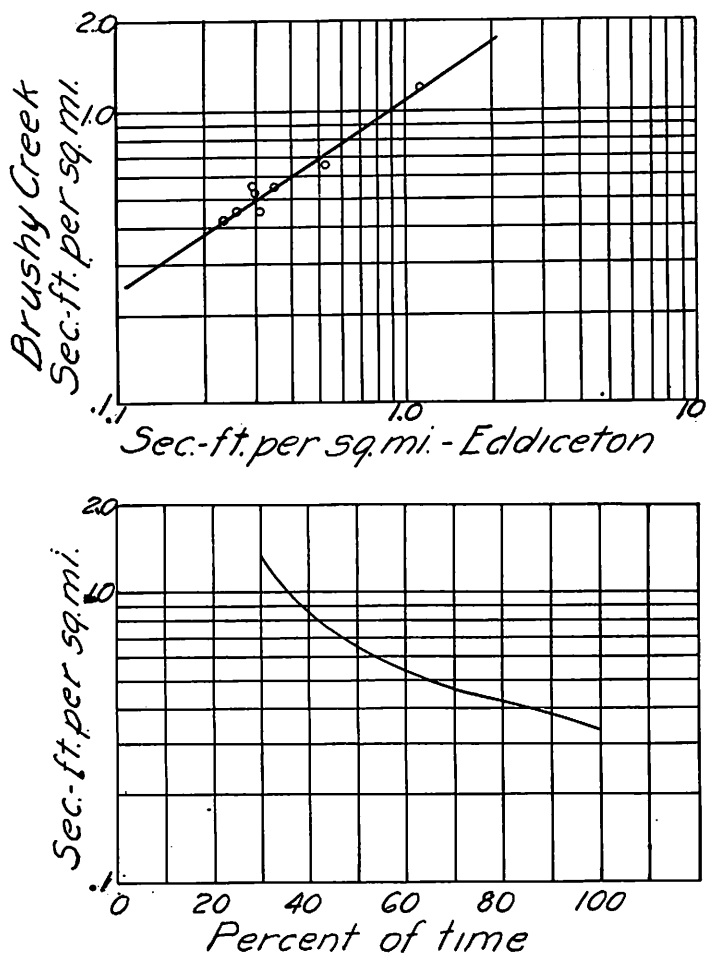


Figure 10a.—Base-flow relation

Figure 10b.—Flow duration curve for Brushy Creek near Gloster

In some instances it was necessary to develop a flow-duration curve for a gaging station with less than a year of record. In such cases, an adaptation of the above method was used. A relation was developed between base flows for the two stations and the flow duration curve developed from the relation (Figure 9a, relation between base flow for Second Creek near Sibley and Homochitto River near Eddiceton; Figure 10a, relation between base flows for Brushy Creek near Gloster and Homochitto River near Eddiceton).

Flow-duration data are not presented for all gaging stations. Those for stations such as Tallahatchie River at Swan Lake which are influenced by operations of reservoirs, and those with indeterminate drainage areas are not presented.

REGULAR GAGING-STATION PROGRAM

Results of 34 years of investigation at 81 gaging stations are presented in this section. The shortest record included is for only a few months and the longest is for the entire period, 1900-12, 1927-48.

The gaging stations are listed in downstream order starting with the highest station on the main stem. Stations on tributary streams are listed after those on the main stem also in downstream order as they enter the main stem. For each station there are included a description, summary of peak discharges, duration of flow tables, and tables of monthly and annual run-off in second-feet, monthly and annual run-off depth in inches, and annual summaries.

The description includes pertinent information on location of gaging station, type of gage, period of record, drainage area according to best available maps, average discharge if period of record is 10 years or longer, extremes of discharge and stage during period of record, and remarks indicating accuracy of record and any other necessary explanation.

The paragraph listing peak discharges includes the five highest in descending order for those gaging stations equipped with automatic waterstage recorders. Peak discharges are not listed for stations with only short periods of records.

Sufficient information is given in tabular form in the paragraph on duration of flow so that the flow-duration curve can be constructed.

The table of monthly and annual run-off in second-feet gives the average flow of the stream for each full month and each full year of record. The table of monthly and annual run-off in inches gives a direct comparison with rainfall. The table of annual summaries includes the maximum and minimum daily discharges,

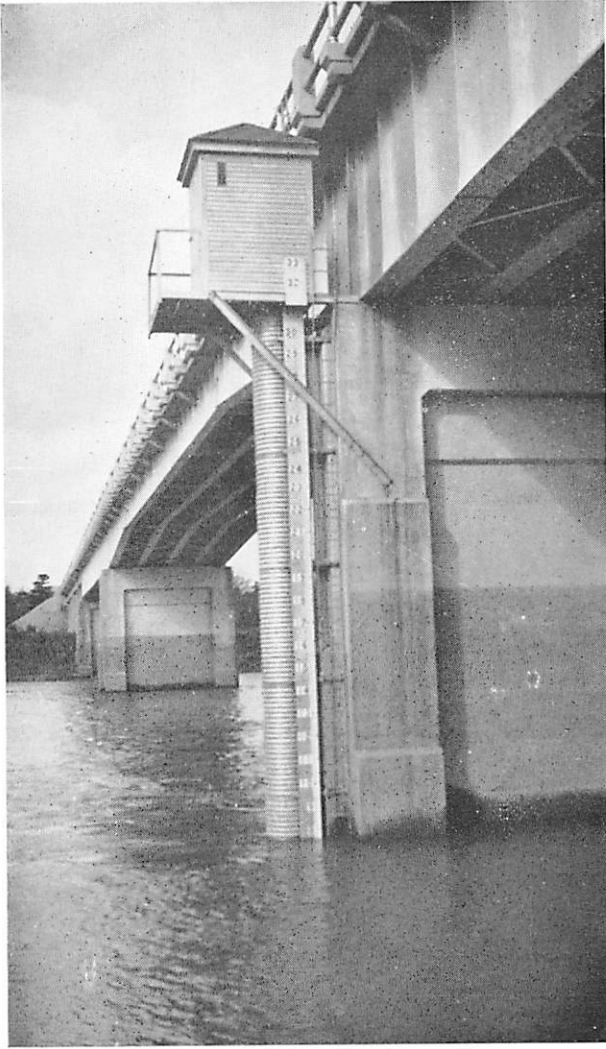


Plate 1.—Stream gaging station, Pearl River near Columbia

the average annual discharge, the average discharge per square mile, and the total run-off depth in inches for each water year of record, and the average annual discharge and total run-off in inches for each calendar year of record.



Plate 2.—Mechanized sounding equipment, Mississippi River near Vicksburg



Plate 3.—Stream gaging station, Chickasawhay River near Waynesboro

MOBILE RIVER BASIN

EAST FORK TOMBIGBEE RIVER NEAR MARIETTA

PRENTISS COUNTY

LOCATION—Lat. $34^{\circ}26'$, long. $88^{\circ}25'$, in SE $\frac{1}{4}$ sec. 35, T. 7 S., R. 8 E. Chickasaw meridian, at Walkers Bridge, half a mile downstream from confluence of Browns Creek Canal and Mackys Creek, 3 miles upstream from Donovan Creek Canal, 6 miles southeast of Marietta, and 10 miles north of Fulton.

DRAINAGE AREA—305 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1938 to September 1947.

GAGE—Staff gage read to tenths twice daily prior to June 28, 1944; to hundredths thereafter. Datum of gage is 282.10 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 12,700 second-feet Jan. 8, 1946 (gage height, 10.84 feet) from rating curve extended above 5,900 second-feet; minimum observed since Dec. 1, 1942, 10 second-feet on many days during August and September 1943; minimum gage height observed, 2.00 feet July 26, 1944; minimum daily, 10 second-feet on many days in August and September 1943; minimum 7-day, 10 second-feet August 22-28, 1943.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
90	46	0.152	60	139	0.455
80	67	.220	30	406	1.33

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38					468	864	869	367	579	330	195	100	
1938-39	40	160	155	801	2,037	982	995	764	1,754	195	130	55	660
1939-40	65	80	165	173	808	927	1,265	215	143	509	160	62.9	379
1940-41	55.1	641	675	483	336	361	453	94.1	56.1	206	80	70	292
1941-42	60	227	227	294	882	999	520	99.1	62.5	45.9	68.3	50	291
1942-43	45	75	618	266	288	908	202	106	44.0	23.4	13.6	96.7	225
1943-44	35.4	136	118	364	1,310	1,595	1,034	563	98.8	63.8	93.1	105	456
1944-45	78.7	102	632	1,271	1,344	1,327	553	229	97.7	61.5	146	66.5	489
1945-46	121	745	718	2,004	1,930	1,161	343	778	353	628	154	105	748
1946-47	93.5	637	435	2,047	440	702	1,109	481	216	122	178	99.5	548

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38					1.60	3.27	3.18	1.39	2.12	1.25	0.74	0.37	
1938-39	0.15	0.59	0.59	3.03	6.96	3.71	3.64	2.89	6.42	.74	.49	.20	29.41
1939-40	.25	.29	.62	.65	2.86	3.50	4.63	.81	.52	1.93	.60	.23	16.89
1940-41	.21	2.34	2.55	1.83	1.15	1.36	1.66	.36	.21	.78	.30	.26	13.01
1941-42	.23	.83	.86	1.11	3.01	3.78	1.90	.37	.23	.17	.26	.18	12.93

1942-43	.17	.27	2.34	1.01	.98	3.43	.74	.40	.16	.09	.05	.35	9.99
1943-44	.13	.50	.45	1.38	4.63	6.03	3.78	2.13	.36	.24	.35	.38	20.36
1944-45	.30	.37	2.39	4.80	4.59	5.02	2.02	.87	.36	.23	.55	.24	21.74
1945-46	.46	2.73	2.71	7.57	6.59	4.39	1.26	2.94	1.29	2.37	.58	.38	33.27
1946-47	.35	2.33	1.64	7.74	1.50	2.65	4.06	1.82	.79	.46	.67	.36	24.37

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1939	8,720		660	2.16	29.41	657
1940	8,300		379	1.24	16.89	467
1941	3,050		292	.957	13.01	220
1942	5,800		291	.954	12.93	310
1943	5,800	10	225	.738	9.99	186
1944	9,450	30	456	1.50	20.36	501
1945	5,950	36	489	1.60	21.74	552
1946	11,500	53	748	2.45	33.27	712
1947	6,700	43	548	1.80	24.37	

EAST FORK TOMBIGBEE RIVER NEAR FULTON

ITAWAMBA COUNTY

LOCATION—Lat. $34^{\circ}15'55''$, long. $88^{\circ}26'42''$, in SE $\frac{1}{4}$ sec. 27, T. 9 S., R. 8 E. Chickasaw meridian, at bridge on U. S. Highway 78, 1,000 feet downstream from Twentymile—Fulton Canal, 2 miles west of Fulton, $6\frac{1}{4}$ miles upstream from Mantachie Creek Canal, and $13\frac{1}{2}$ miles downstream from Twentymile Creek Canal.

DRAINAGE AREA—605 square miles.

RECORDS AVAILABLE—August 1928 to September 1948. Gage-height records collected at site 800 feet upstream for years 1909-12 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—20 years, 862 second-feet.

GAGE—Prior to Oct. 27, 1934, chain gage to same datum, at old highway bridge 200 feet upstream; Oct. 27, 1934 to Aug. 22, 1939, wire-weight gage at present site and datum; water-stage recorder thereafter. Datum of gage is 242.70 feet above mean sea level, datum of 1929.

EXTREMES—Maximum discharge, 47,700 second-feet Feb. 14, 1948 (gage height, 22.24 feet); minimum, 12 second-feet Aug. 31 to Sept. 2, 1943; minimum gage height, 0.87 foot Aug. 12, 1930; minimum daily, 12 second-feet Aug. 31, Sept. 1, 1943; minimum 7-day, 15 second-feet Aug. 26 to Sept. 1, 1943.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 14, 1948 (5:00 a.m.) 47,700 second-feet; Mar. 29, 1944 (3:30 p.m.) 30,000 second-feet; Jan. 9, 1946 (3:00 a.m.) 25,900 second-feet; Feb. 15, 1939 (7:30 p.m.) 24,200 second-feet; Feb. 10, 1946 (1:00 p.m.) 22,700 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	41	0.067	20	1,210	2.00
95	50	.083	10	2,120	3.50
90	64	.106	5	3,240	5.35

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												132	
1928-29	76.8	118	180	623	980	3,040	1,230	1,360	287	310	243	350	734
1929-30	167	1,150	587	1,660	933	1,790	333	1,370	113		101	106	697
1930-31	118	370	509	701	829	1,060	707	800	133	253	310	47.8	485
1931-32	40.6	164	2,730	2,740	3,270	750	1,260	486	121	1,290	251	1,700	1,230
1932-33	2,770	1,010	2,840	1,650	2,690	1,740	1,960	1,250	220	407	175	187	1,400
1933-34	164	303	889	619	456	1,577	488	179	1,032	238	212	95.6	522
1934-35	131	490	579	1,922	1,601	2,278	1,096	1,164	555	149	73.7	70.5	839
1935-36	335	1,114	518	1,017	1,381	1,639	2,176	222	80.0	141	66.2	87.0	726
1936-37	211	289	1,056	3,934	956	875	610	1,615	113	139	113	209	848
1937-38	185	203	418	1,278	961	1,720	2,184	542	1,371	539	255	146	814
1938-39	50.9	225	224	1,202	3,923	1,849	2,094	1,825	3,338	367	212	86.0	1,260
1939-40	110	135	281	318	1,518	1,636	2,527	444	345	1,206	253	107	735
1940-41	82.9	1,252	1,444	1,016	638	751	784	158	91.2	329	112	93.9	562
1941-42	88.1	423	435	567	1,568	2,095	1,037	155	103	69.6	100	66.0	552
1942-43	49.9	107	911	558	550	1,630	424	221	91.5	38.6	28.7	225	404
1943-44	41.1	286	207	697	2,720	4,060	2,268	1,184	158	140	187	212	1,007
1944-45	119	155	783	2,574	2,124	2,443	964	525	178	94.6	332	85.5	860
1945-46	183	1,169	1,409	4,047	3,738	2,422	702	1,353	672	1,485	228	139	1,452
1946-47	134	1,160	723	3,763	807	1,474	2,006	706	310	190	303	171	981
1947-48	111	622	828	788	5,415	3,125	1,707	463	244	184	80.5	159	1,126

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.24	
1928-29	0.15	0.22	0.34	1.19	1.69	5.80	2.27	2.60	0.53	0.59	0.46	.65	16.49
1929-30	.32	2.13	1.12	3.16	1.61	3.41	.61	2.61	.21	.09	.19	.20	15.66
1930-31	.23	.68	.97	1.34	1.43	2.01	1.30	1.52	.25	.48	.59	.09	10.89
1931-32	.08	.30	5.20	5.23	5.83	1.43	2.33	.93	.22	2.46	.48	3.14	27.63
1932-33	5.28	1.87	5.40	3.15	4.62	3.32	3.62	2.38	.40	.78	.33	.34	31.49
1933-34	.31	.56	1.69	1.18	.78	3.01	.90	.34	1.90	.45	.40	.18	11.70
1934-35	.25	.90	1.10	3.66	2.76	4.34	2.02	2.22	1.02	.28	.14	.13	18.82
1935-36	.64	2.05	.99	1.94	2.46	3.12	4.01	.42	.15	.27	.13	.16	16.34
1936-37	.40	.53	2.01	7.50	1.64	1.67	1.12	3.08	.21	.26	.22	.39	19.03
1937-38	.35	.37	.80	2.44	1.65	3.28	4.03	1.03	2.53	1.03	.49	.27	18.27
1938-39	.10	.41	.43	2.29	6.75	3.52	3.86	3.48	6.16	.70	.40	.16	28.26
1939-40	.21	.25	.54	.61	2.71	3.12	4.66	.85	.64	2.30	.48	.20	16.57
1940-41	.16	2.31	2.75	1.94	1.10	1.43	1.45	.30	.17	.63	.21	.17	12.62
1941-42	.17	.78	.83	1.08	2.70	3.99	1.91	.30	.19	.13	.19	.12	12.39
1942-43	.10	.20	1.74	1.06	.95	3.11	.78	.42	.17	.07	.05	.42	9.07
1943-44	.08	.53	.39	1.33	4.85	7.74	4.18	2.26	.29	.27	.36	.39	22.67
1944-45	.23	.29	1.49	4.91	3.66	4.66	1.78	1.00	.33	.18	.63	.16	19.32
1945-46	.35	2.16	2.69	7.71	6.43	4.62	1.30	2.58	1.24	2.83	.44	.26	32.61
1946-47	.25	2.14	1.38	7.17	1.39	2.81	3.70	1.35	.57	.36	.58	.32	22.02
1947-48	.21	1.15	1.58	1.50	9.65	5.96	3.15	.88	.45	.35	.15	.29	25.32

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1929	15,700	48	734	1.21	16.49	861	19.35
1930	12,200	18	697	1.15	15.66	622	13.97
1931	2,900	27	485	.802	10.89	650	14.59
1932	14,600	28	1,230	2.03	27.63	1,538	34.60
1933	15,200	99	1,400	2.31	31.49	959	21.50
1934	9,000	38	522	.863	11.70	508	11.39
1935	9,820	32	839	1.39	18.82	903	20.25
1936	12,600	29	726	1.20	16.34	694	15.60
1937	11,400	35	848	1.40	19.03	785	17.61
1938	8,400	57	814	1.35	18.27	788	17.69
1939	17,900	30	1,260	2.08	28.26	1,262	28.32
1940	14,100	64	735	1.21	16.57	923	20.79
1941	4,450	45	562	.929	12.62	409	9.18
1942	12,800	40	552	.912	12.39	563	12.65
1943	9,520	12	404	.668	9.07	358	8.03
1944	28,000	34	1,007	1.66	22.67	1,052	23.68
1945	14,400	46	860	1.42	19.32	1,002	22.51
1946	22,400	71	1,452	2.40	32.61	1,389	31.18
1947	11,800	57	981	1.62	22.02	944	21.19
1948	43,300	53	1,126	1.86	25.32		

EAST FORK TOMBIGBEE RIVER AT BEANS FERRY, NEAR FULTON

ITAWAMBA COUNTY

LOCATION—Lat. $34^{\circ}12'20''$, long. $88^{\circ}23'50''$, in SW $\frac{1}{4}$ sec. 18, T. 10 S., R 9 E. Chickasaw meridian, at bridge one mile west of Beans Ferry, 2 miles downstream from Mantachie Creek Canal, and 4.7 miles south of Fulton.

DRAINAGE AREA—699 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1937 to June 1947.

GAGE—Staff gage. Datum of gage is 229.80 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 30,300 second-feet Mar. 29, 1944; maximum gage height observed, 25.5 feet Mar. 29, 1944, Jan. 9 1946; minimum daily discharge, 14 second-feet Aug. 31, Sept. 1, 1943, but may have been less during period of doubtful gage-height record in August, September 1943.

REMARKS—Records poor.

COOPERATION—Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	64	0.091	50	391	0.560
85	100	.143	30	867	1.24
70	185	.265	15	1,890	2.70

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1942-43	.09	.20	1.58	1.28	.95	3.17	.76	.43	.17	.08	.06	.42	9.19
1943-44	.08	.54	.40	1.32	4.63	7.59	4.25	2.30	.28	.28	.37	.38	22.42
1944-45	.23	.26	1.22	5.48	3.97	4.83	1.77	.94	.32	.19	.64	.16	20.01
1945-46	.31	2.21	2.45	8.46	6.86	5.26	1.50	2.54	1.37	3.17	.39	.23	34.75
1946-47	.23	2.01	1.39	7.79	1.40	2.79	4.02	1.21	.57				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1937					942	18.32
1938	8,700		1,024	1.46	995	19.34
1939	22,700		1,544	2.21	1,545	30.00
1940	17,700	78	890	1.27	1,111	21.63
1941	4,700	56	647	.926	466	9.05
1942	12,000	41	643	.920	649	12.60
1943	9,100	14	472	.675	429	8.34
1944	28,200	42	1,151	1.65	1,187	23.11
1945	13,500	48	1,030	1.47	1,198	23.27
1946	27,700	77	1,789	2.56	1,720	33.41

EAST FORK TOMBIGBEE RIVER AT BIGBEE

MONROE COUNTY

LOCATION—Lat. $34^{\circ}00'40''$, long. $88^{\circ}30'50''$, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 12 S., R. 7 E. Chickasaw meridian, at bridge on State Highway 6, 0.2 mile upstream from St. Louis-San Francisco Railway bridge, half a mile southeast of Bigbee, 2 miles northwest of Amory, 3.7 miles upstream from confluence with West Fork, $8\frac{1}{4}$ miles downstream from Boguefala Creek, and $15\frac{1}{4}$ miles downstream from Bull Mountain Creek.

DRAINAGE AREA—1,194 square miles.

RECORDS AVAILABLE—March 1945 to September 1946, October 1947 to September 1948.

GAGE—Wire-weight gage read to hundredths twice daily. Datum of gage is 190.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 52,800 second-feet Feb. 15, 1948 (gage height, 24.92 feet from graph based on gage readings); minimum daily observed, 64 second-feet Sept. 4, 1948; minimum 7-day, 94 second-feet Aug. 29 to Sept. 4, 1948.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
95	88	0.074	70	274	0.230
90	113	.095	60	424	.355
80	178	.149	40	997	.835

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45							2,117	1,205	500	327	776	186	
1945-46	374	1,282	2,264	8,396	8,264	5,139	1,821	2,006	1,474	2,978	514	294	2,875
1947-48	203	1,122	1,453	1,625	10,010	6,446	3,435	792	414	312	170	322	2,159

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45							1.98	1.16	0.47	0.32	0.75	0.17	
1945-46	0.36	1.20	2.19	8.11	7.21	4.96	1.70	1.94	1.38	2.88	.50	.27	32.70
1947-48	.20	1.05	1.40	1.57	9.04	6.22	3.21	.76	.39	.30	.16	.30	24.60

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Maximum Day	Water year ending Sept. 30			Runoff in inches	Calendar Year	
		Maximum Day	Minimum Day	Mean		Mean	Runoff in inches
1946	35,500		155	2,875	2.41		32.70
1948	48,700		64	2,159	1.81		24.60

TOMBIGBEE RIVER NEAR AMORY

MONROE COUNTY

LOCATION—Lat. 33°59'10", long. 88°33'05", in NE¼ sec. 3, T. 13 S., R. 7 E. Chickasaw meridian, at bridge on State Highway 41, 0.3 mile downstream from confluence of East and West Forks of Tombigbee River, and 3½ miles west of Amory.

DRAINAGE AREA—1,941 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—December 1937 to September 1948.

AVERAGE DISCHARGE—10 years (1938-48), 2,735 second-feet.

GAGE—Prior to April 27, 1944, staff gage read twice daily; wire-weight gage read twice daily thereafter. Datum of gage is 178.34 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 89,100 second-feet Feb. 14, 1948 (gage height, 32.55 feet); minimum observed, 48 second-feet Sept. 1, 2, 1943 (gage height, 0.77 foot); minimum daily, 48 second-feet Sept. 1, 2, 1948; minimum 7-day, 51 second-feet Aug 27-Sept 2, 1943.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	122	0.063	30	2,250	1.16
95	149	.077	20	3,630	1.87
90	181	.093	10	7,080	3.65
70	378	.195	5	11,500	5.90

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38				3,488	2,971	5,678	7,315	1,192	3,869	970	830	311	
1938-39	130	518	505	3,144	10,770	5,163	6,544	4,956	9,601	1,500	500	180	3,561
1939-40	236	303	638	847	4,854	4,703	6,391	1,264	1,199	6,343	723	328	2,308
1940-41	216	3,702	4,773	3,172	2,119	3,010	1,990	466	327	1,356	497	228	1,822
1941-42	247	1,607	1,666	1,715	4,326	5,640	2,654	552	309	298	466	243	1,626
1942-43	134	314	2,063	1,800	1,775	5,465	1,709	680	236	159	132	642	1,261
1943-44	110	760	446	1,581	5,977	12,650	8,350	3,964	454	401	722	681	2,997
1944-45	262	350	2,042	6,832	7,986	8,816	3,246	1,672	792	646	1,084	298	2,811
1945-46	412	1,610	3,305	14,040	13,280	7,445	2,382	3,158	2,214	4,647	755	465	4,434
1946-47	336	3,492	2,395	13,100	2,764	5,033	7,914	1,833	1,463	720	467	370	3,329
1947-48	211	1,551	2,056	2,258	16,280	9,920	4,348	868	501	372	227	429	3,197

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38				2.07	1.59	3.37	4.20	0.71	2.22	0.58	0.49	0.18	
1938-39	0.08	0.30	0.30	1.87	5.78	3.07	3.76	2.94	5.52	.89	.30	.10	24.91
1939-40	.14	.17	.38	.50	2.70	2.79	3.67	.75	.69	3.77	.43	.19	16.18
1940-41	.13	2.13	2.83	1.88	1.14	1.79	1.14	.28	.19	.81	.30	.13	12.75
1941-42	.15	.92	.99	1.02	2.32	3.35	1.53	.33	.18	.18	.28	.14	11.39

1942-43	.08	1.23	1.07	.95	3.25	.98	.40	.14	.09	.08	.37	8.82
1943-44	.07	.44	.26	.94	3.32	4.80	2.35	.26	.24	.43	.39	21.01
1944-45	.16	.20	1.21	4.06	4.28	1.87	.99	.46	.38	.64	.17	19.66
1945-46	.24	.93	1.96	8.34	7.12	1.37	1.88	1.27	2.76	.45	.27	31.01
1946-47	.20	2.01	1.42	7.78	1.48	4.55	1.09	.84	.43	.28	.21	23.28
1947-48	.13	.89	1.22	1.34	9.04	2.50	.52	.29	.22	.13	.25	22.42

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1938						2,302	16.09
1939	25,000		3,561	1.83	24.91	3,564	24.92
1940	25,100	176	2,308	1.19	16.18	2,935	20.58
1941	12,200	125	1,822	.939	12.75	1,388	9.72
1942	17,900	107	1,626	.838	11.39	1,544	10.82
1943	22,700	48	1,261	.650	8.82	1,158	8.10
1944	64,200	97	2,997	1.54	21.01	3,111	21.81
1945	30,200	144	2,811	1.45	19.66	3,035	21.22
1946	55,200	160	4,434	2.28	31.01	4,506	31.51
1947	34,700	152	3,329	1.72	23.28	3,130	21.89
1948	86,300	139	3,197	1.65	22.42		

TOMBIGBEE RIVER AT ABERDEEN

MCNROE COUNTY

LOCATION—Lat. $33^{\circ}49'14''$, long. $88^{\circ}31'07''$, in $N\frac{1}{2}$ sec. 27, T. 14 S., R. 19 W. Huntsville meridian, at bridge on U. S. Highway 45, 1.3 miles downstream from former site at St. Louis-San Francisco Railway bridge, 1.5 miles east of Aberdeen, 2 miles downstream from Mattubby Creek, 6 miles downstream from Halfway Creek, and $13\frac{1}{4}$ miles upstream from McKinley Creek.

DRAINAGE AREA—2,210 square miles.

RECORDS AVAILABLE—August 1928 to September 1948. Gage-height records collected at site 1.3 miles upstream since 1909 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—20 years, 2,901 second-feet.

GAGE—Prior to Nov. 4, 1934, chain gage 1.3 miles upstream at present datum; wire-weight gage at present site and datum to Aug. 31, 1939; water-stage recorder thereafter. Datum of gage is 154.71 feet above mean sea level, datum of 1929 (Corps of Engineers' bench mark). Auxiliary staff gage 4.4 miles downstream at datum 1.80 feet lower.

EXTREMES—Maximum discharge, 97,000 second-feet Feb. 15, 1948 (gage height, 42.04 feet); minimum, 58 second-feet Sept. 1, 2, 1943 (gage height, 1.01 feet); minimum daily, 58 second-feet Sept. 1, 1943; minimum 7-day, 64 second-feet Aug. 27-Sept. 2, 1943. Maximum stage known, 44.8 feet, former site, present datum, Apr. 20, 1892.

REMARKS—Records good. Discharge above 1,700 second-feet computed by using fall as determined by twice-daily readings of auxiliary gage as a factor.

PEAK DISCHARGE—Feb. 15, 1948 (12:00 m) 97,000 second-feet; Mar. 30, 1944 (6:00 a.m.) 68,600 second-feet; Jan. 10, 1946 (12:00 m) 58,800 second-feet; Dec. 16, 1931 (12:00 m) 33,100 second-feet; Mar. 25, 1929 (6:30 a.m.) 31,100 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
99	104	0.047	70	451	0.204
98	130	.059	30	2,610	1.18
95	166	.075	15	5,920	2.68
90	214	.097	5	11,500	5.20

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												490	
1928-29	247	346	525	2,060	2,660	13,000	3,390	3,300	870	642	530	764	2,370
1929-30	475	3,680	2,320	3,750	3,640	4,920	1,340	5,520	522	149	371	424	2,260
1930-31	451	1,180	1,760	2,600	2,870	4,080	2,510	2,740	464	1,380	979	160	1,760
1931-32	112	323	11,200	9,550	15,500	3,050	3,900	1,370	493	5,720	857	3,250	4,580
1932-33	10,600	3,730	12,500	6,450	9,930	7,420	7,670	3,180	649	1,490	521	569	5,380
1933-34	390	666	1,843	1,437	1,451	5,996	1,705	671	2,001	874	685	294	1,507
1934-35	394	1,686	2,214	5,734	4,955	9,795	3,985	3,401	1,976	471	230	187	2,913
1935-36	721	2,259	1,327	2,985	5,019	4,054	8,279	725	296	689	378	225	2,226
1936-37	375	553	1,677	11,340	4,402	3,263	1,972	4,990	425	521	381	527	2,538
1937-38	433	434	1,381	3,550	3,256	6,194	8,714	1,122	4,197	1,014	863	348	2,612
1938-39	153	515	522	3,060	11,860	5,253	7,638	5,125	10,740	1,691	591	211	3,872
1939-40	268	328	655	920	5,387	5,416	6,607	1,281	1,246	7,219	768	375	2,528
1940-41	233	3,544	5,007	3,469	2,274	3,508	2,229	534	325	1,418	572	263	1,949
1941-42	274	1,780	2,115	1,892	4,512	6,181	2,778	645	355	331	518	263	1,787
1942-43	160	387	2,032	2,034	1,893	5,913	1,851	764	261	184	154	604	1,353
1943-44	129	738	464	1,534	5,202	13,210	10,410	4,585	549	394	724	713	3,212
1944-45	305	386	2,097	7,945	9,037	10,590	3,667	1,851	846	726	1,149	340	3,218
1945-46	428	1,683	3,664	14,970	14,370	8,188	2,687	3,061	2,507	5,246	1,019	448	4,811
1946-47	370	3,817	2,577	13,330	2,991	5,584	8,323	1,852	1,639	761	527	416	3,520
1947-48	219	1,572	2,153	2,603	18,570	10,810	5,573	1,058	575	420	243	468	3,625

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28	0.13	0.18	0.27	1.07	1.25	6.78	1.71	1.72	0.44	0.33	0.28	0.25	
1928-29												.39	14.55
1929-30	.25	1.86	1.21	1.96	1.72	2.57	.68	2.88	.26	.08	.19	.21	13.87
1930-31	.24	.60	.92	1.36	1.35	2.13	1.27	1.43	.23	.72	.51	.08	10.84
1931-32	.06	.16	5.84	4.98	7.56	1.59	1.96	.71	.25	2.99	.45	1.64	28.19
1932-33	5.53	1.89	6.52	3.37	4.68	3.87	3.87	1.66	.33	.78	.27	.29	33.06
1933-34	.20	.35	.96	.75	.68	3.12	.86	.35	1.01	.46	.36	.15	9.25
1934-35	.21	.85	1.15	2.99	2.33	5.11	2.01	1.78	1.00	.25	.12	.09	17.89
1935-36	.38	1.14	.69	1.56	2.45	2.11	4.18	.38	.15	.36	.20	.11	13.71
1936-37	.20	.28	.88	5.91	2.07	1.71	1.00	2.61	.21	.27	.20	.27	15.61
1937-38	.23	.22	.72	1.86	1.53	3.23	4.40	.59	2.12	.53	.45	.18	16.06
1938-39	.08	.26	.27	1.59	5.59	2.74	3.86	2.68	5.42	.88	.31	.11	23.79
1939-40	.14	.17	.34	.48	2.63	2.82	3.34	.67	.63	3.77	.40	.19	15.58
1940-41	.12	1.78	2.62	1.81	1.07	1.83	1.13	.28	.16	.74	.30	.13	11.97
1941-42	.14	.90	1.10	.99	2.13	3.22	1.40	.34	.18	.17	.27	.13	10.97
1942-43	.08	.18	1.06	1.06	.89	3.08	.93	.40	.13	.10	.08	.30	8.29
1943-44	.07	.37	.24	.80	2.54	6.89	5.26	2.39	.28	.21	.38	.36	19.79
1944-45	.16	.20	1.09	4.14	4.26	5.52	1.85	.97	.43	.38	.60	.17	19.77
1945-46	.22	.85	1.91	7.81	6.77	4.27	1.36	1.60	1.27	2.74	.53	.23	29.56
1946-47	.19	1.93	1.34	6.95	1.41	2.91	4.20	.97	.83	.40	.27	.21	21.61
1947-48	.11	.79	1.12	1.36	9.06	5.64	2.81	.55	.29	.22	.13	.24	22.32

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar year	
	Maximum Day	Minimum Day	Per square mile	Mean	Runoff in inches
1929	30,400	162	1.07	2,819	17.29
1930	20,400	61	1.02	2,000	12.31
1931	9,460	95	.796	2,465	15.14
1932	32,600	94	2.07	5,859	36.07
1933	27,400	229	2.43	3,357	20.63
1934	16,400	156	.682	1,621	9.95
1935	20,700	105	1.32	2,912	17.89
1936	21,100	98	1.01	2,086	12.86
1937	20,700	111	1.15	2,508	15.42
1938	14,000	159	1.18	2,521	15.50
1939	22,200	128	1.75	3,878	23.83
1940	19,600	192	1.14	3,157	19.45
1941	10,500	141	.882	1,562	9.59
1942	13,500	128	.809	1,653	10.15
1943	18,300	58	.612	1,248	7.65
1944	66,900	116	1.45	3,336	20.56
1945	28,400	179	1.46	3,469	21.30
1946	58,400	207	2.18	4,889	30.04
1947	28,500	181	1.59	3,286	20.17
1948	93,700	158	1.64		

TOMBIGBEE RIVER AT COLUMBUS

LOWNDES COUNTY

LOCATION—Lat. $33^{\circ}29'21''$, long. $88^{\circ}25'57''$, in NW $\frac{1}{4}$ sec. 20, T. 18 S., R. 18 W. Huntsville meridian, in Columbus, 1,400 feet upstream from Gulf, Mobile and Ohio Railroad bridge, 1,600 feet downstream from bridge on U. S. Highway 45, 2.3 miles upstream from Luxapalila Creek, and 6.7 miles downstream from Tibbee River.

DRAINAGE AREA—4,490 square miles.

RECORDS AVAILABLE—January 1900 to December 1912, August 1928 to September 1948. Gage heights during low stages for the period 1900 to 1904 are believed to be in error. Gage-height records collected at same site since 1890 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—31 years (1900-04, 1905-12, 1928-48), 5,831 second-feet.

GAGE—Water-stage recorder since Nov. 2, 1934. Datum of gage is 128.91 feet above mean sea level, datum of 1929, supplementary adjustment of 1941. Prior to that date, staff and chain gages at various sites within a quarter of a mile either upstream or downstream. Prior to April 1934, at datum 4 feet higher.

EXTREMES—Maximum discharge, 135,000 second-feet Feb. 16, 1948 (gage height, 38.32 feet); minimum discharge observed, 160 second-feet Oct. 29, 1904; minimum gage height observed, -0.1 foot, present datum, Oct. 9-12, 1911; minimum daily discharge, 182 second-feet Aug. 27, 28, 1943; minimum 7-day, 192 second-feet Aug. 23-29, 1943.

Maximum stage known, 42.6 feet, present datum, April 8, 1892.

Note.—A new maximum discharge of 148,000 second-feet (gage height, 39.32 feet) was established on Jan. 7, 1949.

REMARKS—Records good after 1929 and fair prior thereto. Discharge computed by using fall as determined by twice-daily readings of auxiliary gage as a factor.

PEAK DISCHARGE—Feb. 16, 1948 (9:00 p.m.) 135,000 second-feet; Mar. 31, Apr. 1, 1944 () 134,000 second-feet; Jan. 12, 1946 (12:30 a.m.) 95,000 second-feet; Feb. 13, 1946 (6:00 p.m.) 92,100 second-feet; Mar. 25, 1929 (9:00 p.m.) 84,600 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	Percent of time	Discharge second-feet
per sq. mile	per sq. mile	per sq. mile	per sq. mile
98	305	40	3,230
95	368	20	9,470
90	462	5	24,300
60	1,380	2	34,300
			7.65

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1899-1900													
1900-01	3,989	4,304	5,239	5,588	8,659	15,285	21,265	4,944	27,692	11,411	2,257	950	
1901-02	748	756	6,730	14,193	12,533	10,884	9,890	4,949	2,767	730	7,673	2,008	6,568
1902-03	1,165	1,482	11,730	12,300	27,631	15,583	18,180	2,060	825	717	1,095	790	5,657
1903-04	300	961	7,770	1,991	2,209	20,465	4,828	6,250	3,439	1,084	1,139	281	7,542
1904-05	544	765	1,475	1,991	2,209	3,785	5,456	1,059	1,041	1,135	1,175	402	1,684
1905-06	1,578	1,369	5,738	9,090	2,630	12,900	7,480	4,230	909	1,580	3,576	868	
1906-07	6,800	3,520	4,520	4,550	9,740	11,800	3,290	18,600	6,490	1,210	527	1,630	4,191
1907-08	445	957	1,680	6,370	19,800	14,000	6,640	11,100	5,290	1,410	2,040	449	5,955
1908-09	364	443	4,730	3,620	20,200	26,000	11,500	8,030	15,700	3,720	991	475	7,891
1909-10	310	452	1,360	5,090	8,290	4,390	1,900	2,220	3,970	12,200	1,150	395	3,461
1910-11	445	376	1,210	7,500	7,050	5,320	25,800	3,800	929	2,640	2,610	613	4,813
1911-12	382	758	13,400	17,200	10,600	25,500	32,800	12,700	2,040	5,710	2,430	1,700	10,450
1912-13	1,770	931	10,800										
1927-28													
1928-29	782	1,010	1,110	5,090	6,220	29,300	6,410	7,130	1,610	1,270	936	1,270	5,190
1929-30	801	12,200	6,360	7,190	7,220	10,700	3,940	17,100	1,230	450	931	859	5,750
1930-31	1,130	2,710	4,120	5,690	6,020	8,680	6,870	4,520	1,160	3,680	1,660	462	3,890
1931-32	398	626	21,000	19,200	33,100	6,310	8,590	2,390	1,180	8,920	2,020	7,350	9,170
1932-33	19,900	7,560	27,300	13,700	18,200	14,500	15,100	5,060	1,300	3,290	1,200	1,390	10,700
1933-34	862	1,198	2,507	2,640	9,205	15,080	3,975	1,544	3,259	1,764	1,393	724	3,131
1934-35	939	3,718	4,412	11,630	9,205	20,910	11,360	7,837	3,690	999	593	420	6,302
1935-36	901	2,960	2,385	7,544	12,210	6,186	12,600	1,680	630	1,130	664	419	4,065
1936-37	479	734	2,134	18,930	9,621	7,493	3,925	10,300	932	1,118	806	1,368	4,815
1937-38	1,101	1,069	3,006	6,826	6,716	11,840	17,080	1,955	5,892	1,816	2,370	720	5,007
1938-39	372	1,052	1,047	7,688	23,620	12,190	15,130	8,217	19,760	3,788	1,287	583	7,752
1939-40	618	639	1,169	2,038	12,450	12,190	9,827	2,363	2,591	20,510	1,484	742	5,537
1940-41	459	4,263	8,729	6,355	4,553	8,297	3,950	942	529	3,441	1,488	586	3,639
1941-42	615	3,476	4,631	3,125	8,218	11,650	3,949	1,198	700	733	1,147	563	3,307
1942-43	354	611	3,058	3,829	3,980	11,600	3,915	1,448	596	446	287	766	2,575
1943-44	241	995	754	2,429	8,785	21,330	25,890	8,935	1,000	629	1,137	1,163	6,080
1944-45	517	634	2,952	12,040	20,090	22,080	7,694	4,142	1,610	1,758	1,960	617	6,269
1945-46	727	2,098	5,920	28,480	31,240	14,120	5,511	5,835	4,898	9,237	3,002	916	9,218
1946-47	717	6,472	4,779	27,390	6,579	12,880	17,740	3,434	4,271	1,659	975	786	7,313
1947-48	424	2,504	4,188	4,858	35,160	22,040	11,320	1,828	1,039	899	623	764	7,020

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1899-1900													
1900-01	1.04	1.08	1.36	1.45	2.03	3.85	5.34	1.28	6.96	2.97	0.59	0.23	20.08
1901-02	.20	.19	1.75	3.69	2.95	2.83	2.49	1.28	.69	.18	1.99	.50	17.30
1902-03	.30	.37	3.04	1.82	3.32	4.05	4.56	.53	.21	.18	.29	.20	23.06
1903-04	.08	.25	.20	3.19	6.48	5.32	1.22	1.63	.86	.28	.30	.07	5.18
1904-05	.14	.19	.38	.52	.54	.98	1.37	.28	.26	.30	.31	.10	
1905-06	.41	.34	1.49	2.36	.62	3.36	1.87	1.10	.23	.41	.93	.22	12.81
1906-07	1.76	.88	1.18	1.18	2.28	3.07	.83	4.83	1.63	.31	.14	.11	18.20
1907-08	.12	.24	.44	1.65	4.81	3.63	1.67	2.88	1.33	.37	.53	.15	17.82
1908-09	.09	.11	1.23	.94	4.74	6.76	2.89	2.09	3.95	.97	.26	.12	24.15
1909-10	.08	.11	.35	1.33	1.95	1.14	.48	.58	1.00	3.17	.30	.10	10.59
1910-11	.12	.09	.31	1.95	1.66	1.38	6.48	.99	.23	.69	.68	.15	14.73
1911-12	.10	.19	3.48	4.46	2.58	6.62	8.24	3.30	.51	1.49	.63	.43	32.03
1912-13	.46	.23	2.80										
1927-28													
1928-29	.20	.25	.28	1.30	1.45	7.53	1.60	1.83	.40	.33	.24	.32	15.68
1929-30	.21	3.04	1.64	1.84	1.68	2.74	.98	4.39	.31	.12	.24	.27	17.40
1930-31	.29	.67	1.06	1.46	1.40	2.22	1.71	1.16	.29	.95	.43	.11	11.75
1931-32	.10	.16	5.40	4.93	7.95	1.63	2.13	.61	.29	2.29	.52	1.83	27.84
1932-33	5.11	1.87	7.01	3.52	4.22	3.72	3.75	1.30	.32	.85	.31	.35	32.33
1933-34	.22	.30	.64	.68	.57	3.87	.99	.40	.81	.45	.36	.18	9.47
1934-35	.24	.74	1.13	2.99	.57	5.37	2.82	2.02	.92	.26	.15	.10	19.06
1935-36	.23	.74	.61	1.94	2.93	1.59	3.14	.43	.16	.29	.17	.10	12.33
1936-37	.12	.18	.55	4.86	2.23	1.92	.98	2.64	.23	.29	.21	.34	14.55
1937-38	.28	.27	.77	1.75	1.56	3.04	4.24	.50	1.46	.47	.61	.18	15.13
1938-39	.10	.26	.27	1.97	5.48	3.12	3.76	2.11	4.91	.97	.33	.14	23.42
1939-40	.16	.16	.30	.52	2.99	3.12	2.44	.61	.64	5.27	.38	.18	16.77
1940-41	.12	1.06	2.24	1.64	1.05	2.13	.98	.24	.13	.88	.38	.15	11.00
1941-42	.16	.86	1.19	.80	1.91	2.99	.98	.31	.17	.19	.29	.14	9.99
1942-43	.09	.15	.79	.98	.92	2.98	.97	.37	.15	.11	.07	.19	7.77
1943-44	.06	.25	.19	.62	2.11	5.48	6.43	2.29	.25	.16	.29	.29	18.42
1944-45	.13	.16	.76	3.09	4.66	5.67	1.91	1.06	.40	.45	.50	.15	18.94
1945-46	.19	.52	1.52	7.31	7.24	3.63	1.37	1.50	1.22	2.37	.77	.23	27.87
1946-47	.18	1.61	1.23	7.03	1.53	3.31	4.41	.88	1.06	.43	.25	.20	22.12
1947-48	.11	.62	1.08	1.25	8.45	5.66	2.81	.47	.26	.23	.16	.19	21.29

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1900					9,299	28.10
1901	33,736	566	6,568	1.46	19.82	18.60
1902	50,420	370	5,657	1.26	17.10	18.87
1903	39,030	220	7,542	1.68	22.80	19.95
1904	9,980	260	1,684	.375	5.09	5.31
1906	29,300	340	4,191	.933	12.66	14.12
1907	26,300	310	5,955	1.33	18.05	15.07
1908	37,800	310	5,807	1.29	17.56	18.38
1909	46,800	310	7,891	1.76	23.89	23.21
1910	30,900	220	3,461	.771	10.47	10.42
1911	46,500	250	4,813	1.07	14.52	17.78
1912	48,500	195	10,450	2.33	31.71	31.58
1929	83,000	345	5,190	1.16	15.68	19.84
1930	75,300	238	5,750	1.28	17.40	14.53
1931	18,400	275	3,890	.866	11.75	15.39
1932	53,500	275	9,170	2.04	27.84	36.17
1933	55,300	560	10,700	2.38	32.33	19.50
1934	44,300	455	3,131	.697	9.47	10.60
1935	39,500	325	6,302	1.40	19.06	18.35
1936	36,000	259	4,065	.905	12.33	11.60
1937	33,700	250	4,815	1.07	14.55	15.02
1938	28,100	384	5,007	1.12	15.13	14.44
1939	31,000	328	7,752	1.73	23.42	23.41
1940	45,500	435	5,537	1.23	16.77	19.57
1941	19,100	356	3,639	.810	11.00	9.79
1942	21,500	318	3,307	.737	9.99	8.81
1943	28,700	182	2,575	.573	7.77	7.24
1944	119,000	218	6,080	1.35	18.42	18.97
1945	52,400	336	6,269	1.40	18.94	20.12
1946	94,000	387	9,218	2.05	27.87	28.66
1947	45,300	404	7,313	1.63	22.12	20.91
1948	127,000	304	7,020	1.56	21.29	

MACKYS CREEK NEAR DENNIS

TISHOMINGO COUNTY

LOCATION—Lat. $34^{\circ}32'$, long. $88^{\circ}20'$, in sec. 26, T. 6 S., R. 9 E. Chickasaw meridian, at bridge on county highway at Narrows dam site, 6 miles southwest of Dennis, and about 10 miles upstream from confluence with Browns Creek.

DRAINAGE AREA—66 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—February 1938 to September 1948. Prior to January 1944 monthly discharge only.

AVERAGE DISCHARGE—10 years, 100 second-feet.

GAGE—Vertical staff gage read twice daily to tenths prior to June 30, 1944; to hundredths thereafter. Datum of gage is 333.47 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 3,520 second-feet Feb. 13, 1948 (gage height, 22.08 feet); minimum not determined.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	15	0.230	30	90	1.36
95	19	.290	20	121	1.83
90	22	.340	10	190	2.88
70	39	.598	5	214	3.25

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38					1.04	2.95	2.32	0.92	1.08	1.11	0.99	0.49	
1938-39	0.38	0.82	0.95	2.47	5.44	3.37	2.73	3.10	4.89	1.08	1.17	.57	26.97
1939-40	.61	.65	1.11	1.16	2.26	2.75	3.48	1.17	.97	1.66	1.51	.49	17.82
1940-41	.50	2.32	2.14	1.72	1.44	1.58	1.57	.68	.41	1.51	.84	.63	15.34
1941-42	.55	1.20	1.08	1.04	2.60	3.07	1.55	.90	.51	.43	.65	.64	14.22
1942-43	.60	.81	3.38	1.22	1.05	2.63	1.19	1.09	.50	.29	.16	.51	13.43
1943-44	.30	1.27	.87	1.33	3.87	5.93	3.03	2.59	.52	.48	.59	.83	21.61
1944-45	.58	.68	2.26	3.48	3.33	3.44	1.80	1.00	.55	.40	.68	.40	18.60
1945-46	.78	2.49	2.43	5.78	5.57	3.29	1.56	3.54	1.35	1.84	1.08	.58	30.29
1946-47	.71	2.23	1.78	5.08	1.55	2.71	2.97	2.23	1.14	.78	1.20	.57	22.95
1947-48	.65	1.80	1.72	1.76	7.28	4.99	2.69	1.89	.73	.82	.42	.70	25.45

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar Year	
	Maximum Day	Minimum Day	Mean			Runoff in inches	
1939	2,020		131	1.98	26.97	132	27.19
1940	1,380		86.4	1.31	17.82	99.0	20.41
1941	783		74.6	1.13	15.34	64.3	13.21
1942	912		69.2	1.05	14.22	78.7	16.18
			57				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE CONTINUED

Year	Water year ending Sept. 30				Runoff in inches	Calendar year Runoff in inches
	Maximum Day	Minimum Day	Mean	per square mile		
1943	1,180		65.2	.988	13.43	53.8
1944	1,930		105	1.59	21.61	110
1945	1,580	12	90.4	1.37	18.60	101
1946	1,910	20	147	2.23	30.29	143
1947	985	21	112	1.70	22.95	109
1948	3,400	13	123	1.86	25.45	22.40

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38					65.7	169	137	52.7	63.8	63.7	56.8	29.1	
1938-39	21.7	48.2	54.3	141	345	193	161	178	289	61.7	66.8	33.9	131
1939-40	34.8	38.7	63.4	66.2	138	157	206	66.8	57.3	95.1	86.4	29.0	86.4
1940-41	28.5	137	123	98.3	91.5	90.2	92.9	39.1	24.1	86.6	48.3	37.2	74.6
1941-42	31.6	70.7	62.1	59.5	165	176	91.5	51.5	30.1	24.8	37.3	38.1	69.2
1942-43	34.2	47.9	194	69.7	66.3	151	70.3	62.5	29.4	16.4	9.10	30.4	65.2
1943-44	17.0	75	50	76.2	237	339	179	148	30.7	27.7	33.8	49.2	105
1944-45	33.0	40.4	129	199	211	197	106	57.0	32.7	22.8	38.9	23.6	90.4
1945-46	44.5	147	139	331	353	189	92.6	203	80.0	105	61.8	34.3	147
1946-47	40.9	132	102	291	98.4	155	176	127	67.5	44.6	69.0	33.8	112
1947-48	37.0	107	98.4	101	446	286	159	108	43.3	47.1	24.1	41.2	123

BULL MOUNTAIN CREEK AT TREMONT
ITAWAMBA COUNTY

LOCATION—Lat. $34^{\circ}14'20''$, long. $88^{\circ}16'15''$, in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 10 S., R. 10 E. Chickasaw meridian, at bridge on U. S. Highway 78, 0.7 mile northwest of Tremont, 1 mile upstream from Johns Creek, 1 $\frac{1}{2}$ miles upstream from Cypress Creek, 3 $\frac{1}{4}$ miles upstream from Chubby Creek, and 8 miles southeast of Fulton.

DRAINAGE AREA—120 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1943 to September 1948.

GAGE—Staff gage read once daily to tenths prior to Aug. 14, 1945; to hundredths thereafter. Datum of gage is 317.39 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 11,600 second-feet Jan. 8, 1946 and Feb. 13, 1948; maximum gage height observed, 9.47 feet Jan. 8, 1946; minimum discharge observed, 9 second-feet Oct. 10-13, 1943.

REMARKS:—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent		Discharge		Percent		Discharge	
of time	second-feet	per sq. mile		of time	second-feet	per sq. mile	
95	16	0.133		60	51	0.425	
90	18	.152		30	166	1.38	

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	13.4	26.1	41.5	92.9	404	814	424	165	35.4	23.4	74.1	33.7	178
1944-45	22.3	36.3	126	259	606	459	182	150	89.3	33.3	79.3	36.8	171
1945-46	46.4	134	243	856	766	484	148	116	80.3	135	42.9	49.3	256
1946-47	35.2	171	161	752	221	297	452	156	110	44.8	31.2	22.6	204
1947-48	26.9	118	142	189	1,095	633	313	91.6	46.6	33.5	20.1	34.3	225

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.13	0.24	0.40	0.89	3.63	7.82	3.94	1.58	0.33	0.22	0.71	0.31	20.20
1944-45	.21	.34	1.21	2.48	5.26	4.41	1.69	1.44	.83	.32	.76	.34	19.29
1945-46	.45	1.25	2.34	8.22	6.64	4.65	1.38	1.11	.75	1.30	.41	.46	28.96
1946-47	.34	1.59	1.54	7.22	1.92	2.85	4.20	1.50	1.02	.43	.30	.21	23.12
1947-48	.26	1.10	1.37	1.81	9.84	6.08	2.91	.88	.43	.32	.19	.32	25.51

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches
1944	6,500	9	178	1.48	20.20	187	21.19
1945	3,880	18	171	1.42	19.29	191	21.57
1946	8,790	22	256	2.13	28.96	251	28.39
1947	3,100	14	204	1.70	23.12	198	22.38
1948	8,830	12	225	1.88	25.51		

BULL MOUNTAIN CREEK NEAR SMITHVILLE

MONROE COUNTY

LOCATION—Lat. $34^{\circ}05'$, long. $88^{\circ}24'$, in SE $\frac{1}{4}$ sec. 30, T. 11 S., R. 9 E. Chickasaw meridian, at bridge on State Highway 25, 0.8 mile upstream from the Mississippian Railway bridge, 1.1 miles north of Smithville and $3\frac{1}{2}$ miles upstream from mouth.

DRAINAGE AREA—335 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1940 to September 1948.

GAGE—Staff gage read twice daily to tenths prior to July 5, 1944; wire weight gage thereafter. Datum of gage is 234.81 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 24,800 second-feet Feb. 13, 1948 (gage height, 15.25 feet); minimum daily, 19 second-feet Aug. 28 to Sept. 3, 1943, occurred during period of doubtful gage-height record.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	55	0.165	20	643	1.92
60	149	.445	10	1,070	3.18
50	211	.630	5	1,530	4.56

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41	73.4	477	793	683	438	671	365	146	75.1	378	125	57.0	357
1941-42	78.2	269	421	396	718	870	456	147	71.4	118	211	111	320
1942-43	59.9	103	550	331	444	853	464	244	59.6	46.1	26.4	49.5	289
1943-44	30.8	76.4	98.0	255	921	2,209	1,265	516	116	61.0	202	110	487
1944-45	69.3	91.7	305	826	1,606	1,300	499	373	232	102	208	67.1	467
1945-46	121	304	663	2,370	2,516	1,505	408	561	380	606	132	91.8	796
1946-47	89.3	445	383	2,083	531	777	1,245	351	259	119	95.4	65.7	537
1947-48	49.9	276	322	444	2,887	1,433	812	191	104	77.6	57.3	75.8	551

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41	0.25	1.59	2.73	2.35	1.36	2.31	1.21	0.50	0.25	1.30	0.43	0.19	14.47
1941-42	.27	.90	1.45	1.36	2.23	2.99	1.52	.51	.24	.41	.72	.37	12.97
1942-43	.21	.34	1.89	1.14	1.38	2.94	1.54	.84	.20	.16	.09	.16	10.89
1943-44	.11	.25	.34	.88	2.97	7.60	4.21	1.78	.39	.21	.70	.37	19.81

1944-45	.24	.31	1.05	2.84	4.99	4.48	1.66	1.28	.77	.35	.71	.22	18.90
1945-46	.42	1.01	2.28	8.16	7.82	5.18	1.36	1.93	1.27	2.09	.45	.31	32.28
1946-47	.31	1.48	1.32	7.17	1.65	2.67	4.15	1.21	.86	.41	.33	.22	21.78
1947-48	.17	.92	1.10	1.53	9.29	4.93	2.70	.66	.34	.27	.20	.25	22.36

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1941	1,810	45	357	1.07	14.47	12.52
1942	3,170	33	320	.955	12.97	12.79
1943	4,010	19	269	.803	10.89	9.15
1944	17,900	25	487	1.45	19.81	20.71
1945	10,400	48	467	1.39	18.90	21.01
1946	14,200	45	796	2.38	32.28	31.68
1947	8,350	40	537	1.60	21.78	20.86
1948	19,600	38	551	1.64	22.36	

OLDTOWN CREEK AT TUPELO

LEE COUNTY

LOCATION—Lat. $34^{\circ}15'25''$, long. $88^{\circ}41'35''$, in NW¼ sec. 32, T. 9 S., R. 6 E. Chickasaw meridian, on U. S. Highway 78, one mile east of Tupelo, 1¼ miles upstream from Mud Creek and 1½ miles upstream from Kings Creek.

DRAINAGE AREA—114 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—February 1944 to September 1946.

GAGE—Chain gage prior to August 3, 1944; wire weight gage thereafter. Datum of gage is 235.95 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 12,600 second-feet Mar. 28, 1944 (gage height, 24.34 feet); minimum observed. 0.2 second-foot July 4, 6, 7, 1944; minimum daily, 0.2 second-foot, July 4, 6, 7, 1944; minimum 7-day, 0.3 second-foot July 3-9, 1944.

REMARKS—Records fair.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	1	0.010	40	38	0.330
80	4	.031	20	125	1.10
60	12	.105	10	205	1.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44						717	232	85.5	4.59	20.2	34.6	9.01	
1944-45	1.02	4.78	289	357	389	483	137	49.7	35.7	31.9	19.1	23.3	151
1945-46	10.6	115	229	939	838	510	70.5	196	89.6	367	27.1	20.8	282

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44						7.25	2.27	0.87	0.04	0.20	0.35	0.09	
1944-45	0.01	0.05	2.93	3.61	3.56	4.89	1.34	.50	.35	.32	.19	.23	17.98
1945-46	.11	1.12	2.31	9.49	7.66	5.16	.69	1.98	.88	3.71	.27	.20	33.58

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1945	4,330	0.5	151	1.32	156	18.53
1946	7,130		282	2.47		
			65			

OLDTOWN CREEK NEAR VERONA.

LEE COUNTY

LOCATION—Lat. $34^{\circ}12'$, long. $88^{\circ}41'$, in SW $\frac{1}{4}$ sec. 21, T. 10 S., R. 6 E. Chickasaw meridian, on Verona-Plantersville road, one mile downstream from Tulip Creek, $1\frac{1}{4}$ miles southwest of Plantersville, $2\frac{1}{4}$ miles east of Verona, and 3 miles downstream from Mud Creek.

DRAINAGE AREA—263 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1944 to June 1947.

GAGE—Water-stage recorder. Datum of gage is 221.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 20,300 second-feet Jan. 8, 1946 (gage height, 27.80 feet); minimum, 2 second-feet at times during October, November 1944; minimum gage height, 1.69 feet Sept. 3, 5, 1945; minimum daily, 2 second-feet at times during October, November 1944; minimum 7-day, 2.4 second-feet Oct. 25-31, 1944.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records computed by Geological Survey.

PEAK DISCHARGE—Jan. 8, 1946 (10:00 a.m.) 20,300 second-feet; Feb. 9, 1946 (4:00 p.m.) 16,100 second-feet; Apr. 11, 1947 (11:00 p.m.) 13,200 second-feet; Mar. 28, 1944 (6:00 p.m.) 11,400 second-feet; Jan. 3, 1947 (2:00 a.m.) 11,200 second-feet.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	4	0.0155	60	31	0.116
80	9	.0325	30	160	.610

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44				255	1,229	1,539	826	470	19.6	60.1	91.3	28.5	
1944-45	4.2	11.7	630	922	994	1,129	433	166	85.1	80.3	77.7	52.6	380
1945-46	16.5	263	497	2,129	2,117	1,100	189	632	282	855	44.1	41.8	674
1946-47	20.4	756	390	2,053	269	773	1,230	150	345				

MONTHLY AND ANNUAL RUNOFF IN INCHES

[illegible]

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar Year	
	Maximum Day	Minimum Day	Mean			Runoff in inches	
1944					428	22.15	
1945	9,980	2	380	1.44	19.60	20.14	
1946	17,900	5	674	2.56	34.79	36.43	
			67				

WEST FORK TOMBIGBEE RIVER NEAR NETTLETON

LEE COUNTY

LOCATION—Lat. 34°03'32", long. 88°37'40", in NW¼ sec. 12, T. 12 S., R. 6 E. Chickasaw meridian, at bridge on U. S. Highway 45, 1.9 miles downstream from Tallabinnela Creek, 2 miles downstream from Tubbalubba Creek, and 2.1 miles south of Nettleton.

DRAINAGE AREA—617 square miles.

RECORDS AVAILABLE—November 1939 to September 1948.

GAGE—Prior to Dec. 6, 1939, staff and wire-weight gages; water-stage recorder thereafter. Datum of gage is 194.01 feet above mean sea level, datum of 1929 (Corps of Engineers bench mark).

EXTREMES—Maximum discharge, 56,300 second-feet Feb. 14, 1948 (gage height, 30.74 feet); maximum gage height, 31.18 feet Mar. 28, 1944; minimum discharge observed, 0.8 second-foot Sept. 14, 15, 1942; minimum gage height observed, 6.29 feet; minimum daily discharge, 1.0 second-foot Sept. 14, 1942; minimum 7-day, 1.6 second-feet Oct. 8-14, 1942.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 14, 1948 (12:30 a.m.) 56,300 second-feet Mar. 28, 1944 (11:00 p.m.) 48,400 second-feet; Feb. 10, 1946 (4:30 a.m.) 31,600 second-feet; Mar. 17, 1948 (7:30 a.m.) 31,000 second-feet; Jan. 8, 1946 (5:00 p.m.) 29,000 second-feet.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	12	0.019	50	136	0.220
70	41	.067	20	771	1.25

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40			73.6	103	1,574	1,297	1,633	239	315	2,512	162	22.5	
1940-41	19.2	1,328	1,483	940	422	862	521	70.1	123	402	128	28.8	529
1941-42	37.5	781	500	496	1,614	1,901	710	100	68.9	22.4	23.1	10.1	515
1942-43	19.1	18.8	1,044	181	393	1,981	449	63.6	23.7	26.4	32.4	235	374
1943-44	3.97	300	61.4	501	2,613	4,394	1,909	1,118	51.2	110	170	113	940
1944-45	17.2	31.4	1,018	2,099	2,320	2,618	845	383	220	213	244	108	837
1945-46	34.7	436	1,016	4,433	4,208	2,568	365	1,333	616	1,490	164	86.1	1,384
1946-47	54.5	1,533	642	3,561	626	1,673	2,467	323	597	216	84.2	68.9	988
1947-48	13.4	382	557	726	5,740	3,471	1,600	170	109	85.7	38.8	101	1,063

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40			0.14	0.19	2.75	2.42	2.96	0.45	0.57	4.69	0.30	0.04	
1940-41	0.04	2.40	2.77	1.75	.71	1.61	.94	.13	.22	.75	.24	.05	11.61
1941-42	.07	1.41	.94	.93	2.72	3.55	1.28	.19	.12	.04	.04	.02	11.31
1942-43	.04	.03	1.95	.34	.66	3.70	.81	.12	.04	.05	.06	.43	8.23
1943-44	.007	.54	.11	.94	4.57	8.21	3.45	2.09	.09	.21	.32	.21	20.75
1944-45	.03	.06	1.90	3.92	3.92	4.89	1.53	.71	.40	.40	.46	.20	18.42

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1945-46	.06	.79	1.90	8.28	7.10	4.80	.66	2.49	1.11	2.78	.31	.16	30.44
1946-47	.10	2.78	1.20	6.65	1.06	3.13	4.46	.60	1.08	.40	.16	.12	21.74
1947-48	.03	.69	1.04	1.36	10.0	6.49	2.89	.32	.20	.16	.07	.18	23.43

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Maximum Day	Water year ending Sept. 30			Runoff in inches	Calendar Year Runoff in inches
		Minimum Day	Mean	per square mile		
1940						888
1941	9,060	5.8	529	0.857	11.61	402
1942	15,800	1.0	515	.835	11.31	496
1943	21,600	1.4	374	.606	8.23	313
1944	38,400	3.5	940	1.52	20.75	1,000
1945	15,000	7.2	837	1.36	18.42	872
1946	28,200	7.3	1,384	2.24	30.44	1,444
1947	17,500	12	988	1.60	21.74	883
1948	43,200	6.7	1,063	1.72	23.43	

MUD CREEK AT TUPELO

LEE COUNTY

LOCATION—Lat. 34°15'25", long. 88°41'05", in NE¼ sec. 32, T. 9 S., R. 6 E. Chickasaw meridian, on U. S. Highway 78 in east Tupelo and 1½ miles upstream from mouth.

DRAINAGE AREA—92 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—February 1944 to September 1946.

GAGE—Chain gage prior to Aug. 3, 1944; wire-weight gage thereafter. Datum of gage is 236.52 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 8,610 second-feet Feb. 9, 1946 (gage height, 23.44 feet).

REMARKS—Records fair. Base data furnished by Corps of Engineers; occasional discharge measurements made and records computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	1	0.0097	60	11	0.116
75	4	.040	30	52	.570

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44						556	203	73.4	3.19	26.6	39.3	7.7	
1944-45	0.85	4.08	251	293	351	391	118	54.0	12.8	10.7	21.1	13.0	126
1945-46	4.88	111	175	716	713	414	67.0	207	69.1	315	13.5	18.4	233

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44						6.97	2.46	0.92	0.04	0.33	0.49	0.09	
1944-45	0.01	0.05	3.14	3.67	3.97	4.90	1.43	.68	.15	.13	.26	.16	18.55
1945-46	.06	1.35	2.19	8.97	8.07	5.19	.81	2.59	.84	3.95	.17	.22	34.41

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1945	3,560	0.2	126	1.37	128	18.95
1946	5,690		233	2.53		
					18.55	34.41

BUTTAHATCHEE RIVER NEAR CALEDONIA

LOWNDES COUNTY

LOCATION—Lat. $33^{\circ}42'10''$, long. $88^{\circ}20'50''$, in SW $\frac{1}{4}$ sec. 5, T. 16 S., R. 17 W. Huntsville meridian, at bridge on county road 600 feet downstream from Elbethel Creek, 2 miles northwest of Caledonia, 2 miles upstream from Dry Creek, 16 miles north of Columbus, and 19 miles upstream from mouth.

DRAINAGE AREA—823 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—August 1928 to May 1932, and February 1939 to September 1948.

AVERAGE DISCHARGE—12 years, 1,085 second-feet.

GAGE—Prior to May 1932, staff gage at datum 0.62 foot lower; staff gage at present datum February 1939 to May 1945; wire-weight gage thereafter. Datum of gage is 198.59 feet above mean sea level (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 30,700 second-feet Mar. 30, 1944; maximum gage height observed, 17.62 feet Jan. 9, 1946; minimum discharge observed, 79 second-feet Aug. 28, 29, 1943 (gage height, 1.74 feet); minimum daily, 79 second-feet Aug. 28, 29, 1943; minimum 7-day, 85 second-feet Aug. 23-29, 1943.

Flood in July 1916 reached a stage about 5 feet higher than that of Jan. 9, 1946, from information by local residents.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	156	0.190	40	683	0.830
70	255	.310	30	979	1.19
50	479	.582	20	1,460	1.77

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												526	
1928-29	418	506	529	1,720	1,510	4,940	1,190	1,610	454	461	251	319	1,160
1929-30	294	4,410	1,810	1,270	1,460	1,820	950	2,470	415	194	411	300	1,310
1930-31	368	744	925	1,130	1,350	1,850	2,200	825	305	304	343	128	869
1931-32	183	265	3,030	3,610	5,590	1,350	1,870	613					
1938-39						2,578	2,557	1,916	3,085	857	458	275	
1939-40	295	260	414	660	2,292	2,835	1,433	556	514	2,550	424	225	1,036
1940-41	175	572	1,293	1,797	1,038	1,768	1,163	336	211	987	635	238	853
1941-42	266	520	972	704	1,453	1,799	715	368	210	354	502	240	672
1942-43	155	225	723	1,045	1,097	2,394	1,033	487	222	175	134	160	653
1943-44	106	232	305	547	1,296	5,038	3,359	1,189	254	150	251	324	1,087
1944-45	179	240	565	1,656	3,745	3,598	1,281	953	470	505	442	205	1,139
1945-46	225	429	1,227	4,761	5,342	2,436	875	720	531	1,299	542	306	1,538
1946-47	265	924	787	4,621	1,527	2,691	3,181	912	977	409	356	269	1,410
1947-48	186	587	880	884	5,321	3,719	2,594	460	320	356	213	190	1,291

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.18	
1928-29	0.58	0.68	0.73	2.39	1.90	6.86	1.60	2.24	0.61	0.64	0.35	.43	19.01
1929-30	.41	5.92	2.51	1.76	1.83	2.52	1.27	3.44	.56	.27	.57	.40	21.46
1930-31	.51	1.00	1.28	1.57	1.70	2.57	2.96	1.15	.41	.42	.48	.17	14.22
1931-32	.25	.36	4.21	5.02	7.26	1.88	2.51	.85					
1938-39						3.61	3.47	2.68	4.18	1.20	.64	.37	

1939-40	.41	.35	.58	.92	3.00	3.97	1.94	.78	.70	3.57	.59	.31	17.12
1940-41	.25	.78	1.81	2.52	1.31	2.48	1.58	.47	.29	1.38	.89	.32	14.08
1941-42	.37	.71	1.36	.99	1.84	2.52	.97	.52	.29	.50	.70	.33	11.10
1942-43	.22	.31	1.01	1.46	1.39	3.35	1.40	.68	.30	.25	.19	.22	10.78
1943-44	.15	.32	.43	.77	1.70	7.06	4.55	1.67	.34	.21	.35	.44	17.99
1944-45	.25	.33	.79	2.32	4.74	5.04	1.74	1.34	.64	.71	.62	.28	18.80
1945-46	.31	.58	1.72	6.67	6.76	3.41	1.19	1.01	.72	1.82	.76	.41	25.36
1946-47	.37	1.25	1.10	6.47	1.93	3.77	4.31	1.28	1.32	.57	.50	.36	23.23
1947-48	.26	.79	1.23	1.24	6.97	5.21	3.52	.64	.43	.50	.30	.26	21.35

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1929	18,800	119	1,160	1.40	19.01	25.86
1930	22,900	131	1,310	1.58	21.46	15.41
1931	6,000	87	869	1.05	14.22	16.25
1940	8,620		1,036	1.26	17.12	18.62
1941	4,380		853	1.04	14.08	13.68
1942	4,140	108	672	.817	11.10	10.20
1943	8,620	79	653	.793	10.78	10.14
1944	29,300	88	1,087	1.32	17.99	18.46
1945	17,700	127	1,139	1.38	18.80	20.04
1946	22,700	146	1,538	1.87	25.36	25.47
1947	12,500	165	1,410	1.71	23.23	22.79
1948	23,200	140	1,291	1.57	21.35	

TIBBEE RIVER NEAR TIBBEE

CLAY COUNTY

LOCATION—Lat. 33°32'17", long. 88°38'00", in SW¼ sec. 4, T. 19 N., R. 16 E. Choctaw meridian, at bridge on old State Highway 25, 560 feet upstream from Gulf, Mobile and Ohio Railroad bridge, 0.7 mile north of Tibbee, 4½ miles upstream from Magee Creek, 5 miles south of West Point, and 9 miles upstream from Catalpa Creek.

DRAINAGE AREA—928 square miles.

RECORDS AVAILABLE—August 1928 to August 1930, November 1939 to September 1948.

GAGE—Chain gage to same datum 560 feet downstream Aug. 7, 1928 to Aug. 31, 1930; wire-weight gage Nov. 5 to Dec. 7, 1939; water-stage recorder thereafter. Datum of gage is 154.07 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 49,700 second-feet July 4, 1940; maximum gage height, 29.16 feet July 4, 1940; minimum, no flow at times.

NOTE—A new maximum discharge of 65,000 second-feet (gage height, 30.15 feet) was established on Jan. 5, 1949.

REMARKS—Records good.

PEAK DISCHARGE—July 4, 1940 (7:00 a.m.) 49,700 second-feet; Feb. 14, 1948 (3:00 p.m.) 48,900 second-feet; Mar. 30, 1944 (4:00 a.m.) 44,700 second-feet; Feb. 11, 1946 (2:30 a.m.) 41,000 second-feet; Jan. 3, 1947 (9:00 p.m.) 35,600 second-feet.

DURATION OF FLOW—Index station, Noxubee River at Macon.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	1	0.0016	50	85	0.092
80	5	.0051	30	418	.45
70	13	.014	20	1,020	1.10

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												149	
1928-29	1.87	5.05	7.87	533	1,030	5,670	453	706	186	95.3	137	13.3	741
1929-30	15.8	1,940	1,080	1,490	1,090	1,730	878	4,420	30.0	2.40	42.3		
1939-40			45.6	174	2,719	2,841	1,519	142	517	7,294	91.8	11.1	
1940-41	0.38	392	2,038	842	722	1,877	425	35.2	4.45	545	104	24.4	587
1941-42	30.7	962	1,173	331	1,941	1,903	258	135	46.2	36.4	29.6	4.77	562
1942-43	.65	10.5	653	279	451	2,269	448	58.7	10.9	12.8	.75	36.2	354
1943-44	.15	45.8	27.8	255	2,126	5,574	3,635	1,803	36.0	56.8	89.7	64.6	1,140
1944-45	20.7	32.4	455	1,669	5,792	5,053	1,376	497	110	194	128	47.6	1,254
1945-46	8.45	108	668	5,716	6,584	2,928	492	1,419	891	1,652	1,076	20.2	1,773
1946-47	15.4	1,462	925	7,517	947	2,787	4,390	235	881	97.7	19.6	2.99	1,611
1947-48	.261	286	807	952	7,974	4,833	1,943	63.9	30.0	54.9	81.9	48.7	1,396

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.18	
1928-29	0.002	0.006	0.01	0.66	1.16	7.05	0.54	0.88	0.22	0.12	0.17	.02	10.82
1929-30	.02	2.33	1.34	1.85	1.22	2.15	1.06	5.49	.04	.003	.05		
1939-40			.06	.22	3.16	3.53	1.83	.18	.62	9.06	.11	.01	
1940-41	.0005	.47	2.54	1.05	.81	2.33	.51	.04	.005	.68	.13	.03	8.60
1941-42	.04	1.16	1.46	.41	2.18	2.36	.31	.17	.06	.05	.04	.006	8.25

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1942-43	.0008	.01	.81	.35	.51	2.82	.54	.07	.01	.02	.0009	.04	5.18
1943-44	.0002	.06	.04	.32	2.47	6.92	4.37	2.24	.04	.07	.11	.08	16.72
1944-45	.03	.04	.57	2.07	6.50	6.28	1.65	.62	.13	.24	.16	.06	18.35
1945-46	.01	.13	.83	7.10	7.39	3.64	.59	1.76	1.07	2.05	1.34	.02	25.93
1946-47	.02	1.76	1.15	9.34	1.06	3.46	5.28	.29	1.06	.12	.02	.004	23.56
1947-48	.0003	.34	1.00	1.18	9.27	6.00	2.34	.08	.04	.07	.10	.06	20.48

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1929	22,000	0	741	0.798	10.82	992	14.51
1940							
1941	8,150	0.1	587	.633	8.60	1,481	21.73
1942	7,920	0.2	562	.606	8.25	563	8.24
1943	13,300	0	354	.381	5.18	437	6.41
1944	39,000	0	1,140	1.23	16.72	304	4.46
1945	27,600	0	1,254	1.35	18.35	1,176	17.26
1946	35,600	2.3	1,773	1.91	25.93	1,277	18.68
1947	30,000	.2	1,611	1.74	23.56	1,907	27.89
1948	44,000	0.1	1,396	1.50	20.48	1,503	21.97

SAKATONCHEE RIVER NEAR WEST POINT

CLAY COUNTY

LOCATION—Lat. 33°36', long. 88°42', on line between secs. 7 and 18, T. 17 S., R. 6 E. Chickasaw meridian, at bridge on State Highway 10, 3 miles west of West Point, and 3½ miles upstream from mouth.

DRAINAGE AREA—514 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1943 to September 1946, October 1947 to September 1948.

GAGE—Prior to July 8, 1944, chain gage read twice daily; wire-weight gage thereafter. Datum of gage is 170.10 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 38,300 second-feet Mar. 29, 1944 (gage height, 21.7 feet); no flow at times.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, Noxubee River at Macon.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	1	0.0019	60	27	0.053
80	3	.0065	40	149	.29
70	10	.019	30	318	.62

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.016	28.7	7.87	116	925	3,367	1,701	852	20.7	31.5	29.4	39.7	593
1944-45	17.0	27.8	358	1,049	2,717	2,675	732	326	77.2	156	103	26.5	677
1945-46	7.49	72.2	501	3,513	3,378	1,721	229	1,074	567	1,109	694	10.4	1,063
1947-48	.16	194	407	679	5,088	2,837	975	50.7	22.8	33.4	41.1	20.4	845

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.00004	0.06	0.02	0.26	1.94	7.55	3.69	1.91	0.04	0.07	0.07	0.09	15.70
1944-45	.04	.06	.80	2.35	5.50	6.00	1.59	.73	.17	.35	.23	.06	17.88
1945-46	.02	.16	1.12	7.88	6.84	3.86	.50	2.41	1.23	2.49	1.56	.02	28.09
1947-48	.0004	.42	.91	1.52	10.68	6.36	2.12	.11	.05	.08	.09	.04	22.38

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches
1944	28,000	0	593	1.15	15.70	624	16.52
1945	17,500	0	677	1.32	17.88	692	18.28
1946	21,200	1.6	1,063	2.07	28.09		
1948	22,000	0.1	845	1.64	22.38		

LUXAPALILA CREEK AT STEENS

LOWNDES COUNTY

LOCATION—Lat. $33^{\circ}34'$, long. $88^{\circ}19'$, in NE $\frac{1}{4}$ sec. 27, T. 17 S., R. 17 W. Huntsville meridian, at bridge on county road, a quarter of a mile southeast of Steens, 1 mile upstream from Yellow Creek, and $6\frac{1}{2}$ miles northeast of Columbus.

DRAINAGE AREA—309 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1943 to September 1947.

GAGE—Staff gage prior to July 13, 1944; wire weight gage thereafter. Datum of gage is 179.45 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 9,350 second-feet Jan. 10, 1946 (gage height, 18.00 feet); minimum observed, 45 second-feet Oct. 4-13, 1943, but may have been less during period of doubtful gage-height record in Oct. 1943.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	60	0.195	40	269	0.870
70	100	.325	20	556	1.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	53.8	92.7	120	218	796	1,400	1,027	362	96.9	96.1	149	123	376
1944-45	62.8	86.0	265	587	1,518	1,071	612	453	141	143	102	68.0	419
1945-46	96.0	127	475	1,949	2,082	869	345	487	300	371	273	175	621
1946-47	134	563	402	1,605	518	1,037	891	292	537	192	126	77.3	531

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.20	0.33	0.45	0.81	2.78	5.22	3.71	1.35	0.35	0.36	0.56	0.44	16.56
1944-45	.23	.31	.99	2.19	5.12	4.00	2.21	1.69	.51	.53	.38	.25	18.41
1945-46	.36	.46	1.77	7.27	7.02	3.24	1.24	1.82	1.08	1.39	1.02	.63	27.30
1946-47	.50	2.04	1.50	5.99	1.74	3.87	3.22	1.09	1.94	.72	.47	.28	23.36

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1944	7,680	45	376	1.22	389	17.11
1945	5,760	49	419	1.36	443	19.47
1946	8,770	52	621	2.01	654	28.75
1947	6,060	50	531	1.72		

LUXAPALILA CREEK NEAR COLUMBUS

LOWNDES COUNTY

LOCATION—At county highway bridge, $3\frac{1}{2}$ miles northeast of Columbus, and $6\frac{1}{2}$ miles above mouth.

DRAINAGE AREA—726 square miles.

RECORDS AVAILABLE—August 1928 to August 1930.

GAGE—Chain gage read to hundredths twice daily.

EXTREMES—Maximum discharge, 17,500 second-feet Nov. 15, 1929 (gage height, 22.60 feet); minimum, 14 second-feet Sept. 2, 1929 (gage height, 1.94 feet); minimum daily, 16 second-feet Sept. 2, 1929; minimum 7-day, 22 second-feet August 28-September 3, 1929.

REMARKS—Records good for low stages, fair for medium and high stages.

See page for discharge measurements made after discontinuation of station.

DURATION OF FLOW—Index station, East Fork Tombigbee River near Fulton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	98	0.135	50	486	0.670
75	189	.260	30	1,020	1.40

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												291	
1928-29	277	419	379	1,370	1,280	4,480	854	1,350	278	174	112	168	931
1929-30	212	3,010	1,410	1,070	1,030	2,320	967	2,170	245	92.9	165		

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches	
1929	13,800	16	931	1.28	17.41	1,226	22.94	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.45	
1928-29	0.44	0.64	0.60	2.18	1.83	7.11	1.32	2.14	0.43	0.28	0.18	.26	17.41
1929-30	.34	4.63	2.24	1.70	1.48	3.69	1.48	3.45	.38	.15	.26		

NOXUBEE RIVER NEAR BROOKSVILLE

NOXUBEE COUNTY

LOCATION—Lat. $33^{\circ}13'30''$, long. $88^{\circ}42'10''$, in center of sec. 19, T. 16 N., R. 16 E. Choctaw meridian, at bridge on county road, a quarter of a mile downstream from Shotbag Creek, $3\frac{1}{2}$ miles upstream from Lynn Creek, $4\frac{1}{2}$ miles downstream from Octoc Creek, $5\frac{3}{4}$ miles upstream from Yellow Creek, and 7 miles west of Brooksville.

DRAINAGE AREA—440 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—July 1940 to June 1942, January 1944 to September 1948.

GAGE—Staff gage read twice daily prior to May 18, 1945; wire-weight gage thereafter.

EXTREMES—Maximum discharge, 18,900 second-feet July 9, 1940 (gage height, 21.4 feet, from graph based on gage readings); minimum observed, 4.3 second-feet Oct. 30 to Nov. 1, 1944 (gage height, 0.52 foot); minimum daily, 4.3 second-feet Oct. 30 to Nov. 1, 1944; minimum 7-day, 4.6 second-feet Oct. 29 to Nov. 4, 1944.

REMARKS—Records fair. Base data collected by Corps of Engineers; occasional discharge measurements made and records of discharge computed by Geological Survey.

DURATION OF FLOW—Index station, Noxubee River at Macon.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	14	0.032	60	51	0.116
80	23	.052	40	141	.320

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40										2,910	194	69.9	
1940-41	27.2	119	999	328	531	1,140	310	55.5	22.3	449	88.2	41.9	343
1941-42	37.3	133	489	201	789	1,110	138	97.5	52.3				
1943-44				123	1,117	2,639	1,555	1,025	40.9	119	112	15.0	
1944-45	8.15	17.0	163	525	2,924	1,746	572	209	34.9	69.8	24.8	11.1	510
1945-46	24.2	31.5	149	1,883	3,467	1,366	333	627	306	600	860	42.1	792
1946-47	25.4	322	179	3,140	516	1,076	1,465	248	942	75.5	20.6	13.6	670
1947-48	10.6	147	309	302	2,785	2,095	1,542	68.0	34.1	78.7	118	66.1	620

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40										7.62	0.51	0.18	
1940-41	0.07	0.30	2.62	0.86	1.26	2.99	0.79	0.15	0.06	1.18	.23	.11	10.62
1941-42	.10	.34	1.28	.53	1.87	2.91	.35	.26	.13				
1943-44				.32	2.74	6.91	3.94	2.68	.10	.31	.29	.04	

1944-45	.02	.04	.43	1.38	6.92	4.58	1.45	.55	.09	.18	.07	.03	15.74
1945-46	.06	.08	.39	4.93	8.20	3.58	.84	1.64	.78	1.57	2.25	.11	24.43
1946-47	.07	.82	.47	8.23	1.22	2.82	3.72	.65	2.39	.20	.05	.03	20.67
1947-48	.03	.37	.81	.79	6.83	5.49	3.91	.18	.09	.21	.31	.17	19.19

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1941	3,230	12	343	0.780	10.62	302 9.35
1944						577 17.82
1945	13,000	4.3	510	1.16	15.74	511 15.78
1946	16,200	9.8	792	1.80	24.43	819 25.26
1947	8,100	9.2	670	1.52	20.67	665 20.52
1948	8,100	5	620	1.41	19.19	

NOXUBEE RIVER AT MACON

NOXUBEE COUNTY

LOCATION—Lat. $33^{\circ}06'05''$, long. $88^{\circ}33'40''$, in NE $\frac{1}{4}$ sec. 4, T. 14 N., R. 17 E. Choctaw meridian, at bridge on U. S. Highway 45, in Macon, a quarter of a mile upstream from Cedar Creek, 1 mile downstream from Gulf, Mobile and Ohio Railroad bridge, $1\frac{1}{2}$ miles downstream from Horse Hunters Creek, and $6\frac{1}{4}$ miles upstream from Running Water Creek.

DRAINAGE AREA—812 square miles.

RECORDS AVAILABLE—August 1928 to May 1932, September 1938 to September 1948.

AVERAGE DISCHARGE—13 years (1928-31, 1938-48), 813 second-feet.

GAGE—Prior to May 1932, chain gage at different datum; wire-weight gage at present datum Sept. 21 to Aug. 11, 1939; water-stage recorder thereafter. Datum of gage is 142.38 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 25,000 second-feet July 10, 1940; maximum gage height, 30.28 feet July 10, 1940; minimum discharge, 22 second-feet Aug. 25, 26, 1943 (gage height, 4.89 feet); minimum daily, 23 second-feet Aug. 26, 1943; minimum 7-day, 24.6 second-feet Aug. 24-30, 1943.

NOTE—A new maximum discharge of 50,600 second-feet (gage height, 32.74 feet) was established on Jan. 6, 1949.

REMARKS—Records good.

PEAK DISCHARGE—July 10, 1940 (8:00 p.m.) 25,000 second-feet; Feb. 11, 1946 (5:30 a.m.) 24,200 second-feet; Mar. 30, 1944 (8:00 a.m.) 23,400 second-feet; Feb. 21, 1945 (9:30 p.m.) 18,300 second-feet; Mar. 7, 1948 (8:30 p.m.) 12,100 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
99	34	0.042	50	180	0.222
95	45	.056	30	536	.660
90	53	.065	10	2,310	2.85
70	83	.102	2	6,010	7.40

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												160	
1928-29	57.0	71.3	86.6	505	612	3,580	587	868	120	88.5	61.0	92.3	564
1929-30	65.5	1,730	858	1,290	985	1,580	247	2,840	101	78.0	106	152	838
1930-31	80.4	514	805	952	522	1,190	1,160	246	84.3	692	158	49.9	539
1931-32	69.2	73.8	1,560	2,800	3,730	732	1,300	489					
1938-39	38.5	64.0	88.2	902	4,201	1,922	1,753	884	1,696	355	198	118	993
1939-40	70.2	75.2	165	268	2,464	1,457	1,317	491	558	5,315	355	156	1,056
1940-41	74.4	232	1,667	549	1,037	1,626	795	113	64.8	753	165	81.5	596
1941-42	101	201	812	348	1,186	1,608	255	210	89.7	69.1	112	54.3	417
1942-43	42.4	55.4	255	167	293	1,727	458	186	68.0	55.1	36.5	45.7	284
1943-44	32.1	59.3	78.3	228	1,687	4,254	2,896	1,577	90.6	272	332	71.9	963
1944-45	42.5	63.6	413	996	5,228	2,643	981	305	124	174	69.9	49.9	895
1945-46	70.1	83.4	291	3,118	5,836	2,259	761	1,019	662	982	1,335	101	1,351
1946-47	74.9	722	426	4,853	799	1,718	2,412	452	1,154	177	65.3	58.3	1,078
1947-48	47.7	276	748	766	4,169	3,351	1,931	150	90.6	133	217	219	995

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28													
1928-29	0.08	0.10	0.12	0.72	0.79	5.08	0.81	1.23	0.17	0.13	0.09	0.22	9.45
1929-30	.09	2.38	1.22	1.83	1.26	2.25	.34	4.04	.14	.11	.15	.21	14.02
1930-31	.11	.71	1.14	1.35	.67	1.70	1.60	.35	.12	.98	.22	.07	9.02
1931-32	.10	.10	2.21	3.98	4.95	1.04	1.78	.69					
1938-39	.05	.09	.13	1.28	5.38	2.73	2.41	1.26	2.33	.50	.28	.16	16.60
1939-40	.10	.10	.23	.38	3.27	2.06	1.81	.70	.77	7.55	.50	.21	17.68
1940-41	.11	.32	2.36	.78	1.33	2.31	1.09	.16	.09	1.07	.23	.11	9.96
1941-42	.14	.28	1.15	.49	1.52	2.28	.35	.30	.12	.10	.16	.07	6.96
1942-43	.06	.08	.36	.24	.38	2.45	.63	.26	.09	.08	.05	.06	4.74
1943-44	.05	.08	.11	.32	2.24	6.04	3.98	2.24	.12	.39	.47	.10	16.14
1944-45	.06	.09	.59	1.41	6.70	3.75	1.35	.43	.17	.25	.10	.07	14.97
1945-46	.10	.11	.41	4.43	7.48	3.21	1.05	1.45	.91	1.39	1.90	.14	22.58
1946-47	.11	.99	.61	6.89	1.02	2.44	3.31	.64	1.59	.25	.09	.08	18.02
1947-48	.07	.38	1.06	1.09	5.54	4.76	2.65	.21	.12	.19	.31	.30	16.68

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Runoff in inches	Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Mean	Runoff in inches
1929	6,720	42	564	0.695	767	12.84
1930	10,100	46	838	1.03	735	12.29
1931	4,030	38	539	.664	566	9.47
1939	7,700	34	993	1.22	1,004	16.76
1940	20,800	46	1,056	1.30	1,196	20.04
1941	4,200	54	596	.734	523	8.74
1942	3,250	40	417	.514	353	5.89
1943	5,650	23	284	.350	268	4.48
1944	22,600	29	963	1.19	992	16.64
1945	15,500	37	895	1.10	889	14.85
1946	22,600	49	1,351	1.66	1,415	23.67
1947	9,400	48	1,078	1.33	1,066	17.82
1948	10,900	43	995	1.23		16.68

PASCAGOULA RIVER BASIN

LEAF RIVER NEAR COLLINS

COVINGTON COUNTY

LOCATION—Lat. $31^{\circ}41'$, long. $89^{\circ}24'$, in NE $\frac{1}{4}$ sec. 33, T. 9 N., R. 14 W. St. Stephens meridian, at bridge on U. S. Highway 84, 2 miles downstream from Oakahay Creek, 8 miles upstream from Rahoma Creek, and $9\frac{1}{2}$ miles northeast of Collins.

DRAINAGE AREA—752 square miles.

RECORDS AVAILABLE—September 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 1,059 second-feet.

GAGE—Wire-weight gage prior to Dec. 8, 1938; water-stage recorder thereafter. Datum of gage is 197.48 feet above mean sea level (Mississippi State Highway bench mark).

EXTREMES—Maximum discharge, 22,800 second-feet May 2, 1940 (gage height, 26.36 feet); minimum, 74 second-feet Oct. 9, 11, 16, 1938, Aug. 27-29, 1943; minimum gage height, 4.59 feet Oct. 26, 1941; minimum daily discharge, 74 second-feet Aug. 27, 28, 1943; minimum 7-day, 77 second-feet Aug. 23-29, 1943.

NOTE—A new maximum discharge of 38,100 second-feet (gage height, 31.14 feet) was established on Jan. 8, 1950.

REMARKS—Records good.

PEAK DISCHARGE—May 2, 1940 (1:15 p.m.) 22,800 second-feet; Jan. 21, 1947 (9:00 a.m.) 22,100 second-feet; Apr. 27, 1944 (12:00 p.m.) 16,600 second-feet; Mar. 6, 1948 (6:00 p.m.) 16,400 second-feet; July 10, 1940 (2:00 p.m.) 15,800 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	83	0.111	50	351	0.467
95	96	.128	30	827	1.10
90	113	.150	15	1,980	2.63
70	179	.238	5	4,440	5.90

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	84.3	104	178	847	2,667	2,942	1,345	300	533	191	127	104	773
1939-40	93.5	90.0	263	395	3,232	999	1,945	2,823	429	4,373	402	230	1,269
1940-41	125	273	2,147	860	883	1,557	1,609	244	146	555	268	101	732
1941-42	109	127	1,366	828	1,426	3,886	755	461	275	256	514	618	886
1942-43	237	195	1,210	978	1,387	3,905	1,817	293	172	313	111	164	898
1943-44	89.8	346	542	1,202	2,221	3,268	4,974	2,078	334	167	478	218	1,320
1944-45	130	296	878	1,404	3,436	2,416	1,793	934	709	603	280	154	1,070
1945-46	244	201	546	2,269	3,556	2,284	384	2,197	506	590	808	196	1,138
1946-47	130	685	703	5,465	801	2,607	4,044	1,327	519	179	143	132	1,400
1947-48	133	347	976	1,043	3,272	4,500	1,520	312	185	185	280	523	1,100

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.13	0.15	0.27	1.30	3.70	4.51	2.00	0.46	0.79	0.29	0.19	0.15	13.94
1939-40	.14	.13	.40	.61	4.64	1.53	2.89	4.32	.64	6.71	.62	.34	22.97
1940-41	.19	.40	3.30	1.31	1.22	2.39	2.39	.37	.22	.85	.41	.15	13.20
1941-42	.17	.19	2.09	1.27	1.97	5.96	1.12	.71	.41	.39	.79	.92	15.99
1942-43	.36	.29	1.86	1.50	1.92	5.99	2.70	.45	.25	.48	.17	.24	16.21
1943-44	.14	.51	.83	1.84	3.19	5.01	7.38	3.19	.50	.26	.73	.32	23.90

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.20	.44	1.35	2.15	4.76	3.70	2.66	1.43	1.05	.92	.43	.23	19.32
1945-46	.37	.30	.84	3.48	4.92	3.50	.57	3.37	.75	.90	1.24	.29	20.53
1946-47	.20	1.02	1.08	8.38	1.11	4.00	6.00	2.03	.77	.28	.22	.20	25.29
1947-48	.20	.51	1.50	1.60	4.69	6.90	2.25	.48	.27	.28	.43	.78	19.89

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar Year		
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1939	8,960	76	773	1.03	13.94	779
1940	22,300	78	1,269	1.69	22.97	1,446
1941	6,230	77	732	.973	13.20	652
1942	14,300	77	886	1.18	15.99	889
1943	15,000	74	898	1.19	16.21	841
1944	16,400	80	1,320	1.76	23.90	1,348
1945	7,880	110	1,070	1.42	19.32	1,044
1946	11,500	128	1,138	1.51	20.53	1,181
1947	21,600	106	1,400	1.86	25.29	1,396
1948	15,800	110	1,100	1.46	19.89	

LEAF RIVER AT HATTIESBURG

FORREST COUNTY

LOCATION—Lat. $31^{\circ}21'$, long. $89^{\circ}17'$, in NW $\frac{1}{4}$ sec. 2, T. 4 N., R. 13 W. St. Stephens meridian, at bridge on U. S. Highway 11, 300 feet downstream from Bowie Creek, 3,000 feet upstream from New Orleans and Northeastern Railroad bridge, and three quarters of a mile northeast of Hattiesburg.

DRAINAGE AREA—1,760 square miles.

RECORDS AVAILABLE—September 1938 to September 1948. Gage-height records collected at site 3,000 feet downstream since 1904 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—10 years, 2,739 second-feet.

GAGE—Wire-weight gage prior to Dec. 10, 1938; water-stage recorder thereafter. Datum of gage is 118.23 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 71,300 second-feet Mar. 22, 1943 (gage height, 28.91 feet); minimum, 410 second-feet Oct. 26, 27, 1941 (gage height, 4.96 feet); minimum 7-day, 427 second-feet Oct. 22-28, 1941.

REMARKS—Records good.

PEAK DISCHARGE—Mar 22, 1943 (3:30 a.m.) 71,300 second-feet; Jan. 22, 1947 (10:00 a.m.) 40,600 second-feet; Mar. 7, 1948 (2:30 a.m.) 32,900 second-feet; May 3, 1940 (12:00 p.m.) 32,500 second-feet; July 11, 1940 (11:00 a.m.) 29,600 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	484	0.275	25	2,870	1.63
90	600	.341	15	4,840	2.75
55	1,170	.662	10	6,740	3.83
35	1,990	1.13	5	10,200	5.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	499	574	883	2,314	5,198	5,826	3,055	1,094	2,488	885	728	632	1,992
1939-40	670	511	871	1,097	7,067	2,555	3,820	5,124	1,605	10,260	1,213	843	2,962
1940-41	622	870	4,484	2,198	1,831	4,222	3,467	948	801	1,422	777	509	1,851
1941-42	519	776	3,824	2,790	2,976	7,571	1,894	1,972	1,055	879	2,409	1,788	2,377
1942-43	1,182	1,153	3,110	2,934	4,098	10,910	4,404	1,195	855	1,087	604	1,246	2,729
1943-44	515	1,334	1,827	3,481	5,789	7,830	8,425	5,083	1,219	879	1,778	1,238	3,272
1944-45	691	1,471	2,741	3,520	5,834	4,188	4,339	2,138	2,200	1,634	1,062	655	2,516
1945-46	987	931	2,454	5,222	6,229	5,534	1,400	5,141	1,910	2,406	2,006	916	2,919
1946-47	713	2,396	2,033	11,570	2,695	7,121	10,040	4,548	1,959	900	842	942	3,823
1947-48	742	1,668	4,017	2,922	6,120	10,040	4,041	1,275	918	977	1,166	1,625	2,952

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.33	0.36	0.58	1.51	3.07	3.82	1.94	0.72	1.57	0.58	0.48	0.40	15.36
1939-40	.44	.32	.57	.72	4.34	1.67	2.42	3.36	1.02	6.72	.79	.53	22.90
1940-41	.41	.55	2.94	1.44	1.08	2.77	2.20	.62	.51	.93	.51	.32	14.28
1941-42	.34	.49	2.51	1.83	1.76	4.96	1.20	1.29	.67	.58	1.58	1.13	18.34
1942-43	.77	.73	2.04	1.92	2.42	7.15	2.79	.78	.54	.71	.40	.79	21.04

1943-44	.34	.85	1.20	2.28	3.55	5.13	5.34	3.33	.77	.58	1.16	.78	25.31
1944-45	.45	.93	1.80	2.31	3.45	2.74	2.75	1.40	1.39	1.07	.70	.42	19.41
1945-46	.65	.59	1.61	3.42	3.69	3.63	.89	3.37	1.21	1.58	1.31	.58	22.53
1946-47	.47	1.52	1.33	7.58	1.59	4.66	6.37	2.98	1.24	.59	.55	.60	29.48
1947-48	.49	1.06	2.63	1.91	3.75	6.58	2.56	.84	.58	.64	.76	1.03	22.83

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean Runoff in inches
1939	14,900	455	1,992	1.13	15.36	2,000
1940	29,200	438	2,962	1.68	22.90	3,293
1941	19,700	425	1,851	1.05	14.28	1,778
1942	20,400	415	2,377	1.35	18.34	2,404
1943	60,200	497	2,729	1.55	21.04	2,579
1944	25,600	468	3,272	1.86	25.31	3,376
1945	12,000	550	2,516	1.43	19.41	2,473
1946	16,500	580	2,919	1.66	22.53	2,980
1947	40,000	605	3,823	2.17	29.48	3,934
1948	32,500	610	2,952	1.68	22.83	

LEAF RIVER NEAR MCLAIN

GREENE COUNTY

LOCATION—Lat. $31^{\circ}06'$, long. $88^{\circ}48'$, in SE $\frac{1}{4}$ sec. 29, T. 2 N., R. 8 W. St. Stephens meridian, at bridge on State Highway 15, $1\frac{1}{4}$ miles east of McLain and 2 miles downstream from Rogers Creek.

DRAINAGE AREA—3,510 square miles.

RECORDS AVAILABLE—November 1939 to September 1948.

GAGE—Staff gage prior to June 4, 1940; wire-weight gage to Sept. 7, 1940; water-stage recorder thereafter. Datum of gage is 42.15 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

EXTREMES—Maximum discharge, 88,300 second-feet Mar. 24, 1943 (gage height, 27.76 feet); minimum, 640 second-feet Oct. 26, 27, 1941 (gage height, 2.95 feet); minimum daily, 640 second-feet Oct. 26, 1941; minimum 7-day, 655 second-feet Oct. 24-30, 1941.

Flood in April 1900 reached a stage about 4 feet higher than that of Mar. 24, 1943, from information by local residents.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 24, 1943 (3:00 a.m.) 88,300 second-feet; Mar. 9, 1948 (2:00 p.m.) 65,500 second-feet; Jan. 24, 1947 (11:30 p.m.) 62,400 second-feet; July 14, 1940 (a.m.) 48,400 second-feet; Apr. 30, 1944 (6:00 p.m.) 45,800 second-feet.

DURATION OF FLOW—Index station, Leaf River at Hattiesburg.

Percent of time	Discharge second-feet	Discharge per sq. mile	Percent of time	Discharge second-feet	Discharge per sq. mile
95	842	0.240	40	3,930	1.12
80	1,260	.360	20	8,070	2.30
60	2,070	.590	10	12,800	3.64

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40		933	1,366	2,268	14,400	5,543	8,755	9,176	2,765	19,680	2,428	1,483	
1940-41	990	1,164	7,546	4,803	3,908	9,380	6,179	1,878	1,265	3,620	1,525	892	3,607
1941-42	778	1,291	7,570	7,201	6,321	15,340	4,992	4,039	2,053	2,060	4,490	2,920	4,932
1942-43	1,814	2,442	6,359	8,668	7,710	23,920	8,904	2,193	1,459	1,638	1,154	2,245	5,714
1943-44	848	2,259	2,918	7,291	9,680	16,050	16,410	11,820	2,983	1,358	4,766	3,157	6,616
1944-45	1,351	2,667	6,498	8,030	10,680	8,782	8,776	4,936	3,807	3,320	1,839	948	5,103
1945-46	1,554	1,765	5,350	11,110	11,760	13,870	3,659	12,070	4,785	5,805	4,144	2,229	6,503
1946-47	1,225	3,424	3,344	21,120	5,948	15,730	22,390	10,040	3,999	1,631	1,345	1,544	7,657
1947-48	1,110	4,264	11,130	5,079	12,980	24,300	8,918	2,401	1,541	1,958	2,435	3,508	6,624

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40		0.30	0.45	0.74	4.42	1.82	2.78	3.01	0.88	6.47	0.80	0.47	
1940-41	0.33	.37	2.48	1.58	1.16	3.08	1.96	.62	.40	1.19	.50	.28	13.95
1941-42	.26	.41	2.49	2.37	1.88	5.04	1.59	1.33	.65	.68	1.47	.93	19.10
1942-43	.60	.78	2.09	2.85	2.29	7.86	2.83	.72	.46	.54	.38	.71	22.11
1943-44	.28	.72	.96	2.39	2.97	5.27	5.22	3.88	.95	.45	1.57	1.00	25.66

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.44	.85	2.13	2.64	3.17	2.88	2.79	1.62	1.21	1.09	.60	.30	19.72
1945-46	.51	.56	1.76	3.65	3.49	4.56	1.16	3.96	1.52	1.91	1.36	.71	25.15
1946-47	.40	1.09	1.10	6.94	1.77	5.17	7.12	3.30	1.27	.54	.44	.49	29.63
1947-48	.36	1.36	3.65	1.67	3.99	7.98	2.83	.79	.49	.64	.80	1.12	25.68

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches
1940	27,600	744	3,607	1.03	6,337
1941	32,800	640	4,932	1.41	3,601
1942	86,100	780	5,714	1.63	5,012
1943	44,900	750	6,616	1.88	5,324
1944	16,700	830	5,103	1.45	6,995
1945	31,400	750	6,503	1.85	4,948
1946	60,600	920	7,657	2.18	6,441
1947	65,500	920	6,624	1.89	8,377
1948					25.68

PASCAGOULA RIVER AT MERRILL

GEORGE COUNTY

LOCATION—Lat. 30°59', long. 88°44', in SW¼ sec. 18, T. 1 S., R. 7 W. St. Stephens meridian, at bridge on old State Highway 15, half a mile downstream from confluence of Leaf and Chickasawhay Rivers and half a mile west of Merrill.

DRAINAGE AREA—6,600 square miles.

RECORDS AVAILABLE—December 1930 to September 1948. Gage height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—17 years, 10,040 second-feet.

GAGE—Staff gage prior to Dec. 6, 1934; water-stage recorder thereafter. Datum of gage is 26.31 feet above mean sea level, datum of 1929.

EXTREMES—Maximum discharge, 154,000 second-feet Apr. 13, 1938 (gage height, 29.71 feet); minimum, 696 second-feet Nov. 3, 1936 (gage height, 2.37 feet); minimum daily 704 second-feet Oct. 21, 1936; minimum 7-day, 723 second-feet Oct. 19-25, 1936.

Maximum stage known, 32.5 feet in April 1900 (from information by U. S. Weather Bureau). Flood of July 9, 1936, reached a stage of 31 feet, present datum (from reports of U. S. Weather Bureau).

REMARKS—Records good.

PEAK DISCHARGE—Apr. 13, 1938 (2:00 a.m.) 154,000 second-feet; Mar. 24, 1943 (12:00 p.m.) 120,000 second-feet; Mar. 10, 1948 (12:00 m) 103,000 second-feet; Mar. 12, 1935 (9:00 p.m.) 89,700 second-feet; Jan. 26, 1947 (7:00 a.m.) 86,500 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	990	0.150	25	12,400	1.88
95	1,320	.200	10	24,400	3.70
90	1,600	.242	5	33,700	5.10
50	5,230	.792	2	46,200	7.00

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1930-31				14,000	7,960	10,100	9,920	4,830	2,130	7,680	8,190	1,670	
1931-32	1,230	1,380	11,300	25,700	24,300	9,440	8,530	11,900	4,080	1,980	2,440	5,690	8,960
1932-33	8,180	7,800	20,200	19,600	20,800	20,800	32,900	8,000	2,640	12,800	6,460	2,670	13,500
1933-34	1,638	1,535	2,168	4,285	9,845	19,090	7,295	7,153	3,423	7,092	6,270	2,584	6,026
1934-35	4,350	11,440	9,656	14,210	11,870	35,130	16,700	13,480	3,899	2,631	2,808	2,079	10,700
1935-36	1,189	1,556	3,755	25,160	29,190	6,595	10,030	10,610	2,885	3,667	2,988	1,753	8,214
1936-37	807	918	5,294	30,890	20,080	16,200	11,650	7,087	3,589	2,145	2,172	2,727	8,579
1937-38	3,529	4,539	4,668	8,760	9,497	14,480	52,810	5,195	4,118	4,460	6,078	1,522	9,912
1938-39	1,013	1,415	2,294	6,481	17,590	20,060	15,400	4,760	16,180	6,307	4,482	2,871	8,154
1939-40	2,321	1,548	2,318	4,515	25,560	10,110	16,740	17,360	6,691	34,250	4,698	2,582	10,680
1940-41	1,854	2,286	13,180	8,671	8,064	17,440	10,880	3,929	2,408	7,487	3,605	1,951	6,829
1941-42	1,297	2,041	12,000	13,760	11,660	27,280	12,410	6,769	3,515	3,323	6,636	4,340	8,763
1942-43	2,710	3,646	8,258	17,190	12,710	35,730	18,620	4,306	2,856	2,830	2,070	3,194	9,510
1943-44	1,424	3,944	4,342	11,400	15,130	29,540	35,630	26,980	5,247	2,802	7,739	5,477	12,460
1944-45	2,198	4,397	11,070	14,290	19,460	19,920	18,950	12,010	5,792	5,471	3,492	1,865	9,854
1945-46	2,843	3,226	8,826	20,020	22,740	26,000	9,098	20,010	10,270	10,410	11,000	4,635	12,400
1946-47	2,475	5,914	6,391	36,280	12,150	26,300	38,290	17,200	8,463	3,753	2,612	2,844	13,560
1947-48	1,915	8,182	18,950	9,187	25,200	46,980	18,230	4,962	3,015	3,592	5,250	6,027	12,600

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1930-31				2.44	1.26	1.76	1.67	0.84	0.36	1.34	1.43	0.28	
1931-32	0.21	0.23	1.97	4.48	3.97	1.65	1.44	2.08	.69	.35	.43	.96	18.46
1932-33	1.43	1.32	3.53	3.42	3.28	3.63	5.56	1.40	.45	2.24	1.13	.45	27.84
1933-34	.29	.26	.38	.75	1.55	3.33	1.24	1.24	.58	1.23	1.10	.44	12.39
1934-35	.76	1.93	1.68	2.48	1.87	6.13	2.82	2.35	.66	.46	.49	.35	21.98
1935-36	.21	.26	.66	4.39	4.77	1.15	1.70	1.86	.49	.64	.52	.30	16.95
1936-37	.14	.16	.92	5.40	3.17	2.82	1.98	1.23	.61	.37	.38	.46	17.64
1937-38	.62	.77	.82	1.53	1.50	2.52	8.93	.91	.70	.78	1.06	.26	20.40
1938-39	.18	.24	.40	1.13	2.78	3.50	2.60	.83	2.73	1.10	.78	.49	16.76
1939-40	.41	.26	.40	.79	4.17	1.76	2.83	3.03	1.13	5.98	.82	.44	22.02
1940-41	.32	.39	2.31	1.51	1.27	3.04	1.84	.69	.41	1.30	.63	.33	14.04
1941-42	.23	.35	2.10	2.40	1.84	4.77	2.10	1.18	.59	.58	1.16	.73	18.03
1942-43	.47	.62	1.44	3.00	2.00	6.24	3.15	.75	.48	.49	.36	.54	19.56
1943-44	.25	.67	.76	1.99	2.47	5.16	6.02	4.71	.89	.49	1.35	.93	25.69
1944-45	.38	.74	1.93	2.50	3.07	3.48	3.20	2.10	.98	.96	.61	.32	20.27
1945-46	.50	.55	1.54	3.50	3.59	4.54	1.54	3.49	1.74	1.82	1.92	.78	25.51
1946-47	.43	1.00	1.12	6.34	1.92	4.59	6.47	3.01	1.43	.66	.46	.48	27.91
1947-48	.33	1.38	3.31	1.60	4.12	8.21	3.08	.87	.51	.63	.92	1.02	25.98

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1931						6,726	13.79
1932	46,100	1,000	8,960	1.36	18.46	10,830	22.33
1933	55,000	1,440	13,500	2.05	27.84	10,930	22.49
1934	43,800	1,400	6,026	.913	12.39	7,706	15.83
1935	89,700	1,400	10,700	1.62	21.98	9,120	18.74
1936	78,500	1,080	8,214	1.24	16.95	8,260	17.04
1937	52,600	704	8,579	1.30	17.64	9,054	18.63
1938	150,000	920	9,912	1.50	20.40	9,240	19.01
1939	39,000	965	8,154	1.24	16.76	8,278	17.01
1940	64,800	1,280	10,680	1.62	22.02	11,630	23.97
1941	42,500	1,290	6,829	1.03	14.04	6,662	13.70
1942	50,100	960	8,763	1.33	18.03	8,697	17.88
1943	114,000	1,320	9,510	1.44	19.56	9,093	18.69
1944	84,800	1,250	12,460	1.89	25.69	13,130	22.06
1945	34,000	1,420	9,854	1.49	20.27	9,623	19.81
1946	41,100	1,420	12,400	1.88	25.51	12,380	25.47
1947	86,500	1,640	13,560	2.05	27.91	14,770	30.38
1948	101,000	1,580	12,600	1.91	25.98		

OAKOHAY CREEK AT MIZE

SMITH COUNTY

LOCATION—Lat. $31^{\circ}52'$, long. $89^{\circ}31'$, in NW $\frac{1}{4}$ sec. 6 T. 10 N., R. 15 W. St. Stephens meridian, at bridge on State Highway 20, 0.4 mile east of Mize, $1\frac{3}{4}$ miles downstream from Hatchapaloo Creek, and 17 miles upstream from mouth.

DRAINAGE AREA—217 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1943 to September 1948.

GAGE—Staff and wire-weight gages prior to June 17, 1944; water-stage recorder thereafter. Datum of gage is 274.18 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 9,710 second-feet Jan. 20, 1947 (gage height, 13.49 feet); minimum observed, 13 second-feet at times during October and November 1943 (gage height, 1.8 feet); minimum daily, 13 second-feet Oct. 11, 20, 21, 1943; minimum 7-day, 15 second-feet Oct. 17-23, 1943.

REMARKS—Records fair.

PEAK DISCHARGE—Jan. 20, 1947 (8:30 a.m.) 9,710 second-feet; Feb. 14, 1948 (12:30 a.m.) 6,070 second-feet; Mar. 6, 1948 (6:00 a.m.) 4,560 second-feet; Feb. 29, 1944 (4:30 p.m.) 3,930 second-feet; Feb. 11, 1946 (5:00 p.m.) 3,650 second-feet.

DURATION OF FLOW—Index station, Leaf River near Collins.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	21	0.098	55	57	0.263
80	27	.123	45	87	.400
70	34	.158	30	178	.830

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	16.9	115	143	385	834	822	800	866	52.7	39.7	80.1	42.6	348
1944-45	21.3	69.0	145	302	974	595	398	196	184	151	55.4	35.6	256
1945-46	48.4	54.0	136	599	919	493	85.9	567	115	169	356	36.2	296
1946-47	26.7	179	152	1,450	217	658	1,011	264	112	35.7	29.5	28.8	348
1947-48	27.3	81.3	194	260	944	1,047	360	65.6	43.7	51.0	59.6	77.9	265

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.09	0.59	0.76	2.04	4.14	4.37	4.11	4.59	0.27	0.21	0.43	0.22	21.82
1944-45	.11	.35	.77	1.60	4.67	3.16	2.05	1.04	.95	.80	.29	.18	15.97
1945-46	.26	.28	.72	3.18	4.41	2.62	.44	3.01	.59	.90	1.89	.19	18.49
1946-47	.14	.92	.81	7.70	1.04	3.50	5.20	1.40	.58	.19	.16	.15	21.79
1947-48	.15	.42	1.03	1.38	4.69	5.56	1.85	.35	.22	.27	.32	.40	16.64

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches	
1944	3,650	13	348	1.60	21.82	345	21.61	
1945	2,400	19	256	1.18	15.97	256	16.00	
1946	3,650	20	296	1.36	18.49	305	19.10	
1947	8,750	20	348	1.60	21.79	344	21.52	
1948	4,560	23	265	1.22	16.64			

BOWIE CREEK NEAR HATTIESBURG

FORREST COUNTY

LOCATION—Lat. 31°26', long. 89°26', in sec. 5 T. 5 N., R. 14 W. St. Stephens meridian, at bridge on U. S. Highway 49, 2 miles southwest of Lux, 2 miles upstream from Okatoma Creek, and 10 miles northwest of Hattiesburg.

DRAINAGE AREA—304 square miles.

RECORDS AVAILABLE—September 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 494 second-feet.

GAGE—Wire-weight gage prior to December 7, 1938; water-stage recorder thereafter. Datum of gage is 160.04 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 20,100 second-feet Mar. 21, 1943 (gage height, 25.70 feet); minimum observed discharge, 100 second-feet Sept. 27, 28, Oct. 12, 1938 (gage height, 3.73 feet); minimum daily, 100 second-feet Sept. 23-Sept. 30, Oct. 4-13, 16, 1938.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 21, 1943 (5:30 p.m.) 20,100 second-feet; Jan. 21, 1947 (4:30 a.m.) 9,710 second-feet; Dec. 24, 1941 (11:30 a.m.) 8,040 second-feet; Mar. 7, 1941 (5:00 p.m.) 6,900 second-feet; Mar. 6, 1948 (7:00 p.m.) 6,820 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	117	0.384	40	299	0.985
90	142	.468	25	477	1.57
70	188	.618	15	763	2.51
55	219	.720	5	1,640	5.40

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	104	119	169	420	822	835	402	233	548	178	152	141	340
1939-40	178	138	201	217	1,035	435	523	446	279	1,553	170	136	441
1940-41	127	158	711	400	289	792	589	191	181	252	150	130	332
1941-42	132	210	853	519	483	1,014	264	510	256	180	648	368	455
1942-43	349	258	730	507	839	2,086	826	252	201	282	172	457	579
1943-44	146	275	423	776	979	1,353	880	801	254	206	353	251	557
1944-45	174	441	572	656	787	473	823	317	503	315	203	165	449
1945-46	273	261	706	941	823	904	241	852	396	504	287	202	533
1946-47	174	556	402	1,867	476	1,386	1,769	884	344	182	199	227	707
1947-48	187	379	886	646	893	1,699	725	249	211	205	229	254	547

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.39	0.44	0.64	1.59	2.81	3.17	1.47	0.88	2.01	0.68	0.58	0.52	15.18
1939-40	.67	.51	.76	.82	3.67	1.65	1.92	1.70	1.02	5.89	.64	.50	19.75
1940-41	.48	.58	2.70	1.52	.99	3.01	2.16	.72	.66	.96	.57	.48	14.83
1941-42	.50	.77	3.23	1.97	1.66	3.84	.97	1.93	.94	.68	2.46	1.35	20.30
1942-43	1.32	.95	2.77	1.92	2.87	7.91	3.03	.96	.74	1.07	.65	1.68	25.87

1943-44	.55	1.01	1.60	2.94	3.47	5.13	3.23	3.04	.93	.78	1.34	.92	24.94
1944-45	.66	1.62	2.17	2.49	2.70	1.79	3.02	1.20	1.85	1.19	.77	.60	20.06
1945-46	1.03	.96	2.68	3.57	2.82	3.43	.88	3.23	1.45	1.91	1.09	.74	23.79
1946-47	.66	2.04	1.52	7.08	1.63	5.25	6.49	3.35	1.26	.69	.75	.83	31.55
1947-48	.71	1.39	3.36	2.45	3.17	6.44	2.66	.94	.77	.78	.87	.93	24.47

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches
1939	3,220	100	340	1.12	15.18	351	15.65
1940	4,340	112	441	1.45	19.75	482	21.57
1941	5,620	112	332	1.09	14.83	349	15.57
1942	7,470	109	455	1.50	20.30	467	20.84
1943	16,600	135	579	1.90	25.87	537	23.99
1944	4,190	137	557	1.83	24.94	586	26.23
1945	3,630	146	449	1.48	20.06	454	20.28
1946	4,120	152	533	1.75	23.79	523	23.34
1947	8,940	152	707	2.33	31.55	735	32.79
1948	6,370	156	547	1.80	24.47		

TALLAHALA CREEK AT LAUREL

JONES COUNTY

LOCATION—Lat. $31^{\circ}41'$, long. $89^{\circ}07'$, in NE $\frac{1}{4}$ sec. 8, T. 8 N., R. 11 W.

St Stephens meridian, at bridge on State Highway 15, half a mile upstream from Gulf, Mobile and Ohio Railroad bridge, three-quarters of a mile southeast of Laurel, and 6 miles upstream from Tallahoma Creek.

DRAINAGE AREA—233 square miles.

RECORDS AVAILABLE—September 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 362 second-feet.

GAGE—Wire-weight gage prior to Dec. 14, 1938; water-stage recorder thereafter. Datum of gage is 201.37 feet above mean sea level (Mississippi State Highway bench mark).

EXTREMES—Maximum discharge, 13,700 second-feet Jan. 21, 1947; minimum observed, 2.4 second-feet Oct. 15, 16, 1938; minimum daily, 2.6 second-feet Oct. 15, 1938; minimum 7-day, 2.9 second-feet Oct. 11-17, 1938.

REMARKS—Records good.

PEAK DISCHARGE—Jan. 21, 1947 (6:30 a.m.) 13,700 second-feet; May 2, 1940 (12:00 m) 12,100 second-feet; Apr. 28, 1944 (3:00 a.m.) 11,300 second-feet; Mar. 22, 1943 (6:00 p.m.) 8, 200 second-feet; Mar. 6, 1948 (2:30 p.m.) 6, 920 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	9	.0365	50	97	0.415
95	12	.0515	30	294	1.26
90	16	.0705	10	995	4.27
70	39	.168	5	1,630	7.00

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	4.27	10.9	39.2	220	709	917	366	80.5	312	68.8	17.7	18.1	227
1939-40	14.6	10.1	41.8	70.4	1,020	252	624	864	137	1,604	87.1	49.4	397
1940-41	20.0	42.9	422	263	222	657	466	55.0	41.8	355	88.0	16.3	222
1941-42	11.5	25.0	517	363	465	1,548	243	100	76.5	59.5	55.7	132	300
1942-43	117	72.2	398	416	584	1,384	436	116	72.9	65.0	17.7	34.5	309
1943-44	14.8	65.2	164	436	1,022	1,361	1,881	553	88.7	50.2	378	61.4	503
1944-45	44.7	124	693	663	1,130	607	616	249	269	88.5	34.3	19.4	373
1945-46	41.4	43.5	205	774	1,103	1,234	169	514	124	154	174	51.9	379
1946-47	35.8	239	215	2,286	304	955	1,632	462	216	39.4	25.9	28.6	539
1947-48	15.5	143	425	352	908	1,653	708	73.1	31.1	30.8	50.7	135	376

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches
1939	3,190	2.6	227	0.974	13.30
1940	9,170	6.4	397	1.70	25.24
1941	2,200	10	222	.953	13.25
1942	6,500	6.9	300	1.29	17.67
			111		

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE CONTINUED

Year	Water year ending Sept. 30				Runoff in inches	Mean inches	Calendar year Runoff in inches
	Maximum Day	Minimum Day	Mean	per square mile			
1943	6,540	9.7	309	1.33	18.01	280	16.30
1944	8,650	11	503	2.16	29.40	555	32.45
1945	3,320	16	373	1.60	21.74	325	18.92
1946	5,420	14	379	1.63	22.10	396	23.07
1947	12,500	12	539	2.31	31.39	547	31.87
1948	6,480	12	376	1.61	21.94		

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.02	0.05	0.19	1.09	3.17	4.54	1.75	0.40	1.50	0.34	0.09	0.09	13.23
1939-40	.07	.05	.21	.35	4.72	1.24	2.99	4.28	.66	7.93	.43	.24	23.17
1940-41	.10	.21	2.09	1.30	.99	3.25	2.23	.27	.20	1.75	.44	.08	12.91
1941-42	.06	.12	2.56	1.80	2.08	7.66	1.16	.50	.37	.29	.28	.63	17.51
1942-43	.58	.35	1.97	2.06	2.61	6.85	2.09	.57	.35	.32	.09	.17	18.01
1943-44	.07	.31	.81	2.16	4.73	6.74	9.01	2.74	.42	.25	1.87	.29	29.40
1944-45	.22	.59	3.43	3.28	5.05	3.00	2.95	1.23	1.29	.44	.17	.09	21.74
1945-46	.20	.21	1.01	3.83	4.93	6.11	.81	2.54	.59	.76	.86	.25	22.10
1946-47	.18	1.14	1.07	11.31	1.36	4.73	7.81	2.29	1.04	.19	.13	.14	31.39
1947-48	.08	.69	2.10	1.74	4.20	8.18	3.39	.36	.15	.15	.25	.65	21.94

TALLAHALA CREEK NEAR RUNNELSTOWN

PERRY COUNTY

LOCATION—Lat. $31^{\circ}20'$, long. $89^{\circ}07'$, in NE¼ sec. 8, T. 4 N., R. 11 W. St Stephens meridian, at bridge on county road between Sunrise and Runnelstown, 3 miles south of Runnelstown and 9 miles upstream from mouth.

DRAINAGE AREA—612 square miles.

RECORDS AVAILABLE—November 1939 to September 1948.

GAGE—Staff gage prior to Dec. 9, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 19,300 second-feet Jan. 23, 1947 (gage height, 21.70 feet); minimum, 46 second-feet Oct. 26, 27, 1941 (gage height, 1.35 feet); minimum daily, 47 second-feet Oct. 25-27, 1941; minimum 7-day, 48 second-feet Oct. 23-29, 1941.

REMARKS—Records good.

PEAK DISCHARGE—Jan. 23, 1947 (4:30 a.m.) 19,300 second-feet; Mar. 8, 1948 (1:00 p.m.) 13,500 second-feet; Apr. 29, 1944 (10:30 p.m.) 12,900 second-feet; Mar. 23, 1943 (2:00 a.m.) 12,300 second-feet; May 5, 1940 (2:00 a.m.) 11,200 second-feet.

DURATION OF FLOW—Index station, Tallahala Creek at Laurel.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	61	0.100	40	581	0.950
90	78	.128	20	1,560	2.55
60	248	.405	10	2,690	4.40

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40		66.7	170	276	2,692	936	1,477	1,948	464	4,294	313	193	
1940-41	89.7	149	1,114	786	643	1,829	1,118	259	162	842	203	68.6	608
1941-42	59.0	154	1,277	1,249	1,102	3,246	794	392	208	202	321	336	780
1942-43	285	352	1,207	1,281	1,584	4,007	1,374	342	198	248	103	166	928
1943-44	62.3	225	441	1,181	2,129	3,267	3,617	1,905	352	143	933	386	1,216
1944-45	203	461	1,536	1,555	2,105	1,623	1,649	732	661	370	214	95.1	926
1945-46	190	193	890	2,059	2,290	2,775	550	1,639	537	607	499	402	1,049
1946-47	127	622	612	4,627	1,054	2,632	3,768	1,607	641	172	125	140	1,347
1947-48	98.5	537	1,560	946	2,214	4,291	1,757	276	146	121	260	528	1,058

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40		0.12	0.32	0.52	4.74	1.76	2.69	3.67	0.85	8.09	0.59	0.35	
1940-41		.27	2.10	1.48	1.09	3.45	2.04	.49	.30	1.59	.38	.12	13.48
1941-42	.11	.28	2.41	2.35	1.87	6.12	1.45	.74	.38	.38	.60	.61	17.30
1942-43	.54	.64	2.27	2.41	2.70	7.55	2.50	.64	.36	.47	.19	.30	20.57
1943-44	.12	.41	.83	2.22	3.75	6.16	6.59	3.59	.64	.27	1.76	.70	27.04

1944-45	.38	.84	2.89	2.93	3.58	3.06	3.01	1.38	1.21	.70	.40	.17	20.55
1945-46	.36	.35	1.68	3.88	3.90	5.23	1.00	3.09	.98	1.14	.94	.73	23.28
1946-47	.24	1.13	1.15	8.72	1.79	4.96	6.87	3.03	1.17	.32	.24	.26	29.88
1947-48	.19	.98	2.94	1.78	3.90	8.08	3.20	.52	.27	.23	.49	.96	23.54

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year		
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean in inches	
1940						1,160	25.80
1941	5,570	52	608	0.993	13.48	619	13.74
1942	7,220	47	780	1.27	17.30	810	17.95
1943	11,900	60	928	1.52	20.57	834	18.48
1944	12,600	50	1,216	1.99	27.04	1,340	29.79
1945	4,050	66	926	1.51	20.55	848	18.83
1946	5,610	60	1,049	1.71	23.28	1,056	23.41
1947	17,800	70	1,347	2.20	29.88	1,418	31.47
1948	13,300	64	1,058	1.73	23.54		

TALLAHOMA CREEK NEAR LAUREL

JONES COUNTY

LOCATION—Lat. $31^{\circ}47'$, long. $89^{\circ}11'$, in NE $\frac{1}{4}$ sec. 3, T. 9 N., R. 12 W. St. Stephens meridian, at bridge on State Highway 15, three-quarters of a mile upstream from Cypress Creek, $1\frac{1}{2}$ miles downstream from Gulf, Mobile and Ohio Railroad bridge, 7 miles northwest of Laurel, and 15 miles upstream from mouth.

DRAINAGE AREA—149 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—February 1941 to June 1948.

GAGE—Staff gage prior to June 15, 1944; wire-weight gage thereafter. Datum of gage is 233.73 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES (OBSERVED)—Maximum discharge, 9,410 second-feet Jan. 20, 1947; minimum, 2.2 second-feet Oct. 20, 1945 (gage height, 0.33 foot); minimum daily, 2.7 second-feet Sept. 6-8, 1947; minimum 7-day, 2.8 second-feet Sept. 4-10, 1947.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Tallahala Creek at Laurel.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	6	0.041	55	39	0.265
75	14	.092	30	167	1.12

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41					149	353	323	35.5	24.9	119	15.5	7.50	
1941-42	5.32	17.5	375	232	260	966	138	76.1	46.8	21.5	74.7	72.8	191
1942-43	74.2	28.2	247	223	291	749	317	65.0	56.2	61.6	14.0	17.9	179
1943-44	9.39	53.4	118	300	519	843	916	392	50.7	16.7	136	18.0	280
1944-45	10.0	73.4	353	383	666	370	403	144	223	77.8	20.4	10.1	225
1945-46	34.6	36.1	145	496	694	555	72.9	289	62.4	64.0	90.8	21.8	211
1946-47	9.87	170	126	1,383	181	560	1,010	321	108	11.7	5.96	13.0	326
1947-48	4.72	106	279	291	579	1,156	440	35.9	7.81				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41					1.04	2.73	2.42	0.28	0.19	0.92	0.12	0.06	
1941-42	0.04	0.13	2.90	1.79	1.81	7.48	1.03	.59	.35	.17	.58	.55	17.42
1942-43	.57	.21	1.91	1.73	2.03	5.80	2.37	.50	.42	.48	.11	.13	16.26
1943-44	.07	.40	.91	2.32	3.76	6.52	6.86	3.04	.38	.13	1.06	.13	25.58
1944-45	.08	.55	2.73	2.96	4.66	2.86	3.01	1.11	1.67	.60	.16	.08	20.47

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1945-46	.27	.27	1.12	3.84	4.85	4.29	.55	2.24	.47	.49	.70	.16	19.25
1946-47	.08	1.27	.98	10.70	1.27	4.33	7.56	2.48	.81	.09	.05	.10	29.72
1947-48	.04	.80	2.16	2.25	4.19	8.94	3.30	.28	.06				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Runoff in inches	Calendar Year Mean	Runoff in inches
	Maximum Day	Minimum Day	Mean	per square mile			
1942	5,240	3	191	1.28	187	17.42	17.04
1943	3,580	6	179	1.20	164	16.26	14.95
1944	4,330	4.7	280	1.88	302	25.58	27.56
1945	2,360	4	225	1.51	206	20.47	18.77
1946	1,930	2.8	211	1.42	219	19.25	19.92
1947	9,110	2.7	326	2.19	333	29.72	30.39

CHUNKY CREEK NEAR CHUNKY

NEWTON COUNTY

LOCATION—Lat. $32^{\circ}20'$, long. $88^{\circ}54'$, in SW $\frac{1}{4}$ sec. 30, T. 6 N., R. 14 E. Choctaw meridian, at bridge on U. S. Highway 80, 2,500 feet upstream from Alabama and Vicksburg Railway bridge, $1\frac{1}{4}$ miles east of Chunky, $3\frac{1}{4}$ miles upstream from Tallahatta Creek, and $5\frac{1}{2}$ miles downstream from Concobona Creek.

DRAINAGE AREA—368 square miles.

RECORDS AVAILABLE—August 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 490 second-feet.

GAGE—Wire-weight gage prior to Mar. 24, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 11,800 second-feet Feb. 11, 1946 (gage height, 20.49 feet); minimum, 6.4 second-feet Aug. 27-29, 1943 (gage height, 2.28 feet); minimum daily, 6.4 second-feet Aug. 27-29, 1943; minimum 7-day, 6.5 second-feet Aug. 23-29, 1943.

NOTE—New maximum discharge of 30,800 second-feet (gage height, 25.00 feet) established on Jan. 7, 1950.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 11, 1946 (12:30 p.m.) 11,800 second-feet; Mar. 22, 1943 (11:00 a.m.) 10,500 second-feet; Mar. 30, 1944 (1:00 p.m.) 10,500 second-feet; Apr. 27, 1944 (7:30 p.m.) 10,400 second-feet; Mar. 22, 1942 (10:00 a.m.) 10,100 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	15	.040	40	232	0.63
95	20	.053	25	526	1.43
90	26	.071	15	927	2.52
70	62	.168	5	2,240	6.10

1942-43	.16	.24	1.73	1.19	1.52	4.97	1.37	.36	.13	.17	.06	.09	11.99
1943-44	.04	.17	.38	.97	3.11	5.29	7.20	2.44	.28	.36	.94	.14	21.32
1944-45	.09	.35	1.99	2.36	4.90	5.14	2.74	1.86	.64	.71	.25	.13	21.16
1945-46	.26	.19	1.02	3.99	5.87	4.60	.83	3.24	1.20	1.17	1.60	.21	24.18
1946-47	.17	.92	1.55	8.03	1.18	3.60	4.56	1.62	1.18	.34	.13	.11	23.39
1947-48	.08	.86	1.61	1.45	4.96	6.42	2.62	.42	.18	.12	.21	.33	19.26

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Mean inches	Runoff in inches
1939	5,230	11	383	1.04	14.13	14.20
1940	7,890	10	485	1.32	17.93	21.47
1941	3,100	19	382	1.04	14.13	12.69
1942	8,950	14	366	.995	13.50	13.07
1943	9,880	6.4	325	.883	11.99	10.45
1944	9,690	7.8	576	1.57	21.32	23.16
1945	5,800	17	573	1.56	21.16	20.20
1946	10,700	29	656	1.78	24.18	25.35
1947	8,970	16	634	1.72	23.39	23.30
1948	7,890	17	520	1.41	19.26	

CHICKASAWHAY RIVER AT ENTERPRISE

CLARKE COUNTY

LOCATION—Lat. $32^{\circ}10'$, long. $88^{\circ}49'$, in NW $\frac{1}{4}$ sec. 24, T. 4 N., R. 14 E. Choctaw meridian, at county bridge in Enterprise, half a mile downstream from confluence of Chunky and Okatibbee Creeks.

DRAINAGE AREA—913 square miles.

RECORDS AVAILABLE—August 1938 to September 1948. Gage-height records collected at same site since 1904 published in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—10 years, 1,257 second-feet.

GAGE—Staff gage prior to Jan. 5, 1939; water-stage recorder thereafter. Datum of gage is 212.62 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

EXTREMES—Maximum discharge, 22,500 second-feet Jan. 21, 1947 (gage height, 27.98 feet); minimum observed, 30 second-feet Aug. 28, 1943 (gage height, -0.53 foot); minimum daily, 30 second-feet Aug. 28, 1943; minimum 7-day, 32 second-feet Aug. 23-29, 1943.

Maximum stage known, 37.2 feet, from flood mark, in April 1900 (from reports of U. S. Weather Bureau).

Note—New maximum discharge of 32,000 second-feet (gage height, 32.46 feet) established on Nov. 30, 1948, and of 33,600 second-feet (gage height, 33.10 feet) on Jan. 8, 1950.

REMARKS—Records good.

PEAK DISCHARGE—Jan. 21, 1947 (12:30 p.m.) 22,500 second-feet; Mar. 22, 1942 (6:00 p.m.) 21,300 second-feet; Feb. 12, 1946 (7:30 a.m.) 18,600 second-feet; Mar. 23, 1943 (10:00 a.m.) 18,100 second-feet; Mar. 7, 1948 (4:00 a.m.) 16,900 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	50	0.055	25	1,290	1.41
95	64	.070	15	2,330	2.55
90	82	.093	5	5,390	5.90
80	130	.142	2	7,400	8.10

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38												151	
1938-39	67.6	116	244	1,008	3,368	3,406	1,804	820	1,468	359	203	69.7	1,061
1939-40	52.3	72.7	283	547	3,463	1,363	1,920	1,889	519	4,494	267	265	1,255
1940-41	161	515	2,257	976	1,367	1,668	1,356	265	115	1,814	388	170	921
1941-42	86.0	185	1,605	749	1,351	4,271	1,048	563	320	123	430	290	920
1942-43	152	168	1,245	949	1,289	3,963	1,368	394	192	182	66.8	105	840
1943-44	46.1	167	310	780	2,561	3,760	6,218	2,251	366	542	879	180	1,497
1944-45	104	310	1,631	1,880	4,416	3,733	2,606	1,524	484	447	207	95.7	1,435
1945-46	194	156	636	2,918	4,958	3,668	768	2,165	1,013	1,141	1,518	275	1,602
1946-47	152	756	1,147	6,475	1,151	2,710	3,837	1,620	841	423	146	117	1,621
1947-48	74.3	704	1,310	1,181	4,183	5,642	2,575	477	225	168	218	381	1,418

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38												0.18	
1938-39	0.09	0.14	0.31	1.27	3.84	4.30	2.21	1.04	1.80	0.45	0.26	.08	15.79
1939-40	.07	.09	.36	.69	4.09	1.72	2.34	2.39	.63	5.67	.34	.32	18.71
1940-41	.20	.63	2.85	1.23	1.56	2.11	1.66	.33	.14	2.29	.49	.21	13.70
1941-42	.11	.23	2.03	.95	1.54	5.39	1.28	.71	.39	.16	.54	.35	13.68
1942-43	.19	.20	1.57	1.20	1.47	5.00	1.67	.50	.24	.23	.08	.13	12.48
						123							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	.06	.20	.39	.99	3.03	4.75	7.60	2.84	.45	.68	1.11	.22	22.32
1944-45	.13	.38	2.06	2.37	5.04	4.71	3.18	1.92	.59	.56	.26	.12	21.32
1945-46	.25	.19	.80	3.69	5.66	4.63	.94	2.73	1.23	1.44	1.92	.34	23.83
1946-47	.19	.92	1.45	8.17	1.31	3.42	4.69	2.05	1.03	.53	.18	.14	24.08
1947-48	.09	.86	1.65	1.49	4.93	7.12	3.15	.60	.27	.21	.28	.47	21.12

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1939	9,710	40	1,061	1.16	15.79	1,060
1940	12,000	37	1,255	1.37	18.71	1,468
1941	6,250	74	921	1.01	13.70	833
1942	20,300	58	920	1.01	13.68	893
1943	17,500	30	840	.920	12.48	752
1944	15,600	34	1,497	1.64	22.32	1,625
1945	10,200	67	1,435	1.57	21.32	1,346
1946	18,100	71	1,602	1.75	23.83	1,691
1947	22,100	63	1,621	1.78	24.08	1,624
1948	16,900	63	1,418	1.55	21.12	24.12

CHICKASAWHAY RIVER NEAR WAYNESBORO

WAYNE COUNTY

LOCATION—Lat. $31^{\circ}41'$, long. $88^{\circ}41'$, in NW $\frac{1}{4}$ sec. 10, T. 8 N., R. 7 W. St. Stephens meridian, at bridge on U. S. Highway 84, 2 miles west of Waynesboro.

DRAINAGE AREA—1,660 square miles.

RECORDS AVAILABLE—September 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 2,395 second-feet.

GAGE—Wire-weight gage prior to May 3, 1939; water-stage recorder thereafter. Datum of gage is 119.91 feet above mean sea level (Mississippi State Highway bench mark).

EXTREMES—Maximum discharge, 26,000 second-feet Jan. 24, 1947 (gage height, 39.00 feet); minimum, 149 second-feet Aug. 28, 1943 (gage height, 2.48 feet); minimum daily, 149 second-feet Aug. 28, 1943; minimum 7-day, 158 second-feet Aug. 24-30, 1943.

A stage of about 50 feet occurred sometime in 1900. A stage of 47.1 feet, from flood marks, occurred Apr. 11, 1938; a discharge of 53,100 second-feet was measured by Corps of Engineers on preceding day.

REMARKS—Records good.

PEAK DISCHARGE—Jan. 24, 1947 (6:00 a.m.) 26,000 second-feet; Apr. 27, 1944 (11:30 a.m.) 24,800 second-feet; Mar. 9, 1948 (9:00 a.m.) 24,700 second-feet; Mar. 26, 1942 (8:00 p.m.) 18,400 second-feet; Mar. 22, 1943 (6:00 a.m.) 18,400 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	174	0.105	40	1,480	0.890
95	217	.131	25	2,820	1.70
90	271	.163	15	4,950	2.98
70	490	.295	5	9,960	6.00

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	190	305	568	1,656	4,962	5,737	3,498	1,331	3,415	1,014	501	268	1,930
1939-40	210	227	563	889	6,177	2,111	3,840	4,309	1,349	8,608	794	572	2,461
1940-41	325	873	3,244	1,866	2,177	3,648	2,601	590	352	2,437	768	400	1,608
1941-42	210	406	2,909	1,973	2,561	7,615	2,074	1,041	692	• 382	695	637	1,769
1942-43	511	513	2,401	2,694	2,854	7,595	3,035	860	502	448	245	284	1,828
1943-44	177	515	757	1,857	4,275	7,091	10,700	5,832	878	838	1,977	563	2,945
1944-45	373	772	3,035	3,748	6,760	6,482	4,496	3,184	1,049	849	502	263	2,603
1945-46	444	430	1,464	4,971	7,454	6,887	1,816	3,904	1,829	2,175	3,390	909	2,955
1946-47	433	1,534	1,838	11,110	2,490	5,250	7,898	3,581	1,905	818	397	448	3,150
1947-48	270	1,505	2,992	2,319	6,661	10,700	4,689	1,157	518	441	520	831	2,704

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.13	0.21	0.39	1.15	3.11	3.99	2.35	0.92	2.30	0.70	0.35	0.18	15.78
1939-40	.15	.15	.39	.62	4.01	1.46	2.58	3.00	.91	5.98	.55	.38	20.18
1940-41	.23	.59	2.25	1.29	1.36	2.54	1.75	.41	.24	1.70	.53	.27	13.16
1941-42	.15	.27	2.02	1.37	1.61	5.29	1.39	.72	.46	.27	.48	.43	14.46
1942-43	.36	.34	1.67	1.87	1.79	5.27	2.04	.60	.34	.31	.17	.19	14.95

1943-44	.12	.35	.53	1.29	2.78	4.92	7.19	4.05	.59	.58	1.37	.38	24.15
1944-45	.26	.52	2.11	2.60	4.24	4.50	3.02	2.21	.71	.59	.35	.18	21.29
1945-46	.31	.29	1.02	3.45	4.68	4.78	1.22	2.71	1.23	1.51	2.35	.61	24.16
1946-47	.30	1.03	1.28	7.72	1.56	3.65	5.31	2.49	1.28	.57	.28	.30	25.77
1947-48	.19	1.01	2.08	1.61	4.33	7.43	3.15	.80	.35	.31	.36	.56	22.18

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean Runoff in inches
1939	11,400	168	1,930	1.16	15.78	1,925
1940	15,900	163	2,461	1.48	20.18	2,751
1941	9,700	207	1,608	.969	13.16	1,532
1942	18,000	168	1,769	1.07	14.46	1,760
1943	18,000	149	1,828	1.10	14.95	1,660
1944	24,500	158	2,945	1.77	24.15	3,176
1945	11,100	208	2,603	1.57	21.29	2,447
1946	16,400	223	2,955	1.78	24.16	3,076
1947	25,700	229	3,150	1.90	25.77	3,231
1948	24,700	244	2,704	1.63	22.18	2,644

CHICKASAWHAY RIVER AT LEAKESVILLE

GREENE COUNTY

LOCATION—Lat. $31^{\circ}08'$, long. $88^{\circ}33'$, in SW $\frac{1}{4}$ sec. 12, T. 2 N., R. 6 W. St. Stephens meridian, at bridge on State Highway 63, a quarter of a mile downstream from logging railroad bridge, half a mile southeast of Leakesville, and 25 miles upstream from confluence with Leaf River.

DRAINAGE AREA—2,680 square miles.

RECORDS AVAILABLE—September 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 4,026 second-feet.

GAGE—Wire-weight gage prior to May 10, 1939; water-stage recorder thereafter. Datum of gage is 51.13 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 39,600 second-feet Apr. 29, 1944 (gage height, 30.13 feet); minimum observed, 260 second-feet Oct. 15-17, 1938; minimum gage height, 7.41 feet Nov. 4. 5, 1943; minimum daily discharge, 260 second-feet Oct. 15-17, 1938; minimum 7-day, 267 second-feet Oct. 13-19, 1938.

Maximum stage known, 34.12 feet Apr. 12, 1938; a discharge of 65,600 second-feet was measured by the Corps of Engineers on preceding day (gage height, 33.36 feet).

REMARKS—Records good.

PEAK DISCHARGE—Apr. 29, 1944 (4:00 p.m.) 39,600 second-feet; Mar. 11, 1948 (6:00 a.m.) 35,800 second-feet; Jan. 26, 1947 (1:30 p.m.) 34,600 second-feet; Mar. 23, 1943 (9:00 p.m.) 34,300 second-feet; Apr. 1, 1944 (8:00 a.m.) 29,200 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	338	0.126	30	3,750	1.40
95	407	.152	15	7,830	2.92
90	490	.183	5	15,300	5.70

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	289	483	827	2,462	7,320	8,901	5,551	1,995	6,518	2,385	1,648	812	3,232
1939-40	489	381	755	1,579	9,585	3,911	6,220	7,431	3,349	14,390	1,904	867	4,226
1940-41	582	973	4,918	3,205	3,389	6,836	4,082	1,351	709	3,109	1,390	753	2,612
1941-42	397	610	4,474	4,713	4,313	11,210	5,220	2,005	1,284	964	1,452	1,198	3,156
1942-43	785	1,000	3,038	6,510	4,426	12,640	6,930	1,700	943	769	590	604	3,329
1943-44	353	980	1,097	3,105	5,333	11,500	16,800	11,200	1,454	1,071	2,760	1,504	4,755
1944-45	621	1,165	3,925	5,482	8,306	10,160	8,004	5,686	1,668	1,463	1,014	462	3,974
1945-46	757	909	2,859	7,973	10,330	11,170	3,975	6,992	3,872	3,626	6,439	1,786	5,041
1946-47	844	2,142	2,512	15,960	5,069	9,465	14,360	6,618	3,147	1,590	849	845	5,287
1947-48	509	2,843	6,347	3,444	9,768	18,240	7,785	2,041	928	1,072	1,390	1,546	4,647

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.12	0.20	0.36	1.06	2.84	3.83	2.31	0.86	2.71	1.03	0.71	0.34	16.37
1939-40	.21	.16	.33	.68	3.86	1.68	2.59	3.19	1.40	6.19	.82	.36	21.47
1940-41	.25	.40	2.12	1.38	1.31	2.94	1.70	.58	.30	1.34	.60	.31	13.23
1941-42	.17	.25	1.92	2.03	1.68	4.82	2.17	.86	.53	.41	.62	.50	15.96
1942-43	.34	.42	1.31	2.80	1.72	5.44	2.89	.73	.39	.33	.25	.25	16.87
1943-44	.15	.41	.47	1.34	2.15	4.95	6.99	4.82	.61	.46	1.19	.63	24.17

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.27	.49	1.69	2.36	3.23	4.37	3.33	2.45	.69	.63	.44	.19	20.14
1945-46	.33	.38	1.23	3.43	4.01	4.80	1.65	3.01	1.61	1.56	2.77	.74	25.52
1946-47	.36	.89	1.08	6.87	1.97	4.07	5.98	2.85	1.31	.68	.37	.35	26.78
1947-48	.22	1.18	2.73	1.48	3.93	7.85	3.24	.88	.39	.46	.60	.64	23.60

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Mean	Runoff in inches
1939	14,700	260	3,232	1.21	3,234	16.39
1940	21,300	328	4,226	1.58	4,635	23.54
1941	15,400	400	2,612	.975	2,529	12.80
1942	24,600	330	3,156	1.18	3,099	15.69
1943	32,600	355	3,329	1.24	3,126	15.83
1944	39,600	322	4,755	1.77	5,032	25.59
1945	19,800	392	3,974	1.48	3,874	19.63
1946	19,900	370	5,041	1.88	5,120	25.91
1947	34,600	481	5,287	1.97	5,642	28.58
1948	35,800	438	4,647	1.73		

OKATIBBEE CREEK NEAR MERIDIAN

LAUDERDALE COUNTY

LOCATION—Lat. $32^{\circ}21'15''$, long. $88^{\circ}45'25''$, in NW $\frac{1}{4}$ sec. 22, T. 6 N., R. 15 E. Choctaw meridian, at bridge on old U. S. Highway 80, half a mile upstream from Alabama and Vicksburg Railway bridge, 2 miles downstream from Loper Creek, 3 miles west of Meridian, and 4 miles upstream from Sowashee Creek.

DRAINAGE AREA—239 square miles.

RECORDS AVAILABLE—August 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 330 second-feet.

GAGE—Staff gage prior to Jan. 6, 1939; water-stage recorder thereafter. Datum of gage is 269.43 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 8,890 second-feet Mar. 21, 1942 (gage height, 23.59 feet); minimum 3.3 second-feet Aug. 28, 1943; minimum gage height, 3.52 feet Oct. 19, 20, 1939; minimum daily discharge, 3.5 second-feet Aug. 27, 28, 1943; minimum 7-day, 3.8 second-feet Aug. 23-29, 1943.

Note—New maximum discharge of 15,600 second-feet (gage height, 24.61 feet) established on Nov. 29, 1948 and of 18,000 second-feet (gage height, 24.85 feet) on Jan. 7, 1950.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 21, 1942 (4:00 p.m.) 8,890 second-feet; Mar. 30, 1944 (9:00 p.m.) 6,090 second-feet; Mar. 22, 1943 (4:00 p.m.) 6.060 second-feet; Feb. 11, 1946 (11:00 p.m.) 5,820 second-feet; Jan. 20, 1947 (1:30 p.m.) 5,490 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	7	0.029	50	103	0.430
95	10	.041	20	473	1.98
90	14	.058	5	1,460	6.10

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38													38.8
1938-39	9.67	17.6	42.4	238	893	971	507	297	590	119	64.2	19.9	309
1939-40	9.25	12.3	51.8	157	1,007	353	477	500	128	1,027	49.3	71.1	318
1940-41	46.6	150	618	261	449	444	298	53.8	18.5	415	57.9	41.1	237
1941-42	12.6	32.8	314	173	362	1,153	322	227	122	30.0	106	63.7	244
1942-43	29.5	29.7	290	273	355	1,054	356	72.4	34.0	31.8	11.4	23.8	213
1943-44	4.42	21.2	54.2	174	595	1,024	1,491	553	94.3	219	207	39.9	371
1944-45	21.2	54.8	472	584	1,255	957	596	333	83.0	93.2	46.4	13.2	371
1945-46	26.7	22.2	140	812	1,442	986	190	564	391	385	365	33.4	441
1946-47	20.6	186	322	1,665	299	646	989	565	195	142	36.5	14.7	425
1947-48	9.78	190	340	297	1,174	1,415	692	112	52.1	48.6	65.1	113	373

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38													0.18
1938-39	0.05	0.08	0.20	1.15	3.84	4.68	2.36	1.43	2.76	0.57	0.31	.09	17.52
1939-40	.04	.06	.25	.76	4.54	1.71	2.23	2.41	.60	4.96	.24	.33	18.13
1940-41	.22	.70	2.99	1.26	1.96	2.14	1.40	.26	.09	2.01	.28	.19	13.50
1941-42	.06	.15	1.51	.83	1.58	5.56	1.50	1.10	.57	.14	.51	.30	13.81

1942-43	.14	1.40	1.32	1.55	5.08	1.66	.35	.16	.15	.05	.11	12.11
1943-44	.02	.26	.84	2.68	4.94	6.96	2.67	.44	1.06	1.00	.19	21.16
1944-45	.10	2.28	2.82	5.47	4.61	2.78	1.61	.39	.45	.22	.06	21.05
1945-46	.13	.10	3.92	6.28	4.76	.89	2.72	1.82	1.86	1.76	.16	25.07
1946-47	.10	.87	8.03	1.30	3.12	4.62	2.73	.91	.68	.18	.07	24.16
1947-48	.05	.89	1.43	5.30	6.82	3.23	.54	.24	.23	.31	.53	21.21

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean Runoff in inches
1939	4,530	7.7	309	1.29	17.52	309
1940	3,620	5.8	318	1.33	18.13	380
1941	1,960	10	237	.992	13.50	199
1942	5,990	6.6	244	1.02	13.81	243
1943	5,560	3.5	213	.891	12.11	190
1944	4,860	3.6	371	1.55	21.16	411
1945	3,740	8.0	371	1.55	21.05	340
1946	5,200	8.8	441	1.85	25.07	470
1947	5,200	11	425	1.78	24.16	426
1948	4,530	7.6	373	1.56	21.21	

BUCATUNNA CREEK AT DENHAM

WAYNE COUNTY

LOCATION—Lat. $31^{\circ}40'$, long. $88^{\circ}31'$, in SE $\frac{1}{4}$ sec. 18, T. 8 N., R. 5 W. St. Stephens meridian, at bridge on county road, 0.3 mile east of Denham and 9 miles southeast of Waynesboro.

DRAINAGE AREA—468 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1939 to September 1948.

GAGE—Staff gage prior to May 23, 1945; wire-weight gage thereafter. Datum of gage is 134.49 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 16,400 second-feet April 27, 1944 (gage height, 28.0 feet, from flood mark); minimum observed, 22 second-feet Oct. 25-28, 1941; minimum gage height observed, 0.35 foot Oct. 11-13, 1943; minimum daily discharge, 22 second-feet Oct. 26-28, 1941; minimum 7-day, 23 second-feet Oct. 25-31, 1941.

Maximum stage known, about 34 feet April 1900, from information by local residents.

REMARKS—Records good.

DURATION OF FLOW—Index station, Okatibbee Creek near Meridian.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	31	0.066	30	632	1.35
95	38	.082	15	1,410	3.02
90	51	.108	10	1,930	4.12
80	79	.169	5	2,920	6.25

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				464	1,524	2,101	679	347	1,198	383	239	127	
1939-40	65.4	56.5	144	266	2,084	801	1,020	1,645	941	3,121	322	118	879
1940-41	72.9	123	678	490	552	1,424	875	207	65.6	458	126	111	432
1941-42	34.8	73.0	1,004	884	861	2,348	712	280	174	109	128	97.2	559
1942-43	95.5	132	1,097	1,089	895	2,738	1,034	285	125	96.1	75.0	47.6	644
1943-44	30.3	110	185	578	1,270	2,701	4,039	1,324	311	145	343	121	926
1944-45	58.0	131	577	1,007	1,569	1,669	1,399	982	187	166	98.3	41.8	652
1945-46	89.0	117	515	1,449	1,665	1,895	689	919	361	481	1,593	254	834
1946-47	93.0	333	388	3,250	890	1,708	2,697	1,340	456	282	91.2	99.7	970
1947-48	45.5	403	1,043	722	1,709	3,822	1,380	368	131	139	125	193	839

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				1.14	3.39	5.18	1.62	0.85	2.86	0.94	0.59	0.30	
1939-40	0.16	0.13	0.36	.66	4.80	1.97	2.43	4.05	2.24	7.69	.79	.28	25.56
1940-41	.18	.29	1.67	1.21	1.23	3.51	2.09	.51	.16	1.13	.31	.27	12.56
1941-42	.09	.17	2.47	2.18	1.92	5.78	1.70	.69	.41	.27	.32	.23	16.23
1942-43	.24	.31	2.70	2.68	1.99	6.74	2.47	.70	.30	.24	.18	.11	18.66
1943-44	.07	.26	.46	1.42	2.93	6.65	9.63	3.26	.74	.36	.85	.29	26.92
						135							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.14	.31	1.42	2.48	3.49	4.11	3.34	2.42	.45	.41	.24	.10	18.91
1945-46	.22	.28	1.27	3.57	3.70	4.67	1.64	2.26	.86	1.19	3.93	.61	24.20
1946-47	.23	.79	.95	8.01	1.98	4.21	6.43	3.30	1.09	.69	.22	.24	28.14
1947-48	.11	.96	2.57	1.78	3.94	9.41	3.29	.91	.31	.34	.31	.46	24.39

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1939						604
1940	7,400	46	879	1.88	25.56	930
1941	4,580	37	432	.923	12.56	453
1942	6,020	22	559	1.19	16.23	577
1943	9,960	28	644	1.38	18.66	559
1944	14,800	26	926	1.98	26.92	963
1945	4,400	32	652	1.39	18.91	648
1946	5,350	32	834	1.78	24.20	841
1947	11,200	36	970	2.07	28.14	1,028
1948	11,300	37	839	1.79	24.39	29.81

WOLF RIVER BASIN

WOLF RIVER NEAR LYMAN

HARRISON COUNTY

LOCATION—Lat. 30°36', long. 89°20', in SW $\frac{1}{4}$ sec. 19, T. 5 S., R. 13 W. St. Stephens meridian, at bridge on unnumbered State Highway, half a mile upstream from Mill Creek, 2 miles downstream from Crane Creek, 4 miles upstream from Bell Creek, and 15 miles northwest of Lyman.

DRAINAGE AREA—253 square miles.

RECORDS AVAILABLE—October 1944 to September 1947.

GAGE—Staff gage.

EXTREMES—Maximum discharge, 18,500 second-feet Mar. 13, 1947 (gage height, 22.1 feet, from graph based on gage readings), from rating curve extended above 7,200 second-feet; minimum observed, 35 second-feet Nov. 1, 1944; minimum daily, 35 second-feet Nov. 1, 1944; minimum 7-day, 36 second-feet Nov. 1-7, 1944.

REMARKS—Records fair. See page for discharge measurements made prior to establishment of station.

DURATION OF FLOW—Index station, Bowie Creek near Hattiesburg.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
85	59	0.235	60	172	0.680
75	101	.400	40	299	1.18
70	130	.515	30	410	1.62

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45		804	605	537	928	315	560	283	186	852	272	190	
1945-46	364	200	814	805	778	2,245	363	1,604	806	468	807	331	803
1946-47	89.3	210	226	1,273	303	2,016	1,818	426	177	59.3	168	302	591
1947-48	79.4	874	1,225	612	584	2,084	466	132	72.2				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45		3.55	2.76	2.44	3.82	1.43	2.47	1.29	0.82	3.88	1.24	0.84	
1945-46	1.66	.88	3.71	3.67	3.20	10.23	1.60	7.31	3.56	2.13	3.68	1.46	43.09
1946-47	.41	.93	1.03	5.80	1.25	9.19	8.02	1.94	.78	.27	.76	1.33	31.71
1947-48	.36	3.86	5.58	2.79	2.49	9.50	2.05	.60	.32				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in square inches	Runoff in inches
1945					456	24.48
1946	14,900	70	803	3.17	731	39.21
1947	11,600		591	2.34		
					43.09	31.71

PEARL RIVER BASIN

PEARL RIVER AT EDINBURG

LEAKE COUNTY

LOCATION—Lat. $32^{\circ}47'$, long. $89^{\circ}20'$, in SW $\frac{1}{4}$ sec. 13, T. 11 N., R. 9 E. Choctaw meridian, at bridge on State Highway 16 in Edinburg, 1,100 feet downstream from Hooper Mill Creek, 3 miles upstream from Rice Creek, and $11\frac{3}{4}$ miles northeast of Carthage.

DRAINAGE AREA—898 square miles.

RECORDS AVAILABLE—August 1928 to September 1948. Gage-height records collected in same vicinity since 1908 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—20 years, 1,018 second-feet.

GAGE—Staff gage prior to July 24, 1935; wire-weight gage to Sept. 20, 1938; water-stage recorder thereafter. Datum of gage is 341.67 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

EXTREMES—Maximum discharge observed, 31,400 second-feet Mar. 8, 1935 (gage height, 26.20 feet); minimum, 2.7 second-feet Aug. 29, 1943; minimum gage height, 1.63 feet Sept. 8, 1929; minimum daily discharge, 3.0 second-feet Aug. 29, 1943; minimum 7-day, 5.0 second-feet Oct. 17-23, 1947.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 8, 1935 (6:30 a.m.) 31,400 second-feet; Mar. 30, 1944 (11:00 p.m.) 23,300 second-feet; Feb. 23, 1945 (12:00 p.m.) 19,900 second-feet; Feb. 12, 1946 (1:15 p.m.) 19,900 second-feet; Feb. 7, 1936 (7:00 a.m.) 19,700 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	11	0.012	30	898	1.00
95	15	.017	15	2,060	2.29
90	23	.026	10	2,870	3.20
60	162	.180	5	4,310	4.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												80.6	
1928-29	19.1	41.9	78.2	503	925	5,110	861	1,470	202	138	152	174	810
1929-30	26.2	2,100	1,080	1,440	2,130	1,770	439	3,320	189	32.8	35.7	142	1,050
1930-31	66.5	447	807	1,280	522	870	894	160	59.0	1,330	732	25.2	602
1931-32	12.9	47.0	1,370	3,780	3,570	1,030	2,260	382	187	209	71.3	514	1,110
1932-33	1,500	1,370	7,120	2,800	2,700	2,410	2,830	859	75	957	384	151	1,930
1933-34	37.9	56.0	201	192	465	2,872	515	337	408	2,006	373	113	637
1934-35	86.4	528	994	1,977	1,159	6,629	3,663	2,727	362	121	66.9	70.9	1,539
1935-36	37.1	89.7	311	1,945	4,677	741	1,662	569	58.8	125	40.0	26.0	840
1936-37	10.0	36.7	280	3,599	1,955	1,989	1,539	1,782	298	159	53.5	105	981
1937-38	23.3	654	435	1,737	1,303	3,244	4,795	260	162	281	543	100	1,123
1938-39	18.9	54.9	103	1,480	4,620	2,797	1,585	597	1,914	323	110	47.7	1,112
1939-40	19.9	19.3	126	236	2,241	1,207	1,493	1,365	216	3,830	268	92.1	924
1940-41	73.4	252	2,043	895	1,446	1,524	1,024	169	56.8	911	322	58.2	730
1941-42	80.0	113	654	800	1,078	1,613	621	348	149	130	324	91.5	498
1942-43	58.9	101	308	601	474	2,613	1,002	124	33.4	141	20.8	40.0	461
1943-44	9.84	39.0	87.5	423	1,977	4,889	4,581	2,094	176	230	190	73.8	1,227
1944-45	22.4	61.0	475	1,475	5,878	3,165	1,558	499	170	109	93.5	17.0	1,095
1945-46	35.8	59.6	264	2,746	6,389	2,891	1,226	1,918	1,119	1,051	1,047	50.9	1,537
1946-47	32.1	707	896	5,566	1,080	1,935	2,856	543	241	127	30.0	25.7	1,173
1947-48	10.5	350	997	647	4,024	3,448	1,833	102	52.3	61.8	197	173	979

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.10	
1928-29	0.02	0.05	0.10	0.65	1.07	6.56	1.07	1.89	0.25	0.18	0.19	.22	12.25
1929-30	.03	2.61	1.38	1.84	2.47	2.27	.55	4.27	.23	.04	.05	.18	15.92
1930-31	.09	.56	1.04	1.65	.60	1.12	1.11	.21	.07	1.71	.94	.03	9.13
1931-32	.02	.06	1.76	4.85	4.29	1.33	2.81	.49	.23	.27	.09	.64	16.84
1932-33	1.92	1.71	9.14	3.60	3.13	3.09	3.51	1.10	.09	1.23	.49	.19	29.20
1933-34	.05	.07	.26	.25	.54	3.69	.64	.43	.51	2.57	.48	.14	9.63
1934-35	.11	.66	1.28	2.54	1.34	8.51	4.55	3.50	.45	.16	.09	.09	23.28
1935-36	.05	.11	.40	2.50	5.62	.95	2.06	.73	.07	.16	.05	.03	12.73
1936-37	.01	.05	.36	4.62	2.27	2.55	1.91	2.28	.37	.20	.07	.13	14.82
1937-38	.03	.81	.56	2.22	1.51	4.16	5.96	.33	.20	.36	.70	.12	16.96
1938-39	.02	.07	.13	1.90	5.35	3.58	1.98	.77	2.38	.42	.14	.06	16.80
1939-40	.03	.02	.16	.30	2.70	1.54	1.85	1.75	.27	4.92	.34	.11	13.99
1940-41	.09	.31	2.63	1.15	1.68	1.96	1.27	.22	.07	1.16	.41	.07	11.02
1941-42	.10	.14	.84	1.03	1.25	2.07	.77	.45	.19	.17	.42	.11	7.54
1942-43	.08	.13	.40	.77	.55	3.35	1.24	.16	.04	.18	.03	.05	6.98
1943-44	.01	.05	.11	.54	2.37	6.28	5.69	2.69	.22	.29	.24	.09	18.58
1944-45	.03	.08	.61	1.89	6.82	4.06	1.94	.64	.21	.14	.12	.02	16.56
1945-46	.05	.07	.34	3.53	7.41	3.71	1.52	2.46	1.39	1.35	1.34	.06	23.23
1946-47	.04	.88	1.15	7.14	1.25	2.48	3.55	.70	.30	.16	.04	.03	17.72
1947-48	.01	.43	1.28	.83	4.83	4.43	2.28	.13	.07	.08	.25	.22	14.84

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1929	10,500	7	810	.902	12.25	1,065
1930	11,300	7	1,050	1.17	15.92	897
1931	6,620	8	602	.670	9.13	612
1932	8,620	6	1,110	1.24	16.84	1,832
1933	19,600	31	1,930	2.15	29.20	1,113
1934	10,300	16	637	.709	9.63	747
1935	31,400	19	1,539	1.71	23.28	1,441
1936	19,100	9	840	.935	12.73	831
1937	9,800	8	981	1.09	14.82	1,046
1938	15,300	8	1,123	1.25	16.96	1,046
1939	7,220	14	1,112	1.24	16.80	1,111
1940	11,000	10	924	1.03	13.99	1,110
1941	4,930	21	730	.813	11.02	601
1942	2,460	18	498	.555	7.54	466
1943	9,850	3.0	461	.513	6.98	433
1944	22,600	6.6	1,227	1.37	18.58	1,263
1945	18,700	12	1,095	1.22	16.56	1,078
1946	19,900	14	1,537	1.71	23.23	1,644
1947	9,960	9	1,173	1.31	17.72	1,150
1948	8,860	4.4	979	1.09	14.84	17.37

PEARL RIVER NEAR LENA

LEAKE COUNTY

LOCATION—Lat. $32^{\circ}40'$, long. $89^{\circ}38'$, in SW $\frac{1}{4}$ sec. 36, T. 10 N., R. 6 E. Choctaw meridian, at bridge on county road, three quarters of a mile downstream from Tuscolameta Creek $3\frac{3}{4}$ miles upstream from Yokahockany River, 6 miles north of Lena, and 8 miles southwest of Carthage.

DRAINAGE AREA—1,995 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—November 1936 to September 1948.

GAGE—Staff gage read twice daily. Datum of gage is 299.50 feet above mean sea level (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 43,700 second-feet Mar. 31, 1944 (gage height, 28.28 feet); minimum, about 40 second-feet Aug. 27, 28, 1943; minimum 7-day, 44 second-feet Oct. 31 to Nov. 6, 1944.

Note—A new maximum discharge of 46,000 second-feet (gage height, 28.56 feet) was established on Jan. 8, 1950.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Pearl River at Jackson.

Percent of time	Discharge second-feet	Discharge per sq. mile	Percent of time	Discharge second-feet	Discharge per sq. mile
90	132	0.066	40	1,220	0.610
60	479	.240	20	3,490	1.75

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37			583	7,603	3,834	3,343	2,532	3,161	930	331	305	430	
1937-38	79.3	1,229	840	3,343	2,717	6,125	11,520	704	394				
1938-39				2,995	10,130	5,804	3,582	1,198	2,950	662	239	120	
1939-40	85	90	310	624	4,573	2,361	3,697	3,201	558	9,383	820	330	2,167
1940-41	160	660	4,531	1,897	2,783	3,249	2,184	435	180	1,977	703	156	1,575
1941-42	165	310	1,906	1,408	2,214	3,864	1,460	855	415	286	711	319	1,157
1942-43	145	275	815	1,490	1,190	5,759	2,434	474	226	269	90.3	138	1,112
1943-44	50	130	278	1,101	3,970	10,310	10,520	3,988	514	375	506	279	2,659
1944-45	108	189	998	3,001	11,470	7,434	3,879	1,597	945	697	401	118	2,510
1945-46	197	224	954	5,697	12,920	6,359	2,551	5,203	2,620	2,252	2,233	227	3,398
1946-47	156	1,386	1,646	12,010	2,149	4,119	7,013	1,440	1,098	619	193	159	2,673
1947-48	108	1,059	2,123	1,575	8,554	8,162	3,977	480	202	239	533	375	2,258

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37			0.34	4.39	2.00	1.93	1.42	1.83	0.52	0.19	0.18	0.24	
1937-38			.49	1.93	1.42	3.54	6.44	.41	.22				
1938-39	0.05	0.69		1.73	5.29	3.35	2.00	.69	1.65	.38	.14	.07	
1939-40	.05	.05	.18	.36	2.47	1.36	2.07	1.85	.31	5.42	.47	.18	14.77
1940-41	.09	.37	2.62	1.10	1.45	1.88	1.22	.25	.10	1.14	.41	.09	10.72
1941-42	.10	.17	1.10	.81	1.16	2.23	.82	.49	.23	.17	.41	.18	7.87

1942-43	.08	.15	.47	.86	.62	3.33	1.36	.27	.13	.16	.05	.08	7.56
1943-44	.03	.07	.16	.64	2.15	5.96	5.88	2.30	.29	.22	.29	.16	18.15
1944-45	.06	.11	.58	1.73	5.99	4.30	2.17	.92	.53	.40	.23	.07	17.09
1945-46	.11	.13	.55	3.29	6.75	3.68	1.43	3.01	1.47	1.30	1.29	.13	23.14
1946-47	.09	.77	.95	6.94	1.12	2.38	3.92	.83	.61	.36	.11	.09	18.17
1947-48	.06	.59	1.23	.91	4.62	4.72	2.22	.28	.11	.14	.31	.21	15.40

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1937					2,045	13.93
1939					2,290	15.58
1940	24,200		2,167	1.09	14.77	17.57
1941	8,900		1,575	.789	10.72	9.01
1942	5,350	74	1,157	.580	7.87	7.20
1943	17,400	40	1,112	.557	7.56	7.12
1944	42,700	43	2,659	1.33	18.15	18.64
1945	34,500	75	2,510	1.26	17.09	17.13
1946	38,700	113	3,398	1.70	23.14	24.16
1947	21,800	112	2,673	1.34	18.17	18.24
1948	20,600	97	2,258	1.13	15.40	
			145			

PEARL RIVER AT MEEKS BRIDGE, NEAR CANTON

MADISON COUNTY

LOCATION—Lat. $32^{\circ}30'50''$, long. $89^{\circ}56'25''$, in NE $\frac{1}{4}$ sec. 25, T. 8 N., R. 3 E. Choctaw meridian, at Meeks Bridge, $3\frac{1}{2}$ miles northeast of Goshen Springs, $5\frac{1}{2}$ miles upstream from Mill Creek, 9 miles southeast of Canton, and 10 miles downstream from Fannegusha Creek.

DRAINAGE AREA—2,780 square miles.

RECORDS AVAILABLE—July 1939 to September 1948.

GAGE—Prior to Sept. 15, 1939, staff gage read twice daily; water-stage recorder thereafter. Datum of gage is 270.53 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 56,200 second-feet Feb. 15, 1946 (gage height, 26.20 feet); minimum observed, 87 second-feet Oct. 26, Nov. 2, 1943 (gage height, 0.11 foot), but may have been less during period of no gage-height record in October, November, 1943.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 15, 1946 (10:00 a.m.) 56,200 second-feet; Apr. 2, 1944 (1:00 p.m.) 49,500 second-feet; Feb. 27, 1945 (1:30 p.m.) 42,300 second-feet; July 16, 1940 (24 hrs.) 26,500 second-feet; Jan. 25, 1947 (3:00 p.m.) 25,500 second-feet; Mar. 10, 1948 (2:00 p.m.) 25,500 second-feet.

DURATION OF FLOW—Index station, Pearl River at Jackson.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
90	167	0.060	40	1,570	0.565
80	267	.096	20	4,860	1.75
60	598	.215	5	13,300	4.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39										999	371	203	
1939-40	149	134	386	930	6,633	3,598	6,085	4,514	796	11,900	1,288	489	3,069
1940-41	256	825	6,648	3,223	4,208	5,038	3,453	760	318	2,851	1,206	324	2,424
1941-42	252	439	2,505	2,104	2,944	6,128	2,129	1,224	686	437	896	402	1,677
1942-43	212	345	1,164	2,367	1,633	6,906	4,222	667	365	333	136	202	1,548
1943-44	93.8	191	327	1,520	4,823	12,790	16,900	7,708	922	486	710	315	3,886
1944-45	149	231	1,029	3,785	13,670	11,800	5,881	2,279	1,525	862	617	174	3,433
1945-46	275	277	1,085	8,384	19,450	8,582	3,854	6,690	3,664	2,417	2,796	312	4,726
1946-47	235	2,050	2,593	16,700	4,025	6,185	10,800	2,515	1,596	1,045	308	223	4,026
1947-48	145	1,264	2,664	1,939	11,630	11,820	5,770	817	316	298	721	466	3,121

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39										0.41	0.15	0.08	
1939-40	0.06	0.05	0.16	0.39	2.58	1.49	2.44	1.87	0.32	4.93	.53	.20	15.02
1940-41	.11	.33	2.76	1.34	1.57	2.09	1.38	.31	.13	1.19	.50	.13	11.84
1941-42	.10	.18	1.04	.87	1.10	2.54	.85	.51	.28	.18	.37	.16	8.18
1942-43	.09	.14	.48	.98	.61	2.86	1.69	.28	.15	.14	.06	.08	7.56
1943-44	.04	.08	.14	.63	1.87	5.31	6.78	3.20	.37	.20	.29	.13	19.04
						147							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.06	.09	.43	1.57	5.12	4.89	2.36	.95	.61	.36	.26	.07	16.77
1945-46	.11	.11	.45	3.48	7.29	3.56	1.55	2.77	1.47	1.00	1.16	.13	23.08
1946-47	.10	.82	1.08	6.93	1.51	2.56	4.33	1.04	.64	.43	.13	.09	19.66
1947-48	.06	.51	1.10	.80	4.51	4.90	2.32	.34	.13	.12	.30	.19	15.28

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean Runoff in inches
1940	26,500	103	3,069	1.10	15.02	3,665
1941	11,700	158	2,424	.872	11.84	2,040
1942	7,200	167	1,677	.603	8.18	1,552
1943	18,800	100	1,548	.557	7.56	1,454
1944	53,100	87	3,886	1.40	19.04	3,954
1945	41,200	103	3,433	1.23	16.77	3,453
1946	54,600	152	4,726	1.70	23.08	4,996
1947	25,500	163	4,026	1.45	19.66	3,960
1948	25,000	130	3,121	1.12	15.28	19.33

PEARL RIVER AT JACKSON

HINDS COUNTY

LOCATION—Lat. $32^{\circ}17'20''$, long. $90^{\circ}10'45''$, in SE $\frac{1}{4}$ sec. 10, T. 5 N., R. 1 E. Choctaw meridian, at bridge on U. S. Highway 80 (old) in Jackson, 0.2 mile upstream from Alabama and Vicksburg Railway bridge, a quarter of a mile upstream from Town Creek, and $4\frac{1}{2}$ miles upstream from Richland Creek.

DRAINAGE AREA—3,100 square miles.

RECORDS AVAILABLE—June 1901 to December 1913 (prior to 1903 and for 1913, gage heights only), August 1928 to September 1948. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—29 years (1903-12, 1928-48) 3,636 second-feet.

GAGE—Chain gage prior to December 31, 1913; staff gage Aug. 15, 1928 to Sept. 14, 1934; water-stage recorder thereafter. Datum of gage is 234.90 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 60,000 second-feet Dec. 19, 1932 (gage height, 35.2 feet); maximum gage height, 37.20 feet Apr. 1, 1902 (discharge not determined); minimum discharge, 80 second-feet Oct. 26 to Nov. 2, 1904; minimum gage height, 0.20 foot Nov. 4, 5, 1911; minimum daily discharge, 80 second-feet Oct. 26 to Nov. 2, 1904; minimum 7-day, 80 second-feet Oct. 26 to Nov. 1, 1904.

REMARKS—Records good.

PEAK DISCHARGE—Dec. 19, 1932 () 60,000 second-feet; Mar. 12, 1935 (8:00 p.m.) 56,700 second-feet; Feb. 17, 1946 (5:00 a.m.) 49,600 second-feet; Apr. 4, 1944 (6:00 a.m.) 46,700 second-feet; Mar. 1, 1945 (5:00 a.m.) 36,900 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	108	0.035	60	769	0.248
95	143	.046	40	1,940	.625
90	202	.065	20	6,110	1.97
75	400	.129	2	20,000	6.45

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1902-03				7,082	17,421	15,162	2,265	821	468	558	1,023	197	
1903-04	115	98	178	310	1,059	1,747	2,372	382	224	972	1,518	242	767
1904-05	125	100	222	1,963	16,100	7,005	7,236	5,959	894	769	1,126	549	3,416
1905-06	1,189	741	1,694	5,090	1,690	9,520	8,940	3,910	1,130	788	616	1,620	3,085
1906-07	14,400	686	1,960	2,920	6,930	10,500	2,040	9,680	1,530	770	539	373	4,380
1907-08	225	531	1,240	3,640	15,500	9,380	9,690	16,300	2,400	740	4,450	409	5,348
1908-09	169	-127	1,120	1,020	8,420	15,200	6,640	15,200	19,200	2,040	985	232	5,845
1909-10	156	164	398	1,400	2,400	2,900	3,310	677	1,650	3,730	779	243	1,477
1910-11	220	153	555	6,260	3,450	961	7,740	1,960	422	1,630	1,390	386	2,082
1911-12	116	181	3,600	8,720	6,010	14,000	22,600	7,180	1,870	5,570	2,640	738	6,102
1912-13	473	249	5,320										
1927-28													
1928-29	167	205	368	1,320	3,410	15,000	6,110	3,690	988	704	942	631	2,800
1929-30	218	7,410	3,970	5,070	6,890	6,280	2,330	10,300	2,930	259	284	373	3,840
1930-31	512	1,460	3,010	4,430	1,990	3,340	2,860	1,230	358	2,050	5,370	353	2,260
1931-32	124	408	6,770	13,700	12,900	5,940	6,980	1,380	935	893	509	1,550	4,310
1932-33	4,380	5,610	23,600	13,000	9,030	8,080	10,200	3,040	613	3,670	1,390	762	6,960
1933-34	363	290	811	769	1,701	9,111	2,101	1,191	3,193	3,178	1,388	729	2,077
1934-35	835	2,297	4,267	7,761	4,104	20,720	9,896	8,933	1,514	664	419	403	5,178
1935-36	197	420	1,161	5,250	14,650	2,280	4,284	3,167	369	471	264	164	2,673
1936-37	104	121	929	11,240	8,910	5,827	4,578	4,732	1,541	699	595	984	3,326
1937-38	244	1,473	1,188	5,369	4,259	7,234	21,610	1,418	921	1,187	1,811	383	3,898
1938-39	168	249	410	4,303	14,460	9,882	5,752	1,500	3,873	1,058	437	222	3,448
1939-40	176	153	442	1,076	6,969	4,033	6,866	5,769	1,059	14,430	1,573	532	3,587
1940-41	340	892	7,320	4,096	4,792	6,128	3,933	942	386	2,996	1,444	399	2,805
1941-42	302	462	2,627	2,509	3,113	6,738	2,522	1,237	685	579	1,259	502	1,877
1942-43	237	390	1,694	2,901	1,932	7,122	6,426	735	438	384	157	250	1,889
1943-44	97.7	218	335	1,710	4,949	14,240	19,860	9,512	1,113	515	722	331	4,455
1944-45	157	242	1,064	4,469	12,800	16,350	7,436	2,602	2,670	1,206	785	210	4,112
1945-46	327	279	1,221	9,930	22,270	6,626	4,673	6,973	5,134	2,970	3,162	338	5,471
1946-47	244	2,213	2,934	18,280	4,931	6,574	12,500	2,766	1,500	1,190	352	232	4,476
1947-48	143	1,347	3,094	2,247	12,760	13,500	6,393	845	380	345	791	498	3,493

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1902-03				2.63	5.85	5.64	0.82	0.31	0.17	0.21	0.38	0.07	
1903-04	0.04	0.04	0.07	.12	.37	.65	.85	.14	.08	.36	.56	.09	3.37
1904-05	.05	.04	.08	.73	5.40	2.61	2.60	2.21	.32	.29	.42	.20	14.95
1905-06	.44	.27	.63	1.89	.57	3.54	3.21	1.45	.41	.29	.23	.58	13.51
1906-07	5.36	.25	.73	1.09	2.33	3.91	.73	3.60	.55	.29	.20	.13	19.17
1907-08	.08	.19	.46	1.35	5.39	3.49	3.49	6.06	.86	.28	1.66	.15	23.46
1908-09	.06	.05	.42	.38	2.83	5.65	2.39	5.65	6.91	.76	.37	.08	25.55
1909-10	.06	.06	.15	.52	.81	1.08	1.19	.25	.59	1.38	.29	.09	6.47
1910-11	.08	.05	.21	2.33	1.16	.36	2.79	.73	.15	.61	.52	.14	9.13
1911-12	.04	.06	1.34	3.24	2.09	5.21	8.13	2.68	.67	2.08	.98	.27	26.79
1912-13	.18	.09	1.98										
1927-28													
1928-29	.06	.07	.14	.49	1.14	5.58	2.20	1.37	.36	.26	.35	.23	12.24
1929-30	.08	2.67	1.48	1.89	2.31	2.34	.84	3.83	1.05	.10	.11	.13	16.83
1930-31	.19	.53	1.12	1.65	.67	1.24	1.03	.46	.13	.76	1.99	.13	9.90
1931-32	.05	.15	2.51	5.10	4.49	2.21	2.51	.51	.34	.33	.19	.56	18.95
1932-33	1.63	2.02	8.77	4.83	3.03	3.01	3.67	1.13	.22	1.36	.52	.27	30.46
1933-34	.13	.10	.30	.29	.57	3.39	.76	.44	1.15	1.19	.52	.26	9.10
1934-35	.31	.83	1.59	2.88	1.38	7.70	3.56	3.32	.54	.25	.16	.14	22.66
1935-36	.07	.15	.43	1.95	5.10	.85	1.54	1.18	.13	.18	.10	.06	11.74
1936-37	.04	.04	.35	4.18	2.99	2.17	1.65	1.76	.55	.26	.22	.35	14.56
1937-38	.09	.53	.44	1.99	1.43	2.69	7.78	.53	.33	.44	.67	.14	17.06
1938-39	.06	.09	.15	1.60	4.85	3.68	2.08	.56	1.40	.39	.16	.08	15.10
1939-40	.07	.05	.16	.40	2.43	1.50	2.47	2.14	.38	5.36	.58	.19	15.73
1940-41	.13	.32	2.72	1.52	1.61	2.28	1.42	.35	.14	1.11	.54	.14	12.28
1941-42	.11	.17	.98	.93	1.05	2.51	.91	.46	.25	.22	.47	.18	8.24
1942-43	.09	.14	.63	1.08	.65	2.65	2.31	.27	.16	.14	.06	.09	8.27
1943-44	.04	.08	.12	.64	1.72	5.30	7.15	3.54	.40	.19	.27	.12	19.57
1944-45	.06	.09	.40	1.66	4.30	6.08	2.68	.97	.96	.45	.29	.08	18.02
1945-46	.12	.10	.45	3.69	7.48	3.58	1.68	2.59	1.85	1.10	1.18	.12	23.94
1946-47	.09	.80	1.09	6.80	1.66	2.44	4.50	1.03	.54	.44	.13	.08	19.60
1947-48	.05	.48	1.15	.84	4.44	5.02	2.30	.31	.14	.13	.29	.18	15.33

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1903					3,703	16.15
1904	5,295	98	767	0.247	772	3.39
1905	24,880	80	3,416	1.10	3,683	16.15
1906	26,000	316	3,085	.995	4,228	18.46
1907	26,600	180	4,380	1.41	3,098	13.56
1908	26,000	145	5,348	1.73	5,300	23.28
1909	36,500	100	5,845	1.89	5,785	25.38
1910	9,020	130	1,477	.476	1,495	6.54
1911	14,600	120	2,082	.672	2,334	10.22
1912	29,600	90	6,102	1.97	6,283	27.63
1929	30,600	134	2,800	.903	3,699	16.20
1930	29,400	91	3,840	1.24	3,298	14.44
1931	15,100	174	2,260	.729	2,460	10.77
1932	21,300	108	4,310	1.39	6,521	28.66
1933	58,600	300	6,960	2.25	4,243	18.57
1934	18,600	234	2,077	.670	2,576	11.30
1935	54,400	254	5,178	1.67	4,706	20.58
1936	33,800	118	2,673	.862	2,621	11.52
1937	22,800	96	3,326	1.07	3,471	15.19
1938	31,500	190	3,898	1.26	3,725	16.30
1939	19,200	144	3,448	1.11	3,443	15.08
1940	30,100	119	3,587	1.16	4,244	18.62
1941	12,700	205	2,805	.905	2,368	10.37
1942	7,720	202	1,877	.605	1,786	7.84
1943	19,200	102	1,889	.609	1,747	7.65
1944	46,700	83	4,455	1.44	4,523	19.88
1945	36,200	102	4,112	1.33	4,143	18.14
1946	49,600	166	5,471	1.76	5,768	25.25
1947	25,600	171	4,476	1.44	4,410	19.30
1948	25,600	125	3,493	1.13		15.33

PEARL RIVER AT BYRAM

HINDS COUNTY

LOCATION—Lat. $32^{\circ}10'40''$, long. $90^{\circ}14'35''$, in NW $\frac{1}{4}$ sec. 19, T. 4 N., R. 1 E. Choctaw meridian, at bridge on county road between Byram and Florence, 0.2 mile southeast of Byram, about $7\frac{1}{2}$ miles west of Florence, and about 12 miles downstream from Jackson.

DRAINAGE AREA—3,430 square miles.

RECORDS AVAILABLE—January to September 1939.

GAGE—Staff gage read to hundredths twice daily. Datum of gage is 217.43 feet above mean sea level (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 20,200 second-feet Feb. 20, 1939 (gage height, 37.4 feet, from floodmark); minimum discharge observed, 167 second-feet Sept. 13-15, 1939; minimum gage height observed, 1.13 feet Sept. 14, 15, 1939; minimum daily discharge, 167 second-feet Sept. 13-15, 1939.

REMARKS—Records good.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				4,794	15,220	11,080	6,325	1,504	4,050	1,091	473		239

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				1.61	4.62	3.72	2.05	0.50	1.32	0.37	0.16		0.08

PEARL RIVER NEAR GEORGETOWN

COPIAH COUNTY

LOCATION—Lat. $31^{\circ}52'30''$, long. $90^{\circ}08'25''$, in SW $\frac{1}{4}$ sec. 31, T. 1 N., R. 2 E. Choctaw meridian, at bridge on State Highway 20, 2 miles east of Georgetown, $2\frac{1}{4}$ miles upstream from Strong River, and 11 miles west of Pinola.

DRAINAGE AREA—3,790 square miles.

RECORDS AVAILABLE—January to September 1939.

GAGE—Staff gage. Datum of gage is 188.67 feet above mean sea level (levels by Corps of Engineers).

EXTREMES (OBSERVED)—Maximum discharge, 21,800 second-feet Mar. 2, 1939; maximum gage height, 25.96 feet Mar. 2, 1939; minimum discharge, 190 second-feet Sept. 14, 15, 1939; minimum gage height, 4.25 feet Sept. 15, 1939; minimum daily discharge, 190 second-feet Sept. 14, 15, 1939.

Maximum stage known, 35.75 feet Apr. 9, 1938, probably affected by back-water from Strong River (discharge, 33,900 second-feet by Corps of Engineers).

REMARKS—Records good.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				5,037	16,170	12,640	7,084	1,806	4,117	1,298	505		269

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				1.53	4.45	3.85	2.09	0.55	1.22	0.39	0.15		0.08

PEARL RIVER NEAR ROCKPORT

COPIAH COUNTY

LOCATION—Lat. $31^{\circ}47'25''$, long. $90^{\circ}08'35''$, in SW $\frac{1}{4}$ sec. 31, T. 10 N., R. 11 E. Washington meridian, at county highway bridge, $1\frac{1}{2}$ miles upstream from Sinkler Creek, 2 miles east of Rockport and $7\frac{1}{2}$ miles downstream from Strong River.

DRAINAGE AREA—4,600 square miles.

RECORDS AVAILABLE—June 1939 to September 1948.

GAGE—Wire-weight gage prior to July 24, 1939; water-stage recorder thereafter. Datum of gage is 180.19 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 54,600 second-feet Feb. 20, 1946 (gage height, 34.31 feet); minimum, 262 second-feet Oct. 25-31, 1943; minimum gage height, 4.11 feet Oct. 25-28, 1943; minimum daily discharge, 262 second-feet Oct. 25-31, 1943; minimum 7-day, 262 second-feet Oct. 25-31, 1943.

Maximum stage known, 35.25 feet, from floodmarks, Apr. 9, 1938; a discharge of 55,200 second-feet was measured by Corps of Engineers on same day (gage height, 35.0 feet).

REMARKS—Records good.

PEAK DISCHARGE—Feb. 20, 1946 (5:30 p.m.) 54,600 second-feet; Jan. 21, 1947 (9:00 a.m.) 50,000 second-feet; Apr. 7, 1944 (10:30 a.m.) 45,800 second-feet; May 1, 1940 (8:00 p.m.) 37,600 second-feet; Mar. 6, 1945 (5:00 a.m.) 37,100 second-feet.

DURATION OF FLOW—Index station, Pearl River at Jackson.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	327	0.071	40	3,220	0.700
90	432	.094	30	5,200	1.13
70	897	.195	15	11,500	2.50
50	2,050	.445	5	21,600	4.70

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39										1,568	746	450	
1939-40	407	342	864	1,529	10,630	5,977	10,160	10,380	1,642	20,820	3,124	1,084	5,577
1940-41	710	1,302	11,170	6,445	6,376	8,940	7,531	1,629	775	3,445	1,829	598	4,271
1941-42	501	634	3,904	3,703	4,589	9,639	4,180	2,511	1,048	1,112	2,299	1,047	2,930
1942-43	476	658	3,729	4,698	3,421	10,690	10,300	1,291	792	736	371	724	3,155
1943-44	286	652	882	3,565	7,561	17,480	28,560	13,290	1,994	909	1,131	606	6,386
1944-45	340	475	1,578	5,789	16,520	25,420	11,040	4,150	4,806	2,678	1,545	550	6,179
1945-46	737	575	1,996	12,860	29,300	13,850	6,367	8,408	7,486	4,674	4,277	689	7,465
1946-47	503	3,083	4,064	24,720	8,706	10,740	21,250	4,708	2,081	1,618	731	540	6,883
1947-48	367	1,566	4,070	3,554	15,710	18,620	8,081	1,446	643	585	1,274	1,008	4,705

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39										0.39	0.19	0.11	
1939-40	0.10	0.08	0.22	0.38	2.49	1.50	2.47	2.61	0.40	5.22	.78	.26	16.51
1940-41	.18	.44	2.80	1.61	1.45	2.24	1.83	.41	.19	.86	.46	.14	12.61
1941-42	.13	.15	.98	.93	1.04	2.42	1.01	.63	.25	.28	.58	.25	8.65
1942-43	.12	.16	.93	1.18	.77	2.68	2.50	.32	.19	.18	.09	.18	9.30

1943-44	.07	.16	.22	.89	1.77	4.38	6.93	3.33	.48	.23	.28	.15	18.89
1944-45	.09	.12	.40	1.45	3.74	6.37	2.68	1.04	1.17	.67	.39	.13	18.25
1945-46	.18	.14	.50	3.22	6.63	3.47	1.54	2.11	1.82	1.17	1.07	.17	22.02
1946-47	.13	.75	1.02	6.20	1.97	2.69	5.15	1.18	.50	.41	.18	.13	20.31
1947-48	.09	.38	1.02	.89	3.68	4.67	1.96	.36	.16	.15	.32	.24	13.92

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1940	36,400	298	5,577	1.21	16.51	19.53
1941	19,500	378	4,271	.928	12.61	10.45
1942	15,000	354	2,930	.637	8.65	8.60
1943	23,800	287	3,155	.686	9.30	8.54
1944	45,300	262	6,386	1.39	18.89	19.05
1945	36,700	275	6,179	1.34	18.25	18.46
1946	53,900	395	7,465	1.62	22.02	23.10
1947	49,500	393	6,883	1.50	20.31	19.90
1948	26,000	327	4,705	1.02	13.92	

MISSISSIPPI STATE GEOLOGICAL SURVEY

PEARL RIVER NEAR MONTICELLO

LAWRENCE COUNTY

LOCATION—Lat. $31^{\circ}33'$, long. $90^{\circ}05'$, in SW $\frac{1}{4}$ sec. 23, T. 7 N., R. 21 W. St. Stephens meridian, at bridge on U. S. Highway 84, 1.0 miles east of Monticello, $2\frac{1}{2}$ miles upstream from Halls Creek, and 3 miles upstream from Silver Creek.

DRAINAGE AREA—5,040 square miles.

RECORDS AVAILABLE—October 1938 to September 1948. Gage-height records collected since 1924 at site $1\frac{1}{4}$ miles upstream from station are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—10 years, 6,017 second-feet.

GAGE—Staff gage prior to Dec. 12, 1938; water-stage recorder thereafter. Datum of gage is 158.66 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 51,200 second-feet Feb. 21, 1946, Jan. 21, 1947; maximum gage height, 27.7 feet Jan. 21, 1947; minimum discharge, 330 second-feet Oct. 26-28, 1943 (gage height, 3.79 feet); minimum daily, 330 second-feet Oct. 27, 1943; minimum 7-day, 338 second-feet Oct. 24-30, 1943.

Flood of April 1902 reached a stage of about 33 feet, from reports of U. S. Weather Bureau. A discharge of 69,900 second-feet was measured Apr. 8, 1938, by Corps of Engineers (gage height, 30.15 feet, from floodmark).

REMARKS—Records good.

PEAK DISCHARGE—Feb. 21, 1946 (5:00 p.m.) 51,200 second-feet; Jan. 21, 1947 (12:00 m) 51,200 second-feet; Apr. 8, 1944 (3:00-8:00 p.m.) 42,200 second-feet; May 3, 1940 (9:00 a.m.) 37,400 second-feet; Mar. 7, 1945 (4:00 p.m.) 37,200 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	433	0.086	60	1,450	0.288
95	484	.096	25	7,710	1.53
90	544	.108	10	17,600	3.50
75	827	.164	5	24,100	4.78

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	499	505	815	7,182	19,670	18,400	10,180	3,256	6,452	1,787	809	534	5,743
1939-40	561	445	1,051	1,772	12,000	6,689	11,080	11,920	1,897	22,880	4,090	1,241	6,299
1940-41	820	1,816	12,870	7,459	6,598	9,866	8,360	1,969	884	3,632	2,238	824	4,783
1941-42	654	850	4,793	4,656	5,518	11,330	4,803	3,428	1,239	1,308	2,728	1,435	3,562
1942-43	648	790	4,744	6,144	4,812	12,820	12,160	1,512	949	979	482	903	3,907
1943-44	374	1,090	1,372	4,550	8,611	18,360	30,500	15,130	2,454	1,100	1,330	794	7,114
1944-45	520	663	1,913	6,310	17,550	27,670	13,010	4,395	5,843	3,541	2,048	752	6,953
1945-46	1,057	779	2,850	14,300	29,870	16,270	7,638	9,575	8,740	5,787	4,931	871	8,425
1946-47	623	3,774	4,481	26,130	10,530	13,160	24,470	6,353	2,407	1,816	899	678	7,923
1947-48	471	1,923	4,792	4,420	16,370	22,490	10,020	1,718	773	722	1,248	995	5,459

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar year	
	Maximum Day	Minimum Day	Mean per square mile	Mean inches	Runoff in inches
1939	29,600	455	1.14	5,763	15.52
1940	37,400	435	1.25	7,434	20.09
1941	24,000	518	.949	4,003	10.79
1942	18,500	470	.707	3,552	9.56
				161	

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE CONTINUED

Year	Water year ending Sept. 30					Calendar year Runoff in inches
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean
1943	29,900	376	3,907	.775	10.52	3,622
1944	42,200	330	7,114	1.41	19.20	7,137
1945	36,800	410	6,953	1.38	18.74	7,088
1946	50,600	546	8,425	1.67	22.67	8,773
1947	50,600	465	7,923	1.57	21.34	7,784
1948	32,100	428	5,459	1.08	14.76	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.11	0.11	0.19	1.64	4.06	4.21	2.25	0.74	1.43	0.41	0.19	0.12	15.46
1939-40	.13	.10	.24	.41	2.57	1.53	2.46	2.73	.42	5.23	.94	.27	17.03
1940-41	.19	.40	2.94	1.71	1.36	2.26	1.85	.45	.20	.83	.51	.18	12.88
1941-42	.15	.19	1.10	1.07	1.14	2.59	1.06	.78	.27	.30	.62	.32	9.59
1942-43	.15	.17	1.09	1.41	.99	2.93	2.69	.35	.21	.22	.11	.20	10.52
1943-44	.09	.24	.31	1.04	1.84	4.20	6.75	3.46	.54	.25	.30	.18	19.20
1944-45	.12	.15	.44	1.44	3.63	6.33	2.88	1.01	1.29	.81	.47	.17	18.74
1945-46	.24	.17	.65	3.27	6.17	3.72	1.69	2.19	1.93	1.32	1.13	.19	22.67
1946-47	.14	.84	1.02	5.98	2.17	3.01	5.42	1.45	.53	.42	.21	.15	21.34
1947-48	.11	.43	1.10	1.01	3.50	5.15	2.22	.39	.17	.17	.29	.22	14.76

PEARL RIVER NEAR COLUMBIA

MARION COUNTY

LOCATION—Lat. $31^{\circ}14'$, long. $89^{\circ}51'$, in $E\frac{1}{2}$ sec. 7, T. 3 N., R. 18 W. St. Stephens meridian, at bridge on State Highway 24, $1\frac{1}{2}$ miles southwest of Columbia, 2 miles downstream from Fernwood, Columbia and Gulf Railroad bridge, $2\frac{1}{4}$ miles upstream from Silver Creek, and $2\frac{3}{4}$ miles downstream from Jones Creek.

DRAINAGE AREA—5,690 square miles.

RECORDS AVAILABLE—May 1934 to September 1948, August 1928 to May 1934 at site 1 mile downstream. Gage-height records collected in vicinity since 1904 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—19 years (1928-29, 1930-48), 7,174 second-feet.

GAGE—Prior to May 25, 1934, chain gage at site 1 mile downstream and at 0.37 foot higher datum; water-stage recorder thereafter. Datum of gage is 115.81 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 72,600 second-feet Apr. 9, 1938 (gage height, 26.40 feet); minimum, 736 second-feet Oct. 20-31, Nov. 5, 6, 1936; minimum gage height, 1.61 feet Oct. 27, 28, 1943.

REMARKS—Records good.

PEAK DISCHARGE—Apr. 9, 1938 (11:00 a.m. to 2:00 p.m.) 72,600 second-feet; Mar. 18, 1935 (various times) 62,500 second-feet; Jan. 23, 1947 (2:00 a.m.) 52,500 second-feet; Dec. 27, 1932 (4:30 p.m.) 49,300 second-feet; Feb. 23, 1946 (8:30 p.m.) 49,300 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	910	0.160	55	2,630	0.462
95	1,040	.182	40	4,580	.805
90	1,170	.206	20	11,400	2.00
70	1,740	.305	5	26,500	4.65

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28													1,790
1928-29	1,130	1,120	1,620	4,350	9,910	21,900	13,900	7,310	3,230	2,190	2,390	1,710	5,870
1929-30	1,180	20,200	8,740									1,490	
1930-31	2,300	5,620	8,550	10,100	4,760	6,520	5,380	4,090	1,810	3,840	7,680	1,380	5,190
1931-32	954	1,410	10,900	24,700	21,100	11,900	11,500	3,380	2,430	1,860	1,500	2,420	7,800
1932-33	5,480	8,880	25,200	25,500	15,700	15,300	25,800	8,310	2,060	6,590	3,270	1,840	12,000
1933-34	1,188	1,087	1,653	1,780	4,264	14,680	4,249	2,654	6,723	4,705	2,633	1,862	3,959
1934-35	2,260	4,140	7,153	13,210	8,200	35,320	15,790	15,960	3,799	2,078	1,821	1,281	9,293
1935-36	928	1,330	2,814	9,571	24,520	4,575	6,528	8,201	1,586	1,886	1,383	1,032	5,288
1936-37	771	787	2,290	23,310	18,320	11,150	8,377	7,695	3,212	1,955	1,825	2,126	6,759
1937-38	1,203	2,128	2,137	7,851	7,901	8,733	40,360	4,850	3,981	3,588	4,223	1,454	7,313
1938-39	956	992	1,443	7,935	20,440	21,520	12,420	4,057	7,997	2,844	1,777	1,099	6,860
1939-40	1,403	1,023	1,654	2,635	13,310	7,404	12,770	13,240	2,502	25,870	5,592	1,828	7,435
1940-41	1,495	2,308	14,260	9,522	7,569	11,500	9,806	2,919	1,569	4,122	2,705	1,302	5,764
1941-42	1,123	1,401	5,743	5,936	6,142	13,150	6,037	4,807	1,927	1,988	3,335	2,229	4,488
1942-43	1,391	1,554	4,911	8,489	6,224	16,050	15,800	2,537	1,744	1,762	1,158	1,734	5,272
1943-44	976	1,869	2,212	5,938	10,190	20,100	32,450	18,750	3,836	1,897	2,519	1,569	8,501
1944-45	1,125	1,579	3,082	8,581	17,870	28,450	15,900	6,183	6,889	4,372	2,875	1,356	8,128
1945-46	1,925	1,510	4,044	15,440	29,340	19,090	9,172	10,840	10,420	7,361	6,083	1,814	9,637
1946-47	1,368	4,871	5,577	27,260	13,510	15,830	27,370	9,696	3,563	2,667	1,729	1,806	9,575
1947-48	1,274	3,197	6,949	5,933	18,950	28,010	12,330	3,053	1,652	1,550	1,980	1,760	7,182

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.35	
1928-29	0.23	0.22	0.33	0.88	1.81	4.44	2.72	1.48	0.63	0.44	0.48	.34	14.00
1929-30	.24	3.96	1.78									.29	
1930-31	.47	1.10	1.73	2.05	.87	1.33	1.06	.83	.35	.78	1.56	.27	12.40
1931-32	.19	.28	2.21	5.00	4.00	2.41	2.25	.68	.48	.38	.30	.47	18.65
1932-33	1.11	1.74	5.11	5.16	2.87	3.10	5.05	1.68	.40	1.34	.66	.36	28.58
1933-34	.24	.21	.34	.36	.78	2.97	.83	.54	1.32	.95	.53	.36	9.43
1934-35	.46	.81	1.45	2.68	1.50	7.16	3.10	3.23	.75	.42	.37	.25	22.18
1935-36	.19	.26	.57	1.94	4.65	.93	1.28	1.66	.31	.38	.28	.20	12.65
1936-37	.16	.15	.46	4.73	3.35	2.26	1.64	1.56	.63	.40	.37	.42	16.13
1937-38	.24	.42	.43	1.59	1.45	1.76	7.91	.98	.78	.73	.86	.29	17.44
1938-39	.19	.19	.29	1.60	3.74	4.36	2.43	.82	1.57	.58	.36	.22	16.35
1939-40	.28	.20	.34	.53	2.52	1.50	2.50	2.69	.49	5.25	1.13	.36	17.79
1940-41	.30	.45	2.89	1.92	1.38	2.33	1.92	.59	.31	.83	.55	.26	13.73
1941-42	.23	.27	1.16	1.20	1.12	2.66	1.18	.97	.38	.40	.68	.44	10.69
1942-43	.28	.30	1.00	1.72	1.14	3.25	3.10	.51	.34	.36	.23	.34	12.57
1943-44	.20	.37	.45	1.20	1.93	4.07	6.36	3.80	.75	.38	.51	.31	20.33
1944-45	.23	.31	.62	1.74	3.27	5.76	3.12	1.25	1.35	.89	.58	.27	19.39
1945-46	.39	.30	.82	3.13	5.37	3.87	1.80	2.20	2.04	1.49	1.23	.36	23.00
1946-47	.28	.96	1.13	5.52	2.47	3.21	5.37	1.96	.70	.54	.35	.35	22.84
1947-48	.26	.63	1.41	1.20	3.59	5.67	2.42	.62	.32	.31	.40	.35	17.18

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1929	33,800	1,010	5,870	1.03	14.00	8,049	19.20
1931	21,200	885	5,190	.912	12.40	4,927	11.78
1932	36,100	788	7,800	1.37	18.65	10,000	23.93
1933	49,300	1,240	12,000	2.11	28.58	8,989	21.41
1934	26,700	980	3,959	.696	9.43	4,768	11.36
1935	61,600	1,110	9,293	1.63	22.18	8,580	20.48
1936	39,000	875	5,288	.929	12.65	5,186	12.40
1937	42,500	736	6,759	1.19	16.13	6,893	16.45
1938	71,600	930	7,313	1.29	17.44	7,139	17.02
1939	33,500	870	6,860	1.21	16.35	6,919	16.50
1940	41,300	827	7,435	1.31	17.79	8,616	20.61
1941	26,400	1,020	5,764	1.01	13.73	4,934	11.75
1942	21,400	942	4,488	.789	10.69	4,453	10.61
1943	38,100	940	5,272	.927	12.57	5,031	12.00
1944	42,300	890	8,501	1.49	20.33	8,564	20.47
1945	35,000	970	8,128	1.43	19.39	8,272	19.74
1946	48,600	1,150	9,637	1.69	23.00	9,996	23.86
1947	51,700	1,180	9,575	1.68	22.84	9,546	22.77
1948	38,900	1,180	7,182	1.26	17.18		

LOBUTCHA CREEK NEAR CARTHAGE

LEAKE COUNTY

LOCATION—Lat. 32°46', long. 89°28', in NE¼ sec. 34, T. 11 N., R. 8 E. Choctaw meridian, at bridge on State Highway 16, 3 miles upstream from mouth and 5 miles northeast of Carthage.

DRAINAGE AREA—313 square miles.

RECORDS AVAILABLE—July 1937 to July 1938, January 1939 to September 1948.

GAGE—Staff gage at site 5 miles upstream at different datum prior to June 30, 1947; wire-weight gage thereafter.

EXTREMES (OBSERVED)—Maximum discharge, 13,500 second-feet Mar. 29, 1944 (gage height, 18.0 feet, site and datum then in use); minimum, 5.3 second-feet Aug. 24, 1943 (gage height, 1.47 feet, site and datum then in use); minimum daily, 6 second-feet Aug. 28, 1943; minimum 7-day, 6.3 second-feet Aug. 23-29, 1943.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Pearl River at Edinburg.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	15	0.049	40	163	0.520
90	20	.065	20	479	1.53
60	64	.205	10	955	3.05

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37	49.5	522	361	688	545	1,156	1,122	149	93.4	144	140	173	
1937-38				657	1,665	696	580	262	554	67.9	37.9	28.3	
1938-39				115	756	478	715	331	102	1,022	161	48.7	322
1939-40	26.0	32.5	96.0	310	464	684	400	71.3	35.7	540	115	30.8	317
1940-41	30.5	154	962	195	503	714	142	134	119	56.3	137	41.2	223
1941-42	43.7	141	459	210	158	773	260	76.8	49.3	53.0	12.5	35.8	165
1942-43	30.1	56.4	251	170	812	1,931	961	453	35.0	69.0	39.5	15.1	380
1943-44	7.7	32.6	52	405	2,057	1,067	567	171	172	120	58.4	21.2	392
1944-45	11.7	33.4	158	1,341	2,170	1,158	388	714	445	234	147	29.6	569
1945-46	36.7	67.7	206	1,752	256	598	963	179	98.5	126	38.2	20.6	385
1946-47	31.0	329	207	279	1,567	1,129	643	59.0	30.6	63.2	107	64.0	375
1947-48	20.1	225	379										

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37											0.52	0.62	
1937-38	0.18	1.88	1.35	2.57	1.84	4.31	4.05	0.55	0.34	0.54			
1938-39				2.45	5.61	2.60	2.10	.98	2.00	.25	.14	.10	
1939-40	.10	.12	.36	.43	2.64	1.78	2.58	1.24	.37	3.81	.60	.18	14.21
1940-41	.11	.55	3.59	1.16	1.56	2.55	1.45	.27	.13	2.02	.43	.11	13.93

Water year ending Sept. 30

Year	Water year ending Sept. 30			per square mile	Runoff in inches	Calendar Year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1939							
1940	3,250	12	322	1.04	14.21	382	16.81
1941	2,000	15	317	1.03	13.93	406	17.88
1942	1,600	15	223	.722	9.79	274	12.06
1943	1,950	6	165	.534	7.23	197	8.68
1944	11,200	7	380	1.23	16.76	144	6.32
1945	11,200	8.5	392	1.27	17.23	390	17.17
1946	8,700	16	569	1.84	24.98	401	17.63
1947	4,590	14	385	1.25	16.89	590	25.91
1948	3,860	14	375	1.20	16.34	390	17.09
			169				

TUSCOLAMETA CREEK AT WALNUT GROVE

LEAKE COUNTY

LOCATION—North Canal—Lat. $32^{\circ}35'$, long. $89^{\circ}28'$, in NE $\frac{1}{4}$ sec. 34, T. 9 N., R. 8 E. Choctaw meridian, at bridge on old State Highway 35, 0.4 mile southwest of Walnut Grove, 0.8 mile upstream from Gulf, Mobile and Ohio Railroad bridge, $7\frac{1}{2}$ miles upstream from junction of north and south drainage canals, and $15\frac{1}{2}$ miles upstream from mouth. South Canal—At bridge on old State Highway 35, 5000 feet southwest of north canal gage.

DRAINAGE AREA—411 square miles (combined drainage area for all channels).

RECORDS AVAILABLE—January 1939 to September 1948.

GAGE—Staff gage at north canal prior to June 17, 1930 and at south canal prior to Nov. 24, 1943; water-stage recorders thereafter. Datum of both gages is 332.70 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 16,400 second-feet Feb. 11, 1946 (gage height, 18.52 feet); maximum gage height, south canal, 18.94 feet Feb. 11, 1946; minimum discharge (combined flow), 5.0 second-feet Aug. 28, 29, 1943; minimum gage height, north canal, 2.04 feet Sept. 25, 1948; minimum gage height observed, south canal, 7.07 feet Aug. 29, 1943; minimum daily discharge (combined flow), 5.3 second-feet Aug. 27, 28, 1943; minimum 7-day (combined flow), 5.7 second-feet Aug. 22-28, 1943.

Maximum stage known, north canal, 19.3 feet, from floodmark, Apr. 8, 1938; south canal, 20.2 feet, from floodmark, Apr. 8, 1938. Prior to canalization, creek reached a stage of 24.5 feet, from floodmark, sometime between 1920 and 1925.

Note—New maximum discharge of 18,100 second-feet (gage height, 19.74 feet) was established on Nov. 29, 1949 and of 34,600 second-feet (gage height, 23.00 feet) on Jan. 7, 1950.

REMARKS—Records good. Discharge computed by combining the flow of individually rated low-water channels except when

discharge in north canal exceeds about 1,100 second-feet or that in south canal exceeds about 595 second-feet, during which periods discharge determined from combined stage-discharge relation for all channels referred to gage on north canal.

PEAK DISCHARGE—Feb. 11, 1946 (11:00 a.m.) 16,400 second-feet; Mar. 30, 1944 (3:30 p.m.) 11,700 second-feet; Jan. 21, 1947 (8:00 a.m.) 10,400 second-feet; Mar. 21, 1946 (11:00 a.m.) 9,350 second-feet; Feb. 23, 1945 (9:00 a.m.) 8,420 second-feet.

DURATION OF FLOW—Index station, Pearl River at Edinburg.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
95	14	0.034	30	279	0.680
90	18	.044	20	616	1.50
70	39	.095	10	1,460	3.55
50	104	.253	5	2,750	6.70

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				626	1,865	1,110	70.4	131	294	61.5	22.4	10.6	
1939-40	11.4	15.4	53.3	128	1,030	346	793	704	120	1,896	66.8	85.8	436
1940-41	24.9	137	1,065	292	584	599	408	52.8	51.1	372	88.7	16.9	307
1941-42	36.3	39.8	669	225	455	961	311	94.6	35.2	19.0	180	84.5	259
1942-43	33.9	57.8	357	301	402	1,732	448	89.3	34.2	17.9	10.4	30.2	294
1943-44	10.1	39.7	110	334	1,262	1,970	2,106	740	55.7	48.9	106	53.5	566
1944-45	17.9	67.5	385	655	2,156	1,775	663	443	278	374	61.5	20.6	565
1945-46	80.4	49.4	353	1,330	2,784	1,267	158	1,538	295	436	332	47.4	712
1946-47	32.9	382	500	2,755	291	1,055	1,770	352	476	97.1	35.6	50.8	653
1947-48	21.3	288	486	386	1,572	2,079	663	60.4	29.7	36.5	49.5	55.7	474

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39				1.75	4.73	3.11	1.91	0.37	0.80	0.17	0.06	0.03	
1939-40	0.03	0.04	0.15	.36	2.71	.97	2.15	1.97	.33	5.32	.19	.23	14.45
1940-41	.07	.37	2.99	.82	1.48	1.68	1.11	.15	.14	1.04	.25	.05	10.15
1941-42	.10	.11	1.88	.63	1.15	2.70	.85	.27	.10	.05	.51	.23	8.58
1942-43	.10	.16	1.00	.85	1.02	4.86	1.22	.25	.09	.05	.03	.08	9.71

1943-44	.03	.11	.31	.94	3.31	5.53	5.72	2.08	.15	.14	.30	.15	18.77
1944-45	.05	.18	1.08	1.84	5.46	4.98	1.80	1.24	.76	1.05	.17	.06	18.67
1945-46	.23	.13	.99	3.73	7.05	3.56	.43	4.31	.80	1.22	.93	.13	23.51
1946-47	.09	1.04	1.40	7.73	.74	2.96	4.81	.99	1.29	.27	.10	.14	21.56
1947-48	.06	.78	1.36	1.08	4.13	5.83	1.80	.17	.08	.10	.14	.15	15.68

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1939						398	13.15
1940	6,020	7.8	436	1.06	14.45	533	17.66
1941	3,680	8.3	307	.747	10.15	266	8.81
1942	2,990	9.1	259	.630	8.58	234	7.76
1943	11,300	5.3	294	.715	9.71	269	8.90
1944	11,700	8.6	566	1.38	18.77	592	19.63
1945	8,210	9.3	565	1.37	18.67	566	18.71
1946	15,300	18	712	1.73	23.51	748	24.69
1947	9,850	16	653	1.59	21.56	643	21.23
1948	7,040	15	474	1.15	15.68		

YOKAHOCKANY RIVER NEAR KOSCIUSKO

ATTALA COUNTY

LOCATION—Lat. 33°02', long. 89°35', in T. 14 N., R. 7 E. Choctaw meridian, at bridge on State Highway 35, 2 miles south of Kosciusko.

DRAINAGE AREA—314 square miles.

RECORDS AVAILABLE—August 1938 to Sept. 1948.

AVERAGE DISCHARGE—10 years, 354 second-feet.

GAGE—Staff gage prior to Mar. 28, 1939; water-stage recorder thereafter. Datum of gage is 374.34 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 11,600 second-feet Feb. 11, 1946 (gage height, 16.21 feet); minimum, 2.3 second-feet Aug. 20-24, 1943; minimum gage height, 0.10 foot Sept. 3-6, 1939; minimum daily discharge, 2.3 second-feet Aug. 20-24, 1943; minimum 7-day, 2.4 second-feet Aug. 19-25, 1943.

Flood in December 1932 reached a stage of about 17 feet (authority, Corps of Engineers).

Note—New maximum discharge of 13,200 second-feet (gage height, 17.08 feet) was established on Jan. 8, 1950.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 11, 1946 (11:00 a.m.) 11,600 second-feet; Feb. 22, 1945 (4:30 p.m.) 10,200 second-feet; May 6, 1944 (8:00 a.m.) 9,710 second-feet; Mar. 30, 1944 (2:00 a.m.) 9,500 second-feet; Feb. 26, 1944 (6:00 a.m.) 8,380 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	6	0.018	60	38	0.122
95	8	.026	30	215	.685
90	11	.036	20	414	1.32
70	23	.072	5	1,790	5.70

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38												18.0	
1938-39	14.4	37.2	61.7	495	1,147	542	451	488	417	55.4	21.9	30.9	307
1939-40	12.9	17.7	131	132	1,226	687	703	202	105	1,188	106	21.0	375
1940-41	12.3	139	829	255	284	623	199	27.6	26.9	682	105	38.3	270
1941-42	47.1	169	516	176	651	653	80.7	276	140	23.9	129	18.3	238
1942-43	13.1	18.3	349	86.7	203	554	138	65.1	18.2	24.1	3.95	11.5	124
1943-44	5.28	23.4	43.5	195	1,268	1,844	866	842	24.8	78.0	92.1	12.9	439
1944-45	8.80	28.3	181	553	2,268	1,193	475	160	105	55.3	42.3	9.82	411
1945-46	20.1	42.9	204	1,428	2,095	953	182	507	360	360	219	21.2	524
1946-47	27.5	390	236	1,871	256	586	947	262	424	247	35.6	10.3	443
1947-48	15.2	156	304	408	1,728	1,232	890	41.2	33.9	58.6	49.9	68.0	410

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1937-38												0.06	
1938-39	0.05	0.13	0.23	1.82	3.80	1.99	1.61	1.79	1.48	0.20	0.08	.11	13.29
1939-40	.05	.06	.48	.48	4.21	2.52	2.50	.74	.37	4.36	.39	.07	16.23
1940-41	.04	.49	3.04	.94	.94	2.28	.71	.10	.10	2.50	.39	.14	11.67
1941-42	.17	.60	1.90	.64	2.16	2.40	.29	1.01	.50	.09	.47	.06	10.29
1942-43	.05	.07	1.28	.32	.67	2.03	.49	.24	.06	.09	.01	.04	5.35
						175							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	.02	.08	.16	.72	4.35	6.77	3.08	3.09	.09	.29	.34	.05	19.04
1944-45	.03	.10	.66	2.03	7.52	4.38	1.69	.59	.37	.20	.16	.03	17.76
1945-46	.07	.15	.75	5.24	6.95	3.50	.65	1.86	1.28	1.32	.80	.08	22.65
1946-47	.10	1.39	.87	6.87	.85	2.15	3.36	.96	1.51	.91	.13	.04	19.14
1947-48	.06	.56	1.12	1.50	5.93	4.52	3.16	.15	.12	.22	.18	.24	17.76

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1939	2,800	7.5	307	0.978	13.29	13.47
1940	4,500	9.3	375	1.19	16.23	19.21
1941	3,000	9.2	270	.860	11.67	10.77
1942	2,230	8.9	238	.758	10.29	9.02
1943	2,600	2.3	124	.395	5.35	4.21
1944	8,890	4.3	439	1.40	19.04	19.57
1945	9,200	6.3	411	1.31	17.76	17.94
1946	10,900	8.0	524	1.67	22.65	24.04
1947	4,650	4.2	443	1.41	19.14	18.52
1948	5,160	10	410	1.31	17.76	

YOKAHOCKANY RIVER NEAR OFAHOMA

LEAKE COUNTY

LOCATION—Lat. 32°42', long. 89°40', in NW¼ sec. 22, T. 10 N., R. 6 E. Choctaw meridian, at bridge on State Highway 16, 1½ miles southeast of Ofahoma, 3 miles upstream from mouth, and 8½ miles southwest of Carthage.

DRAINAGE AREA—484 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1943 to September 1948.

GAGE—Wire-weight gage read to hundredths of a foot once daily. Datum of gage is 310.78 feet above mean sea level (levels by Corps of Engineers).

EXTREMES (OBSERVED)—Maximum discharge, 10,700 second-feet Feb. 28, Mar. 29, 31, 1944; maximum gage height, 18.41 feet Feb. 13, 1946; minimum discharge, 6 second-feet Oct. 5, 1947; minimum gage height, 3.00 feet Oct. 11, 12, 1943; minimum daily discharge, 6 second-feet Oct. 5, 1947; minimum 7-day, 9.4 second-feet Oct. 11-17, 1943.

Note—New maximum discharge of 12,100 second-feet (gage height, 19.2 feet) was established on Jan. 10, 1950.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Yokahockany River near Kosciusko.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	21	0.044	60	69	0.143
80	28	.057	20	774	.160
70	41	.084			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	12.0	37.4	50	262	1,486	2,767	1,959	1,101	68.4	60.7	143	24.2	661
1944-45	18.1	39.0	190	880	3,309	1,780	824	313	238	96.3	64.7	22.3	630
1945-46	27.4	52.5	205	2,128	3,433	1,618	564	989	716	519	487	34.6	883
1946-47	27.2	411	323	3,295	391	901	1,540	369	416	344	44.9	22.1	677
1947-48	16.1	206	421	442	2,820	1,985	1,387	60.8	41.9	77.2	84.0	61.6	625

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44	0.03	0.09	0.12	0.62	3.31	6.59	4.52	2.62	0.16	0.14	0.34	0.06	18.60
1944-45	.04	.09	.45	2.10	7.12	4.24	1.90	.75	.55	.23	.15	.05	17.67
1945-46	.07	.12	.49	5.07	7.39	3.85	1.30	2.35	1.65	1.24	1.16	.08	24.77
1946-47	.06	.95	.77	7.85	.84	2.15	3.55	.88	.96	.82	.11	.05	18.99
1947-48	.04	.48	1.00	1.05	6.28	4.73	3.20	.14	.10	.18	.20	.14	17.54

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches	
1944	10,100	8	661	1.37	18.60	674	18.94	
1945	8,550	11	630	1.30	17.67	633	17.77	
1946	10,500	14	883	1.82	24.77	923	25.87	
1947	6,640	17	677	1.40	18.99	667	18.73	
1948	6,860	6	625	1.29	17.54			

STRONG RIVER AT DLO

SIMPSON COUNTY

LOCATION—Lat. $31^{\circ}58'45''$, long. $89^{\circ}54'05''$, in SW $\frac{1}{4}$ sec. 28, T. 2 N., R. 4 E. Choctaw meridian, at bridge on U. S. Highway 49, 460 feet upstream from Gulf and Ship Island Railroad bridge, a quarter of a mile south of Dlo, 1,500 feet downstream from Sellers Creek, 1.6 miles upstream from Dobbs Creek, and 2 miles northwest of Mendenhall.

DRAINAGE AREA—429 square miles.

RECORDS AVAILABLE—August 1928 to September 1948.

AVERAGE DISCHARGE—19 years (1928-29, 1930-48), 551 second-feet.

GAGE—Prior to Oct. 19, 1938, staff gage at site 700 feet upstream, datum 5.0 feet higher; water-stage recorder at present site and datum thereafter. Datum of gage is 257.99 feet above mean sea level (Corps of Engineers' bench mark).

EXTREMES—Maximum discharge, 22,900 second-feet Mar. 7, 1935 (gage height 28.0 feet, from floodmarks, site and datum then in use), from rating curve extended above 13,400 second-feet; minimum, 16 second-feet Aug. 8, 9, 1933 (gage height, 2.25 feet, site and datum then in use); minimum daily, 16 second-feet Aug. 8, 1933; minimum 7-day, 18 second-feet Sept. 24-30, 1936.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 7, 1935 (a.m.) 22,900 second-feet; Apr. 8, 1938 (3:00 p.m.) 16,800 second-feet; May 1, 1940 (6:00 p.m.) 13,200 second-feet; Feb. 5, 1936 (6:00 p.m.) 12,000 second-feet; Apr. 30, 1936 (6:00 p.m.) 11,300 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	23	0.054	50	115	0.267
95	27	.062	30	317	.740
90	32	.075	20	601	1.40
70	54	.126	5	2,830	6.60

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28													44.6
1928-29	36.8	39.4	106	742	1,110	2,440	242	226	145	120	132	102	452
1929-30	57.1	2,200	550									62.2	
1930-31	277	1,010	922	1,020	444	473	337	386	85.9	970	202	32.2	515
1931-32	29.3	105	1,280	2,390	1,630	555	738	279	61.7	67.6	40.2	37.0	599
1932-33	271	560	3,150	1,440	970	1,200	2,150	492	68.0	956	113	60.0	955
1933-34	29.0	43.0	65.3	63.5	350	1,158	151	106	444	89.1	147	61.7	225
1934-35	111	540	861	840	592	2,758	1,133	1,386	115	105	200	53.5	728
1935-36	24.2	53.8	264	1,071	1,979	249	957	732	61.0	71.3	37.3	39.4	455
1936-37	19.8	23.7	148	3,321	1,177	754	302	320	115	30.9	59.1	35.0	525
1937-38	25.3	38.5	69.2	339	714	524	3,909	96.2	314	236	657	32.7	573
1938-39	23.8	33.9	84.4	623	1,899	1,423	854	147	284	101	43.1	30.4	452
1939-40	35.3	29.5	126	127	1,414	614	899	1,375	287	2,853	147	225	677
1940-41	48.7	357	1,643	453	511	818	1,177	124	89.4	381	138	43.1	482
1941-42	62.6	50.9	578	334	596	1,156	399	165	64.6	73.3	193	136	317
1942-43	48.1	57.4	490	442	564	2,088	814	98.5	52.9	78.7	29.2	175	412
1943-44	32.7	128	236	619	1,350	2,045	2,616	775	88.6	42.1	151	50.5	674
1944-45	29.3	61.6	225	498	2,449	2,434	906	436	515	626	96.8	51.6	683
1945-46	79.8	58.3	269	1,220	2,584	1,041	171	944	270	308	289	49.9	596
1946-47	35.8	226	300	2,801	327	1,352	2,514	360	181	50.5	42.8	44.4	689
1947-48	35.4	80.6	353	510	1,516	1,971	633	87.8	46.6	59.1	101	98.8	454

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28												0.12	
1928-29	0.10	0.10	0.29	1.99	2.70	6.56	0.63	0.61	0.38	0.32	0.36	.26	14.30
1929-30	.15	5.73	1.48									.16	
1930-31	.74	2.62	2.48	2.73	1.08	1.27	.88	1.04	.22	2.61	.54	.08	16.29
1931-32	.08	.27	3.43	6.42	4.09	1.49	1.92	.75	.16	.18	.11	.10	19.00
1932-33	.73	1.46	8.47	3.85	2.35	3.23	5.59	1.32	.18	2.57	.30	.16	30.21
1933-34	.08	.11	.18	.17	.85	3.11	.39	.28	1.16	.24	.40	.16	7.13
1934-35	.30	1.40	2.31	2.26	1.44	7.41	2.95	3.72	.30	.28	.54	.14	23.05
1935-36	.07	.14	.71	2.88	4.98	.67	2.49	1.97	.16	.19	.10	.10	14.46
1936-37	.05	.06	.40	8.92	2.86	2.03	.79	.86	.30	.08	.16	.09	16.60
1937-38	.07	.10	.19	.91	1.73	1.41	10.17	.26	.82	.63	1.77	.09	18.15
1938-39	.06	.09	.23	1.67	4.61	3.83	2.22	.40	.74	.27	.12	.08	14.32
1939-40	.09	.08	.34	.34	3.56	1.65	2.34	3.70	.75	7.67	.40	.58	21.50
1940-41	.13	.93	4.42	1.22	1.24	2.20	3.06	.33	.23	1.02	.37	.11	15.26
1941-42	.17	.13	1.55	.90	1.45	3.11	1.04	.44	.17	.20	.52	.35	10.03
1942-43	.13	.15	1.32	1.19	1.37	5.61	2.12	.26	.14	.21	.08	.45	13.03
1943-44	.09	.33	.63	1.66	3.39	5.50	6.80	2.08	.23	.11	.41	.13	21.36
1944-45	.08	.16	.61	1.34	5.94	6.54	2.36	1.17	1.34	1.68	.26	.13	21.61
1945-46	.21	.15	.72	3.28	6.27	2.80	.45	2.54	.70	.83	.78	.13	18.86
1946-47	.10	.59	.81	7.53	.79	3.63	6.54	.97	.47	.14	.12	.12	21.81
1947-48	.10	.21	.95	1.37	3.81	5.30	1.65	.24	.12	.16	.27	.26	14.44

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar Year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1929	8,080	27	452	1.05	14.30	669	21.17
1931	4,220	28	515	1.20	16.29	450	14.23
1932	6,730	23	599	1.40	19.00	816	25.88
1933	6,680	16	955	2.23	30.21	630	19.92
1934	6,730	21	225	.524	7.13	341	10.77
1935	20,500	24	728	1.70	23.05	630	19.96
1936	11,400	18	455	1.06	14.46	443	14.05
1937	8,320	17	525	1.22	16.60	520	16.45
1938	15,800	23	573	1.34	18.15	574	18.14
1939	4,270	20	452	1.05	14.32	456	14.45
1940	12,500	24	677	1.58	21.50	833	26.47
1941	5,440	26	482	1.12	15.26	368	11.63
1942	3,780	27	317	.739	10.03	309	9.78
1943	6,170	20	412	.960	13.03	395	12.48
1944	8,470	26	674	1.57	21.36	667	21.16
1945	7,480	24	683	1.59	21.61	691	21.84
1946	10,100	40	596	1.39	18.86	608	19.28
1947	10,800	29	689	1.61	21.81	681	21.57
1948	7,600	29	454	1.06	14.44		

BOGUE CHITTO NEAR TYLERTOWN

WALTHALL COUNTY

LOCATION—Lat. $31^{\circ}11'$, long. $90^{\circ}17'$, in SE $\frac{1}{4}$ sec. 34, T. 3 N., R. 9 E. Washington meridian, a quarter of a mile downstream from Fernwood, Columbia and Gulf Railroad bridge, a quarter of a mile downstream from Bars Branch, $2\frac{1}{4}$ miles downstream from Topisaw Creek, and 9 miles northwest of Tylertown.

DRAINAGE AREA—502 square miles.

RECORDS AVAILABLE—August 1944 to September 1948.

GAGE—Prior to Sept. 14, 1944 wire-weight gage read twice daily to hundredths; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 21,400 second-feet Mar. 4, 1948 (gage height, 23.05 feet); minimum, 208 second-feet Nov. 6, 1944; minimum gage height, 7.38 feet Oct. 21, 1946; minimum daily discharge, 210 second-feet Nov. 6, 1944; minimum 7-day, 216 second-feet Oct. 26 to Nov. 1, 1944.

Note—A new maximum discharge of 45,000 second-feet (gage height, 33.48 feet) was established on Jan. 7, 1950.

REMARKS—Records good.

PEAK DISCHARGE—Mar. 4, 1948 (10:00 a.m.) 21,400 second-feet; Jan. 20, 1947 (8:30 a.m.) 19,100 second-feet; Apr. 3, 1947 (9:00 a.m.) 17,000 second-feet; Sept. 22, 1946 (11:00 a.m.) 14,100 second-feet; Mar. 6, 1948 (9:30 p.m.) 13,800 second-feet.

DURATION OF FLOW—Index station, Strong River at Dlo.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
95	198	0.395	40	542	1.08
90	271	.540	30	678	1.35
80	326	.650	20	954	1.90
50	462	.920	10	1,760	3.50

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44													0.80
1944-45	0.64	0.98	1.48	2.74	3.92	1.66	2.54	1.23	1.46	1.55	1.25	.63	20.08
1945-46	1.10	.95	2.73	3.53	2.87	3.00	.87	2.97	1.95	3.45	1.27	1.90	26.59
1946-47	.82	2.38	1.61	6.89	1.29	5.70	6.39	1.83	1.41	.84	.93	1.63	31.72
1947-48	.84	1.50	3.26	2.89	3.51	8.23	1.34	.87	.75	.88	.77	.79	25.63

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1943-44													362
1944-45	280	441	645	1,193	1,892	724	1,143	534	656	676	543	283	743
1945-46	479	426	1,188	1,539	1,384	1,306	394	1,295	878	1,503	553	854	984
1946-47	355	1,072	701	3,001	622	2,483	2,875	798	634	365	404	731	1,173
1947-48	365	674	1,420	1,258	1,633	3,584	605	377	337	383	333	355	945

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean in inches
1945	4,970	210	743	1.48	20.08	805
1946	8,880	260	984	1.96	26.59	985
1947	17,500	300	1,173	2.34	31.72	1,202
1948	18,800	285	945	1.88	25.63	32.51

YAZOO RIVER BASIN

TALLAHATCHIE RIVER AT ETТА

UNION COUNTY

LOCATION—Lat. 34°28', long. 89°13', in SW¼ sec. 8, T. 7 S., R. 1 E. Chickasaw meridian, at bridge on State Highway 30, three quarters of a mile northeast of Etta, 3¾ miles upstream from Puskus Creek, 4 miles downstream from Locks Creek, and 13 miles west of New Albany.

DRAINAGE AREA—526 square miles.

RECORDS AVAILABLE—September 1938 to September 1948 in reports of Geological Survey. November 1936 to February 1937 at same site and at datum 0.33 foot higher (discharge measurements only), in reports of Corps of Engineers.

AVERAGE DISCHARGE—10 years, 758 second-feet.

GAGE—Wire-weight gage prior to March 16, 1939; water-stage recorder thereafter. Datum of gage is 278.48 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 51,200 second-feet Feb. 13, 1948 (gage height, 23.70 feet); minimum, 4.1 second-feet Oct. 3, 16, 1938; minimum daily, 4.1 second-feet Oct. 3, 16, 1938; minimum 7-day, 4.3 second-feet Oct. 3-9, 1938.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 13, 1948 (3:00 p.m.) 51,200 second-feet; Jan. 8, 1946 (3:00 p.m.) 32,600 second-feet; Feb. 9, 1946 (11:00 p.m.) 31,000 second-feet; Feb. 15, 1939 (11:05 a.m.) 29,900 second-feet; Mar. 29, 1944 (8:00 a.m.) 28,800 second-feet.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	10	0.018	20	757	1.44
95	12	.023	10	1,690	3.22
70	48	.092	5	3,000	5.70
45	190	.362	3	4,210	8.00

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	9.83	78.5	56.9	1,062	3,750	1,379	1,482	1,387	3,174	473	101	33.9	1,059
1939-40	21.9	31.0	130	178	950	1,547	1,898	249	371	948	160	25.4	540
1940-41	18.6	513	1,470	716	353	600	511	209	208	508	228	58.9	452
1941-42	150	1,019	429	446	1,305	1,441	986	206	80.6	42.3	86.8	13.5	511
1942-43	16.2	22.6	865	232	313	1,684	295	107	34.8	38.0	40.8	154	319
1943-44	9.37	251	100	374	2,256	2,871	1,466	747	49.5	220	147	107	711
1944-45	16.4	46.3	1,091	2,473	1,616	2,346	736	368	495	105	152	108	794
1945-46	75.4	1,085	1,257	3,948	3,472	1,734	536	1,460	417	913	497	89.1	1,281
1946-47	79.3	1,350	608	3,354	486	1,353	2,075	506	273	406	137	129	899
1947-48	36.8	678	566	582	5,697	2,615	1,550	326	78.9	148	32.6	62.9	1,010

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.02	0.17	0.12	2.33	7.42	3.02	3.15	3.04	6.73	1.04	0.22	0.07	27.33
1939-40	.05	.07	.28	.39	1.95	3.39	4.03	.55	.79	2.08	.35	.05	13.98
1940-41	.04	1.09	3.22	1.57	.70	1.31	1.08	.46	.44	1.11	.50	.12	11.64
1941-42	.33	2.16	.94	.98	2.58	3.16	2.09	.45	.17	.09	.19	.03	13.17
1942-43	.04	.05	1.90	.51	.62	3.69	.63	.23	.07	.08	.09	.33	8.24

1943-44	.02	.53	.22	.82	4.63	6.29	3.11	1.64	.11	.48	.32	.23	18.40
1944-45	.04	.10	2.39	5.42	3.20	5.14	1.56	.81	1.05	.23	.33	.23	20.50
1945-46	.17	2.30	2.75	8.65	6.87	3.80	1.14	3.20	.88	2.00	1.09	.19	33.04
1946-47	.17	2.86	1.33	7.35	.96	2.97	4.40	1.11	.58	.89	.30	.27	23.19
1947-48	.08	1.44	1.24	1.28	11.68	5.73	3.29	.71	.17	.32	.07	.13	26.14

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1939	25,600	4.1	1,059	2.01	27.33	1,062
1940	22,000	13	540	1.03	13.98	692
1941	12,200	8	452	.859	11.64	416
1942	7,970	6.7	511	.971	13.17	454
1943	16,600	5.0	319	.606	8.24	272
1944	25,200	6.9	711	1.35	18.40	778
1945	23,500	9.8	794	1.51	20.50	899
1946	28,600	18	1,281	2.44	33.04	1,247
1947	18,800	20	899	1.71	23.19	837
1948	44,400	12	1,010	1.92	26.14	

TALLAHATCHIE RIVER AT SARDIS DAM, NEAR SARDIS

PANOLA COUNTY

LOCATION—Lat. $34^{\circ}23'57''$, long. $89^{\circ}47'10''$, in NE $\frac{1}{4}$ sec. 11, T. 8 S., R. 6 W. Chickasaw meridian, in gatehouse of Sardis Dam, and $7\frac{1}{2}$ miles southeast of Sardis.

DRAINAGE AREA—1,545 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1940 to September 1948.

GAGE—Staff gage prior to Feb. 27, 1940; water-stage recorder thereafter. Datum of gage is 219.43 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 5,780 second-feet June 24, 1946; no flow at times.

REMARKS—Records good. Flow completely regulated by Sardis Reservoir.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40				776	2,332	2,874	4,490	1,023	817	2,298	1,012	521	
1940-41	327	1,127	3,006	1,990	1,311	1,617	1,567	695	360	1,332	897	399	1,222
1941-42	603	2,090	1,442	1,332	4,082	3,835	4,264	596	475	495	445	264	1,639
1942-43	309	417	2,186	1,286	1,658	5,124	1,470	827	265	246	246	638	1,225
1943-44	240	750	605	1,259	4,766	7,445	4,780	1,865	328	494	706	809	1,992
1944-45	615	586	3,586	7,574	3,777	6,721	2,763	1,257	1,275	813	849	1,000	2,570
1945-46	758	3,984	3,578	10,340	8,780	5,061	2,089	4,208	1,460	2,629	1,053	772	3,703
1946-47	785	2,855	1,518	7,711	1,800	3,497	4,770	2,039	2,213	853	611	678	2,447
1947-48	583	2,378	1,878	2,465	13,540	6,569	3,660	1,318	796	1,135	662	574	2,918

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40				0.58	1.63	2.14	3.25	0.76	0.59	1.72	0.76	0.38	
1940-41			2.25	1.49	.88	1.21	1.13	.52	.26	.99	.67	.29	10.74
1941-42	.45	1.51	1.08	.99	2.75	2.86	3.08	.44	.34	.37	.33	.19	14.39
1942-43	.23	.30	1.63	.96	1.11	3.83	1.06	.62	.19	.18	.18	.46	10.75
1943-44	.18	.54	.45	.94	3.32	5.56	3.45	1.40	.24	.37	.53	.58	17.56
1944-45	.46	.42	2.68	5.65	2.54	5.02	2.00	.94	.92	.61	.63	.72	22.59

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1945-46	.57	2.88	2.68	7.71	5.92	3.78	1.51	3.14	1.05	1.90	.79	.56	32.49
1946-47	.59	2.06	1.13	5.75	1.21	2.61	3.44	1.52	1.60	.64	.46	.49	21.50
1947-48	.43	1.72	1.41	1.84	9.45	4.90	2.64	.98	.57	.85	.49	.42	25.70

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1940						1,714	15.11
1941	3,200	0	1,222	.791	10.74	1,192	10.48
1942	4,580	0	1,639	1.06	14.39	1,539	13.51
1943	4,070	0	1,225	.793	10.75	1,112	9.76
1944	4,920	0	1,992	1.29	17.56	2,263	19.95
1945	5,120	0	2,570	1.66	22.59	2,862	25.16
1946	5,640	0	3,703	2.40	32.49	3,437	30.14
1947	5,410	0	2,447	1.58	21.50	2,421	21.28
1948	5,240	0	2,918	1.89	25.70		

TALLAHATCHIE RIVER AT SARDIS

PANOLA COUNTY

LOCATION—Lat. $34^{\circ}23'$, long. $89^{\circ}53'$, in SW $\frac{1}{4}$ sec. 19, T. 8 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51 (old), $3\frac{1}{2}$ miles upstream from Illinois Central Railroad bridge, 4 miles southeast of Sardis, $9\frac{1}{2}$ miles downstream from Sardis Reservoir, and about 16 miles upstream from point of diversion of Panola-Quitman floodway.

DRAINAGE AREA—1,680 square miles.

RECORDS AVAILABLE—June 1906 to December 1912 (published in reports of U. S. Geological Survey as Tallahatchie River at Batesville), July 1928 to September 1931 and October 1938 to September 1942 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—13 years (1928-31, 1932-42, 1,946 second-feet.

GAGE—Chain gage at site $5\frac{1}{2}$ miles downstream at different datum prior to December 1912; chain gage July 1928 to September 1935; wire-weight gage thereafter.

EXTREMES (OBSERVED)—Maximum discharge, 65,300 second-feet Jan. 15, 1932 (gage height, 26.40 feet); minimum, 16 second-feet Sept. 19, 1942; minimum daily, 16 second-feet Sept. 19, 1942; minimum 7-day, 20 second-feet Sept. 13-19, 1942.

REMARKS—Records good. Flow completely regulated by Sardis Reservoir since Aug. 26, 1939.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28											680	544	
1928-29	470	493	782	1,380	2,020	6,350	2,400	3,060	681	716	709	855	1,660
1929-30	554	3,120	1,570	5,050	3,370	4,590	947	3,190	576	371	335	583	2,020
1930-31	451	825	1,120	1,710	1,420	2,680	2,790	1,380	569	1,630	1,180	390	1,350
1931-32				12,710	10,280	1,998	2,616	1,579	576	3,548	1,224	2,158	
1932-33	4,752	1,683	6,373	4,551	7,372	5,937	7,212	4,898	953	385	586	726	3,811
1933-34	473	650	2,421	1,232	842	4,199	1,282	590	817	813	677	513	1,216
1934-35	570	2,074	1,734	6,764	3,946	4,833	3,685	1,871	1,430	529	446	429	2,351
1935-36	824	2,128	725	1,645	2,361	2,969	3,267	597	396	533	382	618	1,362
1936-37	1,380	1,697	3,241	10,500	2,149	2,126	1,033	1,472	534	724	422	397	2,153
1937-38	462	643	747	3,518	2,700	3,716	5,339	866	1,908	525	600	378	1,773
1938-39	326	515	521	2,900	9,160	3,880	5,890	2,550	7,570	1,850	899	177	2,960
1939-40	352	362	574	898	1,755	2,717	3,440	1,820	403	828	3,242	1,679	1,505
1940-41	27.5	383	1,103	2,820	1,979	1,410	2,662	1,959	423	1,193	1,660	975	1,381
1941-42	516	1,556	1,938	1,360	2,701	2,722	1,265	2,428	4,281	2,277	45.3	21.3	1,753

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28											0.47	0.36	
1928-29											.49	.57	
1929-30	0.32	0.33	0.54	0.95	1.25	4.36	1.60	2.10	0.45	0.49	.23	.39	13.45
1930-31	.38	2.08	1.08	3.47	2.09	3.15	.63	2.19	.38	.25	.81	.26	16.32
1931-32	.31	.55	.77	1.18	.88	1.84	1.85	.95	.38	1.12	.84	1.43	10.90
1932-33	3.26	1.12	4.37	3.12	4.57	4.07	4.79	3.36	.63	2.43	.40	.48	30.78

Year	SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE											
	Water year ending Sept. 30					Calendar Year						
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches					
1933-34	.32	.43	1.66	.85	.52	2.88	.85	.41	.54	.56	.34	9.82
1934-35	.39	1.38	1.19	4.64	2.45	3.32	2.45	1.28	.95	.36	.31	19.00
1935-36	.57	1.41	.50	1.13	1.52	2.04	2.17	.41	.26	.37	.26	11.05
1936-37	.95	1.13	2.22	7.20	1.33	1.46	.69	1.01	.35	.50	.29	17.39
1937-38	.32	.43	.51	2.41	1.67	2.55	3.55	.59	1.27	.36	.41	14.32
1938-39	.22	.34	.36	1.99	5.68	2.66	3.92	1.75	5.02	1.27	.62	12
1939-40	.24	.24	.39	.62	1.12	1.87	2.29	1.24	.27	.57	2.22	1.12
1940-41	.02	.25	.76	1.94	1.23	.97	1.77	1.34	.28	.82	1.14	.65
												11.17

TALLAHATCHIE RIVER NEAR LAMBERT

QUITMAN COUNTY

LOCATION—Lat. $34^{\circ}10'50''$, long. $90^{\circ}12'55''$, in SW $\frac{1}{4}$ sec. 29, T. 27 N. R. 1 E. Choctaw meridian, at county highway bridge a quarter of a mile downstream from Coldwater River, 4 miles southeast of Lambert, and $24\frac{1}{2}$ miles downstream from point of diversion of Panola-Quitman floodway. Auxiliary gage at Shine Turner Bridge on county road $5\frac{3}{4}$ miles downstream.

DRAINAGE AREA—1,980 square miles (authority, Corps of Engineers; does not include 2,600 square miles of Upper Tallahatchie and Yocona Rivers, entire flow of which is diverted $24\frac{1}{2}$ miles upstream through Panola-Quitman floodway).

RECORDS AVAILABLE—October 1938 to September 1948 in reports of Geological Survey; January 1936 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—10 years, 2,641 second-feet.

GAGE—Wire-weight gage prior to Sept. 5, 1946; water-stage recorder thereafter. Datum of gage is 123.83 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Auxiliary gage at datum 2.66 feet higher; wire-weight gage prior to Sept. 10, 1946; water-stage recorder thereafter.

EXTREMES—Maximum discharge observed, 16,100 second-feet Jan. 16, 17, 1946; maximum gage height, 33.50 feet Jan. 16, 1946; minimum discharge observed, 59 second-feet Oct. 27-29, 1942; minimum gage height observed, 5.01 feet Nov. 2, 3, 1938; minimum daily discharge, 59 second-feet Oct. 27-29, 1942; minimum 7-day, 62 second-feet Oct. 24-30, 1942.

A stage of 36.8 feet (from floodmarks) occurred in January 1932 (probably affected by levee breaks above).

REMARKS—Records good. Flow partly regulated by Arkabutla Reservoir on Coldwater River.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36					1,443	1,149	2,770	323	304	414	195	297	
1936-37			2,379	10,390	10,320	3,546		753	607	444	297	289	
1937-38	466	842	688	2,821	7,263	5,917	6,296	2,382	1,032	392	340	221	2,387
1938-39	499	1,241		2,847	11,615	8,285	8,026	4,332	2,343	1,828	778	345	3,375
1939-40	192	289	332	583	2,257	1,096	1,787	843	556	2,446	539	512	950
1940-41	283	215	345	1,779	1,389	952	1,720	1,246	324	631	616	587	1,028
1941-42	314	379	1,779	2,402	4,318	5,641	9,866	2,238	570	360	559	282	2,395
1942-43	594	2,026	871	1,704	4,318	7,721	3,627	1,058	499	265	219	404	1,778
1943-44	139	790	1,986	2,434	2,179	5,825	7,613	5,374	2,617	273	328	879	2,360
1944-45	190	305	350	682	4,055	8,941	7,244	5,232	1,736	525	690	550	3,585
1945-46	545	564	2,746	8,645	5,668	8,941	5,924	4,711	4,594	4,138	1,889	680	5,256
1946-47	1,005	3,129	5,244	12,370	11,570	8,215	2,498	2,286	2,651	2,989	1,315	551	2,417
1947-48	438	1,145	1,837	6,268	4,164	2,940	7,636	4,225	1,690	988	1,544	471	3,265
	307	796	1,027	1,874	8,413	10,460							

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar year		
	Maximum Day	Minimum Day	Per square mile	Mean	Runoff in inches	Runoff in inches
1938	9,320	184	1.21	2,387	16.37	15.45
1939	15,100	113	1.70	3,375	23.14	23.13
1940	4,090	145	.48	950	6.52	7.47
1941	5,590	167	.52	1,028	7.05	7.63
1942	15,800	165	1.21	2,395	16.42	16.42
1943	14,300	59	.90	1,780	12.20	10.62
1944	11,400	85	1.19	2,358	16.20	18.92
1945	12,400	140	1.81	3,585	24.57	27.69
1946	16,100	175	2.68	5,300	36.38	32.08
1947	8,500	145	1.22	2,418	16.57	15.92
1948	12,400	81	1.65	3,262	22.42	
				195		

TALLAHATCHIE RIVER AT SWAN LAKE

TALLAHATCHIE COUNTY

LOCATION—Lat. $33^{\circ}52'55''$, long. $90^{\circ}16'45''$, in NE¼ sec. 10, T. 23 N., R. 1 W. Choctaw meridian, at county bridge, half a mile northeast of Swan Lake, 2 miles downstream from Cassidy Bayou, and 17 miles downstream from point where Panola-Quitman floodway empties into Tallahatchie River. Auxiliary gage 2.8 miles downstream, at highway bridge over cut-off $1\frac{1}{2}$ miles northeast of Glendora.

DRAINAGE AREA—5,130 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—November 1938 to September 1948 in reports of Geological Survey. November 1929 to September 1938 (except low-water periods) in reports of Corps of Engineers. Gage-height records collected at same site since November 1904 are contained in reports of U. S. Weather Bureau.

GAGE—Wire-weight gage prior to Sept. 18, 1944; water-stage recorder thereafter. Datum of gage is 113.38 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

Auxiliary gage at datum 0.95 foot lower; wire-weight prior to Oct. 4, 1944; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 43,800 second-feet Feb. 17, 1948; maximum gage height, 32.97 feet Feb. 22, 1939; minimum discharge 211 second-feet Oct. 26, 1942; minimum gage height observed, 1.38 feet Oct. 26-28, 1942; minimum daily discharge, 213 second-feet Oct. 27, 1942; minimum 7-day, 221 second-feet Oct. 23-29, 1942.

A stage of 37.0 feet occurred Jan. 15, 1932 (affected by break in levee).

REMARKS—Records good. Flow partly regulated by Sardis Reservoir on Tallahatchie River and Arkabutla Reservoir on Coldwater River.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1929-30		7,451	3,835	12,160	15,140	12,740	5,713	8,822	8,369				
1930-31		1,505	2,330	3,837	2,760	8,735	7,586	3,683	1,488				
1931-32			12,810	25,670	19,510	13,830	9,751						
1932-33		3,368	10,060	16,000	17,060	24,840	31,210	19,620	7,290				
1933-34		1,180	6,008	9,599	2,403	12,090	6,700	1,757					
1934-35		2,761	9,476	14,820	25,100	17,550	12,520	9,054	6,450				
1935-36					5,617	3,788	9,400	1,692	956				
1936-37		3,236	5,738	19,040	24,310	9,011	4,593	3,474	2,463				
1937-38		3,055	2,193	6,123	14,320	13,300	17,060	7,927	4,205				
1938-39		933	959	6,055	25,380	20,500	22,270	10,505	9,609				
1939-40	821	827	1,221	1,995	5,245	6,077	7,206	4,489	1,375	8,010	2,188	706	
1940-41	721	1,942	5,965	7,265	5,056	4,867	5,615	4,321	1,109	7,494	4,610	2,785	3,677
1941-42	1,363	4,997	3,448	3,780	7,592	12,750	15,560	7,109	4,880	1,707	2,561	1,622	3,561
1942-43	295	1,254	2,954	6,062	5,835	13,290	8,915	4,180	2,538	3,094	856	474	5,466
1943-44	368	779	1,034	3,175	7,673	12,450	17,260	11,690	8,291	2,926	1,133	1,053	4,198
1944-45	3,841	1,460	4,170	20,990	12,070	21,210	16,410	11,720	7,853	5,095	5,416	5,156	6,511
1945-46	2,138	7,123	11,480	23,840	24,260	16,330	15,370	11,330	11,690	6,340	6,234	2,597	9,582
1946-47	5,852	5,398	6,244	14,150	10,410	10,100	9,634	5,376	6,826	12,290	7,766	6,217	12,420
1947-48	608	2,552	6,213	7,062	19,530	20,480	17,420	9,531	6,864	6,707	5,469	2,236	7,356
										6,254	6,394	5,179	8,961

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches		Calendar year	
	Maximum Day	Minimum Day	Mean		Runoff in inches	Mean	Runoff in inches	
1939						8,880	23.48	
1940	10,400	470	3,677	0.717	9.76	4,162	11.05	
1941	10,400	475	3,561	.694	9.41	3,405	9.01	
1942	23,700	375	5,537	1.08	14.66	5,349	14.12	
1943	21,400	213	4,202	.819	11.12	3,790	10.03	
1944	27,500	272	6,596	1.29	17.56	7,412	19.60	
1945	34,000	1,040	9,528	1.86	25.25	10,400	27.56	
1946	41,200	804	12,840	2.50	33.94	11,950	31.62	
1947	16,200	787	7,026	1.37	18.59	6,748	17.86	
1948	43,800	434	8,914	1.74	23.65			

TALLAHATCHIE RIVER AT PHILIPP

TALLAHATCHIE COUNTY

LOCATION—At the Yazoo and Mississippi Valley Railroad bridge at Philipp.

DRAINAGE AREA—Not determined.

RECORDS AVAILABLE—September 1908 to June 1913.

GAGE—Staff gage at sea level datum.

EXTREMES—Maximum daily discharge, 28,600 second-feet Apr. 5-8, 1912 (gage height, 13.90 feet); minimum daily, 910 second-feet at times during October and November 1909; minimum 7-day, 910 second-feet Oct. 11-17, 1909.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1908-09	1,090	1,110	2,210	2,160	5,650	17,500	10,900	8,010	13,600	4,280	1,410	1,300	5,759
1909-10	997	1,100	3,770	8,060	5,100	7,210	5,370	6,840	7,140	11,400	5,930	1,360	5,376
1910-11	1,370	969	1,210	3,430	5,880	4,740	14,900	16,300	2,240	1,850	3,680	2,060	4,876
1911-12	1,030	1,080	7,400	22,300	11,800	17,100	25,300	20,300	4,310	3,240	3,240	1,940	9,956
1912-13	1,480	1,280	4,590										

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1908-09	0.24	0.24	0.49	0.48	1.18	3.91	2.35	1.79	2.94	0.96	0.31	0.28	15.17
1909-10	.22	.24	.84	1.80	1.06	1.61	1.16	1.53	1.54	2.54	1.32	.29	14.15
1910-11	.31	.21	.27	.77	1.23	1.06	1.11	3.64	.48	.41	.82	.44	10.75
1911-12	.23	.23	1.65	4.98	2.38	3.82	5.47	4.53	.93	.72	.72	.42	26.08
1912-13	.33	.28	1.02										

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1909	21,000	925	5,759	1.12	5,890	15.50
1910	14,800	910	5,376	1.04	5,180	13.64
1911	25,600	956	4,876	.944	5,380	12.07
1912	28,600	925	9,929	1.92	9,750	25.60
			199			

YAZOO RIVER AT GREENWOOD

LEFLORE COUNTY

LOCATION—Lat. $33^{\circ}31'17''$, long. $90^{\circ}11'03''$, in SW $\frac{1}{4}$ sec. 10, T. 19 N., R. 1 E. Choctaw meridian, at bridge on U. S. Highway 82 and 49 E., in Greenwood, 0.4 mile downstream from Palusha Bayou and 3 miles downstream from confluence of Tallahatchie and Yalobusha Rivers.

DRAINAGE AREA—7,450 square miles (from reports of Mississippi River Commission).

RECORDS AVAILABLE—January 1908 to June 1913 and October 1938 to September 1948 in reports of Geological Survey. January 1909 to December 1927 (discharge measurements only), and since January 1928 in reports of Mississippi River Commission. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

AVERAGE DISCHARGE—24 years (1908-12, 1928-48), 9,442 second-feet.

GAGE—Staff gage prior to July 1908; chain gage June 1913 to Oct. 10, 1939; water-stage recorder thereafter. Datum of gage is 92.07 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

EXTREMES—Maximum discharge, 72,900 second-feet Jan. 19, 20, 1932 (gage height, 40.1 feet); minimum discharge 536 second-feet Oct. 20, 1943; minimum gage height observed, 1.0 foot, present datum, Oct. 17, 1908; minimum daily discharge, 536 second-feet Oct. 20, 1943; minimum 7-day, 554 second-feet Oct. 27-Nov. 2, 1943.

Maximum stage known, 41.2 feet in 1882, caused by overflow from Mississippi River (discharge not determined) from reports of Mississippi River Commission.

REMARKS—Records good. Flow partly regulated since Aug. 26, 1939 by Sardis Reservoir on Tallahatchie River and Arkabutla Reservoir on Coldwater River.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1907-08				9,930	18,800	25,500	17,600	10,600	8,090	3,560	2,640	1,440	
1908-09	1,120	1,130	3,580	2,740	9,050	23,500	19,900	15,200	23,900	7,360	2,120	1,840	9,262
1909-10	1,290	1,320	4,340	11,000	10,400	12,900	6,780	8,630	9,390	17,600	10,300	1,960	8,007
1910-11	2,330	1,210	1,870	7,960	8,970	9,360	21,500	26,800	4,360	2,760	5,170	2,880	7,927
1911-12	1,330	1,430	12,100	32,700	21,500	24,900	37,700	31,500	10,500	5,520	4,430	3,190	15,560
1912-13	2,530	2,030	8,070					16,100	4,170				
1927-28				8,000	6,000	16,000	20,000	23,000	13,000	5,000	3,000	3,000	
1928-29	2,000	2,000	4,000	5,000	6,000	19,000	23,000	14,000	5,000	3,000	3,000	3,000	
1929-30	2,000	9,000	6,000	12,800	19,500	16,600	11,000	14,400	17,200	2,140	1,370	1,600	
1930-31	1,690	2,200	3,840	6,480	3,640	10,900	10,500	5,630	2,100	4,390	6,200	1,700	
1931-32	975	1,810	17,900	49,000	56,000	32,400	14,200	6,950	2,750	9,840	3,670	4,550	
1932-33	10,100	6,590	17,300	24,400	22,300	26,900	36,800	20,700	8,660	3,610	2,620	2,760	
1933-34	1,690	1,430	6,280	9,820	3,790	14,700	10,400	2,550	3,430	2,510	1,910	1,760	
1934-35	1,800	3,570	12,400	14,600	24,800	26,500	16,300	14,400	8,950	2,900	1,360	1,090	
1935-36	1,360	5,410	2,030	5,630	9,470	5,140	16,000	3,450	1,430	2,250	1,130	1,180	
1936-37	1,820	3,530	6,340										
1938-39	1,130	1,330	1,400	7,670	19,700	25,100	26,900	15,000	12,700	10,900	3,140	1,080	10,400
1939-40	1,163	1,168	1,567	2,501	7,840	10,530	12,190	8,481	2,220	13,980	7,682	3,553	6,078
1940-41	1,008	4,292	11,800	12,050	7,610	8,936	7,822	5,228	1,693	2,739	3,372	2,532	5,760
1941-42	2,452	8,888	8,216	6,381	9,434	20,420	20,210	10,900	5,504	3,756	1,418	916	8,191
1942-43	633	1,544	3,418	7,792	7,046	15,750	13,340	4,999	3,014	3,169	1,704	1,299	5,300
1943-44	653	1,662	1,273	4,627	10,060	19,790	32,290	18,310	8,932	5,135	5,588	5,286	9,436
1944-45	4,076	1,943	4,702	23,860	17,300	31,330	24,260	14,810	8,668	6,581	6,741	2,959	12,260
1945-46	2,598	6,737	12,270	28,970	35,090	25,230	20,200	12,800	13,480	13,850	8,443	6,374	15,380
1946-47	6,242	8,042	8,538	21,940	18,400	15,250	21,480	9,282	9,988	7,627	5,796	2,753	11,270
1947-48	989	4,073	7,865	8,808	27,160	32,000	24,870	12,840	7,580	6,769	6,957	5,531	12,060

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1907-08				1.54	2.72	3.95	2.64	1.64	1.21	0.55	0.41	0.22	
1908-09	0.17	0.17	0.55	.42	1.26	3.68	2.98	2.35	3.58	1.14	.33	.28	16.91
1909-10	.20	.20	.67	1.70	1.45	2.00	1.02	1.34	1.41	2.72	1.59	.29	14.59
1910-11	.36	.18	.29	1.23	1.25	1.45	3.22	4.15	.65	.43	.80	.43	14.44
1911-12	.21	.21	1.87	5.06	3.11	3.85	5.65	4.88	1.57	.85	.69	.48	28.43
1912-13	.39	.30	1.25					2.49	.62				
1927-28				1.24	.87	2.48	2.97	3.56	1.95	.77	.46	.45	
1928-29	.31	.30	.62	.77	.84	2.98	3.45	2.17	.75	.46	.46	.45	13.56
1929-30	.31	1.35	.93	1.98	2.73	2.57	1.65	2.23	2.58	.33	.21	.24	17.11
1930-31	.26	.33	.59	1.00	.51	1.69	1.57	.87	.31	.68	.96	.25	9.02
1931-32	.15	.27	2.77	7.59	8.11	5.02	2.13	1.08	.41	1.52	.57	.68	30.30
1932-33	1.56	.99	2.69	3.78	3.12	4.16	5.51	3.20	1.30	.56	.41	.41	27.69
1933-34	.26	.21	.97	1.52	.53	2.28	1.58	.39	.51	.39	.30	.26	9.20
1934-35	.28	.53	1.92	2.26	3.47	4.10	2.89	2.23	1.34	.45	.21	.16	19.84
1935-36	.21	.81	.31	.87	1.37	.80	2.40	.53	.21	.35	.17	.18	8.21
1936-37	.28	.53	.98	2.76	3.91	2.34	1.07	.77	.48	.33	.24	.23	13.92
1937-38	.26	.56	.45	1.40	2.35	2.55	3.23	1.84	.92	.39	.37	.22	14.54
1938-39	.18	.20	.22	1.19	2.75	3.88	4.03	2.32	1.90	1.68	.49	.16	19.00
1939-40	.18	.17	.24	.39	1.13	1.63	1.83	1.31	.33	2.16	1.19	.53	11.09
1940-41	.16	.64	1.83	1.87	1.06	1.38	1.17	.81	.25	.42	.52	.38	10.49

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Per square mile	Runoff in inches	Calendar Year	
	Maximum Day	Minimum Day	Mean			Mean	Runoff in inches
1908						8,620	15.75
1909	27,200	900	9,262	1.24	16.86	9,350	17.04
1910	22,700	990	8,007	1.07	14.60	7,880	14.36
1911	36,300	1,150	7,927	1.06	14.44	8,730	15.90
1912	39,000	1,080	15,560	2.09	28.43	15,400	28.07
1928							
1929	28,000	2,000	7,419	1.00	13.56	8,757	15.98
1930	27,200	1,050	9,382	1.26	17.11	8,164	14.92
1931	12,800	1,050	4,959	.67	9.02	8,614	15.70
1932	72,800	940	16,570	2.22	30.30	6,060	11.30
1933	41,000	1,480	15,190	2.04	27.69	17,690	32.35
1934	17,100	1,080	5,041	.68	9.20	13,110	23.89
1935	31,200	900	10,890	1.46	19.84	5,746	10.49
1936	19,300	780	4,497	.60	8.21	10,120	18.44
1937	33,200	1,100	7,646	1.03	13.92	4,747	8.67
1938	24,600	1,100	7,984	1.07	14.54	7,360	13.40
1939	31,000	910	10,400	1.40	19.00	7,610	13.86
1940	19,800	825	6,078	.816	11.10	10,430	18.99
1941	16,900	730	5,760	.773	10.49	7,188	13.14
1942	24,800	775	8,262	1.11	15.07	5,707	10.40
1943	24,400	554	5,304	.712	9.67	7,350	13.40
1944	45,600	536	9,521	1.28	17.42	4,917	8.96
1945	36,800	1,360	12,210	1.64	22.26	10,320	18.92
1946	48,900	1,190	15,800	2.12	28.78	13,050	23.76
1947	30,400	1,170	10,940	1.47	19.93	15,290	27.86
1948	50,300	830	12,010	1.61	21.94	10,510	19.16

YOCONA RIVER NEAR ENID

YALOBUSHA COUNTY

LOCATION—Lat. 34°09', long. 89°55', in T. 11 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51, 200 feet downstream from Tolliver Creek, 1 mile downstream from Bear Creek, 2 miles northeast of Enid, 2½ miles upstream from Illinois Central Railroad bridge, 6 miles upstream from drainage canal diversion and 24½ miles upstream from mouth.

DRAINAGE AREA—560 square miles.

RECORDS AVAILABLE—July 1928 to September 1931 and October 1938 to September 1948 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—19 years (1928-31, 1932-48), 745 second-feet.

GAGE—Chain gage prior to Jan. 2, 1935; wire-weight gage to July 14, 1939; water-stage recorder thereafter. Datum of gage is 189.42 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 36,300 second-feet Feb. 14, 1948 (gage height, 21.61 feet); minimum 34 second-feet Sept. 28, 1931; minimum gage height, -1.19 feet July 11, 12, 1948.

A stage of 21.0 feet occurred on Jan. 14, 1932 (discharge, 27,000 second-feet).

REMARKS—Records good. Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

PEAK DISCHARGE—Feb. 14, 1948 (6:00 a.m.) 36,300 second-feet; Jan. 14, 1932 (8:00 a.m.) 27,000 second-feet; Jan. 1, 1945 (8:00 a.m.) and Feb. 10, 1946 (9:00 p.m.) 25,400 second-feet; Mar. 29, 1944 (10:00 a.m.) 24,400 second-feet; Apr. 1, 1933 (8:00 a.m.) 20,600 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	45	0.080	35	386	0.690
95	54	.096	20	823	1.47
90	64	.115	10	1,740	3.10
65	124	.222	5	3,250	5.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28											139	117	
1928-29	63.3	93.8	147	597	1,210	2,210	774	718	165	265	166	239	551
1929-30	72.5	912	715	1,740	1,080	1,290	380	2,130	103	75.7	165	106	732
1930-31	78.8	263	542	510	519	909	880	464	176	540	236	89.0	434
1931-32				6,305	4,112	749	739	238	209	1,336	265	1,546	
1932-33	1,013	604	3,367	974	2,157	2,467	2,962	1,484	271	259	119	132	1,314
1933-34	95.0	119	546	298	394	1,259	191	129	177	95.6	111	166	299
1934-35	55.1	843	496	1,954	1,412	1,789	1,531	778	396	185	110	110	801
1935-36	270	696	200	534	1,035	952	1,452	206	109	213	87.3	127	486
1936-37	161	295	733	2,906	532	607	281	565	177	225	119	86.7	561
1937-38	90.1	161	284	1,466	765	1,525	1,580	183	484	136	172	91.4	576
1938-39	53.6	91.7	90.1	907	3,185	2,115	1,794	610	1,580	551	170	74.5	917
1939-40	73.4	88.3	217	266	1,013	1,706	1,648	325	203	1,584	570	83.4	648
1940-41	70.2	676	2,026	1,008	496	1,085	599	224	70.2	193	153	118	562
1941-42	236	1,122	426	481	1,067	2,031	1,741	309	138	77.2	79.6	56.1	642
1942-43	54.1	88.3	876	270	428	2,064	462	145	71.2	89.4	75.9	141	399
1943-44	46.2	325	184	401	1,967	3,037	1,898	1,100	141	86.2	165	171	789
1944-45	54.7	138	1,411	2,734	1,621	3,047	1,300	413	600	288	198	337	1,011
1945-46	240	696	979	4,380	4,098	1,980	616	1,223	680	680	202	135	1,312
1946-47	195	1,337	767	3,451	717	1,666	2,818	546	666	136	118	90.3	1,043
1947-48	90.5	493	357	660	5,140	3,573	1,712	245	156	263	289	103	1,073

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Annual
1927-28											0.29	0.23	
1928-29	0.13	0.19	0.30	1.23	2.25	4.55	1.54	1.48	0.33	0.55	.34	.48	13.37
1929-30	.15	1.82	1.48	3.58	2.01	2.65	.76	4.38	.21	.16	.34	.21	17.75
1930-31	.16	.52	1.12	1.05	.97	1.87	1.75	.96	.35	1.11	.49	.18	10.53
1931-32				12.98	7.92	1.54	1.47	.49	.42	2.75	.54	3.08	
1932-33	2.09	1.20	6.93	2.01	4.01	5.08	5.90	3.06	.54	.53	.24	.26	31.85
1933-34	.20	.24	1.12	.61	.73	2.59	.38	.27	.35	.20	.23	.33	7.25
1934-35	.11	1.68	1.02	4.02	2.63	3.68	3.05	1.60	.79	.38	.23	.22	19.41
1935-36	.55	1.39	.41	1.10	1.99	1.96	2.89	.42	.22	.44	.18	.25	11.80
1936-37	.33	.59	1.51	5.98	.99	1.25	.56	1.16	.35	.46	.24	.17	13.59
1937-38	.19	.32	.58	3.02	1.42	3.14	3.15	.38	.96	.28	.35	.18	13.97
1938-39	.11	.18	.19	1.87	5.92	4.36	3.57	1.26	3.15	1.13	.35	.15	22.24
1939-40	.15	.18	.45	.55	1.95	3.51	3.28	.67	.41	3.26	1.17	.17	15.75
1940-41	.14	1.35	4.17	2.07	.92	2.23	1.19	.46	.14	.40	.32	.24	13.63
1941-42	.49	2.24	.88	.99	1.98	4.18	3.47	.64	.28	.16	.16	.11	15.58
1942-43	.11	.18	1.80	.56	.80	4.25	.92	.30	.14	.18	.16	.28	9.68
1943-44	.10	.65	.38	.83	3.79	6.25	3.78	2.26	.28	.18	.34	.34	19.18
1944-45	.11	.27	2.90	5.63	3.01	6.27	2.59	.85	1.20	.59	.41	.67	24.50
1945-46	.49	1.39	2.02	9.02	7.62	4.08	1.23	2.52	1.35	1.40	.42	.27	31.81
1946-47	.40	2.66	1.58	7.10	1.33	3.43	5.61	1.12	1.33	.28	.24	.18	25.26
1947-48	.19	.98	.74	1.36	9.90	7.36	3.41	.50	.31	.54	.60	.21	26.10

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1929	9,400	39	551	0.984	13.37	667
1930	9,640	36	732	1.31	17.75	664
1931	4,220	35	434	.775	10.53	
1932						1,704
1933	19,400	62	1,314	2.35	31.85	957
1934	9,320	47	299	.534	7.25	351
1935	8,420	8	801	1.43	19.41	782
1936	7,880	63	486	.868	11.80	489
1937	9,710	67	561	1.00	13.59	506
1938	10,500	72	576	1.03	13.97	551
1939	15,200	40	917	1.64	22.24	929
1940	11,700	43	648	1.16	15.75	849
1941	12,300	48	562	1.00	13.63	477
1942	14,300	45	642	1.15	15.58	580
1943	11,900	35	399	.712	9.68	359
1944	23,400	44	789	1.41	19.18	878
1945	24,400	42	1,011	1.81	24.50	1,036
1946	23,400	67	1,312	2.34	31.81	1,342
1947	19,100	70	1,043	1.86	25.26	930
1948	33,100	62	1,073	1.92	26.10	22.53

COLDWATER RIVER NEAR LEWISBURG

DE SOTO COUNTY

LOCATION—Lat. $34^{\circ}50'27''$, long. $89^{\circ}49'32''$, in center of sec. 10, T. 3 S., R. 6 W. Chickasaw meridian, at county highway bridge, 1.6 miles south of Lewisburg and 4.0 miles upstream from Pigeonroost Creek.

DRAINAGE AREA—Indeterminate.

RECORDS AVAILABLE—October 1941 to September 1948. December 1939 to September 1941 (unpublished) in files of Corps of Engineers, Vicksburg, Miss.

GAGE—Staff gage prior to Sept. 3, 1942; water-stage recorder thereafter. Datum of gage is 250.52 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 25,900 second-feet Jan. 8, 1946 (gage height, 15.60 feet) from rating curve extended above 13,000 second-feet by velocity-area studies; minimum, 15.3 second-feet (affected by backwater from Pigeonroost Creek) May 21, 1947; minimum gage height observed, 2.38 feet Oct. 1, 2, 1941; minimum daily discharge, 16 second-feet May 21-23, 1947 (affected by backwater from Pigeonroost Creek); minimum 7-day, 20 second-feet Oct. 1-7, 1943.

REMARKS—Records good. Coldwater River and Pigeonroost Creek are inter-connected through old creek channel.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

PEAK DISCHARGE—Jan. 8, 1946 (2:30 p.m.) 25,900 second-feet; Feb. 13, 1948 (2:00 a.m.) 17,400 second-feet; Apr. 9, 1942 (8:00 a.m.) 17,200 second-feet; Mar. 29, 1944 (9:00 a.m.) 16,200 second-feet; Mar. 13, 1943 (9:00 a.m.) 14,100 second-feet.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40				70.4	176	94.9	142	77.3			92.1	36.8	
1940-41													
1941-42	99.1	181	92.7	231	404	460	777	59.1	73.2	39.2	70.2	43.0	209
1942-43	39.0	65.4	520	92.3	245	908	188	127	57.9	31.4	26.0	54.6	197
1943-44	27.7	60.6	76.2	93.2	1,111	942	955	236	90.1	66.1	67.6	143	318
1944-45	41.7	111	543	1,086	1,121	1,041	636	171	163	133	101	103	434
1945-46	121	1,848	463	2,053	1,216	911	194	495	92.9	222	47.5	41.8	639
1946-47	53.2	216	139	814	151	192	431	97.2	598	146	77.3	79.4	249
1947-48	89.0	217	185	423	2,182	877	467	248	81.3	147	58.5	59.0	412

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1942	9,580	23	209		230	
1943	7,950	21	197		158	
1944	10,400	19	318		363	
1945	10,400	33	434		577	
1946	21,400	38	639		471	
1947	6,260	16	249		256	
1948	15,600	44	412			
			209			

COLDWATER RIVER NEAR COLDWATER

TATE COUNTY

LOCATION—Lat. $34^{\circ}43'$, long. $89^{\circ}59'$, in SW $\frac{1}{4}$ sec. 19, T. 4 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51, $1\frac{1}{4}$ miles northwest of Coldwater, 3.0 miles downstream from Beartail Creek, and 3.8 miles upstream from Hickahala Creek.

DRAINAGE AREA—617 square miles.

RECORDS AVAILABLE—July 1928 to September 1931 and October 1938 to July 1942 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—12 years (1928-31, 1932-41), 703 second-feet.

GAGE—Chain gage prior to Sept. 25, 1935; wire-weight gage thereafter. Datum of gage is 208.29 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 79,500 second-feet Jan. 21, 1935 (gage height, 21.0 feet, from floodmarks); minimum, 66 second-feet Oct. 5, 1936; minimum daily, 66 second-feet Oct. 4-6, 1936; minimum 7-day, 80 second-feet Sept. 27-Oct. 3, 1929; minimum gage height, 2.36 feet Aug. 21, 1929.

REMARKS—Records fair. Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28											135	112	
1928-29	228	197	573	854	1,910	1,840	1,340	878	231	362	117	210	721
1929-30	100	773	493	3,760	1,020	560	123	1,860	117	106	97.9	137	765
1930-31	264	166	375	298	786	1,240	470	178	116	1,040	625	203	479
1931-32				4,842	3,340	499	741	515	161	816	255	561	
1932-33	443	375	1,649	1,468	3,583	1,669	2,216	1,478	152	184	195	565	1,148
1933-34	245	140	2,866	718	215	1,947	285	187	448	166	142	145	633
1934-35	160	1,104	466	6,118	987	1,265	989	1,278	539	190	146	200	1,126
1935-36	734	418	127	596	376	829	194	106	144	377	95.3	344	362
1936-37	320	483	1,044	6,669	493	789	196	169	199	168	117	145	910
1937-38	226	477	350	2,079	1,047	1,419	1,584	244	420	206	198	151	696
1938-39	115	271	159	2,029	4,014	1,500	2,388	642	693	557	123	111	1,028
1939-40	98.3	106	165	163	611	239	415	238	470	481	280	156	283
1940-41	97.5	148	574	707	207	229	516	135	94.2	254	371	116	289
1941-42	294	747	261	681	1,920	1,324	3,251	168	186				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1927-28											0.25	0.20	
1928-29	0.43	0.36	1.07	1.59	3.23	3.44	2.42	1.64	0.42	0.68	.22	.38	15.88
1929-30	.19	1.40	.92	7.02	1.72	1.05	.22	3.47	.21	.20	.18	.25	16.83
1930-31	.49	.30	.70	.56	1.32	2.32	.85	.33	.21	1.95	1.16	.37	10.56
1931-32				9.05	5.84	.93	1.34	.96	.29	1.52	.48	1.01	
1932-33	.83	.68	3.08	2.74	6.05	3.12	4.01	2.76	.27	.34	.36	1.02	25.26
1933-34	.46	.25	5.36	1.34	.36	3.64	.51	.35	.81	.31	.26	.26	13.91
1934-35	.30	2.00	.87	11.43	1.66	2.36	1.79	2.39	.98	.35	.27	.36	24.76
						211							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36	1.37	.76	.24	1.11	.66	1.55	.35	.20	.26	.70	.18	.62	8.00
1936-37	.60	.87	1.95	12.46	.83	1.47	.35	.32	.36	.31	.22	.26	20.00
1937-38	.42	.86	.65	3.88	1.77	2.65	2.86	.42	.76	.39	.37	.27	15.30
1938-39	.21	.49	.30	3.79	6.78	2.80	4.32	1.20	1.25	1.04	.23	.20	22.61
1939-40	.18	.19	.31	.30	1.07	.45	.75	.44	.85	.90	.52	.28	6.24
1940-41	.18	.27	1.07	1.32	.35	.43	.93	.25	.17	.47	.69	.21	6.34
1941-42	.55	1.35	.49	1.27	3.24	2.47	5.88	.31	.34				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1929	20,000	69	721	1.17	15.88	751	16.53
1930	41,800	71	765	1.24	16.83	719	15.81
1931	7,940	83	479	.776	10.56		
1932						1,179	26.01
1933	18,800	127	1,148	1.86	25.26	1,216	26.74
1934	28,600	119	633	1.03	13.91	501	11.01
1935	79,500	99	1,126	1.82	24.76	1,089	23.96
1936	4,900	92	362	.587	8.00	410	9.05
1937	25,000	66	910	1.47	20.00	842	18.51
1938	17,300	90	696	1.13	15.30	654	14.37
1939	15,000	96	1,028	1.67	22.61	1,013	22.29
1940	6,820	78	283	.459	6.24	321	7.08
1941	3,560	84	289	.468	6.34	328	7.21

COLDWATER RIVER AT ARKABUTLA DAM NEAR ARKABUTLA

TATE COUNTY

LOCATION—Lat. $34^{\circ}45'31''$, long. $90^{\circ}07'30''$, in gatehouse of Arkabutla Dam in SW $\frac{1}{4}$ sec. 2, T. 4 S., R. 9 W. Chickasaw meridian, 4 miles north of Arkabutla.

DRAINAGE AREA—1,000 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—January 1942 to September 1948. August to December 1941 in reports of Corps of Engineers.

GAGE—Staff gage prior to June 15, 1942 and water-stage recorder to Dec. 31, 1947 at site 370 feet downstream at datum 19.90 feet lower; water-stage recorder in gatehouse thereafter. Datum of gage is 191.18 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 10,200 second-feet Apr. 12, 1942; no flow at times each year.

REMARKS—Records good. Flow completely regulated by Arkabutla Reservoir.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42				755	3,157	2,493	5,050	360	212	170	276	148	
1942-43	139	340	1,814	532	1,044	4,214	1,054	584	236	134	109	256	874
1943-44	120	216	285	350	3,966	3,801	3,942	1,237	364	218	261	525	1,259
1944-45	277	413	2,740	3,754	3,985	4,202	2,831	667	951	405	375	363	1,735
1945-46	525	4,551	2,138	8,209	4,803	3,784	840	3,376	470	1,624	162	122	2,541
1946-47	205	1,146	661	3,841	652	1,047	1,538	1,399	3,822	199	171	125	1,234
1947-48	254	651	639	1,310	7,596	3,957	1,853	867	234	772	318	179	1,528

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42				0.87	3.29	2.87	5.63	0.42	0.24	0.20	0.32	0.17	
1942-43	0.16	0.38	2.09	.61	1.08	4.85	1.17	.67	.26	.15	.13	.29	11.84
1943-44	.14	.24	.33	.40	4.28	4.38	4.40	1.43	.41	.25	.30	.59	17.15
1944-45	.32	.46	3.16	4.32	4.14	4.84	3.16	.77	1.06	.47	.43	.40	23.53
1945-46	.61	5.08	2.47	9.46	5.00	4.36	.94	3.90	.52	1.87	.19	.14	34.54
1946-47	.24	1.28	.76	4.43	.68	1.21	1.72	1.61	4.26	.23	.20	.14	16.76
1947-48	.29	.73	.74	1.51	8.20	4.57	2.06	1.00	.26	.89	.37	.20	20.82

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches
1942						1,225	16.64
1943	7,180	0	874	0.874	11.84	733	9.92
1944	4,610	0	1,259	1.26	17.15	1,496	20.38
1945	4,600	0	1,735	1.74	23.53	2,046	27.75
1946	5,130	0	2,541	2.54	34.54	2,112	28.66
1947	3,590	0	1,234	1.23	16.76	1,195	16.24
1948	4,880	0	1,528	1.53	20.82		

COLDWATER RIVER AT PRATTS BRIDGE, NEAR ARKABUTLA

TATE COUNTY

LOCATION—Lat. $34^{\circ}45'25''$, long. $90^{\circ}08'35''$, in NW $\frac{1}{4}$ sec. 10 T. 4 S., R. 9 W. Chickasaw meridian, at county highway bridge, $4\frac{1}{4}$ miles northwest of Arkabutla, and 5 miles upstream from Cub Lake Bayou.

DRAINAGE AREA—1,000 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1938 to September 1941 in reports of Geological Survey. April 1937 to September 1938 in reports of Corps of Engineers.

GAGE—Staff gage prior to April 7, 1939; water-stage recorder thereafter. Datum of gage is 188.26 feet above mean sea level, datum of 1929.

EXTREMES—Maximum discharge, 23,600 second-feet Feb. 4, 1939 (gage height, 12.50 feet); minimum observed, 71 second-feet June 11, 1941 (gage height, 0.28 foot), caused by construction work above station; minimum daily, 109 second-feet June 10, 1941; minimum 7-day, 125 second-feet Oct. 19-25, 1938.

A stage of 21.3 feet occurred in January 1935 (from flood-marks).

REMARKS—Records fair. Regulation during many periods of low flow caused by construction operations at Arkabutla Dam 1.8 miles above station.

COOPERATION—Base data collected and records of daily discharge computed by Corps of Engineers.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37								258	259	261	176	207	
1937-38	333	740	427	4,056	1,975	2,743	3,181	283	441	221	196	158	1,224
1938-39	138	285	235	2,724	6,033	2,123	3,858	1,088	1,020	734	238	159	1,519
1939-40	157	159	292	281	1,106	375	761	372	584	989	395	377	484
1940-41	146	263	1,019	1,206	430	388	913	238	149	363	575	343	504

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37								0.30	0.29	0.30	0.20	0.23	
1937-38	0.38	0.83	0.49	4.68	2.06	3.16	3.55	.33	.49	.25	.23	.18	16.63
1938-39	.16	.32	.27	3.14	6.28	2.45	4.30	1.25	1.14	.85	.27	.18	20.61
1939-40	.18	.18	.34	.32	1.20	.43	.85	.43	.65	1.14	.46	.42	6.60
1940-41	.17	.29	1.18	1.39	.45	.45	1.02	.27	.17	.42	.66	.38	6.85

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1938	28,200	125	1,224	1.22	16.63	
1939	21,000	120	1,519	1.52	20.61	20.56
1940	6,250	123	484	.48	6.60	7.54
1941	5,080	109	504	.50	6.85	

COLDWATER RIVER AT SAVAGE

DE SOTO COUNTY

LOCATION—Lat. $34^{\circ}38'00''$, long. $90^{\circ}13'50''$, in SW $\frac{1}{4}$ sec. 23, T. 5 S., R. 10 W. Chickasaw meridian, at county highway bridge 1,000 feet downstream from Yazoo and Mississippi Valley Railroad bridge, a quarter of a mile west of Savage, $7\frac{3}{4}$ miles upstream from Arkabutla Canal, and $9\frac{1}{2}$ miles southeast of Tunica.

DRAINAGE AREA—1,225 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1908 to October 1912 and October 1938 to September 1942 in reports of Geological Survey. December 1935 to September 1938 in reports of Corps of Engineers.

GAGE—Staff gage at site one-quarter mile upstream at sea level datum prior to October 1912; staff gage December 1935 to March 1941; wire-weight gage thereafter. Datum of gage 169.17 feet December 1935 to October 1, 1941; 164.17 feet, datum of 1929, thereafter (levels by Corps of Engineers).

EXTREMES (OBSERVED)—Maximum discharge, 45,800 second-feet Jan. 25, 1937 (gage height, 18.07 feet); maximum gage height, 23.2 feet Apr. 18, 1910 (former site, present datum); no flow at times owing to backwater from Arkabutla Canal; minimum gage height, -0.20 foot Sept. 28, 1942; minimum 7-day, 93 second-feet Aug. 19-25, 1936.

REMARKS—Records fair. Flow partly regulated by Arkabutla Reservoir after Aug. 14, 1941.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1908-09	0.11	0.18	0.45	0.35	4.05	3.14	1.31	1.55	3.28	0.26	0.32	0.26	15.26
1909-10	.12	.36	2.47	3.44	1.73	2.26	3.22	.93	1.61	3.11	.45	.22	19.92
1910-11	.31	.16	.24	.49	1.89	.39	7.72	.89	.23	.35	.58	.36	13.61
1911-12	.12	.12	2.86	4.56	2.39	8.02	5.54	3.25	.33	.44	.54	.29	28.46
1912-13	.13												
1935-36							.79	.16	.19	.34	.10		
1936-37										.34			
1937-38	.43		.51				3.52	.43	.57	.25	.21	.14	
1938-39	.13	.28	.25	2.22	6.06	2.26	3.52	1.50	1.28	.97	.44	.15	19.06
1939-40	.17	.16	.30	.32	1.20	.42	.98	.41	.41	1.53	.36	.35	6.61
1940-41	.18	.29	1.15	1.26	.61	.44	.95	.57	.14	.34	.49	.37	6.79

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1909	11,300	76	1,378	1.12	1,576	17.47
1910	13,000	20	1,797	1.47	1,596	17.68

1911	14,500	125	1,228	1.00	13.61	1,443	16.00
1912	14,500	112	2,562	2.09	28.46		
1939	25,100	0	1,720	1.40	19.06	1,717	19.03
1940	4,320	0	594	.485	6.61	633	7.60
1941	3,590	0	614	.501	6.79	661	7.33
1942	11,800	81	1,538	1.26	17.10		

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1908-09	118	199	478	367	4,760	3,340	1,440	1,650	3,600	277	342	287	1,378
1909-10	130	391	2,620	3,650	2,040	2,400	3,540	988	1,770	3,300	478	237	1,797
1910-11	328	178	260	519	2,220	410	8,480	943	249	373	617	394	1,228
1911-12	132	129	3,040	4,850	2,720	8,520	6,080	3,450	357	464	577	323	2,562
1912-13	139												
1935-36							868	168	213	360	103		
1936-37										364			
1937-38	461		537				3,867	457	630	264	228	157	
1938-39	133	310	264	2,353	7,133	2,399	3,864	1,590	1,410	1,029	473	168	1,720
1939-40	180	171	324	337	1,368	445	1,073	436	450	1,629	378	379	594
1940-41	193	319	1,219	1,339	722	468	1,043	602	155	364	525	407	614

PIGEONROOST CREEK NEAR LEWISBURG

DE SOTO COUNTY

LOCATION—Lat. $34^{\circ}49'49''$, long. $89^{\circ}49'20''$, in NW $\frac{1}{4}$ sec. 15, T. 3 S., R. 6 W. Chickasaw meridian, at county highway bridge, 1.6 miles upstream from mouth and 2.4 miles south of Lewisburg.

DRAINAGE AREA—Indeterminate.

RECORDS AVAILABLE—October 1941 to September 1948. December 1939 to September 1941 (unpublished) in files of Corps of Engineers, Vicksburg, Miss.

GAGE—Staff gage prior to Sept. 3, 1942; water-stage recorder thereafter. Datum of gage is 253.14 feet above mean sea level, datum of 1929 supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 34,900 second-feet Apr. 9, 1942, from rating curve extended above 4,500 second-feet; maximum gage height, 12.85 feet Jan. 8, 1946; minimum discharge, 30 second-feet Sept. 15, 1946; minimum gage height observed, 0.98 foot July 21, 1942; minimum daily discharge 30 second-feet Sept. 15, 1946; minimum 7-day, 32 second-feet Oct. 1-7, 1946.

REMARKS—Records good. Pigeonroost Creek and Coldwater River are inter-connected through old creek channel above station.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

PEAK DISCHARGE—April 9, 1942 (12:00 m) 34,900 second-feet; Jan. 8, 1946 (2:00 p.m.) 9,430 second-feet; Mar. 13, 1943 (6:00 a.m.) 9,390 second-feet; Feb. 13, 1948 (3:00 a.m.) 6,160 second-feet; Apr. 23, 1944 (1:00 p.m.) 6,110 second-feet.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42	185	145	87.3	180	721	332	638	47.0	48.5	64.0	56.3	53.0	209
1942-43	88.1	70.8	564	73.7	201	798	271	122	67.0	40.6	43.7	93.5	204
1943-44	38.7	78.8	69.6	100	938	823	650	211	75.6	96.9	90.3	103	270
1944-45	63.4	99.4	471	462	764	570	411	99.4	176	167	82.4	107	286
1945-46	95.7	721	462	1,152	860	753	217	448	132	375	102	35.7	444
1946-47	61.9	186	168	473	91.9	210	264	326	392	113	75.5	53.9	202
1947-48	91.3	127	145	252	1,023	590	281	117	74.1	201	63.7	71.2	250

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30			Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches
1942	14,900	37	209		235
1943	7,310	37	204		158
1944	5,230	37	270		308
1945	4,580	34	286		340
1946	7,630	30	444		373
1947	2,470	31	202		198
1948	5,260	48	250		
			221		

YALOBUSHA RIVER AT CALHOUN CITY

CALHOUN COUNTY

LOCATION—Lat. $33^{\circ}50'$, long. $89^{\circ}19'$, in SE $\frac{1}{4}$ sec. 23, T. 23 N., R. 9 E. Choctaw meridian, at bridge on State Highway 9, 1.2 miles south of Calhoun City, 3 miles above Topisaw Canal, $1\frac{1}{2}$ miles above old channel, and three-quarters of a mile above Topisaw Creek.

DRAINAGE AREA—Not determined.

RECORDS AVAILABLE—March to September 1948.

GAGE—Wire-weight gage read twice daily. Wire-weight gage installed on Topisaw Canal Sept. 16, 1948 and read twice daily thereafter.

EXTREMES—Maximum observed gage height, 11.99 feet Mar. 18, 1948 (discharge not determined); minimum, 4.41 feet many times during June 1948.

Note—A new maximum gage height of 14.35 feet (discharge not determined) was established on Jan. 4, 1949.

REMARKS—Records poor. Discharge from Yalobusha River and Topisaw Canal intermingles at high stages.

DISCHARGE MEASUREMENTS—

Date	Yalobusha River Discharge in second-feet	Topisaw Canal Discharge in second-feet
3-19-48	1,750	
4-29-48	17.0	4.0
5-27-48	11.8	4.8
6- 9-48	.419	1.55
7-31-48	.282	1.30
9-16-48	.762	3.16

YALOBUSHA RIVER AT GRAYSPORT

GRENADA COUNTY

LOCATION—Lat. $33^{\circ}49'$, long. $89^{\circ}37'$, in $E\frac{1}{2}$ sec. 36, T. 23 N., R. 6 E. Choctaw meridian, at bridge on State Highway 8 (old), half a mile north of Graysport, half a mile downstream from Butputter Creek, $4\frac{1}{2}$ miles upstream from Redgrass Creek, 11 miles east of Grenada, and $11\frac{1}{4}$ miles upstream from Skuna River.

DRAINAGE AREA—607 square miles.

RECORDS AVAILABLE—March 1940 to September 1948.

GAGE—Wire-weight gage prior to Mar. 29, 1940; wire-weight gage and water-stage recorder thereafter. Datum of gage is 179.91 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 46,800 second-feet Feb. 13, 1948 (gage height, 28.25 feet); minimum observed, 3.2 second-feet August, September, October, 1943; minimum gage height observed, 4.68 feet Sept. 14-18, Oct. 6, 11, 1943; minimum daily discharge, 3.2 second-feet August, September, October, 1943; minimum 7-day, 3.2 second-feet Oct. 3-9, 1943.

REMARKS—Records good. Wire-weight gage used during low water periods each year when stage was below intakes. Station is in reservoir of Grenada Dam now under construction.

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							4.25	0.24	0.11	4.22	0.63	0.10	
1940-41	0.02	1.42	4.36	1.68	0.91	2.41	.78	.10	.03	.49	.17	.05	12.42
1941-42	.31	3.02	1.34	.71	1.77	3.89	1.30	.38	.06	.05	.07	.03	12.93
1942-43	.01	.04	.49	.63	.34	3.62	.53	.10	.04	.02	.07	.02	5.91
1943-44	.006	.22	.06	.66	2.70	7.94	3.22	2.34	.05	.17	.23	.10	17.70
1944-45	.04	.10	.57	2.55	3.48	6.65	1.52	.85	.15	.20	.20	.05	16.36
1945-46	.04	.08	.64	7.45	6.00	3.54	1.15	1.55	.58	2.04	.26	.07	23.40
1946-47	.04	1.55	.84	8.60	1.46	3.64	5.68	.62	1.22	.14	.03	.02	23.84
1947-48	.01	.51	.95	1.12	11.41	6.07	2.08	.09	.09	.20	.40	.06	22.99

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							2,310	126	60.3	2,219	331	52.2	
1940-41	10.6	773	2,293	884	533	1,269	422	53.3	18.6	259	87.5	26.2	555
1941-42	162	1,646	704	372	1,029	2,046	705	200	34.8	25.4	35.6	15.0	577
1942-43	5.81	19.2	256	332	201	1,905	291	54.6	19.6	9.54	37.3	9.98	264
1943-44	3.32	121	32.8	346	1,521	4,183	1,751	1,234	27.6	89.5	123	55.3	790

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	23.7	51.8	299	1,343	2,028	3,503	827	448	82.5	106	104	29.7	732
1945-46	18.5	45.5	336	3,923	3,500	1,863	623	818	317	1,073	134	38.8	1,046
1946-47	23.6	841	445	4,529	848	1,915	3,088	328	664	73.6	16.4	9.50	1,066
1947-48	7.30	280	501	588	6,424	3,194	1,129	47.8	51.3	105	212	33.2	1,026

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1941	7,700	6.7	555	0.914	12.42	505
1942	7,360	5.5	577	.951	12.93	392
1943	7,140	3.2	264	.435	5.91	253
1944	31,300	3.2	790	1.30	17.70	809
1945	13,600	4.5	732	1.21	16.36	734
1946	19,200	7.0	1,046	1.72	23.40	1,121
1947	19,800	5.3	1,066	1.76	23.84	1,023
1948	40,800	5.3	1,026	1.69	22.99	22.88

YALOBUSHA RIVER AT GRENADA

GRENADA COUNTY

LOCATION—Lat. 33°47', long. 89°48', in NE¼ sec. 7, T. 22 N., R. 5 E. Choctaw meridian, at bridge on U. S. Highway 51, in Grenada, 0.8 mile downstream from Illinois Central Railroad bridge, 1 mile downstream from Batupan River, 6 miles downstream from Skuna River, and 60 miles upstream from confluence with Tallahatchie River.

DRAINAGE AREA—1,550 square miles.

RECORDS AVAILABLE—June to November 1906, July 1908 to March 1912, July 1928 to September 1931, and October 1938 to September 1948 in reports of the Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—21 years (1908-09, 1910-11, 1928-31, 1932-48), 1,857 second-feet.

GAGE—Chain gage prior to July 23, 1934; wire-weight gage to Oct. 30, 1944; water-stage recorder thereafter. Datum of gage is 152.03 feet above mean sea level, datum of 1929, supplementary adjustment of 1944.

EXTREMES—Maximum discharge observed, 78,900 second-feet Feb. 14, 1948 (gage height, 30.78 feet); minimum, 35 second-feet Sept. 8, 19, 20, Nov. 20, 1909 (gage height, 0.9 foot); minimum daily, 35 second-feet Sept. 8, 19, 20, Nov. 20, 1909; minimum 7-day, 40 second-feet Oct. 7-13, 1943.

REMARKS—Records good. Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

PEAK DISCHARGE—Feb. 14, 1948 (8:00 a.m.) 78,900 second-feet; Mar. 29, 1944 (7:00 a.m.) 76,800 second-feet; April 11, 1947 (11:30 p. m.) 50,100 second-feet; Jan. 10, 1946 (2:00 a.m.) 38,500 second-feet; May 20, 1930 () 35,700 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	51	0.033	45	484	0.312
95	59	.038	30	1,270	.820
75	118	.076	15	3,800	2.45
60	222	.143	5	9,020	5.82

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1905-06												892	
1906-07	2,770												
1907-08													
1908-09	124	128	952	267	5,380	8,030	3,720	5,400	4,670	224	285	165	
1909-10	51.9	61.5	321				839	1,450	1,660	6,930	157	230	2,419
1910-11	491	110	694	3,930	3,190	2,870	11,500	1,080	282	415	632	126	
1911-12	154	278	6,350	5,570	2,530						845	341	2,127
1927-28													
1928-29	59.4	72.2	115	445	1,160	6,500	1,380	1,420	395	395	249	185	
1929-30	74.5	963	1,320	2,790	2,220	2,080	1,450	8,500	221	91.6	369	230	1,050
1930-31	142	381	1,100	1,400	1,010	2,480	1,670	728	171	1,020	137	148	1,670
1931-32				13,198	11,783	1,903	2,237	450	542	1,676	498	178	900
1932-33	3,142	1,505	12,328	4,451	6,626	5,975	6,299	1,672	207	693	699	1,269	
1933-34	191	136	416	295	668	3,258	490	218	564	326	185	296	3,607
1934-35	166	1,293	1,291	4,248	2,823	8,536	3,975	2,309	1,164	180	196	153	578
1935-36	223	515	234	1,402	2,906	1,780	4,400	197	92.4	400	82.2	68.8	2,179
1936-37	70.8	148	659	7,882	1,826	2,291	535	1,117	177	133	185	240	1,278
1937-38	80.8	453	1,035	2,459	2,471	2,969	4,897	298	1,432	443	209	148	1,395
1938-39	63	189	158	1,540	5,120	2,710	4,970	996	4,330	926	197	66	1,740
1939-40	67.3	74.2	230	268	2,749	2,956	4,973	563	246	5,322	1,136	190	1,560
1940-41	72.9	1,935	5,511	2,245	1,437	3,337	1,571	252	105	727	329	253	1,487
1941-42	766	4,440	2,029	1,247	2,922	6,062	2,995	782	148	173	127	80.7	1,804
1942-43	62.3	95.4	877	848	850	5,568	863	206	99.7	77.4	140	65.8	818
1943-44	40.6	477	155	1,187	4,747	11,310	6,351	3,544	180	205	331	241	2,391
1944-45	96.9	227	1,033	4,455	4,944	9,810	2,856	1,433	745	336	379	193	2,192
1945-46	156	340	1,321	11,180	9,802	4,909	2,134	2,374	1,278	2,507	474	217	3,025
1946-47	176	2,740	1,296	10,810	2,471	5,216	8,766	938	1,990	273	114	71.7	2,908
1947-48	63.5	977	1,338	1,744	15,960	9,252	4,008	258	293	323	482	114	2,847

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1905-06										0.29		0.64	
1906-07	2.06										0.21	.12	
1907-08											.12	.17	21.19
1908-09	.09	0.09	0.71	0.20	3.61	5.97	2.68	4.02	3.36	.17	.47	.09	
1909-10	.04	.04	.24				.60	1.08	1.19	5.15	.63	.25	18.63
1910-11	.37	.08	.52	2.92	2.14	2.13	8.28	.80	.20	.31			
1911-12	.11	.20	4.72	4.14	1.76								
1927-28													
1928-29	.04	.05	.09	.33	.78	4.83	.99	1.06	.28	.29	.19	.13	9.18
1929-30	.06	.69	.98	2.08	1.49	1.54	1.04	6.32	.16	.07	.27	.11	14.64
1930-31	.11	.27	.82	1.04	.68	1.84	1.20	.54	.12	.76	.37	.13	7.88
1931-32			5.95	9.82	8.20	1.42	1.61	.33	.39	1.25	.52	.91	
1932-33		1.08	9.17	3.31	4.45	4.44	4.53	1.24	.15	.24	.14	.21	31.58
1933-34	.14	.10	.31	.22	.45	2.42	.35	.16	.41	.15	.15	.11	5.06
1934-35	.12	.93	.96	3.16	1.90	6.35	2.86	1.72	.84	.13	.06	.05	19.08
1935-36	.17	.37	.17	1.04	2.02	1.32	3.17	.15	.07	.30	.09	.06	8.93
1936-37	.05	.11	.49	5.86	1.23	1.70	.39	.83	.13	.10	.14	.17	11.20
1937-38	.06	.33	.77	1.83	1.66	2.21	3.52	.22	1.03	.33	.16	.11	12.23
1938-39	.05	.14	.12	1.15	3.44	2.02	3.58	.74	.33	.69	.15	.05	15.24
1939-40	.05	.05	.17	.20	1.91	2.20	3.58	.42	.18	3.96	.85	.14	13.71
1940-41	.05	1.39	.410	1.67	.97	2.48	1.13	.19	.08	.54	.24	.18	13.02
1941-42	.57	3.20	1.51	.93	1.96	4.51	2.16	.58	.11	.13	.09	.06	15.81
1942-43	.05	.07	.65	.63	.57	4.14	.62	.15	.07	.06	.10	.05	7.16
1943-44	.03	.34	.12	.88	3.30	8.41	4.57	2.64	.13	.15	.25	.17	20.99
1944-45	.07	.16	.77	3.31	3.25	7.30	2.06	1.07	.54	.25	.28	.14	19.20
1945-46	.12	.98	.98	8.31	6.58	3.65	1.54	1.77	.92	1.86	.35	.16	26.48
1946-47	.13	1.97	.96	8.04	1.66	3.88	6.31	.73	1.43	.20	.08	.05	25.44
1947-48	.05	.70	1.00	1.30	11.11	6.88	2.89	.19	.21	.24	.36	.08	25.01

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean Runoff in inches
1909	15,900	35	2,419	1.56	21.18	2,380 20.61
1911	17,000	80	2,127	1.37	18.64	2,600 22.71
1929	17,800	47	1,050	.677	9.18	1,227 10.73
1930	33,800	41	1,670	1.08	14.64	1,612 14.11
1931	5,120	46	900	.581	7.88	
1932						
1933	29,200	89	3,607	2.33	31.58	4,217 37.04
1934	8,900	70	578	.373	5.06	2,232 19.54
1935	21,900	62	2,179	1.41	19.08	745 4.52
1936	12,100	62	1,016	.655	8.93	2,030 17.58
1937	17,700	58	1,278	.825	11.20	1,009 8.87
1938	8,900	58	1,395	.900	12.23	1,336 11.71
1939	19,500	55	1,740	1.12	15.24	1,199 11.38
1940	27,300	44	1,560	1.01	13.71	1,735 15.20
1941	16,500	63	1,487	.959	13.02	2,160 18.98
1942	14,400	59	1,804	1.16	15.81	1,456 12.76
1943	16,000	45	818	.528	7.16	1,289 11.30
1944	72,300	38	2,391	1.54	20.99	786 6.88
1945	27,800	43	2,192	1.41	19.20	2,450 21.50
1946	37,500	76	3,025	1.95	26.48	2,231 19.54
1947	43,500	62	2,908	1.88	25.44	3,222 28.20
1948	77,300	57	2,847	1.84	25.00	2,757 24.13
			229			

SKUNA RIVER AT BRUCE

CALHOUN COUNTY

LOCATION—Lat. $33^{\circ}58'$, long. $89^{\circ}21'$, in SW $\frac{1}{4}$ sec. 6, T. 13 S., R. 1 W. Chickasaw meridian, at bridge on State Highway 9, one mile south of Bruce.

DRAINAGE AREA—254 square miles.

RECORDS AVAILABLE—March to September 1948.

GAGE—Wire-weight gage prior to Aug. 27, 1948; water-stage recorder thereafter. Datum of gage is 239.70 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 6,500 second-feet Mar. 17, 1948; minimum, 3.0 second-feet June 13, 1948 but may have been less during period of no gage-height record.

Note—A new maximum discharge of 11,900 second-feet (gage height, 21.14 feet) was established on Jan. 5, 1949.

REMARKS—Records good except those below 10 second-feet, which are poor.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1947-48						1,648	612	15.4	29.1	31.7	66.7		16.4

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1947-48						7.48	2.69	0.07	0.13	0.14	0.30		0.07

SKUNA RIVER NEAR COFFEEVILLE

YALOBUSHA COUNTY

LOCATION—Lat. $33^{\circ}54'35''$, long. $89^{\circ}38'30''$, in NW $\frac{1}{4}$ sec. 35, T. 24 N., R. 6 E. Choctaw meridian, at bridge on county road, one mile south of Gums, $3\frac{1}{4}$ miles upstream from Turkey Creek, 5 miles south of Coffeerville, and $9\frac{1}{4}$ miles upstream from mouth.

DRAINAGE AREA—435 square miles.

RECORDS AVAILABLE—March 1940 to September 1948.

GAGE—Staff gage prior to Mar. 27, 1940; water-stage recorder thereafter. Datum of gage is 188.46 feet above mean sea level, datum of 1929 (levels by Corps of Engineers).

EXTREMES—Maximum discharge, 44,000 second-feet Mar. 29, 1944 (gage height, 23.22), from rating curve extended above 16,000 second-feet by velocity-area studies; minimum observed, 5.8 second-feet Oct. 4, 5, 1943 (gage height, 3.20 feet); minimum daily, 6.0 second-feet Oct. 4, 5, 1943; minimum 7-day, 6.4 second-feet Sept. 29 to Oct. 6, 1943.

REMARKS—Records good. Station is in reservoir of Grenada Dam now under construction.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							1,523	142	73.7	1,108	190	23.9	
1940-41	13.4	524	1,711	436	320	941	524	87.5	21.1	140	45.8	34.7	402
1941-42	127	1,087	394	342	1,070	1,614	809	126	34.6	20.1	24.6	11.5	467
1942-43	8.66	14.9	250	130	288	1,689	185	46.5	18.6	14.6	44.7	10.8	226
1943-44	7.57	128	43.4	281	1,854	3,845	1,443	763	36.9	98.0	68.7	81.6	718
1944-45	13.2	39.0	423	1,371	1,328	2,578	650	318	283	135	123	60.5	608
1945-46	24.8	144	489	3,382	2,974	1,542	344	1,128	274	515	95.0	76.0	907
1946-47	61.1	1,024	294	2,741	541	1,310	1,958	206	458	59.3	29.7	14.6	725
1947-48	13.8	211	342	503	4,391	2,233	1,284	60.4	52.7	50.3	101	26.5	757

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							3.91	0.38	0.19	2.94	0.50	0.06	
1940-41	0.04	1.34	4.53	1.15	0.77	2.49	1.34	.23	.05	.37	.12	.09	12.52
1941-42	.34	2.79	1.04	.91	2.56	4.28	2.08	.33	.09	.05	.07	.03	14.57
1942-43	.02	.04	.66	.35	.69	4.48	.48	.12	.05	.04	.12	.03	7.08
1943-44	.02	.33	.01	.74	4.60	10.19	3.70	2.02	.09	.26	.18	.21	22.35

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.03	.10	1.12	3.63	3.18	6.83	1.67	.84	.73	.36	.33	.16	18.98
1945-46	.07	.37	1.29	8.96	7.12	4.09	.88	2.99	.70	1.36	.25	.19	28.27
1946-47	.16	2.63	.78	7.26	1.29	3.47	5.02	.55	1.18	.16	.08	.04	22.62
1947-48	.04	.54	.91	1.33	10.89	5.92	3.29	.16	.14	.13	.27	.07	23.69

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1941	8,600	9.6	402	0.924	12.52	10.78
1942	7,850	8.7	467	1.07	14.57	11.12
1943	9,700	6.6	226	.520	7.08	6.72
1944	38,400	6.0	718	1.65	22.35	23.24
1945	10,100	11	608	1.40	18.98	19.46
1946	15,600	13	907	2.09	28.27	30.11
1947	13,100	12	725	1.67	22.62	20.54
1948	28,900	11	757	1.74	23.69	

SUNFLOWER RIVER AT CLARKSDALE

COAHOMA COUNTY

LOCATION—Lat. $34^{\circ}11'50''$, long. $90^{\circ}34'30''$, in E½ sec. 23, T. 27 N., R. 4 W. Choctaw meridian, at "4th Street" bridge on old U. S. Highway 61 in Clarksdale, 600 feet downstream from Yazoo and Mississippi Valley Railroad bridge and 2 miles downstream from Little Sunflower River.

Auxiliary gage at bridge on county road a quarter of a mile west of Hopson Spur, 4.9 miles downstream.

DRAINAGE AREA—108 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1937 to September 1938, October 1940 to September 1942. Gage heights only available October 1938 to September 1940 in reports of U. S. Geological Survey.

GAGE—Staff gage prior to April 4, 1940; wire-weight gage thereafter. Datum of gage is 131.70 feet above mean sea level, datum of 1939 (levels by Corps of Engineers). Auxiliary staff gage set to datum 3.53 feet lower.

EXTREMES—Maximum discharge observed, 1,230 second-feet Apr. 11, 1942 (gage height, 17.93 feet); minimum observed, 10 second-feet at times during 1940, 1941; minimum gage height observed, 1.30 feet Oct. 15, 1940; minimum 7-day, 10 second-feet Oct. 9-15, 1940.

REMARKS—Records fair above and poor below 50 second-feet.

Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

DURATION OF FLOW—Index station, Sunflower River at Sunflower.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
85	13	0.121	40	43	0.397
60	25	.227	30	56	.520

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37						151	52.5	40.2	25.8		27.6	27.6	
1937-38	23.5	125	82.2	279	132	181	148	87.9	64.1	30.6	26.0	17.8	99.6
1940-41	11.0	16.2	91.8	119	66.9	59.6	145	26.8	14.2	16.2	24.5	16.2	50.5
1941-42	34.1	95.6	30.3	45.8	73.6	117	345	79.8	29.0	20.0	21.2	20.1	75.4

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1936-37						1.61	0.54	0.43	0.27		0.29	0.28	
1937-38	0.25	1.29	0.88	2.97	1.27	1.93	1.53	.94	.66	0.33	.28	.18	12.51
1940-41	.12	.17	.98	1.27	.65	.64	1.49	.29	.15	.17	.26	.17	6.36
1941-42	.36	.99	.32	.49	.71	1.25	3.56	.85	.30	.21	.23	.21	9.48

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1938	1,230	15	99.6	0.92	12.51		
1940						65.4	8.23
1941	1,130	10	50.5	.47	6.36	53.7	6.76
1942	1,600	10	75.4	.70	9.48		

SUNFLOWER RIVER AT SUNFLOWER

SUNFLOWER COUNTY

LOCATION—Lat. $33^{\circ}32'50''$, long. $90^{\circ}32'35''$, in NE¼ sec. 6, T. 19 N., R. 3 W. Choctaw meridian, at bridge on U. S. Highway 49 W. (old), half a mile northwest of Sunflower, 2½ miles downstream from Jones Bayou, and 19 miles upstream from Quiver River.

DRAINAGE AREA—780 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—October 1938 to September 1948 in reports of Geological Survey. February 1918 to September 1935 (gage heights only) and October 1935 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—13 years, 938 second-feet.

GAGE—Chain gage prior to Nov. 10, 1937; wire-weight gage to July 1, 1947; water-stage recorder thereafter. Datum of gage is 92.95 feet above mean sea level, datum of 1929, supplementary adjustments of 1941 (levels by Corps of Engineers).

EXTREMES—Maximum discharge observed, 7,700 second-feet Jan. 15-17, 1946; maximum gage height, 27.43 feet Jan. 16, 1946; minimum discharge observed, 154 second-feet Oct. 18-23, 1943; minimum daily, 154 second-feet Oct. 18-23, 1943; minimum 7-day, 155 second-feet Oct. 18-24, 1943.

REMARKS—Records good. Base data and computations of daily discharge furnished by Corps of Engineers; occasional discharge measurements made and records reviewed by Geological Survey.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	168	0.215	55	333	0.427
95	181	.232	35	686	.880
75	229	.293	15	1,880	2.41
65	257	.330	5	3,740	4.80

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36	235	396	223	536	685	402	434	238	178	240	171	182	325
1936-37	203	198	578	3,367	1,681	1,138	538	593	513	264	210	373	802
1937-38	741	1,326	868	1,880	1,555	1,237	2,118	439	414	229	271	189	933
1938-39	224	231	241	1,546	4,130	1,888	3,533	570	452	680	245	230	1,140
1939-40	231	233	291	346	1,476	1,041	1,548	466	367	1,721	388	214	690
1940-41	196	670	1,579	1,212	728	1,090	945	473	220	511	230	186	671
1941-42	253	1,334	417	536	532	1,719	3,340	936	368	253	206	185	837
1942-43	181	266	520	596	941	2,592	709	337	381	201	170	169	588
1943-44	163	225	193	486	1,706	2,244	3,749	2,154	559	217	208	277	1,009
1944-45	184	186	702	3,979	1,692	3,865	2,138	1,168	319	448	478	352	1,295
1945-46	542	622	1,032	5,203	4,355	2,314	1,086	1,279	1,336	1,365	398	243	1,635
1946-47	223	595	468	3,045	1,128	1,393	1,685	1,020	1,845	330	220	205	1,011
1947-48	186	631	757	970	4,221	3,964	1,904	894	550	316	733	229	1,268

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36	0.35	0.57	0.33	0.79	0.95	0.59	0.62	0.35	0.25	0.35	0.25	0.26	5.66
1936-37	.30	.28	.85	4.98	2.24	1.68	.77	.88	.73	.39	.31	.53	13.94
1937-38	1.10	1.90	1.28	2.78	2.08	1.83	3.03	.65	.59	.34	.40	.27	16.25
1938-39	.33	.33	.36	2.28	5.51	2.79	5.05	.84	.65	1.00	.36	.33	19.83
1939-40	.34	.33	.43	.51	2.04	1.54	2.21	.69	.52	2.54	.57	.31	12.03
1940-41	.29	.96	2.33	1.79	.97	1.61	1.35	.70	.32	.76	.34	.27	11.69

1941-42	.37	1.91	.62	.79	.71	2.54	4.78	1.38	.53	.37	.30	.26	14.56
1942-43	.27	.38	.77	.88	1.26	3.83	1.01	.50	.55	.30	.25	.24	10.24
1943-44	.24	.32	.29	.72	2.36	3.32	5.36	3.18	.80	.32	.31	.40	17.62
1944-45	.27	.27	1.04	5.88	2.26	5.71	3.06	1.73	.46	.66	.71	.50	22.55
1945-46	.80	.89	1.53	7.69	5.81	3.42	1.55	1.89	1.91	2.02	.59	.35	28.45
1946-47	.33	.85	.69	4.50	1.51	2.06	2.41	1.51	2.64	.49	.33	.29	17.61
1947-48	28	.90	1.12	1.43	5.84	5.86	2.72	1.32	.79	.47	1.08	.33	22.14

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Per square mile	Runoff in inches	Calendar year	
	Maximum Day	Minimum Day	Mean	Mean			Runoff in inches	
1936	1,660	166	325		0.417	5.66	336	6.17
1937	5,960	160	802		1.03	13.94	965	16.79
1938	4,000	166	933		1.20	16.25	746	13.39
1939	6,820	220	1,140		1.46	19.84	1,145	19.92
1940	3,040	198	690		.885	12.04	832	14.51
1941	3,460	173	671		.860	11.69	632	11.01
1942	6,610	165	837		1.07	14.56	752	13.08
1943	5,100	160	588		.754	10.24	555	9.67
1944	7,380	154	1,009		1.29	17.62	1,051	18.35
1945	7,240	160	1,295		1.66	22.55	1,389	24.19
1946	7,700	227	1,635		2.10	28.45	1,557	27.10
1947	3,830	198	1,011		1.30	17.61	1,036	18.04
1948	6,740	178	1,268		1.63	22.14		
			239					

BIG BLACK RIVER BASIN

BIG BLACK RIVER AT PICKENS

HOLMES COUNTY

LOCATION—Lat. 32°52'45", long. 89°58'05", in SW¼ sec. 14, T. 12 N., R. 3 E. Choctaw meridian, at bridge on U. S. Highway 51 (old), half a mile southeast of Pickens, 6 miles downstream from Seneasha Creek, and 6 miles upstream from Cypress Creek.

DRAINAGE AREA—1,460 square miles.

RECORDS AVAILABLE—October 1938 to September 1948. July 1936 to September 1938 in reports of Corps of Engineers.

AVERAGE DISCHARGE—12 years, 1,700 second-feet.

GAGE—Staff and wire-weight gage prior to Aug. 20, 1939; water-stage recorder thereafter. Datum of gage is 196.26 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (U. S. Department of Agriculture bench mark, levels by Corps of Engineers).

EXTREMES—Maximum discharge, 37,900 second-feet Feb. 11, 1946 (gage height, 20.85 feet); minimum, 27 second-feet Aug. 31, Sept. 1, 1943 (gage height, 2.15 feet); minimum daily, 28 second-feet Aug. 31, 1943; minimum 7-day, 32 second-feet Aug. 27 to Sept. 2, 1943.

Note—A new maximum discharge of 42,400 second-feet (gage height, 21.95 feet) was established on Jan. 7, 1949.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 11, 1946 (9:00 p.m.) 37,900 second-feet; Mar. 31, 1944 (2:00 p.m.) 35,900 second-feet; Feb. 15, 1948 (7:00 a.m.) 35,600 second-feet; Apr. 13, 1947 (12:00 p.m.) 29,400 second-feet; Jan. 11, 1946 (3:00 a.m.) 28,800 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	60	.041	50	453	0.310
90	76	.052	35	1,040	.710
80	117	.080	20	2,630	1.80
65	215	.147	10	5,040	3.45

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36											102	70.7	
1936-37	52.6	70.9	338	3,940	2,741	2,506	1,354	1,147	530	157	464	744	1,163
1937-38	109	1,201	956	2,603	1,994	2,519	3,792	588	995	1,054	634	133	1,375
1938-39	65.1	167	188	1,446	3,867	1,749	2,953	634	2,172	828	240	62.7	1,174
1939-40	55.2	62.5	380	593	4,925	3,018	4,607	1,100	385	8,281	923	249	2,040
1940-41	74.9	1,393	5,603	1,612	1,525	2,603	971	235	193	1,321	732	218	1,380
1941-42	237	1,588	2,414	1,153	2,084	3,635	799	772	250	257	372	148	1,140
1942-43	68.5	137	947	1,967	859	2,555	1,276	460	177	135	69.6	237	743
1943-44	47.2	288	167	1,224	3,596	8,005	6,005	4,195	228	157	706	125	2,058
1944-45	74.0	177	655	2,692	6,285	8,759	2,884	1,119	617	350	409	112	1,988
1945-46	177	231	888	8,208	10,510	3,751	2,058	2,226	1,826	1,373	835	139	2,639
1946-47	106	2,175	1,567	9,913	1,992	3,294	7,011	1,426	2,348	1,074	184	98.4	2,601
1947-48	81.4	983	1,689	1,658	9,431	6,431	3,712	303	384	365	414	140	2,102

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1935-36											0.08	0.05	
1936-37	0.04	0.05	0.27	3.12	1.96	1.99	1.04	0.91	0.41	0.12	.37	.57	10.85
1937-38	.09	.92	.76	2.07	1.43	2.00	2.91	.47	.76	.84	.50	.10	12.85
1938-39	.05	.13	.15	1.14	2.76	1.38	2.25	.50	1.66	.65	.19	.05	10.91
1939-40	.04	.05	.30	.47	3.64	2.39	3.53	.87	.29	6.54	.73	.19	19.04
1940-41	.06	1.06	4.43	1.27	1.08	2.05	.74	.19	.15	1.04	.58	.17	12.82
1941-42	.19	1.21	1.91	.91	1.49	2.87	.61	.61	.19	.20	.29	.11	10.59

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1942-43	.05	.10	.75	1.55	.61	2.02	.98	.36	.13	.11	.05	.18	6.89
1943-44	.04	.22	.13	.97	2.66	6.32	4.59	3.31	.17	.12	.56	.10	19.19
1944-45	.06	.14	.52	2.13	4.48	6.92	2.20	.88	.47	.28	.32	.09	18.49
1945-46	.14	.18	.70	6.48	7.50	2.96	1.57	1.76	1.40	1.08	.66	.11	24.54
1946-47	.08	1.66	1.24	7.83	1.42	2.60	5.36	1.13	1.79	.85	.14	.08	24.18
1947-48	.06	.75	1.33	1.31	6.97	5.08	2.84	.24	.29	.29	.33	.11	19.60

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1937	5,300	30	1,163	0.799	10.85	1,313
1938	5,160	62	1,375	.945	12.85	1,221
1939	6,000	56	1,174	.804	10.91	1,180
1940	24,300	48	2,040	1.40	19.04	2,594
1941	13,400	61	1,380	.945	12.82	1,139
1942	5,080	68	1,140	.781	10.59	881
1943	8,300	28	743	.509	6.89	687
1944	34,300	40	2,058	1.41	19.19	2,092
1945	17,500	51	1,988	1.36	18.49	2,021
1946	36,600	81	2,639	1.81	24.54	2,850
1947	25,500	69	2,601	1.78	24.18	2,511
1948	34,900	66	2,102	1.44	19.60	2,334

BIG BLACK RIVER NEAR BOVINA

WARREN COUNTY

LOCATION—Lat. 32°20'51", long. 90°41'48", in SE¼ sec. 22, T. 16 N., R. 5 E. Washington meridian, at bridge on U. S. Highway 80, 300 feet upstream from Clear Creek, 0.4 mile upstream from Illinois Central Railroad bridge, 2 miles east of Bovina, 12 miles upstream from Fourteenmile Creek, and 72 miles above mouth.

DRAINAGE AREA—2,810 square miles.

RECORDS AVAILABLE—October 1938 to September 1948.

AVERAGE DISCHARGE—10 years, 3,342 second-feet.

GAGE—Prior to Oct. 23, 1941, wire-weight gage read to hundredths twice daily; water-stage recorder thereafter. Datum of gage is 84.93 feet above mean sea level, datum of 1929 (levels by Corps of Engineers; Corps of Engineers' bench mark).

EXTREMES—Maximum discharge, 46,000 second-feet Feb. 14, 1946 (gage height, 39.09 feet); minimum discharge, 72 second-feet Nov. 7-8, 1944; minimum gage height, 7.23 feet Sept. 27, 1948; minimum daily discharge, 72 second-feet Nov. 7, 1944; minimum 7-day, 75 second-feet Nov. 1-7, 1944.

REMARKS—Records good.

PEAK DISCHARGE—Feb. 14, 1946 (24 hours) 46,000 second-feet; Apr. 1, 1944 (4:00 a.m.-1:00 p.m.) 44,400 second-feet; Jan. 15, 1946 (9:30 p.m.) 37,700 second-feet; Feb. 19, 1948 (1:00 p.m.) 35,000 second-feet; Jan. 13, 1947 (1:00 p.m.) 29,500 second-feet.

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	96	0.034	60	582	0.207
95	115	.041	40	1,830	.650
90	146	.052	20	5,840	2.08
80	222	.079	5	13,800	4.90

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	122	282	306	2,596	7,485	4,625	4,099	807	2,657	1,493	526	164	2,056
1939-40	122	103	596	920	7,926	4,973	9,454	4,449	673	13,730	2,060	449	3,778
1940-41	150	2,734	10,540	4,681	3,882	6,179	2,995	443	314	2,039	1,308	465	2,985
1941-42	277	2,036	3,668	2,378	3,324	8,596	1,966	1,590	423	518	1,930	503	2,270
1942-43	243	377	1,499	4,929	1,422	4,805	4,441	504	500	305	121	418	1,634
1943-44	95.4	560	245	1,839	4,160	13,390	15,020	5,685	556	211	862	197	3,560
1944-45	102	291	995	4,942	8,960	14,120	6,485	2,255	3,035	1,062	1,024	198	3,501
1945-46	795	282	1,183	16,490	20,140	6,637	4,152	4,918	5,878	3,908	1,827	246	5,450
1946-47	173	3,612	2,113	17,120	4,035	5,949	13,090	3,432	2,816	1,273	328	324	4,522
1947-48	118	1,629	2,931	2,062	14,850	12,590	6,222	580	568	462	1,156	207	3,570

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39	0.05	0.11	0.13	1.07	2.77	1.90	1.63	0.33	1.06	0.61	0.22	0.06	9.94
1939-40	.05	.04	.24	.38	3.04	2.04	3.75	1.82	.27	5.64	.85	.18	18.30
1940-41	.06	1.09	4.32	1.92	1.44	2.54	1.19	.18	.12	.84	.54	.18	14.42
1941-42	.11	.81	1.51	.98	1.23	3.53	.78	.65	.17	.21	.79	.20	10.97
1942-43	.10	.15	.62	2.02	.53	1.97	1.76	.21	.20	.13	.05	.17	7.91

1943-44	.04	.22	.10	.75	1.60	5.49	5.96	2.33	.22	.09	.35	.08	17.23
1944-45	.04	.12	.41	2.03	3.32	5.79	2.57	.93	1.21	.44	.42	.08	17.36
1945-46	.33	.11	.49	6.76	7.46	2.72	1.65	2.02	2.33	1.60	.75	.10	26.32
1946-47	.07	1.43	.87	7.03	1.50	2.44	5.20	1.41	1.12	.52	.13	.13	21.85
1947-48	.05	.65	1.20	.85	5.70	5.17	2.47	.24	.23	.19	.47	.08	17.30

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1939	9,420	101	2,056	0.732	9.94	2,066
1940	26,000	79	3,778	1.34	18.30	4,838
1941	15,500	117	2,985	1.06	14.42	2,355
1942	11,700	164	2,270	.808	10.97	1,942
1943	13,300	74	1,634	.581	7.91	1,530
1944	44,400	73	3,560	1.27	17.23	3,602
1945	19,100	72	3,591	1.28	17.36	3,665
1946	46,000	116	5,450	1.94	26.32	5,750
1947	27,400	126	4,522	1.61	21.85	4,424
1948	35,000	95	3,570	1.27	17.30	

BAYOU PIERRE BASIN

BAYOU PIERRE NEAR CARPENTER

COPIAH COUNTY

LOCATION—Lat. 32°00', long. 90°41', in NE¼ sec. 22, T. 12 N., R. 5 E. Washington meridian, at bridge on State Highway 18, 1¼ miles upstream from Whiteoak Creek, 2 miles south of Carpenter, 2 miles upstream from Illinois Central Railroad bridge, and 8 miles southwest of Utica.

DRAINAGE AREA—371 square miles.

RECORDS AVAILABLE—November 1944 to September 1948.

GAGE—Wire-weight gage read to hundredths of a foot twice daily.

EXTREMES (OBSERVED)—Maximum discharge, 23,400 second-feet Feb. 5, 1945 (gage height, 25.63 feet); minimum, 25 second-feet Sept. 18, 1947; minimum daily, 25 second-feet Sept. 18, 1947; minimum 7-day, 27.7 second-feet Sept. 5-11, 1947.

REMARKS—Records fair. See p. for discharge measurements made prior to establishment of station.

DURATION OF FLOW—Index station, Big Black River near Bovina.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	31	0.083	70	68	0.183
95	34	.092	60	90	.242
90	40	.108	50	125	.338
80	52	.141	40	187	.504

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45			194	459	1,952	1,392	701	258	360	301	196	100	
1945-46	125	112	331	1,422	2,660	819	118	1,041	438	555	285	79.2	654
1946-47	42.1	517	321	2,690	242	1,146	3,237	259	133	49.8	71.9	225	746
1947-48	42.6	221	503	607	1,182	1,173	574	106	76.3	101	218	49.2	402

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45			0.60	1.43	5.48	4.32	2.11	0.80	1.08	0.94	0.61	0.30	
1945-46	0.39	0.34	1.03	4.42	7.47	2.54	.35	3.23	1.32	1.73	.88	.24	23.94
1946-47	.13	1.55	1.00	8.36	.68	3.56	9.73	.80	.40	.15	.22	.68	27.26
1947-48	.13	.67	1.56	1.88	3.44	3.64	1.73	.33	.23	.31	.68	.15	14.75

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1945					514	18.83
1946	15,200	36	654	1.76	680	24.86
1947	17,100	25	746	2.01	737	26.94
1948	5,900	29	402	1.08		
			247			

HOMOCHITTO RIVER BASIN

HOMOCHITTO RIVER AT EDDICETON

FRANKLIN COUNTY

LOCATION—Lat. $31^{\circ}30'$, long. $90^{\circ}47'$, in sec. 11, T. 6 N., R. 4 E. Washington meridian, at Mississippi Central Railroad bridge, 900 feet downstream from bridge on U. S. Highway 84, 0.4 mile upstream from McCall Creek, and 0.75 mile east of Eddiceton.

DRAINAGE AREA—180 square miles.

RECORDS AVAILABLE—October 1938 to September 1948.

GAGE—Wire-weight gage at site 900 feet upstream prior to May 26, 1942; water-stage recorder thereafter. Datum of gage is 217.22 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

EXTREMES—Maximum discharge, not determined; maximum gage height, 14.52 feet Apr. 1, 1947; minimum discharge observed, 25 second-feet Aug. 16, 17, 1939; minimum daily, 25 second-feet Aug. 16, 1939; minimum 7-day, 28 second-feet Aug. 10-16, 1939.

Note—New maximum gage height of 15.34 feet was established on Jan. 6, 1950 and of 15.74 feet on May 2, 1950.

REMARKS—Records fair.

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	31	0.173	25	164	0.910
85	41	.228	15	284	1.58
70	51	.281	10	450	2.50
45	85	.473	5	990	5.50

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39		37.5	79.5	470	811	1,119	219	128	375	54.2	62.0	40.8	
1939-40	42.1	38.1	100	135	501	337	967	172	150	781	72.3	42.1	277
1940-41	33.4	80.1	1,196	182	107	471	467	201	65.6	135	53.4	53.6	256
1941-42	69.5	104	511	231	258	534	417	382	80.1	62.1	160	118	244
1942-43	63.1	50.6	342	157	352	670	320	73.0	54.7	72.9	37.4	45.2	186
1943-44	36.4	45.1	62.6	279	486	1,249	213	131	48.3	37.5	80.5	46.4	226
1944-45	39.1	54.2	123	267	807	364	324	115	135	61.5	69.9	42.1	196
1945-46	87.9	59.3	156	572	944	371	84.7	351	174	267	127	48.5	267
1946-47	38.1	321	175	1,268	106	761	1,569	155	94.7	48.2	49.9	113	392
1947-48	47.9	140	277	469	498	700	231	66.6	42.7	55.2	110	49.7	224

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39		0.23	0.51	3.01	4.70	7.17	1.36	0.82	2.32	0.35	0.40	0.25	
1939-40	0.27	.24	.64	.86	3.00	2.16	5.99	1.10	.93	5.00	.46	.26	20.91
1940-41	.21	.50	7.66	1.16	.62	3.02	2.89	1.29	.41	.86	.34	.33	19.29
1941-42	.45	.64	3.27	1.48	1.49	3.42	2.58	2.45	.50	.40	1.03	.73	18.44
1942-43	.40	.31	2.19	1.01	2.04	4.29	1.98	.47	.34	.47	.24	.28	14.02
1943-44	.23	.28	.40	1.79	2.91	8.00	1.32	.84	.30	.24	.52	.29	17.12
						249							

MONTHLY AND ANNUAL RUNOFF IN INCHES CONTINUED

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45	.25	.34	.79	1.71	4.67	2.33	2.01	.74	.83	.39	.45	.26	14.77
1945-46	.56	.37	1.00	3.66	5.46	2.38	.52	2.25	1.08	1.71	.81	.30	20.10
1946-47	.24	1.99	1.12	8.12	.61	4.87	9.72	.99	.59	.31	.32	.70	29.58
1947-48	.31	.87	1.77	3.00	2.98	4.49	1.43	.43	.26	.35	.70	.31	16.90

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1939					285	21.53
1940	9,470	34	277	1.54	372	28.13
1941	8,380	32	256	1.42	203	15.28
1942	8,250	38	244	1.36	225	16.98
1943	4,240	32	186	1.03	159	12.03
1944	17,100	32	226	1.26	233	17.59
1945	6,120	31	196	1.09	203	15.32
1946	7,050	38	267	1.48	286	21.52
1947	10,100	33	392	2.18	387	29.18
1948	4,840	35	224	1.24		

HOMOCHITTO RIVER NEAR BUDE

FRANKLIN COUNTY

LOCATION—Lat. $31^{\circ}26'$, long. $90^{\circ}51'$, in NE $\frac{1}{4}$ sec. 45, T. 6 N., R. 3 E. Washington meridian, at bridge on State Highway 44, a quarter of a mile downstream from Porter Creek, 1.6 miles southwest of Bude, and 5.0 miles upstream from Middle Fork Creek.

DRAINAGE AREA—399 square miles.

RECORDS AVAILABLE—March 1942 to September 1948.

GAGE—Wire-weight gage prior to Apr. 21, 1942; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 41,000 second-feet Apr. 1, 1947 (gage height, 15.25 feet); minimum, 79 second-feet Aug. 23, 24, 1948; minimum daily, 81 second-feet Aug. 23, 24, 1948; minimum 7-day, 87 second-feet Aug. 19-25, 1948; minimum gage height observed, 1.82 feet Aug. 5, 6, 1947.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
87	121	0.303	30	423	1.06
75	154	.386	20	630	1.58
55	219	.550	15	830	2.08
40	315	.790	10	1,180	2.95

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						1,076	935	867	186	204	401	327	
1942-43	276	153	910	394	796	1,497	739	196	157	260	116	129	468
1943-44	109	202	269	642	936	2,003	680	327	175	121	243	265	497
1944-45	135	248	382	739	1,528	664	851	365	406	320	264	166	498
1945-46	353	265	577	1,536	2,029	1,049	226	1,118	562	986	489	191	777
1946-47	143	886	489	2,751	351	1,836	3,134	431	317	146	223	331	922
1947-48	155	536	745	856	1,050	1,835	504	215	149	180	193	172	549

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						3.11	2.61	2.51	0.52	0.59	1.16	0.91	
1942-43	0.80	0.43	2.63	1.14	2.08	4.32	2.07	.57	.44	.75	.33	.36	15.92
1943-44	.32	.56	.78	1.86	2.53	5.79	1.90	.94	.49	.35	.70	.74	16.96
1944-45	.39	.69	1.10	2.13	3.99	1.92	2.38	1.05	1.14	.93	.76	.46	16.94
1945-46	1.02	.74	1.67	4.44	5.29	3.03	.63	3.23	1.57	2.85	1.41	.54	26.42
1946-47	.41	2.48	1.41	7.95	.92	5.31	8.76	1.24	.89	.42	.64	.93	31.36
1947-48	.45	1.50	2.15	2.47	2.84	5.30	1.41	.62	.42	.52	.56	.48	18.72

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches
1943	10,300	100	468	1.17	15.92	403	13.72
1944	24,700	93	497	1.25	16.96	513	17.48
1945	9,630	107	498	1.25	16.94	535	18.19
1946	11,200	133	777	1.95	26.42	802	27.29
1947	17,600	110	922	2.31	31.36	916	31.16
1948	10,700	81	549	1.38	18.72		

HOMOCHITTO RIVER NEAR KINGSTON

ADAMS COUNTY

LOCATION—Lat. $31^{\circ}21'40''$, long. $91^{\circ}15'20''$, in $S\frac{1}{2}$ sec. 27, T. 5 N., R. 1 W. Washington meridian, at bridge on U. S. Highway 61 (old), $3\frac{1}{2}$ miles southeast of Kingston, and 16 miles southeast of Natchez.

DRAINAGE AREA—1,000 square miles.

RECORDS AVAILABLE—November 1944 to September 1948.

GAGE—Wire-weight gage prior to October 3, 1946; wire-weight gage and water-stage recorder thereafter.

EXTREMES—Maximum discharge, 45,400 second-feet Apr. 2, 1947; maximum gage height, 26.45 feet Nov. 11, 1946; minimum discharge, 197 second-feet Aug. 6, 7, 1948; minimum daily, 197 second-feet Aug. 6, 7, 1948; minimum 7-day, 214 second-feet August 1-7, 1948.

Note—New maximum gage height of 28.39 feet (discharge not determined) was established on Nov. 27, 1948 by flood that destroyed station.

REMARKS—Records fair.

PEAK DISCHARGE—Apr. 2, 1947 (12:30 p.m.) 45,400 second-feet; Jan. 19, 1947 (3:00 p.m.) 39,400 second-feet; Mar. 2, 1948 (8:30 p.m.) 36,900 second-feet; Mar. 13, 1947 (9:30 p.m.) 36,600 second-feet; Nov. 11, 1946 (3:00 p.m.) 34,800 second-feet.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	230	0.230	30	1,040	1.04
70	336	.336	20	1,640	1.64
55	463	.463	10	3,100	3.10
40	710	.719			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FOOT

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45			967	1,500	3,294	1,225	1,862	827	993	697	491	261	
1945-46	626	422	1,034	3,373	4,171	2,262	530	3,018	1,498	2,106	781	359	1,672
1946-47	279	1,984	1,084	6,956	895	4,094	5,896	999	780	308	448	566	2,030
1947-48	277	928	1,289	2,351	3,053	4,503	1,164	425	308	371	391	685	1,308

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1944-45			1.12	1.73	3.43	1.41	2.08	0.95	1.11	0.80	0.57	0.29	
1945-46	0.72	0.47	1.19	3.89	4.34	2.61	.59	3.48	1.67	2.43	.90	.40	22.69
1946-47	.32	2.21	1.25	8.02	.93	4.72	6.58	1.15	.87	.36	.52	.63	27.56
1947-48	.32	1.04	1.49	2.71	3.29	5.19	1.30	.49	.34	.43	.45	.76	17.81

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1945					1,087	14.75
1946	21,200	258	1,672	1.67	1,775	24.09
1947	36,300	219	2,030	2.03	1,961	26.63
1948	26,900	197	1,308	1.31		

HOMOCHITTO RIVER NEAR DOLOROSO

WILKINSON COUNTY

LOCATION—Lat. 31°19'53", long. 91°21'37", in sec. 10, T. 4 N., R. 2 W. Washington meridian, at bridge on U. S. Highway 61, about 1200 feet downstream from Second Creek, 2.2 miles north of Doloroso, 10 miles upstream from mouth (through Armstrong Canal), 16 miles north of Woodville, and 16 miles south of Natchez.

DRAINAGE AREA—1,120 square miles.

RECORDS AVAILABLE—December 1939 to September 1946.

GAGE—Wire-weight gage prior to Jan. 31, 1940; water-stage recorder thereafter. Datum 15.00 feet higher prior to Oct. 1, 1944.

EXTREMES—Maximum daily discharge, 44,000 second-feet Mar. 30, 1944; maximum gage height, 36.23 feet (present datum), July 4, 1940; minimum discharge observed, 215 second-feet July 25-31, 1944; minimum gage height observed, 4.04 feet Feb. 2, 1945; minimum 7-day, 215 second-feet July 25-31, 1944.

Flood of April 7, 1938, reached a stage of 38.4 feet (present datum), from information by Corps of Engineers.

Note—A discharge of 62,600 second-feet (gage height, 32.11 feet) was observed on Jan. 7, 1950.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
85	291	0.260	40	829	0.740
80	328	.293	25	1,380	1.23
55	560	.500	15	2,350	2.10

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40				648	2,427	1,565	3,633	1,976	1,030	5,997	1,522	351	
1940-41	247	1,041	5,485	1,401	871	2,923	2,073	1,114	742	1,026	601	367	1,475
1941-42	348	544	1,970	1,501	1,603	3,186	2,380	1,424	485	548	796	826	1,301
1942-43	432	434	1,737	942	1,767	3,506	1,271	801	483	431	275	369	1,008
1943-44	236	511	734	1,920	2,500	5,562	1,741	801	529	289	663	523	1,333
1944-45	383	690	1,404	2,241	3,735	1,450	2,128	919	1,221	976	518	288	1,312
1945-46	674	435	1,166	3,813	4,855	2,705	585	3,162	1,774	2,264	896	414	1,883

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40				0.67	2.34	1.61	3.62	2.03	1.03	6.17	1.57	0.35	
1940-41				1.44	.81	2.70	2.06	1.15	.74	1.06	.62	.37	17.89
1941-42	.36	.54	2.02	1.54	1.49	3.28	2.37	1.47	.48	.56	.82	.82	15.75
1942-43	.45	.43	1.79	.97	1.64	3.61	1.27	.49	.48	.44	.28	.37	12.22
1943-44	.24	.51	.76	1.98	2.41	5.73	1.73	.82	.53	.30	.68	.52	16.21
1944-45	.39	.69	1.45	2.31	3.47	1.49	2.12	.95	1.22	1.00	.53	.29	15.91
1945-46	.69	.43	1.20	3.92	4.51	2.78	.58	3.25	1.77	2.33	.92	.41	22.79

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1940							
1941	19,800	232	1,475	1.32	17.89	2,166	26.33
1942	20,000	229	1,301	1.16	15.75	1,145	13.87
1943	14,500	219	1,008	.900	12.22	1,279	15.50
1944	44,400	215	1,333	1.19	16.21	913	11.06
1945	15,200	219	1,312	1.17	15.91	1,417	17.23
1946	21,500	289	1,883	1.68	22.79	1,296	15.70

BUFFALO BAYOU BASIN

BUFFALO BAYOU NEAR WOODVILLE

WILKINSON COUNTY

LOCATION—Lat. $31^{\circ}13'35''$, long. $91^{\circ}17'45''$, in SW $\frac{1}{4}$ sec. 21, T. 3 N., R. 2 W. Washington meridian, at bridge on U. S. Highway 61, $1\frac{1}{2}$ miles downstream from Fords Creek, $2\frac{3}{4}$ miles west of Wilkinson, $8\frac{1}{2}$ miles north of Woodville, and $31\frac{1}{2}$ miles above mouth.

DRAINAGE AREA—182 square miles.

RECORDS AVAILABLE—March 1942 to September 1948.

GAGE—Wire-weight gage prior to June 1, 1942; water-stage recorder thereafter.

EXTREMES—Maximum gage height, 16.2 feet Mar. 2, 1948 (discharge not determined); minimum discharge, 11 second-feet Aug. 29, 1943 (gage height, 0.88 foot); minimum daily, 13 second-feet Aug. 24-26, 28, 1943; minimum 7-day, 13 second-feet Aug. 22-28, 1943; minimum gage height, 0.39 foot Dec. 19, 1946, Sept. 18, 1947.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
85	36	0.200	35	133	0.730
80	42	.231	25	195	1.07
65	56	.310	20	248	1.36
50	84	.460	15	331	1.82

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						419	331	82.3	62.6	79.7	67.9	113	
1942-43	100	46.6	317	202	625	1,076	299	70.0	182	46.2	24.0	97.0	255
1943-44	28.1	70.4	202	385	388	539	219	105	45.2	39.1	142	60.7	185
1944-45	52.3	218	380	446	633	185	402	193	306	138	73.8	38.3	253
1945-46	145	103	355	835	681	503	84.2	668	251	220	130	43.7	334
1946-47	65.4	686	137	1,172	156	848	704	153	265	44.7	55.1	115	368
1947-48	42.1	121	300	356	373	1,713	333	81.6	42.7	53.3	61.1	269	313

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						2.66	2.03	0.52	0.38	0.51	0.43	0.69	
1942-43	0.64	0.29	2.01	1.28	3.57	6.82	1.83	.44	1.11	.29	.15	.59	19.02
1943-44	.18	.43	1.28	2.44	2.30	3.42	1.34	.66	.28	.25	.90	.37	13.85
1944-45	.33	1.34	2.41	2.83	3.62	1.17	2.46	1.22	1.88	.88	.47	.23	18.84
1945-46	.92	.63	2.25	5.29	3.90	3.19	.52	4.23	1.54	1.39	.82	.27	24.95
1946-47	.41	4.21	.87	7.42	.89	5.37	4.32	.97	1.62	.28	.35	.70	27.41
1947-48	.27	.74	1.90	2.25	2.21	10.85	2.04	.52	.26	.34	.39	1.65	23.42

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar Year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1943	10,600	13	255	1.40	19.02	241	17.97
1944	4,130	22	185	1.02	13.85	214	16.04
1945	5,590	23	253	1.39	18.84	249	18.56
1946	6,440	36	334	1.84	24.95	357	26.64
1947	7,320	29	366	2.02	27.41	332	24.73
1948	18,500	31	313	1.72	23.42		

STORAGE

The flow of the Yazoo, lower Tallahatchie, and lower Coldwater rivers is, in part, controlled by the operations of Sardis Reservoir on the Tallahatchie River and Arkabutla Reservoir on Coldwater River. Data for these reservoirs are presented in this report with a description similar to that for each stream-gaging station and a table listing monthly changes in contents being given in each.

YAZOO RIVER BASIN

SARDIS RESERVOIR NEAR SARDIS

PANOLA COUNTY

LOCATION—Lat. $34^{\circ}23'57''$, long. $89^{\circ}47'10''$, in gatehouse of Sardis Dam on Tallahatchie River in NE $\frac{1}{4}$ sec. 11, T. 8 S., R. 6 W. Chickasaw meridian, $7\frac{1}{2}$ miles southeast of Sardis.

DRAINAGE AREA—1,545 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—September 1939 to September 1948.

GAGE—Water-stage recorder. Datum of gage is 219.43 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum elevation, 276.65 feet, sea level datum, Mar. 31, 1946 (contents, 1,304,970 acre-feet); minimum elevation since initial filling of reservoir, 228.93 feet Oct. 3, 1941 (contents 47,900 acre-feet).

REMARKS—Reservoir is formed by hydraulic-fill earth dam, with concrete spillway and outlet tunnel on opposite ends of the dam. Storage began Aug. 26, 1939; dam completed Aug. 1, 1940. Capacity, 1,569,900 acre-feet at elevation 281.4 feet (crest of spillway) of which about 1,478,000 acre feet is available for flood-control storage and about 91,900 acre-feet is permanent storage which will be maintained for incidental recreational purposes at elevation 234.4 feet (15 feet above sill of outlet tunnel). Water below elevation 219.4 feet cannot be withdrawn through outlet tunnel. Reservoir used only for flood control.

Base data furnished by Corps of Engineers; records reviewed by Geological Survey.

MISSISSIPPI STATE GEOLOGICAL SURVEY

MONTHLY AND ANNUAL CHANGE IN CONTENT; EQUIVALENT SECOND-FEET

	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48
October.....	+ 327	+ 171	+ 309	+ 240	- 1810	+ 680	- 4083	+ 583
November.....	+ 846	+ 655	+ 417	+ 750	+ 269	+ 868	+ 1353	+ 1527
December.....	+ 2020	- 352	+ 2084	- 28.9	+ 326	- 635	- 2082	- 2310
January.....	- 578	+ 143	- 402	- 388	+ 5201	+ 9573	+ 5422	- 749
February.....	- 605	+ 1629	- 562	+ 3275	+ 1192	+ 7600	- 769	+ 12660
March.....	+ 473	+ 1529	+ 4082	+ 6473	+ 4255	+ 1851	- 44.2	+ 5407
April.....	- 724	+ 3631	- 638	+ 4780	- 130	- 3061	+ 3579	+ 319
May.....	- 1160	- 1773	- 1661	+ 332	- 2501	+ 321	- 300	- 2149
June.....	+ 59.3	- 3669	- 1218	- 4062	- 3254	- 3019	- 687	- 4090
July.....	+ 139	- 1647	- 2312	- 4106	- 4087	- 944	- 2821	- 3317
August.....	- 647	+ 445	- 429	- 3541	- 3286	- 4237	- 3321	- 4050
September.....	- 469	+ 264	+ 260	- 2517	+ 423	- 4185	- 82.9	- 3735
Water Year.....	- 21.4	+ 71.4	+ 2.0	+ 87.2	- 53.5	+ 372	- 331	- 44.9

ARKABUTLA RESERVOIR NEAR ARKABUTLA

TATE COUNTY

LOCATION—Lat. $34^{\circ}45'31''$, long. $90^{\circ}07'30''$, in gatehouse of dam on Coldwater River in SW $\frac{1}{4}$ sec. 2, T. 4 S., R. 9 W. Chickasaw meridian, 4 miles north of Arkabutla.

DRAINAGE AREA—1,000 square miles (authority, Corps of Engineers).

RECORDS AVAILABLE—August 1941 to September 1948.

GAGE—Staff gage prior to July 1, 1942; water-stage recorder thereafter. Datum of gage is 191.18 feet above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

EXTREMES—Maximum elevation, 235.91 feet, sea level datum, Jan. 12, 1946 (contents, 450.140 acre-feet); minimum elevation since initial filling of reservoir, 192.83 feet Aug. 25, 1943; minimum contents, 30 acre-feet at times during 1942-45.

REMARKS—Reservoir is formed by rolled-fill earth dam with concrete spillway and outlet tunnel. Storage began Aug. 14, 1941. Dam completed Aug. 31, 1945. Capacity, 525,300 acre-feet at elevation 238.3 feet (crest of spillway) of which about 493,000 acre-feet is available for flood-control storage and about 31,500 acre-feet is permanent storage which will be maintained for incidental recreational purposes at elevation 209.3 feet (18 feet above sill of outlet tunnel).

Base data furnished by Corps of Engineers; records reviewed by Geological Survey.

MONTHLY AND ANNUAL CHANGE IN CONTENT; EQUIVALENT SECOND-FOOT

1941	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48
October.....	+ 93.4	+ 96.6	- 29.4	- 2.0	- 1.0	- 59.4	- 21.8
November.....	- 75.8	- 99.7	0	+ .3	+ 3016	+ 865	+ 235
December.....	- 6.2	+ 664	+ 2.6	+ 1707	- 1345	- 669	+ 52.9
January.....	+ 21.8	- 641	- 2.4	+ 461	+ 3928	+ 1991	+ 269
February.....	+ 501	- 24.7	+ 1289	+ 1472	- 71.3	- 1982	+ 4686
March.....	- 435	+ 469	+ 1137	+ 352	- 612	- 221	- 566
April.....	+ 105	- 485	+ 1276	- 1218	- 2258	+ 589	- 1805
May.....	- 154	0	+ 1969	- 2672	+ 1938	+ 599	- 1407
June.....	+ .2	- .2	- 1662	- .2	- 2274	+ 2109	- 859
July.....	- .2	+ .3	+ 10.1	+ 47.7	- 451	- 2121	+ 32.4
August.....	+ 178	- .3	+ 16.6	- 47.7	- 1052	- 928	- 301
September.....	- 106	+ 30.4	- 25.7	+ 1.0	- 307	- 240	- 127
Water Year.....	0	+ 2.5	- 2.3	- .1	+ 48.9	+ 1.5	- 2.6

SMALL STREAM INVESTIGATIONS

The history of surface water investigations in Mississippi has centered about the larger streams and rivers, with emphasis on the need for data for flood-control and industrial development. Financial limitations have prevented the expansion of the program in the state to include any wide spread program of small stream investigations in spite of the fact that these small streams are of great economic importance, both for their low-flow and flood characteristics.

The term "small stream" is impossible of definition. For the purpose of this report, any stream having a drainage area of less than 200 square miles is considered to be a small stream. This limit has been chosen principally because so few streams having an area of less than 200 square miles have been included in the stream-gaging program in Mississippi.

Small streams furnish water for farm irrigation, stock water, municipal water supplies, pollution abatement, fish spawning grounds, and other uses, and cause considerable flood damage. Of these, only pollution abatement and floods are important in Mississippi. A large number of cities and towns in Mississippi are situated on small streams which must carry away domestic sewage and industrial waste. Small streams also account for a major portion of flood damage to highways and bridges. It has been estimated that 50 percent of the cost of highway bridges is expended crossing streams draining less than ten square miles. Records of the State Highway Department show that there is one bridge for every two miles of highway.

Only one small stream program has been operated as such in Mississippi; that sponsored by the Department of Agriculture and operated by the Geological Survey in the Upper Yazoo River Basin during the period 1939 to 1942. Included in this program were seventeen small streams whose drainage areas ranged in size from 8.26 square miles to 116 square miles. Records of daily discharge were obtained for varying periods ranging from a few months to nearly three years. The data for these small streams are presented in this section in the same way as were the data for the regular investigational program presented earlier in this report.

A second small stream program consisting of three gaging stations was started in the Homochitto River Basin in the spring of 1942. Because of the War, this program was terminated after a few months.

There is now (1950) a small stream program sponsored by the Soil Conservation Service and operated by the Geological Survey, underway in north Mississippi in the Yazoo River Basin. Three gaging stations have been established, Cane Creek near New Albany, Clear Creek near Oxford, and Thompson Creek near McCarley. The first two of these are former gaging stations operated during the small stream program of the Forest Service mentioned earlier. This program has been designed to furnish the Soil Conservation Service data by which to prosecute their program of flood control and soil and water conservation in the Upper Yazoo Basin. This program was not started until early in 1950 so no data are available at this time.

The Corps of Engineers, Mobile District, established five gaging stations on small streams in the Tombigbee Basin in 1949. These are on Tishomingo Creek near Saltillo, Euclautubba Creek near Saltillo, Oldtown Creek near Tupelo, Chiwapa Creek near Shannon, and Sakatonchee Creek near Egypt. All available discharge measurements to date are tabulated in this report.

Two additional small area programs are being operated by the U. S. Geological Survey. The first was started in 1942 to furnish low-water information on small streams for sewage disposal and industrial waste disposal. This program consisted merely of making occasional observations of discharge at numerous small streams throughout the state. The second program was started in 1948 to meet increasing demands by the Mississippi Highway Department for flood information on small streams for use in design of bridge openings. This program consisted of making flood measurements at about 15 selected small streams in the vicinity of Jackson. The program was neither sufficiently widespread nor was it prosecuted as intensely as desirable because of the lack of adequate financing. It was a program that had to be prosecuted as time and funds permitted. It was not until the fall of 1949, when a cooperative agreement between the State Highway Department and the U. S. Geological Survey was entered into, that much progress could be made in the program. During

the winter of 1949-50, a considerable amount of valuable information regarding floods on small areas was obtained. Flood measurements of such small areas are not always possible by direct methods. Flood determinations must be made after the flood has passed, by such indirect methods as slope-area, contracted opening, and by rating-curve extension. This was true of some of the sites included in this program. These data are not at the present time in final form and cannot be presented in this report.

Data are presented in this report for 91 streams which have been included in these small stream programs.

For each small stream, there is shown a brief station description, giving location and drainage area computed from the best available maps, a tabulation of the discharge measurements, and where possible to develop, a duration curve in tabular form. These duration curves were developed as explained earlier in this report under "Duration of Flow" by comparison of the discharge measurements with the simultaneous discharge at an index station. The comparison is, of course, only possible during periods of base flow at both the index gaging station and the miscellaneous station. In many cases, there is insufficient information to develop a satisfactory relationship and in these cases, any references to duration curves were omitted.

In many instances, miscellaneous discharge measurements were made at sites at which gaging stations were established or where gaging stations were previously operated. Such measurements are listed in tabular form with reference being made to them in station description for the station.

TOMBIGBEE RIVER BASIN

MANTACHIE CREEK AT DORSEY

ITAWAMBA COUNTY

LOCATION—In NE¼ sec. 5, T. 10 S., R. 8 E. Chickasaw meridian, at bridge on U. S. Highway 78, one-half mile east of Dorsey.

DRAINAGE AREA—62 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10-27-42	1.72	0.028	1- 2-45	138	2.23
11- 6-44	2.01	.032	2-27-46	1,840	29.7

OLDTOWN CREEK NEAR TUPELO

LEE COUNTY

LOCATION—In SE $\frac{1}{4}$ sec. 18, T. 9 S., R. 6 E. Chickasaw meridian, at bridge on U. S. Highway 45, 2 miles north of Tupelo.

DRAINAGE AREA—112 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3-15-49	46.2	0.41	1- 7-50	530	4.73
4- 6-49	74.9	.67	1-11-50	1,040	9.29
6- 3-49	9.94	.089	1-12-50	5,100	45.5
6-24-49	30.9	.28	3- 8-50	274	2.44
8- 3-49	1.69	.015	3-12-50	6,930	61.9
8-18-49	28.4	.25	3-13-50	5,990	53.5
9- 1-49	3.61	.032	3-29-50	194	1.73
10-12-49	3.48	.031	4-11-50	148	1.32
11-18-49	17.2	.15	5-10-50	54.7	.49
12-19-49	112	1.00			

EUCLAUTUBBA CREEK AT SALTILLO

LEE COUNTY

LOCATION—On line between secs. 19 and 20, T. 8 S., R. 6 E. Chickasaw meridian, at bridge on U. S. Highway 45, 1 mile southwest of Saltillo.

DRAINAGE AREA—19.3 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3- 8-49	5.25	0.27	1-11-50	54.8	2.84
4- 6-49	7.81	.40	1-12-50	1,190	61.7
6-24-49	3.44	.18	3- 8-50	21.4	1.11
8- 2-49	.17	.009	3-12-50	1,910	99.0
8- 3-49	.16	.008	3-13-50	425	22.0
8-18-49	3.23	.17	3-13-50	155	8.03
9-11-49	.25	.013	3-14-50	34.7	1.80
10-12-49	.51	.026	3-29-50	16.6	.86
11-18-49	3.70	.19	4-11-50	14.1	.73
12-19-49	14.1	.73	5-10-50	4.12	.21
1- 8-50	29.5	1.53			

Note—All measurements made by Corps of Engineers, Mobile district.

TISHOMINGO CREEK NEAR SALTILLO

LEE COUNTY

LOCATION—On line between secs. 2 and 11, T. 8 S., R. 5 E. Chickasaw meridian, 4 miles northwest of Saltillo.

DRAINAGE AREA—10.1 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
4- 6-49	15.6	1.54	1- 8-50	32.0	3.17
6- 3-49	3.81	.38	1-12-50	1,730	171
6-24-49	6.41	.63	3-12-50	2,410	239
8- 2-49	.91	.090	3-13-50	666	65.9
8- 3-49	.80	.079	3-14-50	44.7	4.43
9-11-49	.29	.029	3-29-50	25.0	2.48
10-12-49	4.11	.41	4-12-50	7.07	.70
11-18-49	4.12	.41	5-10-50	5.00	.50
12-16-49	9.31	.92			

Note—All measurements made by Corps of Engineers, Mobile district.

CHIWAPA CREEK AT SHANNON

LEE COUNTY

LOCATION—In SE $\frac{1}{4}$ sec. 24, T. 11 S., R. 5 E. Chickasaw meridian at bridge on U. S. Highway 45 W., 1 mile south of Shannon.

DRAINAGE AREA—130 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-25-42	1.36	0.01	11-19-49	33.2	0.26
8-26-43	0	0	12-16-49	58.6	.45
10- 6-43	.09	.0007	1- 7-50	589	4.53
4- 6-49	148	1.14	2-14-50	5,950	45.8
6- 1-49	30.8	.24	3- 9-50	109	.84
6-24-49	47.6	.37	3-14-50	610	4.69
8- 3-49	10.8	.083	4- 4-50	163	1.25
9- 8-49	39.0	.30	4-11-50	216	1.66
10-12-49	18.3	.14	5-10-50	84.9	.65

Note—All measurements since April 1949 made by Corps of Engineers, Mobile district.

LITTLE COONEWAH CREEK NEAR TUPELO

LEE COUNTY

LOCATION—In NE $\frac{1}{4}$ sec. 32, T. 9 S., R. 5 E. Chickasaw meridian, at bridge on county road, 4 miles west of Tupelo.

DRAINAGE AREA—6.8 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
4-28-45	198	29.1

LITTLE COONEWAH CREEK NEAR TUPELO

LEE COUNTY

LOCATION—In NE $\frac{1}{4}$ sec. 4, T. 10 S., R. 5 E. Chickasaw meridian at bridge on State Highway 6, 3 $\frac{1}{4}$ miles southwest of Tupelo.

DRAINAGE AREA—10 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
4-28-45	255	25.5

MATTUBBY CREEK NEAR ABERDEEN

MONROE COUNTY

LOCATION—On line between secs. 7 and 8, T. 14 S., R. 7 E. Chickasaw meridian, at bridge on State Highway 45, 4 $\frac{1}{2}$ miles west of Aberdeen.

DRAINAGE AREA—89 square miles.

DISCHARGE MEASUREMENTS—No flow, 10-22-42.

SAKATONCHEE RIVER NEAR EGYPT

CHICKASAW COUNTY

LOCATION—In SE¼ sec. 5, T. 14 S., R. 5 E. Chickasaw meridian at bridge on State Highway 8, 4 miles west of Egypt.

DRAINAGE AREA—170 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
4- 8-49	120	0.71	12-16-49	24.7	0.14
6- 1-49	26.8	.16	1- 7-50	3,460	20.4
6-27-49	23.9	.14	3- 7-50	96.8	.57
7-24-49	365	2.15	3-13-50	9,300	54.7
8- 3-49	8.49	.050	3-14-50	3,160	18.6
9-11-49	9.81	.058	3-23-50	750	4.41
10-11-49	7.90	.046	4-11-50	73.1	.43
11-19-49	14.1	.083	5- 9-49	404	2.38

Note—All measurements made by Corps of Engineers, Mobile district.

LINE CREEK AT CEDAR BLUFF

CLAY COUNTY

LOCATION—In NE¼ sec. 22, T. 20 N., R. 14 E. Choctaw meridian, at bridge on State Highway 10, 1 mile northeast of Cedar Bluff.

DRAINAGE AREA—167 square miles.

DISCHARGE MEASUREMENTS—No flow, 9-25-44.

CATALPA CREEK AT MAYHEW

LOWNDES COUNTY

LOCATION—In SE¼ sec. 28, T. 19 N., R. 16 E. Choctaw meridian, at bridge on U. S. Highway 82, 0.5 mile east of Mayhew.

DRAINAGE AREA—108 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
5- 5-42	1.90	0.018	8-26-43	0	0
10-21-42	.46	.004	10-10-43	.03	.0003

NOXUBEE RIVER NEAR LOUISVILLE

WINSTON COUNTY

LOCATION—In NW¼ sec. 19, T. 16 N., R. 13 E. Choctaw meridian, at bridge on county road, 7½ miles north of Louisville.

DRAINAGE AREA—89 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
11- 2-44	9.07	0.10	7-28-45	74.4	0.84
7- 4-45	10.5	.12			

RUNNINGWATER CREEK NEAR MACON

NOXUBEE COUNTY

LOCATION—In sec. 28, T. 14 N., R. 17 E. Choctaw meridian, at bridge on U. S. Highway 45, 4½ miles south of Macon.

DRAINAGE AREA—46 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
5- 6-42	10.7	0.23	11-11-43	2.42	0.05

SCOوبا CREEK NEAR SCOوبا

KEMPER COUNTY

LOCATION—In SE¼ sec. 17, T. 11 N., R. 18 E. Choctaw meridian, at bridge on U. S. Highway 45, 2.1 miles south of Scoوبا.

DRAINAGE AREA—35 square miles.

DISCHARGE MEASUREMENTS—No flow, 10-17-42.

SUCARNOOCHEE CREEK AT PORTERVILLE

KEMPER COUNTY

LOCATION—On line between secs. 19 and 20, T. 10 N., R. 18 E. Choctaw meridian, at bridge on U. S. Highway 45, 1 mile north of Porterville.

DRAINAGE AREA—145 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
5- 7-42	50.1	0.35	12-13-43	35.1	0.24
10-17-42	25.4	.18			

PAWTICFAW CREEK NEAR PORTERVILLE

KEMPER COUNTY

LOCATION—In NW¼ sec. 7, T. 9 N., R. 18 E. Choctaw meridian, at bridge on U. S. Highway 45, 2½ miles south of Porterville.

DRAINAGE AREA—175 square miles.

Discharge		
Date	second-feet	per sq. mile
10-17-42	14.0	0.08

PASCAGOULA RIVER BASIN

LEAF RIVER NEAR SYLVARENA

SMITH COUNTY

LOCATION—In SW¼ sec. 13, T. 2 N., R. 8 E. Choctaw meridian, at bridge on State Highway 18, 2½ miles west of Sylvarena.

DRAINAGE AREA—118 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
8-19-43	1.55	0.13

WEST TALLAHALA CREEK NEAR SYLVARENA

SMITH COUNTY

LOCATION—In NE¼ sec. 22, T. 2 N., R. 9 E. Choctaw meridian, at bridge on State Highway 18, 2 miles southeast of Sylvarena.

DRAINAGE AREA—155 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
8-19-43	0.79	0.005

OAKOHAY CREEK NEAR RALEIGH

SMITH COUNTY

LOCATION—On line between sec. 34, T. 3 N., and sec. 3, T. 2 N., R. 7 E. Choctaw meridian, at bridge on State Highway 18, 3 miles west of Raleigh.

DRAINAGE AREA—66 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
8-19-43	0.24	0.004

OAKWOOD CREEK NEAR COLLINS

COVINGTON COUNTY

LOCATION—In SW¼ sec. 1, T. 8 N., R. 15 W. St. Stephens meridian,
at bridge on U. S. Highway 84, 6 miles northeast of Collins.

DRAINAGE AREA—15 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-13-42	2.80	0.19

STATION CREEK NEAR COLLINS

COVINGTON COUNTY

LOCATION—On line between secs. 9 and 16, T. 8 N., R. 15 W. St. Stephens meridian, at bridge on U. S. Highway 84, 3.1 miles northeast of Collins.

DRAINAGE AREA—59 square miles.

DISCHARGE MEASUREMENTS—No flow, 10-13-42.

OKATOMA CREEK AT COLLINS

COVINGTON COUNTY

LOCATION—In NW¼ sec. 19, T. 8 N., R. 15 W. St. Stephens meridian, at bridge on U. S. Highway 84, at Collins.

DRAINAGE AREA—167 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-12-42	61.0	0.37	10-23-43	59.2	0.35
8-30-43	100	.60			

TALLAHOMA CREEK NEAR LAUREL

JONES COUNTY

LOCATION—In NE¼ sec. 2, T. 8 N., R. 12 W. St. Stephens meridian,
at bridge on U. S. Highway 84, 2 miles west of Laurel.

DRAINAGE AREA—171 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-13-42	10.5	0.06	10-17-43	8.87	0.05
9- 8-43	14.7	.09			

RAHOMA CREEK NEAR LAUREL

JONES COUNTY

LOCATION—In sec. 4, T. 8 N., R. 13 W. St. Stephens meridian, at bridge on U. S. Highway 84, 10½ miles west of Laurel.

DRAINAGE AREA—97 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
8-13-43	27.3	0.28	10-18-43	20.5	0.21
9- 9-43	26.9	.28			

BOGUE HOMO NEAR LAUREL

JONES COUNTY

LOCATION—In sec. 32, T. 9 N., R. 10 W. St. Stephens meridian, at bridge on U. S. Highway 84, 6 miles east of Laurel.

DRAINAGE AREA—117 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10-15-43	0	0	10-23-43	9.94	0.08

THOMPSON CREEK AT RICHTON

PERRY COUNTY

LOCATION—In sec. 32, T. 5 N., R. 9 W. St. Stephens meridian, at bridge on county highway, 1 mile east of Richton.

DRAINAGE AREA—186 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10-23-42	8.16	0.044	8-31-43	5.50	0.030

GAINES CREEK NEAR RICHTON

PERRY COUNTY

LOCATION—In sec. 1, T. 4 N., R. 9 W. St. Stephens meridian, at bridge on county highway, 6 miles east of Richton.

DRAINAGE AREA—54 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
10-18-42	0.74	0.014

BIG CREEK NEAR LEAKESVILLE

GREENE COUNTY

LOCATION—In NW¼ sec. 24, T. 2 N., R. 7 W. St. Stephens meridian,
at bridge on State Highway 24, 6½ miles west of Leakesville.

DRAINAGE AREA—140 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-21-42	15.6	0.11	10-20-43	13.6	0.10
9- 6-43	345	2.46			

POTTERCHITTO CREEK AT NEWTON

NEWTON COUNTY

LOCATION—In SW¼ sec. 28, T. 6 N., R. 11 E. Choctaw meridian, at
bridge on county road 1 mile northwest of Newton.

DRAINAGE AREA—6.0 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
7-23-42	0.772	0.129	8-27-43	0.59	0.098
8-22-42	9.26	1.54	10-15-43	1.15	.192
10-13-42	1.22	.203	11-15-43	1.13	.188
8-16-43	.59	.098	8- 9-44	1.83	.305

BETHEL CREEK NEAR HICKORY

NEWTON COUNTY

LOCATION—On line between secs. 26 and 27, T. 6 N., R. 12 E.
Choctaw meridian, at bridge on U. S. Highway 80, 1.7 miles
west of Hickory.

DRAINAGE AREA—22 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-13-42	0.21	0.01

TALLAHATTA CREEK AT MEEHAN JUNCTION

LAUDERDALE COUNTY

LOCATION—In SW $\frac{1}{4}$ sec. 28, T. 6 N., R. 14 E. Choctaw meridian, at bridge on U. S. Highway 80, 0.5 mile west of Meehan Junction.

DRAINAGE AREA—71 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10-15-42	4.41	0.062	8-28-43	0.52	0.007
8-17-43	1.57	.022	8- 9-44	10.1	.14

SOWASHEE CREEK AT MERIDIAN

LAUDERDALE COUNTY

LOCATION—In sec. 26, T. 6 N., R. 15 E. Choctaw meridian, at 49th St. extension, 0.8 mile south of city limits of Meridian.

DRAINAGE AREA—75 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
7-22-42	3.69	0.049	10-16-43	5.17	0.069
8-21-42	28.9	.385	11-16-43	9.86	.131
10-14-42	4.14	.055	8- 9-44	16.0	.213
8-17-43	3.45	.046	11- 1-44	6.29	.084
8-27-43	1.61	.021			

DURATION OF FLOW—Index station, Okatibbee Creek near Meridian.

Percent		Discharge		Percent		Discharge	
of time	second-feet	per sq. mile		of time	second-feet	per sq. mile	
95	3	0.044		70	10	0.134	
90	4	.059		60	15	.204	
80	7	.090		50	23	.310	

HASSANLOWAHA CREEK AT PACHUTA

CLARKE COUNTY

LOCATION—In sec. 32, T. 3 N., R. 14 E. Choctaw meridian, at bridge on U.S. Highway 11, 1½ miles north of Pachuta.

DRAINAGE AREA—174 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10-17-42	10.3	0.059	9-27-45	20.9	0.12
8-18-43	10.0	.057			

PACHUTA CREEK AT PACHUTA

CLARKE COUNTY

LOCATION—In NE¼ sec. 8, T. 2 N., R. 14 E. Choctaw meridian, at bridge on U. S. Highway 11, one-half mile south of Pachuta.

DRAINAGE AREA—23 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-17-42	4.23	0.18

ARCHUSA CREEK AT QUITMAN

CLARKE COUNTY

LOCATION—In sec. 1, T. 2 N., R. 15 E. Choctaw meridian, at bridge on State Highway 18, 1 mile east of Quitman.

DRAINAGE AREA—55 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-17-42	24.7	0.45	8-19-43	24.8	0.45

SEET CREEK AT CLARA

WAYNE COUNTY

LOCATION—In sec. 16, T. 17 N., R. 7 W. St. Stephens meridian, at bridge on State Highway 63 at Clara.

DRAINAGE AREA—46 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-18-42	3.73	0.081	9- 6-43	8.41	0.18

TCHOUTACABOUFFA RIVER BASIN

LUXACHANIE CREEK NEAR BILOXI

HARRISON COUNTY

LOCATION—In NW¼ sec. 20, T. 6 S., R. 9 W. St. Stephens meridian,
at bridge on State Highway 57, 7 miles north of Biloxi.

DRAINAGE AREA—91 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-25-42	21.7	0.24	6-20-45	36.1	0.40
2-23-44	184	2.02	7-31-45	191	2.10
3-25-44	411	4.52	9-20-45	30.0	.330
5-16-44	20.8	.23	11- 1-45	25.6	.28
8- 3-44	140	1.54	12-13-45	20.5	.22
9-12-44	366	4.02	1-24-46	192	2.11
10-30-44	7.76	.085	3- 7-46	127	1.40
12- 9-44	459	5.04	4-11-46	51.7	.568
1-17-45	81.0	.89	5-15-46	687	7.55
3- 1-45	105	1.15	6-20-46	26.0	.29
4-14-45	26.2	.29	7-24-46	352	3.87
5-18-45	175	1.92			

BILOXI RIVER BASIN

BILOXI RIVER AT WORTHAM

HARRISON COUNTY

LOCATION—In NW¼ sec. 31, T. 5 S., R. 11 W. St. Stephens meridian,
at U. S. Highway 49, 1 mile north of Wortham.

DRAINAGE AREA—106 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-24-42	17.9	0.160	6-20-45	147	1.39
8-31-43	3.44	.032	7-31-45	295	2.78
2-24-44	175	1.65	9-21-45	25.5	.24
3-25-44	485	4.58	11- 1-45	44.3	.42
5-15-44	34.5	.325	12-13-45	39.8	.38
8- 2-44	57.8	.545	1-24-46	229	2.16
9-12-44	374	3.53	3- 7-46	1,200	11.3
10-30-44	6.39	.060	3- 8-46	2,180	20.6
12- 9-44	466	4.40	4-11-46	73.1	.69
1-17-45	93.4	.88	5-15-46	2,090	19.7
3- 1-45	151	1.42	6-19-46	46.2	.44
4-14-45	29.4	.28	7-24-46	189	1.78
5-17-45	438	4.13	8-29-46	736	6.94

BAYOU BERNARD BASIN

BAYOU BERNARD NEAR GULFPORT

HARRISON COUNTY

LOCATION—In sec. 9, T. 7 S., R. 11 W. St. Stephens meridian, 1,000 feet upstream from Gulf and Ship Island Railroad, and 4 miles north of Gulfport

DRAINAGE AREA—16 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-25-42	1.77	0.11	8-31-43	0.42	.03

TURKEY CREEK NEAR GULFPORT

HARRISON COUNTY

LOCATION—On line between secs. 21 and 28, T. 7 S., R. 11 W. St. Stephens meridian, at bridge on U. S. Highway 49, 2½ miles north of Gulfport.

DRAINAGE AREA—24.3 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
9-25-42	1.19	0.049

PEARL RIVER BASIN

TALLAHAGA CREEK NEAR LOUISVILLE

WINSTON COUNTY

LOCATION—In NE¼ sec. 4, T. 13 N., R. 12 E. Choctaw meridian, at bridge on State Highway 15, 5 miles south of Louisville.

DRAINAGE AREA—53 square miles.

DISCHARGE MEASUREMENTS—No flow, 8-27-43.

KENTAWKA CREEK AT PHILADELPHIA

NESHOMA COUNTY

LOCATION—In NW¼ sec. 35, T. 11 N., R. 11 E. Choctaw meridian, at bridge on State Highway 16, 1½ miles west of Philadelphia.

DRAINAGE AREA—135 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
5- 8-42	18.4	0.136	9-29-43	4.47	0.033
7-21-42	2.34	.017	7-17-45	7.85	.058
8-28-43	1.28	.009	8-30-45	3.64	.027

DURATION OF FLOW—Index station, Pearl River at Edinburg.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	2	0.017	80	6	0.048
95	3	.022	70	10	.072
90	4	.030	60	14	.104

PELAHATCHIE CREEK AT PELAHATCHIE

RANKIN COUNTY

LOCATION—In SW¼ sec. 32, T. 6 N., R. 5 E. Choctaw meridian, at bridge on U. S. Highway 80, 0.6 mile west of Pelahatchie.

DRAINAGE AREA—34 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-13-42	8.82	0.26	8- 9-44	1.09	0.032
8-16-43	1.38	.041	8-13-45	1.0	.029
8-27-43	.06	.002	6- 3-46	79.7	2.34
9-30-43	.30	.009			

TOWN CREEK AT JACKSON

HINDS COUNTY

LOCATION—In SW¼ sec. 3, T. 5 N., R. 1 E. Choctaw meridian, at bridge on Roach Street extension in Jackson.

DRAINAGE AREA—8.4 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
8-14-43	1.77	0.21	3-28-44	1,170	139

RICHLAND CREEK NEAR JACKSON

RANKIN COUNTY

LOCATION—In sec. 23, T. 5 N., R. 1 E. Choctaw meridian, at U. S. Highway 49, 3 miles south of Jackson.

DRAINAGE AREA—128 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
7-13-42	1.88	0.015	10-12-42	1.15	0.009
8-17-42	3.84	.030	7- 6-43	2.38	.019
9-14-42	3.11	.024	8-30-43	1.59	.012

RHODES CREEK NEAR TERRY

HINDS COUNTY

LOCATION—In NE¼ sec. 15, T. 3 N., R. 1 W. Choctaw meridian, at bridge on U. S. Highway 51, 1¼ miles north of Terry.

DRAINAGE AREA—20.8 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
2-13-50	1,410	67.8

DOBBS CREEK NEAR DLO

SIMPSON COUNTY

LOCATION—In SW¼ sec. 18, T. 2 N., R. 4 E. Choctaw meridian, at bridge on U. S. Highway 49, 2.5 miles northwest of Dlo.

DRAINAGE AREA—55.1 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3-2-48	302	5.48	2-13-50	923	16.8
3-3-48	794	14.4	2-14-50	4,140	75.1

MILL CREEK AT BRAXTON

SIMPSON COUNTY

LOCATION—In SE¼ sec. 10, T. 2 N., R. 3 E. Choctaw meridian, at bridge in Braxton.

DRAINAGE AREA—11.3 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3-2-48	166	14.7	3-3-48	288	25.5

RILES CREEK AT MERIT

SIMPSON COUNTY

LOCATION—In center of sec. 17, T. 1 N., R. 4 E. Choctaw meridian, at bridge on State Highway 20 at Merit, and 4 miles southwest of Mendenhall.

DRAINAGE AREA—25.3 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3-2-48	252	9.96	2-13-50	1,080	42.7

BIG CREEK NEAR PINOLA

SIMPSON COUNTY

LOCATION—In SW¼ sec. 36, T. 1 N., R. 2 E. Choctaw meridian, at bridge on State Highway 20, 5.5 miles west of Pinola.

DRAINAGE AREA—44.0 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
3-2-48	385	8.75	3-3-48	689	15.7

COPIAH CREEK NEAR HAZLEHURST

COPIAH COUNTY

LOCATION—In SE¼ sec. 27, T. 1 N., R. 1 W. Choctaw meridian, at bridge on State Highway 20, 6¼ miles east of Hazlehurst.

DRAINAGE AREA—47.5 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-19-45	11.6	0.24	2-13-50	3,320	69.9

COPIAH CREEK AT GEORGETOWN

COPIAH COUNTY

LOCATION—In SE¼ sec. 3, T. 10 N., R. 10 E. Washington meridian,
at bridge on county road, 1.0 mile west of Georgetown.

DRAINAGE AREA—73.5 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
2-13-50	4,520	61.5

BIG BAHALA CREEK NEAR MONTICELLO

LAWRENCE COUNTY

LOCATION—In SW¼ sec. 5, T. 8 N., R. 10 E. Washington meridian,
at bridge on State Highway 27, 9 miles north of Monticello.

DRAINAGE AREA—161 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
7-11-44	24.6	0.15

SILVER CREEK AT SILVER CREEK

LAWRENCE COUNTY

LOCATION—In NE¼ sec. 3, T. 7 N., R. 20 W. St. Stephens meridian,
at bridge on U. S. Highway 84 at Silver Creek.

DRAINAGE AREA—94 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-4-43	83.4	0.89	9-18-45	104	1.11

BOGUE CHITTO NEAR BROOKHAVEN

LINCOLN COUNTY

LOCATION—In SW¼ sec. 26, T. 7 N., R. 7 E. Washington meridian,
at bridge on U. S. Highway 84, 2½ miles southwest of Brook-
haven.

DRAINAGE AREA—30 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
8-15-45	4.28	0.14	10-23-45	4.53	0.15
9-10-45	2.91	.097			

MCGEE CREEK AT TYLERTOWN

WALTHALL COUNTY

LOCATION—In NE¼ sec. 30, T. 2 N., R. 11 E. Washington meridian,
at bridge on State Highway 24, 0.5 mile east of Tylertown.

DRAINAGE AREA—130 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-24-42	69.5	0.53	9-1-43	43.6	0.34

UPPER LITTLE RIVER AT LAMPTON

MARION COUNTY

LOCATION—In SE¼ sec. 27, T. 3 N., R. 14 W. St. Stephens meridian,
at bridge on State Highway 13, 0.5 mile south of Lampton.

DRAINAGE AREA—115 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
10- 2-28	51.2	0.45	10-4-43	51.7	0.45
7-25-29	63.8	.55			

EAST FORK HOBOLOCHITTO RIVER AT PICAYUNE

PEARL RIVER COUNTY

LOCATION—In SW¼ sec. 13, T. 6 S., R. 17 W. St. Stephens meridian,
at bridge on U. S. Highway 11, ¾ mile north of Picayune.

DRAINAGE AREA—108 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
10-31-46	28.7	0.27

MISSISSIPPI RIVER DELTA

LITTLE TANGIPAHOA RIVER AT FERNWOOD

PIKE COUNTY

LOCATION—On line between secs. 30 and 31, T. 3 N., R. 8 E.
Washington meridian, one-half mile northeast of Fernwood.

DRAINAGE AREA—21.8 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
9-23-42	5.18	0.24

LITTLE TANGIPAHOA RIVER AT MAGNOLIA

PIKE COUNTY

LOCATION—On line between secs. 12 and 13, T. 2 N., R. 7 E. Washington meridian, at bridge on State Highway 48, in Magnolia.

DRAINAGE AREA—39.7 square miles.

DISCHARGE MEASUREMENTS—

Discharge			Discharge		
Date	second-feet	per sq. mile	Date	second-feet	per sq. mile
9-23-42	16.2	0.41	9-1-43	10.8	0.27

TANGIPAHOA RIVER NEAR MAGNOLIA

PIKE COUNTY

LOCATION—In NE¼ sec. 17, T. 2 N., R. 7 E. Washington meridian, at bridge on county highway, 3½ miles west of Magnolia.

DRAINAGE AREA—69.0 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
9-23-42	46.2	0.67

MINNEHAHA CREEK AT MAGNOLIA

PIKE COUNTY

LOCATION—In NW¼ sec. 13, T. 2 N., R. 7 E. Washington meridian, at bridge on U. S. Highway 51, one-half mile south of Magnolia.

DRAINAGE AREA—7.3 square miles.

DISCHARGE MEASUREMENTS—

Discharge		
Date	second-feet	per sq. mile
9-23-42	3.38	0.46

TANYARD CREEK AT LIBERTY

AMITE COUNTY

LOCATION—In NW $\frac{1}{4}$ sec. 9, T. 2 N., R. 4 E. Washington meridian, at bridge on State Highway 24, at Liberty.

DRAINAGE AREA—8.7 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
8- 9-49	5.74	0.66	10-12-49	6.43	0.74
8-23-49	4.80	.55	10-27-49	5.74	.66
9- 2-49	5.01	.58	11-11-49	4.45	.51
9-16-49	5.28	.61	11-22-49	5.45	.63
9-30-49	4.54	.52	12- 9-49	5.65	.65

YAZOO RIVER BASIN

UPPER TALLAHATCHIE RIVER NEAR NEW ALBANY

UNION COUNTY

LOCATION—Lat. 34°34', long. 88°54', in NE $\frac{1}{4}$ sec. 8, T. 6 S., R. 4 E. Chickasaw meridian, at bridge on county road, 8 miles upstream from Cane Creek and 9 miles northeast of New Albany.

DRAINAGE AREA—23.9 square miles.

RECORDS AVAILABLE—February 1939 to July 1941.

GAGE—Staff gage prior to Mar. 28, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 6,700 second-feet May 22, 1939 (gage height, 12.3 feet), from rating curve extended above 1,900 second-feet on basis of run-off comparison with records of nearby stations, aided by slope-area studies; minimum daily, 8.0 second-feet Oct. 7, 1940 and June 24, 26, 1941; minimum 7-day, 8.9 second-feet Oct. 6-12, 1940.

REMARKS—Records good above and fair below 40 second-feet.

PEAK DISCHARGE—May 22, 1939 (4:00 a.m.) 6,700 second-feet; July 2, 1941 (8:15 p.m.) 6,250 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	11	0.450	50	20	0.850
70	15	.640	30	25	1.06

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						47.0	72.3	78.7	115	21.1	22.0	13.6	
1939-40	11.2	14.4	22.8	22.4	37.4	82.5	114	19.3	22.4	36.0	29.4	12.3	35.2
1940-41	13.3	43.0	53.8	28.3	23.3	23.7	25.9	17.5	32.8				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						2.27	3.38	3.79	5.37	1.02	1.06	0.63	
1939-40	0.54	0.67	1.10	1.08	1.68	3.98	5.32	.93	1.05	1.74	1.42	.57	20.08
1940-41	.64	2.01	2.59	1.36	1.02	1.14	1.20	.84	1.53				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Runoff in inches
1940	1,070	9.5	35.2	1.47	20.08	23.01
					40.4	

CANE CREEK NEAR NEW ALBANY

UNION COUNTY

LOCATION—Lat. $34^{\circ}34'$, long. $88^{\circ}57'$, in SW $\frac{1}{4}$ sec. 11, T. 6 S., R. 3 E. Chickasaw meridian, at bridge on county road, $5\frac{1}{4}$ miles upstream from mouth, and $6\frac{1}{2}$ miles northeast of New Albany.

DRAINAGE AREA—23.8 square miles.

RECORDS AVAILABLE—February 1939 to July 1941.

GAGE—Staff gage prior to Mar. 31, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 5,700 second-feet May 22, 1939 (gage height, 8.43 feet), from rating curve extended above 1,530 second-feet on basis of velocity-area study and run-off comparison with adjacent streams; minimum, 0.3 second-foot Sept. 13, 1939; minimum daily, 0.3 second-foot Sept. 13, 1939; minimum 7-day, 0.6 second-foot Sept. 10-16, 1939.

REMARKS—Records good above and fair below 10 second-feet.

PEAK DISCHARGE—May 22, 1939 (4:30 a.m.) 5,700 second-feet; Apr. 4, 1940 (6:00 a.m.) 2,860 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	0.9	0.036	70	4.4	0.184
95	1.1	.046	50	10	.440
90	1.5	.064	30	23	.960
80	2.7	.112			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						48.1	76.6	82.6	144	19.6	26.6	2.93	
1939-40	1.54	3.01	11.8	15.5	38.9	86.9	114	11.8	11.8	23.0	19.6	1.72	28.2
1940-41	3.27	29.9	60.7	26.9	15.5	22.3	18.1	10.6	35.6				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						2.33	3.59	4.00	6.75	0.95	1.29	0.14	
1939-40	0.07	0.14	0.57	0.75	1.76	4.21	5.34	.57	.55	1.11	.95	.08	16.10
1940-41	.16	1.14	2.94	1.30	.68	1.08	.85	.51	1.67				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1940	974	1.0	28.2	1.18	16.10	34.7
						19.83

LUKESASPER CREEK NEAR COTTON PLANT

TIPPAH COUNTY

LOCATION—Lat. 34°35', long. 89°01', in NW¼ sec. 5, T. 6 S., R. 3 E.
Chickasaw meridian, at bridge on county road, half a mile
southwest of Cotton Plant.

DRAINAGE AREA—12.0 square miles.

RECORDS AVAILABLE—February to September 1939.

GAGE—Staff gage.

EXTREMES—Maximum discharge observed, 3,500 second-feet May
22 (gage height, 16.10 feet) ; no flow Aug. 30 to Sept. 28.

REMARKS—Records fair.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET										
Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1938-39						27.0	34.3	34.5	87.0	15.0
									8.25	.227
MONTHLY AND ANNUAL RUNOFF IN INCHES										
Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1938-39						2.79	3.44	3.57	8.72	1.56
									0.85	0.02

HELL CREEK NEAR NEW ALBANY

UNION COUNTY

LOCATION—Lat. $34^{\circ}30'55''$, long. $89^{\circ}03'10''$, in SW $\frac{1}{4}$ sec. 36, T. 6 S., R. 2 E. Chickasaw meridian, at bridge on U. S. Highway 78, 3 miles northwest of New Albany, and 4½ miles upstream from mouth.

DRAINAGE AREA—27.3 square miles.

RECORDS AVAILABLE—January to September 1939, and July 1941 to December 1942.

GAGE—Wire-weight gage prior to Aug. 21, 1941; water stage recorder thereafter.

EXTREMES—Maximum discharge, 3,600 second-feet June 17, 1939 (gage height, 16.73 feet), from rating curve extended above 2,320 second-feet; no flow at times during each year.

REMARKS—Records fair. See page for discharge measurements made after discontinuance of station.

PEAK DISCHARGE—July 17, 1939 (1:30 p.m.) 3,600 second-feet; Apr. 9, 1942 (1:00 p.m.) 2,240 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	0	0.0015	60	1.0	0.038
80	0.1	.0050	50	3.1	.114
70	.4	.013	40	9.8	.360

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					221	61.3	75.2	105	193	31.1	9.44	1.17	
1940-41													
1941-42	13.6	50.4	23.5	28.6	108	76.5	63.9	2.36	.77	.05	12.7	.19	30.9
1942-43	0.10	.06	51.4								9.74	.35	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					8.44	2.59	3.07	4.44	7.89	1.31	0.40	0.05	
1940-41													
1941-42	0.57	2.06	0.99	1.21	4.11	3.23	2.61	.10	.03	.002	.54	.008	15.33
1942-43	.004	.003	2.17								.41	.01	

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1942	1,410	0	30.9	1.13	15.33	13.89
			291		27.9	

LOCKS CREEK NEAR ETTA

UNION COUNTY

LOCATION—Lat. $34^{\circ}28'$, long. $89^{\circ}09'$, in SE $\frac{1}{4}$ sec. 13, T. 7 S., R. 1 E. Chickasaw meridian, at bridge on State Highway 30, $1\frac{1}{4}$ miles southwest of Enterprise, $1\frac{1}{2}$ miles upstream from mouth, 4 miles east of Etta, and $9\frac{1}{2}$ miles west of New Albany.

DRAINAGE AREA—29.3 square miles.

RECORDS AVAILABLE—January to September 1939.

GAGE—Staff gage.

EXTREMES—Maximum discharge, 4,000 second-feet June 17 (gage height, 7.19 feet), from rating curve extended above 1,830 second-feet on basis of area-velocity studies; minimum, 0.2 second-feet Sept. 15, 17, 21-26, 28, 29; minimum daily, 0.2 second-foot, Sept. 15, 16, 22-26, 28.

REMARKS—Records good between 25 and 2,500 second-feet, fair above and below.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					189	58.4	64.0	89.4	167	45.3	10.6	1.54	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					6.72	2.29	2.43	3.52	6.36	1.79	0.42	0.06	

CYPRESS CREEK NEAR ETTA

LAFAYETTE COUNTY

LOCATION—Lat. $34^{\circ}26'$, long. $89^{\circ}17'$, in SE $\frac{1}{4}$ sec. 27, T. 7 S., R. 1 W. Chickasaw meridian, at bridge on State Highway 30, $4\frac{1}{2}$ miles southwest of Etta, about 5 miles upstream from mouth, and 16 miles east of Oxford.

DRAINAGE AREA—28.5 square miles.

RECORDS AVAILABLE—January 1939 to December 1942.

GAGE—Staff gage prior to Mar. 11, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 3,920 second-feet June 17, 1939 (gage height, 10.12 feet), from rating curve extended above 2,100 second-feet; minimum, 1.5 second-feet Oct. 24, 1939; minimum daily, 1.5 second-feet Oct. 24, 1939; minimum 7-day, 2.0 second-feet Oct. 20-26, 1939.

REMARKS—Records fair.

PEAK DISCHARGE—June 17, 1939 (11:40 a.m.) 3,920 second-feet; Dec. 16, 1941 (4:00 a.m.) 3,220 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	2.4	0.083	50	7.1	0.250
90	2.7	.093	30	18	.630
70	3.8	.133			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					234	82.4	75.3	47.1	108	12.7	3.15	3.15	
1939-40	2.81	3.67	7.45	13.9	44.6	75.3	65.9	15.4	9.21	41.1	7.49	2.96	24.1
1940-41	3.02	18.8	78.2	40.0	21.0	50.2	25.1	12.2	2.98	3.18	7.93	3.00	22.3
1941-42	10.9	33.6	15.0	19.9	59.9	88.3	77.8	33.5	3.96	3.45	3.10	2.71	29.1
1942-43	2.31	3.01	35.1										

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					8.55	3.33	2.94	1.90	4.23	0.51	0.13	0.12	
1939-40	0.11	0.14	0.30	0.56	1.68	3.04	2.58	.62	.36	1.66	.30	.12	11.47
1940-41	.12	.74	3.16	1.61	.77	2.03	.98	.49	.12	.13	.32	.12	10.59
1941-42	.44	1.32	.61	.81	2.19	3.57	3.05	1.36	.16	.14	.13	.11	13.89
1942-43	.09	.12	1.42										

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1940	816	1.5	24.1	0.846	11.47	31.3
1941	1,270	1.8	22.3	.782	10.59	18.8
1942	1,290	2.2	29.1	1.02	13.89	27.6
						14.94
						8.94
						13.15

NORTH TIPPAH CREEK NEAR RIPLEY

TIPPAH COUNTY

LOCATION—Lat. $34^{\circ}44'$, long. $89^{\circ}02'$, in SW $\frac{1}{4}$ sec. 18, T. 4 S., R. 3 E. Chickasaw meridian, at bridge on State Highway 4, 2 miles upstream from Tippah Drainage Canal, and $5\frac{1}{2}$ miles west of Ripley.

DRAINAGE AREA—20.0 square miles.

RECORDS AVAILABLE—February 1939 to September 1942.

GAGE—Staff gage prior to Mar. 13, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 1,980 second-feet Apr. 9, 1942 (gage height, 11.53 feet); minimum, no flow at times.

PEAK DISCHARGE—Apr. 9, 1942 (9:30 a.m.) 1,980 second-feet; Feb. 24, 1942 (12:30 a.m.) 1,550 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	0.7	0.033	55	3.9	0.195
75	1.5	.076	30	12	.580

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						54.3	83.6	62.4	72.3	13.8	7.60	0.900	
1939-40	0.83	2.00	6.52	6.60	32.6	36.3	50.4	9.23	9.54	18.3	4.21	0.32	14.6
1940-41	0.19	8.25	32.5	30.2	10.9	27.5	31.5	10.0	0.89	17.1	9.28	4.03	15.3
1941-42	11.0	26.0	20.9	22.9	92.9	42.7	52.4	3.48	2.21	.84	1.13	.74	22.5

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						3.14	4.66	3.60	4.04	0.80	0.44	0.05	
1939-40	0.05	0.11	0.38	0.38	1.76	2.10	2.81	.53	.53	1.05	.24	.02	9.96
1940-41	.01	.46	1.87	1.74	.57	1.59	1.76	.58	.05	.99	.53	.23	10.38
1941-42	.63	1.45	1.20	1.32	4.83	2.46	2.92	.20	.12	.05	.07	.04	15.29

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year		
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches	
1940	426	0	14.6	0.730	9.96	17.3	11.76	
1941	428	0	15.3	.765	10.38	16.7	11.32	
1942	968	0	22.5	1.12	15.29			

TIPPAH DRAINAGE CANAL NEAR BLUE MOUNTAIN
TIPPAH COUNTY

LOCATION—Lat. 34°41', long. 89°00', in SW¼ sec. 33, T. 4 S., R. 3 E.

Chickasaw meridian, at bridge on State Highway 15, 2.2 miles northeast of Blue Mountain, and 5 miles southeast of Ripley.

DRAINAGE AREA—18.4 square miles.

RECORDS AVAILABLE—February to September 1939.

GAGE—Wire-weight gage.

EXTREMES—Maximum discharge observed, 2,680 second-feet May 22 (gage height, 12.73 feet, from floodmarks), from rating curve extended above 1,870 second-feet; minimum, 1.2 second-feet Sept. 24; minimum daily, 1.2 second-feet Sept. 24; minimum 7-day, 1.4 second-feet Sept. 21-27, 1939.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge per sq. mile	Percent of time	Discharge per sq. mile
90	2.2	60	7.4
75	4.4	30	16
			.860

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						38.9	58.4	66.9	107	27.8	9.54	3.20	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39						2.43	3.54	4.20	6.49	1.74	0.60	0.19	

POTTS CREEK NEAR POTTS CAMP

MARSHALL COUNTY

LOCATION—Lat. $34^{\circ}35'40''$, long. $89^{\circ}20'00''$, on line between $N\frac{1}{2}$ of sections 5 and 6, T. 6 S., R. 1 W. Chickasaw meridian, at bridge on State Highway from Potts Camp to Cornersville, 1.2 miles north of Bethlehem, 1.7 miles upstream from mouth, 3.9 miles south of Potts Camp, and 6.2 miles northwest of Cornersville.

DRAINAGE AREA—8.26 square miles.

RECORDS AVAILABLE—October 1939 to July 1941.

GAGE—Staff gage prior to Jan. 31, 1940; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 535 second-feet Apr. 4, 1940 (gage height, 9.99 feet); no flow for several periods during each year.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
80	0.2	0.020	60	1.0	0.121
75	.3	.039	50	1.7	.210
70	.5	.062	30	4.3	.520

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40	0	0.39	2.47	1.48	9.19	13.0	24.7	2.81	3.97	4.35	2.02	0.06	5.32
1940-41	0	1.48	9.46	6.58	3.99	8.82	10.4	1.84	0.19				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40	0	0.05	0.34	0.21	1.20	1.81	3.34	0.39	0.54	0.61	0.28	0.008	8.78
1940-41	0	.20	1.33	.92	.50	1.23	1.41	.26	.03				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1940	208	0	5.32	0.644	8.78	6.01
						9.92

BAGLEY CREEK NEAR ABBEVILLE

LAFAYETTE COUNTY

LOCATION—Lat. $34^{\circ}30'18''$, long. $89^{\circ}24'53''$, in SW $\frac{1}{4}$ sec. 4, T. 7 S., R. 2 W. Chickasaw meridian, at bridge on forest road, $1\frac{1}{2}$ miles east of Bagley Tower, 2 miles upstream from mouth, 5 miles east of Abbeville, and 11 miles northeast of Oxford.

DRAINAGE AREA—9.96 square miles

RECORDS AVAILABLE—October 1939 to July 1941.

GAGE—Staff gage prior to Nov. 21, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 394 second-feet Dec. 15, 1940; minimum 0.3 second-foot Oct. 13, 1939; minimum daily 0.4 second-foot many days during October 1939; minimum 7-day, 0.4 second-foot Oct. 12-18, 1939.

Flood of June 17, 1939, reached a stage of about 11.4 feet, from floodmarks (discharge not determined).

REMARKS—Records good.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	0.5	0.053	50	3.0	0.300
85	.9	.092	30	6.0	.600
70	1.6	.164			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40	0.54	1.19	2.63	2.61	9.16	14.8	19.6	4.63	2.38	2.89	7.17	1.34	5.72
1940-41	0.69	3.38	13.8	8.78	6.88	12.4	10.2	4.25	0.83				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40	0.06	0.13	0.30	0.30	0.99	1.72	2.20	0.54	0.27	0.33	0.83	0.15	7.82
1940-41	.08	.38	1.60	1.02	.72	1.43	1.14	.49	.09				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean	Runoff in inches
1940	202	0.4	5.72	0.574	7.82	6.86	9.39

CLEAR CREEK NEAR OXFORD

LAFAYETTE COUNTY

LOCATION—Lat. $34^{\circ}21'$, long. $89^{\circ}40'$, in $S\frac{1}{2}$ sec. 30, T. 8 S., R. 4 W. Chickasaw meridian, at bridge on State Highway 6, $1\frac{1}{2}$ miles upstream from Hudson Creek, 8.3 miles west of Oxford, and 9 miles upstream from mouth.

DRAINAGE AREA—9.30 square miles.

RECORDS AVAILABLE—January 1939 to July 1941.

GAGE—Staff gage prior to March 6, 1939; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 3,400 second-feet July 12, 1940 (gage height, 9.17 feet), from rating curve extended above 1,500 second-feet; minimum, 3.0 second-feet July 19-22, 1939; minimum daily, 3.0 second-feet July 20-21, 1939; minimum 7-day, 3.2 second-feet July 16-22, 1939, May 10-16, 1941.

REMARKS—Records fair.

PEAK DISCHARGE—July 12, 1940 (5:00 p.m.) 3,400 second-feet; June 27, 1939 (11:30 p.m.) 2,900 second-feet.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					46.2	16.7	19.5	4.70	28.0	6.59	3.68	3.70	
1939-40	3.97	3.54	5.41	5.02	7.26	12.4	14.1	3.94	7.53	16.4	7.46	3.69	7.57
1940-41	3.82	7.13	14.1	7.41	5.59	8.31	5.68	3.62	3.88				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					5.18	2.08	2.34	0.58	3.36	0.82	0.46	0.44	
1939-40	0.49	0.43	0.67	0.62	.84	1.53	1.70	.49	.90	2.03	.92	.44	11.06
1940-41	.47	.86	1.75	.92	.63	1.03	.68	.45	.47				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1940	246	3.2	7.57	0.814	11.06	12.55

HUDSON CREEK NEAR OXFORD

LAFAYETTE COUNTY

LOCATION—Lat. $34^{\circ}21'$, long. $89^{\circ}41'$, in $S\frac{1}{2}$ sec. 25, T. 8 S., R. 5 W. Chickasaw meridian, at bridge on State Highway 6, three-quarters of a mile upstream from mouth, 1 mile north of Burgess and $9\frac{1}{2}$ miles west of Oxford.

DRAINAGE AREA—9.35 square miles.

RECORDS AVAILABLE—January 1939 to July 1941.

GAGE—Prior to Feb. 22, 1939, staff gage read to hundredths twice daily; water stage recorder thereafter.

EXTREMES—Maximum discharge, 1,550 second-feet Jan. 29, 1939 (gage height, 8.90 feet, from floodmarks), from rating curve extended above 830 second-feet; minimum, 0.1 second-foot at times each year; minimum daily, .1 second-foot at times; minimum 7-day, .1 second-foot Oct. 28-Nov. 3, 1939.

REMARKS—Records good.

PEAK DISCHARGE—Jan. 29, 1939 (5:00 p.m.) 1,550 second-feet; Dec. 15, 1940 (8:00 p.m.) 1,040 second-feet.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					33.7	13.8	16.8	2.36	13.4	1.39	0.203	0.237	
1939-40	0.30	0.17	1.46	0.83	3.61	5.88	7.83	0.62	3.15	11.8	6.96	0.26	3.58
1940-41	0.47	3.65	11.8	5.83	2.30	4.80	3.28	0.39	0.25				

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1938-39					3.75	1.71	2.01	0.29	1.60	0.17	0.03	0.03	
1939-40	0.04	0.02	0.18	0.10	.42	.73	.93	.08	.38	1.45	.86	.03	5.22
1940-41	.06	.44	1.45	.72	.26	.59	.39	.05	.03				

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1940	128	0.1	3.58	0.383	5.22	4.75
						6.93

OTUCKALOFA CREEK NEAR WATER VALLEY

YALOBUSHA COUNTY

LOCATION—At bridge on State Highway 7, one-half mile south of Water Valley.

DRAINAGE AREA—83 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-22-42	5.13	0.062	9-15-43	4.95	0.060
8- 7-43	6.00	.072			

LONG CREEK AT COURTLAND

PANOLA COUNTY

LOCATION—Lat. 34°13'40", long. 89°56'25", in sec. 9, T. 10 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51, 1 mile south of Courtland, 5½ miles upstream from mouth, and 6 miles south of Batesville.

DRAINAGE AREA—63.3 square miles.

RECORDS AVAILABLE—March 1940 to December 1942.

GAGE—Wire-weight gage prior to March 22, 1940; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 13,500 second-feet Apr. 9, 1942 (gage height, 22.21 feet), from rating curve extended above 6,500 second-feet by velocity-area studies; minimum observed, 1.3 second-feet Sept. 2, 3, 1942; minimum gage height observed, 3.46 feet Aug. 7, 1942; minimum daily, 1.4 second-feet Sept. 2-5, 1942; minimum 7-day, 1.4 second-feet Aug. 30-Sept. 5, 1942.

REMARKS—Records fair. See page for discharge measurements made after discontinuance of station.

PEAK DISCHARGE—Apr. 9, 1942 (5:30 a.m.) 13,500 second-feet; Dec. 27, 1942 (3:30 p.m.) 9,380 second-feet.

DURATION OF FLOW—Index station, Yocona River near Enid.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	3.9	0.034	50	13	0.116
90	4.6	.040	30	28	.240
80	6.0	.052	10	80	.690
70	9.6	.083			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							105	8.63	30.8	170	108	5.50	
1940-41	9.37	62.1	154	107	36.1	70.1	42.3	4.46	3.47	21.8	24.9	17.9	46.4
1941-42	34.0	53.3	31.7	27.5	105	160	269	27.3	8.78	3.85	3.78	3.90	60.1
1942-43	5.49	6.79	180										

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							1.85	0.16	0.54	3.10	1.97	0.10	
1940-41	0.17	1.09	2.80	1.95	0.59	1.28	.75	.08	.06	.40	.45	.32	9.94
1941-42	.62	.94	.58	.50	1.73	2.91	4.75	.50	.15	.07	.07	.07	12.89
1942-43	.10	.12	3.29										

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1941	1,070	1.8	46.4	0.733	37.4	8.02
1942	5,820	1.4	60.1	.949	66.4	14.26
				307		

PIGEONROOST CREEK NEAR BYHALIA

MARSHALL COUNTY

LOCATION—Lat. $34^{\circ} 42'$, long. $89^{\circ} 42'$, on line between secs. 2 and 11, T. 4 S., R. 5 W. Chickasaw meridian, at county highway bridge, 3 miles north of Wall Hill, $3\frac{3}{4}$ miles downstream from Cuffawa Creek Canal, $7\frac{1}{2}$ miles south of Byhalia, and $10\frac{1}{2}$ miles upstream from mouth.

DRAINAGE AREA—116 square miles.

RECORDS AVAILABLE—March 1940 to September 1942.

GAGE—Prior to Mar. 19, 1940 and after Apr. 2, 1942, staff gage read twice daily; water-stage recorder in between.

EXTREMES—Maximum discharge, 24,000 second-feet Apr. 9, 1942 (gage height, 14.6 feet, from floodmark), from rating curve extended above 8,400 second-feet by velocity-area studies; minimum, 17 second-feet Oct. 13, 1941; minimum daily, 18 second-feet Oct. 13, 1941; minimum 7-day, 20 second-feet Sept. 14-20, 1941.

REMARKS—Records fair.

PEAK DISCHARGE—Apr. 9, 1942 (2:00 a.m.) 24,000 second-feet; Feb. 6, 1942 (2:45 p.m.) 8,110 second-feet.

DURATION OF FLOW—Index station, Tallahatchie River at Etta.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	21	0.182	40	30	0.262
90	22	.188	30	34	.293
70	25	.212	20	48	.410
50	28	.240			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							68.7	32.8	122	60.7	63.0	24.4	
1940-41	22.7	36.3	88.1	138	48.5	35.5	66.8	25.2	22.5	79.9	60.3	21.8	54.0
1941-42	96.2	70.1	41.1	71.2	333	174	596	29.6	32.8	44.7	35.2	47.4	129

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1939-40							0.66	0.33	1.17	0.60	0.63	0.23	
1940-41	0.23	0.35	0.88	1.37	0.44	0.35	.64	.25	.22	.79	.60	.21	6.33
1941-42	.96	.67	.41	.71	2.99	1.73	5.73	.29	.32	.44	.35	.46	15.06

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1941	1,970	19	54.0	0.466	6.33	6.91
1942	12,700	18	129	1.11	15.06	
					59.0	

NORTH FORK TILLATOBA CREEK NEAR CHARLESTON

TALLAHATCHIE CONTY

LOCATION—Lat. 34°02'15", long. 90°03'00", in NE¼ sec. 14, T. 25 N., R. 2 E. Choctaw meridian, at bridge on county highway between Charleston and Teasdale, 1.4 miles downstream from Mitchell Creek, 2.1 miles upstream from Bellamy Creek, 2.3 miles north of Charleston, and 4.2 miles upstream from mouth.

DRAINAGE AREA—43.7 square miles.

RECORDS AVAILABLE—August 1941 to September 1942.

GAGE—Wire-weight prior to Sept. 12, 1941; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 4,470 second-feet Apr. 9, 1942 (gage height, 17.42 feet); minimum, 2.3 second-feet Sept. 25, 1942 (gage height, 4.51 feet); minimum daily, 2.4 second-feet Sept. 25, 1942; minimum 7-day, 2.5 second-feet Sept. 23-29, 1942.

DURATION OF FLOW—Index station, Yocona River near Enid.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
90	3.1	0.072	45	7.8	0.179
60	5.2	.119	30	14	.325

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41													7.12
1941-42	20.7	41.8	18.5	20.2	58.7	145	122	15.8	10.2	4.96	5.31	6.38	38.9

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41													0.18
1941-42	0.55	1.07	0.49	0.53	1.40	3.82	3.11	0.42	0.26	0.13	0.14	.16	12.08

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Mean in inches
1942	1,850	2.4	38.9	0.890	12.08	

ASKALMORE CREEK NEAR CHARLESTON

TALLAHATCHIE COUNTY

LOCATION—Lat. 33°55'05", long. 90°04'10", in SE¼ sec. 27, T. 24 N., R. 2 E. Choctaw meridian, at bridge on county highway from Charleston to Holcomb, 0.4 mile downstream from Shook Creek, 1.4 miles downstream from Young Creek, 6.5 miles south of Charleston, and 12.2 miles upstream from mouth.

DRAINAGE AREA—31.0 square miles.

RECORDS AVAILABLE—July 1941 to September 1942.

GAGE—Wire-weight gage prior to Sept. 3, 1941; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 8,420 second-feet May 14, 1942 (gage height, 12.90 feet); minimum, 1.1 second-feet Aug. 25, 1941; minimum gage height, 3.51 feet July 17, 1942; minimum daily discharge, 1.2 second-feet Aug. 25, 1941; minimum 7-day, 1.5 second-feet Aug. 21-27, 1941.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Yocona River near Enid.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	2.6	0.083	50	6.7	0.215
90	3.1	.099	40	8.1	.260
75	4.4	.142	30	11	.345

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41											1.48	0.22	
1941-42	1.52	2.12	0.92	0.50	1.37	4.68	2.92	2.29	0.39	0.11	.17	.57	17.56

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41											39.9	6.03	
1941-42	40.8	58.9	24.9	13.5	40.8	126	81.1	61.6	10.9	2.87	4.47	15.8	40.1

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30				Calendar year	
	Maximum Day	Minimum Day	Mean	Per square mile	Runoff in inches	Runoff in inches
1942	1,410	2.0	40.1	1.29	17.56	

TURKEY-CYPRESS CREEK NEAR COFFEEVILLE

YALOBUSHA COUNTY

LOCATION—Lat. 33°57'15", long. 89°41'35", in SW¼ sec. 8, T. 24 N., R. 6 E. Choctaw meridian, at bridge on State Highway 7, 0.3 mile upstream from Illinois Central Railroad bridge, 0.5 mile upstream from mouth, 1.4 miles downstream from confluence of North and South Forks of Turkey-Cypress Creek, and 1.8 miles southwest of Coffeeville.

DRAINAGE AREA—22.3 square miles.

RECORDS AVAILABLE—July 1941 to December 1942.

GAGE—Staff gage prior to September 8, 1941; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 2,760 second-feet Dec. 27, 1942 (gage height, 13.39 feet); minimum, 1.8 second-feet at times during July, September, and October 1942; minimum 7-day, 1.8 second-feet Oct. 7-13, 1942.

REMARKS—Records fair. See page for discharge measurements made after discontinuance of station.

DURATION OF FLOW—Index station, Yalobusha River at Grenada.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
80	2.1	0.093	50	3.8	0.172
70	2.3	.102	40	6.0	.267
60	2.8	.126	30	10	.450

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41											2.79	4.04	
1941-42	12.2	69.3	19.6	19.7	48.8	73.2	62.0	10.9	4.73	2.56	3.60	1.99	27.1
1942-43	2.13	2.18	57.5										

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1940-41											0.14	0.20	
1941-42	0.63	3.47	1.01	1.02	2.28	3.78	3.10	0.56	0.24	0.13	.19	.10	16.51
1942-43	.11	.11	2.97										

SUMMARY OF ANNUAL MAXIMUM, MINIMUM AND MEAN DISCHARGE

Year	Water year ending Sept. 30					Calendar year		
	Maximum Day	Minimum Day	Mean	per square mile	Runoff in inches	Mean	Runoff in inches	
1942	1,110	1.8	27.1	1.22	16.51	24.0	14.59	

BATUPAN RIVER AT GRENADA

GRENADA COUNTY

LOCATION—In NE¼ sec. 17, T. 22 N., R. 5 E. Choctaw meridian, at bridge on State Highway 8, one-half mile southeast of Grenada.

DRAINAGE AREA—222 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-22-42	17.9	0.081	8-5-43	14.0	0.063
8- 5-43	14.1	.064	7-7-44	19.6	.088
8- 5-43	14.2	.064			

FANNEGUSHA CREEK NEAR TCHULA

HOLMES COUNTY

LOCATION—On line between secs. 11 and 14, T. 15 N., R. 2 E. Choctaw meridian, at bridge on State Highway 12, 3.1 miles southeast of Tchula.

DRAINAGE AREA—109 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-16-43	3.16	0.29	7-20-45	9.41	0.86

BIG BLACK RIVER BASIN

TILDA BOGUE NEAR CANTON

MADISON COUNTY

LOCATION—In sec. 5, T. 9 N., R. 3 E. Choctaw meridian, at bridge on U. S. Highway 51, 3 miles north of Canton.

DRAINAGE AREA—19.2 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
2-13-50	2,520	131

OSBURN CREEK NEAR FLORA

MADISON COUNTY

LOCATION—In NW¼ sec. 15, T. 8 N., R. 2 W. Choctaw meridian, at bridge on county road, 5 miles west of Flora.

DRAINAGE AREA—89 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-8-43	0.02	0.0002

ST. CATHERINE CREEK BASIN

ST. CATHERINE CREEK NEAR NATCHEZ

ADAMS COUNTY

LOCATION—In NW¼ sec. 4, T. 6 N., R. 3 W. Washington meridian, at bridge on U. S. Highway 61, 2½ miles south of Natchez.

DRAINAGE AREA—63 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-30-42	4.85	0.077	9-11-45	5.46	0.087
8-15-45	12.9	.20	10-26-45	13.8	.22

HOMOCHITTO RIVER BASIN

MCCALLS CREEK AT LUCIEN

FRANKLIN COUNTY

LOCATION—In SW¼ sec. 6, T. 6 N., R. 6 E. Washington meridian, at bridge on U. S. Highway 84, 0.8 miles east of Lucien.

DRAINAGE AREA—60 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-6-42	17.1	0.285	8-13-45	14.6	0.243
10-4-43	10.7	.178	9-10-45	14.0	.233
11-3-43	12.8	.213	10-23-45	18.3	.305
11-3-44	12.1	.202			

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	10	0.173	70	17	0.280
95	11	.184	60	20	.330
90	12	.204	50	25	.410
80	15	.244			

PORTER CREEK NEAR BUDE

FRANKLIN COUNTY

LOCATION—In SW $\frac{1}{4}$ sec. 31, T. 6 N., R. 4 E. Washington meridian, 2.6 miles south of Bude.

DRAINAGE AREA—16.6 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-5-42	6.03	0.36

MIDDLE FORK CREEK AT MEADVILLE

FRANKLIN COUNTY

LOCATION—On line between secs. 27 and 28, T. 6 N., R. 3 E. Washington meridian, at bridge on U. S. Highway 84, 0.6 mile west of Meadville.

DRAINAGE AREA—95 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
10-5-42	31.4	0.33	8-15-45	39.1	0.41
11-3-43	26.9	.28			

WELLS CREEK AT ROXIE

FRANKLIN COUNTY

LOCATION—In NE $\frac{1}{4}$ sec. 19, T. 6 N., R. 1 E. Washington meridian, at bridge on U. S. Highway 84, in Roxie.

DRAINAGE AREA—11 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
8-15-45	2.91	0.26	10-23-45	1.95	0.18
9-11-45	2.17	.20			

BRUSHY CREEK NEAR GLOSTER

AMITE COUNTY

LOCATION—Lat. $31^{\circ}17'$, long. $90^{\circ}58'$, in SW $\frac{1}{4}$ sec. 27, T. 4 N., R. 2 E. Washington meridian, 350 feet downstream from bridge on forest road, 550 feet downstream from Birdman Creek, $4\frac{1}{4}$ miles upstream from mouth, and 8 miles northeast of Gloster.

DRAINAGE AREA—30.8 square miles.

RECORDS AVAILABLE—March to September 1942.

GAGE—Wire-weight gage at site 350 feet upstream at same datum prior to Apr. 6, 1942; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 3,500 second-feet Aug. 29 (gage height, 7.82 feet), from rating curve extended above 700 second-feet by velocity-area studies; minimum, 11 second-feet May 11, 12; minimum gage height, 1.11 feet Aug. 8, 9; minimum daily, 12 second-feet May 9-11.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	11	0.360	50	19	0.620
80	13	.420	40	26	.840
60	16	.530			

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						78.2	74.7	31.3	18.7	19.9	51.4	31.2	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						2.93	2.71	1.17	0.68	0.75	1.92	1.13	

DRY CREEK NEAR KNOXVILLE

FRANKLIN COUNTY

LOCATION—Lat. 31°23', long. 91°05', in SW¼ sec. 34, T. 5 N., R. 1 E. Washington meridian, at bridge on county road, 2 miles east of Knoxville, 5½ miles upstream from mouth, and 13 miles southwest of Meadville.

DRAINAGE AREA—13.3 square miles.

RECORDS AVAILABLE—March to September 1942.

GAGE—Wire-weight gage prior to Apr. 1, 1942; water-stage recorder thereafter.

EXTREMES—Maximum discharge, 780 second-foot Mar. 20 (gage height, 8.9 feet, from graph based on gage readings); no flow at times; minimum gage height, 1.35 feet July 15, 21, Aug. 29.

REMARKS—Records good.

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						59.6	34.5	110	16.8	15.4	25.6	56.7	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						1.24	0.70	2.29	0.34	0.32	0.53	1.14	

SECOND CREEK AT SIBLEY

ADAMS COUNTY

LOCATION—Lat. $31^{\circ}23'20''$, long. $91^{\circ}23'15''$, in $S\frac{1}{2}$ sec. 13, T. 5 N., R. 3 W. Washington meridian, 360 feet upstream from bridge on county road, three-quarters of a mile northeast of Sibley, $5\frac{1}{4}$ miles upstream from mouth, and 12 miles south of Natchez.

DRAINAGE AREA—55.3 square miles.

RECORDS AVAILABLE—March to September 1942.

GAGE—Wire-weight gage at site 360 feet downstream at same datum prior to Apr. 8, 1942; water-stage recorder thereafter.

EXTREMES—Maximum discharge during period, 11,000 second-feet May 15 (gage height, 8.56 feet), by slope-area measurement; minimum observed, 9.3 second-feet Sept. 6; minimum gage height observed, 0.80 foot June 12, 18; minimum daily, 9.3 second-feet Sept. 6.

REMARKS—Records fair.

DURATION OF FLOW—Index station, Homochitto River at Eddiceton.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
95	9	0.156	60	15	0.277
80	11	.207	40	24	.435

AVERAGE MONTHLY AND ANNUAL DISCHARGE IN SECOND-FEET

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						44.5	13.1	4.49	1.04	3.50	2.17	2.94	

MONTHLY AND ANNUAL RUNOFF IN INCHES

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Annual
1941-42						3.85	1.10	0.39	0.09	0.30	0.19	0.25	

MISCELLANEOUS MEASUREMENTS

From time to time miscellaneous discharge measurements have been made on streams at locations where special information was requested or where there was a definite need for a gaging station, but, because of the limited program, one could not be established. These data are included in this section. For each there is a description, a list of discharge measurements, and, when possible to develop, a table from which the duration curve can be developed.

MISCELLANEOUS DISCHARGE MEASUREMENTS AT GAGING STATIONS

Station	Date	Discharge	
		second-feet	per sq. mile
Oldtown Creek at Tupelo.....	7-24-42	0.525	0.0046
	7-24-42	.523	.0046
	9- 2-42	.523	.0032
	10-27-42	.32	.0028
Sakatonchee River near West Point	10-21-42	0	0
	8-26-43	0	0
Luxapalila Creek near Columbus	8-26-43	52.4	.073
	10- 9-43	57.2	.079
Wolf River near Lyman.....	8-31-43	29.5	.12
	2-25-44	386	1.53
	3-25-44	1,650	6.52
	5-15-44	156	.62
	8- 2-44	70.4	.28
	9-12-44	625	.26
Hell Creek near New Albany....	1- 9-43	4.37	.16
	2-19-43	4.60	.17
Cypress Creek near Etta.....	1-10-43	5.37	.19
	2-20-43	7.08	.25
	8- 6-43	2.07	.073
Long Creek at Courtland.....	1- 8-43	5.73	.091
	1-19-43	4.69	.071
	8-12-43	2.25	.036
Turkey-Cypress Creek near Coffeetown	1- 6-43	5.54	.25
	1-18-43	4.57	.20
Bayou Pierre near Carpenter....	10- 6-43	24.9	.043
	11- 4-43	29.7	.051
Brushy Creek near Gloster.....	10- 2-42	16.3	.53
	11-17-42	14.0	.45
	1- 2-43	32.0	1.04
	1-20-43	26.1	.88

Dry Creek near Knoxville.....	10- 3-42	0.04	0.003
	11-17-42	0	0
	1- 3-43	.91	.068
	1-22-43	.65	.049
Second Creek at Sibley.....	10- 2-42	11.4	.21
	11-17-42	10.4	.19
	1- 5-43	12.9	.23
	1-22-43	12.7	.23
	8-14-45	12.7	.23

TOMBIGBEE RIVER BASIN

BUTTAHATCHIE RIVER NEAR KOLOLA SPRINGS

LOWNDES-MONROE COUNTY

LOCATION—In NE¼ sec. 19, T. 16 S., R. 18 W. Huntsville meridian,
at bridge on U. S. Highway 45, 3½ miles northwest of Kolola
Springs.

DRAINAGE AREA—874 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge	
	second-feet	per sq. mile
10-9-43	75.3	0.086

PASCAGOULA RIVER BASIN

BLACK CREEK AT BROOKLYN

FORREST COUNTY

LOCATION—In NW¼ sec. 15, T. 1 N., R. 12 W. St Stephens meridian,
at bridge on U. S. Highway 49, at Brooklyn.

DRAINAGE AREA—360 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-24-42	201	0.56	10-31-44	86.6	0.24
8-31-43	67.8	.19	12- 6-44	1,030	2.86
3-24-44	5,530	15.4	1-16-45	416	1.16
5-15-44	227	.63	2-28-45	600	1.67
8- 1-44	850	2.36	4-13-45	260	.72
9-12-44	419	1.16			

BLACK CREEK NEAR WIGGINS

STONE COUNTY

LOCATION—In NW¼ sec. 1, T. 1 S., R. 11 W. St. Stephens meridian,
at bridge on county road, 10½ miles northeast of Wiggins.

DRAINAGE AREA—471 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
4-13-45	369	0.78	1-23-46	1,170	2.48
5-18-45	1,370	2.91	3- 6-46	472	1.00
6-21-45	1,270	2.70	4-10-46	416	.88
7-31-45	870	1.85	5-16-46	6,600	14.0
9-21-45	140	.30	6-18-46	280	.59
10-31-45	391	.83	7-23-46	1,280	2.72
12-12-45	373	.79	8-28-46	920	1.95

DURATION OF FLOW—Index station, Wolf River near Lyman.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
80	118	0.25	50	391	0.83
70	193	.41	40	504	1.07
60	287	.61			

RED CREEK AT PERKINSTON

STONE COUNTY

LOCATION—In NW¼ sec. 18, T. 3 S., R. 11 W. St. Stephens meridian,
at bridge on U. S. Highway 49, one-half mile north of Perkin-
ston.

DRAINAGE AREA—218 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
9-24-42	116	0.53	3- 9-46	2,270	10.4
8-31-43	54.6	.25	4-12-46	255	1.17
9-21-45	108	.50	5-16-46	2,730	12.5
11- 1-45	143	.66	6-19-46	186	.85
12-14-45	850	3.90	7-24-46	500	2.29
1-25-46	439	2.01	8-28-46	645	2.96
3- 6-46	210	.96			

DURATION OF FLOW—Index station, Wolf River near Lyman.

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
80	94	0.43	50	231	1.06
70	135	.62	40	288	1.32
60	183	.84			

PEARL RIVER BASIN

PEARL RIVER NEAR PHILADELPHIA

NESHOBA COUNTY

LOCATION—In NE¼ sec. 6, T. 11 N., R. 12 E. Choctaw meridian, at bridge on State Highway 15, 4 miles north of Philadelphia.

DRAINAGE AREA—524 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
8-27-43	0.70	0.0013	8-30-45	2.84	0.0054
10-12-43	.99	.0018			

DURATION OF FLOW—

Percent of time	Discharge		Percent of time	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
98	1.6	0.0031	80	6	0.012
95	2.2	.0042	70	11	.021
90	3.3	.0063			

BIG BLACK RIVER BASIN

BIG BLACK RIVER AT RAGIN

YAZOO COUNTY

LOCATION—In SE¼ sec. 19, T. 9 N., R. 1 W. Choctaw meridian at Illinois Central Railroad bridge, 0.7 mile south of Ragin.

DRAINAGE AREA—2,300 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge		Date	Discharge	
	second-feet	per sq. mile		second-feet	per sq. mile
2- 2-43	707	0.31	10-26-43	66.8	0.029
2-10-43	2,610	1.13	11-10-43	1,680	.73
2-17-43	709	.31	11-10-43	1,670	.73
3- 8-43	1,760	.77	12-11-43	163	.071
4- 3-43	2,610	1.13	1-18-44	2,790	1.21
5-11-43	474	.21	2-17-44	1,890	.82
7- 1-43	717	.31	3-10-44	6,680	2.90
8- 4-43	83.4	.036	5-17-44	6,660	2.90
9- 1-43	61.9	.027	8- 3-44	2,090	.91
10- 8-43	80.1	.035	6-28-45	429	.19

DURATION OF FLOW—

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
35	80	0.035	60	426	0.185
90	106	.046	50	690	.300
80	168	.073	40	1,150	.500
70	262	.114			

YAZOO RIVER BASIN

YOCONA RIVER NEAR OXFORD

LAFAYETTE COUNTY

LOCATION—In NW $\frac{1}{4}$ sec. 28, T. 9 S., R. 3 W. Chickasaw meridian,
at bridge on State Highway 7, 8 miles south of Oxford.

DRAINAGE AREA—251 square miles.

DISCHARGE MEASUREMENTS—

Date	Discharge second-feet	per sq. mile	Date	Discharge second-feet	per sq. mile
9-22-42	5.82	0.0232	9-14-43	6.83	0.0272
8- 6-43	10.3	.0410	10- 5-43	4.86	.0194

DURATION OF FLOW—Index station, Yocona River near Enid.

Percent of time	Discharge second-feet	per sq. mile	Percent of time	Discharge second-feet	per sq. mile
98	50	0.020	80	108	0.043
95	63	.025	70	151	.060
90	80	.032	60	221	.088

FLOODS

A state having a precipitation of more than 60 inches a year and much of that in a four-month period, can expect floods of damaging proportions at frequent intervals. In fact, it can be safely stated, that some area of Mississippi is visited by damaging floods each year.

Factual flood data go back to the year 1885 when the United States Weather Bureau began systematic observations of stream stages by installing a gage on the Yazoo River at Yazoo City. During the period 1885 to 1909, that agency established nine additional observation stations on the Tombigbee, Tallahatchie, Pearl, Chickasawhay, Leaf, and Pascagoula Rivers. These observations of stage have been continuous ever since.

It was not until 1900, that any attempt was made to determine the volumetric flow of Mississippi streams. Between 1900 and 1906, the United States Geological Survey established discharge stations on the Yazoo, Pearl, Tallahatchie, Yalobusha, Coldwater, and Tombigbee Rivers. These stations were discontinued in 1912, and were not reestablished until 1928.

The first flood of which there is any knowledge was in 1874, and, of it only most scanty information. It is known only that a flood occurred during that year on the Pearl River which may or may not have been higher than any since. Search of Jackson newspapers of that day fails to reveal any information. More complete information establishes the fact that major floods occurred in 1882, April 1892, April 1900, March and April 1902, May 1909, July 1916, December 1919, December 1926, March 1927, December 1932, March 1935, February 1936, April 1938, March 1943, March 1944, February 1948, January 1949, and January 1950. Floods during other years were localized; concerning them little information is available.

FLOOD OF 1882

Flood waters of the Mississippi River, overflowing the Yazoo Delta, caused a flood at Greenwood, the height of which has not been exceeded since. No other information is available on this flood.

FLOOD OF 1892

This flood of April 1892 is the maximum known on the lower Tombigbee River Basin in Mississippi. Weather Bureau records for that period show that stages of 44.8 feet and 42.6 feet were reached at Aberdeen and Columbus respectively. There is evidence to indicate that no other section of the state was affected badly by the flood, since only slightly over two inches of rain fell at Meridian during the month of April.

FLOOD OF 1900

During April 1900, a total of 14.95 inches of rain fell at Meridian (19.15 inches at Natchez) causing the greatest flood known in the Pascagoula River Basin. Stage records are available for the Chickasawhay River at Enterprise, Pascagoula River at Merrill, and for Leaf River at Hattiesburg. Stages reached during this

flood have never been exceeded. Although information is lacking on the tributary streams, the large volume of rain falling at such scattered points as Meridian and Natchez indicates that the rain was general and that the entire Pascagoula River Basin must have been visited by a flood of record-breaking proportions. High stages occurred at Columbus on the Tombigbee River but did not exceed those of 1892.

FLOOD OF 1902

Rains totalling seven inches fell in an 18-hour period at Jackson in March 1902 causing the highest flood known in the Pearl River Basin. These rains were general over the state totalling nearly ten inches at Meridian for the month and about six inches at Natchez. Newspaper reports of the day state that Jackson was practically water-bound with its worst flood in history, causing dozens of railroad washouts on the Illinois Central Railroad, the Yazoo and Mississippi Valley Railroad, and the Gulf and Ship Island Railroad. The newspaper accounts indicate that the flood was widespread in that traffic between Jackson and Vicksburg was disrupted by high water on the Big Black River and on Bakers Creek, a tributary of Big Black, and from Jackson north by washouts in the vicinity of Vaughan, some 40 miles north of Jackson in the Big Black River Basin.

FLOOD OF 1909

The flood of May 1909 was severe in the Chickasawhay River Basin. A total of more than 12 inches of rain fell at Meridian in the headwaters of that stream, causing excessive stages. Only one reference is found in newspaper accounts, to the effect that traffic over the Alabama and Vicksburg Railroad west of Meridian was suspended, because floodwaters of Chunky Creek were one foot over the tracks. Fairly high stages were reached in lower Pearl and Tombigbee River Basins.

FLOOD OF 1916

Rainfall during July 1916 was very high, totalling nearly 16 inches at Columbus, 11 inches at Natchez, 14 inches at Meridian, more than 13 inches at Aberdeen, nearly 21 inches at Waynesboro, and 31 inches at Merrill. As might be expected from this distribution, the most severe floods occurred in the lower Pascagoula River Basin, the stage at Merrill being the second highest in

history. Stages on the Chickasawhay and Leaf Rivers were high but have been exceeded by several other floods. In the Tombigbee River Basin, stages along the main stem did not reach outstanding heights. However, some tributaries, particularly Buttahatchee River reached its maximum known stage of history. Newspaper accounts of the flood indicate that Luxapalila Creek reached one of its highest stages since it was reported that Steens was practically submerged and that the Columbus-Tuscaloosa Road was washed out in several places.

FLOOD OF 1919

The storm of December 1919 was apparently centered over the Chickasawhay and Leaf River Basins with 11 inches falling for the month at Meridian and 8 inches at Merrill. To the west, Natchez had 9 inches, but to the north only five inches for the month at Columbus and four inches at Aberdeen. Resulting stages at Hattiesburg and Enterprise closely approached those of 1900. Considerable damage was done, particularly in Hattiesburg, where more than a score of city blocks were reported inundated, and in Meridian where thousands were driven from their homes. Rail traffic into Hattiesburg was cut off from two directions, northeast and west. Tallahala Creek, tributary to Leaf River, washed out four miles of Southern Railway tracks near Ellisville.

FLOOD OF 1926

The flood of December 1926 appears to have been largely local with flood damage confined to the Tombigbee River Basin. The highest stage known was on Tibbee River.

FLOOD OF 1927

Floods in the Yazoo River Delta during March and April 1927 are the most severe known in Mississippi. However, the flood damage estimated as high as fifty million dollars, was caused by a combination of Mississippi River overflow and by the Yazoo River overflow and its tributaries. Mississippi River overflow is considered to have been responsible for 95 percent of the flood damage. At Yazoo City, on the Yazoo River, the highest known stage in history was reached. The only other section of the state to feel the effect of this flood was the Tombigbee River Basin, the maximum known stage being on the East Fork of Tombigbee River near Fulton.

FLOOD OF 1932

Two major floods occurred during 1932, the first during January affecting the Yazoo River and its tributaries and the second in December affecting principally the Pearl River. The January flood established the maximum known stages along the lower Tallahatchie and Upper Yazoo River Basins. The Pearl River flood of December was the third highest in history at Jackson and Edinburg.

FLOOD OF 1935

Rainfall was fairly well distributed over the state during March 1935, varying from about 10 to 13 inches. As a result, fairly high stages were reached in all of the river basins, but with no outstanding floods in any basin except on the Pearl River, at Edinburg, its second highest known flood.

FLOOD OF 1936

The February flood of 1936 was not particularly severe having only fairly high stages in the Pearl and Pascagoula River Basins.

FLOOD OF 1938

The flood of April 1938 was one of the major floods of history since it covered much of the state. Stages were not record-breaking but did approach within one or two feet of the record stages in some localities. The flood was of sufficient magnitude to warrant a complete investigation by the Corps of Engineers. It was particularly severe in the Pascagoula River Basin where estimates of flood damage indicate the loss exceeded one-half million dollars.

FLOOD OF 1943

The flood of March 1943 has been exceeded by several others in all parts of the state. However, it is of interest because it is the highest on record on Bowie Creek and on Leaf River below Bowie Creek during the period.

FLOOD OF 1944

The entire northern part of the state felt the effects of the March 1944 flood. At Aberdeen and Columbus on the Tombigbee River, recorded stages for that flood were at that time second only to those of the historic flood of 1892. Similar conditions,

although not quite so severe, existed in the Yazoo River Basin. All known floods were exceeded in the Yalobusha River. The Yazoo River at Greenwood reached within three feet of the historic flood of 1882 which was caused largely by overflow from the Mississippi River, and within two feet of the 1932 flood. Of great interest is the fact that Sardis Reservoir was completely closed holding back the flood waters from 1,545 square miles. Property damage was high, it being reported that 70 county bridges were washed out in Itawamba County alone. Twelve deaths resulted from the flood.

FLOOD OF 1948

Next to the Yazoo Delta flood of 1927 which was caused in large part by the Mississippi River, the flood of February 1948 is perhaps the most disastrous ever in Mississippi. The entire northern part of the state was seriously affected with the most severe damage being in the Upper Tombigbee and Yazoo River Basins. The greatest damage as a result of the flood was disruption of traffic, both rail and highway. The county highway system of North Mississippi suffered flood damage exceeding one million dollars with nearly 500 county bridges being damaged or washed out. State and Federal highways leading west and north out of Columbus, east and north out of Grenada, and west out of Greenwood were blocked by high water for several days. More than 5,000 people were evacuated from their homes.

FLOOD OF 1949

Heavy rains in north central Mississippi in the headwaters of the Tombigbee, Pearl, Yalobusha, and Big Black River Basins caused extremely high floods in some areas. Some of the maxima established during the record-breaking flood of February 1948 were exceeded. At Columbus, on the Tombigbee River the highest stage since 1892 was reached. The highest stages of record were on Tibbee River near Tibbee, Noxubee River at Macon, Big Black River at Pickens, Big Black River near Bovina, and Yokahockany River near Kosciusko. Principal flood damage was the interruption of traffic in the vicinity of Columbus and Grenada.

FLOOD OF 1950

Rains, totalling nearly 10 inches, fell in an 18-hour period, on January 4, 5, causing streams in central Mississippi to leave their

banks and wreak widespread damage. The rain fell along such a narrow belt that only some of the smaller streams were badly affected. The Strong River, tributary to the Pearl River, reached its highest stage in 15 years. Smaller streams between Strong River and Jackson overflowed U. S. Highway 49 in several places disrupting traffic. Chunky River reached its highest stage since 1938 and over-topped U. S. Highway 80 near Meridian. Pelahatchie Creek over-topped the same highway in the vicinity of Pelahatchie. U. S. Highway 51 was closed in the vicinity of McComb by flood waters of the Bogue Chitto. U. S. Highway 84 was overflowed by Leaf River east of Collins. All of the principal streams of the state were high, but no record-breaking stages were recorded.

The following table summarizes crest discharge data for all stream-gaging stations in Mississippi for which data are available. Any data known to be reliable for floods outside of the period of record are shown in the "Remarks" column.

SUMMARY OF FLOOD DISCHARGES

Station	Drainage area square miles	Date	Maximum discharge recorded second-foot second-feet per square mile	Remarks
East Fork Tombigbee River near Marietta	305	1- 8-46	12,700	41.6
East Fork Tombigbee River near Fulton	605	2-14-48	47,700	78.8
East Fork Tombigbee River at Beans				
Ferry near Fulton	699	3-29-44	30,300	43.3
East Fork Tombigbee River at Bigbee	1,194	2-15-48	52,800	44.2
Tombigbee River near Amory	1,941	2-14-48	89,100	45.9
Tombigbee River at Aberdeen	2,210	2-15-48	97,000	43.9
Tombigbee River at Columbus	4,490	1- 7-49	148,000	33.0
Mackys Creek near Dennis	66	2-13-48	3,520	53.3
Bull Mountain Creek at Tremont	120	1- 8-46	11,600	96.7
Bull Mountain Creek near Smithville	335	2-13-48	24,800	74.0
Oldtown Creek at Tupelo	114	3-28-44	12,600	111
Oldtown Creek near Verona	263	1- 8-46	20,300	77.2
West Fork Tombigbee River near Nettleton	617	2-14-48	56,300	91.2
Mud Creek at Tupelo	92	2- 9-46	8,610	93.6
Buttahatchee River near Caledonia	823	3-30-44	30,700	37.3
Tibbee River near Tibbee	928	1- 5-49	65,000	70.0
Sakatonchee River near West Point	514	3-29-44	38,300	74.5
Luxapalila Creek near Steens	309	1-10-46	9,350	30.3
Luxapalila Creek near Columbus	726	11-15-29	17,500	24.1
Noxubee River near Brooksville	440	7- 9-40	18,900	43.0
Noxubee River at Macon	812	1- 6-49	50,600	62.3
Leaf River near Collins	752	1- 8-50	38,100	50.7

Also occurred 2-13-48

2-13-48, Crest-14,700 s.f.

2-13-48 Crest-23,100 s.f.

2-13-48 Crest-13,500 s.f.

SUMMARY OF FLOOD DISCHARGES

Station	Drainage area square miles	Date	Maximum discharge recorded second-feet	second-feet per square mile	Remarks
Leaf River at Hattiesburg.....	1,760	3-22-43	71,300	40.5	
Leaf River near McLain.....	3,510	3-24-43	88,300	25.2	
Pascagoula River at Merrill.....	6,600	4-13-38	154,000	23.3	
Oakohay Creek at Mize.....	217	1-20-47	9,710	44.7	
Bowie Creek near Hattiesburg.....	304	3-21-43	20,100	66.1	
Tallahala Creek at Laurel.....	233	1-21-47	13,700	58.8	
Tallahala Creek near Runnelstown.....	612	1-23-47	19,300	31.5	
Tallahoma Creek near Laurel.....	149	1-20-47	9,410	63.2	
Chunky Creek near Chunky.....	368	1- 7-50	30,800	83.7	
Chickasawhay River at Enterprise.....	913	1- 8-50	33,600	36.8	
Chickasawhay River near Waynesboro.....	1,660	1-24-47	26,000	15.7	Flood of April 1938 ex- ceeded 55,000 s.f.
Chickasawhay River at Leakesville.....	2,680	4-29-44	39,600	14.8	Flood of April 1938 ex- ceeded 66,000 s.f.
Okatibbee Creek near Meridian.....	239	1- 7-50	18,000	75.3	
Bucatunna Creek at Denham.....	468	4-27-44	16,400	35.0	
Wolf River near Lyman.....	253	3-13-47	18,500	73.1	
Pearl River at Edinburg.....	898	3- 8-35	31,400	35.0	
Pearl River near Lena.....	1,995	1- 8-50	46,000	23.1	
Pearl River at Meeks Bridge near Canton.....	2,780	2-15-46	56,200	20.2	
Pearl River at Jackson.....	3,100	12-19-32	60,000	19.4	
Pearl River near Rockport.....	4,600	2-20-46	54,600	11.9	Flood of April 1938 ex- ceeded 55,000 s.f.

SUMMARY OF FLOOD DISCHARGES

Station	Drainage area square miles	Date	Maximum discharge recorded second-foot per square mile	Remarks
Pearl River near Monticello.....	5,040	2-21-46	51,200	4-8-38, Crest 69,900 s.f.
Pearl River near Columbia.....	5,690	4- 9-38	72,600	
Lobutcha Creek near Carthage.....	313	3-29-44	13,500	12.8
Tuscolameta Creek at Walnut Grove.....	411	1- 7-50	34,600	43.1
Yockanookany River near Kosciusko.....	314	1- 8-50	13,200	84.2
Yockanookany River near Ofahoma.....	484	1-10-50	12,100	42.0
Strong River at Dlo.....	429	3- 7-35	22,900	25.0
Bogue Chitto near Tylertown.....	502	1- 7-50	45,000	53.4
Upper Tallahatchie River near New Albany.....	23.9	5-22-39	6,700	89.6
Tallahatchie River at Etta.....	526	2-13-48	51,200	280
Tallahatchie River near Sardis.....	1,680	1-15-32	65,300	97.3
Tallahatchie River near Lambert.....	1,980	1-16-46	16,100	38.9
Tallahatchie River at Swan Lake.....	5,130	2-22-39	43,200	8.13
Yazoo River at Greenwood.....	7,450	6-19-32	72,900	8.42
Cane Creek near New Albany.....	23.8	5-22-39	5,700	9.79
Hell Creek near New Albany.....	27.3	6-17-39	3,600	239
Cypress Creek near Etta.....	28.5	6-17-39	3,920	132
North Tippah Creek near Ripley.....	20.0	4- 9-42	1,980	138
Potts Creek near Potts Camp.....	8.26	4- 4-40	535	99.0
Bagley Creek near Abbeville.....	9.96	12-15-40	394	64.8
Clear Creek near Oxford.....	9.30	7-12-40	3,400	39.6
Hudson Creek near Oxford.....	9.35	1-29-39	1,550	366

SUMMARY OF FLOOD DISCHARGES

Station	Drainage area square miles	Date	Maximum discharge recorded second-feet second-feet per square mile	Remarks
Yocona River near Enid.....	560	2-14-48	36,600	65.4
Long Creek near Courtland.....	63.3	4- 9-42	13,500	213
Coldwater River near Lewisburg.....	1- 8-46	25,900
Coldwater River near Coldwater.....	617	1-21-35	79,500	129
Coldwater River at Pratts Bridge, near Arkabutla.....	1,000	2- 4-39	23,600	23.6
Coldwater River at Savage.....	1,225	1-25-37	45,800	37.4
Pigeonroost Creek near Byhalia.....	116	4- 9-42	24,000	207
Pigeonroost Creek near Lewisburg.....	4- 9-42	34,900
North Fork Tillatoba Creek near Charleston.....	43.7	4- 9-42	4,470	102
Askalmore Creek near Charleston.....	31.0	5-14-42	8,420	272
Yalobusha River at Graysport.....	607	2-13-48	46,800	77.1
Yalobusha River at Grenada.....	1,550	2-14-48	78,400	50.6
Skuna River near Coffeeville.....	435	3-29-44	44,000	101
Turkey-Cypress Creek near Coffeeville.....	22.3	12-27-42	2,760	124
Sunflower River at Clarksdale.....	108	4-11-42	1,230	11.4
Sunflower River at Sunflower.....	780	1-16-46	7,700	9.87
Big Black River at Pickens.....	1,460	1- 7-49	42,400	29.0
Big Black River near Bovina.....	2,810	2-14-46	46,000	16.4
Bayou Pierre near Carpenter.....	371	2- 5-45	23,400	63.1
Homochitto River near Bude.....	399	4- 1-47	41,000	103
Homochitto River near Kingston.....	1,000	4- 2-47	45,400	45.4
Homochitto River near Doloroso.....	1,120	1- 7-50	62,600	55.9

2-13-48, (rest-4,000 s.f.

